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A Study of Traditional Activities in the Exit Glacier Area of Kenai Fjords National Park

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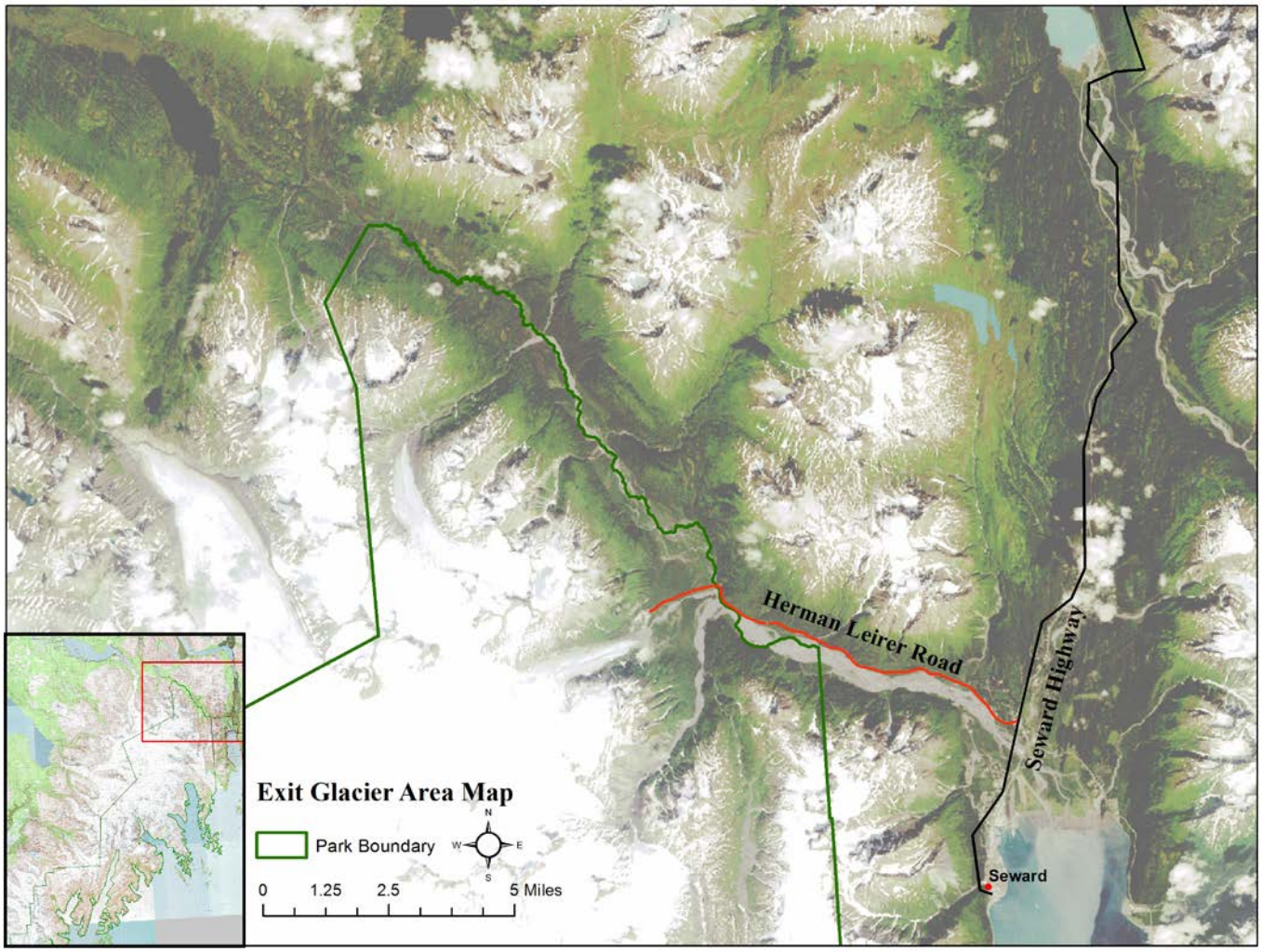


The Exit Glacier Area

Kenai Fjords National Park

A Study of Traditional Activities in the Exit Glacier Area of Kenai Fjords National Park

Executive Summary

Kenai Fjords National Park (KEFJ) occupies roughly 1,760 square miles on the Kenai Peninsula in southcentral Alaska. Sitting adjacent to the community of Seward, the park was established in 1980 under the Alaska National Interest Lands Conservation Act of 1980 (ANILCA). The central portion of the park contains the Harding Icefield, from which no fewer than 38 active glaciers exit into valleys and tidewater locations surrounding the park. Of these glaciers, Exit Glacier is the most publicly accessible, and the only park glacier with road access from the town of Seward. A number of individuals and families from the Seward area visit the Exit Glacier area in the course of recreational and subsistence activities within the larger Resurrection River Basin.

The current project seeks to document the recent human history of the Exit Glacier area, based on the accounts of long-term residents of Seward, Alaska regarding the period from 1950 to 1980. Interviewees shared their personal recollections of the Exit Glacier region, providing an especially rich account of hunting, trapping, recreational travel, and other activities associated with the study area, transportation methods used to access Exit Glacier, and changes in their relationship with that landscape during a span of time from well before NPS management up to the present day. This project serves a two-fold purpose. These oral history interviews have helped to preserve local history for interpretive and educational purposes. Simultaneously, this research has been undertaken to help define what constitutes "traditional activities" in and around Seward, in order to help the park make informed management decisions about what activities are allowed under the terms of ANILCA.

Interview data suggest that the use of motor vehicles to access the Exit Glacier area appears to have been well established prior to park creation in 1980, especially involving the use of snowmachines and automobiles. Snowmachines were used for hunting, trapping, and recreational uses in the Harding Icefield and Exit Glacier areas. Lands now in the park were also used for such purposes as berry picking and non-motorized recreational activities prior to park creation. All of these are ostensibly "traditional" activities by legal definitions of that term, potentially admissible under ANILCA under certain conditions. Following park creation, many of these "traditional" uses and modes of access have continued in attenuated form. Seward residents appear to use the larger Resurrection River valley near Exit Glacier for a wide range of utilitarian and recreational activities as well. The importance of the Exit Glacier area for transportation, recreation, and resource harvesting purposes appears to vary within the community, reflecting the considerable size and diversity of the Seward community.

Introduction

Kenai Fjords National Park (KEFJ) occupies approximately 1,760 square miles on the Kenai Peninsula in southcentral Alaska. Sitting adjacent to the community of Seward, the park was established in 1980 under the Alaska National Interest Lands Conservation Act (ANILCA) as a unit of the National Park Service (NPS). The central portion of the park contains the Harding Icefield, one of the largest icefields in the United States, from which no fewer than 38 active glaciers exit into valleys and tidewater locations surrounding the park. Of these glaciers, Exit Glacier is the most publicly accessible, and the only park glacier with road access from the town of Seward. A number of individuals and families from the Seward area visit the Exit Glacier area in the course of recreational and resource harvesting activities within the park and the larger Resurrection River Basin.

The current project seeks to document the recent human history of the Exit Glacier area, based on the accounts of long-term residents of Seward, Alaska. Employees of the University of Alaska-Fairbanks' Oral History Program, alongside senior National Park Service staff, carried out interviews with Seward residents about their lives, and traditional activities in the area around Exit Glacier – especially in the period from 1950 to 1980. The people interviewed are a diverse group, ranging from skiers, hikers and mountaineers, to snowmachiners, hunters, dog-mushers, NPS managers, and construction workers on the Exit Glacier Road that now provides easy access to the glacier and park visitor center. These interviewees include Alaska Natives and non-Natives, lifetime Seward residents and those who hailed from other parts of Alaska or from the Lower 48 states. Interviewees shared their personal recollections of the Exit Glacier region, providing an especially rich account of hunting, trapping and other activities associated with the study area, transportation methods used to access Exit Glacier, and changes in their relationship with that landscape during a span of time from well before NPS management up to the present day. (Appendix A at the end of this document provides biographies of the interviewees, who are sometimes named in the text; interviewees are indicated by their initials in this document and a list of initials is included in the "Sources" section at the end of this document; full citations for audio recordings of interviews are included in a "Bibliography of Oral History Recordings" in the Sources section as well.)

This project serves a two-fold purpose. These oral history interviews have helped to preserve local history for interpretive purposes and to aid in the larger goal of documenting and preserving historical knowledge for the benefit of future generations. It is hoped that this document will contain information that will be of value to the Seward community and to NPS staff as they seek to document and commemorate the unique local history of the region. Simultaneously, this research has been undertaken to help define what constitutes "traditional activities" in and around Seward, in order to help the park make informed decisions about what activities might still be protected under the terms of the Alaska National Interest Conservation Act of 1980. In combination with other sources, this report and the oral history recordings, transcripts and maps gathered in the course of the study will therefore aid Kenai Fjords National Park with management decisions for the Exit Glacier area into the foreseeable future.

Of particular interest in this study are matters of access and transportation, which are in turn linked to various activities near the Exit Glacier area. At Exit Glacier, roads are effectively closed to vehicle traffic when snow begins to fall – often by mid-November – and do not open again until the spring, sometimes well into May. During the winter and spring months, cars and ATVs generally cannot access Exit Glacier, while snowmachines, dogsleds, or foot transportation (including skis and snowshoes) have been among the only ways that visitors have been able to enter the area.[1] Among these modes of transportation, snowmachines have been especially popular for Seward residents who participate in hunting, trapping, recreation and other activities in the area, allowing them to travel long distances and pack game and gear through the colder months of the year.

Relating to the terms outlined in ANILCA, snowmachining in the Exit Glacier area of KEFJ is included as a possible "traditional activity" in the Exit Glacier Area Plan and General Management Plan (GMP) Amendment Finding of No Significant Impact signed in October 2004. The NPS intends to use information from this research to help define traditional activities before further planning decisions are made for snowmachine use in the Exit Glacier Area. Until the parameters of "traditional activities" are defined, the NPS cannot make determinations of what constitutes permissible transportation activities under the terms of ANILCA. In most cases, the "traditional activities" may be assumed to suggest that a practice was verifiably established prior to the passage of ANILCA in 1980. The current project therefore focuses principally on the years preceding 1980. Because there were many changes in the uses of Exit Glacier area, and in the ways that the Exit Glacier was accessed, in the years between World War II and

1980, it was essential for the NPS to conduct these interviews now, while interviewees with detailed recollections of this period are still available to contribute their stories.

This is a practical matter of concern to land and resource managers at Kenai Fjords, and not just an intellectual exercise in parsing the chronology of transportation technologies and uses in the region. Public comments received on the Exit Glacier Area Plan and General Management Plan (GMP) Amendment addressed concerns relating to traditional use in Kenai Fjords National Park. However, the term "traditional activities" was not defined for KEFJ. The inability to define traditional use resulted in the postponement of management decisions in two Exit Glacier zones, the Backcountry Semi-Primitive Zone and the Backcountry Primitive Zone. The current project, then, serves to document the "traditional activities" preceding 1980 and ultimately will, in combination with other sources of information, aid the NPS with management decisions.

On the Concept of "Traditional" Use and Access

Traditional

> *1: of or relating to tradition ["an inherited or established way of thinking, feeling, or doing…"the handing down of information, beliefs, and customs by word of mouth or by example from one generation to another without written instruction"] : consisting or derived from tradition : handed down from age to age without writing.*
> *2: following or conforming to tradition : based on an order, code, or practice accepted from the past : conventional;*
> *3: designed with conscious adherence to architectural styles of the past.*
>
> -Webster's Third New International Dictionary: The English Language Unabridged

Much has been written about "tradition," and the notion of what is "traditional" has tremendous importance within the social sciences and humanities. The concept of "tradition," as it is commonly employed, implies a certain continuity of practices and belief – practices and beliefs that are rooted in the past and have been passed on between generations. The concept also implies that to be truly "traditional," activities and values must be rooted in a past that differs in some essential ways from the social, economic and cultural contexts of modern life (Lowenthal 1985). Yet, it is also true that

human communities are always experiencing some degree of change, and constantly reevaluate their shared past; for this reason, the concept of what is truly "traditional" is often quite difficult to assess even within very isolated and ancient cultures, let alone within the context of modern, pluralistic, and technologically advanced societies.

The concept of "traditional" use and access is also critical to many contemporary legal and policy debates, in Alaska and beyond. Importantly for Kenai Fjords National Park and many other Alaska federal lands, "traditional" use and access is a pivotal legal concept in the 1980 Alaska National Interest Lands Conservation Act (ANILCA) and other legislation that has a bearing on everyday land management decisions. Yet the concept of what is "traditional" is in many ways poorly defined in ANILCA, as it is throughout the larger corpus of American legal writing. Federal land managers are often left with the very difficult task of assessing ambiguous data regarding what might constitute "traditional" practices, and must do so with reference to vague guidance regarding the legal status of "traditional" practices. In some cases, agencies have sought to articulate policies that define the term and its applications with a degree of precision; in many cases, however, federal land managers are called upon to make determinations regarding both field data and legal intent regarding a range of "traditional" activities.

It may be important to note that, in the social sciences and humanities, the entire concept of "tradition" has been a point of enduring debate. In recent decades, many researchers have dispensed with the use of the term altogether, or use it only very rarely and advisedly. Researchers who take part in this debate note that – in popular, academic, and legal discourse – "tradition" has historically connoted something comparatively tangible, static, measurable and authentic. In contrast, they contend that, when observed carefully, it is clear that all human traditions are in truth evolving, actively "constructed," selectively remembered, and recast to fit communities' contemporary objectives (Hobsbawm and Ranger 2012; Shils 2006; Halbwachs 1992; Friedman 1992; Lowenthal 1985; Handler and Linnekin 1984). Tradition, by this measure, is a concept that is always in flux and is always somewhat contested in any human society; the concept of what is "traditional" also has a comparative and often didactic function, serving as a point of contrast for those social developments that are new, different, and have the potential to change society for good or for ill. This set of observations has served as a cornerstone of "postmodern" and "poststructuralist" scholarship in many fields, and weaves its way through the vast literatures that have been influenced by these academic movements.

In Alaska, however, the matter of what is "traditional" is practical and pressing. Many details in ANILCA hinge on the term "traditional," and legal interpretations of the Act have relied on the interpretation of that term. And, while the term is used in certain definitions within ANILCA, it is never itself defined (Williams 1997). The origins of these ambiguities can be traced to the very origins of ANILCA. Through the 1970s, the National Park Service had faced a number of challenging issues that were distinctive to Alaskan park lands, including subsistence uses and Alaska residents' access within pre-ANILCA parks. Individual parks had worked to develop park-specific policies and precedents, but over the course of the decade, concurrent with the development of ANILCA, the Alaska Region increasingly sought to develop and refine region-wide policies on access and subsistence. This effort was led by members of the NPS Alaska Task Force, such as Stell Newman and Bob Belous; these NPS planners had the difficult task of overseeing various studies to determine what were, in essence, "traditional" uses of park lands and to determine whether those uses could be grandfathered into contemporary park management in light of a variety of other NPS mandates and regulations (Williss 2005).

A growing awareness of the challenges balancing the protection of "traditional uses" with various other park preservation mandates began to permeate the larger debate leading to the passage of ANILCA. In the summer of 1978, as the U.S. Senate Committee on Energy and Natural Resources sought to consolidate the various iterations of an Alaska national lands bill, the issue of subsistence and ground transportation on lands potentially placed in conservation status became a topic of focused debate. Both Alaska senators – Stevens and Gravel – had gone on record opposing initial drafts of the Alaska land bills, vocalizing concerns about these matters. The issue of continued access to new park lands for transportation and subsistence were among those issues that threatened to upend the entire ANILCA process.[2] Native and other rural communities had pressed these matters of subsistence use and access effectively at the state and national levels, and many of the environmental organizations advocating passage of ANILCA were increasingly open to concessions on this point, anticipating negligible wildlife impacts. ANILCA proponents were compelled to envision alternative scenarios for public lands management from what they had known in other states, or had originally envisioned for Alaska. As John Miles observed,

> "Indigenous people [and other rural Alaska residents] practiced a subsistence lifestyle across the "wild" lands, forcing a rethinking of concepts of national park and wilderness. People could not, as in many earlier parks, simply be excluded from the land they had used for

> millennia. [It was unclear whether visitors might accept] wilderness where people lived and worked" (Miles 2009: 7).

As part of a set of compromises on both sides in the summer 1979 run-up to a vote on the bill, ANILCA proponents entertained additions to the language that protected subsistence activities and preexisting modes of transportation into new conservation lands within certain parameters. A significant proportion of the language pertaining to "traditional" use and access in ANILCA appear to date from this series of eleventh-hour debates, compromises, and hasty revisions. Some portion of this language was later removed: as H.R. 39 (the proposed Alaska National Interest Lands Conservation Act of 1979) was developed for a full House vote, President Jimmy Carter and his senior staff in Interior sought to eliminate many of the elements that had been inserted into earlier drafts as part of the prolonged debate with the Alaska congressional delegation. Gone was much of the language regarding mandated transportation corridors through parks, for example, but language regarding the use of ANILCA lands for rural residents' subsistence and transportation needs persisted largely unchanged. Some writers have suggested in hindsight that the bill's likelihood of passage was very low without those provisions (Williss 2005: 97-110; Nelson 2004: 189 ff.; Cahn 1982).

The bill that ultimately passed as ANILCA reflected a conglomeration of ideas from various contributors that was broad in its scope, huge in its impact, and not always consistent in its small details. In many respects, the ways in which the concept of "tradition" is employed within ANILCA revealed the give-and-take political process underlying the legislation. The use of the term "traditional" also hints at the fact that the legislation was written not by a single individual, but written instead by committees and factions with diverse interpretations of the underlying facts. Indeed, each side in this debate may have interpreted the terminology somewhat differently, and it is plausible that there were certain political and strategic advantages to all sides of the ANILCA debate in keeping the exact meaning of the term vague and subject to wide interpretation, pending later interpretation by the Secretary of the Interior and the courts. As Williss notes of the results of ANILCA,

> "Provisions protecting customary uses on conservation lands—access, cabins, subsistence—all seemed to hold the promise of future difficulties for managers from all agencies who were given too few, unclear, or contradictory directions for dealing with them…Partially as a result of the extended legislative process, and partially as a result of the failure to hold a conference to iron out differences between versions of the bill and

> perfect language, the Alaska National Interest Lands Conservation Act is flawed in a number of ways. It is a complex, often vague, and sometimes contradictory act. There was (and there is today), however, too often a tendency to dwell on the problems of ANILCA and overlook what had been accomplished. The act was a milestone in the history of conservation in America. Never before, and surely never again, would lands be preserved on so vast a scale" (Williss 2005: 111-12).[3]

The new parks were put in an occasionally awkward position of having to be "both wilderness and subsistence landscapes," providing opportunities for continued use and access in ways that were unprecedented and often required considerable background research to substantiate according to the terms of the law (Miles 2009: 212). While Kenai Fjords was somewhat unique in the legislated absence of subsistence uses (36 CFR 13.1302), questions of access posed by ANILCA still presented management questions that required definition of the term "traditional."[4]

The exact use of the term "traditional" in ANILCA suggest multiple and not entirely consistent definitions. The term appears in several places within the language of ANILCA, including the text of Title 2 (National Parks), Title 8 (Subsistence Management and Use), Title 9 (Implementation of Alaska Native Claims Settlement Act and Alaska Statehood Act), Title 11 (Transportation and Utility Systems In and Across, and Access into Conservation System Units), Title 13 (Administrative Provisions), and Title 14 (Amendments to the Alaska Native Claims Settlement Act and Related Provisions). A listing of all uses of the term "traditional" in ANILCA is included in Appendix B of this document. Especially relevant to the contents of this document are the following provisions from Titles 8, 11, and 13:

Title 8 (Subsistence Management and Use)

> §803.1 - Asserts that subsistence "is essential to Native physical, economic, traditional, and cultural existence and to non-Native physical, economic, traditional, and social existence
>
> §803 – In definitions, indicates that ""subsistence uses" means the customary and traditional uses by rural Alaska residents of wild renewable resources for direct personal or family consumption as food, shelter, fuel, clothing, tools, or transportation" and other purposes."

> §811(b) - States "Notwithstanding any other provision of this Act or other law the Secretary shall permit on the public lands appropriate use for subsistence purposes of snowmobiles, motorboats, and other means of surface transportation traditionally employed for such purposes by local residents, subject to reasonable regulation."

Title 11 (Transportation and Utility Systems In and Across, and Access into Conservation System Units):

> §1110(a) – States that "Notwithstanding any other provision of this Act or other law, the Secretary shall permit, on conservation system units national recreation areas, and national conservation areas, and those public lands designated as wilderness study, the use of snowmachines (during periods of adequate snow cover, or frozen river conditions in the case of wild and scenic rivers), motorboats, airplanes, and non-motorized surface transportation methods for traditional activities (where such activities are permitted by this Act or other law) and for travel to and from villages and homesites. Such use shall be subject to reasonable regulations by the Secretary to protect the natural and other values of the conservation system units, national recreation areas, and national conservation areas, and shall not be prohibited unless, after notice and hearing in the vicinity of the affected unit or area, the Secretary finds that such use would be detrimental to the resource values of the unit or area. Nothing in this section shall be construed as prohibiting the use of other methods of transportation for such travel and activities on conservation system lands where such use is permitted by this Act or other law."

Title 13 (Administrative Provisions)

> §1301(c)3 In the development of NPS management plans, the agency must consider "Providing opportunities for Alaska Natives residing in the concerned unit and areas adjacent to such unit to continue performing in such unit activities which they have traditionally or historically performed in such unit."

An analysis of the many uses of the term "traditional" within ANILCA is revealing on many counts. While many uses of the term "traditional" in ANILCA can be equated with the use of the term "customary" there are cases where the two terms are used together to imply that they are somehow similar but different, specifically §907d2(iii) and §1303(b)2. Elsewhere, especially in Title 13, it is clear that the term "traditional" is not necessarily equated with "historical"; for example, the NPS is required to consider providing opportunities for Alaska Natives to continue performing activities in park units which they have "traditionally or historically performed in such unit" (§1301(c)3).

In these and other cases in the Act, the term seems to imply the culturally distinctive practices of Native communities rather than historical activities *per se*. Yet, it is also clear by the wording of ANILCA in §803.1 that "tradition" was conceived as something possessed by both Native communities of considerable antiquity as well as non-Native communities that were relatively recent in origin. And, key to the current report, it is clear that ANILCA's authors seem to have perceived certain motorized forms of transportation, including snowmobiles and motorboats, as being at least potentially "traditional" and warranting continued use on some ANILCA lands by virtue of this traditional status. Interpretations of the meaning of the term varied in the immediate wake of the bill's passage - with parties such as the State of Alaska sometimes interpreting the term more inclusively than federal agencies – and the bill's inexact language did little to alleviate this situation.[5]

These challenges of interpretation persisted as the terms of ANILCA were embodied in new departmental and agency regulations that sought to bring clarity to use and access issues throughout ANILCA lands. In 1986, the passage of 43CFR36.11 implemented the Secretary of the Interior's determinations regarding snowmobile access as outlined in ANILCA. This regulation established that snowmachines and certain other motorized vehicles had access to ANILCA lands "for traditional activities" unless formally closed for specific reasons. Under article c of this regulation,

> "The use of snowmachines (during periods of adequate snow cover and frozen river conditions) for traditional activities (where such activities are permitted by ANILCA or other law) and for travel to and from villages and homesites and other valid occupancies is permitted within the areas, except where such use is prohibited or otherwise restricted by the appropriate Federal agency in accordance with the procedures of paragraph (h) of this section."

Closure procedures under 43 CFR 36.11, article h allowed for permanent or temporary closures based on a determination by agencies that these modes of transportation were "detrimental to the resource values of the area."[6] These elements constituted the core of the Department of the Interior's official interpretation of ANILCA provisions for transportation from this time forward; as in the original language of ANILCA, "traditional" served as a pivotal but undefined element of the new regulatory language.

In each agency within the Department of the Interior, this guidance was articulated in additional regulatory language. As an outcome of the Secretarial determination

reflected in 43 CFR 36, new regulations were soon developed for national parks under Title 36 of the code of federal regulations. These regulations explicitly defined snowmachines, motor boats, and dog teams as "traditional" for the purposes of ANILCA, and allowed for their use in Alaska parks consistent with other management mandates as defined in ANILCA. As stated in these regulations, 36 CFR 13,

> "Notwithstanding any other provision of this chapter, the use of snowmobiles, motorboats, dog teams, and other means of surface transportation traditionally employed by local rural residents engaged in subsistence uses is permitted within park areas except at those times and in those areas restricted or closed by the Superintendent" (36 CFR 13.460).

Other agencies followed similar guidelines, so that the CFR language for all National Wildlife Refuges in Alaska (50 CFR 36.12) are almost verbatim on these points.[7] In practice, lacking clear guidance on the meaning of "traditional" in this context, Interior agencies including the NPS and, even more commonly, the USFWS began to use the presence or absence of a practice in 1980 as the standard to determine whether a practice was indeed "traditional" by the terms of these regulations. Especially in the 1980s and 1990s, activities related to subsistence were especially regarded as meeting the standard of "traditional" use and access, while those relating to recreation were sometimes not.

Still, for certain parks such as Denali, using 1980 as the standard for what is "traditional" in the park under ANILCA has sometimes been problematic. In 1998, Denali National Park sought to encode in formal regulations what was seen as a longstanding ban on snowmachine access to the old, pre-1980 portion of the park formally called "Mount McKinley National Park." The basis for this closure was the historical absence of pre-1980 (and therefore "traditional") resource procurement in that area by snowmachine users, by virtue of the fact that this area had been a national park since 1917. Denali's ban on snowmobiling in areas not historically used for that purpose was contested by certain parties, led by the Alaska State Snowmobiling Association, which contended that the park had to demonstrate adverse resource effects under ANILCA and 43CFR36.11, and litigating that point in a case that came to be known as *Alaska State Snowmobiling Association v. Babbitt*. The Wilderness Society entered into this debate as defendant-interveners, arguing that the terms of the Wilderness Act, which prohibits the use of motorized vehicles, applied to most of the contested area at Denali. The U.S. District Court of Alaska sided with the Alaska State Snowmobiling Association

in this case, contending that the park had not defined "traditional activities" for that park, and that "adverse effect" had not been demonstrated to the standard set by section 1110(a) of ANILCA. Importantly, the Court rejected the notion that "traditional activities" were solely subsistence-related, and took the position that even sightseeing and other recreational activities were admissible as "traditional" under the terms of ANILCA. Only if the NPS were to demonstrate adverse effects on resources, the Court contended, could snowmachine access be curtailed (Rupp 2004: 313-16).[8] Exceptions to this ruling appear to require specific legislation, such as in the case of the Exit Glacier Developed Area (EGDA) of Kenai Fjords National Park, which is subject to specific regulations for public safety and resource protection purposes.[9]

There were other efforts to define "traditional" use and access in Alaska national parks that warrant mention here. In the years immediately following ANILCA, for example, those Alaska NPS units that had subsistence uses explicitly mandated under Title 8 explored the concept of creating "Traditional Use Zones" to accommodate those traditional uses, while still restricting certain types of subsistence uses and access to the remainder of the park. These zones were expected to give parks greater management control, but also a degree of predictability in light of potential changes in state regulations of fish and game harvests affecting park lands. In practice, these proposed zones were almost immediately controversial and difficult to enforce; various organizations representing rural Alaska asserted that Native Alaskan hunters typically had highly mobile patterns of subsistence activity that could not be easily contained in defined zones. The Citizens' Advisory Commission on Federal Areas, for example, asserted that "it is the 'traditional' pattern of subsistence people to follow the game, rather than the game to follow the people into traditional areas" (quoted in Norris 2002). Parties on all sides of the argument began to recognize that the provisions in ANILCA for subsistence "where such practices are traditional." The definitional of traditional became a turning point of debate within Subsistence Resource Commissions working with ANILCA parks. The SRCs increasingly sought to define entire parks (such as Wrangell-St. Elias) as "traditional subsistence use areas" – a position that the NPS and the Department of the Interior generally opposed. Pressure was also exerted by organizations such as the Sierra Club, which publicly took the position that a "traditional" national park was one without the consumptive use of wildlife, and that the NPS had a congressional mandate to significantly restrict subsistence use of these parks. Through the 1990s, many parks, in practice, began to accept a more inclusive view of "traditional use areas" that allowed for widespread hunting and access, due in part to a series of pivotal proclamations and studies that seemed to substantiate claims

such as those made by the CAC. The NPS increasingly took the position that the definition of traditional use zones was allowed, but discretionary based on the specific management concerns of individual parks (Norris 2002; Callaway et al. 1999; Nelson et al. 1982). In terms of most management concerns, practices present in 1980 were generally to be "grandfathered" into ANILCA lands provided that no adverse effect could be demonstrated on federally managed resources.

If we accept that the presence of an activity in 1980 is grounds for its status as a "traditional" activity, a careful review of the interview data allows one to make some general statements about traditional use and access in the Exit Glacier area of Kenai Fjords National Park. The Exit Glacier was clearly used for hunting, trapping, and berry gathering prior to park creation. This area was also used for a range of recreational activities such as sightseeing, skiing, snowshoeing, and the recreational use of dog teams and snowmachines. Following park creation, natural resource harvesting dwindled but did not entirely disappear, while recreational activities continued and in some cases intensified. Interview data suggest that the use of motor vehicles to access the Exit Glacier area was well established prior to park creation in 1980, especially involving snowmachines and automobiles; boats and airplanes were also used to access the general vicinity of Exit Glacier, if not the glacier itself. Since the 1960s, snowmachines have been used for hunting, trapping and recreational uses in the Harding Icefield and Exit Glacier areas. Following park creation, motorized vehicle use has continued; indeed, in some places such as the northern edge of the park snowmachine use arguably expanded due to the improvements of roads and snowmachine technologies. Seward residents appear to use the Resurrection River valley for a wide range of resource procurement activities that are related to both utilitarian and recreational activities, including natural resource harvests. The importance of the area for these purposes appears to vary within the community, reflecting the considerable size and variegation of the Seward community. Access to the Resurrection River valley continues to be important to some community residents for social, recreational, and food-gathering purposes, and travel through the Exit Glacier area is sometimes integral to these activities. Each of these activities is discussed in turn in the pages that follow; the conclusion of this document provides additional insights into the antiquity of these practices and their admissibility as "traditional" activities for planning purposes under the terms of ANILCA.

Beginning in Seward

In order to set the context for the history of Exit Glacier and its use by Seward residents, we present here a very brief synopsis of the history of Seward as a community. Certainly, Seward has been a crossroads of different communities for many generations, a pattern that ostensibly began well before the period of European contact. Alutiiq people formerly lived in villages that dotted the shorelines and estuaries around Resurrection Bay. Based in these villages, they frequently interacted with their near neighbors, including the Dena'ina Athabaskans from the north and west, and the Eyak from the east, while utilizing the resources of both the coast and interior of their territory – apparently including the Resurrection River valley. In 1793, recognizing the potential of the site as a trade and transportation nexus, the Shelikhov-Golikov Company (precursor to the Russian-American Company) established a fur trade post and shipbuilding site on Seward's waterfront. Alutiiq peoples from the Seward area were displaced by a number of factors to settlements on the southwest side of the Kenai Peninsula. Still, some families remained in the greater Seward area, or continued to use the area seasonally; even today, there are significant Native corporation lands within the external boundaries of Kenai Fjords National Park (Cook and Norris 1998; Pederson and Pederson 1983).

