An Evaluation of the Effects of Tourism on Traditional Activities:

An Ethnographic Study for the Alagnak Wild River Area

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EXECUTIVE SUMMARY

This report represents a summary of findings from the study, "An Evaluation of the Effects of Tourism on Traditional Activities: An Ethnographic Study for the Alagnak Wild River Area." The National Park Service (NPS) administers 56 miles of Wild River along the Alagnak as a unit of the National Park Service, administered through the offices of Katmai National Park and Preserve. The NPS is charged with managing the river's natural and cultural resources, as well as preserving the river's lands and resources for current and future generations. Alagnak Wild River was created under the Alaska National Interest Lands Conservation Act (ANILCA) in 1980, and is managed in collaboration with the Alaska Department of Fish and Game, which manages the River's fish and wildlife.

An important part of NPS administrative responsibility relating to Alagnak Wild River centers on Alaska Native uses of the River. Alagnak River has long served as a homeland and a key subsistence use area to Alaska Native peoples. Through the 20th century, Native peoples relocated to villages on the nearby Kvichak and Naknek Rivers, Bristol Bay, and beyond. Still, descendants of Alagnak's former residents have continued to return to Alagnak's riparian zone to hunt, trap, fish, gather plant materials, recreate, and participate in social gatherings. A number of families maintain allotments along the riparian corridor, and Native corporation lands are found there as well. The place retains a high level of personal significance to many residents of nearby villages today.

In recent decades, however, and especially since the establishment of Wild River status in 1980, non-resident visitation of Alagnak Wild River has escalated significantly. This visitation especially involves recreational fishing, but also recreational hunting, boating, rafting, sightseeing, and other pursuits. In some cases, these non-resident uses of the river have been reported to interfere with Alaska Native uses of the River. The nature of these disturbances and their effects on Alaska Native communities appears to be diverse. Alaska Native users report such direct effects as accelerated erosion, crowding, litter and vandalism, new public safety concerns, and a variety of impacts on fish, game, and other resources of importance. Indirect effects are reported too, such as the displacement of resident users, the erosion of cultural knowledge about the Alagnak, increased pressures on alternative resource procurement areas, and increased access to tourist-based cash economies. In an effort to best manage the natural and cultural resources of Alagnak Wild River, as well as to judiciously balance the needs of different constituencies, the National Park Service required additional information regarding the past and present uses of Alagnak River by Alaska Natives, as well as the observations Alaska Native river users regarding non-resident visitation and its various effects.

Based on literature review, ethnographic interviews and field visits, the current report seeks to present a thematic overview of these themes.

This report's findings are based principally upon ethnographic interviews with residents from the communities with the most direct historical associations with Alagnak Wild River, including Levelock, Igiugig, King Salmon, Naknek, South Naknek, and Kokhanok. This report describes the transformation of the Alagnak River corridor from a densely-populated center of Alaska Native habitation to a relatively peripheral resource use area that is still used by descendents of its original inhabitants today. Individual sections provide summaries of settlement patterns, hunting, fishing, and berry gathering, as well as trapping and other economic and cultural activities tied to the River. In addition, this document provides a thematic overview of concerns expressed by Alaska Natives regarding observed and potential impacts of visitors on lands and resources along the River, and upon Alaska Native use of the River. The document concludes with an initial assessment of compliance implications relating to federal cultural resource law and policy. This information is organized so as to aid the National Park Service in anticipated natural and cultural resource planning for the Alagnak River corridor, including an anticipated River Management Plan, and to assist the NPS in anticipating concerns that may emerge in future consultation with Alaska Native communities that are historically associated with Alagnak Wild River. This work has also been undertaken to assist traditionally associated Alaska Native communities with their efforts to document their historical and cultural ties to this unique place. This study builds significantly upon the findings of an earlier study by the lead author, entitled "Alagnak Wild River Resident Users Study," conducted for the NPS as part of the Alagnak Wild River Visitor Use Project (Deur 2008b). The findings from that study were guided the development of the current study, and elements of that study's findings are incorporated into the current document.



Map 1: Alagnak Wild River

INTRODUCTION

The Alagnak (or "Branch") River drains the eastern front of Aleutian Range peaks, descending through Nonvianuk and Kukaklek Lakes – among the highest-elevation sockeye spawning lakes in the world – and down through complexly braided channels to Bristol Bay tidewater. Some 67 river miles of the Alagnak were designated in 1980 as one of the nation's few "Wild Rivers" under ANILCA and the provisions of the Wild and Scenic Rivers Act, and is now managed as part of Katmai National Park and Preserve. As one of the region's famously productive salmon rivers, the Alagnak's banks were once lined with villages of both Yup'ik and Alutiiq residents, and archaeological data document millennia of human occupation (Bundy 2007). As will be detailed in the pages that follow, a succession of 20th century disruptions brought an abrupt end to year-round settlement. The Novarupta eruption, promptly followed by the deadly "Spanish influenza" epidemic at the end of World War I brought a dramatic decline and displacement of communities along this river. Yet small communities persisted, and even thrived, well into the 20th century.

Federal policies requiring formal schooling for Native youth in the mid-20th century ultimately prompted the relocation of those remaining families to places off-river. Through the late 1960s, the remaining permanent residents of the Alagnak regrouped in larger villages with schools, principally Levelock, Igiugig, Kohkanok, Naknek/South Naknek and King Salmon. Though displaced, many families continued to fish, hunt, gather plant foods, trap and carry out other activities on the Alagnak, often for months at a time, maintaining cabins and Native allotments for this purpose. These activities, carried out before, during and after the designation of the Wild River in 1980, represent a wide range of "traditional activities" that are factored into NPS management as an outcome of ANILCA and associated regulations and policies. Into the late 20th century, food gathered on the Alagnak still served as the foundation of year-round subsistence, and social activities on the river represented a cornerstone of community life. For the people of nearby villages, the Alagnak has been conceptualized both as "home" and as a resource-rich refuge, where families can return to harvest subsistence resources, reconnect with their own heritage, and briefly escape modern village life. The fundamentals of this human history, and the changing patterns of Native settlement and resource use associated with it, will be outlined in the pages that follow.

In recent decades, however, the Alagnak's natural bounty has been discovered by the outside world. Recreational lodges now dot the river's lower reaches and, each summer, a growing number of recreational fishermen and hunters from the Lower 48 and abroad arrive on the Alagnak River. River life is further transformed by recreational activities as river rafting – an increasingly popular summertime pursuit among Alagnak visitors. Predictably, these changes have caused a variety of frictions. Tourist visitation has compounded a number of other recent changes in Native community life, and Native use of the Alagnak has declined significantly in roughly a generation's time. Some Alaska Native river users now express concerns that, in time, these changes might largely eliminate their presence from this important corner of their traditional territory.

Recognizing that these developments presented the NPS with compliance and planning challenges, Katmai National Park and Preserve initiated a river management plan as well as several studies, which will be detailed more in the pages that follow (e.g., Deur 2008b, Spang et al. 2006, Zwiebel 2004, Curran 2004; Morseth 2000; Katmai Research Project 1997). Still, park staff has recognized that additional data on traditional uses of the Alagnak, as well as visitor effects on those uses, might be required for future planning efforts. Accordingly, Dr. Jeanne Schaaf (Chief of Cultural Resources for Lake Clark, Katmai, Alagnak, and Aniakchak) called upon Dr. Douglas Deur (Portland State University) and Karen Evanoff (Park Anthropologist, Lake Clark National Park and Preserve) to initiate a broad ethnographic investigation of visitor impacts on Native communities with ties to Alagnak Wild River. Together, authors Deur and Evanoff collaborated with residents from the villages of Igiugig, Levelock, Naknek, King Salmon and Kokhanok in designing the current study. With village input, we developed a research plan, identifying appropriate methodologies and envisioning final research products that might best convey community concerns to the outside world. We then recruited and helped train two Alaska Native research assistants from these villages – Adelheid Herrmann (Naknek) and AlexAnna Salmon (Igiugig) – who have served as an important and integral part of a collaborative Alagnak research team. The research team identified and formally interviewed key people in each community who were knowledgeable about the study area based on personal use or inherited oral tradition. We transcribed and reviewed their interview content for recurrent themes, and assessed these themes assessed with reference to preexisting archaeological, ethnographic, and biophysical data relating to the study area. The words of these interviewees largely shape the narrative of the report that follows, which quotes from these interviews extensively. In addition to conducting formal interviews and archival research to assess



Figure 1 – Mike Andrew, helping interviewees and research team members find former village and camp sites along Alagnak Wild River. Douglas Deur photo.

indirect effects, the Alagnak research team also carried out field visits along Alagnak Wild River, mapping and photographing cultural sites, recording traditional place-based knowledge, and documenting Native river users' concerns.

While the exact causes and severity of tourism's effects might be debated, it is clear that tourism on the Alagnak has had a number of effects on Alaska Native river users – some of which will have specific compliance and management implications. Moreover, it is important to note that many of these effects (though not all) are seen as being quite negative. Interviewees reported "direct effects" of tourism - such as accelerated bank erosion at Native allotments, crowding and competition for access to fishing and hunting sites, litter and vandalism, new public safety concerns, and a variety of impacts on fish, game, and other resources of importance. They also report a range of indirect effects – such as the outright avoidance of the river by Native users, increased subsistence pressure on areas outside of the Wild River, the erosion of traditional cultural knowledge relating to the Alagnak, and increased access to tourist-based cash

economies. The major types of effects mentioned by interviewees are outlined in the pages that follow, most organized into categories of "direct" and "indirect" effects.

A review of a few of the concerns expressed by Alaska Native interviewees reveals that "direct" and "indirect" effects are often complexly linked. For example, of all reported concerns, Native interviewees mentioned bank erosion most frequently, emphasizing indirect as well as direct effects of erosion. Native river users report that increased river traffic, often involving jet-boats and other high-speed vessels, has accelerated erosion along portions of the river's bank. Native allotments, cabins, caches, smokehouses, and other structures have been undermined by erosion in turn; so too, burials have been exposed by erosion, which is believed by some Alaska Native river users to have corrosive spiritual effects on the living and the dead. Interviewees widely recognize that erosion has always part of life on the Alagnak – indeed, the name "Alagnak" alludes to the shifting, complex courses of the river - but today the erosion is faster, they suggest, due to a succession of jetboats and other craft. Moreover, their adaptability to erosion has decreased as they are "locked in" to fixed land boundaries and there are logistical barriers to mobilizing large, youthful work groups to pull their cabins back from the brink. In turn, the loss of these structures discourages some Alaska Native families from returning to the river, so that younger generations are no longer as familiar with its contours, as well as the lore and values associated with this culturally important place. As will become clear in the pages that follow, most of the major concerns raised by Alaska Native interviewees are complex and multidimensional in similar ways, reflecting changes not only on the river, but within the Native communities themselves (Deur 2008b, Curran 2003).

Two reports were planned as an outcome of the current research – the present report, which has been produced largely to aid in future management and planning on Alagnak Wild River. Another booklet – briefer but more richly illustrated – is planned as a subsequent project, largely intended to give something of personal value back to interviewees and their families. Karen Evanoff, second author of the current report, will serve as lead author and editor of the latter work.

In the current report, then, we explore a range of direct and indirect effects, in an effort to illuminate Alaska Native concerns, as well as to identify options for management strategies that might address many of the shared concerns of Alaska Native river users and NPS resource managers. Through this research, it is our hope that NPS resource managers will gain access to Native Alaskan perspectives on the landscape, and have

access to the accumulated knowledge of multigenerational Native river users. This document provides information on places and resources of concern to Native communities and gives natural resource managers a variety of testable hypotheses regarding resource trends that can be addressed in future river management planning and research. This document also briefly considers the implications of its findings for future river management and planning in light of a range of cultural resource laws and policies, such as the National Historic Preservation Act and the Native American Graves Protection and Repatriation Act. The report draws extensively from the words of our interviewees: it is in many ways their document, meant to provide them with a venue to share their knowledge and perspectives with only a modicum of interpretation from the lead researchers (who are, by necessity, outsiders to these communities and the larger story of the Alagnak).

It is our hope that this report will aid Native communities associated with Alagnak Wild River in articulating their concerns within resource management planning venues, including those indirect effects that are often difficult to enumerate in compliance-driven consultation, and will aid those communities in documenting their own history. It is also our hope that this report might help all parties identify future planning and research needs, and will serve as a foundation for broader cross-cultural discussion and understanding that might allow continued recreational uses of the river while insuring that the Alagnak will continue to sustain Alaska Native communities – dietarily, economically, spiritually, and culturally – for many generations to come (Deur, Evanoff, Herrmann and Salmon 2013).

BACKGROUND AND OBJECTIVES

Signed in December 2, 1980, the Alaska National Interest Lands Conservation Act (ANILCA) set aside lands throughout Alaska for their nationally significant recreational, scenic, cultural, and natural resource values. The lands set aside under ANILCA included the Alagnak Wild River – a river that had, until only 11 years before, been the permanent home to Alaska Native families, and continued to be used regularly by members of those families for a range of economic and cultural activities.

Alagnak Wild River was created to protect the outstanding natural values tied to the riparian area, including fish and wildlife habitat, scenic viewpoints, historical and archaeological resources along the riparian corridor, and areas likely to receive extensive public use. The Alagnak was designated as a Wild River under the provisions of the 1968 National Wild and Scenic Rivers Act, an act of congress intended to protect

> "certain selected rivers of the Nation which, with their immediate environments, possess outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values, shall be preserved in free-flowing condition, and that they and their immediate environments shall be protected for the benefit and enjoyment of present and future generations" (Wild and Scenic Rivers Act, 16 U.S.C. 1271-1287).

A significant portion of Alagnak River was included in Alagnak Wild River, including those reaches from its outlet at Kukaklek Lake to a point some 56 miles downstream, as well as the 11 river miles of the Nonvianuk River from its origins at Nonvianuk Lake to its confluence with the Alagnak. The upper seven miles of Alagnak River, and all of the Nonvianuk River, are also within Katmai National Park.[1] Only the lower 18 miles of the Alagnak, most of it in the tidally-influenced portion of the river, were not included in the designated Wild River. The lateral boundaries of the Wild River were established to protect the foreground and middle-ground views that could be seen from the River (NPS 1983: 12). The total 67 river miles of designated Wild River are administered by the National Park Service, which is charged with managing its natural and cultural resources, as well as preserving the river for current and future generations.

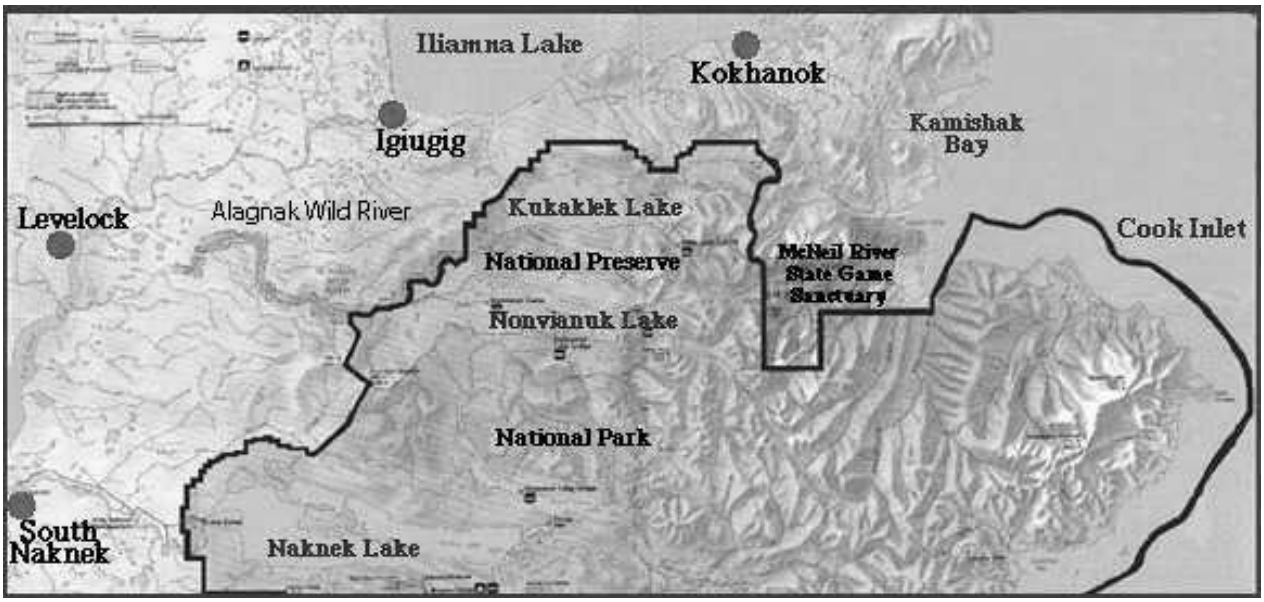
Alagnak River has been the focus of an expanding recreational fishery since no later than the 1940s, but the river became especially popular during the late 20th century,

immediately before and during NPS management. Recreational visitation has skyrocketed since the mid-20th century, with lodge-based fishing bringing growing numbers of visitors to the river, alongside rafters and other recreational users. Alagnak River's potential for Wild and Scenic River designation was appreciated several years before ANILCA. Investigations of the Alagnak were well underway by 1971, a mere three years after the passage of the Wild and Scenic Rivers Act.[2] In 1980, ANILCA stipulated that a Wild and Scenic River corridor was to be authorized along the Alagnak, consisting of up to 24,416 acres of land, excluding State and private properties; not including the riverbed and Native allotments, Alagnak Wild River encompassed a total 24,038 acres.

From the beginnings of this Wild River proposal, proponents of the Alagnak's Wild River designation recognized that the river corridor had a history of Alaska Native use. The U.S. Heritage Conservation and Recreation Service (1980: 111), for example, noted that "Natives have used and still use the river, especially the lower reaches, for subsistence activities." Still, as some proponents of this Wild River proposal may not have fully appreciated at the time, the designation of Alagnak Wild River involved the expansion of Wild and Scenic River status to a landscape that had been historically occupied by a significant and enduring Alaska Native population. Indeed, some archaeological evidence suggests as much as 9,000 years of occupation near the headwaters of the Alagnak, while riverine sites on the Alagnak indicate an almost continuous occupation of the river over the last 2,200 years of human history (see NPS 2006; Dumond 2005). This long history of human occupation was only interrupted in recent times, with some families moving off the river in the late 1960s, and many continuing to visit and use the river seasonally thereafter.[3] Residents of several Alaska Native communities trace their origins back to the Alagnak, or to people who have made use of the Alagnak as part of their larger resource territories. People born on the Alagnak when it was a permanent home to Native families are still to be found in abundance in these neighboring communities. The Alagnak is, in Morseth's words, "just one of several rivers connected to the Kvichak that make up the cultural landscape for the Indigenous peoples, the majority of whom, in contemporary times are living in several villages on the Kvichak River" (Morseth 1998b). In 1978, when examining the patterns of resource use of the proposed park expansions on the northern fringe of Katmai National Park, Behnke (1978) conducted preliminary fieldwork with residents of Igiugig, Naknek, South Naknek, Levelock, Kokhanok, King Salmon, and Egegik: "Preliminary fieldwork determined that residents of all seven of these communities

made some use of these addition lands for wildlife harvest" (Behnke 1978:124). Along the Alagnak River, these uses were varied and, for some families, intensive:

> "Today, residents of Levelock, Alagnak, and Igiugig, and their relatives in other communities, make considerable use of the Alagnak River for fishing, trapping, and hunting. They use gill nets for the subsistence harvest of salmon along the lower portion of the river and fish with hook and line along its length for grayling, trout, char, and other species. People frequently ascend the river to the "forks" where the Nonvianuk River joins the Alagnak and there are a number of cabins which are utilized by travelers along this stretch of river. Occasionally, boats are taken into Nonvianuk or, less often because of the falls, into Kukaklek Lake. "Fall" salmon are sometimes taken in these areas and dried" (Behnke 1978: 157).



Map 2: Four largely Alaska Native communities with especially close ties to Alagnak Wild River – Igiugig, Levelock, Kokhanok and South Naknek. Not shown are the two "mixed" communities of Naknek and King Salmon, which have large non-Native populations. *University of Alaska, Fairbanks Oral History Program map*.

A number of these river users maintained a foothold on the Alagnak through the continued ownership of Native allotments, some with cabins and other permanent structures. Alaska Native people still use, seasonally occupy, and care deeply about the fate of the Alagnak.[4] Use of the river continues to be an enduring part of Alaska Native social, cultural, economic, and dietary practice today. Families have continued to use fish camps, especially focusing on the harvest of king salmon (*Oncorhynchus tshawytscha*) and sockeye salmon (*Oncorhynchus nerka*), while continuing to harvest a wide range of other fish, game, berries and other plant materials along the riparian corridor.

Though nobody lives permanently along the river today, the Alagnak still represents a key part of the traditional homeland to many Native Alaskans. The River has represented a refuge of sorts from the effects of modernization, where a person can return to the resources and lifeways that are more traditional than those that define life in the villages. The River represents a critical source of traditional and prized riparian subsistence resources – such as king salmon – which have been available in its shallow swift waters, as well as moose, beaver and other game species, as well as berries, that have been abundant along its banks. As interviewee Joe Woods attested, "There was a lot of everything! I mean, it was a good river! …there's *never* a dull moment. There's *always* something to do. Get tired of driving, you just stop an' fish! Pick berries." As a place of great natural abundance, the River has been seen as a source of food security in lean times, and as a good place to teach young people about traditional harvest methods and values so that such knowledge will endure.

The River has also been a good place for trapping, allowing access to beaver, otter, mink and other furbearing species that thrive in its rich riparian zone and still serve as a cornerstone of enduring Native craft traditions. It has clear, fresh water, rich riparian vegetation, an abundance of firewood. The river is conceived as clean or even "pristine" by some, in light of the absence of human settlement, industry, and the like: "there's a lot of clean air over there!"(PA). Moreover, it is a place of deep meaning, where people can connect with their ancestors in various ways – visiting their former homes and villages, their gravesites, or simply seeing the landscapes and standing in the footsteps of their ancestors who once lived on the River.

This history presented a challenge to the NPS, as an agency needing to manage this landscape in the absence of detailed documentation. The enduring use of the Alagnak by Alaska Natives, coupled with the long history of Native use predating management

of the Alagnak Wild River, presented certain compliance mandates and a need for additional information on a variety of themes.[5] Yet, little specific information on Native use of the Alagnak had been recorded in published ethnographic sources, and archaeological documentation at the time of Wild River designation was thin compared to some other portions of Katmai National Park and Preserve (Norris 1996). As Hussey reported of the entire Katmai region in 1971, documentation of Native use was scarce, and there was a need for considerably more original research on the topic:

> "The fact that anthropologists are in disagreement concerning certain aspects of the prehistoric occupation of the Katmai region points up the fact that additional archaeological and ethnological work is needed in the monument and vicinity" (Hussey 1971: xvii).

A generation later, only a fragment of this proposed work had been undertaken, and little of this work had been undertaken along the Alagnak. In Katmai National Park and Preserve's Historic Resource Study, *Building in an Ashen Land*, Clemens and Norris (1999: 144) conclude that focused ethnographic research on the Alagnak was required:

> "Regarding the Alagnak River, which is a relatively recent addition to the National Park Service system, little historical information has been collected. In light of what may well be a long chronicle of protohistoric and historic activity in that area, it is recommended that an ethnographic research study be undertaken."

It was within this context that the National Park Service initiated work on an Alagnak River Management Plan as part of the General Management Plan process, providing general guidance for the management of the river.[6] Within this 1983 Management Plan, management objectives originally developed for Katmai National Park were effectively applied to the Wild River. These included provisions to identify and protect the cultural resources of the Wild River; protect the natural values that led to park creation; participate in research of the area that helps facilitate cultural and natural resource protection; and to allow for visitor participation in hunting, trapping, and fishing (NPR 1983: 15-16). An especially high priority, for both the enabling legislation and the Management Plan was protecting natural values including "a world class fishery, excellent boating, wildlife populations and habitat, and a minimally disturbed natural environment" (NPS 1983: 18). Successfully maintaining the fishery was deemed

to be essential to maintaining visitor satisfaction. Bear management, in order to minimize human-bear conflicts, and biotic inventories were also identified top management priorities. The Management Plan also contained general proposals to manage cultural resources in a manner consistent with federal cultural resource laws, conduct archaeological surveys, as well as to involve professional archaeologists, anthropologists, historians, and others in considering any action that might affect cultural resources. The NPS proposed developing campsites near the confluence of the Alagnak and Nonvianuk Rivers to minimize trespass on the adjacent Native allotments. In addition, the NPS proposed entering into cooperative agreements with the Bureau of Land Management, Igiugig Natives Ltd. and Levelock Natives Ltd. to cooperatively manage lands owned by these parties that might be used by Wild River visitors (NPS 1983: 19). The Management Plan also promoted a number of mechanisms to minimize potential conflicts with private landowners, including use of cooperative agreements, land exchanges, or use of the Alaska Land Bank program (NPS 1983: 22).

While the NPS had not yet undertaken systematic study of visitor perspectives on Wild River management issues at this time, their interaction with visitors to the area fostered certain conclusions. The planners suggested that the interests of residents and visitors were aligned in some respects, and potentially opposed in others, from the creation of the Wild River.

> "The current Park Service perception is that visitors to the Alagnak River are primarily seeking excellent sport fishing. Importantly, but secondary, aspects of the experience they are seeking are a clean and minimally altered natural environment, an uncrowded setting, and an opportunity to view or hunt wildlife…Given the current use and the type of experience these visitors are seeking the National Park Service does not propose to limit use. Park management will continue to monitor the quantity of use and the environmental impacts. If further use or impacts warrant a change in the river management plan, a carrying capacity will be established and use may be limited" (NPS 1983: 17-18).

These protections were significant, as non-resident visitation was rapidly increasing in the Alagnak River corridor at this time. Indeed, in 1982, the NPS reported that seven sport fishing lodges were already in operation on the Alagnak, with three located inside the designated Wild River; approximately 850 people visited the outlet of Nonvianuk Lake that year (NPS 1983: 17). These levels only continued to increase in the years following the completion of the Management Plan. As non-resident visitation continued

to grow, the impacts of this visitation became more apparent to NPS staff and to Alaska Native users alike. By 1995, Katmai Superintendent Bill Pierce noted of the Alagnak in an NPS study that "the major problems we've seen there [are] human bear conflicts, conflicts between motor boats and rafters, and human waste impacts on the banks, and a lot of comments about a decline in the fishery, although we have no documented evidence of that" (Katmai Research Project 1997). Alaska Native river users identified these same issues and others, which were brought to the attention of NPS staff through a variety of venues, including compliance-driven meetings and correspondence.

Meanwhile, NPS staff worked on a variety of stopgap measures to address some of these concerns through both small-scale changes to park management, as well as the development of interpretive media meant to delicately convey resident concerns to non-resident audiences. Such efforts were undertaken by Katmai National Park and Preserve staff, and their support staff in the Alaska Region Support Office and in other parks – notably Lake Clark National Park and Preserve. In 1995, the Alaska National Parks and Monuments Association assisted in the development of a new periodical newspaper, called *The Alagnak*, which provided visitor information as well as summaries on the cultural and environmental history of the wild and scenic river corridor (Norris 1996: 257). More recently, Susan Kedzie-Webb, Jeanne Schaaf, Martha Crow (Olympic), and John Branson collaborated to produce an interpretive booklet with high production values for visitors, entitled *Alagnak Wild River: An Illustrated Guide to the Cultural History of the Alagnak Wild River* (NPS 2006).[7] In addition to advancing the objectives of cultural resource protection through visitor education, and by identifying the locations of private inholdings on the Wild River, that document also represented an important milestone generally in the very small literature addressing cultural uses of the Alagnak Wild River corridor.

As early as 1996, the NPS was involved in intermittent efforts to document Alagnak River users' concerns regarding the river and non-resident visitor impacts using ethnographic methodologies. Communications with Alaska Native users initiated by Katmai Cultural Resource Chief, Jeanne Schaaf and research assistant Michele Morseth during the 1997 field season focused especially on such issues as the perceived effects of crowding and the use of large and powerful motorboats. Some Alaska Natives expressed concerns at this time about NPS management based on a perception that the agency had been "letting people misuse the river" since the Wild River's inception (Morseth 2000). Similar concerns regarding visitor impacts on the Alagnak were also emerging from the Katmai Research Project (1997), which documented the observations and perspectives of a number of Alagnak River users as part of a larger ethnographic

project focusing on the whole of Katmai National Park and Preserve. In the fall of 2000, Michele Morseth conducted reconnaissance interviews in Igiugig with Mary Olympic, Mike and Dallia Andrew, and George and Annie Wilson regarding Alagnak Wild River. At that time, Morseth found the community to be receptive to the research and eager to participate further. Speaking of Mike Andrew, for example, Morseth (2000) noted that "He thanked me for coming and showing interest in the history of the Alagnak—he seemed to appreciate the park's efforts to do this and thought it should have been done earlier." Based on her preliminary fieldwork in Igiugig, Morseth recommended conducting further interviews with Igiugig, Levelock, and Naknek residents in their communities, followed by field visits along Alagnak River, to ascertain the dimensions of visitor impacts on Alaska Native communities in the region. In response to the findings from these initial reconnaissance efforts, Morseth and Schaaf proposed the development of a full ethnographic study focusing on the potential impacts of non-resident recreational visitation upon Alaska Native use of Alagnak Wild River. Schaaf then submitted an NPS Project Management Information System (PMIS) request, seeking funding for this expanded study – the current study is largely the result of that effort (see Appendices 3 & 4).

Simultaneously, with the rise in visitation along the Alagnak, other National Park Service staff members were preparing to revisit and update the Alagnak River Management Plan. Under the watch of Superintendent Deb Liggett, Katmai National Park initiated the development of the revised Alagnak Wild River Management Plan through a comprehensive management planning effort involving agency representatives, academic researchers, and Wild River stakeholders. While the 1983 Management Plan continued to guide park management of the Alagnak, park staff noted that a new management plan was needed due to the increase in river use over the nearly 20 years since that document had been produced, especially in the form of more visitors, lodges, and boat traffic. Park staff also recognized that various user groups had differing perspectives on the best way to manage the river and its resources, and that a new management plan would have to be devised to strike a balance between those interests (Liggett 2002).

On April 20, 2001, a Notice of Intent was published in the Federal Register, outlining the NPS's intent to produce an Environmental Impact Statement for the Alagnak Wild River Management Plan.[8] In the summer of 2001, the National Park Service hosted the first of several meetings that invited stakeholder input on Alagnak Wild River. This



Figure 2 – Douglas Deur and AlexAnna Salmon, interviewing Salmon's grandmother, Mary Olympic at her home in Igiugig. Mary Olympic played an important role in the current study, but has also been involved in a variety of past studies and planning efforts relating to Alagnak Wild River and vicinity. She lived for a number of years in the Kukaklek Lake area, as well as on the Alagnak near "Coffee Village." Karen Evanoff photo.

meeting served to identify significant river users and some of the basic issues surrounding potential visitor impacts on Alagnak Wild River. During these early "public scoping" efforts, resident users of the Alagnak – many of them being Alaska Native users – raised certain issues that would set the stage for what was to come. Echoing the findings of past consultation meetings and the Katmai Research Project, individuals commonly expressed the view that impacts of Wild River visitation were severe. Quoting directly from the park's scoping documents, residents' concerns included the following issues:

- "Disruption of wildlife and habitat
- Preservation of archaeological resources
- Overcrowding of humans
- Over-hunting by non-local peoples
- Disruption of native subsistence activities
- Human waste
- Degradation of Rainbow trout population

- Excessive motor boat use
- Lack of 'legal' campsites
- Non-guided tourists treating fish poorly
- Trash
- Too many airplanes
- Bank erosion from boat wakes
- Boat traffic over spawning beds
- Adequate salmon escapement
- Camping impacts
- Campfire impacts
- Tree cutting
- History of bear DLP's [being killed for defense of life and property]
- Visitor education
- Kukaklek easement correction needed
- How to maintain the pristine and wild character of the Kukaklek branch"

(from Liggett 2002).

Meanwhile, there were a number of constituencies that expressed a wariness regarding additional regulation of the river to ameliorate these effects, reflecting a range of personal, political, or financial interests.

By fall of 2002, the NPS was coordinating with State of Alaska representatives to carry out further stakeholder meetings. During these early meetings, participants acknowledged the need for more data on uses and users of Alagnak Wild River, including qualitative information regarding current uses of the river by local people. NPS staff increasingly realized that, while the Alagnak Wild River and its resources continued to be used by Alaska Native communities, the NPS had insufficient documentation or systematic knowledge of such use to guide their planning efforts. The need for detailed studies of certain topics became increasingly clear - especially Alaska Native traditional uses of Alagnak Wild River and the effects of visitation on these uses, past, present and future.

As part of this Alagnak River Management planning process, the National Park Service instigated the "Alagnak Wild River Visitor Use Project," a series of studies aimed at generating data required by NPS managers to identify and assess the concerns of river users. The Alagnak River Visitor Use Project was developed cooperatively between the National Park Service and the Pacific Northwest Cooperative Ecosystem Studies Unit

(CESU) at the University of Washington, particularly the CESU's Protected Area Social Research unit – a research team made up of individuals with expertise in applying social science methodologies to issues affecting National Parks and other public lands. In 2002, the CESU carried out a purely "observational" study, focusing on the locations of visitor activities along Alagnak Wild River; this research also resulted in a master's thesis by one of the project participants (Zweibel 2003). (During the same year, certain local communities confronted lodge owners on issues of garbage disposal along the Alagnak, while NPS consultation with river users related to the revised management plan continued). In 2003, the Pacific Northwest CESU carried out a second study, a recreational survey addressing the expectations and attitudes of Alagnak Wild River's non-resident visitors (Spang, Vande Kamp, and Johnson 2006).

In order to round out the CESU investigations, National Park Service and CESU staff agreed to develop a small study focusing on the gathering of preexisting qualitative ethnographic data regarding Alaska Native use of, and concerns about, the Alagnak River corridor. To carry out this study, the NPS and the PNW CESU recruited the lead author of the current study - CESU Senior Research Scientist Dr. Douglas Deur. The resulting document, *Alagnak Wild River Visitor Use Project: Alagnak Wild River Resident Users Study*, provided a thematic overview of information that had been gathered in prior studies that touched upon the Alagnak. That report has served as a foundation for the current effort, and its contents have been incorporated in various ways within the current report.

In spite of the fact that these various reports were being assembled to aid the National Park Service in completing an updated River Management Plan well into the decade, efforts at completing that plan were tabled concurrent with this research. As the current research was undertaken, the National Park Service continued consultation with park-associated Alaska Native communities on a variety of resource management questions, and continued to explore options for the resumption of a river management planning process. It is our hope that the current report will aid in both of these ongoing efforts – providing a foundation for discussions within the context of federally mandated consultation, and ultimately providing data that might help the NPS, traditionally associated Native communities, and other stakeholders more successfully plan for the future of Alagnak Wild River.

The National Park Service initiated and supported this study in part because the study aided the park's cultural resource program in its effort to carry out NPS management

policy (e.g., NPS Director's Order 28). This policy is based in a large part on compliance with Section 110 of the National Historic Preservation Act, as amended, which requires NPS staff to identify, evaluate, and as appropriate nominate resources to the National Register of Historic Places. At the time the present study was funded, the NPS had completed several resource identification studies that have directly informed this ethnographic study: Jeanne Schaaf and Karlene Leeper (1996) recorded precontact archaeological sites at the ranger cabin along the Nonvianuk River; Jeff Rasic and Karlene Leeper conducted additional archaeological site survey and testing at the Nonvianuk Lake outlet in 1997, recovering artifacts possibly dating to the Paleoarctic tradition. This collection was analyzed and reported by Rasic (1998). The 1996-1997 archeological investigations were summarized in a separate report (Dixon 1998). In 1997, an archeological survey along the Alagnak River was conducted by Mark Lutrell and Martha Crow (Lutrell 1997). Hilton conducted interviews for an archeological survey of the Alagnak River corridor in 2001 which resulted in recording 11 new sites (Hilton 2002). A total of 37 cultural sites have been documented within the Alagnak Wild River boundaries. The number includes six sites located on private allotments (DIL-036, -075, -156, -157, -160, and -163) and one situated on regional corporation lands (ILI-088). Only three sites had been identified on the Alagnak corridor prior to the 1996-97 field seasons: DIL-036, DIL-075, and ILI-082. The archeological sites are included in a large archeological district including the Savonoski River listed in the National Register in March of 2003. The NPS conducted data recovery excavations at the eroding site DIL-161in 2004, following up on the 2001 survey's findings and recommendations (Bundy 2007); this site was listed in the National Register in January of 2007. Also, in 2005, historic structures (on federal land) in the Nonvianuk/Alagnak River drainage were inventoried (Tobey 2005). Museum management projects beginning in 1996 that have contributed to this study included, but were not limited to: the transfer of Alagnak museum collections from the King Salmon NPS woodworking shop to an NPS curatorial facility in Anchorage, long-term backlog cataloging of objects and archives, completion of a Collections Management Plan, as well as a Scope of Collections Statement and a Collection Condition survey, resulting in digitization of oral history tapes and cataloging of historic photographs and records that directly supported this ethnographic study.



Map 3: Alagnak Wild River within the Alagnak River Basin.

METHODS AND PROTOCOLS

This report serves as a summary of findings for a research project entitled "*Evaluate the Effects of Tourism on Traditional Activities, Alagnak Wild River*." This research was primarily ethnographic in nature, and has sought to illuminate the various effects of Alagnak Wild River visitation on Alaska Native communities within the broader context of Native land and resource use on the Alagnak prior to the 1980 creation of Alagnak Wild River. This research represents an oral history study of a particular set of Alaska Native communities – Igiugig, Levelock, Kohkanok, Naknek/South Naknek and King Salmon, and their historical relationship to landscapes and resources now sitting within Alagnak Wild River. The study relies especially on ethnographic interviews, but is augmented with information recorded in published and unpublished sources.

This study has sought to provide a broad, thematic overview of Alaska Native uses of the river, past and present, as well as to illuminate management concerns of Alaska Native users. The study has been conducted in such a way that it might aid both the NPS and Alaska Native communities associated with the study area as they seek to document cultural and historical uses of the Alagnak and to resolve any natural resource management issues that might arise within the study area. In order to understand the broader context of these issues, the current research posed a number of related questions, such as:

> Which places and resources found along Alagnak Wild River are of particular cultural significance, due to their role in oral tradition, their continued use by Alaska Native communities, and the like?
>
> What is the significance of Alaska Native land holdings (specifically, cabins or land allotments) and resource claims along Alagnak Wild River today?
>
> What hunting, fishing, or plant gathering activities are still conducted along Alagnak Wild River by Alaska Natives? Where along Alagnak Wild River are these resources acquired?
>
> What is the significance of the resources gathered on the Alagnak (e.g., ceremonial/ subsistence uses, for personal or commercial use)?

What impacts have visitors to Alagnak Wild River had on the places and resources indicated above, either directly or indirectly?

Are there options for the minimization or mitigation of those impacts?

The research has resulted in the production of this final report, which, it is hoped, will help NPS staff more effectively manage lands and resources along Alagnak Wild River that are important to contemporary Alaska Native communities with historical associations to this river. It is also our hope that this report will be of value as the NPS and stakeholders work together in the development of a proposed river management plan. The documentation included in this report will also support broader NPS compliance efforts, may aid in interpretive development, and will provide Alaska Native participants with the opportunity to record their history and have their concerns articulated in advance of future planning efforts. At least one publication resulted from this research as well, with the intention of sharing research findings, as well as details regarding the participatory methodologies of the study, with wider audiences within the NPS and beyond (Deur, Evanoff, Hermann and Salmon 2013).

While this research has involved the review and incorporation of available archival materials, it has especially emphasized the accounts of individuals with ties to Alagnak Wild River and knowledge of its history – its former residents and regular river users who all possess ties to this unique place. As a significant proportion of the human experience along Alagnak Wild River remains unwritten, but is well remembered by some members of the Alaska Native community on the basis of both personal experiences and "oral tradition," ethnography was seen as the most effective and illuminating way of gathering new information on the study themes. Ethnographic interviews were qualitative in nature, inductive and loosely structured around certain central themes, to insure that the breadth of this knowledge would be recorded for posterity, and to advance the general goals of this project.

This study has been conducted as part of a collaborative research effort involving Dr. Douglas Deur (Department of Anthropology, Portland State University and Pacific Northwest Cooperative Ecosystem Studies Unit) and Lake Clark National Park and Preserve Anthropologist, Karen Evanoff. The principal investigator, Dr. Deur, has directed similar research in conjunction with the National Park Service at a number of other park units throughout Alaska and the lower 48 states, while Karen Evanoff, NPS

Anthropologist from Nondalton, has conducted a number of NPS-sponsored cultural documentation studies especially focused on Dena'ina uses of lands and resources in and around Lake Clark National Park and Preserve. Deur and Evanoff were aided considerably in this research by the involvement of two research assistants who are, themselves, Alaska Native residents of the study communities: Adelheid Herrmann and AlexAnna Salmon. Herrmann and Salmon were able to assist the project's lead researchers in organizing and conducting interviews, but were also able to carry out independent data collection, adding considerably to the depth of project findings. These local research assistants helped explain project objectives to their communities, while helping to translate and contextualize their communities' concerns back to the lead researchers. The research has therefore resulted in not only the gathering of knowledge about the Alagnak, but also the building of capacities in the local communities – preparing these assistants for participation in future research endeavors or, at minimum allowing them to be well-informed guides to these villages in future research endeavors relating to Native interests on public lands (Deur et al. 2013).

The current study was aided considerably by a prior compendium that the lead author produced of pre-existing but largely untapped documentation (Deur 2008b). This prior report, *Alagnak Wild River Visitor Use Project: Alagnak Wild River Resident Users Study*, was produced as a small and final component of a larger research effort that was undertaken to support a currently tabled NPS river management plan effort focusing on Alagnak Wild River. This larger research effort, entitled the "Alagnak Wild River Visitor Use Project," was overseen by Darryll Johnson and Mark Vande Kamp of the Pacific Northwest Cooperative Ecosystem Studies Unit. At the conclusion of that project, Deur (also of the Pacific Northwest CESU) was recruited to compile preexisting material on Alaska Native use of Alagnak Wild River. The resulting document illuminated a number of information gaps that were addressed in the current study. Because this prior report provided a thorough overview of certain themes, sections of that document have been incorporated into the current report with the approval of NPS staff. Our hope is that the current report accounts for most of the content of that prior report and effectively supersedes it as a reference on Native uses of, and concerns about, the Alagnak Wild River corridor.

At the onset of the current study, the two report authors carried out a number of meetings and telephone conversations with Alaska Native village representatives, centering on the question of why and how the planned study would be undertaken. Residents of these communities expressed surprise and pleasure that the National Park

Service and the Pacific Northwest CESU would opt to seek their detailed input on these matters prior to substantive efforts on a work plan. To quote but one community representative who attended the initial scoping meetings, "It's a great thing that the park is trying to incorporate the villages' [perspectives from the beginning] and start working with them" (quoted in Evanoff 2008). The study's methodology, as well as the emphases of the current report, are shaped in no small part from this preliminary communication with the communities of the Alagnak River region.

All of the communities contacted in those early meetings expressed an interest in the Alagnak and an interest in participating in this study. This included Levelock, Igiugig, Kokhanok, Naknek/South Naknek, and King Salmon. Of these communities, the first two, Levelock and Igiugig, had the most interest and the most direct ties, yet all of these communities have had a clear historical association with the study area (Deur 2008b). Not only were Alaska Native representatives from these communities generally supportive of the project's aims, but some suggested that there was an urgency to the research. This was suggested in part because of what is seen as the expanding and damaging visitor effects on lands and resources that are important to Alaska Natives along the Alagnak Wild River. However, just as critically, this urgency was due to the fact that many traditional users of the Alagnak are dying away and the younger generations do not possess the same level of familiarity with the river: "We should be writing down the history while the elders are left." "All this good stuff has come around a little too late. A lot of people are gone now [i.e., the elders have died]." "The people [who interviewed for past river management studies] are all gone, almost all of them now" (all quoted in Evanoff 2008). Community members generally were eager to have the elders' knowledge of the river recorded for reference and use by future generations, and this research project was conducted in such a way that it will facilitate such an effort to preserve traditional knowledge into the future.

Most community representatives supported broad community involvement in the study. Accordingly, we sought to organize community meetings to introduce the project, provide occasional updates, and invite recommendations and elder participation. Such meetings were held in one or more villages in the summers of 2008, 2009, 2010, and 2012; they were remarkably well-attended, especially in Igiugig and Levelock, where sizeable proportions of the village population took park. These meetings commonly involved individuals associated with village councils, and various inter-village entities operating in the Bristol Bay region (such as the Bristol Bay Native Association, the Bristol Bay Native Subsistence Council, and the Bristol Bay Advisory



Figure 3 – One of the community meetings regarding the current study, in Igiugig. Participants visible in the photo include (but are not limited to) interviewees Mary Olympic (first row), Mike and Dallia Andrew (second row, left), and George and Annie Wilson (third row), as well as project team members AlexAnna Salmon and Adelheid Hermann. Karen Evanoff photo.

Council). The exchanges in these meetings were almost always very productive, and contributed significantly to the content of this report. This is not to say that there was not some initial resistance to participation in this study. Especially in the 2008 meetings, some participants posed questions as to how, or if, the National Park Service would respond to concerns expressed about river management that would be expressed in the course of the project. Would their concerns be met with tangible policy outcomes, they asked, or would this be an empty exercise, as some believe past agency investigations of Alaska Native perspectives have been? Some suggested that village residents may be reluctant to participate because of the long and complex political history between the Native communities and the NPS: "Your challenge is going to be

getting people to open up. People will be gun shy as far as saying how [the Alagnak] should be used in the future" (quoted in Evanoff 2008). Still, when the aims of the study became clear, support was broad, with especially strong interest in giving knowledgeable elders with interests in the Alagnak a voice in planning for the river's future. There was, in fact, a sense of urgency among some village representatives, who noted that it was mostly older people who have the most detailed knowledge of the river, and they are passing away quickly. Peter Apokedak lamented that there were so few people left who lived there that our number of interviewees was necessarily limited: "I mean, (*sighs*) who do you ask? That's [of] course, a lot of those old folks are gone!" (PA). "There's not too many elders left, you got to talk to them right away if you want to, they're passing on" (quoted in Evanoff 2008). There was also much interest in documenting aspects of traditional knowledge and use that are rapidly fading for a variety of reasons; some advocated documenting such topics as "traditional ecological knowledge," Yup'ik placenames, and the cultural dimensions of natural resource practices that are often overlooked in "subsistence studies." The management implications of these cultural and historical phenomena were clearly of interest to participants in these meetings.

Meeting participants indicated that, ultimately, they wanted to see products emerge from this study that the community can value and use. "One goal is to make sure this is understandable [to community members]." Conventional technical reports, alone, are not seen as sufficient to meet that goal. Some expressed interest in receiving copies of photos and other items that might help them build their own collection of materials pertaining to the Alagnak: "I am interested in old pictures too, make copies of them" Many agreed that they would like to see a "book that communities can use" coming out of the project (all quoted in Evanoff 2008). They expressed the view that a book-length report, and quite possibly a published book, that provided an overview of cultural uses of the River would be an asset to the communities that use the Alagnak, provided that the book is written in a manner that residents can understand, appreciate, and use to keep their cultural and subsistence traditions relating to the river intact. Accordingly, as planned, there are two NPS reports resulting from the present study. The current report is meant to provide a general overview of study findings, with an emphasis upon those themes that are essential in supporting federal river management planning and compliance efforts. It is a technical report, principally authored by Dr. Douglas Deur for a presumed readership of NPS and Alaska Native planners, and may not in every instance be an entertaining read. A second, more engaging report is to be produced subsequent to this document, by co-author Karen Evanoff. That report will be directed

more toward an audience of Alaska Native readers, and will feature more photographs and biographical details than are presented here. It is our hope that the two documents together will represent a complementary whole, and will do justice to the richness of the Native cultural and historical information that has been shared with us in the course of this research.

During these meetings and other exchanges, residents of these villages identified a number of individuals – principally elders – who they suggested researchers contact for in-depth interviews. Also consistent with village recommendations, we agreed to interview these individuals with the involvement of a research team that would include one or more residents from the villages; the training and involvement of Alaska Native research assistants was agreed to have numerous advantages, both to the research effort and to the communities themselves. In 2009, Deur and Evanoff recruited two Alaska Native research assistants – Adelheid Herrmann of Naknek and AlexAnna Salmon of Igiugig - both highly qualified individuals, each having records of success in higher education and leadership roles in their communities. In 2010, the research team (referring to Deur, Evanoff, Herrmann and Salmon) participated in a group training exercise organized by Deur, followed by visits to each of the participating villages to undertake qualitative interviews, which will be discussed in more detail below. From this time forward, Adelheid and AlexAnna continued work under contract with Portland State University, carrying out research tasks in the villages, including further interviews and archival research.

The research team worked to keep villages informed of the progress of the study, and also to maintain a rapport, which is critical to the success of such undertakings. Village representatives noted a reluctance to share information with people who had "breezed through" the villages in times past and not taken the time to develop such a rapport. As Peter Apokedak explains,

> "when I used to be on the village council, too, I usually try to get somebody like you guys coming around, you know? Put a movie camera up there, beforehand…they get a little bit bashful [and would not talk]. Yup'ik people…they get bashful more than anything else" (PA).

Ethnographic interviews were conducted with individuals who were reported to be knowledgeable of, or have personal and family ties to, Alagnak Wild River. Some effort was made to interview a cross-section of the community of Alaska Native river users,

including former residents, elderly river users who have witnessed significant changes in visitor use of the Alagnak, and younger people who have grown up with the river under NPS management. After interviewing people originally proposed by the villages, the research team reached out to other possible interviewees. A "snowballing" sample method was employed in this case, with each successive interviewee being asked to identify other knowledgeable potential interviewees in these categories until the pool of potential interviewees was well established (Patton 1990). Each of the individuals identified through this process were contacted if available and invited to participate in interviews. Interviewees' initials are used within in-line citations in the text of this report, while a key to these initials is included in the "Sources" section at the end of this document. A number of other individuals provided valuable information and perspectives, but did not chose to be formally interviewed; these "informal interviewees" are not quoted directly in the text, but some of the most informative are identified at the end of this document, also in the Sources section.

Interviews were conducted at mutually convenient times and locations. After being informed about the project goals and the potential uses of the results, interviewees were asked if they wish to participate. Interviews, as well as all other activities the research team, were carried out in a manner consistent the ethical guidelines established by the American Anthropological Association and the Society for Applied Anthropology.[9]



Figure 4 – Alagnak Project team members (left to right) Karen Evanoff, AlexAnna Salmon, Adelheid Herrmann and Doug Deur, reviewing field maps at Katmai Lodge.



Figure 5 – Interviewees Dallia Andrew and George Wilson, Sr., helping Alagank research team members AlexAnna Salmon and Karen Evanoff identify places of historical and cultural importance on maps in the course of interviews. Douglas Deur photo.

The National Park Service oversaw all "Human Subjects" requirements for the current project and maintained consent forms from formal interviewees. Interviews focused on key themes relating to the portions of Alagnak Wild River, including interviewees' knowledge of the study themes outlined above. Interviewees were asked about their personal and family associations with the study area in order to contextualize their comments – including basic discussions of their family and the family's history ties to the Alagnak. Interviews were loosely structured, so as to facilitate a conversational tone between the interviewer and project interviewees; while focusing on the themes identified above, questions were not rigidly predetermined. Interviewees were posed questions regarding each of the themes outlined above, and allowed to discuss each theme to the full extent that they wished. Interviews were audio-recorded whenever interviewees provided their consent, and sites identified as important were marked on field maps. Repeat interviews were carried out with certain interviewees, when it seemed that additional interviewing might elicit new and relevant material.

Field visits also were recommended by some interviewees: "[You] guys should get somebody to run you over there and take a peek. Think that would be the best way. Go all the way up…Bring your sleeping bags next time and we'll go to Branch River and then we'll talk" (PA). On-site visits will be essential to understanding the importance of the Alagnak and the nature of visitor impacts. With this in mind, the research team returned in 2012 to carry out field interviews with elders during a multiple-day stay at Alagnak Wild River, while also carrying out additional interviews in the villages. In the course of these visits, the locations of sites mentioned in prior interviews were recorded with precision using GPS units. Interviews were carried out almost continuously while in the field, but in-depth interviews were especially undertaken at key locations of historical and cultural significance, allowing the research team to record a wealth of details not readily available through prior off-site interviews.

In addition, the research team reviewed a diverse range of materials pertaining to historic and contemporary uses of Alagnak Wild River by Alaska Native communities. The team conducted a systematic review of existing ethnographic documentation of recent use along the Alagnak from archival sources, including NPS transcripts, notes and audio recordings from past ethnographic interviews relating to the study area. The team also conducted a review of published and "gray" literatures - ethnographic, archaeological, and historical - addressing the people and resource practices associated with Alagnak Wild River. These sources included ethnographic summaries of Alaska Native uses of Alagnak River that are based on original ethnographic or historical

research, such as those found in Behnke (1978), Stirling (1982), Katmai Research Project (1997), and various Alaska Department of Fish and Game reports, were integrated thematically with other project materials. As part of this process, the research team consulted State and federal archival collections, including (but not limited to) the unpublished literatures and data sets of the Alaska Department of Fish and Game, interview transcripts and audio recordings available through the University of Alaska, Fairbanks, and transcripts, ethnographic field notes, meeting notes, and other materials found in the collections of the Alaska Region office of the National Park Service and Katmai National Park. Drawing from these materials, the team also reviewed transcripts and recordings of prior studies' interviews with Alaska Natives regarding the Alagnak Wild River that had been conducted previously by NPS staff and contractors, or University of Alaska, Fairbanks staff. Several interviews had been conducted between 1995 and 2002 with residents of Igiugig, Naknek/South Naknek, Levelock, Kokhanok, and King Salmon (Table 1).



Figure 6: A section of the raw map output from 2012 GPS recording on Alagnak Wild River, showing cabins, important cultural features, and other places of interest; XO marks places where GPS points were taken in the river, perpendicular to named sites, instead of on exact locations. Dael Devenport, NPS.

Table 1: Interviewees Who Provided Information Regarding Alagnak Wild River in Past NPS Studies

Igiugig

Randy Alvarez (2002)
Dallia Andrew (1995, 2000)
Mike Andrew, Sr. (1995, 2000)
Michael Andrew, Jr. (2002)
Mary Ann Olympic (1995, 2000, 2002)
Dan Salmon (2002)
Anne Wilson (1995, 2000)
George Wilson, Sr. (1995, 2000)
George Wilson, Jr. (2002)

Levelock

Ella Mae Charley (1998)
Evan Chukwak (1998)
George Setuk (1998)
Alex Tallekpalek (1998, 1999)
John Tallekpalek (1998)
Mary Tallekpalek (1998)

Kokhanok

Gabby Gregory (1999)
Mary Nelson (1997)
Danny Roehl (1997)

South Naknek

Carvel Zimin, Sr. (1998)

_____

Dates following each name represent the dates of formal interviews. The names of interviewers are as follows:

2002 Study	– Don Callaway (NPS), Interviewer
2000 Study	– Martha Crow (NPS) and Michael Hilton (UCLA), Interviewer
1999 Study	--Michael Hilton (UCLA), Interviewer (not directly quoted in this report)
1998-99 Study	– Don Callaway (NPS), Bill Schneider (UAF), and Pat Partnow (UAF), Interviewers
1997 Study	– Judith Morris, Interviewer
1995 Study	– Don Callaway (NPS) and Bill Schneider (UAF), Interviewers

These diverse materials, derived from published and unpublished anthropological literatures, have been used to clarify, contextualize, and augment the content of original interviews undertaken for the current study within this report. Some of these materials had been summarized in the prior *Alagnak Wild River Visitor Use Project: Alagnak Wild River Resident Users Study*. (Deur 2008b). The materials documented as part of that study were largely incorporated into the current document – especially being represented in the footnotes of the current report – alongside materials gathered subsequent to that report.

On the basis of materials gathered through original interviews and archival research, we compiled this report, providing a thematic and roughly chronological overview of the effects of recreational activities along Alagnak Wild River on Alaska Native peoples with ties to the river. Cumulatively, this report makes an effort to provide a faithful accounting of all of the major themes and perspectives mentioned by interviewees in the course of the current effort, as well as past ethnographic investigations relating to Alagnak Wild River. In this report, we have made an effort to be inclusive, drawing together much of what has been documented through our own interviews, and in past studies, regarding contemporary users' views and concerns regarding Alagnak Wild River. We have made an effort to incorporate the views and opinions of river users in this document as it is believed that a systematic effort to record these views and opinions will aid the National Park Service in its mandate to manage the River. By including this kind of subjective data, it is in no way an endorsement of these views and opinions, or an implicit judgment on their accuracy. While some effort has been made to place these comments in the context of measurable changes in visitor traffic and natural resource conditions, no effort has been made to systematically past interview content based on its reflection of the "ground truth" on the Alagnak. The "ground truth" of these claims has been the focus of ongoing research by the Natural Resources division of the park in particular, and it is our hope that this document will aid in their efforts. And, while some of the issues raised by past interviewees may be beyond the management authority of the NPS, and more properly addressed by State of Alaska agencies for example, they are still included here. This is done advisedly, recognizing that NPS resource managers nonetheless will benefit from an awareness of these issues as part of the larger range of management challenges emerging on Alagnak Wild River.

During this research, the research team worked in direct consultation not only with the Alaska Native villages of the region, but also with NPS staff, including Jeanne Schaaf

(Chief of Cultural Resources for Lake Clark and formerly Katmai National Parks and Preserves) and Dale Vinson (Acting Chief of Cultural Resources for KATM). In addition, the research team received guidance regarding project goals, methods, and sources from other NPS staff, including (but not limited to) Troy Hamon (Chief of Resources for Katmai National Park), Mary McBurney (Subsistence Manager, Lake Clark and Katmai National Parks and Preserves), Karen Gaul (former Cultural Anthropologist for Lake Clark and Katmai National Parks and Preserves). Dr. Don Callaway (former Regional Anthropologist, Alaska Regional Office) and John Branson (Historian, Lake Clark and Katmai National Parks and Preserves). PSU Anthropology graduate students, Rachel Lahoff, Roy Watters, and Brian Lefler also assisted on various facets of the project. David Banis and Mike Psaris of the Portland State University Department of Geography GIS lab assisted in the production of maps, as did Patrick Hammons (formerly of Pennsylvania State University Department of Geography), Dael Devenport (Archaeologist, NPS Alaska Region) and Daniel Noon (NEPA Compliance Coordinator, Katmai National Park and Preserve).

THE PHYSICAL SETTING OF THE ALAGNAK REGION

Located on the Alaska Peninsula, Alagnak Wild River flows westward some 79 miles through taiga forests and lowland tundra, from Kukaklek Lake- sitting over 800 feet in elevation - to the tidewater of Kvichak Bay. This free-flowing river drains a basin of some 2,237 square miles, from its headwaters to its confluence with the Kvichak River, near Bristol Bay. Fifteen miles below Kukaklek Lake, at "the forks," Alagnak River joins the Nonvianuk River, a shallow river that flows only eleven miles from its source, at Nonvianuk Lake, to its confluence with the Alagnak. Above this confluence, the upper reaches of both the Alagnak and Nonvianuk Rivers are rocky, relatively high-gradient, and possess a single, well-defined channel. In this portion of the Alagnak River Basin, the river flows over exposed Tertiary volcanic and sedimentary bedrock. Especially on the Alagnak, this upper reach of the river descends rapidly at geological interfaces to produce rapids, locally known as "Kukaklek rapids," or just "the rapids." Below the confluence, the river enters low-gradient tundra, where it becomes highly braided, with many riparian islands, pools, riffles, side-channels and meanders distributed across an active floodplain. Active erosion and deposition of sediment along this portion of the river sometimes forms new branches, intermittent channels, steep cut banks, oxbows, and other meander features. As the Alagnak enters its tidally-influenced lower reaches, close to its confluence with the Kvichak River, the river becomes deeper, with one well-defined channel and wide gravel and sand bars (Spang, Vande Kamp, and Johnson 2006; Curran 2003; Dumond and VanStone 1995; Riehle and Detterman 1993).

Precipitation ranges from almost 80 inches annually in the headwaters of the Alagnak, to roughly 25 inches annually along much of the lower river corridor – most of this precipitation arriving as snow. Cold winter temperatures usually are accompanied by persistent snow cover in the upland mountains and ice cover on the river for several months out of the year; at this time of year, ground transportation traditionally involves dogsleds, which have been replaced in recent decades by snowmachines. Vegetation along the Alagnak ranges from spruce-dominated taiga, to spruce-birch woodland, to lowland tussock-tundra. Dominant tree and shrub species include white spruce (*Picea glauca*), willow (*Salix barclayi*, *Salix alaxensis*), Siberian alder (*Alnus viridis* ssp. *fruticosa*), and birches (*Betula nana*, *Betula kenaica*). Dominant groundcover species includes Labrador tea (*Ledum palustre*), Bog blueberry (*Vaccinium uliginosum*), Horsetail (*Equisetum arvense*), sedges (*Carex* spp.), Bluejoint reedgrass (*Calamagrostis canadensis*), Dwarf fireweed (*Epilobium latifolium*), various Lichens (*Cladina*, *Cladonia*, *Cetraria*, and *Nephroma* spp.) and other plant species (Carlson and Lipkin 2003). Most dominant

species possess ethnobotanical significance. Details on that significance, as well as a list of structurally dominant species identified by Carlson and Lipkin (2003) are provided in the "Berries and Other Plant Materials" section of this report.



Figure 7 – The complexly braided channels of the Alagnak River – which gave the river its Yup'ik name – as seen from the air. Douglas Deur photo.

The Alagnak River is widely known for its robust runs of Pacific salmon. All five species of Pacific salmon can be found in the river: King or "Chinook" salmon (*Oncorhynchus tshawytscha*), Chum or "Dog" salmon (*Oncorhynchus keta),* Coho or "Silver" salmon *(Oncorhynchus kisutch*), Pink or "Humpback" salmon (*Oncorhynchus gorbuscha*), and Sockeye or "Red" salmon (*Oncorhynchus nerka*). In addition, the river contains rainbow trout, Arctic char (or "Dolly Varden" trout), grayling, northern pike, Aleutian sculpin, slimy sculpin, Alaska blackfish, three spine stickleback, Japanese lamprey, round whitefish, and nine spine stickleback. All of these species occupy different portions of this structurally diverse river during different life phases. Mammals are relatively abundant within the riparian zone, such as brown bear and moose, and a variety of furbearers including beaver, lynx, mink, otter, fox, wolverine, and wolf. A diversity of waterfowl, shorebirds, raptors, passerines, and other birds also abound in the riparian margin, contributing to its overall resource richness and value (USFWS n.d.). Certain game species have generally been in decline on the Alaska Peninsula. Caribou numbers, in particular, have been declining rapidly, including the

Northern Alaska Peninsula herd, the Southern Alaska Peninsula herd, the Nushagak herd, the Mulchatna herd and the Unimak herd. In recent years, caribou numbers have declined to a point that the Alaska Department of Fish and Game and the United States Fish and Wildlife Service have instigated hunting closures for some of these herds and approved expanded predator management near the calving grounds of others.

As interviewees often note, the Alagnak also has an impressive macroinvertebrate population. Not only does this include a diverse population of aquatic



Figure 8 – Typical tundra vegetation along the shores of the Alagnak, with a diversity of lichens, berried heaths (*Ericaceae*) such as the lingonberry (*Vaccinium* vitis-idaea) shown here, and plants such as cloudberry (*Rubus chamaemorus*). All of the plants shown here have a range of traditional ethnobotanical uses within Yup'ik communities of the region. Douglas Deur photo.

macroinvertebrates, which sustain the fish populations in various ways. So too, the river has a population of mosquitos, biting midges, and biting flies that is robust – even by Alaska standards. Interviewees often comment on this as a distinguishing feature of Alagnak:

> "If you can put up with the mosquitoes and the no-see-ums, [visiting the Alagnak is pleasant]…I mean, that place is just *full* of bugs…I wouldn't want to *be* there on a flat calm day and broke down and drifting on that river. I mean…they'll *pack* you away if you don't have bug dope!" (JW).
>
> "Sand flies [on the Alagnak] oh my goodness, I don't know how they breed them!…I was over there a couple times…*oof!* Real bad. Sand flies, *then* no-see-ums!" (PA).

Earlier generations of Alaska Native river users learned how to repel biting insects, using such remedies as smoke from the needles of White spruce (*Picea glauca*), the wood and foliage of Siberian alder (*Alnus viridis* ssp. *fruticosa*), or the stems of fireweed (*Chamerion angustifolium*) and Pendantgrass (*Arctophila fulva*) that grow there (Wilson 1978: 188; Osgood 1966: Kari 1991: 102-04). In recent times, DEET has become a popular alternative.

THE HISTORICAL CONTEXT OF USE AT ALAGNAK WILD RIVER

Alagnak Wild River has a very long history of human occupation and use, centered on some the same places and resources that are of significance to Alaska Native communities today. The earliest sites at the head of the Alagnak River, date from roughly 9,000 years ago, and show evidence of a mixed economy centering on hunting, gathering, and probably fishing (Rasic 1998, Dixon 1998; see NPS 2006). Salmon fishing appears to have been a mainstay of local economies for millennia: Norton Tradition sites (3,000-1,200 y.b.p.), found on the major rivers in the Alaska Peninsula, suggest a pattern of village life centering on the harvest of salmon and a number of other secondary resources. As Dumond noted "In these sites, notched pebbles generally interpreted as fish sinkers are especially common, suggesting that migrating salmon provided a staple resource (Dumond 1977: 113). On the Brooks River, in the principal drainage basin immediately south of the Alagnak River, Cressman and Dumond (1962: 2-3) conducted excavations that suggest "a widespread subsistence pattern, summer interior fishing and hunting, of the order of 4,000 years ago" (see also Dumond and Van Stone 1995; Dumond 1998, 1986, 1981, 1977).[10] The limited archaeological documentation available for the Alagnak River corridor suggests a pattern of use and occupation that fits this larger pattern. Riparian sites are especially commonplace. As summarized by Curran (2003: 4),

> "Humans probably have occupied permanent, semipermanent or temporary encampments near the banks of the Alagnak River for thousands of years…Park archeologists have identified several dozen prehistoric sites near the banks of the Alagnak and Nonvianuk Rivers, including many along the upper and middle reaches of the study area. Although some sites are found on terraces 2 to 3 m high a few hundred meters from the river, most are within about 50 m of the present-day river. Sites are generally absent from the highest terraces (such as the 15–20 m high, right-bank terrace from RK 50 to 60). The condition of structures and physical artifacts at the sites suggests that they are less than 2,000 years old…despite the discovery of sites as much as 8,000 years old within the surrounding region"

The drawing of interethnic boundaries as they existed at the time of contact is problematic and perhaps a futile exercise. At the time of European contact, the Alagnak River corridor sat at a dynamic cultural borderland. The river appears to have occupied a boundary zone between at least two Yup'ik-speaking populations - the Aglurmiut (or "Aglegmiut") and Kiatagmiut. To the south were the Alutiiq (sometimes called "Peninsula Eskimo" or "Aleuts"), who were closely related to the Koniag of Kodiak Island. Various lines of evidence suggest that the Alaska Peninsula was at one time occupied more widely by Alutiiq-speaking people than was the case during the American period; these people had winter villages on the coast and in interior locations such as Savonoski on the upper Naknek drainage, as well as a constellation of smaller settlements lining the riparian corridors of the Peninsula.[11] No doubt, both Yup'ik and Alutiiq-speaking people have a very long history of use along the Alagnak and other rivers of the Alaska Peninsula.

Depictions of the boundaries between Alaska Native territories in the Alagnak region are contradictory between sources – even within the same authoritative volume, *Handbook of North American Indians, Volume 5: Arctic*, by the Smithsonian Institution. Within this Handbook, Van Stone (1984b: 225) depicts the whole river, from its outfall from Kukaklek Lake to its tidewater mouth, as being within the territory of the Yup'ik-speaking "Mainland Southwest Alaska Eskimo," specifically the Aglurmiut people. Yet, Clark (1984) depicts the majority of Alagnak Wild River, including all areas upstream from the river's north-flowing "Braided Section," as being Aluutiq-speaking "Pacific Eskimo." The differences between these two maps are telling, and reflect the dynamism and mobility of the human communities of this region from the earliest periods of recorded contact. As will be suggested in below, the truth is probably somewhere in-between, with a population that was probably mixed, where Yup'ik speakers became increasingly dominant from the time of Russian contact into the present day.

Other accounts sometimes allude to the inhabitants of the Alagnak River region as "Kiatagmiut" - a term often used in general and vague ways to the Southwestern Yup'ik groups of the northern interior Alaska Peninsula. Strictly speaking, the Kiatagmiut were the Yup'ik population centered on the Nushagak River on the northern side of Kvichak Bay. And while the Pacific Eskimo inhabitants of the northern Peninsula were culturally connected to those of the southern Peninsula and Kodiak Island regions, these groups were also distinct from one another. Partnow (1993: 6) notes that,

> "Although archaeological evidence indicates that immediately prior to contact the Eskimoan language speakers of the northern Alaska Peninsula and Kodiak shared a nearly identical material culture, Russian documents show that the indigenous peoples were well aware of their linguistic differences and had a sense of political and territorial distinctiveness."

In an attempt to summarize this dynamic cultural geography, many published accounts (e.g., Dumond 1995, 1981; Harritt 1986) depict the contact-period lower Alagnak River Basin as Yup'ik-speaking Aglegmiut and the upper Alagnak River Basin as being within the territories of Alutiiq-speaking "Peninsula Eskimo." The former peoples, these sources generally note, emphasized estuarine and coastal resources such as marine mammals and fish, while the interior communities had a subsistence strategy that combined salmon fishing and caribou hunting in a manner that is still echoed in the practices of modern day river users. Despite these differences, it is also clear that the two populations had frequent contact (Davis 1954). In most other parts of the Alaska Peninsula, "cultural boundaries" tended to be situated in resource poor areas and were relatively uninhabited, making them ideal as intermediate territory between ethnic groups (Yesner 1985). However, the close geographical juxtaposition of these different populations so close to the resource-rich Alagnak insured that this river was a nexus of multiple Native communities – probably before, during and after the time of European contact.

Adding to the complexity of this situation, the Alagnak River region has been characterized over time by sometimes dramatic geological events. The distribution of human settlement and land use throughout the region has been shaped by a number of catastrophic volcanic events, sometimes causes periods of apparent outmigration and return migration in the interior Alaska Peninsula (VanderHoek 2008; Dumond 2004; Black 1981). As Dumond (1979) has found that these disruptions never completely extirpated the human occupants of the region, but may have depressed subsistence resources on the Peninsula, such as caribou and salmon, to a degree that residents temporarily relocated to other locations (Pavey, Hamon and Nielsen 2000). Also, the volcanic and seismic history of the region also has sometimes washed away or submerged portions of the human imprint on this landscape, including archaeological and historical sites and resources, in a way that has continued to challenge archaeological researchers seeking to understand the broader history of the region (cf. Hilton 2002, 1998; VanderHoek 2008, 1998; Dumond 1979).

European influence on the northern Alaska Peninsula came relatively late and was intermittent, compared to locations on the Peninsula's southern shore. The people of the Alagnak River region first encountered Russian-American Company employees sent from Kodiak Island to explore the Alaska Peninsula and Bristol Bay area in the final two decades of the 18th century (Van Stone 1972). Though Alaska Natives of the area established trade relationships with the Lebedev-Lastochkin Company and later the Russian-American Company, and there was some relocation of seasonal settlements to the proximity of trading posts, the Russian presence had relatively slight effects on the overall patterns of settlement and subsistence in this region. As Van Stone noted, the "trapping-trading economy may have reduced the actual amount of the time which the Eskimos spent in their villages, but not enough to cause a major shift in the settlement pattern" (Van Stone 1971: 143).

Still, the designation of specific pre-contact ethnic boundaries in the Alagnak area is complicated by the complex circumstances of the contact period. For example, in roughly 1800 AD, a conflict commonly known as the "bow and arrow war" broke out in the Kuskowim River region. This conflict resulted in the displacement of the Aglurmiut from the lower Kuskowim River; they moved south, taking up residence along the mouth of the Naknek, the Nushagak, and the estuaries of other major Bristol Bay rivers. Russian sources seem to indicate that many of the earlier inhabitants of this coastline retreated inland and established permanent villages in the upper reaches of the Naknek and other rivers. (Dumond 1986; VanStone 1967: 117-19; Oswalt 1967: 4; Nelson 1899: 516-17; Wrangell 1839: 121ff.).[12] To complicate matters, Alutiiq-speaking "Aleut" as well as Yup'ik-speaking Aglurmiut and Kiatagmiut were further drawn into the interior of the Alaska Peninsula through their expanding involvement in the Russian fur trade (Dumond and Van Stone 1995; Ackerman and Ackerman 1973). At times these groups coexisted peacefully, trading and intermarrying within longstanding settlements, while at times relations were hostile.[13]

Epidemics introduced by the Russians brought also significant changes to the Alagnak River region. Epidemics within the Native communities of the Alaska Peninsula are first mentioned in the Russian records as early as 1832, at the beginning of two major smallpox epidemics that swept through interior Alaska Peninsula communities by the end of that decade (Van Stone 1967: 99). In the decades that followed, the communities of the Alaska Peninsula were decimated by repeat waves of influenza, smallpox, pulmonary diseases, tuberculosis, and a number of other unspecified "epidemics." There is some suggestion in the literature that Russian missionaries and mission

outposts served as the inadvertent vectors the arrival of many of these early epidemics in the Alaskan Peninsula region over the course of the 19th century (Van Stone 1967: 100).[14] Not only did a large portion of the Native community die, from all accounts, but also the survivors of these epidemics often had reduced fertility rates, resulting in multi-generational demographic effects of each successive epidemic. For comparative purposes, it is worth noting that Dumond (1986) places the population of the Naknek area in the year 1800 at between 600 and 700 people, but concludes that "between that date and AD 1900, approximately two-thirds of the population was eliminated, chiefly as a result of a heightened incidence of respiratory disease" (Dumond 1986: 1). During each successive epidemic, survivors from the different Native communities of the Alaskan Peninsula often regrouped into multi-ethnic villages. By the 1850s, the Alutiiq-speaking "Peninsula Eskimo" of the Alagnak River region appear to have been partially absorbed into the neighboring, Yup'ik-speaking Aglurmiut population (Woodbury 1984). The two groups maintained some sense of distinctiveness, but increasingly the old identities and animosities began to give way to a shared Native identity centered on particular communities and a particular geographical region. Yup'ik speakers became increasingly dominant in the cultural and social affairs of the Peninsula interior, while Alutiiq dominance was gradually displaced to relatively remote interior locations and coastal villages on the Peninsula's southern flank over the course of the 19th century. As will be discussed in later sections, epidemics continued to reshape the cultural geography of the Alaska Peninsula well into the 20th century, as the influenza pandemic that spread across the globe in the late 1910s and early 1920s had disastrous effects in some communities and continued processes of intervillage consolidation that had begun almost a century before.

The question of ethnic identity in this region following the changes of the mid-19th century is complex, then, reflecting the migrations and admixtures of formerly distinct populations that have formed the communities we know today. A number of studies have demonstrated strong ties between the communities in the study area – Levelock, Igiugig, Kokhanok, Naknek and King Salmon – due to shared kinship, inter-village migration, participation in Russian Orthodox and other church activities, as well as shared subsistence tasks and commercial employment at canneries and elsewhere over the course of the late 19th and early 20th centuries (e.g., Partnow 1993, Morris 1986). While residents of the area are often categorized as ethnically "Yup'ik Eskimo" and are often Yup'ik-speaking, they commonly refer to themselves as "Aleut" and no doubt possess a degree of Alutiiq ancestry. By the time that ethnographic information was being recorded in a systematic way, the three populations that made up the human

community in this portion of the Alaska Peninsula – Kiatagmiut, Aglurmiut, and Alutiiq-speaking "Peninsula Eskimo" – had become so integrated, and their sense of distinctiveness blurred in this cultural boundary zone, that they adopted a shared identity as "Aleut" (Partnow 1993; Morris 1986: 29-30; Townsend 1979).[15]
Some elders in the modern communities speak Yup'ik, but a few have been reported to speak Aluutiq in recent decades. Simultaneously, it is clear that there is a significant thread of Dena'ina Athabaskan Indian ancestry in the communities of the study area that has been largely eclipsed by Yup'ik and Alutiiq identity and ancestry (Townsend 1979, 1965). Moreover, in the years following European contact, intermarriage with Russian men had significant consequences for Native communities during the Russian period, just as intermarriage with Scandinavian fishermen, reindeer herders and other settlers in the late 19th and early 20th century affected social mores and relationships in the American period (cf. Mishler and Mason 1996).[16]

Despite these ambiguities, the ethnographic and archaeological evidence are in firm agreement on certain points, especially as they relate to the settlement and subsistence patterns of the Alaska Peninsula's inhabitants prior to European contact. Archaeological evidence generally supports the notion that "Southwestern Eskimo" peoples (whether they spoke Yup'ik or Aluutiq is unclear) inhabited the Alagnak River region long before European contact. Archaeological evidence suggests a very long chronology of a mixed subsistence pattern, involving riparian fishing technologies, involving salmonids and other river fish, alongside terrestrial hunting technologies centered on both large and small game. Settlements were situated as to accommodate this combined subsistence pattern, with significant villages situated in riverine and estuarine contexts.[17] Villages found in the interior tended to be located at salmon-rich sites that also served as key points along the portages crossing the Alaska Peninsula (Petroff 1884: 136). Over time, the various threads of Native ancestry – Yup'ik, Alutiiq, Russian, and other – converged within communities that are today found within the study area – including, but not limited to Levelock, Igiugig, Konhanok, Naknek, South Naknek, and King Salmon. All of these communities are linked by certain shared interests, shared kinship, and some shared historical and cultural associations with Alagnak Wild River.

20th Century Alagnak Villages and their Demise

While we can provide a general outline of Alaska Peninsula history as it unfolded in the 19th century, there is little detailed ethnographic documentation of community life on the Alagnak River prior to the 20th century. This reflects in part the dramatic events of the first two decades of the century, which served to disrupt most aspects of community life, displace large numbers of people, and obscure much of the river's earlier history. If documentation of the pace and the processes contributing to depopulation of the Alagnak River corridor is relatively scarce, the historical record makes it clear that the region experienced several major shocks during the late 19th and early 20th centuries. These shocks reduced the size of the resident community, but contributed to the enduring sense of attachment to the Alagnak expressed today by many Alaska Native families from many communities in the Alaska Peninsula region.

As Van Stone noted, the construction of canneries in the Bristol Bay region in the late 19th century had impacts upon patterns of Native settlement, culture, and subsistence that neither Russian traders nor the Russian Orthodox Church had been able to accomplish in the preceding century:

> "of far greater significance for the acculturation of all peoples…..than either Christianity or the fur trade was the commercial salmon industry that began to develop in Bristol Bay during the 1880's…..The commercial fishery was responsible for bringing about major seasonal fluctuations of population which brought Eskimos from even the remotest villages to the area" (Van Stone 1971: 22).

Interviewees for the current project made similar comments about the impacts of the fishing and canning industries.[18]

By the 1880s and 1890s, salmon canneries were appearing along the Bristol Bay shoreline – many of them supported by investors, labor and equipment from foundering salmon canning industries in other parts of the American Northwest, where salmon numbers were in steady decline. By 1895, canneries had arrived on the Kvichak, and by 1900, the Alagnak River became the site of two canneries, built by the North Alaska Salmon Company. Situated near the junction of the Alagnak and Kvichak Rivers, these two canneries were known as the Lockanok and, a short distance

upstream, the Hallerville cannery (Branson 2007; NPS 2006: 21; MacDonald 1951). Meanwhile, longstanding Native settlements in the larger Kvichak Bay region such as Koggiung increased in their proportional significance as canneries were established in those areas, drawing labor from throughout the region.[19]



Figure 9 – "Grandma Tallekpalek" – a matriarch of the family that was widely remembered by the elders of today. The Tallekpalek family was said to have moved to the Alagnak from the Yukon region: "they were from up north…they were Eskimos" (PP). She was married to the grandfather of interviewee Mike Andrew. Photo courtesy National Park Service, Photo H-405, Tallekpalek family collection.

A number of Alaska Native families began to relocate to these canneries to work as fishermen, cannery labor, or in maintenance and service jobs tied to the canneries. Many moved to the canneries seasonally, though enduring year-round communities grew up around the canneries –often at or near the sites of historical villages - and became homes for Native laborers and their families at this time. For some upriver communities, the arrival of the canneries brought incentives to relocate on the tidal portions of the Alagnak and the larger Kvichak Bay region. Simultaneously, the emergence of early cannery employment on Bristol Bay brought a stream of outside Native groups from the north – culturally affiliated with local Yup'ik speakers – into the vicinity of the Alagnak: "[the] availability of commercial fishing jobs at Kvichak canneries also attracted subsistence users from as far away as the Yukon River" (NPS 2006: 19).



Figure 10 – Twenty-five foot "Columbia River double-ender" gillnet boats - a boat style brought to the area with the movement of Columbia River canneries to Alaska in the late 19th century. These were the standard boats of the canning industry during early commercial fishing on the Kvichak estuary until regulations allowed for expanded motorboat use in the early 1950s. Photo courtesy Village of Igiugig.

Cannery employment at the Kvichak-Alagnak confluence also fostered a degree if relocation of certain families from the upper Alagnak to the vicinity of modern-day Levelock. When cannery employment drew certain families from the upper Alagnak to tidewater, they sometimes chose to use the familiar community of Levelock as their new home base rather than to relocate to an impromptu cannery town. Interviews attest that Levelock was well-known to certain residents of the Alagnak at the turn of the century, as a community with kinship ties to Alagnak River communities, which was sometimes used as a fish camp by certain Alagnak River residents. Speaking of the 1920s, one interviewee recalled, "Levelock had served as a summer fish camp. People from Branch River moved over" (Katmai Research Project 1997: 20).

Though the Hallerville cannery was short-lived, the Lockanok cannery operated until 1936, drawing Native labor from throughout the region to settle in a largely Native community sitting adjacent to the cannery – commonly called the "Alagnak" or "Lockanock" village. A number of interviewees recalled stories of their families relocating seasonally or sometimes year-round to Lockanock village to work in the canneries in the early 20th century, transporting upriver peoples and traditions to this growing community. Interviewees also recall that for many families – especially those without much prior trapping income – this was their first point of entry into the non-Native cash economy: "Work was plentiful - they had work in the canneries" (PP). The canneries brought access to other goods and services that were unprecedented along the Alagnak. As interviewees noted, before the cannery stores opened, "There wasn't any [stores]" (VW)! The cannery stores provided unprecedented access to fuel, tools, bullets, cloth, and any number of other goods. The stores also allowed not only the use of cash, but the barter of furs and other goods, allowing for broad local participation in the cash economy. For example, Michael Andrew spoke of the use of pelts for access to goods that were otherwise hard to obtain in the remote communities of the Alaska Peninsula in the first half of the 20th century:

> "when we were reindeer herders, my folks they used to, when the holidays come, I guess they know their Christmas holidays for American, so they take one caribou, take them for stores, or [for the winter caretaker of a cannery]. Trade them with the food like coffee and sugar, flour, tea…They give them coffee, sugar, tea, little bit of everything what they need, matches. And if they have a rifle, give them shells… Sometimes we go down for need fuel gas, maybe oil, motor oil" (M. Andrew in Andrew and Andrew 1995).