The American period, and the discovery of gold in Alaska's interior, brought new pressures and new complexity to the social scene. By the late 19th century, Seward was becoming a regionally significant depot in the transport of people, mail and goods to gold fields in the Hope and Sunrise areas on Turnagain Arm. Recognizing the unique geography of the Resurrection Bay basin and the low-elevation passes of the central Kenai Peninsula, early entrepreneurs began to promote rail and trail development linking the Seward waterfront to interior parts of Alaska. Most famously, John Ballaine, owner of the Alaska Central Railway, began to promote the site as a terminus for his railroad. Development ventures and land speculation set the Seward waterfront abuzz, and the town was formally founded by 1903. In the early 1900s, the Iditarod Trail was blazed northward from what is today Seward's waterfront, providing a land route from the Gulf of Alaska far into interior Alaska and westward to Nome. Soon thereafter, Seward's fate as a transportation hub was all but sealed by the construction of the Alaska Railroad, built between 1915 and 1923, allowing this ice-free port to finally become a critical link of statewide importance to the interior of Alaska. The economy of Seward grew around its role in transport and shipping, with fishing, longshoring, and

transportation support employment all booming in the years that followed. Interviewees for the current project commented on these bustling early years. Tom Gillespie, who grew up in Seward in the 1950s and 1960s noted,

> "Seward was the terminus of the Alaska Railroad, and there was a lot of longshoring and lots of work going on. [For] a lot of people that came to Seward at that time…that was the main purpose of showing up here" (TG).

The community grew steadily, its transport-based economy mirroring the general economic conditions of Alaska in the years that followed.

These general trends were interrupted significantly by the events of World War II. For many interviewees, the war was among the earliest and most vivid periods described in the course of project interviews. In July of 1941, the United States Army Air Corps constructed Fort Raymond in Seward, which stationed almost 3,500 men just beyond the edge of town. The community's population more than tripled almost overnight. Interviewees' accounts suggest that through the duration of the war, Seward was effectively a military town. According to Louis "Packy" Dick, who came to Seward as a boy when his father got a job working for the military:

> "It was an Army town. A lot of people in town, a lot of them military, you know. And we lived right down in the military area. And we'd just go over to there, and I would, jump [into] one of the trucks, and they'd run me all over, you know, ride with them all day long. Yeah… it was a good go" (PD).

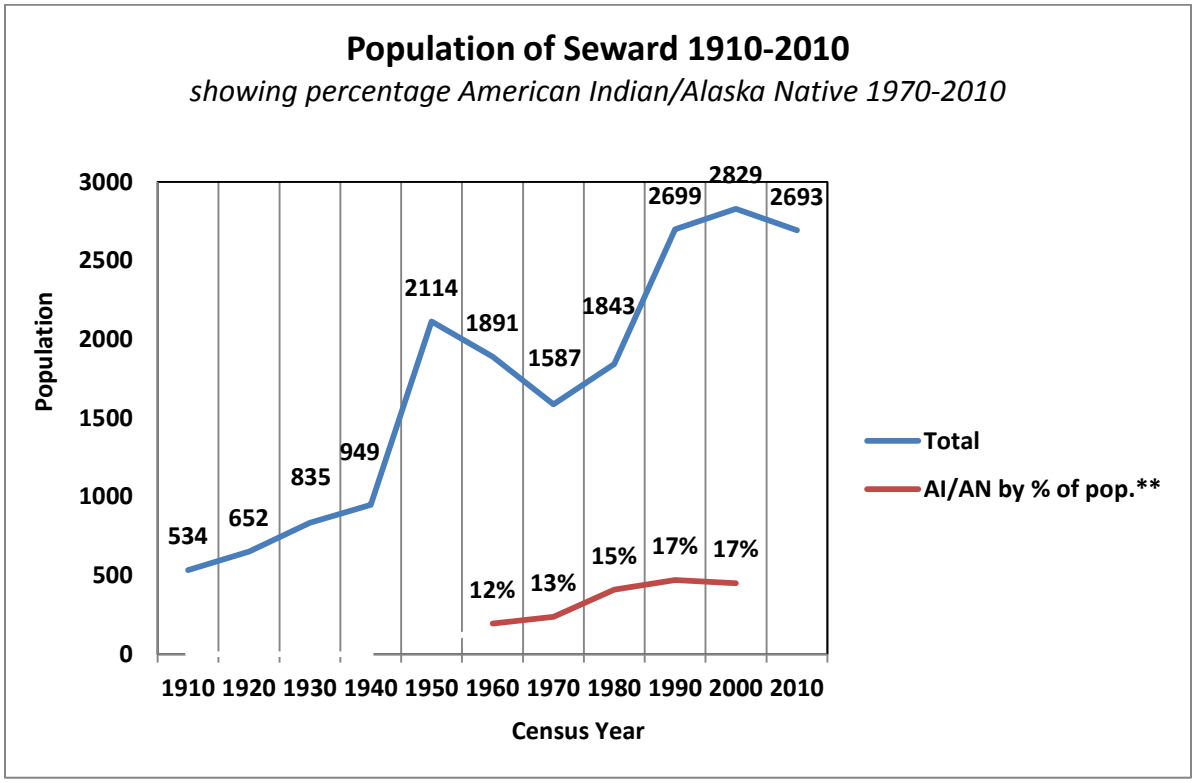
By 1944, the station was decommissioned, the military departing almost as quickly as it had arrived. Residents salvaged surplus buildings and apparently surplus vehicles. Again, quoting Packy Dick,

> "All of a sudden one day they just brought troop ships in and everybody left... They just packed up and left and all the military stuff was here, all the barracks, the Quonset hut, Fort Raymond, you know, was just loaded up and it was gone. And town kind of quieted down" (PD).

Some military men stayed, as did civilians with ties to the military buildup. This, coupled with a modest post-War economic boom, resulted in a noticeable "bounce" in

the population of Seward that can still be clearly seen when comparing the 1940 and 1950 census figures (Figure 1).

Figure 1: Population of Seward 1910-2010



Source: U.S. Census Bureau 2010

In the post-War period, the waterfront continued to serve as a center of economic activity for Seward, as the military presence evaporated and the community returned to shipping and related industries. According to Packy Dick,

> "Then [Seward] was a main shipping hub. All the freighters come in, the railroad's shipping everything to Fairbanks north, you know, and [there were] a lot of longshoremen. A lot of longshoremen. A hundred guys a ship, you know. It was -- it was good times. It was good" (PD).

Similarly, Val Anderson, who worked as a longshoreman, recalls the bustling waterfront of the post-War period:

> "[Today] the waterfront is quite insignificant [but] at one time, Good Lord…we had probably between the dock and [what was on] the water… shipside that we called it, we probably had in two ships [at a time] we probably had about 300 men working here" (VA).

All of this changed on March 27, 1964, when a massive 9.2 magnitude earthquake devastated the Seward waterfront. The initial quake caused a significant portion of the Seward waterfront to slump into the water and oil tanks to rupture; soon thereafter the town was inundated by tsunami waves of up to 40 feet in height that crashed into the town, pushing burning debris that ignited portions of the town's center. The industrial and transportation functions of the town's core were devastated, and had to be laboriously reconstructed in the years that followed. This brought a brief building boom, and associated construction jobs that benefitted certain interviewees and their families.[10] Still, some interviewees noted that the waterfront industrial and transportation economies never truly regained their former significance – in part because Anchorage had developed its own rail-side shipping facilities that increasingly eclipsed those of Seward. Again, quoting Val Anderson,

> "See, now it's very minor, that little bit that comes in here, the handling cargo, or baggage for the cruise ships and things like that, and tie-ups and cast-offs [that's] about all that it amounts to now, you know. I think I retired about the best right time" (VA).

Even years later, the community was still sorting through the implications. As retired dentist Warren Huss recalls of his arrival in Seward in 1971,

> "When we got here that first summer -- or the summer after we got here they burned 26 or 29 derelict buildings in town, mainly homes that had just been deserted after the earthquake because…people up and left town. Longshoring went to zero, basically" (WH).[11]

Some interviewees suggest that the community was also being bypassed by rapidly developing shipping technology, especially the development of container -ships which required the use of larger ships and vast ship-support facilities that were not easily accommodated on Seward's waterfront. This reduced incentives to redevelop shipping facilities. As Packy Dick explains, "the earthquake came along and put a stop to all that.

Docks were all gone, and the shippers found better ways of doing stuff than coming through here, you know, and it just went downhill from there. Well, not downhill, but I mean slowed down" (PD).

The social and economic effects were widespread and enduring. Interviewees generally depicted the years following the earthquake as a time of transition, when the population growth lagged and the economy became increasingly dependent on tourism. As Doug McRae noted,

> "Over the years Seward really changed a lot. It went from a working town, a longshore town, to today [where] it's more of a tourist town, mainly because of the '64 earthquake. It just pretty well wiped out all the businesses along the waterfront, and so it's changed" (DM).

Mirroring trends seen throughout southern Alaska, this trend toward outdoor tourism would set the stage for the arrival of Kenai Fjords National Park. While tourism may have become increasingly central in the absence of the tsunami, interviewees' accounts suggest that this transition was only hastened by the severe damage to the waterfront industries at the time of the 1964 earthquake.

Local boosters began to look at local natural attractions in a new light. Some, such as Herman Leirer, began to promote Exit Glacier more aggressively as a visitor destination, seeking to improve road access to this end. Warren Huss talks about the development of the road as a means to bring money to Seward after the earthquake:

> "The real visionary for Exit Glacier…I think, goes back to Herman Leirer… right after the earthquake, he bought a lot of property here in town… his sons own and still own a lot of the property that's in the industrial area down around Seward Ship's Chandlery… he acquired all that land. And he was a heavy equipment operator. And so after the earthquake, you know, the town itself had very little going on until the pipeline days. So Herman was one that could see the potential for tourism in the area…I think it started shortly after the earthquake, Herman just took it upon himself, and I'm not sure he even had the permits to do it, but he had a big bulldozer and he started knocking a road up the…north side of Resurrection River towards Exit Glacier because he'd…seen Exit Glacier and he thought, wow, what a tourist attraction that would be if we could just build a road up there" (WH).

Seward experienced intermittent economic booms associated with such events as the construction of the Trans-Alaska Pipeline system in the years between 1974 and 1977, and commercial fishing has persisted despite the setback of the Exxon Valdez oil spill of 1989.[12] In spite of these economic opportunities, such efforts to develop tourist-oriented opportunities arguably continued unabated throughout the period from the late 1960s into the modern era of NPS management from 1980 forward.

Today, the community of Seward still serves as the critical southern terminus for the Alaska Railroad, as well as providing highway access to the Alaskan interior. Seward also serves as an important commercial fishing and fish processing port, as well as providing ship repairs and other maritime services. Especially in recent decades, the community has expanded its tourist economy, with cruise ships visiting the city in summer months, and a growing land-based tourist trade as well. Interviewee Packy Dick spoke of the influence of the tourist economy in Seward:

> "[Seward]'s a tourist town in summer. T-shirt city… Prices go up [when] tourists are here. You walk into our store now [late season] and you see all the little yellow tags. Tourists are starting to leave, so everything's on sale" (PD).

Similarly, Keith Campbell, who came to Seward in 1971 to work as administrator for Seward General Hospital discussed the transformation of Seward's economic and social identity:

> "The big change in town is it's just -- it's a tourist town now…It wasn't then. It revolved around the fisheries and the… sport fisheries and the commercial fisheries, and the railroad, and that's it" (KC).

Some interviewees note certain tensions between the growing tourist economy and more traditional resource industries and activities.[13] Some complain that with the transition to a tourist-based economy, wages have declined, undermining the stability of the town.[14] Others complained that the rise of tourism has adversely affected the character of the town, so that town services are increasingly oriented to visitors instead of locals.[15] Still, most expressed appreciation for the economic advantages of tourist employment, which sometimes offsets busts in local resource economies.[16] Moreover, with so many natural amenities and growth in the service sector, a growing number of

retirees choose to stay in the community too.[17] As interviewee and retiree Keith Campbell noted, "we never found a more spectacular place to live, so here we are" (KC).

Also, the region has witnessed a growth in institutional employment associated with the University of Alaska's Seward Marine Center, the Alaska SeaLife Center, the Alaska's Institute of Technology, a state prison (Spring Creek Correctional Center), and a number of state and federal offices – Kenai Fjords National Park among them – all being housed within the community. (Other institutional sources of employment have come and gone in the course of recent Seward history, such as the Seward Sanatorium which operated in the 1940s and 1950s, and the Methodist orphanage, the Jesse Lee Home, which operated from the 1920s into the 1960s.) Indeed, roughly one-quarter of the population today is employed in government agencies (Alaska Department of Commerce n.d.). Interviewees, such as 60-year-old Tom Gillespie, who was born in Seward, commented on this trend:

> "Now we're becoming, I hate to say it, but more of a government town… if you look at the economy, that almost all of it, especially in the winters [is] directly or indirectly from the government, whether it's the school system… city employment, borough employment, the prison. Just most everything has its ties to the services, to the government, and not so much [to] private enterprise" (TG).

The modern community of Seward thus embodies all of the social mobility that characterizes small cities in Alaska, yet with just a little extra complexity reflecting the dynamism of a port town. For a small place, Seward is a remarkably diverse community. As of the 2010 census, the community reported some 2,693 people, including 451 Native residents and 218 people identifying with two or more races (Table 1).

So too, Seward residents possess a diversity of life histories relating to southern Alaska, with many households tracing their arrival to the various events outlined in this brief historical sketch. Of the 23 interviewees, only five were born and raised in Seward, while another four were born and raised in other parts of Alaska. This is not to suggest that the remainder of the interviewees are naïve or newcomers, however; most have spent the majority of their adult lives in Seward and contributed actively and meaningfully to community life. Indeed, the experiences of project interviewees reflect detailed biographical realities underpinning the broad historical events outlined above.

Among our interviewees, there are Alaska Natives and people of mixed ethnicity.[18] There are families who moved to the area for military, Coast Guard or administrative or service jobs, only to stay. There are families who came to the area as part of other government jobs. There are those who arrived to participate in the shipping business in the post-War period, who aided in construction after the 1964 earthquake, and those who have participated actively in the tourist economy of recent decades. Together, their stories provide a rich picture of Seward's late 20th century history, and a clear understanding of the role of Exit Glacier within the dynamic community that is Seward, Alaska.

Table 1: Seward Population by Race, 2010 Census

Population by Race, 2010 Census	**Number**	**Percentage**
American Indian and Alaska Native	451	16.75%
Asian	64	2.38%
Black or African American	83	3.08%
Native Hawaiian and Other Pacific Native	17	0.63%
Some other race	16	0.59%
Two or more races	218	8.10%
White	1,844	68.47%

Source: U.S. Census Bureau 2010

Native Alaskans and the Identity of the Qutekcak Tribe

While there are a number of Alaska Natives living in the Seward area with diverse tribal affiliations, the one organized Alaska Native entity operating in the area is the Qutekcak Native Tribe. A federally unrecognized Native community at the time of this writing, the Qutekcak Native Tribe nonetheless functions as a non-profit organization. They have formally petitioned the Bureau of Indian Affairs for federal recognition beginning in February of 2002 and are presently still awaiting the results of the most recent of these petitions. The Tribe also operates with a constitution and bylaws, which were submitted to the Bureau of Indian Affairs in November of 2011.

Two interviewees for the current project, including Percy Blatchford who was born in Teller, Alaska in 1929, are part of this Tribe. As Blatchford notes,

> "We started a tribe called the Qutekcak Tribe, which in the Alutiiq language means a big beach. We're working on tribal recognition now. We haven't got it, but we're working on it… We served, I forgot how many hundred people from here to Hope… my wife is one of the founders" (PB).

While some individual Qutekcak members have Alutiiq ancestry, the Tribe does not claim to have deep historical associations with the study area and represents "a collection of Alaska Native people of different heritages instead of just one cultural group" (Qutekcak Native Tribe 2013). Its membership is made up in no small part of Alaska Native people who moved to Seward over the course of the 20th century. In 1925, the Jesse Lee Home for Alaska Native orphans was moved to Seward from Unalaska in 1925, bringing large numbers of Native children from other parts of the south-central coast and elsewhere in Alaska. Between 1946 and 1958, the Seward Tuberculosis Sanatorium operated in the town as well, providing treatment to roughly one thousand Native patients. These institutions brought significant growth to the area's Native population and became cornerstones of a permanent Native community that has coalesced in part around the Qutekcak Native Tribe (Qutekcak Native Tribe 2013). Percy Blatchford notes that Seward was a relatively hospitable place for Alaska Natives, with generally positive interethnic relations that ostensibly fostered this growing community: "Seward has been pretty good to Natives" (PB). Many of these families and individuals who make up the Qutekcak Native Tribe brought with them to Seward their traditions of subsistence resource use, applying them to local landscapes over the course of the 20th century.

These people began to function as a social unit, intermarrying and starting new families, though in many cases doing so at a considerable distance from their villages of origin, and in the absence of the support and services of a formal Native government. Frustrated by their inability to readily access government services or funds typically available for Alaska Native communities, this growing population began to organize their own Native government. As Percy Blatchford notes:

> "They used to get funds from the ANS [Indian Health Service], and about five days after you'd go up to the hospital [in Anchorage] and they'd say, oh, the funds are all gone. There was no accounting of it. So I think we

> put a stop to that. I figure we had to do something for our people, you know. They were kind of put back on the back burner... If we get Federal recognition, [we] get funds" (PB).

Percy Blatchford suggests that "It was just a few of us [who started] it. And [it] gradually kept growing and growing" (PB). The Qutekcak Native Tribe describes the emergence of their tribal organization:

> "Although our beginnings aren't auspicious, we are a proud people. Our elders gathered in the mid-1960s to begin the formal process of organizing and planning for our future. We were first called the Chugach Native Association in the 1960s and later the Mount Marathon Native Association in 1972. Unfortunately, we did not obtain a listing in the Alaska Native Claims Settlement Act as other Alaska Native communities did. This has resulted in a decades-long struggle to gain federal recognition as an American Indian tribe" (Qutekcak Native Tribe 2013).

The Tribe now has its own office building, housing, and other facilities. While the Qutekcak Tribe has occasionally been unsuccessful at pursuing Native subsistence fisheries and other rights typically extended to federally-recognized tribes, the Tribe has become an integral part of community life in Seward, is recognized by regional Native organizations such as Chugach Alaska Corporation and Chugachmiut, Inc. (2013), and still hopes to achieve federal status. The Qutekcak Native Tribe has collaborated with the Chugach Alaska Corporation, the regional corporation representing Alaska Native residents of Seward, on a variety of ventures; not all members of this corporation are Chugach Alutiiq, but that is the organization's dominant cultural identity.

The members of the Qutekcak Native Tribe appear to be among the more persistent subsistence users in the study area. Still, Native Alaskans tend to be underrepresented in recorded data pertaining to subsistence practices in the region, in part due to the absence of a single federally-recognized Native government (Qutekcak Tribe 2013) and, as some sources have suggested, the reluctance of Seward-area Native Alaskans to participate in data collection (Davis et al. 2003).

In recent times, the Native population of Seward has continued to grow, including both members of Qutekcak as well as locally unaffiliated Alaska Natives. Interviewees noted that the number of Native people in Seward has increased since the founding of the Qutekcak Native Tribe, including individuals and families from the local area or more

remote parts of the state – "there was quite a few [but] not as many as now" (PB). They have been drawn to the area by employment opportunities and the Alaska's Institute of Technology (AVTEC) a vocational and technical training center in Seward, has attracted an especially large number of young Native adults. Indeed, Alaska Natives and "mixed race" individuals (most of those being part Native) represent a significant portion of the town's young adult population. Roughly half of the town's population between the ages of 20 and 24 reports a race other than white, even though the non-white segment of the larger community is only 28% of the total population, attesting to the large number of young Native adults who now call Seward their home (U.S. Census Bureau 2010).

An Overview and Chronology of Vehicle Use in the Study Area

Dog teams

Prior to the introduction of motorized vehicles, lands now in the interior of Kenai Fjords National Park were accessible principally by dogsled and by foot. Dog teams were used historically to carry individuals to hunting and trapping sites in the Exit Glacier area, but also to carry gear, as well as to carry game back home at the end of hunting or trapping trips. Families from Seward visited the Exit Glacier area by foot and by dogsled, apparently into the first half of the 20th century. For example, Mary Barry, who was born in Seward in 1928 and has written about the town's history, noted that prior to the arrival of snowmachines, people went to the glacier by "dog teams if they had [them], in the early days" (MB). In some places, people apparently used trails to access the Exit Glacier area, though there is little specific mention of the configuration of these trails in the Resurrection River valley. Trails were necessary, in part because of obstacles of terrain and vegetation, as Mary Barry explains: "When you get out into the woods, it's a little difficult because you run into the famous devil clubs and alders that block your way and are very difficult to get through" (MB).

The use of dog teams was almost immediately eclipsed by the arrival of motorized vehicles in the period following World War II. Interviewees who arrived here by the 1950s reported that, even at that date, dog teams were on the wane. For example, when asked about dog team use in Seward, Percy Blatchford noted a lack of dogs since he moved to the area in 1954:

> "[There were] no dogs here. In the early days, though, I remember seeing pictures of dog teams on this main street here… I think it was a lot colder in the older days" (PB).

Similarly, Dan Seavey, now a champion dog musher, seemed to depict dog teams as a historical curiosity when he arrived in Seward in 1963 for a job as a high school social studies teacher:

> "Historically, the Iditarod Trail began [or] ended… however you want to look at it, in Seward. It was laid out in 1908, in fact, from Seward to Nome, basically… The [Iditarod Sled Dog Race] has messed up a lot of history, you know. But I didn't let that bother me… there were no sled dogs left in the Seward area when I came here" (DS).

Still, dog teams were used by some segment of the community to access Exit Glacier before snowmachines had become especially widespread. Dan Seavey recalled an especially detailed chronology of his access to the Exit Glacier area by dog team, and some of the factors that influenced his ability to reach the glacier using this mode of transportation:

> "We came out here in '64, and we had dogs that first winter. I mean, of sorts… I just worked my way up there. I would cut a trail… Exit Glacier Road has covered over a lot of that trail, but I did have a trail there. And I got on the ice with the dogs. Gosh, I wouldn't know just when, but certainly by '67 I was going up there pretty regularly. I also had traps up there. It didn't work every year because in order to cross over to the glacier, you had to have snow bridges… Otherwise, the water is just too deep. Not only that, but the banks, you know how it gets, you get a lot of snow, and then the water's down here all right, but…then there's a sharp edge of snow banks… And so I always would cross wherever there was a snow bridge. And sometimes that never happened, so maybe that winter I wouldn't get up there. But I do know I have pictures somewhere of me with the dog team -- not way up on the glacier, but up on the ice before the Park was [established] I know that" (DS).

Moreover, the community's prominent role relative to the Iditarod Trail has contributed to a vibrant interest in dogs and dogsledding that persists today. Some residents, including Dan Seavey, have participated in Iditarod events and the breeding of sled dogs. (Indeed, Seavey's involvement has been remarkable: he ran the first race in 1973, is founder of the Seward Iditarod Trail Blazers, and has served on the Board of Directors of the Iditarod and the Iditarod Historic Trail Alliance, as well as running a dogsled tour operation.) A small number of people have continued to use dogsleds or snowshoes by choice even after the arrival of snowmachines, citing some relative advantages.[19] Bob White, who came to Seward in 1972 as an 18-year-old, eager to live a rural hunting and trapping lifestyle, recalls using a dog team to check wolverine traps in the Exit Glacier area prior to park creation:

> "I used dogs to access up there when I was trapping. I had a small team, so I'd run two to four dogs up there to check traps and whatnot. [It is] probably not any more practical than a snowmachine, but it was quiet, and a lot of times it would give you an opportunity to see stuff that you wouldn't normally see on a snowmachine" (BW).

In this light, it is likely that dog teams will continue to be used in some small but persistent quantities for some time to come, as individuals, families, and tour operators continue to run dog teams - now largely a recreational activity of unique historical significance.

Early Motorized Vehicles

Interviewees described decades of use within the study area, with modes of transportation ranging from dog teams to modern four-wheel ATVs. While their references to events prior to the 1960s were few, interviewees did provide occasional references to earlier times. Accounts suggest that motorized vehicles were a well-established part of community life from early in Seward's history. Most of the major transportation technologies available in other parts of Alaska, and indeed the lower 48, were readily available in this community – in part a result of the large military presence in World War II and the role of the community as a keystone transportation hub for the larger state of Alaska. By World War II, outboard motors, military trucks and jeeps were available to assist Seward residents in accessing their town's hinterland for the purposes of transportation, subsistence harvests, recreation, and other pursuits.

A few interviewees mentioned the use of jeeps and other vehicles from this early period to access Exit Glacier and vicinity. Ralph Hatch said he used to drive his Jeep truck up the Resurrection Valley to hunt goats. Packy Dick noted that he took his Jeep as far up the canyon as Exit Glacier, for recreation as well as hunting purposes:

> "We would just see how far up the canyon we could go…we were looking for moose, but we'd just see how far we could go...we went past the glacier and on up to that old mine up there" (PD).

Traveling through this area by jeep was often treacherous since there were no developed roadways before the Exit Glacier Road was constructed. Driving was along the riverbed along narrow, unmaintained trails. This limited the mobility of some jeep drivers and was certainly a source of various adventures for those who chose this mode of travel.[20]

Tractors also played a small role in the mid-century Resurrection River valley. Duane LeVan, Bob White, and Page Spencer told of a Caterpillar tractor that staff from the U.S. Fish and Wildlife Service drove up to Upper Russian Lake in the 1950s in order to build a berm that diverted glacier water that had begun dumping into the lake from Summit Creek. Summit Creek had previously drained into Resurrection River, but had started flowing into the Russian Lake drainage, raising concerns that the turbid glacial water would affect red salmon spawning and rearing in the lake and beyond. The Caterpillar tractor was left at the work site and became a landmark that several interviewees mentioned. Later, Mary and Warren Huss often hiked on the now-overgrown Cat trail.

Snowmachines

Snowmobiles, usually known in Alaska as snowmachines, appear to have arrived somewhat later in the region than simple outboard motors, trucks and tractors. The first snowmachine design in the United States was patented in 1916; limited mass marketing and production of snowmachines began in the 1930s, but it was not until the mid-1950s that convenient, single-rider snowmachines became widespread nationally. Soon thereafter, these machines began to appear widely in Seward.

Doug McRae recalls seeing the first snowmachine in the area, a large early-model Polaris, in roughly 1960:

> "I remember the very first one [snowmachine] I ever saw… it would take a half ton pickup…a big truck to haul it. It was a Polaris [in] about 1960… It must have weighed a thousand pounds. It did about 3 miles an hour…Jay Holmberg. He [came] to the store with the first snowmachine I'd ever seen" (DM).

Very soon thereafter, many area residents acquired Ski-Doos, an early snowmachine built by Bombardier Recreational Products. First available nationally in 1959, Ski-Doos were marketed heavily in Alaska; by the early 1960s, they were becoming widespread

among Seward residents. Interviewee Duane LeVan, who came to Seward in 1946 after World War II, discussed the introduction of snowmachines into the area, noting that "It would have been [in the] '60s. Somewhere around there. Everybody had a Ski-Doo around here" (DL). Their use diffused very quickly in the community, and while interviewees did not always mention this brand by name, it is likely that their early memories of snowmachines in Seward involved a large number of Ski-Doos. By the 1960s, they were transforming the transportation patterns of the community. According to Packy Dick, "it didn't take nothing. I mean, pretty quick everybody in town had a snowmachine" (PD). Locals adapted to this technology readily, transitioning from dogsledding and other preexisting modes of transportation. More than one interviewee from outside the region mentioned moving to Seward during the early years of snowmachine use with prior experiences using snowmachines in other parts of North America – a phenomenon that may have aided in the rapid diffusion of this technology (HW, JC, KC).

Recollections of the exact chronology vary slightly, but most interviewees agree that snowmachines were becoming widespread by the mid-1960s. Gary Zimmerman, an avid snowmachiner who arrived in Seward in the 1960s when he was roughly 10 years old, recalls, "You know, snowmachines have been around since probably the '60s, but then I think they probably started getting popular here, I'd say about '65, '66" (GZ). So too, Doug McRae recalled, "I started seeing a few snowmachines. Not a lot…Mid '60s is when I first [saw] them" (DM). As the popularity of snowmachines increased in Seward, businesses soon emerged to both sell and service the machines. For example, by the late 1960s, Jim Arness owned a small snowmachine dealership that was called "Derks Ski-Doo" and was selling Ski-Doos widely in the community. Dale Clemens also ran an operation called "The Fish House" that ran charter boat tours and sold equipment, including snowmachines:

> "We had a [snowmachine] dealer in town. …The Fish House. Clemens was a dealer for machines, and that [helped]… he had service and things like that. They also had service out at Mile 5 -there was a fellow out there who had a Ski-Doo dealership, and that was before Clemens had one, and he could repair machines" (KC).

By the early 1970s, through these kinds of outlets, snowmachines appear to have become relatively ubiquitous in the Seward area.[21]

The Ski-Doos and the other snowmachines arriving in Seward in this period were mostly smaller machines, lightweight and easy to service. These machines had limited fuel capacity by today's standards and therefore limited range, but were outstanding for short-distance travel such as from Seward to the Exit Glacier area: "the first time I ever heard of them going into the park…they went all the way to Placer Creek[22]" (DM). Warren Huss described the first snowmachines he had in the early 1970s: "We had little 250 twin cylinder Elans, they were made by Ski-Doo, they only weighed about 270 pounds or 260 pounds. So, you know, they were pretty light. Not like the big machines nowadays" (WH). Being lightweight, these machines also tended to be used for areas with relatively easy access, following established roads, trails, river beds, or other clear areas: "back then, the snowmachines weren't like they are now where you can just kind of fireball over the top of whatever you want" (GZ).[23] In some settings, it was said to be faster to walk than to try to drive these machines through deep snow or complex terrain and brush.[24] Lacking carbide "skegs" on the skis, cleated tracks, or other high-traction mechanisms that are standard on modern machines, these early models also were difficult to maneuver – especially on steep icy surfaces.[25] They also required more frequent maintenance and some mechanical skill to keep them operating. As Keith Campbell explains it, "ride an hour, repair an hour in the early machines" (KC). Certainly, they could be easily transported into remote locations using small airplanes, which became a way to access places on the Harding Icefield and beyond.[26] However, long distance ground travel was often prohibitive. Tom Gillespie talks about his first snowmachine, purchased from his gymnastics teacher in the late 1960s:

> "[It was] just a one cylinder machine… that's what I used for running around. But they couldn't do much… you could get them…up to Lost Lake, but it was an all-day affair just to get up there…I used mine just more for the trapping and…just getting into the backcountry" (TG).

The load capacity of these small snowmachines also was limited. And, despite their diminutive size, they were not initially cheap, thus barring their use by some members of the Seward community but, over time, used and low-budget machines became available and the pool of regular snowmachine users expanded somewhat.[27]

Snowmachines such as these were almost immediately put into use accessing the northern part of what is now Kenai Fjords National Park for hunting, trapping, and recreational purposes. A few interviewees alluded to this transitional period, as foot

and dog team-based transportation was replaced by early snowmachines. Duane LeVan, for example, recalls

> "A couple of guys I worked with trapped up in there. [They] snowshoe in. But later years, then, they got some snowmachines. The snowmachines weren't [anything] like they have today" (DL).

Most people used the riverbeds and existing roads and trails to access the Exit Glacier area, with road improvements ostensibly improving access over time. As Bob White recalls, "The road was the access point pretty much the whole time [for me] although with snowmachine, in later years, I wouldn't use the road much at all, I'd just use the river bottom itself" (BW).

Traveling along these routes through the 1960s and 1970s, snowmachines provided what was probably the easiest access to the Exit Glacier area from Seward. As Tom Gillespie recalls,

> "We could paddle across the river, and then get on the blazed trail and go out to the glacier. Or if you were snow-machining in the winter, you could just go right up the river. Then a few years later they put in a footbridge for a while, and then later they came back and put in a large concrete highway bridge" (TG).

Even the glacier itself was traversed by snowmachines when conditions were right. Only the rugged parts of the Exit Glacier area, such as fractured icefields, as well as steep, rocky, or heavily forested terrain, were completely immune to snowmachines.