In addition to providing opportunities for cannery and fishing employment, some women, such as "Blind Grandma" and other members of the Tallekpalek family, were said to have worked at these canneries for a time as waitresses. Meanwhile, many men learned skills in commercial fishing that have continued to sustain Alaska Native families with Alagnak origins into the present day, in combination with part-time subsistence activities.[20]



Figure 11 – The Koggiung Cannery in 1919. This vast cannery near the Kvichak-Alagnak River confluence once employed large numbers of Alaska Native residents from the region. At the end of the influenza epidemic, many families consolidated together at a village site adjacent to the cannery. Photo H-385 courtesy NPS, Tallekpalek family collection.



Figure 12 - Women working at the Naknek Packing Company Cannery, 1954. *Anchorage Museum of History and Art, Photo No. AMHA-b85-27-1012.*

Later, when canneries were disbanded, the companies that owned the buildings often left them largely intact; these structures were often salvaged by Alagnak River users for building materials. Violet Wilson discusses one such cannery on the Alagnak: "that cannery was all intact yet, there was *everything* there! Even *dishes!* And since then, it's just all *gone* [from salvaging]*!...Everything* was there!" (VW). Such structures provided scarce building materials that are integral to many of the built structures lining the Alagnak today.

Meanwhile, the discovery of gold in the Nome area brought a brief gold prospecting boom to the Alagnak region starting in roughly 1900 and lasting for a few years thereafter. Men from outside of the region flooded into the Alaska Peninsula. During the Nome gold rush, the Alagnak was briefly prospected and a store briefly operated on its banks to provide goods to prospectors (Townsend 1965: 168). A few non-Native men from outside of the region became established on the Alagnak at this time, building isolated cabins or sometimes living as part of villages on the river. A second wave of non-Native men was reported in the 1930s, spurred by continued interest in

prospecting as well as a lack of economic alternatives elsewhere during the Great Depression. Accordingly, modern interviewees report that there were a number of non-Native men also lived on the Alagnak in the early 20th century, participating in trapping, prospecting, fishing, and other pursuits. Many of these men were active participants in Alaska Native community life, and sometimes married into those communities. As Violet Wilson recalls of the mid-20th century,

> "There used to be lots of old bachelors out along the river. But Native Land Claims stopped all of that!...You know, nobody could just come in and build like they used to, like years ago...Mostly all [bachelors] come from Europe, and places like that. Some from out-of-state. It was really nice. *Everybody* had a good relationship!...Nobody had any more than their neighbors. We all lived about the same. And we were always ready to help one another" (VW).

Patrick Patterson, Sr. also spoke of the sizeable non-Native presence, as well as openness and sharing between Native and non-Native people living on the Alagnak in the mid-20th century:

> "Even when the white people moved up here in the 1930s. The white people, before they adopted the natives' tradition. When a guy moved on the river, he was told, your trap line is here and what he could do for hunting. You could only kill what you could eat that day and if a moose was killed it would be divided up amongst everybody. If you were living on the river nothing was wasted and that meat was gone cause most of these white people came out of the depression and they knew what it was like to go hungry. They seen how everybody out in the lower 48 took advantage and wasted all that food and destroyed everything and they started moving up here. Alaska was their last step. When they ruin Alaska they are finished…There were several people that lived there, Charlie Olsen, Lars Olsen, Johan [?] Carlson, Charlie Rosie, Frenchy Rousseau, Nels Clinton. Nels Clinton built the house that George Peterson bought. Gus Sickless, Hedlund, Deafy Swanson (who used to come in the spring and trap up there). Al Holton is the one that built the house where the village is, you know where Eau Andrew's place is. Up in that little slough. Al Holton built that back in the early thirties" (PP).



Figure 13 – A number of non-Native men lived on the Alagnak in the early 20th century, participating in trapping, prospecting, fishing, and other pursuits. Many of these men were active participants in Alaska Native community life, and sometimes married into those communities. Photo courtesy National Park Service, photo H-394, Tallekpalek family collection.

Some of these non-Native prospectors stayed quite late. Some interviewees, for example, spoke of Billy Hammersley, a non-Native miner, who lived on Alagnak until the 1970s. He was a prospector, and interviewees report a number of test holes and small excavations along the Alagnak River riparian where Hammersley and his compatriots dug pits looking for gold.

Yet, there were changes in the early 20th century that would have more damaging and enduring effects on the communities of the Alagnak. The Novarupta eruption of 1912 – one of the largest single volcanic eruptions worldwide in the 20th century – dislocated both human communities and the game on which they depended. The effects on the Alagnak region were profound, according to oral tradition. There was said to be a

number of deaths associated with the eruption on the Alaska Peninsula, apparently including deaths of a number of people along the river. "Everybody move! From the volcano blow up…Some of them people died" (VA). The fish were also said to have been effected by past volcanic eruptions, including the Novarupta event:

> "This mountain, they exploded. Fire. They exploded. Then, when the ashes came down, like lake here in river, they killed the fish a long time ago. They killed the fish! …The ashes came down. Killed salmon. They can't eat any more. They die out" (DA).

Ashfall, coupled with depressed game numbers, prompted a modest temporary migration out of the Alagnak area to join family and friends in coastal communities such as Naknek.[21] "See, when it erupted I think they came through here and all the way here [to King Salmon and Naknek]…and they said it was pitch black" (RA). While many families stayed on the Alagnak, and other returned, some did not. Some interviewees spoke of people moving off the Alagnak permanently at this time, in part because of enduing declines in the numbers of fish, caribou, and other subsistence resources. Some of these game species were said to have only rebounded slowly after this time. Interestingly, there appear to be predictions, bordering on "prophesies," among certain elders that eruptions of similar impact will occur again in the not-too-distant future. Mike Andrew, in particular, spoke of such predictions:

> "We're talking about a big mountain blowing up. The mountain is going to have a war one of these days. It's going to come, I hope not yet. When they have a war, all of the mountains…They take one spark, hit one mountain, and it blows up. All the mountains start doing that. It's going to be danger!" (MA).

Painfully soon after the Novarupta eruption, the Alagnak River communities were exposed to the disastrous impacts of the influenza pandemic of 1918-20 – a fate shared with many Alaska Peninsula communities. While estimates vary, mortality rates were high, similar to the epidemics that had raged through the region 80 years before. Deaths were often oddly abrupt. Teddy Melganak recounts one story about the flu epidemic:

> "They used to tell stories about that flu they had…[People in this area] were over to [a friend's] house having a cup of tea with them, and they go back home, and these people come in. They tell them they're dead! An the

> Grandma said, "You just had a cup of tea with them a little while ago!" They just drop dead!...It must've been *really* bad" (TM).

Steve Nowatak shared similar accounts, noting that there was a quarantine station established for people from the Alagnak wanting to go out fishing for the canneries at this time, and people often died abruptly while waiting there:

> "Somewhere they had quarantined people. Coming down from the river [people] would have to stop there and stay a 3 or 4-day period, before they went down to fishing. Because of that they said they die so suddenly. People be talking like this, somebody would fall over dead. No sign of sickness or anything…They said in that time, that became so normal people didn't cry anymore! Which was a common thing. They don't know what was causing so sudden a death. No symptoms of any kind" (SN).

Not only did many people living along the Alagnak die during this episode, but a number of villages disbanded for want of survivors, becoming seasonal resource camps. "They said there were probably 2 or 3 survivors from the whole influenza [in some settlements] the whole village died of something" (SN). Villages such as the old village at Alagnak Forks largely disappeared this time, the surviving population mostly moving to villages downstream. Burials along the Alagnak, some of them large and hastily constructed by necessity, attest to the high mortality rate of this final major epidemic along the Alagnak.[22] "They had flu!…Lot of people died!…They make a big grave…they just dump them in there" (VA). Some survivors consolidated in villages along the Alagnak, especially on the lower river and on the adjacent Kvichak estuary, in communities such as Koggiung, Alagnak Village, and Branch Village. Many survivors relocated to other communities off of the river. Former Alagnak residents regrouped in places such as Igiugig, Levelock, and Kokhanok, alongside residents of those communities, as well as displaced residents from other small villages nearby, from such places as Kaskanak Flats, Newhalen, Big Mountain and Kukaklek Lake. Any residual divisions that might have existed between Yup'ik-speaking Aglurmiut and Kiatagmiut and the Alutiiq-speaking "Peninsula Eskimo" appear to have broken down at this time, as communities dominated by one or the other group were decimated and the survivors grouped into undifferentiated settlements of survivors.



Figure 14 - Orphans of the influenza pandemic gathered in Naknek, ca. 1918. Photo from the National Geographic Society. Katmai Expeditions, 1913-1919. *Photo No. UAA-HMC-0186* - Vol 7, 6462.

As elsewhere, the influenza epidemic disproportionately affected otherwise healthy adults; orphans were numerous. There were pervasive traditions of adoption among the people of the Alagnak River, allowing families to take in orphaned or needy children freely, especially but not exclusively from members of one's extended family. Many of Alagnak's orphans were adopted into the households of kin and friends throughout the Bristol Bay region.[23] During the influenza pandemic, this allowed the Alaska Native communities of the area to redistribute orphans within and between communities with great flexibility. This was a generally positive influence on community stability, but insured that many children originally raised on the Alagnak were later adopted out, and maintained only remote connections with the River thereafter. A few of these orphans and their descendants would return periodically to reconnect with family and to participate in subsistence tasks – a process that still gives some distant communities a sense of attachment to the Alagnak today.

These shocks of the early 20th century served to destabilize the communities of the Alagnak in certain ways. Even those families that chose to stay on the Alagnak appear

to have become even more mobile in some cases – joining dislocated family and friends for seasons at a time, working at canneries and other employment. This is echoed in the accounts of interviewees who describing their families' high levels of both seasonal and year-to-year mobility from the time of the influenza pandemic through the mid-20th century.[24]

Meanwhile, the number of families living permanently along the Alagnak was whittled to a small fraction of its original numbers. Shortly after the epidemic, only a few extended families remained in areas above tidewater.[25] Small settlements persisted, but with what appears to have been a more diffuse settlement pattern than had been the case previously, with a few houses strung over large distance along the river. Families were increasingly spread out along the river, rather than being concentrated within clustered villages:

> "everybody had separate houses, five, six miles apart. Next neighbor you have to go eight miles before you go to next house…there was some more family like my mom, my sister and all that, brother, and the grandpas. They're all separated now, different houses. That's the way I could remember when we lived Alagnak. They had places so far apart, seven eight miles away before you come to next house…we just like this long ago…… that time we hardly have anybody living close to us. 'Cause that time we stay separate, like we have a house like this, family. There's no other families…Long time they live so far apart. Not in one place like this" (M. Andrew in Andrew and Andrew 1995).[26]

For many families that had left the area, former homes and villages were visited seasonally, to be used as subsistence outposts.

Through the 1920s and 1930s there was a modest return migration to the Alagnak, as families displaced by Novarupta, influenza, and other factors found their way home. For many, this return migration seems to have been motivated by the unique and often abundant fishing and hunting opportunities along the river, as well as a strong sense of attachment to the area among displaced families. Other economic incentives that will be discussed later in this document – from the emergence of reindeer herding to the rise of the mid-20th century fur market – also provided opportunities for people to return home.[27] Even those people who held cannery jobs sometimes attempted to maintain permanent residences along the Alagnak, upstream from the canneries on lands of longstanding importance. Speaking of the early 1940s, Mike Andrew recalled,

> "we come home [to the Alagnak] after everything, when the cannery is closed. Everybody pack up, buy little bits what they need from the cannery for winter coming. And come home on the bay, come upriver and you go all day before you make it home. We start it morning, and all day you're driving the boat. That time, that boat was slow. Not like today. They were slow. I could remember they used to have Palmer 270s, 12 horsepower, that's all. They put in the fish boat when they come with that kind of motor. They had long time, I could remember… Down Alagnak River, not this Kvichak. Down Alagnak River. That time we were living down there [most of the time on the Alagnak], in 1942" (M. Andrew in Andrew and Andrew 1995).

By the 1940s, there was a remarkably large population living along the River once again – not nearly as many people as before, and not nearly as concentrated in large villages – but a sizeable and growing population all the same. Violet Wilson recalls her travels up the Branch in the mid-20th century:

> "It was really neat going up Branch River, we would come up Branch River and there was a little colony of people over on the left hand side that was called Lockanok, I think there was 7 or 8 families that lived over there. Then we went further up the river, then there was Nelsy Clint, he was a bachelor, then further up there was Eau Andrew and his family, then from there we would go up to Ray O'Neill and his family then Nick Tallekpalek and his family and Chuka Pete (Pete Chukwak) and his wife, and all those young boys, Little Mike, Geesa, Deafy Boy and Evan. The Old Chief, Nick Tallekpalek's Dad, he came from over Bethel somewhere, he had snow white hair. Andrew Wassillie and his family came over that winter. Further up [by Grassy Point] was Grandma Estrada and Dan then Frenchy Brooks, then us, then above us was Shorty and Buddy Wilson" (VW).

While somewhat diffuse, this string of houses – anchored on its western end with the Branch and Alagnak Villages - still functioned as a community, with most elements of community life. Residents came together frequently for subsistence tasks and social purposes. To demonstrate this point, Mike Andrew recalled the Christmas holiday along the Alagnak – a time when families traveled from house to house along the river, singing and feasting. During the Orthodox Christmas season, members of the Alagnak



Figure 15 – Following the abrupt collapse in Alagnak River population there was a brief period of reverse migration in the first half of the 20th century, as some families were drawn to the abundant fish and game of the area. Olga Peck, seen here, and her husband moved from their home in Levelock to live along the Alagnak during this period, reportedly in response to the abundant hunting, fishing, and trapping opportunities on the River. Peck's Creek was named for this family. Photo courtesy National Park Service, Photo H-413, Tallekpalek family collection.

community would get together and practice singing and going out to Slavi between all the different houses in the community:

> "We had the teacher when we had the Orthodox Christmas holiday. They love to sing, practice, every weekend. We like to sit down and sing!...[on] Alagnak River, that time people lived like five, six miles away. And you gotta stop, sing our Christmas, Russian Christmas song and when they finish they give us food. And when they done, they go to next house, another seven, eight miles. And sometimes by the time we come home, it get dark like out here, they come where we start, go back home same day… We travel by dog team. I stay in the sled. I was too little. With my mom. Cause my brother older. He's driving the sled. We have like three, four families travelling together. They go house to house, sing. Everywhere we come to, they donate the food and stay awhile. Any kind of wild beaver, porcupine, fish, red salmon, smoked fish, white fish, moose, caribou, what you can get wild, they put on table….all the people, you could eat from that food. There they do it every house you come to they serve all the people" (MA, and M. Andrew in Andrew and Andrew 1995).

Similarly, Steve Nowatak recalls,

> "They'd go visiting [each] other than going [to] what they call "Russian Christmas" or funerals and things like that. They would gather in the village for ceremonies" (SN).

Even during other times of the year, people held community dances in the homes and villages of the Alagnak, with singing, dancing, eating and socializing with people from different communities along the river and beyond. Several people played musical instruments, and residents of distant villages such as Ekwok people would come over to participate in the singing and dancing. Young people sometimes met their spouses at these events.[28] Children sometimes complained of not having many friends nearby, but these events helped to alleviate the sense of isolation; some had the option of going away for formal schooling, but many did not.[29] Today, most of the people who grew up on the river express satisfaction, and often great nostalgia, for Alagnak River community life of the mid-20th century.[30]



Figure 16 – Men celebrating the Russian Orthodox holiday of Slavi on Alagnak River. Timed from January 7 to Russian New Year celebrations on January 14, Slavi involves groups of people traveling between homes and villages by foot and dog sled, spinning a wooden star symbolizing the star of Bethlehem, and singing songs before eating feasts provided by visited households. The men are, right to left, Wassilie Andrew, Evon Apokedak, Zachary Chukwak, and Mike Andrew. Photo courtesy Village of Igiugig.

For some young families, the Alagnak River was also seen as a place where newly married couples without much money could make a living and start their lives together. A number of women interviewed for this study – Mary Olympic, Mary Nelson, Violet Wilson, Ida Apokedak, Elma Peterson, and others – reported moving to the Alagnak with their husbands soon after getting married in the mid-20th century.[31] Violet Wilson, for example, discussed moving to a cabin on the Alagnak for the first winter after she married: "we were above Grassy Point. On the left-hand side…Branch River… [Our neighbors were] all local people. It was quite a few people in around up there" (VW)." In part this reflected a patrilocal pattern of residence from an earlier time, with women moving to places where their husbands had roots, but also seems to have reflected a

perception of the Alagnak as a place of natural abundance, where a person could subsist without much money and begin earning income through trapping and commercial fishing. Women living in these somewhat isolated households had to participate fully in most aspects of household and economic life. Elma Peterson, for example, moved to the Alagnak in 1951; in addition to running the household, she also trapped beavers, hunted for moose and caribou and put up fish for consumption by both her family and their dogs. Days were busy and the work was hard, but most interviewees recall these times fondly. When moving to the river, these young people encountered friends and relatives also living on the river. Thus, as Mary Nelson recalls about relations in the Branch River during her time living there after she got married: "for the most part, everybody who is living there's "get along, because they were 'related' in some way all to each other" (SN, translating for MN).

However, by the 1950s and early 1960s, the resident population on the Alagnak began to contract once again, as several families relocated so that their children could go to school.[32] Both federal and state policies demanded schooling for children in Native households and, for the first time, established binding penalties for noncompliance including the forced removal of children to residential schools. Interviewees such as Howard Nelson recalled that his father moved out of the Branch "back in the late 50s" because of school purposes:

> "People lived over there [on the Alagnak] before they moved here [to Levelock]! And only reason they did that was because the kids became old enough to attend school, and that's the reason why they left the Branch River to come here" (HN).

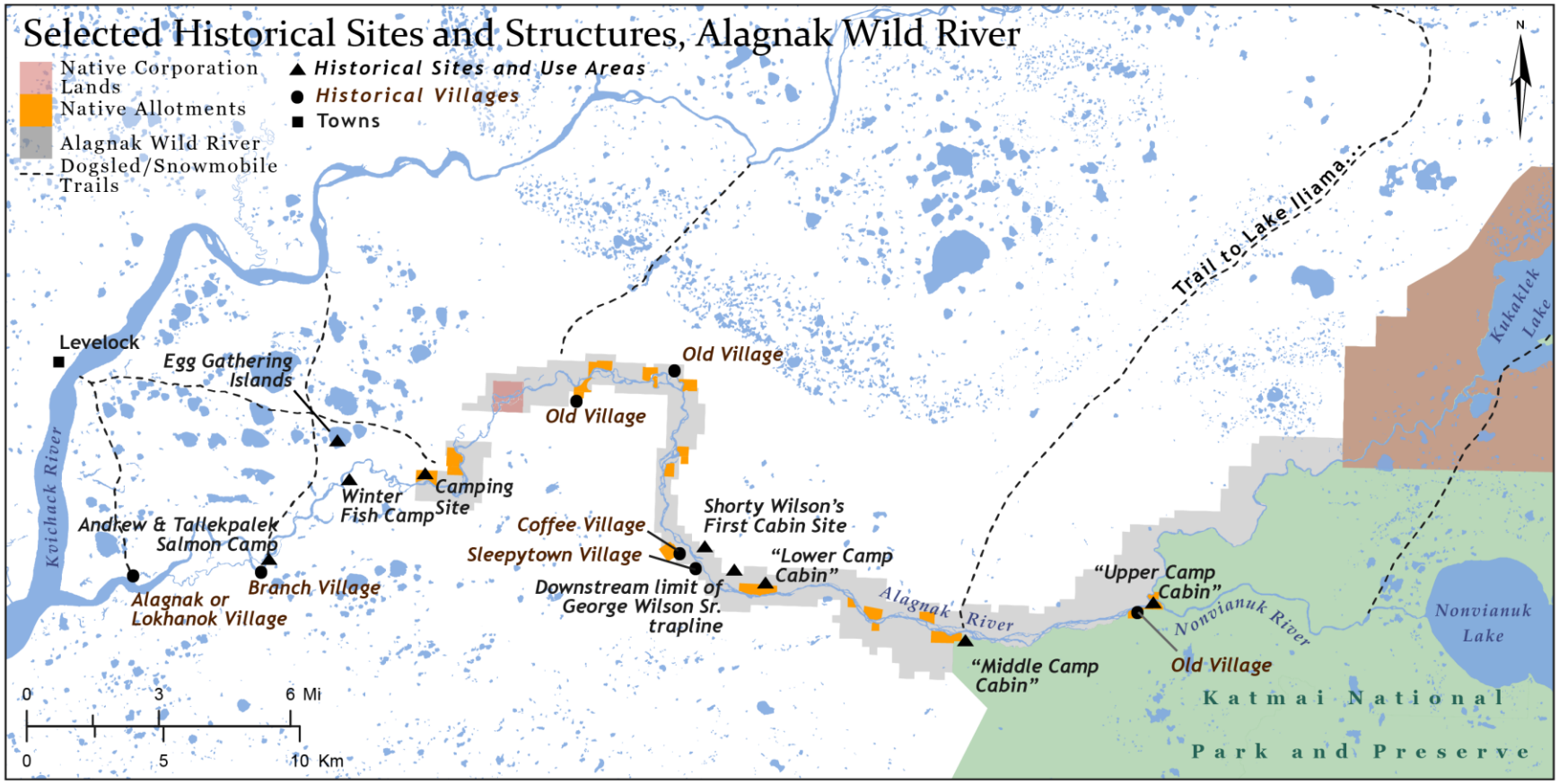
As will be discussed more in later sections, families often opted to move to villages nearby where they had kinship ties, relocating to villages such as Igiugig, Levelock, Kokhanok, and South Naknek. A few families resisted relocation for a time, but ultimately relented. Others moved away, but found village life confining and oddly sedentary in a way that arguably was unprecedented: "then they settled, pretty much" (PA). Some returned to the Alagnak for a time into the 1960s and 1970s to resist these effects, but these return trips proved to be short-lived. Peter Apokedak who left the Alagnak in 1956, for example, spoke of settling down in Levelock once he married his wife, Ida:

> "[We left] for school—schooling purposes. Mom had a TV…she was going to hospital. Told Dad—"Take these kids to school! Up the lake or downriver, take your choice." Took this place [Levelock]… That's why I've been around Branch River quite a bit!...I married [Ida and] I told her, "Well, we're going to move 'em to Branch River." I don't know…I don't like city life. I go over there, and after a couple of weeks, I go home. (*Sighs*) Boy, I caught up to the dog team years…they say it was tough life, it wasn't. Everything outdoor work. No TV. That…was a good life. Outdoor life" (PA).

Many people, including young people, "used to go and stay there for the summer" through the 20th century (JW).

Ultimately, however, the migration was complete. Mandatory formal education for Alaska Native children accomplished what multiple epidemics, a catastrophic volcanic eruption, and economic forces could not. The people of Alagnak now lived exclusively in places like Igiugig, Levelock, Kokhanok, King Salmon, Naknek and South Naknek, only returning to the river seasonally but not maintaining permanent homes there.[33] By the end of the 1960s, there were no more families living permanently on Alagnak River.

Despite this relocation off of the Alagnak, people maintained their connections to the river in diverse ways. Today, some still maintain a sense of attachment that is rooted in the shared and personal histories of their community. Some – especially those who lived there earlier in life - often think of the Alagnak as their "true home" even as they live in another community. People who were seasonal visitors in their youth still express that Alagnak is like home to them and that they "grew up over there on that river" (JW).[34] People report "missing" the river, its resources and the community that once lined its banks: "nice place, lots of food, Branch area… All kinds of food! Nobody live there right now. It's make me *sad*" (MO). True, a few families largely ceased visiting the Alagnak after their relocation, in part due to the distance and inconvenience of traveling there. Mary Nelson, for example, reported that her children do not use the area around the Alagnak: "None of her kids ever went back down there, because they weren't born yet. Today mostly they end up being here in the village at Kokhanok" (SN, translating for MN). Nonetheless, many younger community members still identify the place as their homeland, even if they have not personally lived there at all. Ralph Angasan of King Salmon speaks of this perspective:



Map 4: Selected Historical Sites and Structures

> "This area here, King Salmon, is probably more my home, but of the area, you know, you still have a feeling of connection, like a family history. How many people actually know their family history, you know. It's really unique…especially in this area…It's not a home to me, but it's where our family came from" (RA).

The Alagnak River families and their descendants, as part of a social network that includes residents of Igiugig, Kokhanok, Levelock, King Salmon, Naknek and South Naknek, and other communities, together have a shared history of association with the river.[35] In this context, their shared ties to the Alagnak, their shared history, are not easily forgotten.

Also, as will be discussed in detail elsewhere in this document, the families that relocated off of the Alagnak have continued to use the river for resource procurement, including subsistence hunting, fishing, and gathering. A number of families still utilize their cabins, working around scheduling conflicts associated with work and school to participate in social and subsistence activities on the river. This is especially true of the communities most proximate to the Alagnak – Igiugig and Levelock – but is also true to varying degrees for all of the other traditionally-associated villages.[36] Despite the absence of a permanent resident population, the seasonal residents maintained basic amenities and attempted to hold together the fundamental elements of community life. Some families have continued hosting church services there, allowing devout families to stay for long periods of time: "us guys [stay there] all the time, all summer. Stay over there. We got church, too, at Charlie's place… Mmm, Branch River. [Alagnak], yeah. Good place… (M. Tallekpalek in Tallekpalek and Tallekpalek 1998). With these kinds of efforts, some semblance of community has persisted along the Alagnak, long after the permanent community disbanded.

Branch Village

Sitting a short distance downstream from the Wild River's west end, the Branch Village site had been the location of a small community for generations. The relative significance of Branch and Alagnak Village had increased in the late 1910s and early 1920s, as the influenza epidemic sent surviving river residents to regroup on the Alagnak's estuary. Reindeer herding and other activities had briefly pulled some



Figure 17 – A steam bath in Branch Village in the early 20th century. A fire is used to heat rocks for use in a traditional steam bath. Interviewees recall seeing these steam baths used on the banks of the Alagnak – "like a little beaver house" (MO, PA). As sod house were replaced by those made of lumbered wood, so these steam baths were replaced by wooden steam baths – one of several structures still found in remnant form at the village today. Photo courtesy National Park Service, Photo H-390, Tallekpalek family collection.

portion of those communities back into the upper Basin in the 1920s and 1930s. However, as reindeer herding declined in the upper Alagnak Basin through the mid-20th century, many of the residents of those remaining upriver communities began to gradually move back to the villages on the lower river. Branch Village, sitting close to the head of tide on the river, was widely known to be resource-rich and a natural stopover spot along the river – a good place to live, by most standards. As Peter Apokedak observed,

> "there was a village at the outlet of Kukaklek [Lake] when the reindeer were being herded….when reindeer stopped being important those

> people moved to the Forks, then they moved down to Sleepytown…then to McCormick's, then to Branch River Village…they were movers…there was no school; you could move where there's more game, more wood" (PA).

While nearby Alagnak Village persisted into the second half of the 20th century, it entered a period of gradual decline, ultimately disappearing when the Lockanock Cannery disbanded. Instead, community life along the Alagnak began to consolidate around the final, large village to exist on the river: Branch Village. A final foothold on the Alagnak for the region's Alaska Native community, this village was the center of social, cultural, and economic activities along the entire river from at least the 1940s through the 1960s.[37]

Through the 1920s, 1930s and 1940s, as Alagnak River residents began to regroup in Branch Village, this community experienced a minor building boom. Wood and other building materials were often scarce; indeed, even the local canneries were often constructed from the remnants of other, older cannery buildings. Branch Village was developed in this tradition, as the community converted from sod to timbered structures. Interviewees report that a number of the structures in the village were constructed, remodeled or repaired using materials salvaged from the Lockanock, Diamond J, Koggiung and other canneries on the tidewater of Bristol Bay and the Kvichak drainage.

The community that developed through the 20th century at Branch Village was bustling, by Alagnak River standards. "It was a little thriving community! It was one of the biggest communities on the Alagnak River for a long time" (HN). Most of the large, extended families now found in Igiugig, Levelock and beyond were found there. Families participated in all of the activities described in this document, supporting themselves with subsistence hunting and fishing, as well as commercial fishing, trapping, and other pursuits. Certain families – the Andrews, Tallekpaleks, and Petersons – were able to obtain allotments encompassing their homesites too. Travel was largely by boat, foot, or dog team until the community's later years.

A Russian Orthodox church was also established in the community. This same church was previously located at other communities upstream, including communities within what is today the Wild River segment of the Alagnak. The church building was moved numerous times, being pulled on skids with the aid of dog teams. "The church moved

each time" following the center of Alagnak community life step-by-step from the upper end of the river to Branch Village (PA). As Howard Nelson recalls the history of this movement, it started in the village at Kukaklek Lake:

> "That [was] the first place I heard that it was, was Kukaklek. There was actually a community up there of reindeer herders, and they had a church there they moved it down to somewhere above the rapids. And it got moved there to the Forks, and then from the Forks down to a place called "Sleepytown" …And then to another place, McCormick's. All the way to there, somewhere up in there and down to the present day village. Of course, I don't know if it was moved anywhere in between McCormick's and where it is now" (HN).

Each time, the church was moved in the winter, with dogs pulling the structure on the river ice: "put them up, wintertime. Move the church…by dogs!" (MO). Three or four separate dog teams were said to have assisted in these moves each time.

The church's initial location in Branch Village was close to the riverbank on the northwest end of the community. The original log structure was partially reconstructed with lumbered wood while at this location. A cemetery built adjacent to the church was used by families from throughout the lower Alagnak River region; for example, as Violet Wilson notes ,"when they had deaths down there in the Lockanok cannery they would bury them up at the church" (VW). Residents soon found the church to be a bit too far from their homes for comfort when walking through the snow in the winter, and river erosion – rapid on the adjacent riverbank – was known to be a threat to the building. In response, community moved the church to a bluff-top location roughly one-third of a mile to the southeast, so that it was closer to the main settlement and safe from riverbank erosion.[38] This last move was said to have involved roughly 30 dogs from three or four dog teams, all pulling together to move the structure. While some graves were moved with the church and now sit south of the church building, many others were not moved. While a new cemetery was established at the new church site, the cemetery associated with the original church also continued to be used after the move. (The cemeteries at both sites are of great concern to traditionally associated families, including project interviewees. Mike Andrew's father, for example, was buried in the cemetery at the original church's location in the 1930s.)

The rapid shoreline erosion that had once threatened the church ultimately reached the cemetery. Interviewees recall that the erosion has exposed coffins and human remains

in recent decades, beginning while the village was still occupied in the mid-20th century: "with the erosion there were coffins sticking out of the bank" (AW). As will be discussed elsewhere, this was said to cause certain spiritual disturbances that ceased once the community organized the reburial of disturbed human remains nearby.

There were (and still are) a number of trail segments, linking the various parts of this community. One major trail ascended from the northwestern core of the settlement to the church and group of houses to the southwest of the church. Another followed the top of the bluff, linking the church and the southwestern part of the settlement with the northeastern part of the village centered on the former home of Mike and Dallia Andrew. Largely concealed below encroaching lichens and shrubs today, a narrow gauge railroad track can be seen leading from the river toward the south end of the community. Salvaged from a defunct cannery that had used the track to haul fish and supplies from the waterfront, this track was used in Branch Village to haul wood and other goods to parts of the community sitting far from the River.



Figure 18 - The small gauge rails from area canneries, such as this line, which connected Lokanock and Hallersville Canneries, were later salvaged and used in Branch Village for the transport of firewood and other heavy loads to portions of the village far from the River. Photo courtesy National Park Service, photo H-393, Tallekpalek family collection.



Figure 19 – Alagnak research team member, Doug Deur, recording the location and configuration of the narrow-gauge rail track built by Branch Village residents to carry food, wood and other goods from the waterfront to the upper village. Karen Evanoff photo.

By the 1950s, however, Branch Village found itself under growing pressures to disband. In particular, federal and state regulations mandated formal schooling for Native youth. Families that did not enroll their children in accredited schools were increasingly at risk of compulsory enrollment of their children in residential schools that would remove children from rural settings and effective separate their families. Certain residents of Branch Village began to petition for the development of a school in the village, but encountered great difficulties navigating the petition process. Interviewees report that, because of a wrongly-worded letter, the school that was proposed for Branch Village was not built and the resources were instead routed to a school built in Egagik:

> "Long time ago, when we were going to open up a school down there [in Branch]. Before all my cousins and sisters, before everybody moved out, there were eight families down there! …. we were going to have a

> building for our kids to go to school. When they mailed it [a letter] out, whoever write it, it was wrong. So we never have a school there" (MA).

Interviewees note that, had this school been developed, it is unlikely that the year-round resident community would have disappeared. In the meantime, schools were successfully established in nearby Levelock and Igiugig. The development of schools on the Kvichak contributed significantly to those communities effectively eclipsing the Alagank as a center of Native Alaskan social life. (Indeed, when there have been proposals to shut schools in Igiugig, residents have fought mightily to retain them, motivated in part by fresh memories of Branch Village's demise.)[39] As Howard Nelson recalled of Branch Village's decline,

> "[The community thrived] before people moved out. You know, just because they had to bring their kids to school… The people I know who had kids who were school age around that time had to bring their kids over in about the…late 50s and early 60s, because Levelock had started a school by then. And the kids were living out there were school age, but they had to move over here to go to school. And you know, it was not long after that that a lot of the people who had homes over there just moved over here" (HN).

With imminent pressures to enroll their children in school, the residents of Branch village quickly dispersed - especially to Levelock but also Igiugig and other communities: "Then some move to Levelock, like Chukwaks and Tallekpaleks and Charlie Andrew move to Levelock. Auntie Mary T[allekpallek too]. Just to put their kids through school" (DA). "We move up here in 1969. To Igiugig from Alagnak. That's when we went back into school here… We move up here. Annie and John T[allekpalek], George move up here. Just to open the school up. That's where the kids go to school here" (MA). By the end of the 1960s, there was almost no one left living in Branch Village.

Mike and Dallia Andrew were the last to leave, moving away from the Alagnak River in 1969 to allow for the schooling of their children. The Andrew family's departure brought to a close the very ancient history of year-round occupation on this River, a mere 11 years before the designation of Alagnak as a unit of the National Park Service. As Mike Andrew recalls: "We had eight families here until they made us go to school…I was the last one to move out. In 1969, we moved out of our cabin, went to Igiugig"

(MW). Their house and its outbuildings still stand today, the windows now gone, the elements slowly wearing away at the few remaining interior furnishings.

Mike and Dallia Andrew note that, in the spring, when school was out, they would move back to Branch Village for the summer, occupying their former home until fall time when it was time for the children to go back to school. (Interviewees such as Elena Chukwak describe similar patterns, noting that "there was no school there…but we went every summer.") The family continued to use their house as a seasonal resource outpost for many years, staying there for subsistence hunting and fishing on the River. Mike Andrew still calls it his "summer house." The family fished for salmon, but also stayed in the house in the winter while fishing for pike, whitefish, and other winter species. Other families, such as the Tallekpaleks, have continued to use their home in the village as a fish camp too, and as of the late 1990s Mary Tallekpalek was still sometimes described as a seasonal resident of Branch Village.[40] (Mary Tallekpalek's fish camp has been called "Didocton" in some sources, but the origin or meaning of the name were not recoverable.)



Figure 20 – Mary Tallekpalek's cabin in Branch Village. The cabin continued to serve as a base of operations for fish camp and other subsistence functions, even after residents of the village moved away to Levelock, Igiugig and other villages. In recent years, the outbuildings associated with this house have fallen into the river due to bank erosion. Douglas Deur photo.

Today, the village consists of several wooden houses, as well as a number of outbuildings – caches, steam baths, smokehouses, privies, sheds, and the like. (Most of these structures were recorded using a Global Positioning System during a 2012 field visit undertaken for this study – notes are available in the Katmai National Park collections.) Today's elders from the Kvichak River villages can still name the most recent owners and occupants of every structure in the community. Personal belongings – couches, kitchen utensils, even an old piano, sit in these largely windowless structures.



Figure 21 – Mike and Dallia Andrew's home on the waterfront of Branch Village. Douglas Deur photo.

Mike and Dallia Andrew's former homesite constitutes the eastern, upriver portion of the larger Branch Village site. The main house sits on the southern, upland end of the homesite, while smokehouse, cache, and other outbuildings lie on the northern side of the house, facing the water. A large, sturdy fishing boat with heavy cross-beams is

sitting, and slowly decomposing, in the middle of the homestead. This style of boat is said to have been widespread among Native Alaskan families involved in commercial fishing in the mid-20th century. This boat belonged to Mike Andrew's parents, and he regrets its current condition; he had long hoped to enlist the help of friends and family to restore the boat, but is increasingly resigned to the idea of building a replica. Mike and Dallia were also concerned about the dilapidation of their former home. They indicate that they would like to revisit the site with boards, tools, and assistance, to repair the leaks at minimum. It is rare that large groups of village residents are there together any longer, making such repairs difficult for elderly cabin owners – even relatively strong and fearless elders like Mike and Dallia.

A number of utility buildings and residential structures have washed into the river as a result of recent erosion. Mary Tallekpalek's smokehouse, for example, is now a riverine navigational obstacle, poking up through the water's surface a few hundred feet downstream from the village. Her house, perched on the eroded edge of the riverbank, is imminently threatened by erosion, as are several other structures including some of the Andrews' outbuildings.

The church still sits on the bluff above town, oriented toward the east as is customary of Orthodox churches. The church has been vandalized and looted a little, but is still in surprisingly good condition. Its interior sanctuary and deacons' doors are adorned with a number of painted icons, and a Russian bible still sits open on the sanctuary altar. (An Alaskan bishop, "Bishop Innocent" was reported to have salvaged a number of older icons from the church, which were reputed to be among the oldest icons found in rural Alaska; this was mentioned by various interviewees, though no written record of the salvage was encountered in the course of this research.) In spite of the relocation of most of the Branch Village community, the church has continued to have great importance to families with Alagnak River ties. The church continued to be used into the later 20th century during Christmas celebrations by Levelock and Igiugig residents; until recent years, some families attended services in the Levelock church on January 7th and then proceed to the Branch Village church on January 8th. Annie Wilson recalls that her family and many others used to travel to Branch Village in the mid-20th century for this purpose by dogsleds, but later used jeeps, driving on the ice from Kvichak River villages. Christmas decorations from a past celebration still adorn the corners of the nave and narthex. Easter services, while less well attended, continued for a number of years too. The church also was visited by Russian Orthodox priests annually as part of a circuit made through rural Alaska, which brought people to the church at other times of



Figure 22 – One of several painted icons in the Branch Village Russian Orthodox church. Douglas Deur photo.

the year. Residents of Levelock and Igiugig still sometimes visit the church, and some expressed the view that they would like to see the building restored to protect its long-term integrity and allow for its future use.

Today, many residents of Levelock, Igiugig, and other villages still have a very strong sense of attachment to Branch Village, for reasons that are made clear by this history. As Peter Apokedak says of modern Levelock, "it's where half of the village came from" (PA).[41] Similarly, Howard Nelson noted,

> "Everybody who's here in Levelock today has history and tradition that comes out of the Alagnak River. My family, the Chukwaks, the Apokedaks, just *everybody*" (HN).

Many village residents continue to visit the village when visiting the river for subsistence hunting and fishing or other purposes – often stopping to reflect and reminisce, to visit their own homes and cabins, to pray in the church, or to teach



Figure 23 – Interviewee Mike Andrew at his allotment in Branch Village, discussing the history of his homesite and its abandonment with Douglas Deur. Karen Evanoff photo.

children about their history. The fate of the buildings in the community is still of widespread concern, and elders wonder seek ways to repair weathering buildings or prevent them from prematurely washing away into the waters of the Alagnak.

Chief Evan

The last traditional chief to hold sway on the Alagnak was Evan Pupsugpak (also known as Evan Tallekpalek or just "Chief Evan"). Most elders who participated in the current study spoke of him often and fondly. Mary Olympic, for example, recalls that during her childhood he was the "Number One Chief" living on the Alagnak River. As a sign of respect for the man and his position, he was called "grandfather" by the young people of his time, who are now elders, even if he was not a biological grandfather to them. Chief Evan was a hugely influential figure in the early 20th century, and upheld leadership roles that in many ways bridged the old ways and the new.

Mary Olympic recalls that Chief Evan was born in the Old Village on the middle Alagnak. As was done in his time, Evan was chosen at a young age to become a "church chief" in the Russian Orthodox Church, while also serving many traditional chiefly roles in the community. Interviewees noted that Evan was designated as a church chief at the tender age of fifteen. Mary Olympic notes that people traditionally chose a young man that had the right kind of demeanor, and there were tests to determine this. Evan passed these tests handily, attesting to his unique capacities for leadership:

> "[They were]not looking for old one, only looking for young one for inside the *qasġiq,* used to let him stand up. They looking for [a] chief. They said, "Put him in the middle the *qasġiq*!" Walk him around… *some*body…slap you and everything, [saying] *just stay still!* They think about it, *just…stay…still!* They looking for *chief*. That one [that] wouldn't be *mad!*" (MO).

Mary Olympic recalls that Chief Evan lived in the upper Alagnak basin in his early years; he lived with her parents in the Kukaklek area for a time in the 1930s. As the center of community life moved gradually downstream on the Alagnak through the 20th century, though, Chief Evan moved too. Eventually he lived in Branch Village, though he stayed for extended periods in villages and encampments throughout the Alagnak River basin.



Figure 24 – Packing tents and other belongings to reindeer feeding grounds. The man facing the camera is believed to be Chief Evan Tallekpalek. Photo courtesy Village of Igiugig.

As a chief with many traditional roles, Chief Evan was said to be a teacher to younger members of the community – overseeing instruction on traditional subsistence practices, values and ceremonies, for example. He also oversaw many community efforts, apparently, such as mobilizing community labor involved in the procurement and redistribution of food or overseeing the relocation of villages along the Alagnak River corridor. While a traditionalist in many respects, Chief Evan was also a modernizer – introducing new tools and technologies to the community that might improve the quality of life for residents. Interviewees recall that he was the first person to introduce glass windows to a building on the Alagnak River. This was a novelty to the children of the community, who would come and look at their reflections in these windows. He participated in Russian Orthodox Church services and, like other

members of his community, saw his roles in the church as being compatible with his more traditional chiefly responsibilities.

Chief Evan was a gifted storyteller, interviewees note. This is a critical but – among non-Natives, at least - often underappreciated role within Alaska Native communities. Storytellers are the bearers of considerable cultural knowledge, including cultural knowledge of Alagnak River, its landmarks and resources – all of which is traditionally transmitted through oral tradition, including stories. As Peter Apokedak explains,

> "good storytellers, they would tell their story, and they stop right at the suspense time - you want to hear what's going to happen! Yeah, I let them tell their stories, so many stories, of anything there is! Animals. Why some of them have no fat in their belly, and some don't have [it in] their back…there's stories to them! Foam - you see foaming on the water…he's got stories …I guess that's just where you learn…" (PA).

Environmental patterns, correlations, and anomalies are also often apparent in these oral traditions, reflecting generations of direct observation.[42] For this reason, the recording of traditional stories was one of several priorities for the current research, working with gifted storytellers such as Mike Andrew, who learned directly from Chief Evan and can repeat many of his stories and their lessons today: "You look at me – I'm not educated. On the books. But I have a lot of stories" (MA).

Chief Evan was also reported to be gifted at prophesizing. Interviewees note that his prophecies, delivered especially in the 1920s and 1930s, anticipated things that were unimaginable to river residents at the time, but have since come to pass. He spoke of what are now understood to be television and video games [*taŋġstaq – "things that are watched"]* that would show moving objects on an unmoving surface, and would render young kids inert and inattentive: "he say…no more think, nothing" (MO). He spoke of the generally declining health of the people, saying that people would become fat and immobilized: "long time ago, people—you got *no* sick problem, when you got *own food…* [as prophesized, there's] going to be all kinds of sickness come" (MO). He spoke of a time after his death when people would become dependent on outsiders for their most basic needs – food, water, heat – and would be billed for these things. He also envisioned a time when no Native people would live permanently on the Alagnak and

it would be largely overrun by non-Native people - a prophesy that was said to be frightening and inconceivable at the time.

A number of interviewees recall that Chief Evan had prophesized that a tall flagpole in Branch Village would break upon his death. When he died, he was in the Kukaklek Lake area. Interviewees recall that people at Branch River village were in their homes and heard a loud crack. Coming outside, they saw that the flagpole had fallen and snapped into three pieces, though there was no wind. They knew immediately that he had died. Mary Olympic told this story most vividly:

> "That church going to let them know when he passed away. In… *December*, I think, it got snow, when he die. That flag - flag stick…. He talk to Mary T. and…Mike's mom. He talked to them before he [died, saying] "The old guy's going to know me when I passed away. Flag going to…break in the middle." And when the morning, when they having coffee, somebody [says] "Shh!" (*claps her hands together*), it's like somebody shoot. "*Gasp! What's that?*" He said. Mary T. run off, they look at the flag. Flagpole [had a] break in the middle. They said, "He know…" Soon as he passed away, our chief" (MO).

Elders such as Mike Andrew also remembered the same events:

> "[I] will tell you a little story about my grandpa down Alagnak. He was an old *chief*. Orthodox chief. Too many years…When they moved from Alagnak, they moved to Kukaklek. He was getting to be an old *man* …And what happened, my grandpa…he used to pull up the flag up on the pole, every holiday. When they [Mike's grandpa] passed away, that big pole…about twenty feet long…that pole break. Three section. Three section. Just like somebody cut it…Then the thing about my grandpa, maybe he's gone, was true. He was gone" (MA).

Some suggested that, following Chief Evan's death, Eau Andrew was designated the chief of the village at Branch Village, and indeed the larger Alagnak River community. Before his death, Chief Evan "pick[ed] Eau Andrew [to] take his place." Yet, Chief Evan had prophesized that Eau would be the last leader on the river, and that his leadership would herald the time when Native people left the river and non-Natives became dominant. As Mary Olympic recalls, Evan predicted that,

"When Eau's gone, nobody gonna live down there. This is true! …That's what he used to tell us. Nice places, nobody going to live in. Only White people. That's what he used to *talk…to us!*" (MO).



Figure 25 – A scene from Beaver Camp on Alagnak River. Eau Andrew, who inherited many of the leadership duties for Alagnak River communities from Chief Evan, is third from left, wearing a cap. Other individuals identified in this photo include Johnnie Knudsen and Evan Nevada. Courtesy National Park Service, photo H-396, Tallekpalek family collection.

Chief Evan's Teachings: Double Winter

Over the course of his life, Chief Evan taught young people a number of things that were said to be important for the long-term survival of the people from the Alagnak. One critical set of lessons addressed how to prepare for times of resource scarcity. He spoke of a phenomenon called, in translation, "double winter," during which summer weather did not materialize and many food resources were unavailable. Chief Evan suggested that this had happened in the past, and would happen again in the future. As Dallia Andrew describes these accounts "Never thawed out. Never froze back over. No summer. That's when starvation came. That's what we heard long time ago!" (DA). In these times, starvation not only caused great suffering, but caused the basic rules of society to fall apart as people were forced to struggle for their survival. As Mike Andrew recalls,

> "When you talk about the Double Winter, even my old grandpa and grandma, they started crying …"You got no fun! You can't invite nobody! What you've got, you've got to *keep* it to yourself!" … Then your neighbor is hungry, you don't share. It's not too good when it's double winter….It's not friendly like nowadays, everybody's friendly! When there's starvation, you've got no friendly. Just want to keep it to yourself" (MA).

Certain elders observe that since so many of Chief Evan's other prophesies seem to have come true, there is some urgency that these prophesies regarding resource scarcity be heeded and transmitted thoughtfully to younger members of the Native community.[43]

In able to prepare the people for "double winter" Chief Evan taught them various skills to reduce their risk – part of his responsibilities as a chief. Most fundamentally, he taught young people that they needed to store a little extra food than they anticipated for their winter use, so that they might be prepared. People still observe this guidance today. Dallia Andrew notes that her family has dried extra fish, and sometimes fish eggs, just to be prepared for double winter:

> "We should put up little bit more [fish] this summer… I think about the Double Winter…In the summer too, we start put up fish. I wanted to dry some eggs…a long time ago…starvation. Grandma used to tell us. One little egg… You put them in his mouth, leave it in there. When you get enough, you put it away and keep on. He [Dallia's grandfather] survived with that egg. His momma used to tell me to dry some eggs! You never know you might have winter! Double winter!" (DA).

Chief Evan also instructed people on what types of fish could be preserved for this contingency. Salmon was a very good food to have on stock, for example, but he advised against stockpiling extra smelt:

> "We have all kinds of fresh fish, but smelt! I don't like smelt. I never liked smelt… When we had starvation, Double Winter, with a lot of smelt, people packed a hundred and fifty, you just starve out. The smelt is not a food. Even you eat it, it's nothing" (MA).

If people had not stockpiled enough food for double winter, they would need to find ways to subsist on the few resources available at these times, and Chief Evan anticipated this possibility with additional instructions. He taught that only three kinds of fish were widely available during these times: sucker, ling cod and blackfish. Suckers are not typically harvested in quantity as they are very bony, but they are relatively omnipresent and can survive when water quality is not optimal for other fish. Blackfish get frozen in the ice, but "come back to life" when thawed (indeed, some Native harvesters sometimes chip them from the ice and cook them, causing the fish to briefly become animated). Lingcod may be the most palatable and popular of the three.

Though none of these three was a preferred game fish, Chief Evan made certain that young people knew the specialized harvest techniques for these unusual species, so that the people of the area would know how to survive future "double winters." He constructed special weirs that were suitable for their capture. These weirs are roughly eight by eight feet, and designed so their entrances can face upstream or downstream depending on the direction of their movements. The weir opening faces downstream in summer to catch lingcod as they ascend the river, while the weirs open upstream in the fall when these fish move back downstream in response to the growing cold; pike and other game fish also follow similar seasonal migrations on the Alagnak. Weirs were constructed in anticipation of double winter, but Chief Evan also oversaw the construction of such weirs as an educational demonstration, to be sure that young people were clear on the methods of construction. Interviewees note that these weirs often needed to be replaced or moved each year. When testing a new weir site, people traditionally test a site for its suitability by digging a small hole in the riverbed and insert long blades of grass into the sediment at the base of the hole; if the current causes the grass to "wiggle around" it is unsuitable, and the place would be abandoned for

another location. “If it flows in a straight line, that’s the place…the lingcod will go through there” (MA).

When he was a boy, Mike Andrew learned how to build such a weir from Chief Evan, and maintained one not far from the modern site of the Branch River Lodge – both for teaching and food security purposes. Mike Andrew reports that his sister Mary’s cabin sat nearby, and his family could catch ten or 15 lingcod on a good day. He also has taught younger members of the Alaska Native community how to construct these weirs, in recent decades to prepare young people for double winter, even though lingcod is not an especially high-priority fish in good times (MA, DA).

Among the many other survival techniques that Chief Evan taught the young people in anticipation of double winter involved the gathering of snow from the tracks of the “large white jackrabbit” (probably the Alaska hare, *Lepus othus*). The tracks of this rabbit are said to have some residual flavor at times, perhaps because of blood or other bodily secretions. People sometimes gathered this snow when near starvation and consumed it for food. The name of this rabbit in Yup’ik translates to “taste in their tracks” (MA). Chief Evan also taught young people how to hunt with only minimal equipment. As noted elsewhere in this document, this included the challenging task of hunting brown bear at close range using nothing but a very sharp hatchet – a skill that was probably useful for purposes of self-defense in good times and in bad.

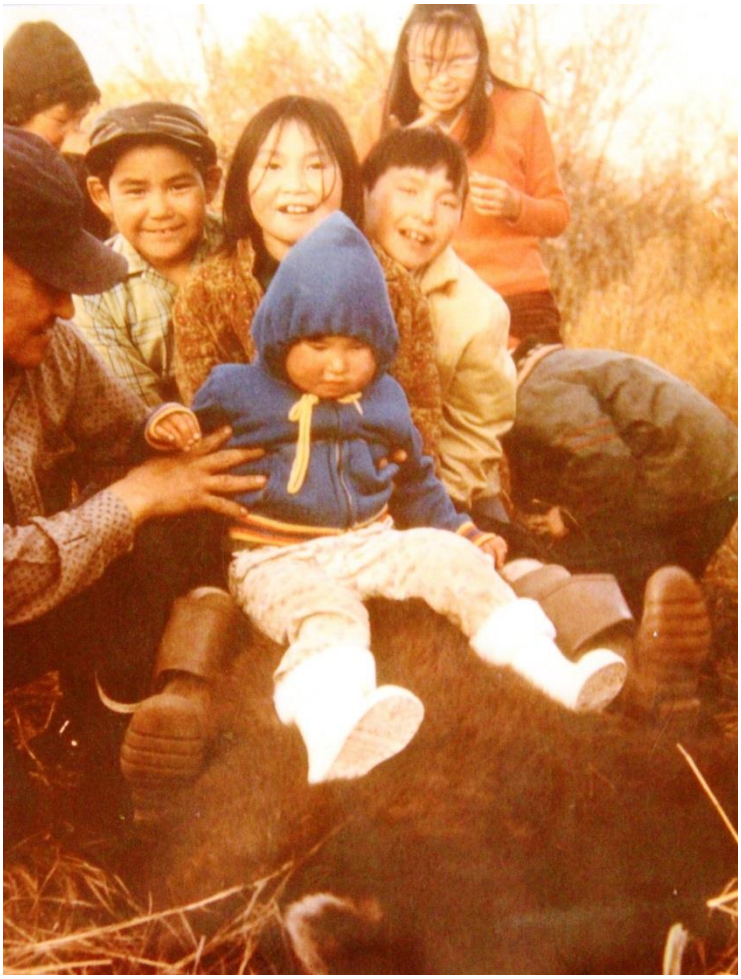


Figure 26 – Yup'ik families from the area traditionally have children sit on recently killed bears, in order to help them overcome fears of these imposing animals. This bear walked through the village of Igiugig and was shot in the late 1960s. Martha Olympic (Crow) sits on the bear, supported by Murphy Nickoli; also in the photo are Anecia Olympic-Williams, Johnny Zackar, Yako Nickoli, Julie Olympic-Salmon, William Nickoli and Timothy Nickoli. Photo courtesy Village of Igiugig.

Other Settlements and Graves along the Alagnak

Interviewees recalled a number of other villages along the Alagnak River corridor that had been occupied at various times historically. The exact location and identity of settlements described by interviewees are sometimes difficult to ascertain on the basis of available documentation. Earlier writings on the location and identity of villages, including past works by this report's lead author, are often unclear on these details (Deur 2008).[44] This reflects, in part, the turbulence of the 20th century, when settlements were in transition - being abandoned, occasionally reoccupied for a time, or persisting as resource encampments, cabin sites, and allotments into modern times.[45]



Figure 27 – A sign on the side of the small cabin at the McCormick allotment, sitting at the site of the former village. Douglas Deur photo.

Interviewees consistently place the village on the mouth of the river, on the north bank, associated with the Lockanock cannery. The village is commonly called "Lockanock," "Alagnak" or "Alagnak Village." Interviewees recall that Lockanock village persisted in that location even after the 1930s closure of the cannery as a residential colony of 7 or 8 houses: "It was their homes—they would just live in there" (VW).[46] A Russian Orthodox church functioned here for a time.[47] The historical cannery was still visible into recent times, but not located in the immediate proximity of the village:

> "It was pretty well torn down, but the remains of it, you could see...It was a little bit further away. Yeah. Because Levelock people were still going over there, hauling lumber out of the old cannery" (VW).

A winter trail linked this village to Levelock. As noted previously, this village had probably existed prior to the development of the Lockanock cannery in some form, but



Figure 28 - The Alagnak forks village in 2012, showing the clearing and terraced structure - together suggesting the scale and configuration of the village prior to abandonment during the influenza epidemic, circa 1919. Douglas Deur photo.

experienced considerable growth after cannery development. The community also served as a place where upriver people relocated after the influenza epidemic of 1919-20. The community slowly disbanded through the mid-20th century, as people relocated to nearby villages for school and other purposes.

On the south bank of the river, on its northern big bend about halfway between the mouth and the forks, is a former village site of great importance, "one of the biggest villages of this whole river," sitting on the south bank of the Alagnak. It is shown on this report's maps as "Nunalleq" or "Old Village." The village is said by interviewees to date "from before modern people." The village was said to have been large at one time, extending for some distance along the waterfront. The community was abandoned in the wake of the influenza pandemic, over the course of the late 1910s and early 1920s. Some residents moved downstream, consolidating with the Alagnak and Branch Villages just below the Wild River area, or moved to cannery housing on tidewater or

villages on the Kvichak River and Bristol Bay. Many residents of nearby communities such as Igiugig and Levelock trace some part of their ancestry to this village, including several project interviewees and report contributor AlexAnna Salmon. Today, a small trapping and fishing cabin locally known as "McCormick's Cabin" sits at this site, and belongs to project report contributor Adelheid Herrmann. The village was reported to sit "below Lucky Hill" and "above Grassy Point…there's an old village up here…We call it "McCormick" because he's got a little cabin close to the river" (PA). The village was said to have contained a number of sod houses at one time, and later these houses were largely replaced with wooden structures. Burials are reported to be found at this site, and are suspected to be numerous. The foundation of the church and remnants of other structures were said to have been visible at the site roughly 20 years ago, but only fragmentary boards and nails were encountered in the course of impromptu transects through the site. Some portion of the old buildings in this site were said to have been destroyed in a fire of the late-20th century – rumored to be the well-documented fire that was ignited by members of a crew filming a John Denver television special in the 1970s. Recently cut trees and other signs of continued seasonal use are found throughout the vicinity of the old village.

Another large village, sometimes called "Forks Village" was reported on the south bank of the Alagnak River, a short distance downstream from the forks. Interviewees report that the population of this village abruptly collapsed during the influenza epidemic between 1919 and the early 1920s, disproportionately killing adults and leaving many orphans who moved elsewhere. Shallow depressions and level "benches" at the village site still suggest the placement of historical structures. Burials are believed to be numerous at this site. The site has been reported archaeologically, as has use of the site by recreationalists in recent times (Dixon 1998). Some portion of the survivors moved downstream, consolidating with residents of the Branch Village and Alagnak Village below the Wild River area: "the end was during the flu epidemic – the people went downstream then to see who was left…the survivors lived together" (AW). Others moved to villages on the Kvichak River and Bristol Bay, perhaps as far away as Newhalen. Interviewees suggest that the abruptness of the epidemic and the disproportionately small number of adult survivors conspired to "sweep away" much memory of this village among modern Alaska Native descendants. Many residents of nearby villages on the Kvichak and Naknek Rivers are said to have roots in this community. Since the village's collapse, the site was used as a campsite for subsistence users visiting the Alagnak seasonally, and was especially popular for summer and fall salmon fishing into the second half of the 20th century.

Other, somewhat smaller villages were reported at a number of locations on the middle river, including "Coffee Village," "Sleepytown," *Iquar,* and *Lagalang* (see placename maps for locations). All consisted of numerous houses and burial sites historically, and all have served as cabin sites and subsistence camps since the mid-20th century. A settlement was also mentioned at the outlet of Kukaklek Lake. Some sources have suggested. Interviewees had recollections of each of these places and their histories. For example, Howard Nelson reported that Sleepytown was an old village, and is no longer visible on the landscape:

> "That was a village. That's where they moved the village of Branch River from upstream. That's actually where they had the church. And they had sod houses and some wooden structures for homes in there. If you were to move down on the river today, you wouldn't know that it was a community because of the original channel that went into where the villages got filled in, and the island grew outside of it, and trees covered the spot" (HN).

Igiugig matriarch, Mary Olympic and her husband were among the people who still lived in what was left of this village complex into the 1950s.[48] Meanwhile, both of Mary Olympic's parents were born "at the old village at Grassy Point" – probably the same village being called "*Lagalang*" by some interviewees. A "Big—big village was right there," Mary recalls, and her parents' families lived there year-round in a village consisting of sod houses.

Importantly, a number of structures, foundations, graves, and other features still stand along the Alagnak at these historical settlement sites and others along the river. Graves are associated with most of the historical settlements: "the old places got lots of graves" (MO). There are many gravesites that predate Russian Orthodox influence, and there are those that were placed beside Russian Orthodox churches. Interviewees note that this adds complexity to the distribution of burials, as churches were often established and later disbanded in some villages, or carted between villages by dog teams. Mary Nelson, for example, talks about burials in some of the older villages in the middle river:

> "She said they're really old…That they were old when she got there! There was actually a church there, before, and there's a graveyard…

> could've been in late 1880s, 1800s, or so. They were old already when they got there" (SN).

The villages that were abandoned during the height of the influenza epidemic were said to have many burials, possibly group burials and hastily constructed burials that do not always adhere to the burial conventions of the time. Relatively recent graves – dating from the mid- and even late-20th century - are especially numerous at Branch and Lockanock Villages. Interviewees were able to name a number of individuals buried at either village, many in graves that are no longer marked. Graves were also said to be diffusely distributed throughout the river corridor, as people who died were often buried nearby instead of being hauled to distant cemeteries. Mary Olympic noted, "they used to bury them anyplace, when they go—used to move around springtime. Never stay one place. Have to move around…[so graves were] *all over*" (MO). Similarly, Violet Wilson described a very diffuse distribution of graves throughout this area: "Long time ago when people traveled by boat or dog team and when somebody dies they would just bury them right there" (VW).

Tents and Cabins on the Alagnak

There have been a variety of structures used along the Alagnak that do not qualify as "houses" necessarily, but have been essential residential structures, allowing Alaska Native river users to live and harvest resources along the river's banks. Pole tents have a long history of use at short-term resource encampments. As Annie Wilson explains, "when I was young we camped in a pole tent – we moved around with the seasons" (AW). Tents were said to be especially appropriate for families that were mobile and did not have cabins at all of the resource outposts visited over the course of the year. As Mary Olympic notes,

> "we always move *around* when we first move from Kukaklek…we move to Kokhanok…We didn't stay long—one year, two years…and 1949, we move to…Big Mountain. We stay in a tent all winter [while trapping]" (MO).

At certain kinds of resource sites, people produced "tent camps," such as at beaver camp. Mike Andrew reports being born in one such tent camp on Alagnak River when his family was beaver trapping in 1935.

However, it is the cabins of the Alagnak that have had the most enduring effects on both the landscapes and Alaska Native uses of the river. Cabins are numerous along the Alagnak, and were once even more so – most sitting on lands that are now Native allotments. The structural, if not social, dimensions of these structures have been documented by the NPS and other federal staff in past times. [49] For those families that relocated off of the Alagnak but returned seasonally, there was an enduring need for shelters along the river corridor. Some maintained existing family buildings on the Alagnak while, over time, others constructed new cabins that were suited to the needs of families making temporary stays along the river. Families that had old homes along the river often replaced these with cabins on the same location, or elsewhere along the Alagnak. Mary Olympic, for example, reports that her family had a cabin on the Alagnak through the early 20th century, apparently without interruption since relocating off the river, but that she and her husband built a new cabin near Coffee Point in 1950 or 1951 (MO). The construction of these cabins on old family homesites now encompassed by allotments has continued into recent times.[50]

For cabin owners, these structures increasingly served as the base of operations for a range of seasonal subsistence tasks and social activities. In the absence of permanent communities on the river, the cabins became the new hubs of human activity along the River in the mid-20th century. By providing a predictable and comfortable base of operations for these activities, cabins provided safe shelter for children and allowed even elderly members of families to continue participating in travel and subsistence pursuits outside of the villages, and to perhaps revisit places that had been of importance to them during their times on Alagnak River many years before. These cabins allow for long-term stays that would not have been possible without adequate shelter.[51]

For many families, these cabins have sometimes served as fully functioning residential structures. Violet Wilson, for example, discusses the Alagnak cabin that she and her husband's lived in during the winter after they married:

> "Here we had a little cabin up there. I think maybe it was about 16 by 16 [feet], or something like that. It was just room enough for you come in the door. There was the kitchen range here, and on this side was our cupboards with gasoline boxes! And we had our table, gasoline boxes for chairs, and we had our bed over there! It was big enough for us! But I did



Figure 29 – The interior of Forks Cabin, near the Alagnak River forks. Built by Clarence "Shorty" Wilson in the late 1940s, this log cabin of hand-hewn logs and lichen chinking is still sturdy and its interior a comfortable shelter from the elements. George, Sr. and Annie Wilson standing, a charter boat operator from Katmai Lodge seated. Douglas Deur photo.

> have linoleum on the floor. And that's how we lived the first year" (VW).[52]

As full-time residence on the Alagnak became less common, these cabins still served as combined residential space and work space for people visiting the river briefly for hunting, fishing, and other pursuits. Among these activities, the annual fish camp was perhaps the most important activity carried out from these cabins. Families have established their seasonal fish camps at these cabins, during peak salmon runs. Families underwent logistically impressive mobilizations to return to the river each year to harvest salmon and other fish. As Dallia Andrew recalls, "We used to go up lots, with our family, all the way to Nonvianuk, it's quite a trip, though. We took our family, Nick took his family. Four boats go up one time" (DA). These seasonal fish camps, and cabins that serve as their venue, function as a foothold for many families that have

otherwise been displaced from the river. Howard Nelson, for example, recalled that his family's fish camp allowed him to have a direct and personal knowledge of the Alagank in spite of the fact that his family had not lived there permanently in many years: "I never lived in the Branch River, but I travelled over there quite a bit when I was younger … And we'd go over there and spend a few days and go all the way upriver and fish" (HN).[53] With entire families, including children and elders, sometimes present at the cabin, subsistence tasks that involved the entire family are possible, as was the intergenerational transmission of cultural knowledge pertaining to the resources and practices associated with the Alagnak. A small number of families still undertake these extended stays today. Even in the absence of such long-term stays, cabins serve as the venue for abbreviated one- or two-day fishing trips for some modern Alaska Native families.

Cabins also have been important outposts for trappers on the Alagnak. These trappers have maintained traplines that extend upstream or downstream from these cabins along the riparian margins of the River, where otter, beaver, mink, and other species abound. George Wilson, Sr., for example, reports that he began trapping the Alagnak shortly after World War II and has used his family's cabins along the Alagnak as his bases of operations while visiting traplines through the Alagnak River area. In some cases, cabins used in one season for family subsistence tasks have been used at other times as a trapping outpost. Mike Andrew, for example, reported that there was a "winter camp" at Evan Chukwak's allotment that included a cabin, a cache, a smoke house, an outhouse and fish racks – all typical elements of the cabins of the period; the cabin has been used principally for trapping in the winter and as a fish camp cabin in the summer and fall (GW).[54]

In time, as motorized transportation became more efficient, short visits to the Alagnak from residents of Kvichak and Naknek Basin villages became more feasible. Even during short hunting forays to the Alagnak, riverside cabins became an important stopping point, a source of shelter in inclement weather, and a processing site for game. Similarly, for 20th century families on the move between widely spaced work sites or subsistence areas that were beyond the Alagnak River corridor, the Alagnak cabins also provided welcome temporary accommodations. John and Mary Tallekpalek, for example, described their family's cabins and camps on the Alagnak, which the family returned to regularly over the mid-20th century. They reported that they often stayed in the family cabin on the Alagnak during periods when they worked in the canneries, especially when traveling to and from wage employment with the canneries and

associated commercial operations. By returning to the cabins on the way home, especially, these brief stays on the Alagnak ensured that the family still could participate in an abbreviated subsistence harvest despite their other obligations, and would return home with fish, game, and plant materials in addition to cash and purchased goods (Tallekpalek and Tallekpalek 1998). In this way, the cabins helped some families maintain a degree of continuity in what was a generally transitory social, economic, and demographic milieu.[55]

Cabins of the early to mid-20th century were often made with materials salvaged from defunct canneries on the tidewater of Bristol Bay and the Kvichak drainage – often attached to a frame made of locally-cut spruce poles.[56] Other cabins are true "log cabins" and constructed of hewn logs – typically spruce. Clarence "Shorty" Wilson – father to interviewee George Wilson, Sr. – was an especially productive cabin builder on the Alagnak during this period. In the 1940s, he constructed no fewer than three cabins that are still standing and mentioned in detail in this document (Forks Cabin, Middle Camp, Lower Camp), as well as a fourth, now defunct cabin sitting on the Nonvianuk River roughly halfway between the Alagnak confluence and Nonvianuk Lake (GW).[57] "[When] we want to go hunting across, there was cabins up there, to stay in! Shorty has cabins up here…First Cabin, Middle Cabin, Forks. All the way up to Forks" (PA).

Cabins commonly have various outbuildings, including a cache shed on stout legs, and a sweat bath. Traditional sweat baths were consistently described as being "like a little beaver house" (MO, PA). A fire is built outside of these buildings to heat rocks for use in the steam bath. Sweat bath buildings, largely above-ground, are still found in association with some cabins today. Cache structures were reported to have been widespread along the River in the mid-20th century, but were often located close to the riverbank and "have all washed out" in the intervening years (GW).

Cabins are commonly shared, with permission, between family members, friends, and even people only distantly connected from other villages. People using cabins under these arrangements usually stay for short periods while hunting or trapping. They may also be able to use gear or boats stowed at the cabin. Sometimes, all that is expected in exchange is that visitors agree to keep the cabins clean and in good repair. Occasionally, cabin users may give a small portion of their catch to the cabin owner as a kind of informally bartered repayment, or simply as a show of gratitude.



Figure 30 – A historical image of the cache at Middle Camp Cabin. The cabin currently at this site was built by interviewee George Wilson, Sr.'s father, Clarence "Shorty" Wilson, in 1949. Photo H-1895, courtesy National Park Service, Tallekpalek family collection.

Today, a significant amount of resource use depends on the sharing of cabins and allotments within and between families: "We still use it for moose season…then we go and stay in somebody's cabin. Usually one of the local boys will [say]"Use my cabin if you need to!"" (JW). These arrangements are suggested by modern River users such as Howard Nelson, who noted,

> "Dad actually has a cabin or a house over there still. It's still standing… There's people here who still have use of cabins above, further up into the Lucky Hill area and up past the middle cabin…there's people here who have cabins over there still, and they utilize them. Regularly. Nick Apokedak's cabin on Lucky Hill and Chukwaks at their place…we used to go up further to Middle Cabin and utilize those ones. They're Wilsons'…They're log cabins still, you know, there's still a standing log cabin structure" (HN).

Principal ownership of, or responsibility for, cabins is sometimes transferred within and between families.[58] This is done in part in response to the needs of extended families, insuring that those members of the families who need access to the river for subsistence purposes are not impeded by a lack of cabin access. Cabins are also sometimes shared with outsiders: some cabin owners, for example, have generated modest income from renting their cabins to visiting hunters from the lower 48 states.



Figure 31 – One of several cabins on the Alagnak, imminently threatened by bank erosion, August 2012. Douglas Deur photo.

While many cabins have continued to be used into recent times, some have fallen into disuse and some were demolished. Erosion along the banks of the Alagnak has occasionally demanded the relocation of cabins, a practice that probably has considerable antiquity. As shall be discussed later, some have suggested that this erosion has accelerated in recent years as a growing number of motorboats ply the Alagnak - an issue of considerable concern to Alaska Natives still using the River. Interviewees note that robustly built structures are slower to collapse when undermined by erosion. Peter Apokedak notes of one cabin, apparently belonging to John Tallekpalek: "His house is hanging some…but it's got a good foundation… materials, seem like. And it's holding on here" (PA). Eventually, however, even the

most robust cabins will succumb to erosion. Formerly, large work groups could be organized to repair damage from erosion or even hoist cabins back from the brink, but Native users today are often elderly and operate in very small groups, making such efforts challenging at best. The loss of cabins is not only seen as an obstacle to subsistence tasks and other practical uses of the river, but is perceived as symbolically significant by some Native river users as well. Cabins are in many ways seen as emblematic of continued Native use and as a continued toehold on the Alagnak that persists in spite of the many obstacles to continued Native occupation.[59]

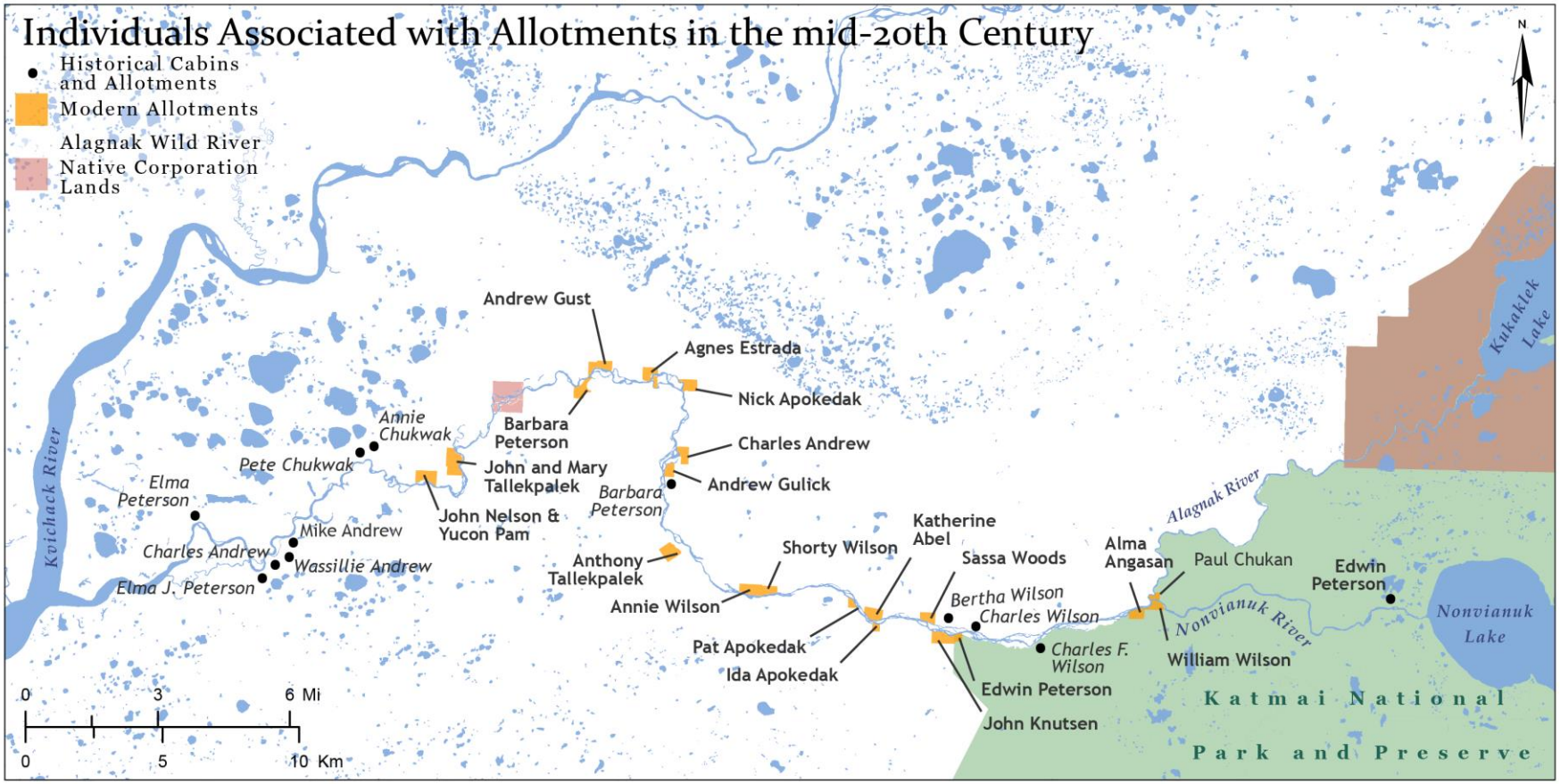
Allotments and Corporation Lands on the Alagnak

For many families that still visit and use Alagnak Wild River, the most important foothold that they maintain there are their Alaska Native allotments. The Alaska Native Allotment Act of 1906 (34 Stat. 197) allowed Alaska Natives of 21 years of age or older to acquire title to up to 160 acres of land. The law was fashioned after the General Allotment Act of 1887 (commonly known as the Dawes Act), which called for the establishment of allotments – presumptively for agricultural purposes - for American Indians within the contiguous United States (Case and Voluck 2002). Starting in the early 20th century, a number of Alaska Native families made claims for allotments along the Alagnak, even as the population was declining along the river. The Alaska Native Allotment Act was superseded in 1971 with the passage of the Alaska Native Claims Settlement Act (ANCSA), though claims for allotments still pending at that date were carried forward for subsequent consideration. In the 1980s and 1990s, some families were still requesting allotments on Alagnak River, while others were still waiting for existing allotments to be patented. At least one allotment has been issued along the Alagnak in the 2000s. Meanwhile, some allotments have been sold and there have been problems with the expeditious patenting and surveying of allotments, so that some owners of record have been hesitant to use or build upon their lands in the absence of clearly-defined title.[60] Not surprisingly, "confusion exists over people's allotment claims in the Branch River area" (Katmai Research Project 1997: 4).

These allotment lands belong to Alaska Native individuals and continue to be inherited between generations. These allotments have "locked in" a basic geographical pattern of 20th century cabins and campsites that persists along the river, and now represent private inholdings within the NPS-managed Alagnak Wild River. Many are occupied by cabins today, and most mark locations where campsites and cabins have been found

historically. A number of former village sites are now encompassed by allotments, reflecting ongoing use of, and attachment to, these places. Allotments are commonly used as a base of operations for subsistence hunting and fishing, trapping, and other activities along the river. With or without cabins, many allotments serve as multi-functional spaces, with boat landings, caches, drying racks, and other elements that are integral to these uses of the river. Allotments have served as homes and even as "homesteads" at certain times. In a small number of cases, people experimented with farming at their allotments. Interviewees noted that former Alagnak residents Elma and George Peterson kept chickens and rabbits, for example, and may have grown a few vegetables - raising and using these things alongside a range of more traditional subsistence resources.

In light of the large number of allotments and the close ties between the various villages of the region, almost everyone in the villages either has a family interest in an allotment or is closely connected to someone who does. Among the allotment owners are certain interviewees for this project. George Wilson, Sr., for example, inherited multiple family allotments on the Alagnak, which are used by his family but also by the larger Alaska Native community of the Kvichak and Naknek River Basins. Many interviewees who no longer own allotments there still mentioned members of their families and their circles of friends who have owned allotments on the Alagnak: "I know a lot of local people have their Native allotments up there" (VW).[61] Although the title to each allotment is by necessity owned by individuals, these allotments are of broad community interest, being shared within and between families and serving as a base of operations for subsistence and other activities that support the needs of larger village communities. The presence of allotments on the Alagnak gives whole communities opportunities for access to the river, while the loss of allotments is often seen as eroding larger community interests on the river. For some families, allotments represent a symbolically potent foothold on their former home river. The allotment serves not only as a base of operations for subsistence, but a place where families pass on their knowledge of, and attachments to, the Alagnak from generation to generation.[62]



Map 5: Individuals Associated with Allotments in the mid-20th Century, as Recalled by Interviewees

Yet, allotments have their challenges. By virtue of the fact that the designation of allotment boundaries effectively "locks in" a certain Native footprint, these lands also restrict some of the mobility that has long allowed people to adapt to changing river courses and changing resource opportunities. As later sections will discuss, if an allotment begins to erode away, modern land ownerships make it much more difficult for Alaska Native river users to simply pick up and move to a suitable and more stable landing spot a short distance away.

A growing number of families lease their allotment lands for independent development by outside interests – including lodges and other operations that use the river for income-generating purposes. This is seen by many village residents as an unfortunate compromise, that undermines traditional uses of the River by increasing the non-Native presence. Still, is also recognized to be an expedient response to both the need for local income as well as the practical difficulties of continuing traditional subsistence uses of the River in light of growing recreational use.

Also of significance, both Igiugig and Levelock Corporation own lands along the Alagnak River corridor. Igiugig Native Corporation owns a sizeable tract at the outlet of Kukaklek Lake, while Levelock Corporation owns a smaller tract at the downstream end of the long, contiguous eastern section of Alagank Wild River. Both corporations have been involved in the use of those lands for economic development purposes, but also maintain a significant trespass monitoring responsibility for those lands, where Alagnak Wild River users, knowingly or not, cross over onto these lands and use them for campsites and other purposes. Accordingly, Levelock Corporation has used a portion of their land to construct a cabin for use by their trespass officer, who patrols the Alagnak to monitor and discourage trespass on Native corporation and allotment lands, as well as other infractions.[63] Like allotments, Native corporation lands have the potential to be sold or traded to non-Native interests. Some interviewees alluded to lands formerly owned by Levelock Corporation that were lost to Lynden Transport, Inc. due to confusions or errors relating to the boundaries surveyed for a land-swap; the former corporation lands now owned by Lynden Transport are now used commercially to support recreational king salmon fishing operations.



Figure 32 - The exterior of Upper Camp Cabin, near the Alagnak River forks, built by Clarence "Shorty" Wilson – father to interviewee George Wilson, Sr. and grandfather to interviewee George Wilson, Jr. – in the late 1940s. The cabin has continued to serve as a shelter – not only for members of the Wilson family, but for families and friends from area villages. Douglas Deur photo.

CULTURALLY SIGNIFICANT PLACES AND PLACENAMES ON THE ALAGNAK

Before continuing with a discussion of Alaska Native use of the Alagnak Wild River corridor, it may be useful to address the placenames of this area that are used in the document that follows. People who live in a place for a long time, especially within small and isolated communities, have a tendency to apply a locally unique set of names to the land. This is especially true among Native communities, who possess names for landmarks that ostensibly date from centuries or even millennia ago. While these placenames may not be recorded on conventional maps or appear in national or state gazetteers, they are deeply embedded in communities' histories and fundamental to communities' everyday navigation of their homeland. Such placenames embody stories, events, and resources, rooted in generations of shared history that are anchored to particular local landmarks. These names are sometimes termed "vernacular placenames," to differentiate them from the widely-recognized placenames that might be found, for example, on the maps of the U.S. Geological Survey and included in that agency's national Geographical Names Information Database.