Providing efficient wintertime access Seward's hinterland, snowmachines soon became central to the burgeoning tourist and chartered hunting industries. In 1969, Jim Arness, the owner of Derks Ski-Doo, developed such an operation by having local pilot Joe Stanton fly people up to the Harding Icefield just above Exit Glacier to spend the day driving around on snowmachines. They flew a fleet of snowmachines in using Stanton's small plane and built a shelter cabin for a base of operations. Arley Zimmerman was hired as the camp manager. Arley's son, Gary Zimmerman, similarly recalls these events from his childhood:

> "So in '69 and '70, they decided that they were going to put a cabin up on the icefield [as a base of operations] with a ski wheel plane…See, my dad, he [had] his guide license by then. And so [Joe] Stanton would fly him up here with a ski wheel plane, and then [land on the icefield]…we had snowmobiles [for clients to use]" (GZ).

According to Gary Zimmerman, the short-lived tourism operation in 1969 and 1970 was a fly-in snowmachine business. While hunting was one of the objectives of these trips, this snowmachine tour operation typically involved clients flying in, renting a snowmachine, and driving themselves around for recreational purposes on the icefield. The proprietors of this operation carefully marked hazards and roped off a designated safe area for these clients to explore. Snowmachines were also used to tow skiers uphill so they could ski back down.

Packy Dick also referred to his involvement with Arness' snowmachine-based commercial tourism on the glacier:

> "They flew [my snowmachine] in. They put a cabin in up there or something, and then they were going to take people out, you know, tourists. Sounded like a good idea, so I donated my wife's snowmachine. And Joe [Stanton] flew it up there and we went up and rode quite a few times. Me and Bill Rickard, he was a snowmachine dealer and good friend, and we rode there, I don't know, quite a few times. And then the snow got [my snowmachine]. It started snowing so hard that it buried the machine, buried the tent, and then Joe said he couldn't find [anything], so that was the end of it… until it finally thawed out, you know" (PD).

The National Park Service later found some of these items being thawed from the icefield. This commercial operation took people to the Harding Icefield, where they drove snowmachines around near the top of Exit Glacier. The business ran for only two years. It was shut down because Arness did not obtain a permit from the BLM.

In addition to Zimmerman managing the tour operation, he also used the snowmachines on the icefield for his guiding business and for his own personal hunting. As his son Gary recalls,

> "See, my dad, he had his guide license by then. And so [Joe] Stanton would fly him and clients up there with a ski plane, and then land on the

> icefield. We had snowmobiles up there for people to use. These snowmobiles had these little ski-booses, like a little trailer sled. And of course, you know, we would hook the sled up to the snowmobile, and we'd put our hunting gear in one, and then you'd take two clients down to where the sheep hunting was. When I was a little kid dad says, well, because there's no clients, we are going to go exploring. So we took two snowmobiles with two of the little trailers and I remember we packed about 20 gallons of gas. Back then, that was a lot. And so we went back past Tustumena Glacier to the next glacier which is real flat. But it's a real dangerous glacier. So at one point my dad's over there monkeying around, you know, maybe a mile or two off to the left, and I'm going down this glacier. And I'm, like, in the fifth grade, you know. This is 1970, so this is a 10 or 12 horse Ski-Doo, whose top speed is 30 miles an hour. So I'm probably doing all of 10 miles an hour, you know. And I'm putting around and I come around this corner, and not even 25 yards away were six rams laying down" (GZ).

Tom Gillespie also recalled exploring the Exit Glacier area with friends for recreational purposes in the early 1970s, aided by the remarkable efficiency of snowmachines:

> "In '71, if you look at the records, that was a big snow year… I think I might have had a borrowed snowmachine, and my friend had an old Olympic 18 horse Ski-Doo snowmachine, and we spent one…Saturday…we went up to the face of the glacier and looked around, and we could see that the river, you could actually go up the river a ways. And so the next week we planned it. We took a day off from school and left on a Friday, I think we had three days, we actually snowmachined all the way" (TG).

For some Seward residents, snowmobiling has no doubt been largely recreational and is thought of as a sport: "snowmobiling is -- has always been – a real popular sport around here" (GZ). In some cases, the initial acquisition of snowmachines was originally motivated by people's interest in recreational winter travel.[28] The scope and scale of these recreational functions have only expanded with time and the introduction of more robust modern snowmachines; with their high speeds and long ranges, newer machines have allowed for considerably better mobility for wintertime recreationalists traveling throughout the Seward region.[29]

This by no means implies that snowmachine use in the study area has been exclusively recreational. In fact, interviewees alluded to a number of more traditional pursuits, including hunting and trapping, that were aided by the arrival of snowmachines. They mentioned trapping, in particular, as a traditional activity that was widely associated with snowmachine use in and around the study area. With the arrival of snowmachines, travel times between Exit Glacier and Seward became very short indeed – the Exit Glacier area and the lower Resurrection River valley being among the few good trapping areas within such proximity. Known as a trapping destination prior to the arrival of snowmachines, the Exit Glacier area seems to have become increasingly popular as a trapping destination: "I trapped there [Exit Glacier]. I bought a snowmachine…and I trapped, oh, several years up in the park" (DM). Similarly, Tom Gillespie discusses trapping within the larger Resurrection River valley when in high school:

> "I think the road must have been in at that time, but I think it wasn't plowed beyond [the gate], and I'd snowmachine up and then hike over and trap in there, but that only went on for, I think, three years or something… I also had traps right in the local area, trapping for mink and weasels and stuff. And later in the '70s, we traveled up all the way to the Placer River cabin" (TG).

For some families, snowmachines became integral to their trapping practices in the Resurrection River valley and beyond. The high level of mobility afforded by snowmachines allowed families to work their trap lines in this area easily within the course of a day from their homes in Seward, allowing trappers to continue trapping even in the presence of scheduling constraints associated with wage employment.

Trapping in the general vicinity of Exit Glacier by snowmachine has continued into recent times. For example, Doug McRae recalls trapping in the area into the 1990s:

> "I spent about 4 years up there [by the base of the glacier where the road connects] with a snowmachine in the late '80s, right up to '92. I know that was the last year I trapped… I had traps up there, and also had them in Paradise, Lower Paradise, and different places" (DM).

Sometimes snowmachines made things more difficult. Duane and Sanna LeVan recalled some trouble with a snowmachine they had bought:

> DL: "The snowmachines weren't nothing like they have today…. on the flat country you had trouble getting them going. In fact, we got smart one time, we thought we wanted one. We bought a snowmachine, and -- well, I don't remember which happened first, but one of the times we were trying to go to Lost Lake with it and our idea was we'd take our skis -- cross-country skis -- up there. And, boy, this is great, we can ride the snowmachine up there, you know. Well, we spent more work putting that snowmachine up there than ever we would have doing walking. It's much easier to walk."
> SL: "And then we were going to go ptarmigan hunting across the lake. And we got into overflow. Oh, wow. I remember that."
> DL: "Poor little machine."
> SL: "I think we gave up the snowmachine then."

As snowmachine technology has improved, the waterways and other geographical obstacles have become less imposing, allowing for unfettered access to a wider range of places, with higher speeds, than was possible only a few decades ago. As some interviewees mentioned, even the river is no longer a significant obstacle during certain times of the year, because with the higher speeds offered by modern snowmachines small areas of open water can be jumped or skipped across. If the water is shallow enough, today's snowmachines can be driven through without trouble:

> "And the river, the water levels were way down when it freezes up… in the wintertime, there's just a trickle… if it is open water, you just go right across it" (KC).

Even after snowmachines improved, they still got stuck in deep snow, and the rocks near the river were tough on them. Bud Rice, as a park employee in the 1980s, worked grooming the trails to encourage people on snowmachines to stay on them so they wouldn't put stress on wildlife or need to be rescued from deep snow.

It is perhaps important to note that a few interviewees expressed opposition to snowmachine use due to effects on animal populations, noise, crowding, and other sorts of disturbances. For example, when asked if he had used snowmachines, Percy Blatchford discussed his concerns, centering on what he sees as the impacts on moose population on the Kenai Peninsula:

> "I didn't like snowmachines. [At] Snow River out here, we used to go out in the evening or in the morning and the kids were little and we'd look at the moose [but since snowmachines arrived] you don't see them anymore... Another place was Portage, with all that feed there in the -- in the wintertime, there [was] moose all over that place. But now all there is is snowmachines. I think they've driven them back. Yeah, I know they have because we don't see them anymore there. That was one thing [we would do when] going to Anchorage, we'd slow down and see how many moose we could count. You know, you don't see any moose. Once in a while you'll see one there, but very seldom. I believe that snowmachines have chased them out of there" (PB).[30]

Snowmachine traffic is also reported to have displaced some trappers and other resource users entirely from some areas, while also sometimes causing the relocation of their practices to locations more distant from Seward. Doug McRae reports that his decision to quit trapping was influenced by the high density of snowmachine use in places proximate to Seward:

> "I've always been kind of anti snowmachine. Eventually, I bought one, but they were a lot of work to even [make them] run right. And that's kind of why I quit trapping, it had become so popular…In '92…Seward got real small… there was too many people [and] snowmachines showed up. I trapped just out of town here the last few years in Snow River, the North and South Fork of Snow River [which is farther from town]" (DM).

Interviewees' discussion of snowmachine impacts tended to focus on effects on wildlife patterns or aesthetic effects, but did not discuss significant adverse effects on park resources associated with vegetation impacts, rutting of soil, and other tangible effects on park resources. Some did remark on the adverse effects of high visitation generally in the Exit Glacier area.[31] Page Spencer, a retired NPS biologist, said that by the early to middle 90s, snowmachiners had begun to negatively impact her skiing experiences in the area. When asked if she had seen any other impacts of snowmachining other than the tracks, she said:

> "You may not even want to get me started on this. Yeah. So there's, you know, the hydrocarbons in the water, there's the noise factor, there's the disturbance to the wildlife, there's the tracks in the snow, there's the bandit, even when the

> areas are closed, there are bandits. For reasons I truly can't comprehend a single skier in bright Lycra is like a magnet to them. And even though you want to have a solitary experience, they won't let you have it. And I have been -- I have been surrounded by snowmachines when I've been up high and far in the mountains, and I don't know why they feel this is necessary, but they do… and the reality of the situation is if I ever get hurt, you know, I will need them, so I try not to be too rude, but the reality of this is they are not a favorable part of my recreation experience" (PS).

Despite the occasional challenges associated with snowmachine use, most interviewees seemed to extol the virtues of snowmachines, and some alluded to a kind of symbiosis between snowmachine use and other backcountry pursuits. Even avid dogsledders had something positive to say about snowmachine use: "Oh, I love them [snowmachines]. They make the best dog trails in the world" (DS). They are also the focus of considerable recreational use, which will receive additional attention in the pages that follow. Their use may be dynamic, and sometimes contested, but it is clear that snowmachines have become thoroughly integrated into many aspects of Seward-area life.

Other Modes of Motorized Transportation

Wheeled All-Terrain Vehicles (ATVs) arrived in the region roughly a decade after snowmachines. Small, three-wheeled ATVs began to appear in Seward and other parts of southcentral Alaska by the early 1970s. Beginning in the early 1980s, four-wheel ATVs provided an answer to many of the shortcomings of three-wheel ATVs, being larger, more stable, more powerful, and having longer ranges than these early vehicles. Four-wheel ATVs quickly diffused within the community, becoming almost as important to summertime resource and recreational activities as snowmachines had become for wintertime activities. While interviewees spoke very little about three-wheeled all-terrain vehicles in the community, the history of four-wheeled ATVs was discussed in some detail. ATVs were especially mentioned as being important in hunting and other pursuits – being used in the transport of people, game and gear. Their use is also commonly recreational. A few interviewees combine ATV use with the use of other modes of transportation in the vicinity of Exit Glacier – Dan Seavey even having his sled dogs pull his ATV as part of their summertime training regime.[32]

Interviewees also spoke often about the use of airplanes as a means of accessing Exit Glacier and vicinity by the early 1960s and probably sooner. Small airplanes allowed for unprecedented mobility, allowing rapid transportation and landing options on any patch of snow long and level enough for short takeoffs and landings: "In the wintertime…you could land almost anywhere… where there was enough room [and] the snow conditions get right" (DM).

Interviewees mentioned airplane access especially but not exclusively in reference to the practice of bringing visiting hunters and snowmachiners to the area. "Well, [when] we started out, we were flying hunters in before the parks became the parks" (KK). Exit Glacier appears to have been a place with considerable air traffic in the middle decades of the 20th century – especially associated with hunting activities.[33]A few interviewees also referenced the use of airplanes in the general area for their personal hunting – sometimes using their own airplanes, or recruiting a pilot to drop them off for an extended stay.[34] To at least one individual, Doug McRae, access to the Exit Glacier by light airplanes was critical to the continuation of trapping practices as well: "I was there [Exit Glacier] a lot, but [that] was just…mainly because of airplanes. A friend of mine, he had a little… 90 horse J3, and we trapped up there a lot" (DM). Ralph Hatch also remembered flying in to go moose hunting. In each case, the speed and carrying capacity of airplanes allowed for the transport of people, gear, and game with an efficiency hard to achieve with ground transportation.

Smooth snowy surfaces on the Harding Icefield above Exit Glacier were popular for this purpose, using ski landing gear. In lower terrain, meadows, gravel bars, and other open areas could be used as landing strips where available – especially in winter with ski wheels, when their surface was smooth and solid.[35] Floatplanes were also used to access parts of the glacier, using the pontoons like skis. According to Packy Dick:

> "When we load[ed the plane] in the boat harbor, it was low because it was setting down in the water. And when you land on the snow, it's high, because its floats are that thick and then the legs. Yeah. It's up there" (PD).

A number of people in the area reported using Taylorcraft or "T-craft" airplanes to access Exit Glacier. These very small single-engine airplanes typically have only two seats, and have been popular for transporting single hunters into remote locations. Like

other very small bush planes, the T-craft was capable of very short landings and takeoffs. Small "T-craft airstrips" were established at a number of locations in and around what is now the park, such as near the Resurrection River Cabin (which sits on U.S. Forest Service lands) to be used by T-craft primarily, or sometimes by intrepid bush pilots with other small aircraft.[36] T-craft were sometimes used to access the Harding Icefield where trails were absent or too treacherous or long for regular use by land vehicles. They also facilitated access to such places as the Resurrection River Cabin when trail conditions were inadequate.[37] Prior to the extension of the Exit Glacier road in 1974, these very light airplanes were often the easiest way to access the vicinity of Exit Glacier quickly, often in combination with snowmachines stationed at airstrips or cabins.

Non-Motorized Access: Horses

In addition to access by snowmachine, it is important to note that interviewees mentioned the continued use of non-motorized vehicles to access Exit Glacier and vicinity. A few referenced the use of canoes and other watercraft in Resurrection River as part of their trek to the glacier.[38] Yet, many also spoke of accessing the area using horses.

Horses have been popular for hunters, allowing access into rugged and remote areas not readily accessible by other means: "Horseback. That was the way to do that [hunt]" (KC). For those families with horses, their use was dual purpose – providing opportunities for relatively carefree recreational in the summer especially and opportunities for subsistence hunting in other times. Dan Seavey spoke about this aspect of horse ownership:

> "When my kids were growing up, we did have horses. I think we had horses for -- what did we figure, 17 years here we had horses. Up to 9 head at a time. And again, they were used for fun and games, but come fall….we hunted" (DS).

Historically, hunting guides also have used horses on the Kenai Peninsula to carry clients, gear, and game. As with horses in other households, these guide horses were often used in the off season for household purposes. Val Anderson described this dual function of the horses, when referring to areas north of the park, where his father was a hunting guide:

> "The horses were used in the guiding… And of course, for work around the house, to haul wood into the house, or whatever you needed to do, yeah. We had four for a while… but…the main thing we used them for was for the guiding. We'd pack out…15 miles out to the…moose camp on Funny River, and then another 15 miles up in the mountains, [where] they had their sheep camp up there" (VA).

Some portion of this horseback hunting was done in winter, and within the Resurrection River Basin. This was not always an easy way to hunt, though, due to both the scale of the loads and the environmental obstacles to horse traffic. One of the more avid horseback hunters, Bob White[39] recalls,

> "I hunted clear to the bulldozer [at Russian Lake] with horses…It's a lot of work getting them [moose] out. And it's 10 miles to Boulder Creek, and it's another 6, 7 miles to the bulldozer from there, and it's not a fun place to take horses. There's some muck holes up there the horses just about disappear into. [And on Boulder Creek] the trail's not very usable in a lot of places for horses. There's actually some dangerous sections in the trail for horses or even people, for that matter. So there's some pretty narrow sections, and then you get some timber fall across the trail and you're just stuck" (BW).

In warm temperatures, horses were especially at risk of "muck holes" and other terrestrial obstacles, while in winter other environmental challenges presented themselves. Horses provide decent access in light snow conditions, but can quickly become a liability in deep snow or stormy conditions:

> "We've run horses up Summit Creek Trail in the snow, and actually got caught in there in the snow, in a blizzard once, with the wife…When you're about 8 miles from the road and you've got to go through a pass that's got 4 or 5 feet of fresh snow in it, it's a real challenge. The horses could find the trail, I couldn't see them at all. And with the gear we had, and whatnot, it wasn't fair to the horses to ride…[We] hunted up Resurrection River Trail, or Resurrection Pass Trail couple different times that way, and went up Devil's Creek, going up in there in the fall for caribou, and you can hear the horses stumbling around in the middle of the night, get out and go outside and take the hatchet and knock the ice balls off [their feet], and then wake up a couple hours later and have to do

it all over again. So the horses didn't get any sleep and neither did you. But yeah. It gets to be quite a challenge" (BW).

Snow not only caused problems with horses' footing, but also chafed their legs and hooves (BW).

Brown bears were also said to be a threat to horses, reducing their use in some areas.[40] No doubt, such challenges have contributed to the popularity of snowmachines and to the relative paucity of horses as a means of hunting access – even among horse enthusiasts.

Non-Motorized Access: Hunting By Foot and By Float

As will be discussed in the sections that follow, a number of Seward residents have hunted in the Exit Glacier area and nearby portions of the Resurrection River valley. While a sizeable portion of this hunting has been undertaken by dogsled or snowmachine over the years, some residents have continued to hunt without the use of land vehicles, motorized or otherwise. For example, in past years, Ralph Hatch hunted moose on foot and also packed the meat out on foot. He told of hunting with two companions:

> "[one of his companions] spotted a big bull up in there, and we all three went up there…. I'd marked on the side of the hill where the moose was opposite, and we all three hiked up there, and I had him spotted pretty close there. And he was horning some brush, and then I shot him. The other two are off toward the mountain, and I started shooting, they got down behind a log. And that was a big moose. ….The quarters, we cut it in four pieces, the quarters weighed -- I think one -- we weighed one, it was 182 pounds….I'd get boots on because we had to cross the river, I don't know how many times. I could carry half a moose if it was a yearling, if it was last year's calf."

Percy Blatchford also told of hunting on foot:

> PB: Yeah. Right about in there. We hunted goats in there because it was accessible. They didn't climb too high, and there was mountains on both sides, and it was kind of flat in there, you know. It was a good place to get goats.
>
> Interviewer: How did you get up there? Did you climb up?

PB: Climb up. Yeah, we'd just climb up.

Interviewer: It sounds like hard work to be getting there.

PB: It's hard work. And I used to get two every year because it's pretty good meat. And I'd quarter them and just take the meat and the horns and tie them on my pack board and come out.

In earlier days, Duane LeVan said, he and his father and other hunting companions traveled to hunt in a Taylorcraft airplane, but would land and then hike into hunting areas:

> "My dad was up there moose hunting, right, well, just not where the buildings are but just downstream from that a little bit, and well, it would be upstream and down, there was a little airstrip right there called a Taylorcraft strip… And guys used to go in there and hunt moose. And this friend of ours I worked with on the dock, and put dad in there one night, and dad couldn't backpack because of his heart condition and that so we had made arrangement, he'd check on dad every night, and if he had a moose down, well, I'd go up and pack it, you know, take the next day and pack it in…. So anyway, the guy come down to the dock, got me, and hey, Duane, you got to get your gear and go on up there, he said. He had flown over and dad had waved at him and he thought he had an animal down. So I jumped in the plane with him, and we take off and get up there; well, no, he didn't have an animal down, but on the way in there down the stream just a little bit, I had seen a bull and a couple of cows down there, so we took off, dad and I, before it got dark and went down and I got the bull So anyway, I spent the next day up there packing one out, you know. But that was the first time, gee, that would have been -- Gosh, before '50s." (DL)

Before there was a road, Tom Gillespie walked into the lower Exit Glacier area to hunt. In winter, those who hunted on foot needed snowshoes to walk through the snow. Mary Barry remembered people using snowshoes for hunting before snowmachines were in use. Maranda Nelson had accessed the area for subsistence activities on snowshoes, and Duane and Sanna LeVan had used them as they hunted ptarmigan around Paradise Creek. The LeVans remembered a couple trappers who, over a number of years, snowshoed up the creek above the [Exit] glacier and stayed in a cabin up there.

Sometimes Seward residents hunted using small skiffs to float the Resurrection River, often in combination with other modes of transportation. Ralph Hatch, who had often hunted on foot, told how his father would take the bigger boys from the Jesse Lee Home orphanage to get moose. If they were successful, they'd float the meat down the river: "He had a 12 foot skiff, and they'd put it in the river, and lined it up, up to the cabin, and go hunting, and then if they were successful, they'd put the meat in the skiff and drift down, line it down." (However, he didn't think these hunts were very successful, because he didn't remember ever eating moose at the Jesse Lee Home.) Later, when Ralph himself went hunting in the area, usually with his brother, he had more success using a raft: "One year we got two moose, and he flew in and dropped us a rubber raft, and we inflated it and floated the meat down to this T-strip, and then he flew it out." Similarly, Tom Gillespie reported that he had tried a couple of times to hike up to Placer Creek with an inflatable raft to bring a moose down, but had never gotten a moose on those trips.

Bob White used a canoe for the same purpose. After seeing a bull moose near the Resurrection River Cabin one year, Bob White went borrowed a 13-foot canoe which he carried up to the area a couple of days later, only to find out that someone else had taken the bull. On other occasions, apparently with more success, he had dragged a canoe up the river with a rope, wearing hip boots, in order to float the meat back down.

Natural Resources Obtained in the Study Area

Exit Glacier is among the most accessible portions of Kenai Fjords National Park from the community of Seward. At the time of park creation, the community of Seward exhibited a type of "mixed economy," involving both cash and subsistence-based economic pursuits; residents' participation in natural resource harvests varied considerably between households and individuals, as did residents' reliance on off-road transportation options to access natural resources. Alaska Natives and other longtime Alaska residents arguably used the area more intensively for resource harvest purposes than relative newcomers on average, but this is not uniformly true (cf. Davis et al. 2003; Reed 1985). Also, as transportation became increasingly efficient over the course of the 20th century, residents from other regions such as the larger Kenai Peninsula and beyond also began to use lands and resources within the study area too, sometimes hunting, fishing and using motorized off-road vehicles (Reed 1985). The role of wild resource harvesting varies considerably between households, from a recreational activity to a cornerstone of household diets and economies. The importance of access to places such as the Exit Glacier area and Resurrection River valley vary accordingly.

Interviewees alluded to a number of resources that were obtained in the park prior to its creation, many of which continue to be obtained just outside of the park's boundaries today. References to industrial resource extraction were relatively few, though some interviewees alluded to the rich history of mining and timbering in the general area.[41] Instead, interviewees principally focused on historical hunting and other uses of "subsistence" resources, trapping, and participation in guided hunting and other tourist-oriented uses of the study area.[42]

While lands now within Kenai Fjords National Park were once utilized for subsistence purposes by residents of Seward and communities from around the Kenai Peninsula and beyond, these subsistence rights were effectively eliminated under ANILCA. ANILCA gives priority for subsistence uses to qualified rural residents on federal public lands, but this provision does not include Seward residents or most residents of the Kenai Peninsula. This status makes Kenai Fjords somewhat unique among Alaska parks. As summarized by Theodore Catton,

> "Kenai Fjords National Park is the only natural-area unit in Alaska that does not have federal subsistence use. All other new areas and additions established under ANILCA allow subsistence hunting, gathering, and fishing by local, rural Alaskans" (Catton 2010: 5).

Interviewees' accounts make it clear that hunters, trappers, and other resource users ranged back and forth across what is today the northern boundary of the park without much distinction prior to park creation. This pattern of use continued somewhat after park creation until boundaries and regulations became better known and NPS monitoring of this area took shape (Catton 2010: 85 ff.). Some clandestine resource harvests no doubt have continued to occur within the highly accessible northern edge of the park, but most subsistence activities were effectively displaced to adjacent non-NPS lands.

While residents of Seward have utilized a variety of natural resources from in and around the Resurrection River Basin, their patterns of use have not been uniform over time or between households. Clearly, subsistence harvests have varied considerably within the community, reflecting a level of social dynamism and variegation, as well as a range of economic opportunities that are arguably intermittent between the usual experiences of "urban" and "bush" Alaska. For some families, then, the procurement and consumption of wild foods has clearly been critical to their economic and dietary stability. In some households – including but not limited to those that are Alaska Native – the procurement and use of such foods is also critical to their continuing cultural and social identity. Meanwhile, for some other portions of the Seward population, these pursuits are more recreational and supplementary. Accordingly, Alaska Department of Fish and Game Division of Subsistence reports have characterized subsistence use by these communities as follows:

> "The people in Seward and Moose Pass do harvest and use wild foods in some quantity, and this cannot be said to be an unimportant aspect to life in these communities. However, the overall contribution of these wild foods to the socioeconomic system is less significant than in the more remote communities of the Kenai Peninsula. In Seward and Moose Pass, as well as in other road-connected communities in the area, the importance of hunting and fishing can best be described as a common mode of recreation and means of supplementing a primarily cash-based local economy" (Davis et al. 2003: 148).

Members of Seward's Alaska Native community have historically included the Exit Glacier area within their constellation of traditional resource procurement sites, which involved a variety of resources around the greater Seward region. This was likely true prior to the Russian period, and continued until the time of park creation, even as the identities of local Alaska Native households were in flux and members of these households commonly traced their origins to Native communities outside Seward. As Maranda Nelson recalled,

> "I was poor, and we did live a subsistence life style. Mainly we got our moose every fall, and we got salmon during the summer months, and then in the wintertime we did trapping. My mom and I had a muskrat line that we trapped, and we did that. And we did a lot of subsistence gathering, my mom and I" (MN).

Yet, the Native Alaskan community was by no means alone in its reliance on hunting and other subsistence resources. Non-Native residents hunted Exit Glacier and areas nearby for the purpose of food procurement throughout the mid-20th century, as their interviews attest: "We were subsistence and didn't know it" (SL). "We looked for stuff as food…We hunted moose, because we ate moose" (DL). Repeatedly in the course of interviews, Seward residents accentuated the utilitarian dimensions of the hunt. As Duane LeVan noted,

> "We hunted a lot, when the kids were here and that…We weren't what you'd call game, big game hunters. We went out with the idea you're going out and you're going to get a moose as soon as you can get him, get him butchered, get him home in the deep freeze" (DL).

Similarly, Warren Huss recalled the hunt as being more a matter of food procurement than recreation:

> "We always hunted just… for meat. I never was after, you know, the racks or anything…We enjoyed the meat. Take it up to Alaska Sausage and Indian Valley Meats and had it made into everything under the sun" (WH).

Such foods could be stored for later in the year, or even bartered or shared with other members of the community who were in need of food. ADF&G Division of Subsistence

data (e.g., Davis et al. 2003, Fall et al. 2000) suggest that there is considerable resource sharing between Seward households and between Seward and outlying communities; friends and family share wild food resources, such as meat, fish, and berries to help in lean times, to trade for locally unavailable foods, or simply to share and reinforce the bonds of friendship and kinship.

In many respects, the scheduling constraints between subsistence and wage employment that one encounters in rural Alaska are absent in Seward, where many residents arrived from the Lower 48 as full participants in the wage economy and subsistence was, from its onset, a supplementary pursuit in many households. There are many Native Alaskans and other longtime Alaska residents living in Seward, however, who have had to adjust the timing of their subsistence tasks to accommodate wage employment.

Owing to its unique (and increasing) accessibility through the 20th century, the Exit Glacier area and lower Resurrection River valley appears to have had a somewhat distinctive role within Seward subsistence practices. Hunting in the greater Seward area has been widespread and diffuse generally, reflecting an opportunistic response to the dynamic availability of game: "We hunted pretty much all of the Clear Creek, Box Canyon, and lower Exit Glacier area" (TG). "Moose, bear, goats, it didn't matter. We'd just go hunting" (PD). "Below the glacier is a lot of willow brush in that, and that's where we hunted" (DL). The accessibility of the Exit Glacier area to the city of Seward, however, made this area a popular hunting area. Access was quick, and hunts could be initiated without much prior preparation:

> "Just any time you had the urge, let's go. Get in. Take the Jeep, let's go up [to the glacier], maybe we'll get a black bear. Yeah... We've shot moose up there…We got black bear" (PD).

The area was ripe for recreational hunting – even just short daytime treks - but could be used for very targeted subsistence hunting too. At certain times, the lower Resurrection River valley and Exit Glacier area appears to have served as a relatively utilitarian subsistence hunting area, where game could be predictably obtained relatively quickly and close to home, sometimes when hunting had not been productive in other locations. Percy Blatchford was among the interviewees who attested to this use of the area:

> "They [talked about hunting in Exit Glacier valley] years ago, I guess. But it would be mostly in the second season…this [was] when the moose was scarce, you know, they'd go up there and hunt" (PB).

As such, hunting in and around Exit Glacier was arguably "risk reducing" for some households, allowing them to successfully obtain game when it was otherwise scarce.

Moose

Interviewees mentioned a number of species that were hunted in the general vicinity of Exit Glacier, sometimes singularly and sometimes in the course of the same hunt. Warren Huss, for example, noted that "when I was younger, I did a lot of, like, moose hunting. We hunted sheep, goats around here" (WH). Among these, moose was among the more prominent species.

While caribou are relatively scarce on the Kenai Peninsula, moose are abundant and even in recent decades roughly a third of Seward households consume moose meat. ADF&G Division of Subsistence reports show roughly 5 to 10 percent of both Seward and Moose Pass households hunting for moose in the Resurrection River area, apparently including the Exit Glacier area historically (Davis et al. 2003: 82).

Moose hunting was depicted as somewhat opportunistic in the Resurrection River Basin, reflecting the distribution of moose, the difficulty of access and other factors:

> "We hunted all over, wherever…Yeah, [Resurrection Valley]'s good moose hunting. Yeah. I've been in on a couple of deals where they took moose up there" (PD).

The area was accessed by snowmachines in the mid-20th century, sometimes with sleds to carry out their moose: "They'd pull a sled in the second season and hunt moose up there [the Resurrection River valley]" (PB). The difficulty of packing out a moose was considerable using other technologies, making snowmachines very appealing for regular moose hunters.[43] The 1974 improvement of Exit Glacier Road apparently helped facilitate this access. Bob White, for example, summarizes his hunting in this area: "I've hunted moose up there ever since the road was connected…Predominantly, moose hunting" (BW).

While moose hunting ostensibly no longer occurs in the park, moose hunting continues to be important in the larger basin. Lost Lake was mentioned as one important area for moose hunting, still visited by some interviewees. Some describe hunting in "the Martin Creek area, and then on up to about where the bulldozer is [at Russian Lake]" (BW). (Incidentally, caribou have been hunted in the upper Resurrection River valley, but there was relatively little reference to this practice among interviewees [BW]). Interviewees also spoke of hunting in a number of places north of Seward, depending on the availability of moose in alternative locations – from places immediately outside of town to Summit Lake and various alternative locations accessible along Highway 1 and State Highway 9. Lost Lake was mentioned as a popular local destination north of town, used for recreational purposes as well as moose hunting.[44] Horseback hunting seems more common for moose than for any other species.