In the everyday speech of Alaska Native river users, many landmarks are referred to by descriptive English names, and some of these names are identified in the placename list that follows. While most places are referred to by English terms along the river, a significant number of those English terms are reported to be close translations of the original Yup'ik placenames. In those cases where a Yup'ik placename is still in active use among river users, that name has been included as well. The most widely used Yup'ik placenames for landmarks along the Alagnak River corridor are as follows:

Table 2: Yup'ik Placenames, Alagnak River

Avngulek Qikertaat - "Cottonwood Island"
Canegpalik - "Grassy Point"
Celluryaraq - "Sliding River Bank"
Curarpalgem Ekvia - "Blueberry Hill"
Cuukvarpalik – "Big Pike Lake"
Igceńeq - "Waterfall"
Iquar - "Riverbank Falling Down"
Issaluluq - "Porcupine Place"
Kangiqurarpaq - "Bay" (Swan Bay)

Kavirun - "Red Paint Rock"
Kitursluku - "River is Flowing By"
Kucigluq - "Place Where Water Drips" or "spring"
Kuigacuar - "Little Bit of River"
Kuigayaraaq – "Little Creek"
Nac'carraq - "Look around from a High Vantage Point"- Lucky Hill
Nacngayaraaq - "Lookout Hill"
Nunalleq – "Old Village"
Parutuli – "Bug Lake"
Qaniruq – "Embayment"
Qavarparyaraq - "Sleep Very Hard"
Quyungqalriit Qikertiyagaat - "Three Islands Gathered Together"
Quyurlutek - "Rivers Coming Together"
Tuntuviagtuliaq - "Place with Moose"
Tuntuvagtuliar - "Moose Calving Area"

The placenames commonly used along the Alagnak River corridor are listed alphabetically below, with brief descriptions of the history and significance of each place. Many of these places will receive broader discussion elsewhere in this document and some appear on maps 4 and 6.

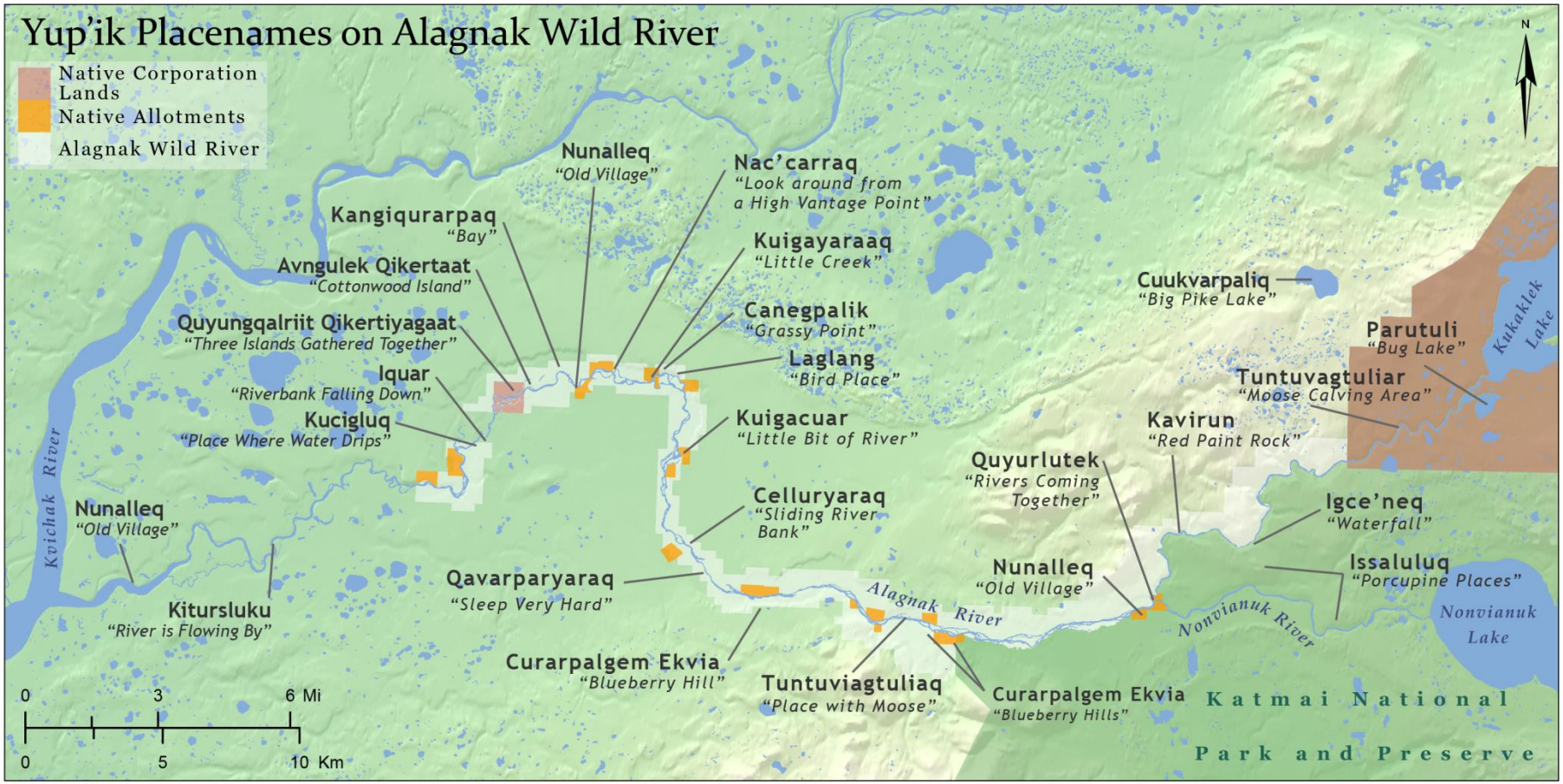
Named Places Mentioned by Interviewees, English Names

Alagnak River

Interviewees agree that the term Alagnak implies "making many mistakes." For example, Mary Nelson – an interviewee whose first language is Yup'ik - pronounces the name of the community as Alaġanaq, explaining:

> "to us it means…going the wrong way… like making the wrong turn. You know, it's making a mistake" (SN translating for MN).

The term suggests that the river makes many twists and turns, implying a certain indecisiveness in its course. The principal course of the river changed between its multiple braided channels, too, which seems to have been suggested by this name. As Mary Olympic notes,



Map 6: Yup'ik Placenames on Alagnak Wild River, as recalled by interviewees

> "*Alaġanaq*…they said, usually when [it's] springtime we always change the… channel, that's why they they call them "*Alaġanaq*"…not *all* the times…all summer change around… You can't have one channel" (MO).

The term also seems to apply to the experiences of those who must travel the river, as there are many shallow side channels that ultimately prove to be unnavigable, causing navigators to make many mistakes as they twist and turn down the river. (Indeed, in the course of fieldwork for this project, the motorboats driven by professional guides bottomed out and were immobilized on several occasions, giving us all a firsthand understanding of the meaning of "Alagnak" and the many dangers and mistakes that accompany travel on this shallow, braided river.)

A number of interviewees commented on how the name of the River commonly used by agencies and park visitors is mispronounced by the terms of the original Yup'ik. The original name has a soft "a" syllable between the "g" and the "n," they note, so that it is roughly "Ah-lak-a-nak" or "Lak-a-nak." As Patrick Peterson, Sr. reports, "When I was a kid I think the word "Lockhanok" meant many problems or many mistakes because of the many channels in the Branch River. Then non-natives changed it to Alagnak" (PP). Similarly, Violet Wilson reports, "That's what they called it: 'Alakanak.' They called that whole area down there. That's what the river was named, too! And I don't know how they come up with this 'Alagnak.' I don't know where it ever started" (VW). Most residents from nearby villages refer to the Alagnak River as the "Branch River" or simply "the Branch" - a name that alludes to the fact that the river is the major tributary of the Kvichak, which drains into the head of Bristol Bay. This name appears frequently in quotations throughout this document, and should be understood as a synonym for the Alagnak River.

Alagnak Village

This former village sat immediately adjacent to the Lokanok Cannery in the late 19th and early 20th centuries. A village was said to have sat in this general location prior to cannery construction, but its exact placement may have shifted after the cannery was established. A number of Alaska Native residents worked for the cannery. Residents from a number of upriver villages consolidated at this site, as well as at Branch Village, during the influenza epidemic of the late 1910s and the early 1920s. This village is discussed in greater detail elsewhere in this document.

Andrew Gust Camp Site

This is a former summer fish camp site. The area was used for specialized salmon fishing, including the procurement and processing of king and silver salmon for food use. The former owner of the land, Andrew Gust, "used to come up every year and put up fall fish – he liked those silvers" (GW). The area was also used for large-scale production of dried salmon for feeding dog teams. An entire fish camp used to be at this site – sitting on a small islet through the summer – but has washed away in recent decades.

Blueberry Hills (Yup'ik - *Curarpalgem Ekvia* - "Blueberry Hill")

There are three separate places along the Alagnak named "Blueberry Hill" or *Curarpalgem Ekvia* in Yup'ik. Each has been used for blueberry (*Vaccinium* spp.) gathering historically, and has continued to be used in this way into living memory. In everyday speech, river users can discern which Blueberry Hill is being addressed from the context of discussion. One of these Blueberry Hills was located near the modern site of the Alaska Trophy Adventures resort complex, and is no longer used due in part to the development of that fishing lodge. Another sat a short distance downstream from this location. Yet another sat across from George Wilson Sr.'s "Lower Camp" and has been used extensively by people stationed in that section of the River or traveling by boat during the summer and fall: "We used to climb up that little hill and pick" (DA). Some residents referenced a "Blueberry Island" as well, near the Forks, but the provenience of this island was unclear, in part due to apparent changes in is configuration due to changes in the river's course.

Branch Village

This uninhabited village was the last large village to have had permanent residents on the Alagnak, and was home to Mike and Dallia Andrew as recently as 1969. A number of houses and outbuildings are here, alongside a standing Russian Orthodox church. Some families still visit this site occasionally as a base of operations for activities on the Alagnak, as well as to visit places of personal and community importance. The upstream portion, at Mike Andrew's allotment, has been referred to by the name *Kitursaluku* [Yup'ik - "going by"], apparently referring to the open, flat, but swift-moving river reach in this area. The sharp bend in the river just downstream from this

location is sometimes called "Horseshoe Bend" – a name applied to many such river bends on the Alagnak and beyond. This village is discussed in detail elsewhere in this document.

Charlie Andrew Cabin Site (Yup'ik - *Kuigacuar* - "Little Bit of a River")

This is the location of a cabin, formerly owned by Charlie Andrew, which burned to the ground in recent decades when a river visitor left a fire burning in the woodstove after their departure. The shallow side channel that the cabin fronted is called "Kuigacuar" in Yup'ik – a term applied to such side channels generally, meaning "Little bit of a River." There are apparently a number of places on the river that were referenced by this name historically.

Coffee Village (Yup'ik - *Celluryaraq* - "Sliding Bank")

This point on the Alagnak riverbank is where the dogsled trail from Kvichak River descends the bluff to the floodplain. The bluff was steep and people "slid down it" on as they arrived on the Alagnak from the Kvichak. A group of cabins was found in this place, called Coffee Village in the mid- to late-20th century; a village is said to have stood at this location in earlier times, probably including several sod house. Mary Olympic and her husband built a cabin at this place, sitting across the river from an old village. The cabin is still there. They renamed the location "Coffee Village." John Olympic and Anthony Tallekpalek were often mentioned as prominent cabin owners from this area. A small creek valley intersected with the Alagnak's northeast bank a short distance downstream from Coffee Village - the valley was sometimes called "Moose Valley" and the creek, "Moose Valley Creek" as moose were sometimes found up this tributary.

Cottonwood Island (Yup'ik - *Avngulek Qikertaat* - "Cottonwood Island")

This island, distinctive because of its many cottonwood trees, has sometimes been used for a variety of purposes: as a landing spot, fishing station, a bird hunting and egg gathering area, and as a temporary campsite.

Deafy Slough

This is a slough near the longtime cabin of "Deafy Boy" – Deafy Swanson. The configuration of the slough has changed in recent decades, in part due to the presence of a large beaver dam. A trailhead at this slough links the Alagnak to a winter trail, formerly used for dog teams and reindeer herding, and now used for snowmachines, proceeds northeast from this slough to the Kvichak River. This trail is still sometimes used by residents of Levelock and Igiugig in particular.

The Forks

The Forks of the Alagnak and Nonvianuk Rivers is a landmark of central importance to Alagnak river users. The big grassy area at the Forks has been there for a very long time, and has long served as a staging area for fishing, camping, and other purposes. The Forks has also been an important hunting area, often visited as part of Igiugig and Levelock families' subsistence circuit (MO, GW, Salmon 2002: 9).[64] Native allotment lands are still found in this area. Today, this area is widely used by rafters and other recreational users as a haul-out and camping area, sometimes resulting in trespass issues.

Forks (or "Shorty's") Cabin

This small cabin was constructed by Clarence S. "Shorty" Wilson and his son Chester Wilson in October of 1946. The cabin sits on the south bank of the Alagnak near the river's forks, but is not visible from the river. Owned by Clarence's son, George Wilson, Sr., this cabin has served as a base of operations for trapping (especially for mink), subsistence fishing (especially for salmon), and other seasonal pursuits on the Alagnak. The cabin is of log construction with moss and lichen chinking, and in generally good repair. In recent times, Igiugig residents working on the Alagnak for the park – including Martha Crow, who worked as an NPS seasonal field archaeologist – have used this building as a temporary residence.

Forks Village

This was a large village, located on the south bank a short distance downstream from the Alagnak River forks. As noted elsewhere, the population of this village collapsed

abruptly during the influenza pandemic of the late 1910s and early 1920s, disproportionately killing adults and leaving many orphans. Burials are assumed to be numerous at this site. Some survivors moved downstream, consolidating with residents of the Branch Village and Alagnak Village below the Wild River area: "the end was during the flu epidemic – the people went downstream then to see who was left…the survivors lived together" (AW). Others moved to villages on the Kvichak River and Bristol Bay, perhaps as far away as Newhalen. Interviewees suggest that the abruptness of the epidemic and the disproportionately small number of adult survivors conspired to "sweep away" much memory of this village among modern Alaska Native descendants. Many residents of nearby villages on the Kvichak and Naknek Rivers are said to have roots in this community. Since the village's collapse, the site was used as a seasonal campsite for subsistence users visiting the Alagnak seasonally, and was especially popular for summer and fall salmon fishing into the second half of the 20th century. Shallow depressions and level "benches" at the village site still suggest the placement of historical structures.

Grant's Creek

This small creek enters Alagnak River from the north, not far from the Alaska Trophy Adventures lodge. This creek was named for a non-Native prospector by the name of Grant who had a cabin there in the late 19th century. Little was recalled of Grant, but the creek continues to have an important navigational function for River users. The Grant's Creek confluence has sometimes been called *Tuntuviagtuliaq* or "Place with Moose" (Krieg et al. 2005).

Grassy Point (Yup'ik - *Canegpalik* - "Grassy Point") and *Grassy Creek*

This open grassy headland on the north bank is widely known as a good hunting area and has been used as a hunting lookout, allowing a wide view of the grassy riparian areas below. The site is said to be "the best place when they go moose hunting because of that bluff up there" (GW). Children have formerly entertained themselves by running and jumping off the top of this point, then sliding down the sandy slope below; George Wilson, Sr. recalls doing this as a boy. The Estrada family cabin sits immediately adjacent, while one of Frenchie Brooks' cabins formerly sat just northwest of the Estrada cabin and remnants are still visible in the brush today. Dan Estrada was said to have obtained the land after Frenchie Brooks' death. "Dan Estrada and Agnes lived on

Branch River [and] Johnny "Frenchie" Brooks lived there at Grassy Point – he had a little cabin there" (PP). The Estrada cabin continues to be widely used today. An associated creek with grassy margins is known as "Grassy Creek." In recent decades this creek channel has filled with sediment and become a shallow slough. A sandbar across the River is now a popular drop-off point for rafters; pilots are said to use the Estrada cabin as a landmark, landing on the long straight reach of the river. This point appears to have also been called "Lookout Hill" (Yup'ik - *Nacngayaraaq* - "Lookout Hill" and the associated creek "Little Creek" (Yup'ik – *Kuigayaraaq*).



Figure 33 - The steep banks of Grassy Point, near the Estrada cabin. The hill is a prominent landmark and lookout point, while children have historically entertained themselves by leaping and sliding down its banks. The bank has been eroding and retreating quickly in recent times. Douglas Deur photo.

Iquar - (Yup'ik - "Riverbank Falling Down") and *Kucigluq* (Yup'ik - "Place Where Water Drips")

This is the former site of a small village, sitting near the modern-day site of Katmai Lodge. The origin of the name is unclear, but may refer to historical erosion or some other idiosyncratic event. There was a spring not far from this village that appears to have been used for ritual cleansing according to one traditional story, but has also been used as an everyday watering site by river users. This spring appears to have been called *Kucigluq* (Yup'ik - "Place Where Water Drips").

John Chukwak's Homesite

This group of buildings includes an older family settlement fronting the river and newer buildings constructed in recent decades by members of the Chukwak family on the bluffs above. Interviewee Mike Andrew spent part of his youth living at this home site with his mother.

The Falls or *Kukaklek Falls* (Yup'ik - *Igceńeq* – "Rapids")

This rapids on the upper Alagank, upstream from the Alagnak-Nonvianuk forks, is known to all river users. The rapids are widely appreciated as a navigational hazard, only passable when water levels are right. Rafts and driftboats must pass downstream with caution and motorboats can pass through this area only with difficulty: "I've dinged up a bunch of props up there!" (GW). Interviewees sometimes comment on the noise of this waterfall, which stands out in this relatively quiet landscape: "You have to talk really loud when you're there!" (DA). The placename *Igceńeq* when used on the Alagnak seems to refer exclusively to this site, though it is a generic Yup'ik term for waterfalls or rapids that can be applied to any such feature. Incidentally, Nonvianuk River is widely noted to be very shallow and difficult to navigate by boat, but its faster segments do not apparently qualify as an *Igceńeq* among Yup'ik speakers. Some suggest that Nonvianuk River has been easier to travel when frozen by dogsled or, more recently, snowmachine, than by watercraft.

Kukaklek Lake

Kukaklek Lake was the center of considerable activity in the early- to mid-20th century, associated with reindeer herding, hunting, trapping, and other pursuits. Just outside of the study area of the current research, little specific detail was recorded regarding this area. Mary Olympic lived at Kukaklek Lake until 1947 and has a rich knowledge of the land and resources of that area. Her granddaughter, AlexAnna Salmon – also a contributor to the current study – has completed significant research relating to this historically important area; based in Igiugig, AlexAnna maintains a collection of historical information, placenames, and other details based on numerous interviews with Mary Olympic and other elders; this information is on file with the Village of Igiugig.



Figure 44 – Mary Olympic as a little girl, with Anecia Mike and her baby Okalina, at Kukaklek Lake in 1937. Beaver meat and wolverine hides hang drying in the background, on poles suspended against a food cache. Photo courtesy Village of Igiugig.

Laġalaŋ (Yup'ik - *Bird place*)

This former village sits on the creek a short distance below Eau's Andrew's place, later the Estrada allotment. The name references a type of bird that was apparently found there.

Lower Camp

This is the westernmost of the three cabins owned by George Wilson, Sr. Built in 1949 or 1950 by the Wilson family, the cabin has been used seasonally for hunting, trapping, and subsistence fishing. George Wilson, Sr. maintained a trapline along the banks of the River upstream from this site. The site has a longer history of use as a camp, and other structures may have stood on the site historically. A blueberry picking area – one of the "Blueberry Hills" – sits on the opposite bank of the River and has often been used in summer and fall in conjunction with other activities at this cabin. A lodge – Alaska's Alagnak Wilderness Company – now sits a short distance upstream from Lower Camp, on lands formerly used for trapping and other purposes by people staying at the Camp.

Lucky Hill (Yup'ik - *Nac'carraq* - "Look around from a High Vantage Point")

Lucky Hill is a popular lookout point for hunters. The site is so predictably good as a hunting site and lookout that it is commonly called been called "lucky hill" in English, though the Yup'ik name for the site only identifies the site as a lookout point. Lowbush salmonberries and other plant foods are found on the lower margins of this hill. Nick Apokedak's cabin and steam bath sit roughly 300 feet away from the base of the hill. people from Levelock continue to use this cabin for hunting, trapping and other purposes, with the agreement that they simply keep it clean and in good repair (AW). A trail links the house with Lucky Hill.

Middle Camp Cabin

This is a cabin owned by George Wilson, Sr. on the north bank of the Alagnak. Built in October of 1949 by George Wilson's father and brother, this cabin has served as a base of operations for trapping, subsistence fishing, and other purposes along the Alagnak. While owned by George Wilson, families from multiple modern villages have ties to this cabin and the Wilson family; as Kokhanok resident Joe Woods suggests, "you got



Figure 45 – Interviewee George Wilson, Sr., standing in front of Middle Camp Cabin. Douglas Deur photo.

Middle Cabin, and that's all Native allotment too, that my uncle Charlie's, and my mom's, and Auntie Bertha's" (JW). A cache and other outbuildings sit in close association with the cabin. Wilson stopped using the cabin regularly in 1982, not long after designation of the Alagnak as a Wild River, but has continued to allow other Alaska Natives residents of nearby villages to occupy the cabin as needed. This area has long served as a campsite, and there may have been other cabins predating the Wilson structure. A small creek, sometimes called "Middle Cabin Creek," sits a short distance away from the cabin.

Mike Andrew Birthplace

This former beaver camp site was the birthplace of interviewee Mike Andrew. He was born in a tent camp on April 23, 1935, during beaver trapping season. He explains that "in old times women had to give birth while out on the land – there was no house or settlement here" (MA).



Figure 46 – Mike Andrew showing the site of the beaver camp where he was born in April of 1935 to a river guide from Katmai Lodge. Douglas Deur photo.

Old Village (Yup'ik - *Nunalleq* – "Old Village")

This placename is used in reference to no fewer than three locations along the Alagnak River that once held large villages, including the middle or "McCormick's" village, Alagnak Village, and the Forks Village. Each of these villages is discussed in more detail elsewhere in this document.

Parutuli (Yup'ik – "Bug Lake")

This lake sits near the exit point from Nonvianuk Lake, in an area sometimes hunted for caribou and other game. As the name suggests, mosquitoes, gnats, and other insects are numerous in this area.

Porcupine Hill (*Issaluluq* – Yup'ik - "Porcupine Place")

This site has a predictably large porcupine population, and hunters sometimes obtain them here. The term *Issaluluq* is a generic placename, applied to other locations, and it is said that there are at least two places with this name, both named with reference to porcupines on the Alagnak. The mapped site is the most frequently used by interviewees.

Qaniruq – (Yup'ik - "Embayment")

This shallow embayment, sitting not far from the outlet of Kukaklek Lake, was a campsite, used for hunting, fishing, and other purposes. "Lots of fishing there, too! And bears... We walk in there, there's bear all over" (TM).

Red Paint Bank (Yup'ik - *Kavirun* - "Red Paint Rock")

This is a high riverbank with exposed red rock along the Alagnak River - above the forks, but below the falls. This red rock is associated with a larger deposit of red ochre that is said to extend north and inland from the river. Ocher has been traditionally gathered from this bank and from surface exposures of the larger deposit to the north. This ochre is used as a dye and preservative for parkas, mukluks and other traditional clothing. "It's orange on the hill! They use it in the fur, when they make parkas, to color their fur" (DA). Annie Wilson reports using ochre from this site in her manufacturing of

traditional sealskin clothing in recent times, applying it as a waterproofing agent that also dyes the skins reddish-orange. Fragments of this red rock sometimes wash up on the banks of the river immediately downstream and have been gathered by Alaska Native river users for cultural purposes.



Figure 47 – Pete and Annie Chukwak, family to several project interviewees, launching their bidarka on the Alagnak River. Pete's family hailed from the upper Nushagak River region, while Annie grew up with a reindeer-herding family on the Alagnak and other areas on the Alaska Peninsula. The notch in the bow is said to allow air into the interior of the boat; this notch was covered in rough water to keep out the water. Photo courtesy Village of Igiugig.

Sleepytown (Yup'ik - *Qavarparyaraq* - "Sleep Very Hard")

This is a former settlement site, still used as a seasonal camp for fishing and other pursuits on the river. Large numbers of people were said to camp there during subsistence-related harvests into the mid-20th century: "they had their tents in there" (AW). The name refers to actual events involving "sleepy people" staying there as a stopover point when traveling up or down river. Howard Nelson explains how Sleepy Town got its name: "There was all these people living on the river, but they weren't in a little community. So when these people, I guess, moved down they would camp there…it was so far to come down. Back in those days you were drifting down with a qayaq, canoe or what have you, and they'd stop here to sleep, so and they created a community" (HN).

Swan Bay (Yup'ik - *Kangiqurarpaq* - "Bay")

This small embayment has been a widely-used resource procurement area through the 20th century. The shoreline has been popular for waterfowl hunting, while some families ice fish there in the winter for pike and possibly whitefish. It is "a swampy lake, it's hard to see it [on maps]… this is where we do a lot of fishing, right there. Winter fish" (PA).

Three Island (Yup'ik - *Quyungqalriit Qikertiyagaat* - "Three Islands Gathered Together")

This is a group of three gravel bar islets located a short distance downstream from Deafy Slough. These small, relatively level islands have served as a fishing station, as well as a place for associated fish processing and campsites.

Winter Fish Camp

This site, on a small slough along the Alagnak River's south bank, was formerly a popular winter campsite, used for ice fishing on the Alagnak. Whitefish and pike were said to have been caught here in considerable numbers by line and by net under the ice and processed along the banks in the wintertime. "They come out even in the winter and put a net out for whitefish and pike and whatever, through the ice" (AW).

Yukon Pam House

This house was originally owned by "Yukon Pam," an important figure in early 20th century Alagnak River history who hailed from the Yukon River region. She used to babysit interviewee George Wilson, Sr. at her house at this location. The home site formerly had smokehouses and other structures along the waterfront that have since washed away due to erosion. The house was later bought by John D. Nelson.

RESOURCES OBTAINED IN AND AROUND THE ALAGNAK REGION

As many Alaska Native consultants and academic researchers have noted, riparian resource procurement has been central to the subsistence strategies of communities of the interior Alaska Peninsula (Dumond 1995; Behnke 1978). Historically, Alagnak River provided Alaska Natives with an impressively full spectrum of the riverine resources required to sustain communities over long periods of time. Interviewees especially comment on the abundance of fish along the river corridor, including whitefish, pike, trout, and all five species of Pacific salmon, but also the diversity and abundance of mammals, including brown bear, moose, and a variety of furbearers including beaver, lynx, mink, otter, fox, wolverine, and wolf. A diversity of waterfowl, shorebirds, raptors, passerines, and other birds also abound in the riparian margin, contributing to its overall resource value, along with a diversity of riparian vegetation that has provided Alagnak River users with food, materials, and medicines (USFWS n.d.).

Together, the resources of the Alagnak supported a rich and diverse subsistence tradition, centered on the riparian corridor and fostered the development of settlements along the River's banks. The resources of the Alagnak were so rich, in fact, that they appear to have supported a year-round population in the riparian corridor – a point confirmed during recent archaeological investigations by the National Park Service. Similar year-round occupation is documented in the nearby and similar Naknek drainage, where Dumond found that "the presence of both salmon remains and caribou waste suggests that occupation occurred there, all in all, for substantially the full year" (Dumond 1981: 172). On the Alagnak, large winter villages appear by no later than approximately 2,300 years before present, attesting to the establishment of large and relatively settled populations on the riparian corridor (Bundy 2007).

Certain resources that were key to subsistence when the Alagnak was home to year-round communities have continued to be very important as former residents and their descendants began to use the Alagnak riparian corridor as a seasonal subsistence outpost. The use of these resources has persisted to varying degrees within each of the study communities, often in spite of the availability of introduced foods and other alternatives, providing ample incentives to return to the Alagnak each year.[65] The food products from the Alagnak have not only been of importance to those who hunt, fish,



Figure 48 – Annie Chukwak, mother of Mike Andrew, Sr., skinning beavers with her daughter, Mary Tallekpalek at their home on Alagnak River in the 1930s. Photo courtesy Village of Igiugig.

and gather there, but are also used within the study communities by the many people who do not participate in the harvest but with whom these food items are shared.[66]

Indeed, the relative resource abundance of the Alagnak has, until recent times, been magnified by the broader circumstances of Alaska Peninsula history. The relative paucity of development and commercial exploitation along the banks of the Alagnak over the last century has insured that the river corridor's resource value has become magnified in some ways, in contrast to other rivers that were not so isolated. To this day, Alaska Native interviewees suggest that the Alagnak River corridor is among the best fishing and hunting areas to be found in their region. Interviewees such as Mary Tallekpalek have noted that the Alagnak has provided a relatively untrammeled river, even as other systems suffered. Not only has this ensured that the fish runs have been historically robust, but that all of the "secondary resources" utilized coincidentally with the fish harvest have been robust as well. As Mary Tallekpalek noted, on other rivers,

> "We can't set the net on, on the big tide, and full of junk all the time. No fish. Branch River better: whitefish and pike and trout. Anything! Ptarmigan….rabbit, beaver" (M. Tallekpalek in Tallekpalek and Tallekpalek 1998).[67]

Each of the major resources reported to be gathered along the Alagnak within living memory will receive attention in turn, in the pages that follow.

While it appears likely that the Alagnak was once occupied year-round, this does not imply that the inhabitants of the river were completely sedentary and settled within these villages. On the contrary, in order to make the most of available resources, the people of the Alagnak had to move about seasonally within and beyond the riparian area. A complete picture of past seasonal movements and resource use patterns along the Alagnak is still unavailable, pending further archaeological research on the river corridor. Nonetheless, we may look to other documented examples of the "seasonal round" that might be applied to the Alagnak. A workable model is available from Van Stone. When considering other 19th century Yup'ik-speaking people of the riparian interior, Van Stone (1984) outlined a basic seasonal round:

Summer - in June, groups begin moving to permanent villages along rivers; salmon harvesting proceeds.

Fall - salmon runs end in the late summer/early fall, and groups begin hunting caribou and fur-bearers inland from their riparian villages.

Winter- in October, groups return to the permanent villages. Limited fishing continues, including some salmon, but also trout, whitefish, blackfish, grayling, and others.

Spring - by late winter, supplies sometimes run low. Hunting and trapping of fur-bearers on the riparian corridor and adjacent tundra. Limited caribou hunting. In late spring, seals and belugas follow salmon upstream and were hunted. Smelt and migrating birds are also gathered.

As interviewees note, traditional patterns of subsistence resource use on the Alagnak have always been dynamic, and changed in a variety of ways during the early years of European contact. Changes occurred slowly at first, as the fur trade and other economic activities created new scheduling conflicts for subsistence users of the Alagnak. The rapid succession of shocks associated with the emergence of commercial fishing and canning in the late 19th century, as well as the eruption of Novarupta and the influenza pandemic of the early 20th century, however, ushered in a new era. Salmon canning and fishing duties reached their peak in the summertime, the conventional peak in the subsistence fishery, resulting in scheduling challenges that rearranged various social and geographical dimensions of the traditional fishery.[68] The emergence of a mixed economy in the years that followed, coupled with the steadily declining resident population along the Alagnak, insured that the river served less as the residential core of sprawling resource territories, but instead began to function as a resource outpost of particular historical and cultural importance within the resource territories of communities some distance away. Subsistence resource use persisted, and even thrived, but the timing and significance of subsistence hunting, fishing and gathering was changing.[69]

Despite these changes, Alaska Native users of Alagnak River continued to visit the river intensively through the summertime - during the peak salmon runs. Fish camps are historically busy from June through August, with families catching and processing fish for later use.[70] For those who have cabins or campsites on allotments rather than solely

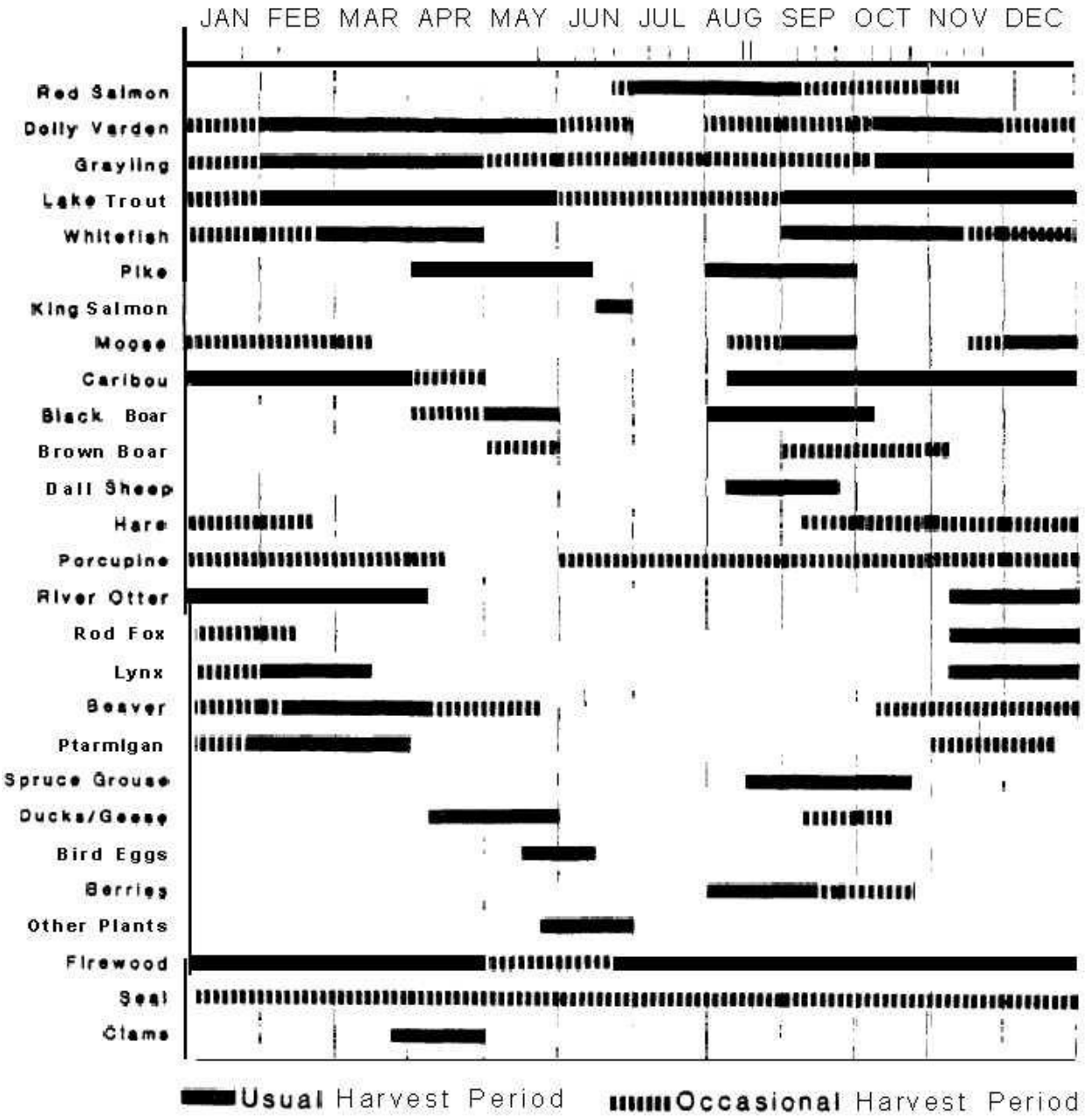


Table 3: Resources harvested by communities associated with Alagnak Wild River, and seasons of harvest. *From Morris (1986).*

accessing the Alagnak during brief motorized trips, subsistence visits traditionally occurred over the course of weeks or months. In recent years, sockeye salmon fishing tapers off by late July. By September, white fish fishing commences. Moose are hunted into the fall, and caribou have been hunted in similar seasons historically. When

possible, some families prefer to stay on the Alagnak until the beginning of freeze-up in October. Motorized transportation has increased the opportunity for short or impromptu trips to the Alagnak.[71] On the basis of reconnaissance fieldwork in the late 1990s, Michele Morseth compiled notes on Alaska Native seasonal uses of the Alagnak River that reflect all of these changes; this information has been augmented by interviewees for the current study and is summarized in Table 1. More details on these species, and the seasonality of their use, are also included in the thematic sections that follow.

Table 4:

Notes on the Seasonality of Certain Alaska Native Subsistence Uses of the Alagnak River Corridor, mid- to late-20th Century

	Early June	Late June	Early July	Late July	Early Aug	Late Aug	Early Sept	Late Sept	Oct	Winter
White Fish	fished w/nets						fished with nets & later, after freeze-up, through ice			
Pike										ice-fishing on Alagnak
Trout									after recreational fishermen are gone	
Sockeye		smoked & dry fish at fish camps								
King Salmon			strips dried at fish camps							
Chum/ Pink				dried, mostly for dogs						
Silver						limited catch, frozen				
'Redfish'							spawned out fish caught and dried			
Berries			Gather if seen	Gather widely						
Bird Eggs	Gather widely									

Traditional resource procurement, interviewees note, has followed seasonal rhythms that are still observed in attenuated form today. Mike and Dallia Andrews, for example, recall that after summer salmon fishing season it was time to pick berries such as blackberry, salmonberry, and wild cranberry, raspberry, and blueberry. In the fall they hunted moose, birds, and other species. Mike would often go upriver, camp and drift down, sometimes getting a moose or bear. Then the bears leave the river and go to the hills to eat berries; Mike would wait until they get fat and hunt them. In the winter,

they report fishing whitefish, pike, and other fish through the ice. In the spring, Mike and Dallia hunted bears before they started eating salmon and their flesh took on a fishy taste; they might hunt beaver and other small riparian animals too, while gathering eggs in the riparian corridor. And so their seasonal subsistence activities has continued each year, even into recent times, in spite of competing demands on their time. The patterns described adapt as necessary to the demands of their schedules and the limitations on their mobility as elderly river users. Yet, what they describe is strikingly consistent with the "aboriginal" pattern of land use described by Van Stone (1984), and evidenced by a growing body of archaeological evidence. This attests to the continuity in Native subsistence practices and to the enduring importance of the Alagnak as a locus of these practices into the present day.

Hunting

Alagnak Wild River has long been a critically important subsistence hunting area for Alaska Native communities. When the river was still occupied by permanent settlements, hunting was widespread along the river corridor and within the tundra and forests areas sitting adjacent – cumulatively providing a sizeable portion of the overall traditional diet. Yet, even after river residents moved away to settlements such as Levelock, Igiugig and others, the river continued to attract hunters back to the river each year.[72] Though displaced from the Alagnak by various historical circumstances, these families continued to value the unique hunting opportunities afforded by the river, including a widely-appreciated abundance of moose, brown bear, beaver, and other game species. What follows is an overview of the major hunting traditions mentioned by interviewees.

Moose

Several interviewees have noted that the Alagnak is especially known as a place to hunt big game: "That's the main hunting area for moose and caribou" (quoted in Evanoff 2008). Among the hunting practices that interviewees associate with the Alagnak, the most important seems to be moose hunting (Deur 2008b). Moose has been hugely important to all local communities for its meat; moreover, moose hides also have been (and in some households, continue to be) an important material for the manufacture of clothing and other items. As Dallia Andrew notes,

> "They make parka out of squirrel, and they make parka out of moose calf. Everything. Then they make canoe out of moose calf hide too…they use everything out of animals… make their own boats, from out of [moose] skin!" (DA).

Interviewees such as Patrick Patterson, Jr. discussed the reputation of the Alagnak among Alaska Native hunters as a place with predictably abundant moose for subsistence hunting: "There was moose. You've seen a lot of moose" (PJ). Patrick Patterson, Sr. recalled that the river had this reputation among families that had lived on the river, and that these families continued to return to the river each year in the mid-20th century to get moose from homes in places like Igiugig and Levelock: "It used to be a good river to hunt on long time ago way back in the thirties. Everybody from Levelock used to go up there and hunt and get their moose" (PP). The emphasis on moose along the Alagnak reflects both the riparian habitat preferences of moose, as well as the riparian orientation of most subsistence harvests along the Alagnak. As the Alaska Department of Fish and Game has noted of the riparian corridors of this area:

> "Moose harvests tend to be concentrated along major waterways, however, where moose tend to be more predictably and easily located, killed, and packed out, particularly in the open-water season" (ADF&G 1985: 430).[73]

Today, the Alagnak still appears to represent one of the principal moose hunting areas for communities throughout the region, including not only proximate communities such as Igiugig and Levelock, but also the coastal communities of Naknek and King Salmon. Only a few individuals from these more distant communities typically utilize the area on any given year, but most of these individuals appear to have personal or kinship ties to more proximate communities and often trace some portion of their ancestry to the Alagnak villages.[74]

Individuals who have returned to the Alagnak to hunt moose from other communities often sought to time the hunt so that it was coincident with other resource harvest activities, especially subsistence fishing and berry picking. Violet Wilson, for example, said that her family combined moose hunting with subsistence salmon fishing and berry picking: "Mostly fish, or berry picking. Moose hunting" (VW). Especially in the summer, moose are commonly hunted by boat, allowing river users to approach moose from the water with relative silence and ease in the densely vegetated riparian corridor,

as well as to carry moose away with ease after a successful hunt. Traditionally one of the most common ways that moose were hunted was by boat in the summertime and fall, drifting down the Alagnak and hunting the riparian margins. Interviewees such as Ella Charley note that their families used to go to the upper Alagnak and then drift down in a boat, hunting moose and other game as they traveled (Charley in Charley and Setuk 1998). This method of hunting has been reported by a number of individuals, such as an interviewee from the Katmai Research Project:

> "He said when they go moose hunting there they most often motor way up the creek, spend a night or two and then float down the creek quietly so as not to spook the animals. He said if you are lucky you can get your moose right on the bank and it is easy to process and transport" (Katmai Research Project 1997: 16).[75]

Some also report using a combination of skiffs and pedestrian hunters to catch moose along the Alagnak:

> "For moose, it is good to hunt along with a skiff. You can use the skiff to chase them down along the shore and down trails where they came down to the water. The person on land can wait down the trail for the moose to come. So you work together" (Katmai Research Project 1997: 5).

This kind of summertime hunting has become more challenging as recreational users have become more numerous along the Alagnak. For this reason, moose hunting often appears to be delayed until the fall, so long as the river is still ice-free and therefore navigable by boat. (Winter hunting by snowmachine is also reported on the lower river; it appears to have been less frequent than summer and fall hunts, but has been growing in popularity as summertime hunts become less tenable.)[76] Some families that have used the Alagnak for moose historically now go to other locations due to summertime conflicts with river users: "When we went moose hunting we usually went up to Kvichak" (PJ).

Still, moose hunting continues to be a significant draw to the Alagnak for some families, and allows some families to maintain ties to this part of their homeland that might have eroded otherwise. As Violet Wilson notes,

> "Because we live in Naknek now we don't go up there [Alagnak River] much except for moose hunting. People from Naknek go up the Kvichak or the Branch River hunting moose right now" (VW).

Certain areas along Alagnak River are said to be especially good for hunting moose and other game, such as "Lucky Hill," which was named because of the success of hunters visiting this landmark. The brushy and forested areas between the Alagnak River rapids and the confluence with Nonvianuk River were said to be good for moose hunting, and often used historically as well (MO; Salmon 2002). The lower Alagnak, outside of the study area, is also said to be a good hunting area for moose.



Figure 49 – Lucky Hill, the well-known hunting overlook known to Alaska Native hunters as a sure place to find game. Douglas Deur photo.

While a primary moose hunting area, the Alagnak was not always a predictable place to find moose. People report sometimes having to travel widely along the river to find a moose in the complex terrain and dense vegetation along the river, often requiring several days before a moose can be obtained. As Evan Chukwak recalled,

> "Long time ago, we have to go way up [river] to get, hunt moose…take us about a... week to get the moose. Some time you lucky, you get in one

> day…So, sometime it took us fourteen hours a day. One week" (Chukwak 1998).

Similarly, interviewees sometimes note that moose populations have varied considerably over the years; years have passed without a sizeable moose population, and there is evidence to suggest that moose were relatively scarce a century ago, during the last period of dense human settlement on the river.[77] Some interviewees suggest that moose populations have been generally declining in recent decades, due to hunting pressures, and a rebound of wolf and bear in the absence of air hunting of these species (Salmon 2002). Indeed, some of the only traditional environmental management practices discussed by interviewees seem to have emerged in response to the difficulties of obtaining moose along the river. These practices have involved the manipulation of vegetation to draw moose in large and predictable concentrations. As Patrick Patterson, Sr. noted, "They used to cut the willows around the lakes [and rivers?] so the young bushes grow up and that is what the moose like, this would draw the moose in and they would sit there and harvest them" (PP).

Caribou

Caribou hunting along the Alagnak has been more episodic than moose hunting, reflecting long-term fluctuation in the availability of caribou in the area. Interviewees suggest that caribou were relatively rare along the Alagnak in the mid-20th century, but came back in impressive numbers in the general area during the 1970s and 1980s. Peter Apokedak recalls that vast herds began passing through the area during that period, bringing a welcome source of food to village residents but also drawing sports hunters in large numbers:

> "I started running barges in the '70s and '80s. Just like the whole side of the hill [covered with caribou and] everybody's *moving!* So many of them, I sort of hold back, and just let them go by. Beautiful! And in winter, whenever we need meat, we go get them! Never waste, just take…pretty much everything. We're used to meat! Now, once in a while, if you go travelling…way up to Kaskanak [Creek] way up to here, you went (across the lakes…you see [people come in by] airplanes. Take just the four legs, and [leave] the rest to foxes" (PA).

Within a couple of decades, the caribou numbers began to decline again until their numbers were quite low. Again quoting Peter Apokedak:

> "caribou… you know, '70s,*'80s*, on into '90s, some to the 2000, then they slowly easing back, seems like. Coming over here. There was *so many* of them, you come across right here, or down below us, coming back, going back, heading back. And in spring, same way…Last year, all total, there must have been next to ten caribou here in the village [Levelock]! They go through more like 20, you know, that's good population going! (PA).

Interviewees also suggested that – as a densely vegetated river corridor – the Alagnak River corridor is not prioritized as a caribou hunting territory relative to other productive caribou hunting areas nearby that are more open and accessible by land transportation.[78] Prior to relocation off of the river, Alagnak River residents clearly relied on caribou to some degree for subsistence, but it appears that they commonly traveled away from the riparian corridor into the open terrain off-river to hunt this animal.



Figure 50 – An initial interview with Levelock elder, Peter Apokedak, who identifies places of cultural and historical significance on a map for Alagnak research team member, AlexAnna Salmon. Interviewees such as Apokedak have long-term recollections of changes in fish and game abundance in the area, such as the movement of caribou since the mid-20th century. Doug Deur photo.

These factors are reflected in the accounts of interviewees, many of whom do not recall regular patterns of caribou hunting when they lived on the Alagnak in the mid-20th century. Mary Nelson, for example, remembers the game around the Alagnak during the time she lived there: "She said that most she'd seen was probably bear and moose, and they'd hardly seen any caribou" (MN, translated by SN). Similarly, interviewees who have regularly hunted the Alagnak for decades, such as Mike and Dallia Andrew, report harvesting muskrat, moose, bear, and waterfowl, but not caribou. And, while Alaska Department of Fish and Game reports and other sources make it clear that caribou has been hunted in and around the Alagnak River corridor in recent decades, there was almost no mention of caribou hunting specifically along the Alagnak in the prior ethnographic studies consulted for this project (see, e.g., Deur 2008a, 2008b; Holen et al., 2005; Fall 1993; Morris 1986; ADF&G 1985).

Instead, people hailing from the Alagnak and nearby villages report traveling long distances to hunt the caribou where they are available. "We hunted for moose [on the Alagnak since] there was no caribou until the 1950s. We used to go down to Egegik and Pilot Point before that to get caribou" (PP). Especially among older members of the Alaska Native community, when a hunter chooses among various potential outlying areas where caribou are known to be available, they opt for those places where have certain personal ties, such as ancestral roots in the area or kinship ties to nearby villages. By choosing such locations, the hunters insure that they arrive with some modicum of "local knowledge" as well as certain implied traditional rights of use. Similarly, during those times when caribou have been available along the Alagnak, interviewees report that residents of numerous villages converge in the area to participate in the hunt – many possessing deeper personal and kinship ties to the river that contribute to their decision to hunt there. Interviewees note, for example, that people from Nushagak have occasionally come over to the Alagnak to hunt when caribou are numerous on the Alagnak – some participating in secondary resource harvests, such as beaver hunting, coincident with this harvest. While interviewees suggest that this long-distance hunt largely reflects traditional practices of Yup'ik people following the caribou where they might migrate, it also reflects distant family ties to the Alagnak area among the families of Nushagak, where many orphans were sent at the end of the influenza pandemic that depopulated the river almost a century ago.

Bear

In addition to moose and carbou, a number of interviewees spoke of hunting bear – apparently both brown and black – along the Alagnak River corridor. Bears were hunted in the spring, before they had started consuming fish, which made their flesh taste fishy: "Springtime: that's when they hunted" (DA); they were also hunted in the fall, as they fattened themselves on berries and other foods in preparation for the winter. "Every fall people used to go up river and get a couple of bears" (PA). "We liked to get that in the fall, not in the summer. When young ones come along, we leave them alone" (quoted in Evanoff 2008). Bear was said to have been a staple at one time, especially when moose and caribou were scarce. As Mary Olympic recalls,

> "Real long time ago, only meat they had [was bear] – hardly *moose*, hardly *caribou*! You'd be lucky to get see one moose all fall…mostly live on the bear. They hang it up, dry it, boil it and cook it" (MO).

This intensive harvest persisted after people moved off-river, well into the mid-20th century. Gabby Gregory's family apparently returned to the Alganak to hunt bear through the 1920s and 1930s, for example. It is also important to note that some interviewees spoke of bear watching as a recreational activity of a sort that was also practiced on the Alagnak historically: "When we lived at Branch we used to run down the bear trail and lay in the grass and watch the bears" (MJ).

In more recent times, bear was said to have become scarce, which allowed for the increase in moose numbers but also reduced the prevalence of bear as a game animal. As Dallia Andrew recalls,

> "Long time ago [there were] hardly bear, because those people hunt them all the time. My dad used to go long ways to try to get one bear! Hard time to find it! They'd be lucky to get one bear!"(DA).

The use of bear meat has declined significantly in recent decades, reflecting reduced availability, changing dietary preferences, and growing regulation. Nonetheless, recent discussions with Alaska Native residents of the region reveal ongoing use of bear meat from this area.

Bear fur is also of traditional importance, being used for clothing and other purposes. Mike Andrew recalls,"Fur too, they save it for mukluk shoe. They tan it some way. Everything was used out of bear. My dad used to hunt a lot of bears!" (MA). Bear hides, he notes, were said to possess certain powers that could be used by knowledgeable individuals. Bear hides were traditionally used to bring rain, for example:

> "You know, long time ago when I was farther in the tundra anywhere, you'd take that bear skin, put it in the water, shook them up. Then shake it like that. Hard. Like the water's spilling over…then it start raining! That's what I learned from my grandpa. Long time with the weather! You use the bear skin, you put it in the water, shake them up…when you have a tundra fire! Then rain" (MA)!

Dallia Andrew also recalls this traditional practice:

> "That's how we saved the bear skin. My momma did it on the fish camp a number of times … he dragged it down the river, he soaked, he shook it, shake it. Not too long, it started pouring down rain! Set off the fire! I watched my Mom do that a long time ago…that's why I try to get me bear skins! …No fire fighters in those days" (DA)!

Small Game

People also report hunting and trapping small game along the Alagnak. Several interviewees reported catching beaver, porcupine, muskrat, as well as ptarmigan, spruce grouse, and other birds for food use along the Alagnak. Indeed, at various times, such as when caribou and moose populations have been low, small game appears to have represented a relatively large component of the overall subsistence hunt on the river.[79] Even if the proportion of small game in the diet decreased in recent decades, it has maintained an important supplementary role in the traditional diet.[80]

Interviewees often spoke of hunting porcupine along the Alagnak. While porcupine hunting has occurred in many places along the river historically, it has been especially focused at two different locations along the river called "Porcupine Hill," where these



Figure 51 – Beaver lodges are numerous and often large along the shores of the main stem Alagnak, as well as its many side channels, sloughs, and small tributaries. Douglas Deur photo.

animals were said to be especially numerous. Porcupine meat is still popular with many river users, while the quills of porcupine are sometimes still used in traditional crafts. Likewise, beaver are hunted and trapped along the riparian zone, as well as in lakes immediately adjacent; beaver meat is also quite popular with some traditionally associated families, while beaver pelts continue to be sold commercially or used in traditional crafts – points addressed in more detail elsewhere in this document. Muskrat was harvested widely along the riparian corridor and nearby lakes as a supplementary food source. Squirrels – both ground and tree squirrels – are traditionally consumed, though few details were mentioned of their use along the Alagnak. The fur of squirrels was often used to sew parkas, but this practice has largely disappeared in recent times.

Birds were also widely mentioned as a food resource along the Alagnak. Violet Wilson recalls people using traditional nets to hunt ptarmigan along the River's edge:

> "in wintertime, you get a lot of ptarmigan! Levelock used to be super for ptarmigan [too]! And you know, up there, we used to stretch net on the bushes! For the ptarmigan. Catch ptarmigan like that" (VW).

Ptarmigan numbers were said to have declined in recent decades, but they are still hunted in modest quantities into recent times.[81] Spruce grouse (*Falcipennis canadensis*) hunting was mentioned by some interviewees, and seems to have been the basis for brief trips to the Alagnak from nearby villages: "I went up there spruce hen hunting one year – we went from Levelock over, cross country. I went with Mary and John Tallekpalek" (MJ). Mike and Dallia Andrew note that they have traditionally caught seagulls and terns on the riparian islands and riverbanks during the spring.

Many of these species of birds were sometimes hunted by boat, sometimes coincidentally with moose hunts while traveling the river by boat. As Martha Johnson recalls,

> "We used to go bird hunting too. I remember when we saw the birds we would have to lay low and duck down in the skiff so they wouldn't see us and be really quiet while we drifted down fast. Brother Bill and I used to go moose hunting with our dad and duck hunting when we were small, we got to go along. I like to hunt" (MJ).

Bird Eggs

A number of interviewees also discussed traditional egg harvesting along the Alagnak. "There is good egg picking on this river!" (AW). "When we were kids, we use to go up there to hunt eggs" (MC). Alaska Native river users traditionally gather eggs on the gravel riparian islands in the river, and occasionally along its banks. Riparian gravel islands were said to be especially good for the harvest of gull eggs: "They'd go pick in the islands…they were a lot of seagull eggs…springtime activity" (SN). Ptarmigan eggs have sometimes been gathered along the riparian margin, but are said to be difficult to find.[82] Interviewees also discuss the gathering of swan and tern eggs along the riparian corridor (EC).

Many river users appear to have preferred eggs that are harvested on lakes and bogs sitting a short distance outside of the riparian zone. Mike and Dallia Andrew, for example, report that they "walk into the lakes around the Branch…there are big

eggs…the islands in Branch have small eggs." Mike and Dallia sometimes walked three miles, often carrying a canoe, to access one big lake used for this purpose. Similarly, Martha Crow recalled excellent egg gathering on islands in lakes and peat bogs near the Chukwak family cabin:

> "Right [at] Evan Chukwak's cabin, or Little Evan's place, we used to go—there's an island right there, we used to go up there and get eggs… it was on this [north] side of the river, and we had to walk…a long ways to get to it" (MC).

The location of egg gathering varied by season, reflecting the natural availability of eggs. Egg gathering appears to have started at lower elevations and moved into the higher country as the spring and summer progressed, following the nesting cycles of birds at these different elevations: "In May they gather eggs down the river on the flats, in June they gather eggs up the lake on the islands" (Katmai Research Project 1997: 13).

Marine Mammals

Marine mammals were also reported as the target of past subsistence hunts along the Alagnak, though this practice has declined significantly in recent times. Historically, residents of the Alagnak hunted harbor seal and maybe seal lion from kayaks in Alagnak River – especially the lower river (M. Tallekpalek in Tallekpalek and Tallekpalek 1998). Harbor seals have been taken in the lower to middle river in more recent times, apparently in locations that are now within the Wild River boundary:

> "my first game when I went out hunting, it was summer time. I went out with my skiff and the motor by myself. And I caught…we call it fresh water seal. So I chase that seal 'til I caught it. And I shot it, take it home" (M. Andrew in Andrew and Andrew 1995).

The skin from harbor seals in particular has been used in traditional crafts, and is still used by some river users such as George and Annie Wilson in the production of traditional clothing for personal use, trade, or sale (GW, AW). Residents of all of the study communities also traditionally hunt beluga whales along the Alagnak, principally at the river's estuarine mouth (Chythlook and Coiley 1994: 17). Belugas have been hunted using skiffs, harpoons, rifles, and nets, sometimes in the spring but more

commonly in the fall, following the commercial fishing season. Mike and Dallia Andrew recall that the people of the Alagnak have continued to hunt belugas at the mouth of the river until recent times; two or three people working together in a boat chased belugas into shallow water then harpooned them (MA. DA). The meat from belugas and seals has often been cached for later use and is widely shared within and between communities. Again, most of this marine mammal hunting has occurred outside of the Wild River, marine mammal presence in the lower, tidal portion of the Alagnak appears to be influenced by upriver fish population dynamics that may be influenced by Wild River management.

Alagnak Hunting and the Traditional Values of Yup'ik People

In addition to its material importance as a center of traditional hunting, the Alagnak also has a deeper cultural and historical significance that has contributed to its continued value as a hunting area. Sitting on ancestral lands containing allotments and cabins, yet far from the modern realities of village life, the Alagnak has afforded opportunities for cultural expression and transmission that are sometimes elusive in other settings. River users report that hunting on the Alagnak has allowed them to continue visiting places of personal importance since relocation off-river, and to hunt in lands formerly hunted by their ancestors. Hunting has always been a social activity, too, bringing together whole families and providing opportunities for the training of younger members of the community, rive users note: "We used to have *lots* of fun going out hunting!" (VW). "The whole family would go moose hunting. The men would moose hunt and the women would pick berries. And we put up a lot of fish up there…together" (MJ). Conducted in places of enduring cultural importance, the Alagnak hunt has also allowed older members of the community to impart traditional knowledge and values related to hunting while visiting the Alagnak. These factors have given the Alagnak particular importance relative to certain other potential hunting areas and fostered continuity in hunting location choice among traditionally associated Alaska Natives – often in spite of visitor pressures and other factors that might otherwise discourage continued hunting on the Alagnak.

When explaining the types of values imparted to younger people when hunting along the Alagnak, interviewees cite certain recurring themes. Traditional proscriptions on overharvesting, for example, are said to be imparted to younger members of the community while visiting the Alagnak and beyond. As Mike Andrew notes, "In the old

days there was a law, if you got enough, that was enough. They weren't [written laws]" (MA). Similarly, interviewees note, there were traditional rules prohibiting hunting too close to home, possibly helping to reduce localized overharvesting and maintaining a "reserve" of game close to home for lean times. As Patrick Patterson, Sr. explains,

> "Subsistence was great then, when I was a kid. The Natives took better care of this country than Fish and Game ever did. Tell them that. When they went out and hunted, you could only shoot what they needed for that day, that's all. You couldn't stack up game. When we hunted moose you couldn't hunt close by your house, you had to go maybe a couple three miles from the house yet the game was right in front of the door. Natives had a belief, the further you went to get your game the better it tastes. In other words, you walk a long ways to get an animal you appreciate it more. Meat taste better, meat close by no good, too easy… They would shoot the moose further out then, nothing was wasted" (PP).

In this context, the practices and values of recreational non-Native hunters, so visible along the Alagnak, are often used as object lessons to Native youth among river visitors. Steve Nowatak, for example, explains one of the key values imparted in this manner:

> "What we know as food gathering, there nothing 'sport' about it. There was just for immediate use, or for later on for dogs. Gathering food was *not* a sport. Traditionally it was a livelihood" (SN).

These traditional values and practices are rooted in traditional beliefs that place a high premium on the maintenance of interspecific reciprocity and the showing of "respect" to game species, which were as much cosmologically founded as they were materially adaptive.[83]

Another key hunting tradition centers on the sharing of game, so that less mobile or capable members of the community are able to share meat from the hunt. Game sharing often occurs within villages, but may also involve sharing between village communities with kinship or other social ties. Such sharing of game was said to have been essential to community well-being; these practices have helped to maintain healthy and well-balanced relationships within and between communities, and to reduce risk by reducing dependence on any one hunter's success. As a corollary to this practice, it is important to note that a small number of hunters traditionally have

supplied meat to entire villages. This practice has continued among families who had moved off the Alagnak but continue to use it for subsistence hunting. "[In] younger days, George…Nick, whole bunch of us there was the main source of hunting, you know" (PA). Even if Alaska Department of Fish and Game records suggest that only a small number of hunters use the Alagnak, then, it is important to recognize that these statistics often conceal community-wide use of resources derived from this river.

The historical, social and cultural importance of the Alagnak hunt, then, augments the overall significance of the river corridor as a hunting venue to residents of nearby villages. It does so in a way that is difficult to quantify, and is often overlooked in conventionally recorded data regarding subsistence hunting.

The Territorial Context of Alagnak Hunting

The position of the Alagnak within the geographical range of village subsistence territories deserves some attention in light of the information outlined above. For some families, the Alagnak is "the place," where they will choose to hunt even if returns are not always good – only moving on to other areas if hunting on the Alagnak proves unsuccessful. Other interviewees report that they have relatively fluid hunting territories, reflecting their efforts to opportunistically follow game while avoiding competition.[84] For these hunters, the Alagnak is an area visited along a circuit of hunting areas. If these hunters find game elsewhere before arriving on the Alagnak, there is no reason to proceed to the river; if they do not find game beforehand, they may proceed to the Alagnak River area to hunt; if they find nothing there, they might pass through the Alagnak en route to other places along the circuit.[85] Cabins and campsites along the Alagnak have often been used as bases of operations during these hunts, even if hunting is not undertaken along the Alagnak. Meanwhile, a few families whose ancestors moved off the Alagnak have, in truth, largely abandoned hunting in the Alagnak area due to its sheer distance from their home communities, opting instead for places close to their present home.

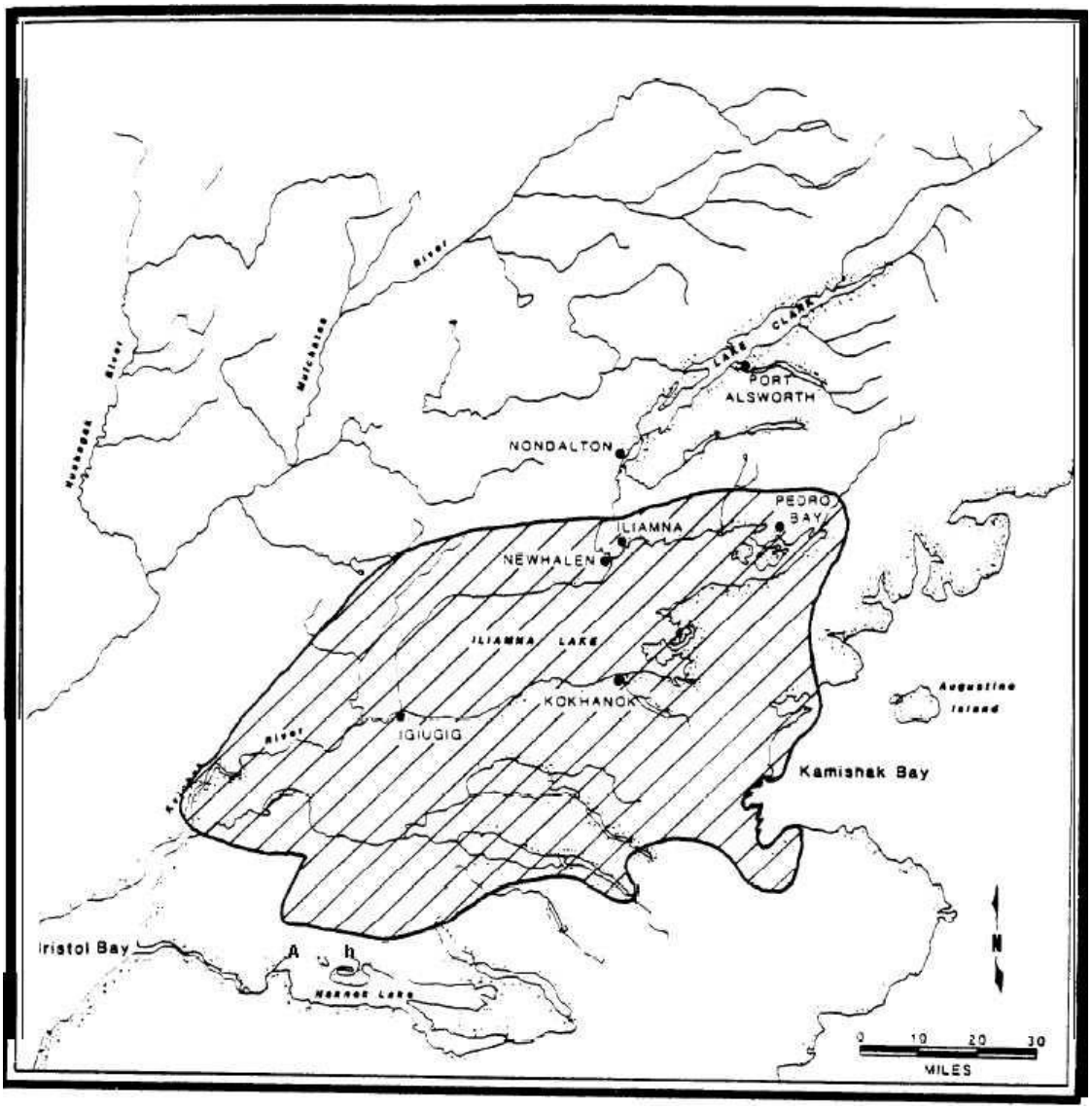
A number of past Alaska Department of Fish and Game reports have addressed the Alagnak River's position in relation to other village subsistence territories. While this information is readily available in various ADF&G publications, it is briefly summarized here to provide context to the larger discussion of Alagnak hunting territories. Generally, ADF&G records place the Alagnak Wild River corridor squarely

within the subsistence use areas of Igiugig and Levelock (ADF&G 1985: 430-31). The areas of subsistence use for these communities along the Alagnak generally overlaps.[86] Still, each community focusses on the part of the Alagnak closest to them – the eastern, upstream end in the case of Igiugig, and the western, downstream end in the case of Levelock. This overlap in the geography of resource procurement reflects longstanding ties of kinship between these communities, and a tendency to use the Alagnak that is rooted in the shared heritage of some of their residents within the Alagnak River communities.[87] Alaska Department of Fish and Game reports also document the Alagnak River corridor being squarely within the subsistence territory of Kokhanok, also reflecting the historical ties of many Kokhanok families to the Alagnak.[88] Alaska Department of Fish and Game reports generally place the Alagnak within the resource procurement territories used by residents of Naknek/South Naknek and King Salmon, but only within the fringes of the resource territories of these two communities, which tend to focus their efforts south and west of the study area (ADF&G 1985: 432, 453-54).

Especially in recent times, using efficient motorized transportation such as motorboats or airplanes, some communities that are more distant will sometimes make visits to the Alagnak River area.[89] This is often, but by no means exclusively, done by individuals who possess kinship ties to the Alagnak, and is rooted in traditions of access that predate motorized transportation. In addition, Alaska Department of Fish and Game records generally suggest that the subsistence hunting territories used by residents of Aleknagik, Clarks Point, Togiak, Manokotak, Twin Hills, and Dillingham all include areas immediately south of Alagnak Wild River. Some hunters are reported to have traveled from as far away as Dillingham and even Kodiak Island. As with the pattern of hunting and other subsistence uses found throughout the region, it appears that the Alagnak River area is only visited intermittently and infrequently by these communities, and principally when more proximate hunting areas are not found to be productive.

While ADF&G data are generally developed in reference to big game, especially moose and caribou, it is important to note that this geographical patterning influences, to some extent, the distribution of other categories of resource use within the study area. The ADF&G rightly notes that fish, berries, wood, and small game such as hares, porcupine or ptarmigan "are generally harvested relatively close to the communities, although long trips may be taken to harvest a certain species or particularly abundant population" (ADF&G 1985: 430, 452). Along the Alagnak Wild River, where campsites and cabins have been in regular use during hunting trips along the riparian corridor,

the subsistence use of the Alagnak River region for large game brings with it many of these "secondary" uses of resources that are more commonly associated with permanent communities.



Map 7: An example of subsistence territories for Kokhanok, from the 1980s. *From Morris 1987.*

Fishing and Fish Camps

Alagnak Wild River is widely appreciated by the Native and non-Native communities of the region as a good place to fish. The distinctive river - with lacustrine headwaters, complexly braided middle reaches, and long estuarine terminus - provides an

impressive diversity of habitats. As such, the river is home to a number of anadromous and freshwater fish, including salmon, rainbow trout, char, grayling, northern pike, Aleutian sculpin, slimy sculpin, Alaska blackfish, three spine stickleback, Japanese lamprey, round whitefish, and nine spine stickleback. However, if the Alagnak River has been known for any one kind of fish historically, it has been its prodigious runs of the five species of Pacific salmon: King or "Chinook" salmon (*Oncorhynchus tshawytscha*), Chum or "Dog" salmon (*Oncorhynchus keta),* Coho or "Silver" salmon *(Oncorhynchus kisutch*), Pink or "Humpback" salmon (*Oncorhynchus gorbuscha*), and Sockeye or "Red" salmon (*Oncorhynchus nerka*). The river is an important spawning ground for each of these species, contributing to the robustness of the Bristol Bay fishery.[90] With the abundance and diversity of fish on the Alagnak, the river has long been prioritized by Alaska Native communities of the area as a center of subsistence fishing. As Patrick Patterson, Jr. recalls,

> "It was a fisherman's *paradise*... You got every kind of fish there was…there was a lot of pike. There was grayling. There was rainbow, dollys. There was kings and silvers. I remember the silver salmon, they used to run up …The Native population didn't harm it, because it was just an excellent river for fishing. From rainbow to pike, to…white fish, and everything you could think of on there. And there was abundance of it" (PJ).

In particular, it was the abundance and diversity of salmon found in the Alagnak that was fundamental to Alaska Native uses of the river – fact that has apparently been true for millennia. As Mary Nelson notes, "there were all kinds of [salmon], like kings, and sockeye, and silvers. Different species of fish were there at different times of year" (SN, translating for MN). The salmon has not only been of dietary importance, but has been of great personal and cultural importance to Alaska Native river users: "My favorite memory, talk about salmons, important, they said. Salmon's important. *Mmmm*…[it's used] this way, and that way" (MO). Salmon fishing formed the foundation of much of the subsistence activity of Alagnak River villages through the 19th and early 20th centuries. Even after leaving the river, many families have continued to return, with family fish camps situated to make the most of the salmon runs.

Salmon fishing, as it is practiced on the Alagnak has changed considerably, even within the lifetimes of modern elders. The traditions and technologies still associated with fishing on the Alagnak are in some cases quite ancient. Mary Olympic recalls people

gathering on the Alagnak River to fish, using spears and tossing the fish into a weir-like "fish cage":

> "long time ago [people] put up fish … always hang the fish…tie the backbone…[young people] they make them hang 'em up. We old people clean the fish…The man get wood for smoke, and…yeah…that's the way he was taught stuff. [They speared and dried] any kind of fish, especially grayling and trout [in the] fall time. And …silver salmon" (MO).

Using spears, people had the opportunity to fish in the many shallows of the Alagnak, as well as at places such as the falls, though these technologies and sites are not so prioritized today. Nets also have a very long history of use on the Alagnak, and by the mid-20th century were becoming the principal means of subsistence fishing on the river, alongside the occasional use of weirs and hook-and-line. Nets can be spread out into the river in summer and fall, while in winter nets are sometimes extended through holes made in the ice. Today, fish cages are still sometimes used, even if the fish are no longer speared. As Martha Johnson recalls of Alagnak salmon fishing,

> "When they would split fish, they used to have a fenced area and the fish would still be alive. Then we would take them out and split them. Then we would put all the guts in the river, lots of other kinds of fish would come and eat the fish, and we caught all different kinds" (MJ).

As some interviewees note, fishing conventions differ between drainages, and the methods and tools used on the Alagnak are distinctively chosen for that river.[91]

Since time immemorial, the residents of the Alagnak were said to have had fish camps – fishing and fish-processing stations that are used by families or communities for their subsistence catch. Families have traditionally gathered at these camps every summer to catch and process salmon, gathering enough to feed both the extended family and each family's sled dogs for the year ahead. As Violet Wilson recalls fish camp,

> "It was just a way of life in the summer. We'd all put up fish for the dogs, you know, *hundreds* and *hundreds* of fish. We *all* had *big* smokehouses... Each family had their own [and] e*verybody* had caches. You know, on poles? So the mice don't get up there…Split [the salmon] and hang them up, and dry them! We do like—I did, myself…like 3—400 fish in a day!

> My poor brother Donald, he…he was little, but boy, he sure helped me a lot" (VW).

Similarly, Dallia Andrew recalls,

> "Summer time, when the fish come that's when they put up lot of fish. We have to split it, hang it and smoke it, put it away… Them days they put up lot of fish cause their dog team in winter time, they got to have lot of fish to feed. And us people, too" (D. Andrew in Andrew and Andrew 1995).[92]

Even long ago, when the Alagnak had a large resident human population, these fish camps often sat at a distance from the principal settlements, being functionally separate from many other village functions. Once families moved off-river in the 20th century, they often continued to revisit their fish camps each year – often situated at their cabins and allotments. Other families used tents, placed at key fishing stations, as their fish camp.[93]

Interviewees report that during the mid-20th century, many people living on the Alagnak used fish camps in the vicinity of Grassy Hill; these camps were said to be located all together in one place, where allotments are concentrated: "Yeah, same area. *Everybody* got fish camp… Theirs were only one spot" (MO). Other families had camps elsewhere on the river, including some on the lower river in and around Branch Village. Homes and cabins that were "abandoned" during the move off-river in the 20th century often became fish camp cabins. Thus, in the mid- to late-20th century, individual family cabins, such as at Lower Camp Cabin, were also said to have served as fish camps for some families.

Beyond its dietary importance, fish camp has traditionally been of great social and cultural significance to Alaska Native communities associated with the Alagnak. The gathering of friends and family at fish camps, interviewees note, allowed people to socialize, reconnect with family who no longer lived in the same village, to share stories and cultural knowledge and to play music and games. For the children of the



Figure 52 – An ulu knife, with wooden handle and hand-forged blade, belonging to Mary Olympic – a tool traditionally used by women in the processing of salmon and other fish. Douglas Deur photo.

community, work and play were seen as inseparable parts of fish camp, as Martha Johnson recalls: "We used to tie the fish backbones together and hang them in the trees to dry….it was a lot of work but it was fun because we got to play" (MJ).

Most interviewees recall a time when summer was the time for fish camp. When she lived in the Branch River area, Mary Nelson "put up fish in summertime" (MN). Similarly, Mary Olympic recalls, "when we live up Kukaklek, we start put the fish in…*July* month!" (MO). In more recent times, seasonality has increasingly shifted to the fall, in no small part to avoid conflicts with tourists. The replacement of dog teams with snowmachines and other motorized vehicles has also reduced the need for salmon somewhat, allowing for a shorter stay on the river that works around both tourist pressures and competing obligations on subsistence harvesters' time. While the exact date varies depending on natural fluctuations in the timing of fish runs, competing economic activities, and other factors, the intensive fishing for salmon is increasingly

centered in the spring and the fall, then, allowing for the fishing of King, Coho, and Sockeye salmon.[94]

Four or five extended families were said to have been primarily responsible for continuing the subsistence fishery on the Alagnak into the late 20th century, sharing their catch with the larger village communities where they live. As with meat, fish was shared widely within the community, so that a small number of harvesters might support the needs of one or more villages. These traditions persist in various ways today, helping sustain elders, as well as those families and individuals who are unable to fish for reasons of health, mobility or competing obligations. For example, as Peter Apokedak noted,

> "[John Chukwak] makes me happy, brings me fresh white fish in winter [from the Alagnak]. A few years back it was fall pike…he catches white fish by…Pete Chukwak's…Deafy's slough area. Good spot" (PA).

Similarly, Violet Wilson recalls that her family has a tradition of sharing the salmon from their fish camp with other families in the community: "There's 40 fish in a bundle. And we always gave away [bundles] you know, and stuff like that" (VW). The use of the Alagnak for fish camps has declined in recent years – reflecting the combined effects of tourist pressure, the decline in total catch now that sled dogs are no longer being kept and fed, and a range of other phenomena. Nonetheless, the salmon from Alagnak fish camps continues to be of importance for some families, for reasons both dietary and symbolic.

The Alagnak is said to have stood out among the rivers of the region as a subsistence fishing river for King (and to a lesser extent, silver) salmon, reflecting the structural and habitat diversity of this complexly braided river system. Kings were said to not only be more abundant and accessible on the Alagnak than other area rivers, but they also ran later in the season; this allowed for an extended fishery, to that people seeking Kings were motivated to converge on the Alagnak like no other river in the area (MA). These fish were somewhat more challenging to catch than sockeye, sometimes requiring alternative fishing stations or special kinds of gear, including rod and reel.
People historically converged on the river during King season from all of the traditionally-associated villages.[95] Some interviewees for the current project still visit the river specifically for the king salmon harvests. As Dallia Andrew notes,

> "We miss it, that's why we go down [to the Alagnak] once and a while. Because I like to make king salmon strips. That's a lot of king salmon, summertime… I want to go down this summer if we got time. I want to try to get me some king salmon strips. We used to make some when we used to be down Branch River!" (DA).

Mike Andrew adds that all parts of the king salmon were used, and as the strips were smoked families also traditionally gather the heads for later use: "We used to fill ten gallon plastic, with all the king salmon heads! Slice them up, and put rock salt, and bring them home. It's good!" (MA). Certain places were said to be especially good for catching King and Coho salmon, such as the Lucky Hill, Branch Village, and the Lower Cabin Camp (GW, AW).

Sockeye salmon has also been of importance along the Alagnak. Sockeye salmon spawn in the headwaters of the Alagnak River drainage, particularly in the diverse riparian and lacustrine habitats associated with Nonvianuk and Kukaklek Lakes.[96] Alaska Native users of the river have long fished for migrating sockeye salmon early in their spawning cycle. Later in the season, into fall, they pursue "redfish" - the bright red spawning sockeye salmon. Families catch redfish to dry, often air drying this fish in the fall. As Peter Apokedak recalls, "they used it quite a bit over there. In the fall, you know, gather—gathering time, food, bears, moose…and fish. Red fish" (PA). People traditionally split these fish and often air-dry them; as they are not especially oily, redfish strips are often eaten with grease or butter.[97] (Humpback salmon was often air dried too, usually for dogs, but this practice has declined significantly in recent times [EC]).

Salmon has commonly been smoked or air dried on fish racks along the banks of the river. Other species of fish, however, are traditionally air-dried, without smoking. As Dallia Andrew recalls, "Them days got no freezer! They let the weather dry it, anything. Even white fish, pikes. No smoke. Only salmon they smoke" (DA). Over the course of the last century, a variety of methods have been employed to preserve the fish, reflecting the diverse cultural and technological influences that have come together in this place since the time of Russian colonial rule: "before we just put them in, and smoke them, and we thought it was it. Now there's different ways to preserve an' prepare and save" (SN). People now often can, freeze, salt, or pickle fish from fish camp, even if smoking is still widely popular.[98]



Figure 53 – Interviewee Dallia Andrew in the late 1960s or early 1970s, processing King and Sockeye salmon on the banks of the Alagnak. Photo courtesy Village of Igiugig.

While salmon clearly dominated the historical fishing practices and subsistence uses of Alagnak River, a number of other fish are traditionally caught along the river, including whitefish, pike, trout, and grayling. Dolly varden and rainbow trout clearly played a role in subsistence fishing, and early observers sometimes note trout being combined

with salmon at fish processing stations along the Alagnak.[99] These fish have also been fished semi-recreationally in recent times. As Howard Nelson recalled,

> "We'd camp overnight [on the Branch River], and I remember a time when I used to go over there with Dad all the time, and you could actually put a hook in the water on a stick over the side of the boat and just pull rainbows out all day long!" (HN).

Pike are fished opportunistically on the Alagnak, but are said to be small and do not compare with the larger pike caught on Kaskanak Creek and other waterways in the region: "get them with the hook. Not them great big ones, but you know - bunch of them little [ones]" (PA). Certain individuals, such as Mike and Dallia Andrew, have harvested pike in a fish weir, in addition to nets and handlines. As noted elsewhere, there is also a tradition of catching lingcod and other species in weirs that has persisted to some degree into the present date – in part because it is understood to be a supplementary fishery that ameliorates the risk of sudden declines in the salmon fishery. Mike Andrew maintained a lingcod weir not far from the current location of Katmai Lodge. Whitefish and grayling are also traditionally caught in these weirs, even as nets have become more common in recent times.[100] Smelt are traditionally caught on the Alagnak in the spring and fall, reflecting the biannual smelt run on this river (MA, DA). Herring fishing was also reported on the lower Alagnak and Kvichak Rivers during the springtime, a largely maritime fishery conducted outside of the Alagnak Wild River: "The middle part of April they start herring fishing here" (quoted in Evanoff 2008). Some of these species are sought out independent of other resource harvests, and suitable fishing sites are visited at distance from homes and cabins; in other cases, these harvests occur coincidentally with higher-priority subsistence activities such as salmon fishing.[101]

In the winter, ice fishing is popular, involving making holes in the ice or using naturally-occurring holes. Handlines or nets are extended into these holes to catch whitefish, grayling and other species: "when Nick [Apokedak] was alive…he would put net under ice. [One] guy does that now is John Chukwak" (PA). "we used to go ice fishing, too. We'd chop a hole sometime three feet of ice we'd chop a hole there. You could fish trout or pike or grayling" (M. Andrew in Andrew and Andrew 1995). This was sufficiently popular and productive that some families maintained "winter fish camps" at suitable sites, including the place identified as "Winter Fish Camp" in this documents' maps.[102]

Subsistence fishing in this region has proven remarkably resilient despite fluctuations in fish populations,[103] the rise of tourism, competing employment demands, and a host of other factors that have the potential to inhibit the practice. During the commercial fishing boom of the 1970s, for example, the subsistence salmon fishery persisted, despite growing pressures to participate in the commercial fishery and other sources of paid employment during the summer months – the traditional peak of the subsistence fishing season. During these times, interviewees note, the women and elderly played an especially central role in the fishery, as adult men were sometime away during the peak of the subsistence harvest.[104] A modest subsistence fishery persists today on the Alagnak in spite of the challenges. Some families use ATVs to access the Alagnak River fishing camps, where they harvest silver salmon in the late summer, or fish camps upstream where sockeye are more readily caught. Due to the obstacles to summertime travel by ATV, Alaska Native users of the Alagnak tend to prioritize those fish camps that can be accessed easily by boat along the river, roughly as far upstream as Lucky Hill (Andrew 2002: 32). "That's the way I pretty much go, far as Lucky Hill. You know, from there you got to have jet [boat] really" (PA). Tourists, some suggest, are a considerable obstacle to the subsistence fishery on the river, but families return all the same: "When summertime come, you just feel like you *have* to!" (VW). Still, their use of the river has declined with the rise of tourism especially since the 1990s: "there used to be four, five nets over there [all the time] but not no more!" (JW).