Interviewees alluded to an apparent increase in moose populations within the Seward area following the 1947 fire, which burned extensive areas on the northwest side of the Peninsula north of Skilak Lake. This fire was said to have created vast new browse areas that attracted moose from extensive areas. While perhaps increasing the aggregate moose population on the Peninsula, this event did, however, have the effect of concentrating moose in accessible parts of the Peninsula some distance from Exit Glacier, possibly causing some residents' moose hunting to shift to the Skilak Lake area.[45]

Mountain Goat

Mountain goat hunting was widely reported for the vicinity of Exit Glacier. Indeed, mountain goat was perhaps the second only to moose in interviewees' general comments regarding hunting, perhaps reflecting its importance within the community of Seward and other nearby communities on the Kenai Peninsula: "Most of what we hunted around here locally were goats" (WH). The hunting of mountain goat was, like that of other species, diffuse throughout the larger Seward region:

> "There aren't many goats around here, but up the road towards…the Crescent Lake area, and Carter Lake area, we hunted goat…We hunted goats out along the coast, next bay to the east, Day Harbor, up along the Ellsworth Glacier, we just hunted up in the mountains. I did a lot of

> hunting up in the area…across the river from the park now, [where] there's a big stone bridge about, oh, it's mile 8, I think" (WH).

When asked about where people would hunt mountain goat, Warren Huss replied that accessibility was a key factor, and that goats were hunted opportunistically by individuals traveling over large distances near Exit Glacier and the Harding Icefield - looking for the characteristic "white dots" that are goats at a distance. Again, quoting Warren Huss,

> "Most of it was what was accessible, that you could get [to]. Areas that you could get up the tops of the mountains because goats usually, you know, you get up above them and hunt down on them, so you have to climb up to the top of the mountain, and then hunt down on the goats from the top of mountain. So you had to find an area that was accessible…A lot of the area you just can't start up the mountain, it's just too steep, so what you do is go up one of these river drainages where you work your way up, get to the top of the mountains, above the glaciers and look down on the goats. And a lot of times it was just a matter of spotting them from the road, going out Exit Glacier. At that time it was just a dirt trail" (WH).

While hunting of mountain goat appears to have occurred in the park in past times, details were ambiguous. Goat hunting was clearly popular in places very near to the park, such as in Box Canyon. Percy Blatchford recalled,

> "Another thing, I used to [do] in October…when it was stormy, Dan Wheeler and I would go up Box Canyon because the goats would come right down and we could shoot them right from the canyon floor... Yeah. That -- Box Canyon used to be -- that's where the -- you usually see the first black bear, you know, I'd walk up there just -- sometime I'd just take a hike, and take my rifle. I didn't hunt anything, I just went for a hike" (PB).

Interviewees also alluded to a number of especially good goat hunting areas nearby, including areas north of Seward.[46] Resurrection Peak was one of the locations commonly mentioned in that context. A number of interviewees also alluded to using boats to hunt the shorelines of nearby bays for mountain goat – a popular and often quite successful way of hunting this species, which can be visible to waterborne hunters

from a considerable distance as telltale "white dots" along the shoreline.[47] Mountain goat numbers are said to have been increasing in recent times.[48]

Dall Sheep

Dall sheep are relatively rare in the vicinity of Exit Glacier, though they do occasionally venture into the area from the western side of the Peninsula and have been hunted along the western edge of the Harding Icefield in recent times.[49] These animals were the only significant game occupying many of the high-elevation passes, icefield margins, and rocky exposures: "The only …hunting we did up there [on the icefield] was the sheep" (KK). Some interviewees spoke of hunting sheep on the margins of the Harding Icefield by snowmachine; the area just beyond the western margins of the park boundary with the Kenai National Wildlife Refuge was especially close to the core range of Dall sheep on the Peninsula, and was apparently a hunting area of some importance:

> "I think the last time we went in there maybe was 1980. But I think we went in there for about 10 years. And we'd take out anywhere from two to not more than six rams a year" (GZ).

However, occupying such high and icy areas, Dall sheep were often inaccessible to snowmachine users without access to airplanes: "I went [sheep hunting] once, but most of the time you have to have fly in, you know, and I couldn't afford it" (PB). In addition, they are said to be a wary game animal, requiring a stealthy approach by hunters:

> "A sheep's not like a goat. When you goat hunt, you just go up there and blast them. You know, I mean, they are pretty stupid. You know, they just don't run, but a sheep, they have, like, seven power vision eyes, and you even make one step towards them and…they would be gone" (GZ).

Interviewees mentioned evidence to suggest that Dall sheep and mountain goat have displaced one another at the margins of their territories, perhaps related to climate change, human disturbance and hunting pressures, or other factors.[50] These factors together insure that Dall sheep hunting is not particularly widespread in the study area, but possibly important to a subset of hunters with the means and the skills to

participate in the Dall sheep hunt. Guided hunts of Dall sheep were likewise restricted to a subset of the hunting guide community, but certain individuals such as Doug McRae were successfully able to include a sheep hunt within their overall hunting operation.

Black Bear

Black bear hunting is also widely reported in the vicinity of Exit Glacier. ADF&G Division of Subsistence reports suggest that just under 10% of the Seward population consumes bear meat, and that there is bear hunting in the Resurrection River area, apparently along the north side of the River, just outside of the park (Davis et al. 2003). Prior to the creation of the park, bear were said to have been numerous in the Exit Glacier area and may have been among the major incentives to visit that area. Maranda Nelson noted,

> "I don't think there was lot of people that went all the way up to the glacier area [before the road went in] other than maybe if they were hunting black bear, because there's a lot of black bear in that area" (MN).

Interviewees mentioned the practice of bear hunting associated with the general Resurrection River valley area: "I've bear hunted the [Resurrection] valley for a long time… Black bear…Two, sometimes three, a year" (BW). Bob White's bear hunting was often "incidental with moose hunting. You'd bump into them running up and down the trail." Box Canyon also was mentioned as being good bear hunting grounds: "We got black bear. Box Canyon was a good place to go up in, where Seavey['s house] is." (PD).

People apparently have used the creeks to float game down to accessible landing areas, and bear was mentioned as the primary example. Dan Seavey recalled doing this in Box Canyon:

> "I've gotten [black] bear out of Box Canyon here…Those were easy hunts, too. They go up on the side and you pop them and you just throw them in the creek, and then you bring them along, and you float them down to where I could get them with my Jeep" (DS).

Small Game: Birds and Rabbits

The Resurrection River Basin, including areas within the park, has been popular among Seward residents for the purpose of bird hunting. When asked to characterize their hunting in this area, interviewees sometimes referenced "small birds, ptarmigan and grouse" (TG). Maranda Nelson recalled hunting ptarmigan in the Exit Glacier area prior to park creation:

> "We didn't go up moose hunting…up towards Exit Glacier. My mom and I only did rabbit snares and small game like ptarmigan. We shot ptarmigan and brought those home" (MN).

Ptarmigan hunting was possible during many times of the year, but was said to be especially popular in the fall: "We got ptarmigan in the fall when they [were] good and fat eating blueberries" (DL).

The Resurrection River Basin along the northern edge of the park continues to be a bird hunting area of some importance for Seward residents. Indeed, bird hunting is among the principal hunting practices reported in recent ADF&G Division of Subsistence reports relating to the Basin in recent decades (Davis et. al., 2003). Seward residents hunt ptarmigan and other interior birds in places outside of the Resurrection River Basin as well, especially in places readily accessible along State Highway 9.[51] ADF&G subsistence harvest data might imply that grouse have been hunted in and around the park historically, but there was little mention of this practice by interviewees. Duck hunting was also mentioned by interviewees, but principally in reference to places some distance away from Exit Glacier like along tidal flats and in other coastal locations: "Duck hunting... out on the flats, in town, at the head of the bay" (PD).[52]

Fish

Fish has been of importance to Seward-area diets since well before European settlement, and remains one of the primary subsistence resources still sought by Seward residents today: "Fish is probably the main thing, fish and berries" (TG). Salmon in particular, is the cornerstone of Seward area subsistence harvests, comprising almost half of the total weight of wild resources harvested each year (Davis et al. 2003). In spite of this fact, details about fishing activities in the vicinity of Exit Glacier were relatively few in project interviews, in part because the turbid, glacially-fed waters were relatively low

priority relative to the prime fishing waters elsewhere around the Seward area. Ralph Hatch discussed some possible use of king salmon in Resurrection River: "There used to be king salmon that would go up in there" (RH). Most references to freshwater fishing, however, alluded to areas outside of the park.[53] Commercial fisheries for salmon, halibut, black cod, and shellfish have often been robust along the adjacent marine coastline, and subsistence fishing was also reported in this coastal area – a pattern that matches reported ADF&G subsistence data (Davis et al. 2003).[54]

Berries and Other Plant Products

In the summer months, the Exit Glacier area has been a popular place for berry picking. Berry picking is clearly an important pursuit among residents of Seward and other Kenai Peninsula communities. ADF&G subsistence reports (e.g., Davis et al. 2003) suggest that the Resurrection River along the park's northern boundary, as well as places just north of Seward (and therefore outside of the park) are highly popular berry picking areas, with between 26% and 50% of community households estimated to use these areas. As of 2000, Seward residents picked over 5 pounds of berries per capita each year.

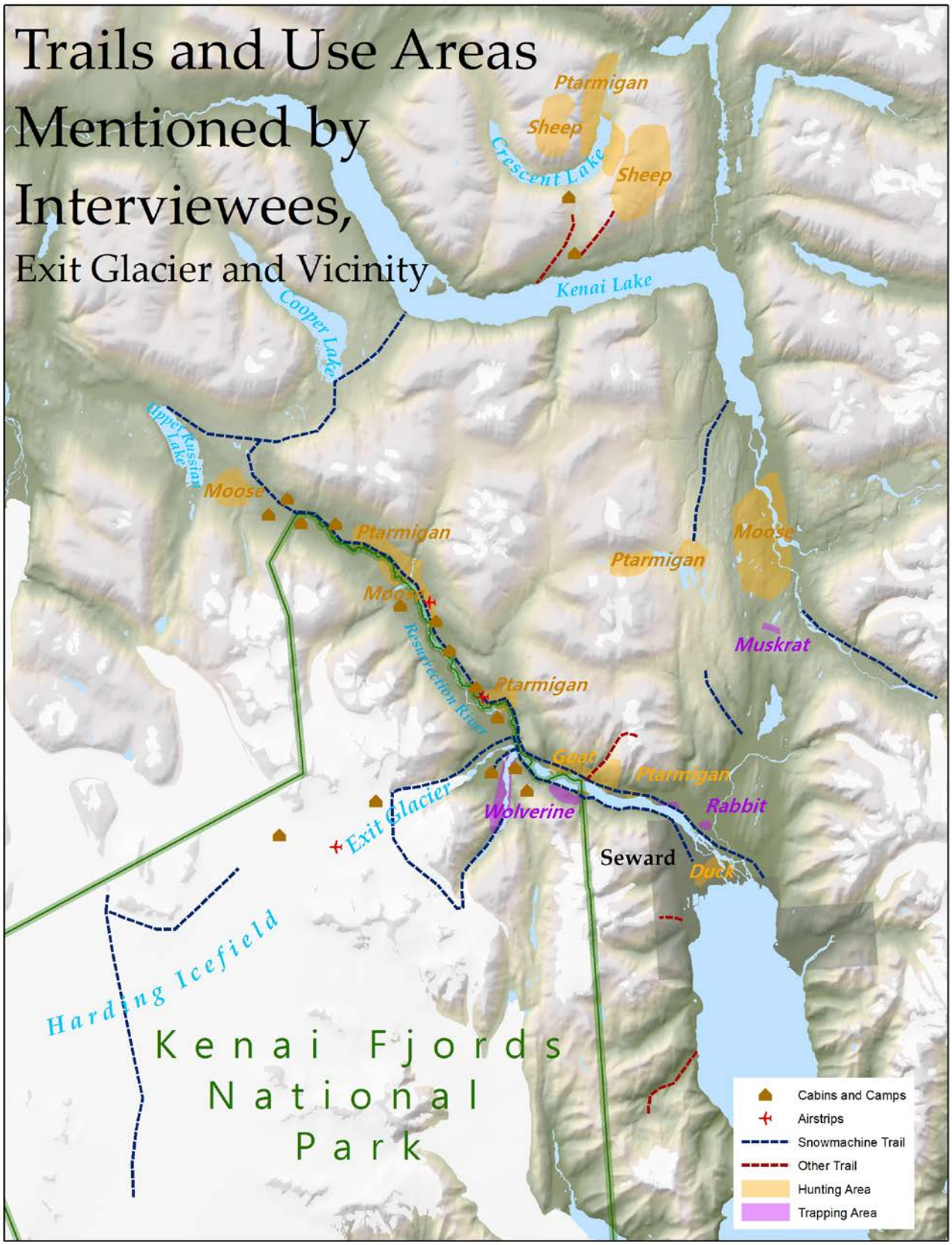
Berry picking was reported to have been a practice of some importance historically tied to the Exit Glacier area prior to road construction. Interviewees such as Maranda Nelson recalled going there with family in the 1950s and 1960s, prior to development of the road: "My mom and I picked blueberries up at Exit Glacier area" (MN). Berry picking was done in the area along what is now Exit Glacier Road, especially for Alaska blueberries (*Vaccinium ovalifolium*):

> "We went berry picking up off of that river…just before you go to the park. There's a river right there where it crosses the road, and we'd go up that trail…Up in that area we'd pick berries…We did most of our berry picking though up by Lost Lake Trail… [We'd pick] high bush blueberries" (MN).

Road construction perhaps affected some of these historically significant berry patches, but facilitated access to a range of berry picking sites along the edges of the valley. Anne Hatch talks about using the study area for berry picking and mushroom gathering once the road was put in: "We had gone up the road looking for blueberries,

for one thing, where we didn't before… you come to the bridge…we pick mushrooms up there (AH). Similarly, Tom Gillespie noted of the places along the Exit Glacier Road area: "Any access to any of the hills along there is good for, you know, berries. The blueberries, you know, like I said, you can find them just about anywhere" (TG). Berry picking is still done in the park along this corridor: "I still go berry picking" (MN). A few interviewees mentioned mushroom picking in the park, as well.

Interviewees mentioned blue currant and red currant picking areas outside of the park, in places such as the Forest Acres Campground and the Mount Marathon area. These include red currant (*Ribes triste*) and a blue currant (probably *Ribes bracteosum*). As Anne Hatch notes, "I call them black currants, but they are blue, I guess. They are like a blueberry, but they've got a little hair on them…They are not like the tame currants, you know, the little red ones" (AH). It is unclear, however, whether these have been gathered within the park boundary.


Trails and Use Areas Mentioned by Interviewees,
Exit Glacier and Vicinity
Ptarmigan
Sheep
Crescent Lake
Sheep
Kenai Lake
Cooper Lake
Upper Russian Lake
Moose
Ptarmigan
Moose
Ptarmigan
Moose
Muskrat
Resurrection River
Ptarmigan
Goat
Ptarmigan
Rabbit
Wolverine
Exit Glacier
Seward
Duck
Harding Icefield
Kenai Fjords National Park
Cabins and Camps
Airstrips
Snowmachine Trail
Other Trail
Hunting Area
Trapping Area

Other Reasons for Visitation

Trapping

A number of interviewees discussed trapping practices related to the study area. It is clear that the Exit Glacier area was used for trapping well before the mid-20th century, though interviewees did not discuss the long-term history of the practice.
Sitting at the interface between diverse environments, lands now within the park were used for trapping a wide range of species. Doug McRae noted that

> "We trapped, you know, everything, from mink to wolves, and everything in between…in the park up here, the Kenai Fjords, it was mainly wolverine, beaver, mink, and otter" (DM).

Trapping did not just occur in the general vicinity of Exit Glacier, but immediately along its flanks: "A friend of mine trapped right in front of Exit Glacier up there" (BW). Similarly, Maranda Nelson recalled a rabbit snare line very close to the base of Exit Glacier: "We also snared rabbits in that area. We had a little rabbit line" (MN). Adjacent portions of what is today the park were also widely used for trapping, such as Paradise Creek. As recalled by Warren Huss,

> "…they call it Paradise now, but we always…called that valley Blackstone Valley because it was off what they call Blackstone Glacier. And I used to trap up in there with the…Forest Service head Phil Gumm, we trapped wolverine up there. It was his trapline, but I went up with him sometimes on weekends, and we'd trap wolverine" (WH).

Most of this trapping occurred in the winter, using snowmachines or other modes of transportation: "There was always a couple, three guys that trapped up the [Resurrection] valley…wintertime trapping" (DL).

The Resurrection River Basin was clearly a productive trapping area for lynx, marten, coyote, fox, wolverine and other high-value species. A number of interviewees, such as Tom Gillespie and Dan Seavey, made reference to trapping within the Resurrection River valley a short distance away from Exit Glacier:

> "Wolverine and coyote and lynx… there were lynx around, but…I didn't get any…there was more wolverine than anything. That's what we had the best luck with, that and marten also…Like I said, we had gone up as far as Placer [Creek], so we did actually pretty good for -- from Blackstone Point to Placer, we did pretty good trapping for wolverine" (TG).

A great deal of trapping activity was also concentrated in places very close to the park entry road, such as along the Resurrection River, and on smaller tributaries such as No Name and Box Canyon Creeks: "When I was in high school, I used to trap actually up on…what's called No Name Creek" (TG). There is some suggestion in the interviews that trapping formerly was concentrated relatively close to town, on the lower Resurrection River valley, but that over the course of the mid- to late-20th century trapping gradually moved upstream into more remote locations – perhaps relating to increased access, which in turn created human traffic and trapping pressure on the lower river, especially after bridges were built (BW): "Later I trapped further up that [Resurrection] river a ways" (TG). Trapping closer to town allowed for more frequent checking of traps; Dan Seavey, for example, said he always tried to check his traps once a day.

Trapping was an economic pursuit of considerable importance within some households, allowing families to obtain supplementary cash income that augmented other economic activities.[55] Furs from the Resurrection River Basin could be sold to buyers selling to civilian and government markets in the Lower 48. As Bob White recalls of this period,

> "The hides back then were worth – I think the most I got for one was $120…the beaver were worth $18, $20, but the coyotes…I think the market was the military was buying them for fur ruffs [to] sew on all their arctic gear, that's what they were using, and they preferred the coyote hides from Alaska because they were a bit heavier than the ones from the Lower 48 typical[ly]" (BW).[56]

Some families also occasionally trapped coyotes for bounties as a source of extra income within various government-sponsored programs. It is unclear how common this practice may have been within the Exit Glacier area, however.[57]

Still, for some men, trapping clearly had a recreational value, in addition to providing income. Tom Gillespie commented on this fact:

> "[Trapping] was more of an excuse to be out there. I mean, the wolverine did bring anywhere from 4 to $600, but it still -- the fact that… you're taking the time off from work or whatever… you know, I never really did it for the economics other than I just liked to be out there. I had done it a couple other times, and it's just more of an excuse to be out in the woods than anything" (TG).

Interviewees noted that trapping continued following park creation, being displaced to lands just beyond the park boundary, and moving gradually into less accessible portions of the Resurrection River Basin. Meanwhile, increased population pressures, along with the associated threat of accidental harm to domestic dogs, have generally displaced trapping from the vicinity of Seward. As Doug McRae notes,

> "I quit [trapping] because of the volume of people. That's the only reason I quit. I guess I say "volume of people," when you have a volume of people, you also have a volume of dogs… they were getting caught where they shouldn't get caught" (DM).

Doug McRae said he had last trapped in 1992:

> "Just there was too many people, snowmachines showed up. I trapped just out of town here the last few years in Snow River, the North and South Fork of Snow River. But near the end, I was the last person to check my traps. There were just too many snowmachines in there "(DM).

These factors have conspired to reduce trapping generally in the vicinity of Exit Glacier, as crowding has increased near the glacier, snowmachines have allowed faster and expanded access to other areas, and markets have contracted.

Guided Trips for Visitors

The Exit Glacier has also been the focal point for a significant amount of guided visitor services over the years. The use of the greater Kenai Fjords area for guided trips is not surprising in light of its abundance of wildlife, dramatic scenery, and proximity to

Seward and other communities.[58] Interviewees spoke of some of these practices in the mid-20th century. Importantly, in the late 1960s, Jim Arness and Joe Stanton determined that they would take clients to the Harding Icefield just above Exit Glacier for snowmachine tours. As noted elsewhere in this document, these men flew clients up from Seward, and the people used the snowmachines to drive around on the icefield. This allowed tourists to be on the icefield in the summer and extend snowmachine season.[59] Arness owned the business and Zimmerman served as the camp manager. As Warren Huss recalled,

> "Arley Zimmerman used to have a camp up there, and he's the one that started the snowmachine operation up at the top of Exit Glacier…And he was a big [game] hunting guide" (WH).

These men constructed a camp on the icefield, with a cabin and snowmachines, supplied in part by Arness's shop, Derks Ski-Doo. Pilots – most notably Joe Stanton and interviewee Keith Knighten –flew guests to this base camp. Keith Knighten recalled transporting not only clients but snowmachines to this operation:

> "Jim Arness from Kenai…had the Ski-Doo dealership in Kenai, and the end of the season, summertime, Jim had 13 snowmachines still on hand. So he made a deal with Joe [Stanton]… he furnished the snowmachines, and Joe would fly them up on the icefield and they'd rent them out. So we flew 13 snowmachines up one at a time onto the icefield" (KK).

As many interviewees attested, "that was a thriving little business for a while" (KC). Arley's son, Gary Zimmerman, provided especially rich details about this operation and its use of the Exit Glacier area:

> "Joe Stanton flew people, and Keith Knighten was also involved in this, he was a pilot. And they'd fly people up there with a ski wheel plane, and they would get out and they would rent these little Ski-Doos… We had some 16 horse[power] and 24 horse power sleds. And we had one double track Alpine… We had this cabin, and they'd get out and they'd rent these snowmobiles, and they'd drive all over this first main field from Exit Glacier… you're talking, you know, June, July, and August…The biggest year was the summer of 1970…In 1970, that's when they took 16 snowmobiles up there… The snowmobiles back then were real small. If you took the skis off, you could fit one in the [Cessna] 180" (GZ).

Guided hunting operations also appear to have ascended from the Seward area, up the Resurrection River valley – hunting for moose, and sometimes targeting mountain goat and Dall sheep along the bases of the glaciers and icefields. Brown bear was not generally the focus of guided hunts, according to Val Anderson, this being a far more popular hunt in places some distance away from Seward, such as on the opposite side of Cook Inlet.[60] Guided hunting has been a component of the Kenai Peninsula economy for a number of generations. (Indeed, interviewee Val Anderson indicated that a golden age of guided hunting may have already passed by the mid-20th century, as airplanes began to render some of the old hunting guide traditions obsolete.)

Many visitors, as well as locals, were also interested in options for skiing on the icefield above Exit Glacier. Keith Knighten discussed transporting people to the icefield before the establishment of the park for this purpose:

> "Some of the local people here, we'd fly them up in the evening and they'd stay up there all night, because it stays pretty bright on the icefield at night in the summertime. And the snow tightens up, makes good skiing in the summertime. And in the daytime, you know, it gets kind of, what do they call it, corn snow, and it's kind of sticky; but at night, as soon as the sun started down [it gets solid] so a lot of people would ski all night and use the shack for warmup, and then we'd pick them up at eight o'clock or 7:00 or eight o'clock in the morning, bring them back and start hauling tourists up for the rest of the day" (KK).

Some interviewees, such as Gary Zimmerman, alluded to the frequent use of snowmachines to transport skiers between locations, or to tow them uphill like an impromptu ski lift, though these references typically alluded to places outside of the immediate study area.[61] While Knighten mentioned little detail about the involvement of snowmachines in these icefield skiing trips, it is possible that snowmachines played similar roles there. Knighten also mentioned flying over this area as part of wildlife viewing trips for tourists, sometimes landing on the icefield and sometimes not:

> "We had a regular trip, and I forget again what the price was per person… If we were using the 180, we could take two, four, five…passengers. Or if we had the Beaver, it was three, six -- seven passengers. And we took off from Seward, went up Exit Glacier, down the snowfield, down… circled around, played around up there while I showed them, especially in the

> fall, when the lakes are all showing up, the blue lakes about the color of your jacket, beautiful. Anyway, then we come down Bear Glacier, either Bear Glacier or over at Aialik Glacier, and then back to Seward" (KK).

It is also important to note that the residents of Seward often visited Exit Glacier in the course of tourist activities that involved simple vehicle access to the base of the glacier. This was especially true as the cruise ship industry began to grow in the 1970s. Keith Knighten worked for Dan Seavey driving busses of tourists from the ships on tours of the Exit Glacier area:

> "Dan Seavey and Whitey VanDusen bought…somewhere around 14 surplus school busses. And they painted them green, put a yellow sign, Trails North on them. And when the cruise ships came in or the trailer people, they'd take bus tours up to Exit Glacier and they put on a little dog and pony show, and then bring the people back. You'd generally make two trips a day…It used to be when a cruise ship came in, the cruise company would hire, oh, some four to eight busses that ran local here, ran from the dock downtown, to haul [the] ship's people back and forth. And then, of course, the tours to Exit Glacier and out to Dan's dog show, Mitch's dog show, and that was our primary deal" (KK).

Dan Seavey described the tourist operation as a rough experience at first, because of the condition of the roads:

> "The road -- gosh, you know, I can't even tell you when they -- this road, the -- the dirt road…. started in '73, '74. But it wasn't -- it wasn't usable, really, for buses and stuff until, I don't know, probably '76. I know when we first -- we bought 14 busses, and we did quite a business then. And a lot of times we'd get out -- at first we could only go to the overlook, you know, that overlook out there….Before the bridge was put in. And so that's as far as we would go. And a lot of times, I guess it would be in the fall when the rains came, I mean, we'd be through water like this with those busses, you know, in the low spots, going out there. People got -- yeah, it was kind of -- it was quite an adventure for them in those days. And it was all dirt and, you know, rough" (DS).

These practices were among the few activities described here that actually intensified following the creation of Kenai Fjords National Park under ANILCA in 1980. Increased visitation of this kind was largely due to improved access including the completion of

the footbridge in 1982 and the completion of the road bridge in 1986, but may have also been influenced by expanded awareness of the area as part of the new national park.

And while this report focuses on activities in the immediate vicinity of the glacier, it is perhaps important to note that glacier tourism has long had effects within Seward, proper. A number of interviewees alluded to tourist operations that emerged in Seward, buoyed in part by visitor interest in viewing the Exit Glacier area both before and after the advent of the park. Tom Gillespie and his wife, for example, established a bed and breakfast with cabins called Creekside Cabins on Clear Creek: "we actually started probably a couple of the first cabins in the whole Seward area that was just specifically for the…tourist business" (TG). The Exit Glacier area was among the places of interest to their guests, and easy access to the glacier no doubt contributed to the success of their business and others catering to the burgeoning tourist industry:

> "I'd say one positive impact [of park creation] is when we had our bed and breakfast, the cabins over on Clear Creek there. You know, it provided a lot of tourism in the summer, and of course, we benefitted from that… when the Exit Glacier got really busy, all of that traffic would go by our house on the gravel road by our bed and breakfast" (TG).

Other Personal Reasons for Visitation

In addition to these utilitarian connections to Exit Glacier, Seward residents have been drawn to the study area by recreational pursuits. Some bring their entire families to the glacier for such purposes, building associations and memories with time, and forming a sense of attachment to the landscape over years of repeated use. Some bring friends and family visiting to Seward to the area as well: "We've taken our company up" (AH). As Doug McRae summarized, "I can say I had a lot of fun up there… there were just lots -- lots of experiences up there. Just all kinds of wild things happened" (DM). "We really enjoyed going up and being able to get near the glacier" (MB).

Recreational Snowmachine Use

In this context, a number of interviewees alluded to the recreational use of snowmachines at Exit Glacier, which became especially popular once the Exit Glacier

Road was established. Especially before park creation there was "mainly just a lot of snowmachining up at that area in the wintertime. That was pretty spectacular" (WH). Seward residents visited the glacier on trips that were recreational in nature, or visiting the base of the glacier for sightseeing detours in the course of more utilitarian travel. "We snowmachined around the base of the glacier, you know, several times during probably the '70s" (TG). Warren Huss reports using snowmachines to simply watch wildlife on Exit Glacier Road:

> "Still a lot of coyotes out there. And still wolves. I go out in the evening a lot of times on my snowmachine, just go out and sit in the valley, and there's a couple places, oh, almost to Exit Glacier where there's long straightaways and some ravines that come in from the…side, and you occasionally see a wolf out there. Quite frequently see coyotes" (WH).

With its relatively level ground and easy access from Seward, the Exit Glacier area was said to be an especially appealing place to bring families with children by snowmachine, or to teach young people how to drive snowmachines. Warren Huss described this use of Exit Glacier:

> "It was appealing in that for us, and this is part of the reason that we argued against closing it down to snowmachining, it's level. And for inexperienced snowmachiners to learn, for a child to learn how to snowmachine, it was an ideal place because…they were on the level, they couldn't get stuck. In most instances they couldn't get stuck, [unlike] if you tried to go up to Lost Lake or something like that with a…seven or eight year old…Exit Glacier was just a great learning area for these kids because it was level and they just loved going out in that outwash plain and riding across" (WH).

On similar grounds, Gary Zimmerman discussed the use of the winter closure area on Exit Glacier Road as an outstanding area for recreational snowmachine use:

> "That's a real good place to take your new drivers… that's such a great family area. It's just amazing. You go up there on probably any weekend, and you'll see men, women, and children, you know, with their snowmobiles towing an inner tube or a car hood" (GZ).

Some interviewees also mentioned that local people participated in recreational snowmachine use on the Harding Icefield above Exit Glacier, flying in to the icefield cabin for this purpose. Tom Gillespie remembers his first visit to the glacier and icefield in the late 1960:

> "We flew in there, I think that's $15 to fly up there, and it was probably another 15 or 20 bucks you could rent a snowmachine. And they said, here's your machine, go… I think we actually ran up towards this mountain here, up into the bowl and just played around… It was the middle of summer, maybe June or July. And I remember we just had a great time" (TG).

Families still use snowmachines extensively for recreational purposes along Exit Glacier Road, on the approaches to the park: "A lot of kids snowmachine out the Exit Glacier Road" (WH).

Recreational Skiing

In addition to using snowmachines at Exit Glacier, many interviewees reported recreational skiing with friends and family. A number of Seward residents, such as Keith and Jackie Campbell have often cross country skied the Exit Glacier area: "There's lots of great snow, so there's no impediment, so you just go" (KC). Likewise, Maranda Nelson noted, "I cross country ski up there every winter, in the wintertime" (MN). Interviewees such as Bud Rice, Page Spencer, and the LeVan family reported similar activities. A few residents might hike with skis to high elevations above the glacier and then take a downhill run from there; as Warren Huss recalled,

> "Our son…and his high school friends when they were in high school and just after college, they used to have a ball, they would go up on the edge of the glacier and they'd come out on top here where the current upper trail goes on the glacier, and they would hike out to this bowl out here and take their skis up" (WH).

As a form of recreation that continues to be permitted under NPS management, skiing has continued largely unabated (and has arguably expanded) since park creation. For example Tom Gillespie used to ski the Exit Glacier and Resurrection Valley areas long

ago, but continues to do so now once the road to Exit Glacier is closed for the season. As he recalled,

> "Oh, yeah. We had old, you know, wood skis… I've skied the road off and on for years, you know, in the winter when it's blocked off… Well, this has just been ongoing. You know, in the '80s and '90s, they'll block the road off, and I've just got skate skis, so I can ski up -- skate ski the road" (TG).