Despite the centrality of subsistence fishing within the larger range of Alaska Native uses of the Alagnak, relatively little specific information has been written regarding these fishing traditions, other than what is summarized here (cf. Deur 2008b). While most written references to the Alagnak fishery focus on total number of fish harvested by species, it is clear that the fishery has forms of cultural, social, and economic significance that are poorly represented in those conventional treatments.[105] Interviewees express varying degrees of frustration with subsistence studies and regulations, noting that they have always worked to avoid overharvests as it is in their own best interest, and they have an intimate understanding of fish numbers and cycles that are elusive to many outsiders: "I told them [Alaska Department of Fish and Game surveyors], "We don't get too much! When we get enough, we get enough! We're done*!* We don't just study fish!" (MA).

It is important to note that while some families only participated in the subsistence fishery on the Alagnak ("no commercial fishery - we just did subsistence way of life"

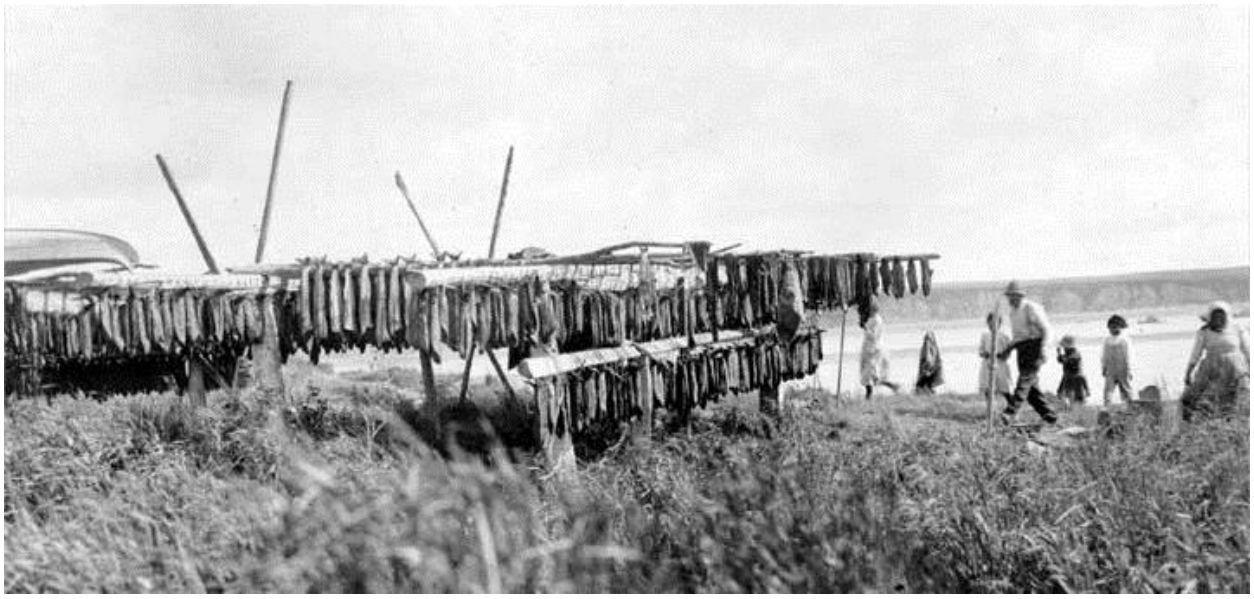


Figure 54 - Salmon drying racks near Naknek, 1918. *Photo from National Geographic Society Katmai Expeditions, 1913-1919. University of Alaska, Anchorage Photo No. UAA-HMC-0186 – Vol 8, 6599.*

[VW]), the Alagnak has also figured prominently in some Alaska Native families' participation in the commercial fishery. In addition to working in the Lockanock cannery historically, a number of Alaska Native families have harvested fish from the Alagnak for sale to commercial operators on Bristol Bay. At one time, Mike Andrew attempted to foster increased Alaska Native participation in the commercial harvest by buying a "barge" and bringing it up the Alagnak to transport fish caught there by Native harvesters to outside markets. The operation was successful at the time, but was later eclipsed by other methods of distribution (MA). Surplus equipment from canneries and commercial fishing operations played an important role in early Alaska Native participation in the commercial fishing industry. Even more recently, the boat used by the Andrew family for fishing when living on the Alagnak was a CWF40, bowpicker, that he had bought from Bumblebee Seafoods once that company began to reduce its fleet. It is likely that the Alaska Native community descended from the Alagnak villages will continue to have a significant role in the commercial industry for generations to come, making the health of Alagnak River salmon stocks critical to both their subsistence and commercial interests.

Trapping

The Alagnak has long been a center of trapping, both for food and for furs. Interviewees report the traditional trapping of beaver, river otter, mink, fox, lynx, coyote, wolverine and wolf along the Alagnak. Several interviewees participated in trapping through the late 20th century, and certain interviewees – especially skilled trapper, George Wilson, Sr. - have continued to trap these species into recent times. Interviewees report that trapping was once ubiquitous on the river, involving most families and most parts of the river: "Just about everybody up there would trap. All the village people, too" (VW).

For countless generations, river residents had trapped the banks of the Alagnak for food and furs. They commonly used deadfall traps along the riparian corridor – a practice that only ended in the 20th century. Mary Olympic recalls her father showing her how this was done when camping along the Alagnak:

> "my daddy used to show me how to when they get wolverine. Fish camp. At fish camp he make that kind. Heavy, that wooden beam it just [whack!]…That's the way they do trapping long ago" (Olympic 2000).

Snares were also used, and have continued to be used into recent times.

The development of the fur trade in the interior of the Alaska Peninsula over the course of the 19th century introduced new motives and tools for trappers working in this area. The arrival of steel traps in the 19th century significantly simplified and expedited the process of trapping. Simultaneously, growing local demand for metal traps and similar tools required participation in the burgeoning interethnic cash and barter economy, which, in turn, provided additional incentives for trapping.

For many families, trapping was one of the few means – beyond working for the canneries – of gaining access to cash or barter items through this economy, and gaining access to tools, foods, and other items brought from outside the region. This was true for some families, even through the 20th century. Interviewees note that trapping was often lucrative, and for a number of generations the Alagnak was considered one of the best places to make a living. As Dallia Andrew recalls, "My dad used to trap lots [so] that we could get food like flour, sugar…when he sell them out and he bring home flour, sugar" (D. Andrew in Andrew and Andrew 1995). Peter Apokadok recalls that he

could spend a short time on the Alagnak and "fill a boat" with the pelts, giving him several hundred dollars – which was enough money at the time to cover the family's cash needs for months. Similarly, George Wilson, Sr., who has trapped extensively on the Alagnak River, says that trapping was the source of his winter income whenever commercial fishing could not fully cover his family's needs: "When I didn't make enough money down fishing, I'd trap like heck all winter and… then we'd have enough for supplies for the winter" (GW).

As a result of its economic importance, trapping provided incentives to return to the Alagnak, even after people moved off of the river in the early to mid-20th century. For some families during this period, trapping brought them back to the river to live on the river seasonally, principally in the wintertime. For example, Martha Johnson recalls,

> "From 1935 until 1948, we lived in Levelock and would live in Branch River in the winter then one year we stayed there all winter and summer. My dad trapped over there. I remember people coming in the wintertime, trappers would come to visit in the winter. Now it's all Park Service, and it wasn't at the time" (MJ).

Indeed, interviewees note that trapping brought so many people back to the river that it was in some respects the foundation of Alagnak River social life during the mid-20th century. Violet Wilson, for example, discusses life on the Alagnak, where she and her husband spent the first winter after their marriage:

> "Oh yeah, [my husband] trapped. That was the reason for his going there. And there were trappers all along the river. Everybody trapped, and they'd come and spend the night with us and everything, you know. It was nice to have them come. Usually one or two at a time. We didn't have much room! So whenever they came, we'd play cards. Canasta was the big thing back then. We played Canasta" (VW).

Similarly, for some of today's elders, trapping was a center of their early childhood experiences on the Alagnak and beyond. For Vera Angasan and other elders who did not grow up on the Alagnak, trapping provided one of their primary childhood associations with the river: "I did end up there [on the Alagnak River] when I was young girl! I went with One-Arm Nick and them. For beaver trapping!" (VA). In fact, Mary Olympic reports that she learned how to count while trapping on the Alagnak

and other area rivers, counting pelts up to 250 while hanging and drying them: "Dry first, fox and… *any* kind. Fox, mink, otter, wolf, wolverine, lynx, beaver, muskrat…just about everything, used to make money" (MO). Young adults often returned to the Alagnak soon after they were married – such as Mary Olympic and her husband, who trapped mink and beaver for two years from their cabin near Coffee Village - seeking to make enough money to start their lives together.

Trapping was said to have been so extensive that it had measurable effects on the wildlife populations; these effects have since been ameliorated by a decline in trapping activity. As Peter Apokedak notes,

> "Years ago when the pelt was good money… we kept the animal [population] down, you know? Foxes, wolverines, wolf, but now …sometimes we *see* them here [close to people and settlements]" (PA).

Beaver trapping is, to some extent, what sets the Alagnak apart. Though the quantity of beaver varies from year to year, the complexly braided Alagnak is seen as a uniquely "good place" for beaver, and families have trapped it there extensively. Their meat is widely prized. Indeed, interviewees sometimes note that beaver were often trapped primarily for food, with their use as pelts being secondary – especially in lean times or when fur markets were weak (PA). Still, beaver pelts have been, and in some families continue to be, widely used for sale, barter, and the production of traditional crafts and clothing. Interviewees generally describe a dual-purpose beaver harvest, then, involving both the procurement of pelts and meat; the use of the meat was certain, while the fate of the pelts often depended on market vagaries that were beyond local control.[106]

Beaver trapping may be the principal incentive for many families to build and maintain winter cabins on the Alagnak through the 20th century.[107] The beaver trapping was so robust at its peak in the mid-20th century that nonresidents flew into the area to trap, resulting in surprisingly large numbers of trappers at certain times. "People from other regions…used to come around here trapping" (SN translating for MN). As Patrick Patterson, Sr. notes,



Figure 55 - An unidentified boy, hunting muskrats on Alagnak River. These practices, rooted in pre-contact hunting and clothing traditions, have continued into recent times. Residents recall making muskrat coats using muskrats from the Alagnak and vicinity. At least 30 muskrat are required to make one coat. Interviewees report that there were once large number of muskrat on Alagnak River and they were used extensively for food and fur. Their numbers decreased significantly and are only now starting to rebound (PA). Photo courtesy National Park Service, Photo H–392, Tallekpalek family collection.

> "Lot of people from Levelock trapped up there [along the Branch] too, get their beavers. People from Anchorage flew in with their camping gear, trapped beaver and flew back again… I trapped up there with my brother, Jimmy Woods. We trapped beaver up there, right below George Petersons. They call it Coffee Slough [by Coffee Village], there were a lot of beaver back in those days. The whole river was full all the way up" (PP).

The entire length of the river has been trapped for beaver. The best places to trap beaver are said to be in its many sloughs, slow-moving side channels and in minor tributaries to the river, rather than on the main stem (GW).

While trapping has been done throughout the year, it is especially in the winter months. As Steve Nowatak observes, river users traditionally start trapping when the river freezes: "so what they'll do is probably in November, or whenever the river froze, they'd do trapping…there's mink, beaver, muskrat" (SN). Similarly, George Wilson, Sr. reported that the trapping season in the mid-20th century began around November 10th; prior to that date, he suggests, the ground is typically too soft and wet, so that dog sleds or snowmachines could not be used to access the area. Beaver are sometimes trapped later in the season compared to other species along the Alagnak, often being sought well into winter. They have also been trapped in the spring, when "beaver camps" were established on the river's banks. Interviewee, Mike Andrew was born in one such beaver camp on the banks of the Alagnak. Interviewees suggest that the whole river was good for trapping animals, but that it was "rough traveling" and that weather significantly influenced trapping times due in part to its effects on transportation (GW). During the warmer months, animals can be trapped by boat, but this often requires a lot of walking through marshy riparian areas: "The Branch is a tough area to trap and you have to do a lot of walking down there 'til the river freezes" (Katmai Research Project 1997: 15). Trapping on the river after the freeze-up allows for easier ground transportation on the river ice, but the ice pushes many furbearers away from the river, and reduces the number of trappable sites along the river's edge.[108]

When George Wilson, Sr. trapped extensively in the summer, his family took a motorboat up the Alagnak from Levelock or Igiugig and then walked to their traps, which were set along the river and on islands, ranging from the confluence all the way down to a point roughly 10 miles below his Lower Camp cabin. Sometimes, family

members or friends dropped off people by boat to walk to their trapline; these individuals sometimes walked all of the distance back to Levelock rather than doubling back through the difficult terrain along the river. Only later in the season, when his family trapped beaver, wolf, and wolverine could they return using dogsleds. This occurred around January, when the ice was predictably solid on the river and could be traveled safely. At this time, people typically traveled further off-river than when they accessed the area by boat, allowing more access to species found in the uplands, such as wolf and wolverine. In recent times, recreational visitor pressure on the Alagnak has resulted in a dramatic decrease in summertime trapping, and a proportional increase in wintertime trapping.

Historically, people maintained traplines spread over vast distances, which were visited by dogsled and later snowmachine. Some families' trapping territory took in much of the Alagnak system, from the lower reaches close to Levelock, all the way to Nonvianuk and Kukaklek Lakes.[109] George Wilson, Sr.'s father, Clarence Wilson[110], one of the better-known trappers on the River in the period between the 1920s and the 1950s, had traplines that stretched over considerable distances from the upper Alagnak basin to tidewater:

> "He started up on Nonvianuk…he used to come up the Kvichak, portage over to Nonvianuk…then he would drift down the river, down about ten miles below the forks and stay in the Lower Cabin below there" (GW).

George Wilson later took on traplines covering much of the same area:

> "My brother-in-law Nick and I…we had a trapline… It would go up from, well, I leave Levelock and I follow the Branch all the way up until I hit the forks, there. And there was the Kukaklek River, we'd go up that. Then we'd portage over, then hit the Nonvianuk River and come back down to one of the cabins down below I had on the Branch, there… it's pretty close to a hundred and forty miles, I'd say. And we had a trapline for years like that" (G. Wilson in Wilson and Wilson 1995).

These expansive trapping territories were especially common among trappers who sought species that included those found outside of the riparian area such as wolf, fox and wolverine.



Figure 56 – John Nelson on the Alagnak in the 1960s, holding wolverine skins. Wolverine are traditionally trapped or hunted on the Alagnak, and their warm, ornamental fur used for a variety of traditional clothing as well as for sale and trade. Photo courtesy Village of Igiugig.

Other trappers – especially those with cabins on the lower river - specialized in the riparian species, such as beaver and muskrat, maintaining relatively small traplines along riverbanks, marshes and islands of the Alagnak – often focusing on those areas close to their cabins.[111] Some ambitious trappers such as George Wilson, Sr. have maintained riparian traplines extending upriver and downriver from his lower cabins, while sometimes traveling to more remote traplines; especially once snowmachines were widely available, trappers such as George Wilson, Sr. maintained a circuit

between riparian traplines in multiple watersheds.[112] As ambitious trappers with expansive trapping territories age, they will sometimes begin to focus more on these small and manageable riparian traplines to the exclusion of expansive upland traplines. Meanwhile, some individuals focused trapping efforts in the forested areas near the Alagnak River rapids, where certain species common to upland areas were known to congregate; wolf was one of the animals sometimes sought in this general area (MO).[113]

As commercial trapping increased along the Alagnak in the early 20th century, river users had their choice of trapping locations, often using prime spots that were already claimed by families and long known as productive trapping sites to river users. Interviewees note that there was no regulation other than traditional prescriptions and proscriptions guiding the procurement of furbearing animals.[114] Traditional trapping protocols included appropriate treatment of game animals, including the swift killing of animals caught but not killed by traps. Trapping protocols also required that people avoid areas being trapped by other members of the larger community: "[you] know where other people were trapping and…you stayed away from those areas or else asked permission" (Katmai Research Project 1997: 11-12). The communities involved in trapping on the Alagnak have usually been so small and interconnected that conflicts over trapping territories were rare before the arrival of outside trappers by airplane and snowmachine in the later 20th century. The general patterns of trapping established early in the century – including the species, as well as many of the geographical locations – persisted well into the late 20th century and are still echoed in trapping patterns today. While trapping territories are traditionally large, they have also been enduring; families seem to have maintained similar trapping areas, even when moving from the Alagnak to off-river villages, or from one off-river village to another.[115]

If the species and areas used for trapping have proven fairly constant, the intensity of trapping has varied with time, reflecting the rise and fall of the fur trade generally. The post-War years witnessed a boom in trapping, as the popularity and prices of furs soared nationally. A number of families intensified their trapping along the Alagnak, or expanded pre-exiting traplines into portions of the Alagnak Basin that had heretofore been peripheral or seldom-used portions their regular trapping territories.[116]Motorized vehicles were becoming more readily available, just as this market pressure increased. Trapping on the Alagnak, especially its upper reaches in the Nonvianuk and Kukaklek Lake areas seems to have increased.[117] By the 1960s and 1970s, robust fur markets coupled with the wide availability of snowmachines and airplanes, was making it easy for families to maintain traplines on any part of the Alagnak that they might choose –

even families living in relatively distant places such as King Salmon and South Naknek.[118] At the time of the Alagnak's designation as a Wild River in 1980, there was such a bustling trapping economy on the river that trappers – both Native and non-Native – expressed vocal concern regarding potential effects of NPS regulation on the trapping traditions of the river. Trapping was still economically important to a significant number of Native households, and opposition to trapping prohibitions represented a potential obstacle to early park creation efforts on the Alagnak.[119]

However, fortunes quickly reversed, as the prices for furs declined steadily through the 1980s and 1990s. The species that were especially abundant on the Alagnak, such as beaver, foxes, and mink were especially hard-hit by this decline in prices, driving what little trapping still occurred in the region to other locations away from the Alagnak River corridor.[120] Some resident users suggest that the populations of these species – beaver in particular - began to increase on the Alagnak as a result.[121]

For those few commercial trappers left in the Alaska Native community, these new conditions in the market and in furbearer demographics have created new opportunities. Older, established trappers still maintain traplines; while the markets are weaker, trapping pressures have also declined, allowing for increases in certain species' availability. Younger members of these communities may continue to trap but do so less frequently, and sometimes as avocationally or for small amounts of surplus income, rather than as a focused economic pursuit. Families such as the Wilsons or the Andrews of Igiugig are still able to trap successfully along the Alagnak and elsewhere – selling furs when the markets are good, or sewing traditional clothing from furs for specialty markets. The production of traditional clothing, such as mukluks, parkas, and fur slippers, is perhaps the most robust traditional craft that persists in Alagnak-associated villages today. These traditions have been sustained somewhat by the initiative of families who have adapted to declining fur markets and rebounding furbearer populations in the late 20th and early 21st centuries.[122]

Reindeer Herding

In the late 19th and early 20th centuries, the United States government was eager to promote the adoption of agricultural economies and subsistence strategies among Native peoples nationwide. In spite of the challenges that confronted conventional Euro-American agriculture in the Bristol Bay region, the Alaska Natives of this area were not excluded from these federal policies and pressures. Reindeer herding was

identified as one of the few commercial forms of agriculture suited to the region, and federal efforts were launched to develop a reindeer herding industry supported by Alaska Native labor. Saami and other Scandinavian reindeer herding specialists were brought to the area, providing instruction to Alaska Native families – many of whom quickly learned the practice and became adept reindeer herders. A number of Alaska Native families participated in reindeer herding in the vicinity of Alagnak Wild River, through the early 20th century. Some of the many non-Native men of Scandinavian or Saami ancestry who moved into the area in the early 20th century married into the Native community and are among the ancestors of certain Alaska Native families. Reindeer herding was established in the Bristol Bay region by 1905; the practice became economically significant and spread into the interior almost immediately after that date - arriving in the Alagnak River area sometime after 1909 (J. Branson, pers. comm. 2008).[123] Speaking of the northeastern edge of Katmai National Park and Preserve, Behnke notes that "by the early 1900's, [residents of Igiugig, Levelock, Alagnak, and Kokhanok] were herding reindeer in these areas, a use which lasted until the 1940's" (Behnke 1978: 157).

Interviewees spoke of reindeer first arriving in the vicinity of Alagnak River sometime around the 1910s. Certain Native men – including Mary Olympic's father – recalled receiving instruction at that time in the care of reindeer and herding techniques. Soon, the family moved to the Kukaklek Lake area, at the head of the Alagnak, to oversee herds in that area. As Mary Olympic recalls,

> "my dad moved to Kukaklek for reindeer…Used to be called "Reindeer Station" at Kukaklek. That place up there most of the time… They said he got them from up north. Everybody used to have reindeer. Kokhanok, Newhalen, Kukaklek, Naknek [they] got them from up north" (MO).

Many interviewees recall stories regarding this early period in the history of reindeer herding, when reindeer herds roamed widely across the landscape:

> "There used to be reindeer herding years ago…They had marks, ear marks to brand [the reindeer] so you know which ones you own. They just started walking, they walked all over, they didn't worry about it, they just did it" (quoted in Evanoff 2008).



Figure 57 – Evon Apokedak, father of interviewee Annie Wilson, at the reindeer camp at Kukaklek Lake, where he worked for Alexis Gregory. Photo courtesy Village of Igiugig.

By most accounts, an area centered near the headwaters of the Alagnak – including Reindeer Station near Big Mountain, and the Kukaklek Lake area – represented a major center of reindeer herding activities in the Alaska Peninsula region. "Back in the day when they had reindeer herding, and a lot of migration of the people from, say, Naknek, Diamond J, Branch River would go all the way up to Big Mountain!" (HN). Interviewees recalled a number of people ran herds in this headwater area, such as "Big Alexie" Gregory and Simeon Larson. Violet Wilson, for example, recalls,

> "Up there at the head of Branch River where Mary lived, there was the Reindeer Station behind Big Mountain. Big Alexie [Alexie Gregory] had a bunch of reindeer in there. I remember him coming to visit Grandma with a great big sled and reindeer were pulling it" (VW).

A number of project interviewees, such as Mary Olympic, Dallia Andrew, and Mary Nelson assisted their parents in reindeer herding tasks in the Kukaklek Lake area during the wintertime. Residents of the villages participating in the current study clearly have a detailed understanding of the lands and resources of this part of the landscape. Interviewees mentioned a number of culturally significant landmarks in that area but – being largely outside our study area – they are only addressed in passing here.[124]

The Alagnak, in turn, was a major thoroughfare of reindeer herds, connecting the herding areas in the Alagnak headwaters with reindeer stations on the Bristol Bay coast. As Howard Nelson recalls,

> "They had reindeer herds here in Diamond J [at Koggiung that ran through] the Branch River. Mary T[allekpalek] used to talk about her dad running the herds up through Reindeer Valley and up to Big Mountain when she was a little girl. And my dad used to talk of being on reindeer herd watch below Kukaklek and the valley between Igiugig and a range behind what they call the "Blue Hills" up there" (HN).

Though reindeer herds were not primarily stationed in the Alagnak area, people regularly herded reindeer through the Alagnak River corridor in the early decades of the 20th century and some families camped along the River when herding (Tallekpalek and Tallekpalek 1998). Several interviewees noted that their parents had been involved in herding in the Big Mountain area and that they sometimes camped on the Alagnak while herding to and from that station. Some stayed in cabins along the Alagnak during their travels to and from tending herds in that area. When families herded reindeer through the Alagnak River corridor, as was sometimes done in association with both the Big Mountain and Kukaklek operations, riparian islands were sometimes used as temporary "corralling" areas for reindeer. As Mike Andrew recalls,

> "we have an island. In the summer time the herd pretty much tame. They, when it's too warm, they go in the island, cool off where's the good wind. Get away from the sand flies down there. And stay out there, then

> towards evening they swim back to the camp in a big herd" (M. Andrew in Andrew and Andrew 1995).

Interviewees note that the practice of reindeer herding was integrated into preexisting patterns of resource procurement – with reindeer herding tasks often being undertaken in the winter, in-between times spent in villages or in subsistence hunting and fishing camps. Mary Olympic has provided especially detailed information about these migrations between reindeer herds in the Kukaklek Lake area, villages such as Branch Village and Igiugig, and other resource outposts such as fish camps: "in springtime we moved to *Igiugig*…out of Kukaklek. After that, we move…we… put up fish" (MO).[125] Like trapping, reindeer herding provided a source of cash income during a time when cash was relatively scarce within the largely subsistence economy of the region.[126] For some families that continued reindeer herding into the 1930s and 1940s, the practice of reindeer herding allowed them to continue traveling through and visiting areas that their families had been forced to abandon during the influenza epidemic – bringing some former Alagnak families back to the river in spite of their relocation to other villages a few years before.

As elsewhere in Alaska, the experiment with government-supported reindeer herding did not last for long. By the 1930s, the absence of markets for reindeer products, competing claims on herders' time, predation, and a host of other factors began to undermine the reindeer industry. Attempts to limit predators in and around the Alagnak River Basin reportedly had brief but disastrous impacts on wildlife:

> "There were reindeer but the wolves began killing them off. The numbers of wolves got so high that they began poisoning them with strychnine. The poison also killed the birds and other animals that fed off the dead wolves. For some time the country was really barren" (Katmai Research Project 1997: 20).

Mary Olympic recalls that by the mid-1940s, hers was the only family still herding reindeer in the area, with their center of operations still centered on Kukaklek Lake: "Only us takes care of reindeer [by] 1947. Too much wolf problem, they let them go. We move here [in] 1947" (MO).[127] By the mid-20th century, interviewees suggest that a modest number of reindeer had escaped in the absence of formal herding activities, and these reindeer were occasionally seen roaming the landscape in the vicinity of Alagnak River. Some families opportunistically hunted reindeer during this period, processing and using the meat much as they would with wild caribou.

AlexAnna Salmon, a key contributor to the current study, has participated in past studies of the reindeer herding operations of the upper Alagnak region, interviewing her grandmother, Mary Olympic, and other elders with a firsthand recollection of these practices. At the time of this writing, she is working on behalf of Igiugig to assist a National Park Service-sponsored study of this history, directed by the University of Alaska-Fairbanks Department of Anthropology. We anticipate that this study will provide a wealth of detail that is only addressed here in summary form.

Berries and other Plant Materials

While plant foods and materials were often overlooked in past ethnographic and subsistence studies relating to the area, it is clear that berries and other plant materials have also been gathered along the Alagnak River corridor. Of all the plant materials gathered along the river, berries appear to have been the most significant in recent times. As Annie Wilson summarizes it, "There is lots of berry picking in this kind of tundra!" (AW). Violet Wilson too recalls the Alagnak as place of unique berry abundance: "Boy, we used to get tons of berries! Blackberries and cranberries both! Lots!" (VW). Similarly, Dallia Andrew described the rich berry picking on the tundra along the Alagnak, where in good years the berries practically cover the ground:

> "I like to go up there when the berries are ripe. There's a lot of berries up there, just like somebody dump it on the ground! Big blueberries, and blackberries, and cranberries, you name it! Fresh berries" (DA)!

Interviewees noted a particular abundance of lingonberries (*Vaccinium vitus-idaea*), blueberry (especially *Vaccinium ulginosum*) and blackberry (*Empetrum nigrum*) on the Alagnak, which have all been picked there in abundance. They also reported places with large concentrations of bog cranberry (*Vaccinium oxycoccus*), highbush cranberry (*Viburnum edule*), lowbush salmonberries (*Rubus chamaemorus*) and possibly highbush salmonberries (*Rubus spectabilis*)[128], wild raspberries (*Rubus arcticus*) and wild strawberry (*Fragaria* spp.). Berries often have been eaten fresh, but also preserved for later use; they are also mixed into various recipes from jams to traditional aqutak.[129]

Good berry gathering areas were reported for the tundra adjacent to most of the large village sites such as Old Village (*Nunalleq*). Families that lived on the Alagnak were said to have fanned out around the village and to nearby picking grounds, harvesting large quantities of berries to support their households: "When we live here. Go picking berries up there. Those…raspberries, and stuff. Blueberries" (MO). Most villages were said to have had "berry picking trails" that were used every year, radiating out from the village to adjacent picking grounds (EC). For families that moved away but continued to return for fish camp and other subsistence tasks, berry picking has been described as a supplemental but important activity conducted adjacent to fishing or hunting camps. Berry picking continues to be an important source of food in communities associated with the Alagnak, and a symbolically important component of holiday meals and other events. Many families still "put up berries" for the winter as part of their regular subsistence routine.[130] Summer and fall were the principal times to gather historically, but fall has increasingly been the peak gathering as river users avoid peak non-resident recreational visitation on the river and time berry harvests to correlate with fall fishing: "September is a time to pick more berries, and fish for silvers down on the Branch" (Katmai Research Project 1997: 13).

Certain berry picking areas were said to be especially productive. The three locations identified as "Blueberry Hills" have all been visited by river users particularly for the gathering of blueberries and blackberries, though the development of the Alaska Trophy Adventures lodge has precluded use of one of these hills in recent times. Also, some families traditionally drift the river by boat, picking at select locations as they traveled, while also hunting and participating in other subsistence tasks:

> "When we go look for wild berries, we'd go in a little boat from way down Alagnak mouth, we'd go all the way up to Nonvianuk with our little boat, coming down" (M. Andrew in Andrew and Andrew 1995).

Both by boat and by foot, riparian islands sometimes called "Blueberry Islands" were also visited for these berries, a short distance below the Alagnak River rapids, near the Clarence Wilson cabin, and in other places. Wild strawberries (*Fragaria* spp.) are said to have been gathered on the riverbanks of the Alagnak. Arctic raspberries (*Rubus arcticus*) were said to be uncommon in the region outside of the Alagnak, and have been specifically sought there as a special treat: "Raspberries are found and picked only on a couple of islands in the Branch" (Katmai Research Project 1997: 13). Interviewees



Figure 58 – Arctic raspberry (*Rubus arcticus*) abounds on the shoreline of Alagnak Wild River, and is among the several species of berries that are traditionally gathered in the riparian zone. Douglas Deur photo.

generally note that the berries do not grow as well away from the river, or on dry years, due to lack of moisture during the growing season.[131] The higher elevation portions of the Alagnak River basin are said to have good berries, as these areas receive greater snowpack and are thus well-watered during the growing season.

In addition to berries,Alagnak river users reported gathering a number of wild shoots and greens. The edible stalks of "wild celery" (*Heracleum* spp.) were mentioned as being a food source of almost staple importance, gathered as they appear in the spring and early summer. When asked what plants were primarily gathered along the Alagnak, for example, Violet Wilson said the main food plants were "maybe wild celery and lots of berries" (VW). A number of interviewees describe harvesting "wild spinach" on Alagnak River– apparently dock (*Rumex* spp.). Martha Johnson, for example, recalls, "I think it was wild spinach; in Dillingham they call it sourdock. With fish, we boil it or make aqutak with it" (MJ). Similarly, the Tallekpalek family recalls eating the edible leaves of "Alaska spinach" or "gutaqan" in the springtime while on the Alagnak. This leafy green vegetable was usually cooked and eaten with grease (Tallekpalek and

Tallekpalek 1998). Interviewees also mention consuming wild onions (*Allium* spp.) and fiddlehead ferns gathered along the Alagnak.

A variety of medicinal plant uses were mentioned in reference to the Alagnak as well. Trapper's tea (*Ledum palustre*) has often been gathered and brewed into flavorful teas and tonics, for example. Birch foliage and possible sap were used in cleansing, while wormwood (*Artemisia* spp.) was also gathered and used for cleansing or for medicinal preparations:

> "[They] would draw birch and steam….they call that [wormwood] chythlook. It's almost like marijuana! Chythlook…They call it wormwood, because that's mostly what they cleanse. They dry and use for drinking, for remedy for cold, and things like that. [It was gathered] on the banks of the river" (SN translating for MN).

Interviewees also recall gathering lichen along the Alagnak for various purposes, including the manufacture of a traditional salve. Mixed with bear or seal grease, this salve was used to combat infections. This kind of traditional salve was said to be effective even when a person was cut with rusty metal.[132] This was sometimes required on the Alagnak, where seasonal residents might receive minor injuries without access to a full medical kit.

The gathering of firewood has a very ancient history on the Alagnak, supporting the communities along its banks. This tradition has continued into recent times as descendants of Alagnak villagers – especially those from Levelock – continue to return for this purpose. Drift wood and cut drift logs are traditionally loaded onto boats, but have also been loaded onto dog sleds and more recently snowmachine trailers, for transport to the villages.[133] Trees cut for firewood included, minimally, spruce, birch, and alder. Wood is often cut and stockpiled at Native allotments and cabins for later use – especially for building fires quickly during wintertime visits. As Mike Andrew recalls,

> "we put a stove like a drum stove, we make it. And put lots of wood. Before we hunt, like in the fall time, we all got together, pile some wood before the hunting season come. Because when we hunt, we don't want to work, we just want to go hunting instead of getting wood or anything. All



Figure 59 – The stumps of a trees cut for poles are found around the perimeter of many former settlement sites, such as here at the McCormick village site. Such poles have been used in cabin construction, but also in the manufacture of fish drying racks, tent posts, and other purposes – both during and after the permanent occupation of these villages. Douglas Deur photo.

> the families they get together and find wood, what we got coming for the season. It work out nice" (M. Andrew in Andrew and Andrew 1995).

Mike Andrew has also mentioned cutting spruce poles for the construction of temporary shelters, and possibly for firewood to be used while living along the river. Stumps from trees cut for the manufacture of poles are numerous in the vicinity of major camps and villages along the river, as well as in popular tree cutting areas such as near the Alagnak River rapids and forks.[134] Interviewees have made references to the distribution of trees being different now than was the case historically, and implied that this had contributed to changes in the pattern of wood gathering and use along the Alagnak (e.g., Charley and Setuk 1998). In addition to cutting trees, river users traditionally gather driftwood along the banks of the river for firewood. Driftwood is

said to seldom throw sparks, so was the preferred wood to use when fire danger is higher in the summertime.[135]

Table 5:
Plant Species Identified as Dominants in Carlson and Lipkin (2003)

Common Name	Scientific Name
Marsh tea	*Ledum palustre*
Black crowberry	*Empetrum nigrum*
Willow	*Salix barclayi*, *Salix alaxensis*
Bog blueberry	*Vaccinium uliginosum*
Bog cranberry	*Vaccinium vitis-idaea*
Tundra rose	*Dasiphora* (*Potentilla*) *fruticosa*
Marsh cinquefoil	*Comarum* (*Potentilla*) *palustre*
Horsetail	*Equisetum arvense*
Birch	*Betula nana*, *Betula kenaica*
Siberian alder	*Alnus viridis* ssp. *fruticosa*
White spruce	*Picea glauca*
Sedge	*Carex* spp. (*Carex aquatilis*, *C. canescens, C. pluriflora*)
Bluejoint reedgrass	*Calamagrostis canadensis*
Narrow leaf bur-reed	*Sparganium angustifolium*
Pendantgrass	*Arctophila fulva*
Bog yellowcress	*Rorippa palustris*
Seep monkeyflower	*Mimulus guttatus*
Dwarf fireweed	*Chamerion* (*Epilobium*) *latifolium*
Lichens	(*Cladina*, *Cladonia*, *Cetraria*, and *Nephroma* spp.)

In the course of future river management planning, the causes, effects, and prescriptions for visitor impacts on vegetation communities might be illuminated by the synthesis of ethnographic and biogeographic data. In the first systematic study of vegetation along Alagnak Wild River, Carlson and Lipkin (2003) attempted to identify no less than 90% of the total vascular plant species along the River. Gathering specimens within nine major sampling areas along Alagnak Wild River, Carlson and Lipkin (2003) also identified "dominant associated species" that are structurally and/or numerically dominant within the various plant communities documented in the field. These dominant species are listed below in Table 3. As summarized in Deur (2008), almost all of these dominant species have documented ethnobotanical importance



Figure 60 – Red Paint Bank, above the Alagnak River forks, where Yup'ik people have traditionally gathered red pigments to dye and waterproof traditional clothing. Douglas Deur photo.

among the Alaska Peninsula Yup'ik communities and proximate groups (between 81% and 95% of dominant species, depending on the inclusiveness of classification). In any management planning for Alagnak Wild River, it is likely that the available ethnobotanical data may warrant careful review – probably at a level of detail that expands beyond the summery presented in this document.

Mineral Pigments and Traditional Crafts

Natural mineral pigments occur in certain places along the Alagnak River corridor, and a number of individuals have traditionally gathered and used pigments from these sources. Interviewees reported the gathering of three different colors of pigment on the Alagnak – red, gray, and yellow. All three are traditionally used for the coloring and waterproofing of mukluks, seal skin parkas, and other items of traditional clothing.

Red pigment is largely gathered from a single major red ochre deposit including "Red Bank" on the Alagnak River above the forks, as well as exposures of this same deposit north of the river. In addition to its use in traditional clothing, this pigment was formerly used in the painting and waterproofing of paddles and other manufactured items. As Mary Olympic explains:

> "They use them when they make canoe - for paddle that they paint. Grandma used to show me [how to] dry when they make fancy *atquq*s. They always put them red…They [don't] just put them in water first, instead. Make *sticky! Kaweirun*[?], they call them" (MO).



Figure 61 –Alagnak River residents, reported to be at Alagnak Village. Some are wearing ground squirrel and reindeer parkas, and mukluks made of caribou or moose with brown bear lining. Such clothing was typical of the region, and was often waterproofed with red or grey pigments that also dyed the material. These pigments are traditionally gathered along the Alagnak, and are still gathered there today by Alaska Native craftspeople. The houses reflect traditional styles and scales, but are using sawed boards by the early 20th century. Photo courtesy National Park Service, photo H-383, Tallekpalek family collection.

Gray pigment is gathered from specific deposits on the tundra adjacent to the upper Alagnak, and was sometimes "dipped" from damp wells of gray clay using a container tied to a stick. The red and gray are still sometimes gathered by traditional craftspeople, such as Annie Wilson, who has used the red pigment in particular for the production of mukluks and other items.

A yellow pigment, which was said to be "kind of greasy," was gathered largely from a deposit just outside of the mouth of the Alagnak, at its confluence with the Kvichak River. The clay from this area was said to dry especially fast and could not be left in the open for long. Use of this pigment has diminished over the years, and no interviewee mentioned its use in recent years.

Personal and Social Reasons for Visiting the Alagnak

In addition to the meat, fish, berries, and other materials gathered in the Alagnak River corridor, interviewees made reference to other, less tangible objectives for visiting the Alagnak River corridor that warrant mention here. A number of interviewees noted that the visits to Alagnak River provided opportunities for non-utilitarian social gatherings and personal reconnection with places of personal importance. A number of interviewees talked about social gatherings that have involved storytelling with friends and family that served to maintain shared knowledge regarding the Alagnak, its history, and its cultural significance: "They would get going and tell their stories, I listen. Sometimes I get tired and fall asleep. I like Mike Andrew, he got good stories [that he told there]" (quoted in Evanoff 2008). Even today, where electricity and cell signals are largely absent, storytelling is a part of group visits to the Alagnak, insuring the continued intergenerational transmission of place-based knowledge regarding this area and the integrity of the cultural practices that give this knowledge context.

Accordingly, the Alagnak River is a place where people have traditionally imparted essential subsistence skills and knowledge to their children. These skills and knowledge are, themselves, regarded as having their own intrinsic value. The River corridor arguably performed this function long ago, when people still inhabited the River year-round. As Michele Morseth concluded after reconnaissance interviews regarding Alagnak Wild River in the 1990s, "young men would learn from their Uncles how to hunt, trap and fish and they would learn in areas that their family knew and had used"

(Morseth 1998). Speaking of their time living along the Alagnak River, Mike Andrew recalled:

> "That's when my folks, my mother, my mom taught me how to use this snare to catch a rabbit. And they first show me how to put snare out. So I learned. After year I'd go out there and do it myself. I was doing good. I caught a rabbit to eat, was really good" (M. Andrew in Andrew and Andrew 1995).

Now that the Alagnak is largely uninhabited, the River's roles have changed somewhat.[136] Far from the daily routine of village life, families that still gather to participate in seasonal resource harvests can impart this knowledge with a type of focus and emphasis that is sometimes elusive within home villages. The Alagnak is also often where information, such as the teachings of Chief Evan's lessons, have been imparted to younger members of the community. As Alex Tallekpalek noted,

> "I lived in Branch River for a while. And I teach all my, my two boys how to dragline trapping you know. And I teach 'em the way my grandpa teach me, and I teach them. So they'll know" (A. Tallekpalek 1998).

Similarly, as younger generations have sought to revive cultural traditions that have declined, the Alagnak River arguably has been revisited by those wishing to "reconnect" with practices, places, and resources that are of renewed cultural significance, and of dynamic symbolic importance today. People learn about "double winter" and how to survive it; they learn about the pigments available on the terrain and how to use them; they learn how to trap and process beaver; they learn the names and the history of landmarks up and down the river.

Such knowledge is essential to the survival of shared cultural knowledge, values, and traditions. In many other Alaska Native and Native American contexts, anthropologists have documented ways in which the landscape plays essential roles in the intergenerational transmission of cultural knowledge, and serves as a mnemonic of cultural information (e.g., Basso 1996). The cultural roles of the landscape change as the human community changes and yet, by their mere endurance, elements of the landscape are often the focal point of cultural knowledge and values that pass from generation to generation, and give contemporary peoples tangible connections to their ancestors of long ago. The landmarks along the Alagnak River corridor also function in

this way. It is a place where, for example, certain landmarks recall stories of personal and group significance from the past – from the fish weirs associated with training for "double winter" to the remnants of villages decimated by the influenza epidemic - which continue to be of deep meaning to some modern Alaska Natives and are instructive in navigating practical and philosophical conundrums that they may encounter today.