Indeed, as an expert mountaineer and backcountry skier, Gillespie has participated in long-distance ski trips on the Harding Icefield and through the park that have included passage through the Exit Glacier area:

> "I took another trip, that was in the '90s…We actually went out with the Park Service, went out to McCarty Fjord, and then skied from McCarty Glacier. We got dropped off there, and then climbed the glacier up, and then skied all the way back and came out Exit Glacier" (TG).

Organized group ski activities at Exit Glacier are common, of course, reflecting the accessibility and the abundance of visitor facilities at this site. Accordingly, Warren Huss discussed using the Exit Glacier area and Resurrection Valley for March ski meets:

> "One of the things early on, and this was after the park opened, they had a regular ski meet out there that…Dave Moore organized, and it was very popular event. And you'd cross country ski [from the big bridge area] to the glacier. It was a long ski…Big participation. I mean, we'd have…30, 40 people ski all the way out there, and they had hot chocolate and cookies for everybody, and awards for all different age groups, you know, big ribbons they'd pass out. And we did that every year" (WH).

Residents of Seward, including a number of project interviewees, clearly continue to value the Exit Glacier area for skiing into the present day. As Warren Huss noted,

> "I go out and ski that quite frequently. It's just a nice, level ski. The ski team at the high school uses it to practice… and it's just a real popular place. Weekends and even in the middle of the week, you go out there any time and hardly ever do you go out there in the wintertime without, you know, seeing a skier out…on the trail" (WH).

Interviews do not make it clear to what degree snowmachines have played a supporting role in skiing activities, such as allowing skiers quick access to prime skiing areas – such uses are reported in the case of Harding Icefield skiing, but in other cases it is clear that skiers have tended to avoid the noise and other effects of snowmachine traffic.

Hiking, Snowshoeing, and Camping

Residents also apparently hiked and snowshoed into the Exit Glacier at various times. Keith Knighten, for example, tells a story about a group that traveled up Exit Glacier by foot and snowshoe for a brief trip in the winter:

> "That was just a onetime affair when Freddie Woelkers and the Episcopalian priest and somebody else, they went up to the snowfield, up the center of Exit Glacier, and I think it took them, what, three days to get all the way up to where the cabin was. At that time the cabin was still usable, but it was below about 5 feet of snow. All that was sticking out was the flagpole, and they found that and dug a hole and got down, and they spent one night before I came up [with my plane] and picked them up down in that cabin, like living in an iceberg… They went up the center of Exit Glacier" (KK).

In other times of the year, residents hiked to the glacier, and sometimes on the glacier. Tom Gillespie, for example, reported hiking into the Exit Glacier area prior to the foot or car bridge construction:

> "I've hiked over to [the glacier] before the bridge was in. You could walk over… it was a blazed trail going to the glacier, there was no road but just this blazed path" (TG).

Hiking is still popular among residents today: "We go out Exit Glacier frequently to take guests out there and hike" (WH). Some Seward residents have picked berries as part of their hikes, which seems to be a part of the larger recreational experience of hiking.

Seward residents also camped in the Exit Glacier prior to park creation. Keith Campbell described this type of camping, involving a kind of solitary camping experience that would be elusive today:

> "We would just go and we would go up and camp out right at the foot of the glacier, just the two of us, on Memorial Day weekend. There was nobody out there…We camped right where they diverted the stream and where the little kiosk is. Right in that area, most of the time. But the glacier was much closer then, too" (KC).

Some camped above Exit Glacier as well, scaling the glacier to camp on the Harding Icefield and some of the higher peaks nearby. As Tom Gillespie recalled,

> "I think the late '70s or early '80s, probably the '70s maybe, we did get some gear and climbed up right directly up the middle of the glacier and came over and climbed a couple peaks up in here and stayed up in here" (TG).

Community Recreational Events

Before the creation of the park, the Exit Glacier area was also the site of community recreational events, such as the Exit Glacier Run. As remembered by Warren Huss,

> "And then they also had the Exit Glacier Run, which was the same thing [like the ski meet]. The Exit Glacier Run started before the park [was created] because we used to run up as far as…where you cross the river, and I still remember going up there and you'd sometimes have to run through water because the river diverted and washed out the road, and you'd be running up the road and all of a sudden 200 yards of the road is gone, there's all these big rocks…That was before Exit Glacier was a park… They still do it today, but the original race out there started long before there was any bridge or any park" (WH).

Perhaps the most memorable event that involved the Exit Glacier area was a 1968 expedition on skis organized to traverse the Harding Icefield. Page Spencer's father Dave Spencer – manager of the Kenai National Moose Range – was part of this expedition, as were Homer homesteader Yule Kilcher and several other men. The

group accessed the icefield from the Kachemak Bay side and took several days to come to Exit Glacier. Page recalled:

> "…I remember is when dad said when they came out of Exit Glacier, it was a very long day, and they got -- made their way down to the bottom of Exit, and there was no road. And so they came on into Seward down the river" (PS).

Clearly, Exit Glacier has provided an important recreational area for the residents of Seward, and a place to which many families returned year after year. While park creation displaced some of these activities, many others persisted, ensuring that the Exit Glacier continues to be an attraction and a meaningful place for many Seward residents today, in addition to a key destination for visitors from more distant places.

Evolving Transportation Networks

Exit Glacier has long been a destination of travelers, but the speed, ease, and motivations for travel have changed considerably over the last century. This evolution of local transportation networks is an important tale in its own right, and its retelling is critical to illuminating the importance and dynamism of park access in recent decades. As some interviewees suggested, the precedent of having historical trails in an area sometimes helps to contextualize modern claims to access, and Exit Glacier is no exception.[62]

Accounts relating to the earliest transportation through the region depict Exit Glacier as being along a trail that passed from the Seward area northwestward up the Resurrection River valley to the Russian Lakes area. "There was a historic trail that had been in there from probably time immemorial because I'm sure the Natives had a route through there" (TG). There were a number of motivations for traveling this route, from trade to trapping to hunting. By the late 19th century, there were "two [primary] things" according to Tom Gillespie:

> "[People went] to the Russian River for the salmon. And there's old pictures from Seward of guys going up, going out of Seward… I think they would go on these big hunting ventures where they were getting meat for the townspeople. And they would go, use this route, maybe in the '30s, and go out to…what's now the moose range. And get as many moose, everything they could see, they'd shoot, and bring it back. There's pictures of just loads of moose, sheep, goat…I think that might have been a very reasonable route for them to take to access that, you know, the Kenai moose flats area" (TG).

This trail presumably linked in to a number of side-trails associated with specific places, such as important hunting and trapping areas.

The use of this trail network persisted, but those portions under U.S. Forest Service administration were not actively managed through the 1940s and 1950s. Under these conditions, portions of the trail network were falling into disrepair.

> "The Forest Service, I believe, had [a trail] in there, but it went into disrepair probably in the '50s or something, if not earlier. A friend of mine hiked through there in the '60s, I think, with his dad and he said…it was

> just terrible. There was no…trail really to go on, they bushwhacked a lot. And it was a long, tough trip…You look at these…old maps, and you'll still have the trails on there. So like I said, I think it had been put in years and years ago, historically, and then the Forest Service went in and worked on it in the '60s to actually get it put in" (TG).

When snows built up, some trails were very difficult to navigate. Quoting Bob White,

> "There were sections of trail up through there, but [with snow and winter vegetation] you couldn't even have seen it. So unless you had some experience looking for it and knowing where it was at [you would] not find it" (BW).

While verbal accounts are consistent on the point that trails lead up Resurrection River, and apparently included a detour to Exit Glacier, there is also some hint that the use of the trails may have fluctuated over time, going through cycles of improvement and disrepair. This, plus the relatively light touch of non-motorized vehicles such as dogsleds, contributed to the apparently diffuse nature of some of these trails at certain times. It is clear, however, that snowmachine use became established in the area in the late 1960s, at almost exactly the same period that the Chugach National Forest and other agencies were embarking on an ambitious period of trail development. No doubt, each of these trends supported the other. Meanwhile, a number of lines of evidence suggest that Seward residents were involved in the impromptu construction of snowmachine trails throughout the region in the 1960s, sometimes simply improving or extending trails that had existed previously.[63]

During this same period, it is clear that a number of small cabins or small camps were maintained along trail networks, reflecting in part the challenges of traveling efficiently in and out of the area from Seward prior to the advent of modern roads and motorized vehicles. Bob White explained how critical these cabins were to the safe use of this area:

> "Because the conditions of the river, you get stuck in one place, you might get stuck there for a week or two or three. You get away from your cabin -- your main cabin, and you're on the other side of the river, you've got to have someplace to live, survive. And with the kind of conditions that we get here, you needed cabins for that" (BW).

These cabins were widely used as a base of operations during multi-day hunting and trapping expeditions.[64] Some of these cabins were on U.S. Forest Service land and went through various changes in title; in some cases, the Forest Service leased cabins or sold them outright to cabin users.[65] These cabins, all upriver from the park, continued to be used into the period of park management, although some fell into disrepair or became less accessible because bridges washed out (DM).

During this period, a considerable amount of hunting and trapping was concentrated near Exit Glacier for simple logistical reasons. In part because of its convenient traveling distance from Seward, Seward residents ventured to Exit Glacier for single or multi-day hunting and trapping trips. In time, as transportation grew more efficient and the park was established, Seward residents had the option of extending their hunting and trapping territories to other, often more distant, locations. Thus, as Duane LeVan recalls of this period,

> "The timbered ridge [on the right side] before you get to the bridge on the Exit Glacier …this flat country…Below the glacier is a lot of willow brush in that, and that's where we hunted. In later years, guys got so they are going up this valley; now they go up the valley and hunt way up in here with horses [but] that's where most of the guys trapped years ago, would have been in this flat area or the face of the glacier, and just above the glacier, mostly" (DL).

While people may have ventured onto the Harding Icefield from time to time, such as the members of past expeditions, the absence of utilitarian motives resulted in only a little non-recreational traffic to that area: "There wasn't anything to hunt up there" (BW).

The expanding availability of snowmachines changed these patterns, but only slightly at first. The light-duty snowmachines that arrived in the 1960s and early 1970s were not able to go over rough or brushy terrain, and so Seward residents had to either stick to preexisting roads and trails, or engage in a labor-intensive process of trail construction.[66] As part of this process of expanding trail access, people had to sometimes construct impromptu bridges, unless snow or ice covered the river and creeks in fortuitous ways. Warren Huss describes building snowmachine bridges to access the Exit Glacier area in the wintertime:

> "In the wintertime, we usually just went up Exit Creek on our snowmachines. We crossed the river…east of …where the bridge is now, and then we'd get on Exit Creek and go up to the glacier that way…we just started out just trying to use snow bridges, and they were constantly getting washed out, and it wasn't very dependable. So then we went to building ladders, and we would put the ladders across. The first thing we started doing was cutting trees and hauling the trees out and standing them up and letting them fall. Well, we soon learned that that was just too much work. So we built ladders, looked like a ladder, and we'd drag it up behind the snowmachine, drop it across the creek, and then go off and cut a bunch of spruce boughs, put the spruce boughs on top of it and wait until the next snow. And the next snow, it would cover the spruce boughs over and you could drive -- it would form an ice bridge that was stable, and then that ice bridge would last for a number of years -- or a number of months" (WH).[67]

As Warren Huss acknowledged, travel up the river in this period – a process that involved crossing these impromptu bridges and navigating partially frozen waterways - was sometimes a very challenging prospect:

> "We first started here in '71 and started snowmachining up there, we didn't even go up the road. We used to leave from town, our friends Jackie and Keith Campbell had moved to Forest Acres at that time, and we would drive from their place in Forest Acres out through what is now the dump, and there was a trail there, and then we'd just go up the river valley…What we would do is we'd go out the back of this residential area out onto the riverbed, and then go up the riverbed on our snowmachines. And the only problem…there is all along in here we got into trouble several times, the river was very well channeled up here, it would get down here and it'd kind of get braided, ice bridges would form, but then a lot of overflow. So several times… trying to get up to Exit Glacier, we got caught in the overflow. We'd be riding along and all of a sudden your snowmachine just sinks in this slush and you're stuck there. Stand on your seat, take your boots off to keep boots and socks [dry], and try and wade your way out of the thing, pull the snowmachine up onto good, solid ground again, put your boots back on, and usually at that point we'd turn around and head home…You'd just physically get in, take your boots and socks off, roll up your pants, and wade in there. Your feet would get numb and you'd pull it out…You'd get it packed in the tracks, it would take three adults, three adult men to pull the snowmachine that's stuck in overflow and you just drag it" (WH).[68]

During the shoulder seasons, the river levels were said to fluctuate daily, creating novel navigational hazards to these early snowmachines. Water levels were likely to come up late in the day as waters thawed from the warmer spring temperatures melting the glacier and surrounding ice, creating the threat of being stranded: "You had to get out of there before, or unless you're gonna stay overnight" (PD).

For purposes of both safety and access, impromptu trail construction experienced a kind of "golden age" into the 1970s, as trails were extended and improved – a process that often involved a degree of experimentation and improvisation. Even on unofficial projects, Seward residents made tree blazes and other markers, placed suitably high above likely snowlines, to mark paths through the countryside.[69] At Exit Glacier, there is some evidence that snowmachine trails around the side of the glacier and up onto the icefield were much improved as part of the expanding recreational use of the area. Snowmachine trails were often accompanied by noticeable increases in Seward residents' access and use of particular areas.[70] These trails also facilitated summertime uses of the land, and sometimes served dual purposes, allowing rough but passable travel options for residents traveling by early ATVs.

Packy Dick indicated that the principal snowmachine trail up the Resurrection River valley at this time ran along the north side of the river, as the road does now, but that over time newer snowmachines were able to use the river more as a travel corridor, since they could more easily handle crossing open water than the old model machines could:

> "There were "goat trails" from the city dump up [the south side of the river], but…it didn't go very far. And on [the north] side, you could go through the trees and back down on the beach and back in the trees…We always went on the right side... going up the river…where the road is now... Yeah, we'd travel up that side. But then we didn't have to cross it up here [by Blackstone]. You'd get past there and then you'd go up a little ways and it would be froze over then…Past where the current bridge is, and then you could get across. Or maybe you could find it down here someplace that it was crushed down, you know, where you'd go across... Once you run across, you broke [the ice] out, and there was water. But now…new snowmachines, they just run on the water. They don't care" (PD).

The trail up Resurrection River valley extended up to the Upper Russian Lake area and beyond. If conditions were right, some Seward residents were able to have broad use of that valley for hunting, trapping, and other pursuits. Several interviewees mentioned using cabins near Placer Creek, so named because of an attempted mining operation, perhaps in the 1930s (DM). As Warren Huss recalls,

> "There was a trail there in '71, I believe it was…already there, that used to go up to a couple cabins up Placer Creek, further up past Exit Glacier…and by the time we got here in '71, I think that trail actually went all the way through to Upper Russian Lake, Upper Russian, Lower Russian Lakes. So you could hike all the way up that Valley" (WH).

However, for some of these snowmachine users, Redman Creek – a short distance up the Resurrection River valley from Exit Glacier - was a significant obstacle to travel upriver. This was especially true when water levels were high, effectively restricting passage upstream of this point. Bob White, for example, recalled,

> "I never was able to get across the [Redman] creek up there; it was always too deep, running too much water. And there was some guys that hunted that extensively over there and they used airplanes for access" (BW).

At certain times, the Resurrection River upstream from Redman Creek was also said to be prone to flooding, sometimes making travel difficult. Resident uses of areas upstream from this creek seem to have been relatively infrequent at certain times, then, keeping snowmachine use and other activities concentrated in and around the Exit Glacier area. So too, the high country was often dangerous during certain times due to the potential of sudden storms and avalanches, limiting use in these areas (but also made visiting without access to snowmachines or other fast and reliable transportation a dangerous prospect).[71] Together, these factors helped focus a considerable amount of snowmachine traffic in the Exit Glacier area, which was a terminus for many travelers when weather conditions were marginal and a relatively level and safe destination for many travelers. The introduction of the road, however, would very much change this pattern of use and access in the years that followed.

Road Construction and its Outcomes

Among the various events that have affected access to Exit Glacier, perhaps none was as significant as the construction of the Exit Glacier or Herman Leirer Road. As mentioned elsewhere in the report, a number of Seward residents recognized the potential for tourist development associated with Exit Glacier well before the creation of Kenai Fjords National Park. Motivated by this, and perhaps a desire to facilitate easy access to the glacier by Seward residents as well, individuals in the community began to plan for the development of a road leading to the glacier. Foremost among these road proponents was Herman Leirer, who was depicted as the visionary force behind the construction of what became the Exit Glacier (or "Herman Leirer") Road. "[People] knew about the Exit Glacier being there, and Mr. Leirer got interested in it, and decided there should be some access to it, so he started a road there" (MB). According to Val Anderson, the road was the product of Herman Leirer's persistence and energies: "It never would probably have got done if it hadn't been for Herman's enthusiasm. He's the one that really was the spark plug for getting it going, you know" (VA).

Over time, a number of former trails in the Seward area were converted to roads, and the Exit Glacier Road was no exception.[72] Initially Leirer sought to build a road along the River's south bank, allowing direct access from the core of Seward. Encountering topographical obstacles, he attempted to develop the road on the relatively passable north side. This second route for Exit Glacier Road roughly approximated a preexisting trail on the northeast bank of Resurrection River: "The Exit Glacier Road has covered over a lot of that trail, but [we] did have a trail there" (DS).

Herman Leirer was reported to have secured some state funds to offset some of his costs, and with this support he recruited local men to assist on road construction, including interviewee Percy Blatchford.[73] Blatchford recalls being recruited to assist on the project:

> "Herman Leirer, yeah… you know, I worked construction, he just came and got me because he knew I worked that kind of work, you know... They wanted to build it to the glacier... So he thought it would help the community to have a road there where tourists come and look at it, you know" (PB).

The construction of the Exit Glacier Road commenced in fall of 1974, involving the bulldozing and grading of a simple road bed from the outskirts of Seward to a point on the north bank of Resurrection River just north of Exit Glacier. The construction of the road was not without controversy – some residents protesting its development on environmental grounds, apparently – but construction moved forward with few major obstacles nonetheless.[74]

The initial road was reported to be rough, suitable for local access with four-wheel-drive vehicles but not up to the task of transporting large numbers of visitors: "It was a pretty rough gravel road, and nowhere near like it is now" (KF). Also, a number of individuals noted that "when the [Exit Glacier] road was put in, there…still there weren't bridges" (BW). In 1982 (after establishment of the national park), a footbridge across Resurrection River was constructed by the National Park Service, with financing from the Kenai Peninsula Borough at the end of the road so that visitors could access the glacier safely. Keith Freeman elaborates:

> "There was no way across the river…No bridge at all. In later years, I've forgotten when, one of the government agencies built a footbridge and then people could hike in" (KF).

Once this footbridge was constructed, Exit Glacier quickly became a tourist destination of considerable importance to the community. The road was still rough and visitors had to hike some distance through rolling terrain and streams to get to the glacier, but the road was generally hailed as a success and use increased steadily. Residents began running tour buses from the cruise ships to Exit Glacier at this time, such as the operation owned by Dan Seavey, for which Keith Knighten served as bus driver. As Mary Barry recalls of the road in the mid-1970s,

> "It was unpaved, but it got people to the glacier. You had to walk across the river when it first came out. Well, they had a little bridge, I think, kind of a footbridge, but you still had to cross streams to get to the glacier itself. So they had quite a walk to get there at that time" (MB).

And there were other challenges. In the fall, high waters sometimes still flooded the roadway, prior to later improvements to the road and revetments that would eliminate this problem. As Keith Knighten recalls from his experiences driving the tour bus,

> "Fall was always a good time, it was really good for tourism because that road would flood out, and you'd have to go right past the glacier bridge up there, there was about a hundred yards that sometime you'd have water running into the floorboards of the bus until they put that fill in, but that was always interesting and good for some quaint comments from the passengers" (KK).

In response to these persisting access issues, residents and land managers began exploring options for the road's improvement. Following the founding of the park, the road was paved and widened, and an automobile bridge was added to cross Resurrection River: "Later they extended the road, they made a bigger road -- bigger bridge, so cars could drive over it" (MB). Once these improvements were made, the general patterns of access that can be seen today at Exit Glacier were largely in place, allowing for significant automobile-based tourism and what was ostensibly one of the first major scenic tourist attractions in the Seward area. As Packy Dick explained,

> "They paved [the road] and, you know, then the tourists came. And boy…I don't know how many thousand they get a year up there, but it's…got to be pretty good. And that's good for the town. Yeah. They come off them cruise ship and go downtown and buy a couple T-shirts, wander around, take a few pictures and go up there instead of just jumping on the cruise -- busses and train and gone… to [Mount] McKinley" (PD).

Over the course of the 1970s, snowmachine access to Exit Glacier in the winter along the closed and unplowed flat surface of the Exit Glacier Road became as simple as ever – allowing access as easily as along any open roadway on the Kenai Peninsula. No longer was there a need for snowmachine users to engage in labor-intensive trail maintenance or to use impromptu side-trails to accommodate seasonal environmental hazards and obstacles. Residents noted an apparent increase in casual snowmachine use of the Exit Glacier area during this period, reflecting the tremendous ease of access. Tom Gillespie, for example, compared the ease of snowmachine access immediately before and after road improvement:

> "You know, if you could be out on the river [prior to road construction] that's fine, but as soon as the river cuts over to your side, you're back into the woods, and it's a tangle of cottonwood and devil's club and brush and everything else. So because of that, it probably did not get a lot of use

> until… that road got… pushed in there. It really expanded the area, or the use of it" (TG).

In addition to Herman Leirer's original goal of boosting the tourist economy, these developments had a wide range of impacts on preexisting patterns of land use. According to Percy Blatchford, construction of the Herman Leirer Road was not only successful in increasing tourism to Exit Glacier, but made hunting access easier as well:

> "Before [the road] very few of [the tourists] would walk up there because [of the difficulty] . The hunters walked up there, and that was about it, I guess… later on in the years, there was sightseers that would go up there just to take…pictures, you know... [Hunting] was easier. I'd drive right to the bottom of the place we hunted and climb up" (PB).

Accordingly, as in other places on the Kenai Peninsula where roads were constructed atop former trails, improved access on Exit Glacier Road caused a shift, and in some cases an increase, in hunting and other traditional practices associated with the area.[75] Some residents went to Exit Glacier regularly for the first time, such as Val Anderson: "I never went up there before that, no. I had no reason to" (VA). Similarly, Bob White noted that his moose hunting in the area began at the time of road construction: "I've moose hunted up there ever since the road was connected…It does give a little extra access to it, but it's not an easy place to hunt" (BW). For others who had hunted this area regularly prior to road construction, the road at once improved access while precluding hunting in areas close to the road due to changes in game movement and increased overshot hazards in certain locations. Activities like ptarmigan and moose hunting were said to have become much easier, allowing people to successfully hunt, even in brief trips from home rather than the protracted expeditions of prior years.[76] Roadside hunting replaced opportunistic trailside hunting on trips to and from the glacier: "I'm not sure what exact year it was finally put in, but then you could hunt off the road also" (TG). Hunting had already been concentrated on the northeast side of the Resurrection River, in part due to the presence of trails there prior to road construction and the rough terrain on the river's south side, and this pattern of use was only intensified by the circumstances of park creation and road construction.[77]

The increased ease of snowmachine travel brought its own side effects. Snowmachine numbers apparently increased in the Exit Glacier area, not only because of improved access but also because of the increased speed and availability of snowmachines in the

years immediately following road construction. While the main point of access to Exit Glacier was simplified considerably, this ease of access also allowed for the elaboration of trails near the terminus of Exit Glacier Road, linking places inside the park to convenient points of road access. Warren Huss discusses snowmachine trails developed since the establishment of the road and the park:

> "Most of those trails, like there's a trail from Paradise that constantly changes, and they went from Paradise, or what we call Blackstone, over to Exit Glacier. And…all those little trails and everything are all new since the park was formed. We never cut through from Paradise Valley over to Exit Glacier in those days because there just wasn't a way through there" (WH).

Meanwhile, some of the recreational trails predating the park, such as the routes along Exit Glacier to the Harding Icefield, were incorporated into modern recreational trails that have continued to be used by some resident families into recent times.[78]

Simultaneously, snowmachine use has sometimes displaced other forms of land and resource use, due to noise, collision hazards, and other considerations. A few interviewees complained that the road had created such hunting pressure on the area that they have been displaced to other areas.[79] Due to increased usage of the general area by recreational snowmachiners, Doug McRae stopped trapping locally:

> "Pretty soon the snowmachiners [arrived] and it was a popular area, it still is today. I left, and right behind me the wolverine[80] must have left. I left because of the people… '92 was the last year I trapped on the Kenai" (DM).

Similarly, Bob White discussed how he no longer regularly takes horses into the Resurrection River valley today, in part due to snowmachine traffic and other types of visitor congestion:

> "You could do that… but then you have to compete with the skiers and the snowmachiners…The new Exit Glacier Road actually went through part of the trails that we would recreate [on]. We did quite a bit of that [recreational horseback riding], but that's been a number of years ago. Now you've pretty much got to trailer your horses to go anyplace safe to ride" (BW).

Some interviewees appeared to perceive that this increased pressure has motivated increased regulation by the NPS and other entities.[81] While longtime snowmachine users may not necessarily be responsible for this intensification of impacts, their accounts imply that as longtime users of the area they are sometimes disproportionately affected by regulatory efforts to contain those impacts. Still, during wintertime road closures, residents experience some hint of the solitude and freedom that predated road and park construction, allowing skiers and snowmachiners relatively unimpeded travel through the area.[82] Arguably, the community has fully embraced the presence of the road, and the road is increasingly considered "historic" within the context of Seward and southcentral Alaska history; indeed, in January of 1998, the road was renamed "Herman Leirer Road" to honor Leirer's critical contributions to its development, under Alaska Senate Bill 251.

In spite of the widespread use of snowmachines and the improvement of the Exit Glacier Road, it is important to recognize that some places very near the glacier remain largely inaccessible to all but the most intrepid snowmachiners due to the ruggedness of terrain, dense vegetation, and other factors.[83] The remaining trail network up the Resurrection River valley, extending beyond Exit Glacier to the Russian Lakes area, is widely used but continues to be very challenging to travel by snowmachine or any other mode of transportation.[84] In the absence of U.S. Forest Service maintenance, the old trail has fallen into disrepair, becoming somewhat overgrown and with bridges in poor repair. As before, these environmental obstacles sometimes continue to keep all forms of access, including snowmachine traffic, somewhat concentrated near the flat and level terrain on the approaches to Exit Glacier, but sometimes restrict access beyond this point.

The Diverse Effects of Park Creation

Interviewees spoke frequently about the effects of park creation in 1980 - both those that were perceived as positive and those that were perceived as negative. Both kinds of effects changed the context and motivations of resident uses of the park, and are therefore salient to the broader discussion. This section attempts to thematically summarize some of the effects of park creation mentioned by interviewees, with particular attention to those themes that relate to the central topic of resident access.

No matter their position on the issue, most spoke in some manner to the park's efforts to strike a balance between access and preservation. And, while a few interviewees praised park efforts at preservation, a majority of those who addressed this issue were critical of the adverse effects of park policy on the access and use of park lands by Seward residents. Warren Huss made a general comment that reflected the attitude of many interviewees, suggesting that:

> "We've had Park Service heads in here who, basically, if they could have, they would have shut the park down and nobody would have used it" (WH).[85]

So too, Duane LeVan spoke about what he saw as the broad adverse effects of park creation upon both preexisting and potential land uses:

> "I was never into mining, but it shut down that completely. Of course, it shut down hunting. And in that period of time, too… another thing going against it was the fact that people like myself that subsistence life style a lot, we was getting shut down all over Alaska…That's what was happening to Alaska. We [were] becoming a big park" (DL).

Indeed, some individuals questioned the need for park administration whatsoever, suggesting that lands now in the park would have remained largely "wild" and accessible to the public in the absence of such structured preservation measures. Keith Knighten said:

> "I don't understand, and it's kind of hard for us old folks to understand an operation like the Park Service… My personal feelings is, if they'd have

> left the parks alone, it would have been fine, and you wouldn't have accomplished any more by leaving it alone than you are doing now with all the falderal that's going on, but I guess that's an old fellow's feeling" (KK).

Similar perspectives are commonly found in some quarters of Alaska in reference to ANILCA parks, which were established to include large areas within the state's rural landscape during the same period as Kenai Fjords' establishment. In the case of Seward, with a sizeable National Park Service unit being founded only a short distance outside of town, such comments perhaps are not surprising.

It is important to note that similar sentiments are sometimes expressed regarding the changes in management that have occurred on other federal lands as well. There were various concerns expressed about U.S. Forest Service policies relating to access in certain areas near Seward, and some interviewees also mentioned the U.S. Fish and Wildlife Service's Kenai National Wildlife Refuge as having adversely affected their use and access of places on the northwestern edge of the Harding Icefield.[86] Such views, generally, set the context for sometimes complex relationships between federal land managers and nearby constituencies - in Alaska, notably, but also in many other parts of the country.

Transportation and Access

Some of the most illuminating comments centered on matters of changes in transportation and access at the time of park creation. Admittedly, as park creation and road creation occurred only a few years apart, it is sometimes difficult to disentangle the effects of these two linked events; their effects are sometimes conflated. Also, even prior to NPS management, the Bureau of Land Management was also reining in motorized access that was not compatible with the agency's long-term vision for the park. The recreational snowmachine operation on the Harding Icefield was among those enterprises that lost access during the decade preceding NPS management: "There was no permitting system, and then suddenly there was a permitting system, and they didn't grandfather him. That's all" (KC). Snowmachine access to certain portions of what would become the park - those associated with this operation and others - decreased, even as snowmachine access arguably persisted and may have even increased somewhat along formally-sanctioned access points near Exit Glacier proper.

Still, interviewees' comments, taken together, are revealing of broad changes that effectively intensified some types of access, while eclipsing others.

Following the construction of the road to Exit Glacier and the construction of park facilities, larger numbers of visitors were able to access the area using conventional modes of transportation. Interviewees therefore report a significant decrease in solitude at the glacier, as visitor numbers increased; some suggest, this "just kind of ruined that ambiance" (KC). Residents' use of the Exit Glacier area for camping and trapping declined accordingly: "We never camped out there after they put the road up to the glacier" (JC). Hunting declined abruptly in the vicinity of the glacier as well - not only as a result of NPS policy, but also perhaps because of safety and logistical concerns near public use areas and changes in the movement of game.[87]

Certain original park management proposals precluded easy snowmachine access to the Exit Glacier area, but residents raised concerns and park management responded with trail proposals that maintained access into the area along Exit Creek.[88] Interviewees noted that the snowmachines' impacts on park resources seemed relatively insignificant, but they were treated with the same policy response as wheeled motor vehicles that did have such impacts.[89] One interviewee said he didn't know what parts of the Exit Glacier area were open to snowmachine use, particularly since the area includes state, USDA Forest Service, and National Park Service lands (DM).

The park's management was said to favor pedestrians and skiers in the vicinity of Exit Glacier. In this light, the establishment of Kenai Fjords National Park was said to put the use of snowmachines (for both recreational and utilitarian purposes) in conflict with a significant increase in unmotorized types of recreational activity near the glacier. Packy Dick, in particular, spoke of this issue. He noted substantial snowmachine use around Exit Glacier prior to the establishment of the park, but suggested that this was eclipsed by preferential management for skiing:

> "We snowmachined all over [the glacier]. That was a lot of fun running that side. Then…go down to the bottom and run all of that, and then they said we couldn't do that. 'That's reserved for the skiers. Get out of here, you snowmachiners, you're noisy and you're [bad] you know. So then I think what they figured out was that if they turned it over to the skiers, well, then, they'd ban the snowmachiners instead of just telling the snowmachiners you can't, you know. And then they [said] oh that's ski area…[the NPS] just shut you down. 'No, you can't go. We don't want you in there. Look at what you're doing to the trail. Oh you're doing this.'

> And then the skiers come along…. 'you're noisy and you're ruining the pristine view, and [damaging things] with your tracks.' And that was really nice, though, when we got in there to the pass, American Creek. That big blizzard caught all them skiers. Who did they call on? Snowmachiners. Come get us. Tow us out. We've got to get out of here. Well, sure. We can run on the trail then" (PD).

Hunting and Trapping Restrictions

The creation of the park was also widely noted to have eliminated hunting and trapping practices in the Exit Glacier area. Keith Campbell spoke especially about the effects of ANILCA on his trapping in and around Exit Glacier:

> "So everything on the south side of Resurrection River was off limits to trapping, and this is one little area I had been trapping in. And believe it or not, a lot of animals go through there because they are following [the edge of the valley]. They don't go right down the middle of the river, any of the animals travelling go right along the shore -- you know, right along the hillside and they'll follow the contour of the hill. And they'll just be naturally kind of funneled through this little patch of timber in there…It must have been right near the [time of ANILCA] that Jimmy Carter, because I was trapping [and] all of a sudden that area become [off-limits]. I couldn't do it anymore. It was on that side of the river. And I was pretty steamed at the time…I probably trapped there off and on over the years, that small area I was trapping up at Resurrection River…That's when I kind of got chased out of that area, and I was really upset at the time, but you know, it wasn't like he was cutting me out of a lot of work, you know, but it was just kind of an enjoyment thing. But I was upset because here somebody is 4,000 miles away making a decision what I can do in… my backyard, you know, but that's true of anywhere anymore" (KC).

There also is evidence to suggest that hunting was already shifting to areas north of Seward at around the time of park creation due to the ease of access along Highway 9 (the road leading north of Seward toward Anchorage), as well as growing concern about impending park game enforcement. When asked about the establishment of Kenai Fjords National Park and its impact on his hunting practices, Percy Blatchford, for example, said that he experienced little change because his hunting practices were

already in flux: "I was getting where I didn't hunt that much, and in the '80s here, I'd go up north and hunt because it was easier" (PB). While hunting was undermined by park creation, there is some suggestion that hunting has continued in some parts of the park – a point that yields conflicting opinions.[90]

An apparent effect of park development was to suppress hunting in the park while simultaneously intensifying hunting pressures just beyond the park's boundary. A few interviewees spoke about this phenomenon. Doug McRae, for example, noted:

> "When they…lock up that much land as Carter did, the people that were using it…and there was a lot of them, you get forced out into other areas. I ended up going to a place called Poach Lake after the park shut us down. It puts tremendous pressure on the areas that are still open to hunting because you're never going to stop hunters" (DM).

The intensification of hunting outside the boundary was due not only to the "displacement" of hunters from park lands, but also because the development and improvement of the road to Exit Glacier, which significantly improved access. The road also ostensibly introduced new logistical challenges to hunters, such as recreational users who both changed game movements and increased overshot hazards in some locations.

The hunting restrictions also made it necessary to fly in to hunt in more remote locations. Talking about closures he said took place even before the park was established, Bob White said: "It was closed from Redman Creek up, or Redman Creek south to Seward it was closed to hunting. From Redman Creek up, it was open" (BW). The removal or replacement of cabins used in the course of snowmachine trips into the area also changed patterns of use, in particular for hunting and trapping. This practice sometimes resulted in friction with Seward-area residents.[91] Interestingly, some of the charter hunting and fishing guides who worked in the Kenai Fjords area prior to park creation adapted after park creation in 1980, using the knowledge that they had developed over the years of Kenai Fjords' terrain and resources in order help orient park staff newly arrived in the region.[92]

Tourism and Public Access

Interviewees spoke often of the effects, both positive and negative, that resulted from increased public attention to the Exit Glacier area. Some of these accounts were negative, stressing the increase in crowding, noise, erosion, and other predictable adverse effects associated with increased visitation. Duane LeVan summarized these most succinctly, perhaps, noting that,

> "They made it a park, and the minute they name it a park, well, then, thousands of people go there…People are finding out themselves that there are bad parts of parks, because you're getting more people there than what you really want at one time, and they are running into some big, big problems on a lot of them. And even you notice it at Exit Glacier where we walk there practically every summer and walk up [to the glacier]. And I noticed there that parts are wearing away, even though they do have trails around. … If you're going to put a thousand people in there a week or whatever, well, you're going to have some deteriorating has to happen. So anyway, I had kind of mixed feelings about it" (DL).

In some cases, interviewees note, this attention has also brought in new resource users, placing pressure on resources. As Doug McRae noted of military personnel stationed in southcentral Alaska:

> "They come down here, they have boats… they go out in the bay [Resurrection Bay] and then in the wintertime they have snowmachines that they use. And one of the most popular areas for them to use is the Exit Glacier up the road and into the park" (DM).

These people may not have the same enduring attachments to Exit Glacier that resident snowmachine users do, but their presence, their numbers and any misdeeds, give the NPS incentive to regulate access in a manner that may affect resident users.

Simultaneously, a number of interviewees expressed genuine enthusiasm for the advantages of park management. Some spoke enthusiastically about the positive effects of park creation, and the presence of a readily accessible glacier, on the local economy. Duane LeVan, for example, indicated that these positive effects offset somewhat the negatives of park creation in his view:

> "I had kind of mixed feelings about it at the time. I didn't know about what was going to happen. But I guess…it did help the town. I mean, it did, no question about it. And today, I think from what I understand, what I said before there, moneywise, they are putting more money into town, the people that are hiring are getting more pay than the local people that they are having to hire… And it's year around jobs. In a small town, if you can get 10 or 15 year around jobs in a town like Seward, well, you're doing good, I think" (DL).

Others spoke enthusiastically of the personal value of having easy access to Exit Glacier, so that they and others could easily visit this one part of the park. Mary Huss noted,

> "I love Exit Glacier because in the summer it's accessible. People in wheelchairs can get there, and I don't feel that destroys the wilderness experience for somebody who doesn't live in the wilderness. And if we all want wilderness, we can just find it. And then the same way in the winter" (MH).

Similarly, Mary Barry expressed her appreciation for the accessibility afforded by park creation and access:

> "I think having the park there made it more accessible for everybody, including the people that lived there. It also gave a little more employment to people. They had to have buses going out there and they also have boats going out to the other areas of the park [i.e., Kenai Fjords tours into Resurrection and Aialik Bays]" (MB).

At least one individual extolled the virtues of conservation, preferring NPS management to the sort of development that may have occurred in the park's absence. To quote Tom Gillespie, "I've kind of grown up with the whole Park thing, and I would much rather have it stay as wild as it can be rather than having it completely developed" (TG).

This being said, a portion of the community appears to view the right to motorized access as compatible with this conservation mandate and among the fundamental rights of American citizens that should be protected within the context of NPS management. Mary Huss made this point very clearly when discussing wintertime access to Exit Glacier:

> "I think the Park Service is still a little nervous about Exit Glacier in the winter. They're not quite as eager for access… And I feel you need to remind the younger Park Service employees who the parks belong to. This is my theory…They don't want snowmachines, but when you ask them how many were out last week, they'll say, oh, we saw four machines, you know…I feel strongly after watching Ken Burns' Park Service [program on PBS] that the parks belong to the people. And we're not trashing the park" (MH).

By this reasoning, the NPS has a mandate to provide the public with access to Kenai Fjords by virtue of its status as a national park, and a portion of that access mandate involves allowing the use of snowmachines.

Conclusions

The interviews conducted for this project illuminate a little-studied period in Seward area history, and reveal much of that community's relationship with the Exit Glacier area in the second half of the 20th century. The uses of the Exit Glacier area, as well as the uses of different modes of transportation to access Exit Glacier, were in rapid flux at this period of time, making the details and chronology of this period somewhat difficult to discuss in much more then general terms. Still, there are clear, recoverable patterns regarding "traditional" uses and their chronology that warrant mention here, and may aid the park and its users in planning for the future. Those patterns are discussed briefly below.

The Chronology of Transportation

The chronology of transportation in and out of the Exit Glacier area was a recurring theme in interviews undertaken for this project, and an issue of importance to park users and managers alike. Available evidence suggests that non-motorized transportation has a considerable time depth in the study area – of such antiquity that these practices defy easy analysis based on interview data. Foot travel in and out of the Exit Glacier area – with or without snowshoes - no doubt has a deep antiquity that predates modern records, and cannot be assessed easily based on the oral history interviews conducted as part of this study. Foot travel clearly predates federal land management, and even United States jurisdiction in Alaska, by a very long time indeed. Foot travel as a mode of accessing the Exit Glacier area has persisted, but has increasingly served as a recreational pursuit rather than as an independent mode of transportation to and from the glacier; recreational walking in the vicinity of the glacier, undertaken in combination with the use of motorized vehicles, is clearly widespread today. Similarly, the use of skis in and around the Exit Glacier likely has an antiquity that precedes the available written record, is documented for the years preceding the creation of the park, and continues in small ways today largely as a recreational activity rather than as an independent or utilitarian mode of access.

So too, dogsled use in and around the Exit Glacier appears to have been well-established in the early 20th century and perhaps sooner. By the 1950s, however, dogsled use was described as relatively minor and inconsequential – increasingly a

recreational activity undertaken by hobbyists rather than a common or utilitarian mode of transportation. Similarly, horses have been used historically to access hunting and trapping areas in the general vicinity of Exit Glacier, and appear to have been used in this way by the first half of the 20th century, if not sooner. Like dogsleds, the use of horses continues, and has certain advantages over motorized transportation options, but its importance has declined and increasingly been used for recreational purposes by a circle of hobbyists. And, while boat use was mentioned in reference to the Resurrection River and perhaps its tributaries prior to park creation, and is likely to have had a considerable antiquity, there were no references to the specific chronology of boat use – motorized or non-motorized – found in the interviews.

Motorized vehicle use appears to have been largely a phenomenon of the period from World War II forward, becoming predominant within the range of transportation options especially over the course of the 1960s and 1970s. While there were few specific mentions of the practice in interviews, the earliest use of motorized land vehicles appears to have dated from the 1940s forward, as residents began to use jeeps and other vehicles – delivered to the area in large numbers during World War II – on suitable trails and riverbeds. Accounts suggest that much of this early motorized transportation had an experimental quality to it, and for some individuals the use of such vehicles was sporadic in the years immediately after World War II. While trips may have been few in number, these practices contributed to the eclipse of more conventional non-motorized modes of transportation in the mid-20th century. Similarly, airplanes became increasingly available at the end of World War II. Interviewees suggest that airplanes were used to access the general vicinity of Exit Glacier – including landing sites in the Resurrection River valley and Harding Icefield - by no later than the 1960s, and probably sooner.

Modern, motorized forms of land transportation – designed specifically for off-road use – arrived only in the second half of the 20th century. Snowmachine use in the Exit Glacier area appears to date largely from the 1960s forward. While snowmachines were technically available for use since the 1930s, the earliest recollections of Seward snowmachines mentioned by interviewees date from roughly 1960. Snowmachines became popular quickly, for both recreational and practical uses, so that by the mid-1960s they are described as widespread and were apparently being used to access the Exit Glacier area. By the late 1960s and early 1970s, snowmachines are described as ubiquitous and are depicted as being integral to the use of the Exit Glacier area by area residents. By this time, many Seward residents who might have used non-motorized forms of access in earlier years were using snowmachines for their wintertime travel.

Wheeled all-terrain vehicles (ATV) arrived somewhat later, appearing in the area by the early 1970s and becoming relatively ubiquitous by the early 1980s for both recreational and practical use (though the extent of their use to access Exit Glacier remains unclear). By the early 1980s, snowmachines and ATVs had together come to dominate most forms of utilitarian off-road travel in this part of Alaska and many others, relegating older modes of transportation such as dog teams, snowshoeing, and skiing to largely recreational status.

Revisiting the Question of "Traditional" Use and Access

As indicated earlier in this document, the concept of what constitutes a "traditional" use or mode of access within a park is a subject of considerable ambiguity. In most cases of federal land policy encountered in the course of this research, federal agencies have employed this simple definition of traditional use, with presence or absence in 1980 being the litmus test for "tradition." Some Alaska national parks, as well as national wildlife refuges and other federal lands have chosen to identify any activities that were demonstrably practiced on lands prior to the passage of ANILCA in 1980 as being "traditional" and therefore admissible under the terms of ANILCA. The courts have upheld this interpretation through such cases as *Alaska State Snowmobiling Association v. Babbitt* (Rupp 2004). By this standard, almost every activity – both recreational and utilitarian – undertaken by Seward residents at Exit Glacier prior to park creation would appear to give these activities status as "traditional" activities; this would include, but not be limited to sightseeing, hunting, trapping, berry gathering, dogsledding, snowshoeing, snowmachining, skiing and hiking.[93]

So too, almost every form of transportation identified in this document would qualify as "traditional," by virtue of the fact that they arrived prior to the 1980 passage of ANILCA. This would include not only very old modes of transportation such as foot travel and dog teams, but also those modes of transportation that emerged only in the decade or two preceding ANILCA, such as snowmachines and in some cases ATVs. This interpretation has been justified in part by the use of the term "traditional" in Title 8 and 11 of ANILCA, §811(b) and §1110(a), which identify motorboats and snowmachines as examples of "traditional" modes of transportation, though snowmachines in particular were presumably known to the law's authors as a relatively recent addition to the repertoire of Alaska transportation technologies. This interpretation was reinforced by subsequent determinations on the matter of vehicle

access to Alaska's national parks by the Secretary of the Interior, which have been codified into general Departmental regulations (43 CFR 36), as well as regulations pertaining only to the National Park Service (36 CFR 13).

This standard for "traditional" has the advantage of being readily demonstrable through objective means and basic research. The presence or absence of a particular mode of transportation option in 1980 is easily verifiable, even as more nuanced matters of "tradition" (such as the transmission of a technology between generations) remain somewhat more difficult to document based on available data.

A more strict definition of "traditional" – more in line with common English usage and less attached to the terms of ANILCA – implies use by prior generations and transmitted to current generations through verbal or other means. By this standard, the interpretation of the data within this report would be somewhat different. Certainly, most non-motorized forms of access might qualify as traditional in that they are longstanding practices tied to this general area – walking, dogsledding, horseback riding all might meet this standard. Motorized technologies are more problematic by these terms. Airplanes are reported to be used to access the general vicinity of Exit Glacier, if not the glacier itself, by the early 1960s according to interviewees, though airplane access could predate this date by another two or three decades. Recognizing that a human generation is generally no less than 20 years in duration, this would allow for perhaps a single generation to pass between early airplane traffic and the passage of ANILCA – with perhaps two and a half generations passing at maximum. Using similar figures, motorized ground transportation to and from Exit Glacier would have allowed for perhaps two generations to pass at maximum prior to the passage of ANILCA. "Intergenerational transmission" of knowledge, a concept central to conventional definitions of traditional, would be possible in this context but just barely. Snowmachine use can be presumed to be present in the vicinity of Exit Glacier for, at maximum, a single generation prior to ANILCA; it is perhaps plausible that a person who "grew up" as an older child or teen, viewing the access of Exit Glacier by snowmachines as customary, might have been teaching their own children to ride snowmachines in the Exit Glacier area at around the time of ANILCA's passage. ATVs would have been present for even less time than this – probably allowing for less than a decade of use prior to ANILCA with very little opportunity for much "intergenerational transmission" of custom relating to this technology, even if motorized access may have a longer history there. By this standard, one might envision scenarios in which motorized use or snowmachine use is declared "traditional"; one can also envision

scenarios in which such motorized technologies as ATVs would not meet that standard. Meanwhile, specific activities reported by interviewees – including both recreational and utilitarian hunting, trapping, berry gathering, and sightseeing – all appear to have been well-established at the park at least one generation in advance of park creation; it is likely that all of these would be determined to be "traditional" by the standards employed here.

By an exceptionally strict interpretation of "traditional," even non-motorized activities and forms of access might be questionable in the case of Exit Glacier. Some might quibble on the point that non-motorized modes of transportation – such as horseback riding and dogsledding – are today often employed in uncustomary ways, or by individuals who have little historical association with them in this setting. The matter of what constitutes a "traditional" mode of access might – by extension – focus on the identity of the user or the basis for access rather than just the type of transportation technology employed. Some modern practitioners of these non-motorized forms of access do so for the purposes of recreation, bringing their interests in these practices with them from elsewhere rather than having learned to use these methods to access the Exit Glacier area from friends and family with multiple generations of association with lands now in the park. In part, this reflects the dynamism of the Seward community, where newcomers have arrived due to a variety of motives, do not necessarily learn new transportation practices from longstanding residents, and do not necessarily need to navigate the undeveloped landscape to subsist. By the strict interpretation of "traditional" postulated here, the standard would be tied to "intergenerational transmission" of knowledge and practice; to meet this standard, some significant portion of users' transportation technologies and geographical preferences would have been learned from their repeated exposure to a multigenerational community. By this standard, then, only a small subset of the families and individuals who access the Exit Glacier area would be doing so in a manner that is "traditional" – it would take very detailed research to identify them, and the process would no doubt be contentious.

Similarly, the matter of what constitutes a "traditional" mode of access also might focus on the question of whether the activities undertaken in the park have changed in emphasis from being principally utilitarian to principally recreational in nature. On that basis, some might argue (as the Department of the Interior contended in *Alaska State Snowmobiling Association v. Babbitt*) that *utilitarian* access of the Exit Glacier area is "traditional" and many *recreational* uses are not, by virtue of the time-depth of hunting, trapping and other pursuits that appear to largely precede Exit Glacier's modern

recreational and scenic functions. In this light, one could make a case that some forms of motorized use – motivated by resource procurement, for example, or carried out by multigenerational Seward families with a history of Exit Glacier access – represents a more traditional activity than most of the non-motorized uses seen today. Again, this may be difficult to document and would be contentious as a basis for park policy that would, in essence, prioritize resource procurement activities established years ago over those of recreation. Moreover, such a position is inconsistent with the ruling of the U.S. Alaska District Court in *Alaska State Snowmobiling Association v. Babbitt*, which contended that recreational activities were admissible as a type of "traditional use" and were grounds for continued snowmachine access under section 1110(a) of ANILCA, even in the absence of subsistence and other more utilitarian activities. Recreational uses of Exit Glacier are well documented prior to park creation, as the pages of this document attest, and so these recreational activities are likely to meet that "traditional" standard in light of the *A.S.S.A. v. Babbitt* ruling.

Taking these varying interpretations into consideration, it is clear why the ambiguous definition of "traditional" as used in ANILCA has continued to raise challenging and sometimes confusing questions for planners and resource users of federal lands alike. It is also clear why a number of federal lands have opted to use the presence or absence of a practice in 1980 as the standard by which "traditional" activities are demonstrated. Such a definition may be crude and run counter to conventional English usage, but it provides a simple basis for verification. It does so in the face of potentially contentious policy matters, and achieves a kind of rare clarity in spite of the highly dynamic historical and social context surrounding the use of park lands at the time of ANILCA.

Returning to the Matter of Snowmachines

Of all the transportation technologies that are employed in the Exit Glacier area, snowmachines may be among the most visible and require some of the most nuanced planning. Interviewee accounts make it clear that the use of snowmachines was well-established prior to park creation, though patterns of use and access were dynamic and continued to change after park creation. In spite of this dynamism, certain facts appear to be certain, based on consistently recurring information within these interviews. Interviewees clearly suggest that the practice of using snowmachines to access areas around greater Seward was well-established by the late 1960s, often involving travel to places that had been accessed previously using other transportation technologies, such

as snowshoeing, dog teams, horses, and the like. Moreover, available data suggest that the use of snowmachines to access the Exit Glacier area was well established prior to park creation in 1980, apparently beginning very soon after the introduction of these vehicles to the region. Prior to park creation, and alongside a range of other, mostly non-motorized forms of transportation, Seward residents used snowmachines to access the Exit Glacier area for recreational purposes, as well as for hunting and trapping activities that were ostensibly "recreational" in some cases, and quite utilitarian in others. Recreational users also used snowmachines extensively in the Harding Icefield, a practice that often involved travel through the Exit Glacier area. Snowmachine users, both recreational and utilitarian, had the Exit Glacier somewhat to themselves in the years prior to park creation; they have a long history of regular visitation, and sometimes possess what might be termed a sense of "investment" in or "ownership" of the Exit Glacier landscape that shapes their dialogue with the National Park Service regarding this uniquely accessible area.

Following park creation, motorized vehicle use has continued, but in attenuated form. In some areas, snowmachine use has decreased or ceased due to legal limitations on snowmachine use in the Exit Glacier Developed Area (EGDA); in this area and immediately adjacent, old snowmachine trails have been partially or wholly discontinued. In some places, such as the northern edge of the park, snowmachine use has arguably expanded due to the improvements of roads and snowmachine technologies. In some of these cases, the network of snowmachine trails may have become more elaborate. Meanwhile, Seward residents have continued to use the adjacent Resurrection River valley for a wide range of resource procurement activities both subsistence-related and recreational. Access to the Resurrection River valley continues to be important to community residents for social, recreational, and food-gathering purposes, and travel through the general vicinity of Exit Glacier is sometimes integral to these activities.[94]

As the National Park Service oversees planning for the Exit Glacier area, the agency has to consider the effects of snowmachines on various types of resources as well as public safety. Information of the nature of those effects is somewhat elusive in project interviews, but certain patterns present themselves. Interviewee accounts make it clear that there were certain effects of snowmachine use prior to park creation, as new and improved trails were introduced to the park. Since park creation, it is clear that the geography of small trail distribution has changed somewhat to reflect the realities of park access, but the exact impacts of those changes are unclear based on interview

accounts. While interviewees did not discuss significant impacts on wildlife or vegetation from snowmachines, and it is clear that their impacts may be generally less than some other motorized forms of access, these potential resource impacts are factored in to any NPS policy pertaining to snowmachine use. Moreover, interviewees' accounts make it clear that – especially where snowmachines are numerous – they do compete with other means of access (including non-motorized ones such as horseback riding, dog teams, snowshoes and skis) for a range of recreational and utilitarian activities. All of this aside, the matter of chronology as it relates to the use of snowmachines to access various resources in the park seems largely straightforward, and the data on this point should assist NPS resource managers in making future determinations regarding access and "traditional" activities under the terms of ANILCA.

While support for continued snowmachine access is generally strong among interviewees, opinions are not uniform. Some express support for "keep[ing] the snowmachiners out of that area" (MN) while others plead "that they don't ever close this [recreation area] to snowmobilers" (GZ).[95] The differences do not reflect deep political divides, apparently, but differences in individuals' associations with this well-known part of the landscape, and differences in recreational preferences. Simultaneously, all interviews seemed to speak of the study area with genuine interest, familiarity, and even affection – it is from this foundation of shared concern about park lands and resources that the NPS can continue its dialogue with Seward residents about the past, present, and future of resident use and access in Kenai Fjords National Park.

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Interviewees

Val Anderson
Mary Barry
Percy Blatchford
Jackie Campbell
Keith Campbell
Louis "Packy" Dick
Keith Freeman
Tom Gillespie
Anne Hatch
Ralph Hatch
Mary Huss
Warren Huss
Yule Kilcher
Keith Knighten
Duane LeVan
Sanna LeVan
Doug McRae
Maranda Nelson
Bud Rice
Dan Seavey
Page Spencer
Bob White
Gary Zimmerman

Interviewee Codes

Each citation references an audio recording in University of Alaska-Fairbanks Rasmuson Library Alaska and Polar Regions Collections and Archives for each interview, as listed in "Bibliography of Oral History Recordings"

Initials		*Name*		*Citation*
AH	-	Anne Hatch	-	(Hatch and Hatch 2011)
BR	-	Bud Rice	-	(Rice 2010)
BW	-	Bob White	-	(White 2010)
DL	-	Duane LeVan	-	(LeVan and LeVan 2010)
DM	-	Doug McRae	-	(McRae 2010)
DS	-	Dan Seavey	-	(Seavey 2010)
GZ	-	Gary Zimmerman	-	(Zimmerman 2010)
JC	-	Jackie Campbell	-	(Campbell and Campbell 2010)
KC	-	Keith Campbell	-	(Campbell and Campbell 2010)
KF	-	Keith Freeman	-	(Freeman 2010)
KK	-	Keith Knighten	-	(Knighten 2010)
MB	-	Mary Barry	-	(Barry 2010)
MH	-	Mary Huss	-	(Huss and Huss 2010)
MN	-	Maranda Nelson	-	(Nelson 2011)
PB	-	Percy Blatchford	-	(Blatchford 2010)
PD	-	Louis "Packy" Dick	-	(Dick 2010)
PS	-	Page Spencer	-	(Spencer 2011)
RH	-	Ralph Hatch	-	(Hatch and Hatch 2011)
TG	-	Tom Gillespie	-	(Gillespie 2010)
SL	-	Sanna LeVan	-	(LeVan and LeVan 2010)
VA	-	Val Anderson	-	(Anderson 2010)
WH	-	Warren Huss	-	(Huss and Huss 2010)

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Appendix A:
Interviewee Biographies

From UAF Project Jukebox, with select quotations appended

Val Anderson

Val Anderson was born in Seward, Alaska in 1926, and raised on his family's homestead on Caribou Island in Skilak Lake. His father was a big game hunting guide in the area. Val moved to Cooper Landing in 1940, when he was fourteen years old, after his mother passed away. He served in the Army from 1944 to 1946 and was stationed at Shemya Island in the Aleutians Islands. He worked for the Alaska Road Commission on the road to Kenai, as a fisherman in Cook Inlet, and as a longshoreman for the Alaska Railroad in Seward from 1951 to 1985. Val married his wife, Jean, in 1953 and they raised three children.

Mary Barry

Mary Barry was born in Seward, Alaska in 1928. Her father worked for the Alaska Railroad and later ran the town's main building supply business. Mary attended college at UCLA in Los Angeles, California, and married her husband, Mel, in 1951. They had two children, and have lived in Anchorage for many years. Mary has become well-known as an author of Alaska history. Some of her publications include: *Seward, Alaska: A History of the Gateway City, Pts. 1-3* (M.J.P. Barry, Anchorage, AK, 1986, 1993, 1995); *A History of Mining on the Kenai Peninsula* (Alaska Northwest Publishing Company, Anchorage, AK, 1973); and *Alaska's Ghosts, Enigmas, Outlaws, and Things That Go Bump!: Folklore of the Last Frontier* (M.J.P. Barry, Anchorage, AK, 1994).

Percy Blatchford

Percy Blatchford was born in Teller, Alaska in 1929. His father was a fox farmer originally from England, and his mother was from Shishmaref, Alaska. After World War II when fur prices crashed, the family moved to Nome, Alaska. Percy came to Seward in 1954 after serving in the Army, when his mother was sent there for tuberculosis treatment in the local sanitarium. Percy worked as a blaster on the construction of Exit Glacier Road, as a longshoreman, as a carpenter, and as a laborer. Percy met his wife, Daisy Barnabas, an Athabaskan from interior Alaska, at Mount Edgecumbe School in Sitka, Alaska, and they had two sons.

Jackie Campbell

Jackie Campbell is married to Keith Campbell, and they came from Iowa to Seward, Alaska in 1971 when he got a job as hospital administrator for Seward General Hospital. Jackie raised her three sons in Seward, and now has sixteen great-grandchildren. Jackie is an outdoor enthusiast who leads an active lifestyle of hiking, cross-country skiing, hunting, and snowmachining. Keith and Jackie Campbell are originally from Iowa: "We were outdoor people before we came here, so it made it easy to adjust. I mean -- you know, we camped and did all the things in Iowa. Snowmachines. So it really wasn't new, just lots more of it" (JC).

Keith Campbell

Keith Campbell came from Iowa to Seward, Alaska in 1971 for a job as hospital administrator for Seward General Hospital. He retired in 1990. He is married to Jackie Campbell, and together they raised three sons. Keith is an outdoor enthusiast who leads an active lifestyle of hiking, cross-country skiing, hunting, and snowmachining. On his family's decision to move to Seward, he notes, "We had looked for a couple of years before we came up here looking for an ideal job, and where to come for three or four years, do hunting and fishing, and go back and get ambitious, but we never found a more spectacular place to live, so here we are…We knew the kids would like it, and three sons, they enjoy and enjoyed the -- you know, the life style here. And so they've adapted and we adapted, and we're home free" (KC).

Louis "Packy" Dick

Louis "Packy" Dick was born in Portland, Oregon and grew up in Seward, Alaska where his father worked for the military during World War II. He got the nickname, "Packy," from his mother and sister when he was a boy, referring to his penchant for collecting things. Packy has done all kinds of work in his life, from longshoring, to logging, to operating heavy equipment, and building docks around Alaska. He retired in 1991. He has been an avid snowmachiner in Seward, since they were first introduced.

Keith Freeman

Keith Freeman was born in New Hampshire in 1943, and came to Alaska in 1966 at the age of 23. He has worked in construction and as a heavy equipment operator, in particular for a few months on the Exit Glacier Road in Seward, and twenty-one years

doing road maintenance in Cooper Landing for the State of Alaska, Department of Transportation and Public Facilities. He retired from the State of Alaska in 1999, but since 1975 has had his own business, KF Construction, which does jobs in the Cooper Landing area. He was married in 1971, and raised a family of four children at his home in Cooper Landing along the shore of Kenai Lake.

Tom Gillespie

Tom Gillespie was born in 1953 and raised in Seward, Alaska. His father worked as a longshoreman and a logger. The family had a homestead on Old Exit Glacier Road and Clear Creek. Tom is an avid outdoorsman, climber, skier, and runner. He has worked as a hunting guide, in the construction industry, and as a heavy equipment operator. In the 1980s, he and his wife ran Creekside Cabins, a bread and breakfast accommodation in Seward. He grew up on Seward's north end: "I was born and raised on -- it wouldn't even be called Old Exit Glacier Road. It was on Clear Creek, which is directly behind the Pit Bar" (TG).

Anne Hatch

Originally from Wisconsin, Anne Hatch came to Seward, Alaska in 1946 to teach English at the high school. She graduated from Gustavus Adolphus, a Lutheran college in Minnesota, and taught school for three years in Minnesota. She met her husband, Ralph, at a Rainbow Girls dance in Seward, and they married in 1948.

Ralph Hatch

Ralph Hatch was born in Unalaska, Alaska, lived in Seldovia, Alaska and moved to Seward, Alaska in 1930 when his parents got jobs at the Jessie Lee Home. Ralph met his wife, Anne, at a Rainbow Girls dance in Seward, and they married in 1948. Ralph worked as a longshoreman, served in the Army at Whittier, Alaska during World War II, and was an early champion of the Mt. Marathon running race in Seward, running it for the first time in 1946.

Warren Huss

Originally from Michigan, Warren Huss moved to Seward, Alaska in 1971 when he got a job as a dentist. He married Mary Huss in 1965, and they raised their family in Seward. Warren has been an active hunter, snowmachiner, skier, and outdoorsman in

the Seward area. He retired in 2004. He describes his family's initial move to Seward: "We moved here in 1971, fall of '71, and I came here as a dentist. We had been…two years in Goose Bay, Labrador, in the military, but I was originally from Michigan, so we moved here just because I like to hunt and fish. And Mary had kind of enjoyed the remote, small town atmosphere that we experienced in Labrador" (WH).

Mary Huss

Mary Huss was born in Cleveland, Ohio and was raised in Ann Arbor, Michigan. She married Warren Huss in 1965, and moved to Seward, Alaska in 1971 when Warren got a job as a dentist.

Keith Knighten

Keith Knighten was born in Oregon in 1929, and came to Seward, Alaska in 1965 with the U.S. Coast Guard. He married his wife, Dorothy, in 1948, and they had two sons. Retiring after twenty years of service in the Navy and Coast Guard, Keith settled in Seward and worked as a charter boat operator, started a booking agent business, and flew commercially for Harbor Air, a local flying service. Keith flew all over the Kenai Peninsula and in all kinds of conditions, whether it was taking hunters to remote locations or dropping recreationists off on the Harding Icefield. Keith was one of the people who flew clients onto the Harding Icefield for Arley Zimmerman's snowmachine tour operation in 1969 and 1970. Keith is active in the Resurrection Bay Historical Society. Keith discussed his original arrival in Seward: "I was born in Oregon in 1929, and June the 11th. And I came to Alaska in 1965, a year after the earthquake. I was transferred here in the Coast Guard, at that time they had a Coast Guard Cutter here, a buoy tender. And I got transferred up here as chief engineer. And after two years, I decided it was time to quit and retire and be a bum for the rest of my life, so Seward was a real good spot then. The schools were good, I had two boys in school, and there wasn't much crap going on like there is today. They had good teachers… real good macho teachers, and I think my kids learned a lot here, and from the school. And so just one thing led to another, and that's where we've been for the last 40 some years" (KK).

Duane LeVan

Duane LeVan was born in Valley City, North Dakota. He came to Seward, Alaska in 1946, after being discharged from the Navy, to visit his family who had previously moved to Seward so his father could work for the Alaska Railroad. Duane and Sanna

were married in 1948. They have two children. The LeVans have exciting stories to tell about surviving the 1964 Earthquake. Duane worked as a longshoreman for the Alaska Railroad, and as an equipment operator for the State of Alaska, Department of Transportation. The LeVans are outdoor enthusiasts who lead an active lifestyle of hiking and cross-country skiing, are avid birdwatchers, and keep daily records of weather conditions and bird sightings. Duane spoke of growing up on the Kenai Peninsula: "My dad was a World War I veteran, he had a homestead down at Moose River, what is now Sterling. And he had a homestead down there and he lived down there. Prior to that, though, he worked here on the Alaska Railroad. And then I was in the Navy in the meantime, and I spent, oh, a couple, three years in the Navy. I was down in the South Pacific and come back to Seward because my folks was living here, and that's why I migrated to Seward. And then I've been here ever since, like Sanna…except for vacations for a week or two at a time, we've never went anywhere" (DL).

Sanna LeVan

Sanna LeVan was born Sanna Gustava Urie in Seward, Alaska in 1930, where her father ran the Seward Bakery. Sanna attended school in Seward, and in 1948 she married Duane LeVan. They have two children. The LeVans have exciting stories to tell about surviving the 1964 Earthquake. The LeVans are outdoor enthusiasts who lead an active lifestyle of hiking and cross-country skiing, are avid birdwatchers, and keep daily records of weather conditions and bird sightings. She described growing up in Seward in the 1930s and 1940s: "My name is Sanna Gustava [Urie] LeVan, and I was born in Seward, Alaska. And I'm still here. And people come and people go, but I'm still here. And I love it…we had a lot of fun in Seward. We children could run around and climb the mountain and go down to the beach, and had a lot of freedom" (SL).

Doug McRae

Doug McRae was born in Seward, Alaska in 1944. He survived the 1964 Earthquake and tsunami by spending the night with his young family on the roof of their house. Doug loves the outdoors, started hunting at an early age, and spent his career as a professional big game hunting guide. He serves on Seward's Fish and Game Advisory Board, and in recent years has been creating intricate antler cut-out carvings. He spoke of growing up in Seward, often on the land: "I was born in Seward, Alaska, in 1944, have never left, other than in the military. Grew up here, and as far as back as I can remember, I liked the out of doors, so I was always out getting wet and dirty, according to mom anyway" (DM).

Maranda Nelson

Maranda Nelson was born in 1951 in the village of Blackburn (also known as Holikachuk) on the Yukon River. She came to Seward at age three, when her mother came for tuberculosis treatment at the local sanitorium. After her mother's death in a car crash, Maranda was raised by her aunt, Lucy Broughton, who worked for many years at Seward Fisheries. Although they lived in Seward, Maranda grew up living a semi-subsistence lifestyle, going trapping, hunting, and berry picking with Lucy. Maranda is a ceramicist and served seventeen years on the Qutekcak Tribal Council, Seward's Native tribal organization.

Bud Rice

Bud Rice was born in 1950 in San Francisco, California, and grew up in northern California. He received an undergraduate degree in forestry and conservation from the University of California Berkeley, and came to Alaska in 1976 for an interpretive naturalist job at Denali National Park. This led to a long career with the National Park Service, working in a variety of capacities in various parks in Alaska. He worked at Kenai Fjords National Park from 1983 to 1992 as a backcountry ranger and resource manager, and was actively involved in the Park's response to the 1989 Exxon Valdez Oil Spill. He completed a master's degree in natural resources management at the University of Alaska Fairbanks mapping the Harding Icefield and its outflowing glaciers. He was married to Page Spencer, who grew up on the Kenai Peninsula, and who also worked for the National Park Service as a biologist and environmental planner. Bud works as a resource manager and environmental planner for the National Park Service in Anchorage, Alaska.

Dan Seavey

Originally from Minnesota, Dan Seavey moved to Seward, Alaska in 1963 for a job as a high school social studies teacher. Dan and his wife, Shirley, moved to a homestead on Old Exit Glacier Road in March 1964, where they continue to reside. Dan became involved in dog mushing and dog racing, ran the first Iditarod Trail Sled Dog Race in 1973, and operated a sled dog tour business in Seward. His sons and grandsons continue to be involved in sled dog racing and dog tour operations. From the late 1970s until the mid-1990s, Dan also operated a local tour bus and charter business in Seward, as well as providing regular service to Anchorage. With his strong interest in history, Dan is active in the Resurrection Bay Historical Society.

Page Spencer

Page Spencer was born in Anchorage, Alaska in 1950 and grew up on the Kenai Peninsula where her father, Dave Spencer, was manager of the US Fish and Wildlife Service's Kenai National Moose Range (now the Kenai National Wildlife Refuge). Page has a Ph.D. in Ecology from the University of Alaska Fairbanks, and spent her career doing scientific research and mapping work for various federal agencies in Alaska. She was on the incident command team for the Exxon Valdez Oil Spill in 1989, and retired from the National Park Service in 2011. She was married to Bud Rice, who worked as a resource manager at Kenai Fjords National Park.

Bob White

Originally from Houghton Lake, Michigan, Bob White came to Seward, Alaska in 1972, when he was eighteen years old, to pursue his love of hunting and fishing. Bob has been an avid hunter since he was a boy. Bob has worked as a commercial fisherman, cannery worker, trapper, longshoreman, school bus driver, construction worker, carpenter, and gunsmith. At the time of Bob's 2010 interview for the Exit Glacier Project Jukebox, he operated a small gun shop in Seward, as well as a flooring business. He is one of the few people who has used horses to hunt up the Resurrection River valley and other places near Seward. Bob's wife, Susan, is the daughter of Val and Jean Anderson, long-time residents of Seward.

Gary Zimmerman

Gary Zimmerman was born in Wisconsin, and moved from Illinois to Seward, Alaska in 1969 with his family when he was in the fourth grade. His father worked at the Bear Creek Saw Mill, as a hunting guide, and a commercial fisherman. In 1969/1970, Gary's father, Arley Zimmerman, operated a snowmachine tourism business on the Harding Icefield at the top of Exit Glacier. Gary has worked as a driller in the oil industry, and as a commercial fisherman. He is an avid snowmachiner with detailed knowledge of the Exit Glacier area and countryside around Seward.

Appendix B

References to "Traditional" Activities, Uses, and Access in ANILCA

All uses of the term "traditional" in ANICLA can be found in the language of Titles 2, 8, 9, 11, 13 and 14. These references are as follows:

Title 2 (National Park System)

§201.1 (and elsewhere) - For Aniakchak National Monument, Gates of the Arctic National Park, Lake Clark National Park, Wrangell-St. Elias National Park, "Subsistence uses by local residents shall be permitted in the monument where such uses are traditional in accordance with the provisions of Title VIII." Similar language is used in reference to the additions to Mount McKinley [Denali] National Park

§201(4)d2 – Assessing effects of road through Gates of the Arctic National Park, "The environmental and social and economic impact of the right-of-way including impact upon wildlife, fish, and their habitat, and rural and traditional lifestyles including subsistence activities…"

Title 8 (Subsistence Management and Use)

§803.1 - Asserts that subsistence "is essential to Native physical, economic, traditional, and cultural existence and to non-Native physical, economic, traditional, and social existence

§803 - In definitions, notes that ""subsistence uses" means the customary and traditional uses by rural Alaska residents of wild renewable resources for direct personal or family consumption as food, shelter, fuel, clothing, tools, or transportation" and other purposes."

§811(b) - States "Notwithstanding any other provision of this Act or other law the Secretary shall permit on the public lands appropriate use for subsistence purposes of snowmobiles, motorboats, and other means of surface transportation traditionally employed for such purposes by local residents, subject to reasonable regulation."

Title 9 (Implementation of Alaska Native Claims Settlement Act and Alaska Statehood Act)

§907d2(iii) - For the purposes of the Alaska Land Bank, indicates that land will not be considered "developed" if it has undergone "the construction, installation, or placement upon such land of any structure, fixture, device, or other improvement intended to enable, assist, or otherwise further subsistence uses or other customary or traditional uses of such land."

Title 11 (Transportation and Utility Systems In and Across, and Access into Conservation System Units):

§1110(a) Notes that "Notwithstanding any other provision of this Act or other law, the Secretary shall permit, on conservation system units national recreation areas, and national conservation areas, and those public lands designated as wilderness study, the use of snowmachines (during periods of adequate snow cover, or frozen river conditions in the case of wild and scenic rivers), motorboats, airplanes, and non-motorized surface transportation methods for traditional activities (where such activities are permitted by this Act or other law) and for travel to and from villages and homesites. Such use shall be subject to reasonable regulations by the Secretary to protect the natural and other values of the conservation system units, national recreation areas, and national conservation areas, and shall not be prohibited unless, after notice and hearing in the vicinity of the affected unit or area, the Secretary finds that such use would be detrimental to the resource values of the unit or area."

§1104(g)2D - Requires an assessment of environmental impacts from transportation development "including impacts on fish and wildlife and their habitat, and on rural, traditional lifestyles."

Title 13 (Administrative Provisions)

§1301(c)3 - In the development of NPS management plans, the agency must consider "Providing opportunities for Alaska Natives residing in the concerned unit and areas adjacent to such unit to continue performing in such unit activities which they have traditionally or historically performed in such unit."

§1303(b)2 – Provides for "Traditional and customary uses of existing cabins and related structures on Federal lands" under five-year permits, contingent "only upon a determination that the traditional and customary uses are compatible with the purposes for which the unit or area was established."

Title 14 (Amendments to the Alaska Native Claims Settlement Act and Related Provisions)

§1407 - Amends §21(j) of the Alaska Native Claims Settlement Act to allow village corporations to grant homesites to Alaska Native families including "single-family (including traditional extended family customs) residential occupancy" – apparently implying that Native kinship systems that account for non-biological kinship may be used as the basis for determining family affiliation.

§1430(b) - Provides guidance on a study to determine available lands for transfer to Chugach Natives, specifying that the lands identified for transfer must be "of like kind and character to those traditionally used and occupied by the Chugach people."

Appendix C: The Effects of Climate Change

In addition to the other management challenges facing the park, interviewees noted a host of environmental changes that have occurred in their lifetime that are likely to affect park activities in and around the Exit Glacier area. The information provided on this topic was deemed to be of potential value to residents and NPS resource managers alike, and is included here as an appendix.

Some interviewees noted that the glacier "certainly has receded" (KF) – a pattern that was described in reference not only to Exit Glacier but to other glaciers in the area. Apparently in reference to Exit Glacier, Tom Gillespie recalled,

> "It [the glacier] was out substantially further than it is now. Especially -- well, with the whole mouth -- the whole front of it used to stick out so much more…in '96, I believe, we came through from McCarty…it was completely different than it had been…And even now going out there, and it's been 13 years, 14 years, and it's dramatically changed even from that time…it used to be all ice. The only thing you'd see at the terminus of the glacier was ice, but now you get up there and there's rocks just about on the whole front of it except for one small canyon on the south, mid-south side where the actual ice is still, you know, all the way down to the floor of the Valley" (TG).

Similarly, Page Spencer described remarkably rapid changes in the configuration of Exit Glacier in recent years: "You know, it was quite a bit further out, as I recall…when we first started going there, and I just kind of see it getting sucked up the hill [leaving behind] those little push moraines" (PS). Some noted a corresponding change in local climate that seemed to correspond with these changes.[96]

In part as an outcome of the melting of these glaciers, there is said to be intensified sedimentation in runoff entering Exit Creek and Resurrection River. In turn, this has reduced clearance under the Exit Glacier Road bridge:

> "There was probably 20 some feet of clearance below the structure of that bridge when they built it. 20 something feet... I would say it's probably 6 feet right now…And the combination of all the gravel that's coming from Exit Glacier and Paradise Creek are pushing it against that point below …the overlook. And so now if you go up there and you look up the

> stream, there's some islands where it used to be bank, and it's backed up considerable up there" (BW).

Some predict that flooding and outwash from the glacier might eventually damage or even destroy park infrastructure:

> "You know, the existing challenges for the park right now, that I see, and it's -- sooner or later it's going to happen. All the development that they have done at Exit Glacier is going to go away. There won't be anything left there. It's going to wash away in a flood. The buildings, outhouses, I don't care what they've got there, pavement, you name it, the connection to it, that's the easiest one to lose" (BW).

The change in the configuration of the glacier was said to have had some minor influence on its accessibility and use over time, but details were few (PD). Also, as noted elsewhere, the distribution of game is reported to have changed in living memory, reflecting potential climatic influences among a range of other variables.

Notes

[1] Beginning in 2011, the area also became accessible by snow coach.

[2] Indeed, the Alaska congressional delegation called for mandated federal development of transportation corridors through a number of proposed NPS units – a demand that only softened after considerable resistance from, and negotiations with, ANILCA proponents such as Arizona Congressional Representative, Morris Udall (Williss 2005).

[3] Elsewhere, Williss notes,

> "ANILCA created new and unique problems of both kind and scale for park managers—mining, access, sport hunting, use of cabins in park areas, and subsistence, for example—all compounded by social environments almost wholly negative in the beginning. In the long run, the subsistence issue may prove to be the most vexing. In ANILCA, Congress mandated preservation of traditional national park values along with preservation of the lifestyle of the people who live there. Protecting resources in those magnificent parklands while preserving traditional consumptive uses immediately presented daily challenges to the new superintendents, and the Park Service as a whole. Whether it would prove able to evolve new management strategies appropriate to conditions imposed by ANILCA, or whether it would attempt to retreat to traditional management practices will be for the Park Service, one of the major challenges of ANILCA" (Williss 2005: 149).

[4] While hunting is not now permitted on Kenai Fjords lands, the Exit Glacier area lies adjacent to USDA Forest Service lands where subsistence hunting and related activities may occur. In this light, ANILCA provisions for access might apply. Specifically, Title 8 of ANILCA provides the following guidance on access:

> §811. (a) The Secretary shall ensure that rural residents engaged in subsistence uses shall have reasonable access to subsistence resources on the public lands.
>
> §811. (b) Notwithstanding any other provision of this Act or other law the Secretary shall permit on the public lands appropriate use for subsistence purposes of snowmobiles, motorboats, and other means of surface transportation traditionally employed for such purposes by local residents, subject to reasonable regulation (94 Stat. 2371).

[5] Since the passage of ANILCA, the State of Alaska has sought to monitor adherence to ANILCA provisions, creating the "ANILCA Program" within the Alaska Department of Natural Resources.

[6] Specifically, 43CFR36.11f states,

> "(1) The appropriate Federal agency may close an area on a temporary or permanent basis to use of aircraft, snowmachines, motorboats or nonmotorized surface transportation only upon a finding by the agency that such use would be detrimental to the resource values of the area.
>
> (2) Temporary closures. (i) Temporary closures [of less than 12 months] shall not be effective prior to notice and hearing in the vicinity of the area(s) directly affected by such closures and other locations as appropriate."

[7] As with National Park Service regulations, those for the U.S. Fish and Wildlife Service (50 CFR 36.12) explicitly define snowmachines, motor boats, and dog teams as "traditional" for the purposes of ANILCA, and allow their access consistent with other management mandates as defined in ANILCA:

> "the use of snowmobiles, motorboats, dog teams and other means of surface transportation traditionally employed by local rural residents engaged in subsistence uses is permitted within Alaska National Wildlife Refuges except at those times and in those areas restricted or closed by the Refuge Manager" (50 CFR 36.12).

By the terms of 50 CFR 36, access by these modes of transportation is allowed in refuges by "local rural residents…at all times when not engaged in subsistence uses," so long as that use is consistent with other federal and state laws, not within areas subject to formal closure, and not demonstrably destructive to refuge resources by criteria specifically articulated within the regulation text.

USFWS reserves in Alaska typically invoke 50 CFR 36 on matters of transportation in their comprehensive management plans, allowing them to dispense with the issue efficiently. In most management plans reviewed in the course of this study, these management plans establish the presence or absence of a practice in 1980 as the standard for "traditional" for purposes of adherence to these regulations and to the terms of ANILCA.

[8] Rupp summarizes the conclusions of this case as follows:

> "In sum, it appears that some showing of adverse or detrimental impacts on resource values is necessary for courts to uphold regulatory prohibitions on uses of park land that provide for the public enjoyment – even where such uses have been historically and generally prohibited" (Rupp 2004: 316).

Still, some legal reviews have suggested that snowmachine access for purposes of public "enjoyment" are not legally defensible relative to the other mandates that guide park management (Rupp 2004).

[9] Specifically, 36 CFR 13.1326 states,

> "The use of snowmachines is prohibited within the EGDA [Exit Glacier Developed Area], except -
> (a) On Exit Glacier Road;
> (b) In parking areas;
> (c) On a designated route through the Exit Glacier Campground to Exit Creek;
> (d) Within Exit Creek; and
> (e) For NPS administrative activities."

The Exit Glacier Developed Area (EDGA) is defined in 36 CFR 13.1318.

[10] Val Anderson was among those who were able to undertake work in construction during the rebuilding. He notes:

> "Well, of course, we were busy working on the cleanup and everything for quite a while. And then after the cleanup, then they had to change out all the water lines, the sewer lines, and everything had to be redone. And I worked with a construction company doing that for -- and as a result of it, of course, the waterfront was gone, but doing that I got a chance to get in the Laborers under general construction. So where I was able to -- before they got the waterfront built back, I was able to work on water and construction jobs here, being as I belonged to the Laborers, too, you see. So I didn't have to leave home like some of the guys did to get work, you know. So it worked out real good for me" (VA).

[11] Warren Huss provided additional detail about the town of Seward upon his arrival in the early 1970s, including areas along Old Exit Glacier Road:

> "There were a few homes down Old Exit Glacier Road, down where the Seaveys lived. They were just cabins, kind of. And there was a little bit of a community kind of down in behind Spenard Building Supply, in that area, but nothing…past where the Salmon Bake is now. There…wasn't anybody [living] out there…A lot of people, fishermen that made very, very good money, lived in little tiny homes… those were the heyday of crabbing and scalloping, and those guys were making millions of dollars a year, and yet they lived in little one story bungalows, you know. The home wasn't their interest, they put all their money in their boats" (WH).

[12]Regional changes in fisheries have affected Seward, as has a shift in its political and economic priorities relating to fishing. As Tom Gillespie suggested,

> "I just think the salmon fisheries from Prince William Sound has taken a hit that's probably impacted Seward, and the other effect is that there's always kind of a constant fight with the local…political folks on… pushing the fishermen out in favor of tourism" (TG).

On the pipeline development of the 1970s, Warren Huss noted,

> "The population has just been slow and steady in growth. Of course, we had the oil spill and pipeline days made a… big impact on town…A lot of local people went to work on the pipeline, and a lot of people made good money in a short period of time, and we were able to come back and invest in town" (WH).

[13] These tensions are particularly manifested when land managers or political leadership must make decisions about the allocation of limited resources, a collision of interests that some feel has increasingly favored tourist interests.

[14] On this point, Duane LeVan noted,

> "After the earthquake, we just got away from ships coming in and it turned into, well, what we say, T shirt shops downtown…It's a tourist town…And so consequently… this little town lacks for a real wage base" (DL).

[15] Keith Knighten spoke thoughtfully on this transition:

> "The worst change, I guess, is -- I don't know exactly…how to say this -- is tourism. But I'm not bad mouthing the tourists. It's the effects of tourism, that the stores have all changed. What used to be the drugstore, I ran in there one day to get something, and come to find out the only thing they had was T shirts, coffee cups, and postcards. And…the tourists have [done] a lot, and I'm glad to see them here and everything, but it has changed the whole character of the town. It's…made it a tourist town. And so -- but it's provided jobs, money, and income for an awful lot of people, so the tourism is good for town, but it's changed it. When we first came here it was just a sleepy old fishing village" (KK).

[16] That being said, the community of Seward continues to have pronounced seasonal variations in employment that increasingly reflect the summertime emphasis of the tourist economy rather than cyclic change in natural resource industries. As Keith Campbell notes,

> "We used to have 30 percent unemployment in the wintertime because the fisheries weren't working, the commercial guys…the boats were up onshore and were out of business, and so you just had this huge unemployment thing. And now, you know, we have unemployment, but not that way because the restaurant people close and they go South, or whatever happens, and so it doesn't impinge on the community like that. So we've had just a complete change in the economy…I mean, things dry up here. You know, like the 15th of September…it winds down and it becomes a quiet little town" (KC).

[17] These retirees include some of the project interviewees. Keith Knighten, for example, moved to the area in 1965 for a Coast Guard job, and decided to stay when he retired and worked in the charter fishing business and as a pilot. Duane LeVan who came to Seward in 1946, found a job with the Alaska Railroad, married a local woman, eventually retired from longshoring and road construction work, and still enjoys all that Seward has to offer. Warren Huss moved to the area as a dentist in 1971, only to retire here later in 2004 with his wife, Mary. Keith Campbell came to Seward in 1971 as the hospital administrator and he and his wife, Jackie, still to live in Seward after his 1990 retirement. And Dan Seavey moved to Seward in 1963 to be a high school social studies teacher. He retired from teaching and has continued to be a local business owner and successful dog musher in Seward.

[18] For example, Percy Blatchford notes in regards to his father's origin: "[He's] from Stratton, England. He was a Cornishman… I remember my youngest sister here in Seward... [when] she brought a bunch of Gaelic papers home and pop read it for them. And my mom came from Shishmaref" (PB).

[19] Bob White notes, "I've snowmachined up and down the valley over the years but have probably skied it or snowshoed it or dog sledded it a lot more" (BW).

[20] Packy Dick noted an incident in which his Jeep got stuck crossing a river near Blackstone Point in Resurrection Valley:

> "Well, I tried to take [my Jeep] up there, naturally, like a guy would, and got prepared and put a tarp over the front, see, so that the water would go [and not get in the engine]. Well, that worked really good until one wheel hit a rock and grabbed the tarp, took the tarp off. Yeah, well, then, there you are... So I had a winch on the back behind the seat so I could tow either way, [I] take the chain off two pipe wrenches, and I winch that thing up on the bank. And then the battery jumped out, hit the fan, so it [had no power]. Took the spark plugs out and started spinning this thing until the battery almost went, then I put one plug in trying to make it hit on one plug. Well, it didn't work. Walked all the way to town, got another battery, come back out there, put this new battery in, and it didn't make contact, so I shorted out with a pair of pliers, blew it, end out of the battery. Well, then I started it on two cylinders, but it wouldn't start on four cylinders. Ever tried to screw a spark plug in to a running engine? Yeah, put it on a stick, a wire, you hold it down -- bang, bang, bang -- and you look around, find the plug and put it back in there. I got it running. And we come on home... it was…up where Blackstone was. There was a big point out here, and the water was really deep, but we [went a]cross -- there was no roads, see. And we was crossing this thing, and I got way up there, and that's where I lost it in the water. So we made better preparations next time" (PD).

When asked about how they crossed the river the next time, Packy Dick explained their floating technique:

> "Heck, we were driving in the water, and it was clean up on the windshield. The Jeep's down underneath and put a snorkel on it, put the canvas on it, and took it easy, and we'd float backwards and we'd go forward and it'd float again, and finally, we'd make it to the other side. Yeah, when you're young, you're bulletproof. There's no problem…nothing's going to happen, you know" (PD).

[21] Warren Huss, for example, reports that by the early 1970s snowmachining "was pretty popular. There weren't the trails that there are now, but the Lost Lake area was accessible at that time and had been for a number of years" (WH). People were already undertaking long-distance trips on the Kenai Peninsula at this time. Tom Gillespie, for example, discussed traveling as far away as the upper Russian River on these early machines: "I think … '70 or '71 was the year that we were able to make it all the way just about to Upper Russian with the snowmachine" (TG).

[22] On the name Placer Creek, Doug McRae recalls,

> "The reason this is called Placer Creek is there's a waterfall right in here, and somebody went to a lot of work back there, I think in the '30s, they drilled a hole in the bedrock right alongside the waterfall and tried to divert the water" (DM).

[23] Similarly, Packy Dick recalled that people had to stay in smooth, snowy areas:

> "We'd just run every direction we wanted to go [but] we just stayed down around the snow. [Snowmachines] run all over…wherever it was smooth, because it was so rough, ice and stuff, it was so rough, and cracks in the snow... but then you get back where the snow was, then it was good going" (PD).

[24] Duane LeVan made such a comment regarding efforts to access Lost Lake, north of Seward with one of the early snowmachines:

> "We were trying to go to Lost Lake with it and our idea was we'd take our skis -- cross-country [skies] -- up there…Well, we spent more work putting that snowmachine up there than ever we would have doing walking. It's much easier to walk" (DL).

[25] When asked why he flew his Ski-Doo to the cabin, Packy Dick elaborated on these limitations:

> "We'd have had to carry it up there, you know. Because heck, the tracks are smooth, there's very little ribbing on them. You know, these guys got cleats now. We didn't have nothing on them. We just went. Oh, and it was easier just to throw it in the airplane, fly it up there and drag it out and fire it up and go play. You know" (PD).

Doug McRae noted that with "these new ones, they have wide tracks, paddles [but with the old ones] you had to be on a good surface" (DM).

[26] Packy Dick, for example, noted that these older machines were lighter and thus more suitable for air transport:

> "There ain't no weight. 300 pounds, a couple of guys [could lift it]. These things they got now, why, yeah, it would have been interesting. Getting it in the plane even... But back then, why, they didn't weigh nothing, you know" (PD).

[27] Packy Dick recalled that most Seward residents could not afford snowmachines originally, limiting their use in the glacier by some part of the local population:

> "They were a thousand dollars. That was a lot of money. I mean, a lot of money. But I was construction, so I was moneyed up, so I had to have one. You know" (PD).

[28] When asked about his original reasons for buying a snowmachine, for example, Packy Dick noted,

> "Well, them guys over in…North Road and Kenai and that, they were running around, Puchek brothers, they had snowmachines. Yeah, that looked like a lot of fun. Let me try that. Well, I've got to have one of these, that's all there is to it. So I come over and bought one" (PD).

[29] Packy Dick noted running snowmachines widely around the Seward area as part of this recreational use:

> "Heck, we've left right here in Seward and go up Lost Lake and go out the other end and go down to Sunrise and have lunch, and then [have a] big race back, you know, with a snowmachine... Well, go out this way, down

> to the trail, and then take off and go down here to Cooper Landing. It don't take long, either. Because this is where that trail come in. You know. Through the back door" (PD).

A number of interviewees alluded to the superiority of modern snowmachines, and the increased mobility they afford. More recent advances in snowmachine technology have made more areas of the glacier accessible, according to Packy Dick:

> "My kid was up there this year. I guess a bunch of snowmachiners [went] up. You know, with these new machines… They're not like our [older machines]. I still got one of ours out here, a little slick track thing. I don't know how we went as many places as they do, you know. Yeah, I had an Elan with a 35 T and T in it. Put a long track, an alpine track, underneath it, and it was just light as a feather and could go anyplace. But now these guys got horsepower, big tracks, [and they] ride much better "(PD).

[30] Clearly, there are many influences on the distribution and abundance of moose and other wildlife species. Some interviewees accentuated the influence of regulatory changes in assessing the demographics of both moose and black bear. Bob White, for example, noted:

> "We used to have a 10 day moose hunting season in the early '70s here…[Now it's a month] from the 20th of August to the 20th -- so it's a month -- of September. And our moose population came up. Back in the '70s we passed regulatory changes to only harvest the larger bulls and some of the inferior spiked fork bulls, so animals that wouldn't make the winter, typically the spiked forks are small animals that just don't typically make the winter. And so we allowed that harvest, and then we went to over 50 inches, so we got some animals in the population that would actually be there after moose season when the cows could be bred, instead of shooting every bull, and then the cows not being bred from year to year. And that made a pretty significant change in the moose population, but it also started to raise the black bear population because we were providing a lot more protein rich nutrients in the form of calves in the spring" (BW).

[31] For example, Duane LeVan commented on the effects of pedestrian access and social trails:

> "You notice it at Exit Glacier where we walk there practically every summer and walk up, you know, around it, the little rolling parts and that. And I noticed there that parts are wearing away, even though they do have trails around. So, I mean, but it can't be helped. If you're going to put a thousand people in there a week or whatever, well… some deteriorating has to happen. So anyway, I had kind of mixed feelings about it" (DL).

[32] Seavey notes,

> "I have broken down in my old age, though, and gotten a four wheeler to hook my dogs to… it's a 2006, it's got 500 miles on it, and it's hardly run, it's all the dogs that have pulled it" (DS).

Bob White discusses goat hunting at Falls Creek by Moose Pass, packing with both an ATV and a horse: "We did get two goats, so we packed them out from there. Had a four wheeler and the horse" (BW).

[33] As Keith Knighten notes,

> "When Alaska Aeronautical was flying in here, time and again they'd get to Exit Glacier and have to turn around because…they were flying bigger airplanes and they couldn't get down below the treetops and come down the river like we did. And so they'd turn around at Exit Glacier, which is 6 miles from the airport, or whatever, but they couldn't make it. So yeah, that…was and is still a well-used path in and out of Seward" (KK).

[34] Doug McRae for example discussed hunting for brown bear on the Russian Lakes, accessing the area by airplane: "The first time I ever -- I flew to Russian Lake one time in late September, before there was a road, before the park, and I was hunting, I guess, yeah, brown bear" (DM).

Gary Zimmerman was among those interviewees who alluded to long-term hunting trips using airplanes on skis:

> "Every time we ever went sheep hunting in there when we just used ski wheel plane, we'd go in there for a two week hunt, we'd be in there no less than four weeks" (GZ).

[35] Bob White discussed using this technique at Russian Lakes: "Where the bulldozer is at [at Russian Lake] was one of those places, you could land in there in the winter, it's a big enough open meadow" (BW).

[36] Interviewees referred to this airstrip on various occasions: "The old T-craft strip sits right…on the north side of the river, just south of the Resurrection River cabin' (GZ). The T-craft strip was used: "namely in the fall, primarily, for moose, during moose season…The T-craft strip here, we used to fly hunters in there for moose" (KK).

Parts of an old T-craft airplane that had been totaled in a crash landing were abandoned many years ago near the Resurrection River cabin. Fortunately, both pilot and passenger were able to walk out of the area. In recent years, resourceful hunters had used the fuselage as a hunting stand (BW).

[37] Val Anderson indicated that he did not access the glacier via snowmachine, primarily for a lack of trails:

> "Of course, there wasn't really anything like that up there then because there was no trail. Most of them, they say they went up there, they flew on one of those [airplanes that used what] they called a T-craft strip up there somewhere or another. You may have heard of it" (VA).

[38] Keith Campbell, for example, referenced the use of canoes in walking treks to Exit Glacier in 1981 or 1982:

> "In the summertime to go across the stream, before the bridges [were built] we would take a canoe, and we would go off and then hike up to the glacier. There was a Cat trail up there. And, in fact, you couldn't get any past the border" (KC).

[39] Bob White explains why he got into horseback hunting: "The wife liked horses, too. She had a horse first, and I used that one a little bit, and then I wound up trading a bathroom remodel for another one" (BW).

[40] As Bob White notes, "Brown bears have just exploded in the area in the last 10 years, so it's not exactly a good place to go riding a horse" (BW).

[41] Mining and timber were mentioned by some interviews, but mostly in parenthetical terms. For example, Val Anderson discussed mining practices at the head of Resurrection Creek following World War II:

> "When I first came out [of the army] my dad had the old Hershey Mine out of Hope up at the head of Resurrection Creek, [Elwyn] Swetmann that used to have the drug store here in Seward owned that, and he wanted to prospect, and dad was, of course, a hard-rock miner, he had done that before he went into guiding, you know" (VA).

Tom Gillespie discussed mining in the vicinity of Exit Glacier:

> "It's called Placer Creek, obviously, for a reason. I'm sure they had some kind of gold in there. I wouldn't doubt that the cabin that was built up there was for some sort of mining in there… There is a little bit of prospecting up on the backside of -- on Martin Creek. A couple guys here recently have been trying to get gold out of there" (TG).

Meanwhile, Tom Gillespie explains that timber harvested in the lower Resurrection River Basin was milled at Bear Lake, just north of Seward:

> "Timber, ironically, went over to the Bear Lake Sawmill, which was on this lake right here. Just down the road. And they had a big sawmill and…they logged all the area behind Bear Lake…big spruce. Yeah, that's the only marketable material at the time" (TG).

[42] The term "subsistence" is used cautiously here, and with due disclaimers, recognizing that the term has a specific legal history in Alaska, and the fact that there are various limitations on subsistence hunting on the Kenai Peninsula. Still, it is clear that a number of interviewees have subsisted in some part on wild foods harvested in the region; no effort is made here to clearly differentiate formally sanctioned "subsistence" activities from those that endure in the absence of such sanction.

[43] Percy Blatchford, for example, described the difficulty of packing out moose from Summit Lake (roughly 40 miles northeast of the park) in September of 1956, before the widespread use of snowmachines:

> "That was tough packing because there were downed trees and everything. And it was the last day of the season, so I thought I had to have it out that day, so I got it out. I started packing it, I think it was 11:30 in the morning, and 9:30 that night I got the last load out of there" (PB).

[44] Percy Blatchford recalled "I stayed at Lost Lake. There used to be a cabin up there. Most of my moose hunting was farther out, you know" (PB). Lost Lake also was mentioned as a common destination by Packy Dick: "Everybody was going to Lost Lake once they got that trail open, you know" (PD).

Percy Blatchford also noted the importance of Summit Lake, roughly 40 miles north of Seward as a moose hunting area:

> "We didn't hunt moose around [Seward]. We'd go up the Snow River, then we'd go up by Summit Lake... It's out there by Summit Lake. And then we'd hunt down in the burn off they called it Mystery Creek Road...That's in the moose refuge , I think" (PB).

He also referenced moose hunting near Lost Lake, a little less than 10 miles northeast of the study area: "I stayed at Lost Lake. There used to be a cabin up there. Most of my moose hunting was farther out, you know" (PB).

[45] For example, Val Anderson also hunted for moose and goat in the area around Skilak Lake, in the Kenai burn:

> "Once in a while somebody would go…up the mountain for goat or something like that, but it was primarily moose hunting area. That's what I went after… I'd go down…in what they called the Kenai burn. You see, after that area burned down in '47, it made that big area on the north side of Skilak... I remember when we lived on Skilak, my dad made the remark one time… "Hell of a good thing that if that north side of the lake burned because there was old black spruce and everything, and there was no game over there at all hardly." And then…on the Funny River and the south side of Skilak, that had burned -- I don't know, somewhere in the early 1900s, somewhere in that, and that was a primary moose country. But then after that burn over on the other side, then that turned into the…primary country [for moose hunting]. All the stuff that grew up after the fire…it just improved it because all that young birch had moved up, and that's what moose would browse on" (VA).

Percy Blatchford was also among the interviewees who credited the 1947 fire with increasing moose populations:

> "There wasn't any moose there [up the Resurrection River Valley]. Aron said that they'd go for days before they'd see a track. But after the fire of '47, I think it created a lot of moose feed, you know. I was in the Service and – I mean, Fort Rich [during the] Great Kenai Fire they called it. It was all down…when you go towards Kenai, all that low land out there, that was that's all under fire... In the '50s, '60s, there was a lot of moose out there. At that Summit Lake, you could see trails in the -- up on that side because you could see good on that side. You don't see those anymore. There's regular trails all over. I think I killed the biggest moose there in '56. It was 62 and a half inches...he was still in the velvet. I remember how heavy he was because I weighed one leg when we got back, at Riley's down at the meat and fish plant, and it was 173 pounds" (PB).

According to Percy Blatchford, the moose population increase on the Peninsula ended with population control measures in the 1970s:

> "I think there's less [moose now]. I remember … when they had all those cow seasons on the Peninsula… After you leave Gene Lake, you climb up and you hit a big flat, I remember going down there and had these cow seasons, and looked like a slaughter place, people never hunted moose before were shooting them and shooting them in the foot, and you know. They weren't hunters.... And I talked to a biologist, he said, oh, you're going to have a lot -- lot better moose hunting now. Well, it hasn't come back, far as I can see... That was in the '70s, I think... They had one season for cows for 40 days, I think. They thought they had too many moose" (PB).

[46] When discussing hunting on Kenai Peninsula, Percy Blatchford mentioned a place known as the "Goat Pasture" near Blackstone Point (roughly 60 miles NE of Kenai Fjords):

> "We called it the goat pasture because there was always goats there... We hunted goats in there because it was accessible. They didn't climb too high, and there was mountains on both sides, and it was kind of flat in there, you know. It was a good place to get goats... It's hard work. And I used to get two every year because it's pretty good meat. And I'd quarter them and just take the meat and the horns and tie them on my pack board and come out... Not too many [hunted goats] there. They thought it was too tough" (PB).

Bob White recalls hunting mountain goat much closer to Seward - on Resurrection Mountain, for example:

> "I've gone in some goat hunting. And I've actually hunt goat out on Resurrection Mountain before…I've packed goats…on my horse before. That was up Falls Creek. We'd go up Falls Creek Mine Road and get into that valley up there" (BW).

A mountain "behind Pit Bar" also was mentioned by Packy Dick as being a good area for hunting goats:

> "We went up on that mountain right behind -- what do they call that one, behind the Pit there?...That was a good place. I've gone up there quite a few times and got goat" (PD).

[47] Perry Blatchford recalled,

> "A lot of them would go out the bay here if they had a boat, you know, and get them closer there. They land and they are not too far up. But it's dangerous landing in the surf. So I'd stay. I'd hunt inland" (PB).

Aialik Bay was reported to be a good area for this kind of boat-based hunting: "[That's] a real good area for hunting. Well, back then it was a real good area for goats and black bear. You know, we did a lot of hunting in Aialik Bay" (GZ).

[48] Duane LeVan noted this phenomenon:

> "The goat population over the years, we always watch goats. And there's a lot more goats than we had for a number of years around here. A lot of goats" (DL).

[49] Gary Zimmerman notes that these sheep were difficult to access in the rugged high country on the western edge of the park:

> "Tustumena Glacier, and then there's several more glaciers further down where the sheep are at, but you could never get to them sheep because you'd have to fly into Green Lake or Emma Lake…And the hike from

Emma Lake or Green Lake up to where the sheep were at, you know, you'd have to be a world class mountain climber because the alders and stuff are so thick" (GZ).

[50] Warren Huss had particularly detailed information about some of these boundary changes between animal ranges:

> "Originally when we got here, there were a lot of goats up along the edge of the Quartz Creek and Mills Creek drainage. On the Quartz Creek side facing the highway, or the Quartz mountainside facing the highway, that was all goats… further up in this area, up past Grant Lake.
>
> "And it's an area where for some reason the goats moved into the sheep territory and pushed the sheep out of there eventually. And they were gone for a couple years. And then all of a sudden the sheep started migrating across the highway back up into the Crescent and Madson Mountain area, up in this area. So -- up in this Madson Mountain area, and then all the edge of -- in these areas along here, and up in the bend of the lake on Crescent Lake, these mountains up in here. They used to have goats up in there, and then all of a sudden the population of sheep took off… That was closed for a number of years, and then they opened it [for hunting], I couldn't even tell you what year it was, probably in the early '80s, and they had a permit -- they issued, like, 10 permits for sheep up in that area. So we would climb up on the mountains there, and I hunted a lot" (WH).

[51] Warren Huss, for example, discussed hunting ptarmigan on Crescent Lake, some distance north of Seward:

> "On the Crescent Lake area, what we would do is we'd go up in the wintertime by snowmachine and hunt. There's big willow flats right here at the end of Crescent Lake, but the mountainsides, these ridges on either side between Carter and Crescent Lake were really good for ptarmigan" (WH).

Packy Dick indicated that the area around Lost Lake was good for ptarmigan hunting:

> "...A lot of good ptarmigan hunting up there... all along the lake, all along on this side, and all up and down in here. Yeah. It's all good bird hunting" (PD).

[52] Warren Huss, for example, discussed hunting ducks in and around Seward:

> "It used to be legal to hunt out around the airport…There's tidal flats out here, and we would hunt these flats out around the edge of the airport, and sometimes over on the east side of the airport. And hunted some out on Bear Lake. We'd go up Bear Lake on the right side of Bear -- east side of Bear Lake. Sometimes we hunted up at Crescent Lake, at this end of the lake we hunted up here for ducks. There's a couple of little creeks that would come in there and you would get ducks in here. A lot of my duck hunting, early days was across the inlet over on the Kustatan River. We'd fly across…and go up the Kustatan" (WH).

[53] For example, Tom Gillespie talks about fishing in Clear Creek, north of the park:

> "There were small dollies [Dolly Varden] that came up the creek there…Then sometimes when it flooded there would be some sea run arctic char coming, or actually sea run dollies would come in and they were a lot bigger" (TG).

[54] On the point of commercial fisheries in this area, Tom Gillespie notes,

> "We have fishing here…We don't really, you know, have any natural resources other than that…There's definitely a good halibut fisheries here, and you know, black cod is fairly [good]. I think there's guys doing that out of here, fishermen. But there's very little scallop fishing. That used to be popular in the '70s, until…that was kind of fished out" (TG).

He also referenced his family's subsistence fishing in the greater Kenai Peninsula area:

> "We do the dip net fisheries over at Kenai, and usually can them, can them up or something, smoke them for the winter" (TG).

[55] Val Anderson, for example, discussed how his father trapped in the area around Skilak Lake northwest of the study area when he was a boy, even though his economic pursuits focused primarily on guiding:

> "My dad did some [trapping]. Yeah, oh yes. And we had our own gardens and everything, you know… He would put in about a month's work for his guiding, but at the time, when people were lucky to get a job for a dollar a day, he would make 17 and a half [dollars] a day guiding..." (VA).

[56] Bob White further noted that "My most predominant coyote sets were right around the points on the Resurrection River just north of town."

It is important to note that prices fluctuated considerably. Certain interviewees mentioned the prices they received for pelts, but these clearly varied between times and circumstances. Doug McRae, for example recalled "30 years ago, I caught 17 wolverine one winter and got $35 apiece for them" (DM). Such statements from the interview transcripts could be reviewed to discern possible trends in the economic importance of trapping over time.

[57] Val Anderson noted that his father used to trap coyotes for bounty. He didn't indicate a location, although it is likely to have occurred in the area near Skilak Lake where the family homestead was located:

> "[Most of what] we got was coyotes. We used to trap them quite a bit because they used to have a $20 bounty on them at that time, which made them pretty valuable compared to what today's prices are, you know" (VA).

[58] Val Anderson spoke in detail about how his father made his living primarily as a hunting guide in the area near Skilak Lake, about 20 miles northwest of the park:

> "He would put in about a month's work for his guiding, but at the time, when people were lucky to get a job for a dollar a day, he would make 17 and a half a day guiding, you see, so he could work for a month and we would live real good for the rest of the year on that, you know. That was regular guides wages, was 17 and a half a day at that time, when we were lucky to get a job for a dollar a day a lot of places... We'd pack 15 miles out to the moose camp on Funny River, and then another 15 miles up in the mountains, what they had their sheep camp up there... Of course, they would go out a couple weeks ahead of time and get the tents set up and everything ready and everything packed up, and then they would meet the hunters or the clients, they would be called, I guess… on the dock here in Seward when they came in on the passenger ships, you see, and take

them down -- down the lake and down the river to Skilak, and stay at our place, and then take and go out to the camps there" (VA).

[59] Packy Dick noted that a tremendous amount of snowmachine activity took place in the summer, due to the use of these high-elevation areas on and around the icefield:

> "I don't remember what time of the year I was up there. Must have been in summertime because it was pretty nice weather... It didn't get dark, you know. But in the wintertime when we were working and you couldn't get up there anyhow because it was snowing so hard and the wind " (PD).

[60] As Val Anderson noted,

> "If they went for brown bear, usually they would go down the river to Kenai and hire a cannery tender and go across to the west side of Cook Inlet to bear hunt over there usually" (VA).

[61] Packy Dick, for example, described towing downhill skiers by snowmachine at Lost Lake:

> "I'd tow them up to the top with my Alpine, see, and then they would get off and ski down... I'd go around, get them, and take them back up there" (PD).

[62] Interviewees made reference to this phenomenon. Duane LeVan, for example, used historical trails to substantiate access during conflicts with the USDA Forest Service over the summer-use Lost Lake Trail:

> "Forest Service at one time was going to try to keep from working this end of it, and I got together with a couple different guys, Doug McRae, in fact, and a few more of us, and we insisted that they keep our end of the Lost Lake trail open because this end had been opened, we could date it back to '27" (DL).

[63] Interviewees spoke of this frequently in reference to the Lost Lake area. Duane LeVan, for example, recalls that snowmachine users undertook trail construction efforts when agencies would not:

> "What built the [winter] trail up…to Lost Lake, the winter trail for getting there in the winter, was the snowmachine guys. They wanted to get up there so bad with snowmachines. Forest Service wouldn't do it…it was in the '60s" (DL).

[64] Ralph Hatch discussed his father's hunting cabin: "It was actually a place to stay when he went moose hunting. And we walked up the river, up to Black Point, and then that's where he had the cabin" (RH).

[65] Keith Freeman, originally from New Hampshire, moved to Cooper Landing, Alaska in his early twenties and began using such cabins:

> "At the time, the United States Forest Service owned the land, and we had to lease, for recreational cabins. And I think it was 1978, the land became available and we were able to buy it from the state" (KF).

[66] Packy Dick described the process of building new snowmachine trails in detail, with reference to the initial snowmachine trail to Lost Lake:

> "We… snowshoed back and forth, building trails. Go a little ways, build a trail, and then it would snow, then you do, cut brush. You know. Finally one day Joe went with us and we went up there, and we got up on top and we didn't know where to go, he said, just head on -- go over the top of the hill. So away we went and the race was on to see who could get on the lake first. Oh. Ray Anderson was with us, and he had a Polaris. That was another brand X. Yeah, actually, he was the first guy to hit the lake, you know… with a snowmachine. And then once the people at night would see our lights up there running around from Seward, when we were going up and down the down trail, why, then, everybody started. You had to [break a trail]. Walk ahead and walk back and then run the machine up…These machines they got now, they just fly right up there. But the ones we had, why, sheesh. Carried them... We knew which direction we was going, and wherever we'd find a gully or something, we couldn't go there, we would go there, and then we'd go through the trees, you know, and just kept nitpicking until, hey, there it is... We didn't have to cut no trees. All we did was knock down a bunch of limbs, and then the snow would land on our trail, you know, instead of making them dips. Yeah. And pretty quick, then the next thing you had to do, you had to go out and come in from the other end, then you had to go over the top, go down

to the lake, and then see who could climb the highest mountain, and oh, it was …quite an adventure, you know" (PD).

[67] Warren Huss elaborated considerably on this practice of bridge-building, providing a number of illuminating details about the practice prior to the advent of a permanent bridge accessing the Exit Glacier area:

> "We would find a place where we just had to cross it once. And usually through the winter months, if we got across it, it would last. You didn't want to build multiple bridges, so we would find a spot where the river was fairly deep, but narrow enough that you could get one of these ladders or a tree across there, a couple trees. Originally, like I said, we used to fall a couple trees, we'd drag them all the way out, a bunch of us. [One guy was] Gayle Albertson, he was an employee for the city and the water department, great, big guy real strong, and we'd drag these trees out there and stand them up and drop them across, and then take boards and pound boards across it and put the spruce boughs on it and drive the snowmachine [over it] you know, after a snowfall or two…There was a bridge that we were making to get up to Exit Glacier, and this is in '72…We got a great, big ladder, and that's how we made bridges to get up to Exit Glacier in those years…November 19th, 1972. That was one of our early attempts at getting up to Exit Glacier. When we trapped, there were several years in the early '70s where we didn't have to build bridges, even though the creek [was] as big as it…is now. But we used to be able to just find snow bridges and cross those snow bridges, and we would go up and we set our traps up" (WH).

[68] There was also the threat of falling through the ice in some cases, though this was not necessarily life-threatening. As Doug McRae notes,

> "I guess if you fell through, you're not going to drown because it's not too deep because the water in the winter is really, really low. You know, and like a lot of rivers, it glaciers up, and you've got to be careful. Even with an airplane you've got to be careful when you land on a lake that it doesn't have a water flow under the snow because, man, you get stuck like glue there and you can't get out" (DM).

[69] Keith Campbell described working with a local ranger to mark trails north of Seward in the early 1970s:

> "The winter of '71, '72, Phil Gumm, who was the local ranger at that time, wanted to re-mark this trail all the way through from here over to Primrose, so he asked me to go along. And we were up there and he had made and painted diamonds, and painted them orange, and we went along up here and along the trail, snowmachine trail. Up the Lost Lake Trail, and we stood on the snowmachine trails, and reach as high as we could and hammered these painted diamonds on trees that were up there" (KC).

[70] Packy Dick indicated that he and his friends cut a trail to Lost Lake that increased local snowmachine access: "Everybody was going to Lost Lake once they got that trail open, you know" (PD).

[71] Speaking of these high elevation areas, Warren Huss notes,

> "It actually got to the point where the latter part of the season it got kind of dangerous because oftentimes you [had] snowstorms at that upper elevation…You'd get up there and it would be a nice day, and all of a sudden a storm would come in off the Gulf, and it would dump 3, 4, 5 inches of snow, and then you're scrambling down rock, and it wasn't fun sometimes" (WH).

Similarly, Doug McRae observed that the high country was lightly used due to these environmental challenges:

> "Because of the access, it was tough. Especially in the Seward weather because that wind could blow down there 40, 50 miles an hour. It could be 10 above zero, but boy, you've got a chill factor, and pretty much that was -- it blows a lot up there. So there wasn't a tremendous amount of activity up there" (DM).

[72] Warren Huss moved to Seward in 1971, and reports that only a year before Nash Road had been only a trail. Today, it is an important road extending along the east side of Resurrection Bay:

> "Nash Road, just a year before that, had just been a trail. And it always flooded out down at the lagoon here, a half mile back down the road. And

so they came in and they upgraded Nash Road, and they had just finished that project, raised the grade, straightened the road out quite a bit" (WH).

[73] Percy Blatchford discussed the details of construction in the course of his interview that go beyond the scope of the current report, but may still be of interest to historians and maintenance staff alike; these details are contained in the original project transcript at the University of Alaska-Fairbanks Oral History Program, in the collections of Kenai Fjords National Park, and on-line in the Exit Glacier Project Jukebox (www.jukebox.uaf.edu/exitglacier).

Packy Dick mentions the grant support for this project in passing:

> "Old Herman Leirer and them, Coke Foster, they put that road in. They got some grant someplace and they kept hammering away on it, and the old guy got 'er done. Yeah, they put that road in. And then it turned into a park" (PD).

[74] In discussing the construction of Herman Leirer Road, Packy Dick expressed frustration with those who protested road development:

> "We didn't have people running around with napkins getting you all worried about, oh, you broke that tree down, the squirrels won't have no place to live, you know. But they'll drive right up there with their car and protest. Oh, okay. Yeah" (PD).

[75] Discussing areas some distance from the study area, Warren Huss notes that a road replaced the trail by Carter Lake because a hydro-electric plant was proposed, but never developed. In turn, this road allowed for increased access and opportunistic ptarmigan hunting:

> "Right past the Trail Lake Hatchery, there's a pull off at Crescent and Carter Lake, and it's a zigzag trail that you could take snowmachines up, and we'd hunt up [there]. During the wintertime we would hunt for [ptarmigan] up there. And that trail was put in, I couldn't tell you exactly, it was sometime in the mid or late '50s, and they were looking at a possible hydroelectric development from this little lake here, which is Carter Lake, and the drainage that goes off to the east and south out of Carter Lake. They were looking at putting in a hydroelectric, small hydroelectric plant there to supply supplemental power to Seward, and I

guess Moose Pass. So they put that road in, but they never went ahead with any kind of hydroelectric plant of any kind up there" (WH).

[76] Tom Gillespie's parents used to hunt ptarmigan in the Exit Glacier area when he was a child, but he notes that this was not a widespread practice prior to road construction, due to the sheer difficulty of access:

> "Well, from our place, you know, they'd drive up to the end of the road by Seavey's Corner and then they'd hike out onto the riverbed, and then you could go a little ways. But… you know, you're looking at six miles or something to get to the glacier. So really, there was not a lot of activity all the way up at the glacier area, until the road went in. You know, people with snowmachines, but otherwise, this is a long trek up the river to get access to that glacier area. Of course, people would, you know, take the time to hike through or something, but that's if they were going to Upper Russian Lake. That's a…major expedition to do that before that [Resurrection River] trail was in" (TG).

[77] As Warren Huss notes of this pattern,

> "We never really hunted prior to the formation of the park on…what would be the west side [sometimes called the "south side" elsewhere in the document] of the road, or on the Exit Glacier side of the road. We did some hunting in the river valley. There were occasionally ptarmigan there… but we never really hunted on [the west] side at all. And then after the park opened, I think it was closed to hunting" (WH).

[78] Packy Dick noted that his family still uses these trails for recreational purposes:

> "Kids, like my kid this winter, they went up there with their snowmachines. I guess they got a trail that goes up to the top now or something. Yeah. They blew up that and went up and ripped around on the top. They had a good time. Yeah" (PD).

[79] Tom Gillespie spoke of this phenomenon relative to moose numbers:

> "There's hunting pressure in there now. People can access in there with horses and, you know, walk in, and I just think the whole area has been slowly, you know, deprived of moose" (TG).

Warren Huss made similar observations regarding mountain goat populations:

> "The population [of goats] declined a lot as the hunting pressure came on. It actually started to really decline the areas that were accessible in the road system. The areas that you could fly into, which I didn't do much of, but the people I know that flew in still had successful goat hunting, much more successful than what we had on the road system" (WH).

[80] Off-trail snowmachine use was said to have some adverse impacts on wildlife, such as wolverines. Doug McRae spoke to this point, complaining of the effects of both helicopter skiing and off-trail snowmachine use:

> "I've really protested strongly to the helicopter skiing… [Wolverines] have snow dens and they ski right across them. It happened in Turnagain Pass. [The wolverines] totally left Turnagain Pass after all the skiers and snowmachiners running over them" (DM).

[81] On this general trend in the area, Warren Huss noted,

> "There are a lot of goats around in those days, and with the hunting pressure and stuff, it used to be when we first got here, you could just go out during the season and hunt. Then it got to a registration hunt, then it got to a permit type of hunt, so it really changed over the years" (WH).

Similarly, some interviewees spoke of increased private efforts to control access in the wake of these increasing snowmachine numbers. Packy Dick, for example, noted that it used to be easier to get to the glacier before the increased construction of public and private fences and other barriers: "Hard to get to [the glacier]. Too many fences and too many gates... You'd just walk up to it [previously]" (PD).

[82] As Warren Huss notes of Exit Glacier in the wintertime,

> "They [the park] close it down at the bridge just past the roadhouse so you really can't access that area other than snowmachine and skiing. There's a

few people that ski out there, but not many ski all the way out…to the visitors' center. But mostly there's a lot of skiing activity, but it's in the first five to eight miles [that] people ski up there" (WH).

[83] For example, Doug McRae notes of Placer and Boulder Creek areas: "To this day, I never made it up there. I tried. It's just not an easy place to get to on a snowmachine" (DM).

[84] As Tom Gillespie notes,

> "Even with a trail in there, it's still a long route. Now, the Forest Service, I believe, probably put this in in the '80s sometime, and since then, it's kind of fell into disrepair where the whole, I'd say western, northwestern half of it is not being used much because there's so many deadfall on it… From about Placer Creek on…there's a lot of deadfall, and then they haven't been able to get in there and get them cleared. They may have now, but off and on in the last probably 15 years, they've struggled to keep it open" (TG).

[85] Some discussed potential rather than actual economic activities that might have been precluded by park development. Doug McRae, for example, discussed the mining possibilities in the park:

> "That's what bothers me about all these parks being closed. With the unemployment right now, anybody with a pick and shovel could go out and almost make good wages" (DM).

[86] The U.S. Fish and Wildlife Service's Kenai National Moose Range (now the Kenai National Wildlife Refuge) was also mentioned by interviewees as a cause of reduced access within what is now the park:

> "We got Jimmy Carter in office and he put in this…Moose Range line across the ice field, so then we had to start landing our plane on the left side of the line…you had to go 2 miles across the ice field. Well, 2 to 3 miles to go across the line because you couldn't take a motorized vehicle in there…[the establishment of the Moose Range] made our job a lot more difficult. And we actually -- that was probably one of the reasons why we quit hunting up in there" (GZ).

Some interviewees also spoke of conflicts with the USDA Forest Service over matters of motorized vehicle access – especially following Forest Service recreational trail development or other land use activities that resulted in formal access restrictions. Keith Campbell, for example, addressed USDA Forest Service access restrictions:

> "The Forest [Service], every time they make a trail, they shut it off to four-wheel drive…they do a cut, and then they shut it off, so you can't use it… that's the one thing that I really criticize, particularly the Forest Service, is that it's supposed to be a land of many uses, but it isn't…we've got acres and acres and acres you could go out and do recreational riding in, but there's no private land to ride on in this state, basically. And so you just can't get out" (KC).

Likewise, when asked about Forest Service limitations over snowmachine access, Packy Dick expressed similar frustrations:

> "Oh, yeah, they'd like to kick us out of everything… they don't want you out there with a snowmachine. Look at what they're doing at Crescent Lake. They are shutting down. They're shutting Crescent down, too. You can't go in there, that's hikers, that's this, that's that. You can't go on this, you can't go there. Yeah. Don't even want you on Kenai Lake with a snowmachine... They just shut you down. No, you can't go. We don't want you in there. Look at what you're doing to the trail. Oh you're doing this. And then the skiers come along…[they say] you're noisy and you're ruining the pristine view, and with your tracks, and that was really nice, though, when we got in there to the pass, American Creek. That big blizzard caught all them skiers. Who did they call on? Snowmachiners. Come get us. Tow us out. We've got to get out of here. Well, sure. We can run on the trail then" (PD).

Some of those with negative views of the federal government sometimes describe the USDA Forest Service and the National Park Service in ways that suggest these agencies were interchangeable, and there may be confusion in some cases between the actions of different agencies.

[87] This phenomenon was mentioned in reference to parts of the park beyond Exit Glacier as well. Gary Zimmerman, for example, spoke of discontinuing hunting trips to the vicinity of Bear Glacier:

"I would say probably '78 or '80 was the last time we went in there [by Bear Glacier]… We switched to more of a -- well, caribou hunting and grizzly hunting, brown bear hunting [outside the park]" (GZ).

[88]Warren Huss describes the details of meetings relating to this issue, which resulted in access along the trail up Exit Creek:

"We went to the meeting at AVTEC…and they said, well, now you can go up Exit Glacier up Paradise if you want, but you can't cross this line on the east side of the highway, once you cross the bridge. And I thought, wait a minute, their line goes all the way from the visitors center, and it was a red line, and it went down 10 feet off the side of the highway, it would be the east side of the road up to the glacier from the bridge, and it went from the visitors center down to the middle of the river…It never freeze there. So I said, now, wait a minute, how are you supposed to get up to Exit Valley if you've got no access? And then I proposed…why don't you just open a trail to Exit Creek through the campground, which is that little area, oh, a quarter mile back down from the visitors center, half mile back down. I said, open access there, let us go out to Exit Creek, and that way we can access the valley. And they agreed to that. So, but they had that plan to shut that/ We could use it, but there was no way you could get to it, unless you wanted to go back to the original effort of building these bridges and everything to get across the river to get up to Exit [Glacier]" (WH).

[89] As Warren Huss noted, even the signs hint at this uniform response to motorized vehicles:

"They have signs posted there that…say no off road [vehicles]. It's an interesting sign. It doesn't have a snowmachine, it has a four wheeler. It has like a Jeep or a truck type thing and something, but it doesn't specifically have a snowmachine. But I asked them, I said, "you know, you don't have a snowmachine on that sign, is it all right for me to snow [machine there]?" No, they don't want you out there in that outlying river valley" (WH).

[90] Doug McRae, for example, discusses the restrictions on hunting in the park somewhat sympathetically:

> "To me, an unfortunate thing is that people are still hunting in there, but it's under a false pretenses for subsistence…There shouldn't be subsistence hunting. Let them hunt moose or caribou, but not them sheep" (DM).

[91] This happened in other portions of the park. Gary Zimmerman reports that the NPS replaced his father's cabin on Aialik Bay with a Park Service cabin:

> "The Park Service comes in there when they thought they owned everything, which is sore feelings on the Zimmerman family, burns our cabin down to the ground, didn't pay us for it, and built that cabin in the same exact spot" (GZ).

[92] For a time, leading tours for the NPS was said to be a small cottage industry for charter operators:

> "Aldo's, who started the Kenai Fjords [guided boat tours]…they were in the business before that, but in charter fishing and charters, but then they got in the tourist business by taking the park hierarchy out to see what was there, and just doing an assessment of what was in the park. From that, the viable businesses were grown of just transporting people. And so that was a big change" (KC).

[93] While no interviewee mentioned gold panning within the study area in the period leading up to 1980, Seward residents reviewing this study's findings commented on how gold panning and other mining had been undertaken historically near Exit Glacier. Gold panning is reported to have continued in reduced form into recent times.

[94] The park is not open to subsistence harvesting, however, so the provisions of ANILCA that explicitly mention the "traditional" use of snowmachines to access subsistence harvest areas "subject to reasonable regulation" may not apply (§811[b]).

[95] Specifically, Gary Zimmerman proposed the following:

> "I know this will be my little political statement, but…I hope that they don't ever close this [recreation area] to snowmobilers…That would be horrible…it should be open to everybody. But the only thing that I would like to see change is everybody that cross country skis across that ice field, they should have to pay a user fee just like the snowmobilers… And if

> you're a hiker, you wear one of those ski pass things like they got at Alyeska [Ski Resort in Girdwood, Alaska]" (GZ).

He summarized his comments with an endorsement of the virtues of backcountry snowmachine riding in Alaska:

> "I want to thank you for having this meeting and doing this Exit Glacier project. I think it's a good thing. I'd like to have people know that… there's a great, big world out there, you know, in Alaska, this backcountry in the winter, backcountry riding is nothing but the best" (GZ).

[96] Percy Blatchford noted warmer conditions since his arrival in 1954:

> "I think it's warmer. I remember a north wind used to blow, you'd work on the dock and after 10 hours, you would come back and your face would be all red from the wind and it would take three or four hours before it would go down. Yeah" (PB).