Even brief visits to the Alagnak are sometimes said to be restorative and symbolically significant, especially for people who had lived on the river earlier in their lives. These visits allow people to reconnect with familiar landscapes of personal significance, to see friends, and to remember those friends and family who once lived there but have since died.[137] Mike Andrew reported that he and his wife Dallia often went just for weekend visits:

> "We always go down for the weekend. Couple days and take our place…I [was] raised down here [Branch River], 1935. I was born 1935… we know all them guys, we used to go up there, visit them on weekend, hunting and fishing was fun!...I like this place!" (MA).

For older people, who often have the strongest attachments to the Alagnak, these abbreviated visits have often become the norm, due to the difficulties and discomforts of remote living: "we used to go over there year round, but now I'm just…whenever I feel like it or…a lot of times I have ailments, and I don't feel like going there" (PA).

A number of individuals also discussed the importance of the Alagnak as a place that was important for just "getting away" from the routine of everyday life and even participating in resource gathering that was recreational in nature.[138] A growing number of younger adults are using the River as a place to retreat from the modern realities of village life. George Wilson, Jr. spoke about these practices, which are especially common among younger village residents today:

> "The older people used it differently. I mean, it was just their subsistence lifestyle. And became mostly a recreational for me after a while. Because I'd subsist elsewhere. But they've got a strong calling to the area, I guess, or connection to it… I've been there as long as a week or so. Sometimes I'll just spend a day or so on the lower end…And I got an uncle over there who's got a cabin. It's real easy to get to… I really enjoy it up there" (GE).

A few younger village residents even visit the Alagnak for recreational fishing – for which the river is well-suited - leaving their subsistence fishing for other times or other places.[139]

People recalled many other dimensions of social life on the Alagnak, including game traditions that were learned and practiced while visiting with friends and family on the river. As Martha Johnson recalls,

> "When we lived in the tents or small cabin when people came to visit there we would play the game "lopchock." They would carve out a fish put marks on it and hang it by a string and it would be sort of far away and you had a dart and whoever could hit that fish in the middle won" (MJ).

A variety of other games were remembered as well: "In the evening we used to play "gooslee," it's almost like rummy, lots of fun to watch them" (quoted in Evanoff 2008). While technically "recreational activities," these games are remembered fondly, and some are kept alive as part of the larger repertoire of cultural practice through repeated visits to the Alagnak.

SPIRITUAL VALUES AND CEREMONIAL PRACTICES

Here, we seek to characterize certain ceremonial practices, values, and beliefs that have persisted and may have a bearing on river use. They are presented to the extent that they are potentially useful in informing river management decisions. Many of these practices, values, and beliefs are sensitive, personal, and not discussed openly by Alaska Native elders. Even when these matters have been discussed with the research team, certain dimensions are not disclosed in whole or part here if they are not especially relevant to the task at hand. Bearing this in mind, readers should recognize that what follows is not an exhaustive summary, and that practices, values and beliefs not addressed here might still be presented in the course of river planning that are relevant to that enterprise.

A discussion of spiritual and ceremonial practices is no small feat in this cultural context. For generations, Russian Orthodoxy has been the dominant religion among the Native communities of the Alaska Peninsula, reflecting extensive and successful missionary efforts by that church during the 19th century. The Russian Orthodox Church was able to make considerable inroads into Native life through a variety of mechanisms. Instead of seeking to directly challenge traditional modes of authority, the Church encouraged the incremental conversion of Native leadership – bestowing the title of "Church Chief" onto the traditional chiefs who possessed authority within particular villages or groups of villages. This temporarily augmented and validated the authority of traditional chiefs who were friendly to the Church, while also insuring that broad segments would be drawn into the Church through the traditional mechanisms of chiefly authority. The Church insured that, like traditional chiefly status, the title of Church Chief was inherited patrilineally, being passed to the oldest son or transferred to the oldest surviving male sibling at the time of a Church Chief's death. Traditional chiefs on the Alagnak took on Church Chief roles – a story that is most often mentioned with reference to the prominent leader, Chief Evan Pupsugpak (or "Tallekpalek"), who held both roles during the transitional years of the late 19th and early 20th century.

Even the oldest participants in this study could not personally remember certain ceremonial practices that were still apparently widespread at the beginning of the 20th century: "Long time ago, they have Native dancers around here, but we never caught them though. We were too late already" (DA). Still, while Russian Orthodoxy is still clearly central to community life, there are elements of traditional religion that are

seamlessly woven into Orthodox values, beliefs, and practice. The spiritual traditions described by modern elders such as Mary Olympic are therefore consistent with Russian Orthodoxy but have elements of Native spiritualism; Mary recalls that she was instructed in such traditions by Chief Evan as a young person:

> "I'm glad he taught me, "You have to pray evening time for food, and pray. Pray for eve—before you go to bed." *I* still do. When I get up to wash my face[I] pray. Pray for the one[s who are] gone. Already gone. My folks and stuff…in the morning. After you get up. That's the way I do now…First snow, wash my face…after I wash my face, tell me. "Before you step on the snow…you sweep it." I *still* do now!... before you step on the…new snow. You have to sweep it out. That's the way I am still. I'm glad my apa taught me good way!" (MO).

Chief Evan presided over a variety of Church functions, then, even as he was active in maintaining a degree of Native belief and – as noted elsewhere – prophesizing such things as "double winter," the end of Yup'ik settlement on the Alagnak, and the circumstances of his own death. It is important to note that there is still some tradition of prophetic or revelatory dreaming among the Yup'ik communities of the area that may relate to these earlier traditions as well; certain people may have special capacities for prophetic dreaming, but this is not today the domain of specialized religious practitioners.[140] Traditionally, ceremonial uses of the river may, in fact, be prescribed by revelatory dreams, suggesting a dynamism in ceremonial practice that has caused it to vary over space and time.

To further demonstrate the persistence of Native values and beliefs within the context of Russian Orthodoxy, it is important to note that ceremonies such as the first seal observances have persisted within the Alaska Peninsula region. These ceremonies serve in part to show respect to prey species that are conceptualized as having a type of sentience and a willingness to make themselves available as prey if proper respects are shown. By this traditional logic, if humans 'live up to their end of the bargain," harvest sparingly, and show due respect, prey species will return in abundance. Related to this fact, Fienup-Riordan (1986, 1980) commented on first seal ceremonies and seal meat exchanges that are part of the ceremonial traditions of the southwest Alaska "Eskimo." Similarly, Mike Andrew describes a "first seal ceremony" that his family orchestrated when he was a boy, apparently while at a cabin on the Alagnak:

> "[That seal] was my first animal, that time. I was young boy then. So I caught it, first seal, wild. Then I took it home to mom. Then they see it and I call them down what I caught. They come down, they was all excited. It was my mom and my step-dad. Say, "What you caught?" Let them come down to boat, skiff, and see what I caught. Oh, they were going to come down. It was a seal, fresh-water seal. Then they take him up the bank…That time, when you get first animal, when you, when we are young, our folks won't eat it. They took that seal, the animal, we had burn fire, bon fire. Take it, burn his nose to the fire and bring him back. Why they do that? I always kind of feel sorry for that animal I caught, 'cause they never told me before. But that time, they told me. After you burn it, bring it back, say "Give us more luck next time." So that was something I didn't know, they told me that day. Then when we caught it, when they skin that first animal I caught, the seal, they won't let me eat it. They cut him up, cook it. They give it to everybody. Share with it, 'til that's next time, say I keep my second one if I catch next time. They just let the other people eat that seal. So they kind of serve it to all the families. So that's the way my folks, they train the young people. That's the way I was trained" (M. Andrew in Andrew and Andrew 1995).

Traditionally-minded Yup'ik people often not only seek to behave respectfully toward prey species today, but seek to make demonstrations of that respect through careful treatment of fish, game, plants, and the lands and waters on which these prey species depend. Mary Nelson spoke of how people attempt to do this along the Alagnak: "for the most part, they respect the land where they're gathering fish, and berries, and things like that to hold them in high respect" (SN, translating for MN). The implications of this traditional concept of interspecific reciprocity are many. When non-Native people damage the environment, for example, the adverse effects on prey species are sometimes conceptualized – especially by older members of the community – as having cosmological as well as material causes.

Related to these concepts of interspecific reciprocity, there are oral traditions and a persistent belief among some Alaska Native elders of this area, that certain animals are spiritually unsettled until the bones of animals are placed in the water. This is especially mentioned in reference to caribou remains. If bones are left scattered on the ground, it is said that one may hear crying sounds, which are the bones "crying for thirst." This does not only apply to animals killed by hunters; bones found inadvertently while traveling by land are sometimes placed in the water too. Once a person places the bones in a

waterway, balance is restored and any crying sounds cease. In other contexts, such practices are often employed on oligotrophic rivers, where this practice may contribute in some manner to the biological integrity of these streams. Regardless of its ecological effects, elders who place bones in the water do so with a recognition that this is part of their responsibility to prey species, who have the capacity to reciprocate.

Within the context of this hybrid ceremonial tradition, certain places on the landscape clearly have had cosmological significance to past communities and may have some role in the ritual practices of present and future generations. For example, one account relating to Alagnak River describes a man who was taken away by "little people" into the high mountains east of the Alagnak in the historical past. One account speaks of a man who lived on the River roughly 150 years ago, and was taken away by these people when visiting the saltwater coast on the east side of what is Katmai National Park. These beings brought the man down into the earth through a volcanic island there (possibly Augustine Island). He was treated well by these beings and time passed quickly. He returned disoriented to a village on the Alagnak in what seemed to him like only a few days, but found that a year had passed. Upon his return, he found the smell of other people overpowering and was unable to reenter his home community. In order for him to be spiritually cleansed and ready to reenter society, the people of the Alagnak had to bathe in a spring sitting a short distance away (apparently downstream from) the modern site of Katmai Lodge – probably the place called *Kucigluq* . This cleansed him physically, psychologically and spiritually, so that he was able to return to a normal life. There are still descendants of this man who are reported to live in Igiugig and other villages in the area. The spring would be considered a landmark of traditional spiritual significance, known to village residents today, even if its use is largely historical and somewhat difficult to reconcile with conventional Russian Orthodox practice.

Parenthetically, it is important to note that there are other spiritual beings, in addition to these "little people," that are said to traditionally abound on the Alagnak. All are menacing to varying degrees and are not actively sought out by Alaska Native users, but all may factor in to spiritual practice associated with the River, including ritual gathering of materials, the placement of offerings, or the use or avoidance of particular river segments. Sasquatch-like "hairy people" are said to have been unusually numerous in the Alagnak at one time, according to oral tradition. People were said to have kept their children inside after dark at some Alagnak communities, in part because of the prevalence of these creatures (EC). Even in recent decades, people have reported

finding the "beds" of such beings amidst dense patches of spruce trees, or having fish pilfered by these beings. One oral tradition from the 20th century describes one of these beings being trapped in a smokehouse. Kept there for an extended time, it became tame and people realized that it was an adult female. The being was eventually adopted into the community; she had human children and she is said to have descendants living in area villages today. Some suggest that the prevalence of "hairy people" on the Alagnak might present unique hazards to unwary river users, or that river users might disturb these beings. Meanwhile, "dark shadows" are ominous, dark entities, sometimes intensely felt but not directly seen (except maybe as inexplicable shadows) commonly appearing in association with tragedies such as when someone is dying; unlike the "hairy people," these beings are not reported to be unusually common on the Alagnak River corridor.



Figure 62 – A wooden grave marker, leaning against the Branch Village Russian Orthodox church. Like this marker, many grave markers quickly rot away – even in formal cemeteries – so that the vast majority of the 20th century graves along the Alagnak are not clearly marked. Douglas Deur photo.

While certain locations on the river are traditionally important and some Alaska Native river users exercise certain ceremonial and religious practices, no one location was reported to be essential to those activities within the Wild River today. However, as a place long occupied by the ancestors, the river itself is sometimes depicted as having ceremonial significance. Alaska Native river users sometimes leave food offerings in the water, which is explained to be a way to "honor" or "gift" their ancestors. This is not apparently undertaken as a ceremony undertaken independent of mundane activities, but is coincident with the consumption of food while on undeveloped portions of the river. It was explained that the ancestors are all around when people travel the river corridor, watching the activities of the living: "you can hear them or just feel them around you" (AW). The ancestors are said to be thankful for this offering of food. It is implied too that these ancestors can assist the living if they behave well, but may be harmful if offended. Food offerings are one way of maintaining positive connections with the ancestors and insuring kind treatment (GW, AW). As such, in spite of its superficially casual execution, this is both a ritual of great solemnity and a way of insuring one's safety when traveling in what is seen as a potentially hazardous environment.

Similar to the treatment of animal bones, the special treatment of human bones is seen as necessary to show respect to the ancestors of the Alagnak. Human remains that are exposed by river erosion are said to potentially leave the dead spiritually unsettled. Accounts of the erosion burials suggest a belief among elders that erosion may be spiritually damaging to ancestors if it results in the exposure of their remains, and may cause observable disturbances. The reburial of human remains may potentially correct this problem. While sitting outside of the Wild River boundary, these beliefs are most clearly illustrated in the case of the former Russian Orthodox church site in Branch Village. In the 1950s, river erosion began to expose human remains from the original church cemetery, which eroded from the steep cut bank below the church. Residents reported that they often heard crying coming from the cemetery "of young ones and others," which was understood to be the sound of the spirits, unsettled by various disturbances. Annie Wilson reports that her father worked with Eau Andrew and other village residents to gather up as many human remains as possible and rebury them in a safe location – close to the original cemetery but further from the River. Once this was done, the crying was said to cease (AW, GW, MA). This demonstrated that the village residents had shown due respect for the ancestors and helped them to become spiritually settled. On similar grounds, elders sometimes express the view that spirits of the dead remain unsettled in places such as gravesites, and that these areas should be

avoided.[141] For this reason, recreational camping along the Alagnak – with its large number of unmarked gravesites – is understood to involve certain risks to both campers and to the ancestors that, in the view of some elders, may need to be factored into NPS planning regarding the future management of the river corridor.

TRANSPORTATION IN THE ALAGNAK CORRIDOR

Interviewees discussed a wide range of transportation options that have been used to access places along Alagnak River. Most fundamentally, foot travel was common historically along the Alagnak River corridor as a means of traveling between villages and resource procurement areas along the river. Travel by foot in snow-free months, and by snowshoes in winter, is a time-honored tradition that is still carried out by many Alaska Native river users. Historically, long-distance foot travel was also a common way for people living off-river to access the Alagnak. George Wilson, Sr., for example, discussed members of his family walking home from the Alagnak to Levelock after they were done checking their traplines, over distances of 20 miles or more. A number of interviewees also spoke of packing meat home from the Alagnak over similar distances, if other modes of transportation were not available. As Mike Andrew says of hunting on the Alagnak: "wherever you got the moose – make [a] line from where [the moose was] killed toward home" (G. Wilson in Wilson and Wilson 2000).

Boats have long been an essential means of traveling along the Alagnak. Interviewees commonly note that it is often much easier to travel by water than by land in this hummocky, bushy terrain – dotted with lakes and crisscrossed with rivers and streams.[142] The tradition of boating is rooted in the distant past, when families used hide boats to traverse the river, a period that is still clearly recalled in the oral traditions of the study communities. Interviewees recall using traditional "angyak" skin boats on Alagnak River. As Peter Apokedak recalls, "I rode in a lot of those. Some of them were *good!* That the safest little boat, you know?" (PA). Interviewee Mike Andrew also spoke of owning and using moose skin boats such as these on the Alagnak when he was young. They were commonly made of moose skin, which was an ideal material – it was available in large pieces but was also thick, durable, and waterproof. People had to shoot and process the hide very carefully so that it was whole and waterproof. Mary Olympic also recalls that her father made these boats from brown bear skin. She reported one particularly vivid memory of her father building one of these boats for her mother as they prepared to break camp at Kukaklek Lake. At the time, "he made a glue out of burnt grass and trout oil" to use as a sealant for the stiches of the boat, as well as a general waterproofing agent (MO). Mary Olympic also recalls her father fording the Alagnak River falls in these skin boats:

> "They go down but they have to put the aniak [skin boat] over the falls…They have to pack 'em over, other side…My dad and them do that a couple of times, maybe three times when they go down. Go working down at Naknek. Go down with the aniak, or canoe, qayaq" (Olympic 2000).

Over the course of the 20th century some families began using canvas on their boats, but interviewees suggest that this was not necessarily an improvement over moose hide on several counts.



Figure 63 – Interviewees recall seeing boats of these types being used on the Alagnak River – they were commonly made of moose or brown bear skin, which was available in large pieces but was also thick, durable, and waterproof. Interviewees such as Mike Andrew and Mary Olympic reports having moose skin boats such as these on the Alagnak when they were young, including the "two hole" variety. Photo courtesy National Park Service, Photo H-395, Tallekpalek family collection.

Traditionally, people used paddles to travel along the river, but also used punt or "setting" poles to travel against the current. Interviewees recall seeing people using two poles like oars, on either side of the boat when going upstream; George Wilson, Sr. recalls seeing Pete Chukwak propel a boat upstream using this method. By no later than the 19th century, some families used sails to tack up the river with small unmotorized boats – a tradition that continued until the second half of the 20th century (MO, VA).[143]

As with other traditional methods of travel such as dog teams, boats have long been used to carry people and goods between communities on the Alagnak, as well as between the Alagnak and communities more distant. Boats have always been integral to resource procurement activities as well. As discussed elsewhere in this report, a number of families traditionally have drifted much of the river by boat, hunting, gathering berries, or participating in other subsistence tasks along the riparian corridor as they have traveled. After people relocated off-river, boats allowed people to maintain their ties with Alagnak places and resources. Families have often boated to the Alagnak in the summer to participate in fish camps or in fall to initiate trapping. In many cases, boats have been used only to deliver gear to and from the camps or cabins at the beginning and end of the season; people sometimes return the boats to their homes and then travel by foot or other ground transportation to and from the Alagnak from Levelock (GW).[144]

The increased availability of motorboats in the first half of the 20th century allowed for more convenient upriver travel, but it was the availability of larger, more powerful motors in the second half of the 20th century that truly revolutionized travel along, and to, the Alagnak. As Teddy Melagnak notes, "Long time ago, used to be old 9 horses. Now we got these bigger outboards. I got, one of mine, they got 55-horsepower, I use that all the time" (TM). And, while conventional outboard motors were not easily used in the shallower water in the upper Alagnak or off its main channel, the advent of jetboats has allowed river users – Native and non-Native – to access almost every portion of the river with speed. As George Wilson, Jr. notes, "it's harder to get to, you definitely need a jet…it's all real shallow" (GE).

The Alagnak is said to be an especially inviting place to travel by motorboat, as the river is ice-free for long periods of time: "year-around we could boat if we wanted, the river stays open just about year round" (G. Wilson in Wilson and Wilson 1995). Interviewees generally agreed that times of moderately high water were especially good for boat travel to hunting and fishing sites, as this inundated side channels, marshes, and other



Figure 64 – Field interviewing by boat on the Alagnak River in 2012, with (left to right) George Wilson, Sr., Karen Evanoff, and Annie Wilson. Douglas Deur photo.

areas that were not navigable for the rest of the year.[145] At the same time, access in and out of the mouth of the Alagnak by deep draught boats sometimes requires careful timing, as the estuarine lower end of the river is said to be unnavigable during low water.[146] Some river users travel by boat into the upper river, above the falls, in a jetboat or motorized skiff without fording the river, "but you need lots of water to do that" (Olympic 2000). (The practice of fording the falls has also continued well into the era of motorized boats).[147] Still, boat travel above the falls by Alaska Native resource users is relatively uncommon due to the hazards and the amount of gas required to make the journey; for some, the trapping opportunities above the falls are a primary motivation for such an ambitious trek. The Alagnak River above the falls, as well as the Nonvianuk River, are very shallow, rocky, and dangerous for motorized boaters without local knowledge.[148]

Land transportation has also undergone considerable change within the living memory of interviewees. Many still recall running dog teams to and from the Alagnak prior to the widespread adoption of motorized vehicles. Some interviewees "practically grew

up on dogsleds!" (AW). A number of interviewees shared their stories of growing up with dog teams on and around the Alagnak:

> "I had a dog team. My brother had dog teams, too…Dog teams were like you hear about them…we use them for haul… haul wood or transport us. Dad used to make a good sized sled, and fit all of us in there" (PA).

Dog teams were used to travel or pack gear between villages throughout the winter months; as noted elsewhere in this document, dog teams even moved buildings between villages. Dog teams were essential for travel to resource procurement areas and the packing of fish, game and firewood. A significant amount of salmon fishing on the Alagnak was motivated by the need for food for dogs, which often involved drying fish and fish bones, which were later mixed with other foods to satisfy the hunger of the dog teams:

> "most people back then had always been using what they call dog teams for transportation and work, and then they put a lot of most of their fish into storage for fish. Or winter use [by the teams]" (SN, translating for MN).

These teams were also used to access settlements outside of the riparian corridor; for example, interviewees shared a number of stories of taking dog teams to reindeer herding areas in the upper Alagnak. In the mid-20th century, when the communities along the Alagnak were relatively small and isolated, dog teams allowed people to stay in regular contact with one-another: "That was all back in the dog team days! *Everybody* had dog teams. [People traveled] mostly by boat, but in the winter, they had dog team trails" (VW).

Once families moved out of the Alagnak River corridor, in turn, dog teams became the most popular method for accessing the Alagnak. Large quantities of fish, game, firewood, and other goods were brought back to villages such as Igiugig and Levelock by dog team into the 1960s and 1970s.[149] By this time, motorized vehicles such as ATVs and snowmachines were quickly eclipsing dog team use: "The last one I know who had dogs over there was Apa Pete, and that was back in the late 70s" (HN). While motorized vehicles did increase the speed and efficiency of transportation somewhat, it is important to not underestimate the awesome traditional mobility of traditional Alaska Native dog team users. As Peter Apokedak recalls, "it used to be no big deal…people

would go from Levelock to Dillingham or Igiugig….without even thinking about it…using dogsleds" (PA).

Travel by foot, dog sled, and boat have gradually been eclipsed by the growing availability of motorized land transportation in the post-World War II era (Deur 2008a).[150] In recent decades, all-terrain vehicles and snowmachines have especially been used for transportation along the Alagnak and its headwater lakes - a shift in transportation methods that has been widespread throughout the Alaska Peninsula and, indeed, much of rural Alaska. Interviewees such as George Wilson, Sr. have a long record of using ATVs and snowmachines; Wilson used snowmachines to access the Branch by no later than the 1960s, and employed very early ATVs to access the River not long thereafter. (Indeed, George Wilson, Sr. could serve as a valuable source of information on the chronology and extent of these machines' use for purposes of defining "traditional" forms of access under the terms of ANILCA – providing detail that would expand considerably on the findings of Deur [2008a]). The use of these motorized land vehicles is said to increase the safety of travel, as well as guaranteeing a hunter's success and shorten the length of time required for the hunt.[151]

Very early snowmachine technology began to replace dogsleds for short-distance travel in the 1950s:

> "That was right about the time snow-gos and everything started coming around, and [my father] and a few other of these younger people who had access to that type of stuff were abandoning the dog sleds and rugged snow-gos" (HN).

Interviewees recall that there were few if any snowmachines being used on the Alagnak in the 1950s, perhaps due to its remoteness and the relatively limited range of those early machines. For example, Violet Wilson recalls when she first lived on the Alagnak with her husband:

> "There was no snow-gos around. None. Nobody even knew about snowmachines…I think that was before 1960...Then the snowmachines start coming. And all the dog teams started fazing away...They start having more…more. But—those things break down! Your dog team never breaks down" (VW).

By the 1960s, early adopters of snowmachine technology, such as George Wilson, Sr., were using snowmachines to access the Alagnak; by the 1970s snowmachines were a well-established component of Alagnak River use for most families.[152] A number of this project's younger interviewees (i.e., those under the age of 60) report having "grown up" with snowmachine access being part of their traditional use of the Alagnak.[153]

However, the arrival of all-terrain vehicles during the early 1970s served to revolutionize transportation in the Alagnak region. Especially as ATVs became larger and longer-range vehicles in the later 1970s and early 1980s, families for the first time had motorized transportation options to access the Alagnak year-round:

> "when, earlier in the fall…no snow, I use the four-wheeler or three-wheeler. And then after I get snow, it's harder to travel by four-wheeler. And it's a lot easier with the snowmachine. So I use the snowmachine. And that's how I trap" (G. Wilson in Wilson and Wilson 1995).

Moreover, as some interviewees noted, changes in the climate appear to have resulted in much reduced snowpack and an increasing frost-free period, making ATVs additionally convenient for much of the year.[154] Some Igiugig residents have discussed the option of building a road between their community and Alagnak Wild River, in part as a response to the difficulties of transportation and the unpredictability of the climate.

Some interviewees mentioned past Alaska Native airplane access to the Alagnak, both by residents of local villages as well as villages more distant within the Alaska Peninsula region. By the 1970s, the use of airplanes by the study communities was ubiquitous; Behnke noted this in 1978:

> "Presently, there are about 30 airplanes owned by residents of the six communities nearest the Katmai proposal [Igiugig, Naknek/South Naknek, Levelock, Kokhanok, King Salmon, and Egegik], including those owned by air-taxis. Many of these are used by their owners and their friends for hunting, fishing, and trapping in the general region, including portions of the proposal. Some Naknek and South Naknek women even have their husbands fly them to particularly good berry-picking areas" (Behnke 1978: 142).

However, the relative importance of airplanes appears to have declined significantly in the Alagnak region, as is true in many portions of rural Alaska, due to the cost of maintaining airplanes and the relative ease and efficiency of all-terrain vehicles.[155] As Patrick Patterson, Jr. notes, "Everybody had airplanes, seem like, when I was a kid! But they can't afford them anymore! It was like owning a car" (PJ)!

For a much more complete overview of the evolution of transportation options in this region and its impact on the use of the northeastern portion of Katmai National Park and Preserve, including Alagnak Wild River, readers should consult *ATV Use by Residents of Igiugig and Kokhanok, Alaska in Katmai National Park and Preserve: A Thematic Overview* (Deur 2008a).

Trails and Travel

The Alagnak River riparian corridor has long been a transportation corridor of importance in the area, and continues to serve this function in some ways today. The river has long served as a corridor for those living or participating in subsistence tasks along its length – by foot, boat, or dogsled historically, and by snowmachine and ATV today. The river is also a transportation corridor for people traveling en route to hunting and trapping areas in the interior of the Alaska Peninsula, in such places as Nonvianuk and Kukaklek Lakes.[156] Indeed, the Alagnak is some Levelock residents' access point to the entire Katmai National Park and Preserve:

> "they utilize, they go in, they enter from Branch River…I know they used to travel a long time ago with dog teams…they do drive up here in the wintertime, but the Branch" (Salmon 2002).

Dog sled trails were numerous, with key "trunk" segments following the Alagnak River corridor, and also connecting this corridor with Levelock, Igiugig, Naknek, and other communities nearby. Major trails link Alagnak Village with Levelock, as well as linking the middle river villages near Coffee Point with Levelock, Igiugig, and "right across [to] Horseshoe Bend" on the Kvichak River (DA) (Map 3). This includes the trail that "slides" down the hill at the place called *Celluryaraq*, or "sliding river bank" near Coffee

Village. These "winter trails," once used extensively by hunters, trappers, and reindeer herders, have now largely been relegated to use by snowmachines, and less commonly ATVs.

George Wilson, Sr. notes that a trail runs along much of the river corridor, which was used by people traveling up and down the river checking their traplines (GW). This trail appears to have been the foundation for a later snowmachine trail, which was reported prior to the designation of Alagnak Wild River.[157] Frozen riverbeds, the Alagnak among them, are also popular as wintertime transportation corridors. Formerly used as dogsled routes, they have been used since the mid-20th century as *de facto* snowmachine trails, allowing travel with considerable speed and efficiency along the river. The growth in visitation has made fast travel on the frozen riverbed less safe, some suggest, but the effect is very modest due to the fact that winter visitation remains quite low.[158]

Traveling on the ice isn't always safe for other reasons, however. The river is said to "freeze rough," due to the currents and water level changes occurring at freeze-up on this structurally complex river. The lower end of the river is generally safe, but the upper end, especially near the rapids and other high-gradient reaches, often have poorly-consolidated ice that will easily fracture under sleds, feet, or motorized vehicles.[159] The earliest period of freeze-up was said to be the most dangerous time to travel, as the ice and snow is still settling into structurally sound configurations, leaving irregular voids and depressions in the ice surface.[160] Generally, it is said that the river is best traveled only after freeze-up has produced solid ice along the river's length, only below the forks, and only after there has been both freezing and snow, so that the rough areas are structurally sound and more level (GW, MA). This was said to have long kept a lot of travel somewhat contained below the forks – originally with dogsleds and now with snowmachines – a point that is reflected in certain oral traditions regarding the river.[161] Moreover, certain locations along the Alagnak were known to be good crossing points for dogsleds, and some locations also appear to have used repeatedly as "dog portages" where dogs could safely cross when the water was not wholly frozen (MO).

All-terrain vehicle use of these trails, while not unheard of, is much less common than snowmachine traffic for a variety of reasons. The ground is often marshy and impassable along these trails, making ATVs less efficient than motorboats for accessing many parts of the Alagnak. Also, as noted in Deur (2008a: 60-64) there are certain seasonal obstacles to transportation for modern users of the Alagnak and portion of

Katmai National Preserve. For residents of Igiugig, Peck's Creek represents an imposing seasonal boundary. The creek is broad and marshy, effectively blocking any motorized ground transportation from the area when the ground is not frozen. Summertime use of the Alagnak, then, relies principally upon water transportation. For the residents of Kokhanok, the Gibraltar River poses a less formidable obstacle, being impassable by ATV or other ground transportation during high water events.

THE EMERGENCE OF TOURISM ON THE ALAGNAK

To be sure, the Alagnak River is an appealing place for recreational river users, such as recreational fishers, rafters, and animal watchers. There is a long history of recreational use on the river that precedes the designation of the Wild River. It is clear that non-resident recreational use of the Alagnak has increased significantly since 1980, and NPS management no doubt contributes somehow, qualitatively and quantitatively, to the total tourist load on the river. Yet, with a history of private charters and lodges on the river – thriving on the river before, during, and after its Wild River designation – it is clear that NPS management is not the only influence on tourist development and may, in some cases, moderate tourist pressures on the river. The historical context of recreational use is briefly outlined here, so as to set the stage for the observations of visitor impacts that follow.

The earliest written records of guided recreational hunting and fishing trips on the Alagnak date to the 1930s, when a small number of outside hunters and fishermen began arriving on the river – mostly by newly-established airplane service flying Lower 48 tourists from large Alaska communities such as Anchorage. While the abundance of salmon clearly captured the attention of some early visitors, it was the trophy-sized trout that especially set apart the Alagnak. By the early 1940s, the Alagnak was beginning to receive modest media attention as a trophy fishing destination. As summarized by the National Park Service,

> "Big game guide Bud Branham stated that he had guided hunters and sport fishermen on the Alagnak as early as 1937. New York sportsman and writer, Dan Holland, writing in the April 1941 issue of Field & Stream magazine, probably made the first mention of the Alagnak River as a great trophy rainbow trout stream" (NPS 2006: 29).

During World War II, the proximity of the river to the King salmon Air Force base gave men stationed there unprecedented access to this trophy fishing river, making the Alagnak a popular destination for soldiers on temporary leave. In the years immediately after World War II, the use of the Alagnak waned briefly, but within a decade, a number of non-resident recreational hunters and fishermen started returning to the Alagnak, using small airplanes from various parts of southcentral Alaska as well as motorized land vehicles from King Salmon in particular. This kind of limited-access

fishing and hunting continued through the 1950s, expanding gradually as transportation became more efficient and the river's notoriety increased.

By the 1960s, the river was once again receiving attention statewide, and even nationally, as a trophy fishing river: "The Alagnak River, and its tributaries the Nonvianuk and Kukaklek rivers, had been popular with fishermen since the 1960s" (Norris 1996: 205). By the 1960s, lodge operations were beginning to appear in the region, if not on the Alagnak. Edwin Seiler opened the Enchanted Lake Lodge, just south of Nonvianuk Lake, in 1965. Dean and Diane Paddock established the Last Frontier Lodge on the Naknek River in 1971 with much publicity, and established a fishing cabin along the Alagnak River shortly after starting business.

Not surprisingly, it was during the late 1960s and early 1970s that the Alagnak's potential as a Wild and Scenic River was first being explored – in part to protect recreational interests, but also to protect the river's fishery and subsistence uses from the overdevelopment of fishing and hunting tourism. The potential for Wild and Scenic designation appears to have been rooted in the observations and efforts of a small number of state, and later federal, agency staff who were at that time witnessing the rapid rise in recreational use along the river. Royce Perkins, a biologist with the Alaska Department of Fish and Game, floated the river in 1971 and proposed that the river be set aside for recreational uses such as rafting, canoeing, and fishing in his trip report to that agency (quoted in Stirling 1982: 5-6). At this time, Perkins reported that there was already heavy tourist traffic on portions of the river, such as the confluences.[162] Airplane visitation was already commonplace on portions of the river, he noted, and recreational fishermen were having notable success in catching their limit along the river. Two years later, in July of 1973, formal review of the Alagnak's potential for Wild and Scenic status began under the guidance of the U.S. Bureau of Outdoor Recreation (Stirling 1982: 6). In that year, Alaska Native families hosted representatives of the Bureau who were surveying the river as part of this effort. David Dapkus, a planner for the Bureau, reported that the crew "Camped (July 27) at a large Native fish camp about 10 miles above the mouth of the river. A Native family was there and kindly offered a cabin for us to use" (quoted in Stirling 1982: 7). In their report, the Bureau of Recreation field crew generally expressed the view that the Alagnak should be managed "primarily for fisheries resources, and subsistence and recreational uses" and reported as much in their report to the Bureau (Stirling 1982: 7). By the end of that year, the Bureau of Outdoor Recreation had concluded that Alagnak River was eligible to become a Wild River under the Wild and Scenic Rivers Act:

> "The Alagnak River and its major tributary the Nonvianuk River meet the criteria for inclusion in the National Wild and Scenic Rivers System in that the river and its immediate environment possess outstandingly remarkable scenic, recreational and fish and wildlife values. The river is of sufficient length to provide a meaningful high quality recreation experience" (U.S. Bureau of Outdoor Recreation 1973: 291-292).

Meanwhile, non-resident hunting and fishing pressure continued to increase steadily along the Alagnak. The expanded use of airplanes through the 1960s and 1970s especially revolutionized the recreational use of the Alagnak. Speaking of the 1970s, Behnke noted that,

> "Almost all access by recreational moose and caribou hunters is by aircraft in this area. Aircraft can be landed on lakes river bars, "blow-outs" in the tundra, or on ridge tops" (Behnke 1978: 131).

The increasing use of airplanes had placed the Alagnak within reasonable, regular hunting and fishing range of many communities around Bristol Bay and as far east as Anchorage.[163] The growing ease of airplane travel also expanded the effects of those few lodges that were established in the region at this time. By the mid-1970s, many of these operators – based at lodges elsewhere in the Bristol Bay region – were taking their clients to increasingly remote hunting and fishing sites such as the Alagnak by airplane and motorboat.[164] Clients were also being taken to the headwaters of the Alagnak so that they might participate in floating hunting and fishing trips that echoed the Alaska Native tradition of floating subsistence trips along the river:

> "The Branch River is becoming increasingly popular for float trips and hunters are dropped off in Nonvianuk Lake to float downriver with rafts, watching for moose and fishing. Most of these hunters are not local residents" (Behnke 1978: 143-44).[165]

With greater access to vehicles, the military personnel at the King Salmon Air Force Base also continued to have significant impacts on the fish and wildlife of the Alagnak. Writing in the late 1970s, Behnke noted a complaint about military men that would later be applied to non-resident trophy hunters:

> "Some Naknek and King Salmon residents feel that much game is wasted by military personnel who shoot game because they feel it is an "Alaskan" thing to do, but then do not know how to care for the meat. They cite examples of soldiers dragging moose in to the base behind trucks and horror stories of quantities of freezer-damaged meat being thrown out in the dump in the spring" (Behnke 1978: 133).

Media attention to the Alagnak also continued and expanded during this era, not only in the form of print media, but now with televised images of the Alagnak being broadcast nationwide:

> "From August 24 to 30, 1975 two Bureau of Outdoor Recreation representatives were once again on the Upper Alagnak. In this instance, they were to give technical assistance to ABC sports. This network was shooting a John Denver special about Alaska. Denver was filmed floating on the Upper Alagnak. Six rafts were used on this trip to accommodate Denver and the ABC crews" (Stirling 1982: 15).

The late John Denver made repeat trips to the Alagnak and some portion of these trips were filmed for distribution to national audiences, showing the musical celebrity enthusiastically rafting and fishing the river.

The first lodges to appear on the Alagnak in the late 1970s sat on the lower river, and were small by today's standards. Interviewees recall that the prospect of constructing lodges on the Alagnak was first brought to their attention in the late 1970s, as prospective lodge owners explored the river for suitable sites. Some of these lodge developers began to approach Native river users regarding the possible use of their allotments for new lodge operations, and a few allotment owners agreed. As John Tallekpalek recalled,

> "Lodges started...coming around '78, somewhere around that… they started make lodges. And they come in that way. Of course, we were putting up smoked salmon and so forth. [They asked] "Could we have lodges over here?" [We said] Go ahead, that, uh, that's your business, not mine…I went to Anchorage to BIA, and I told the BIA not to [allow them to] hunt, only sportfishing. So…we went with the, with the lodges. Only

> in summertime…No hunting" (J. Tallekpalek in Tallekpalek and Tallekpalek 1998).

When the lodges were constructed, their effects were immediately perceived by Alaska Native river users. Fishermen and hunters were encountered in much larger numbers than had been seen before, there was competition for access to longstanding Native fishing and hunting sites, and localized overharvesting, some suggest. Some Native river users found the change so jarring that they largely stopped going to the river at this time. For example, Patrick Patterson, Sr. recalls that he and others were so taken aback by the changes of the 1970s that they were not compelled to return:

> "Last time I was up Branch River, was in the 1970s. I couldn't believe what was up there. There used to be a lot of ducks and geese up there. Swan Bay was so full of ducks, the skies would turn black when you went by there. Swan Bay was pure white with swans. After the lodges moved in they cleaned everything out – we didn't see any ducks, they cleaned out the moose too. Brownie went up there one year and saw six moose with only the horns removed……The only one had a lodge when I was up there in [before that visit in] the seventies was the biologist from Fish and Game…he took over Nick Tallepallek's place. Nick leased his property out to him. Edwin Peterson started a lodge up there, he got it from Sonny Groat" (PP).

By the time that the Alagnak had received Wild River status in 1980, then, non-resident visitation numbers were already quite high. In September of 1980, for example, a single backcountry patrol passing through the upper reaches of the Alagnak, which was by then in NPS management, "noted 72 planes near Nonvianuk Lake and the Nonvianuk branch of the Alagnak River (Stirling 1982:14). By 1982, seven sport fishing lodges were already operating along the Alagnak, three of them located inside the Wild River corridor; approximately 850 people visited the outlet of Nonvianuk Lake, while 34 parties floated the River (NPS 1983: 17). Native river users report that the spike in visitor numbers exceeded even their wildest expectations, and that friction with visitors intensified dramatically at this time: "we didn't get *along* with them. Didn't *like* them at first …boy, we learned to cope with them!"(JW). The effects of lodge development were so transformative that a number of River users cite this period as the true beginning of Alagnak tourism. As Violet Wilson notes,

> "I am originally from Iliamna and I went to Branch River in 1950. We never had tourists and all that stuff. We had never had tourists up Branch River until the lodges started coming in… That was when they built that great, big lodge up the Branch River…Then those other lodges down in the mouth, I would say in the last twenty years, I don't know exactly when. I can't remember who built the first lodge but before that there wasn't any tourist around - only local people… [the lodges] started moving in. I can't remember exactly what year. First, I think they used to be fly-in fishermen coming there. That's how it started off. And then the lodges start being built" (VW).

Many attributed this intensification of tourism to the new Wild River status, though it is unclear how the Wild River designation influenced what was already a rapidly expanding lodge-based tourist trade. The fact that the designation of the Wild River occurred within only a couple years of the first lodge development, however, suggested to many people a link between these two developments.

Levels of visitation only continued to escalate. Speaking of the mid-1980s, Frank Norris notes,

> "guiding companies began to offer trips to several new areas; some of these areas grew to become some of the park's most popular fishing areas…Overcrowding of the most popular areas, combined with an increasing knowledge of the park's more distant hinterlands, caused the fishing pressure to become more decentralized" (Norris 1992).

The late 1980s purchase of Katmai Lodge, however, heralded a new era, with owners bent on turning the Alagnak into a major destination. "It was a large boom in the late 80s into the 90s over there as far as fishing lodges" (GE). As interviewees recall, Katmai Lodge took the lead in developing an unprecedented type of lodge-based tourism; the lodge owner used television and print advertising to promote fishing expeditions on the Alagnak, the lodge added its own airstrip, and at times the lodge was said to have over 70 boats operating on the river simultaneously. Interviewees recall that this was also "transformative" in a variety of ways: "Then I think Katmai Lodge came in… That great, big one, up above our old place! It's huge!...They even had their own landing field!... they said they have, like, 73 boats" (VW). Interviewees suggest that the other

lodges were compelled to expand their operations too, to compete with Katmai Lodge for business, access to prime fishing sites, and the like.

As Norris (1992) notes, fishing activities within Katmai National Park and Preserve were distributed unevenly throughout the park, with a very small number of areas – including Alagnak Wild River - serving as the focal points of most fishing trips. The rise in fishing on the Alagnak during this period should be understood within the context of the expansion of fishing generally at Katmai National Park and Preserve, which intensified its efforts to control the adverse impacts of visitation at this time. As Frank Norris reported in 1992:

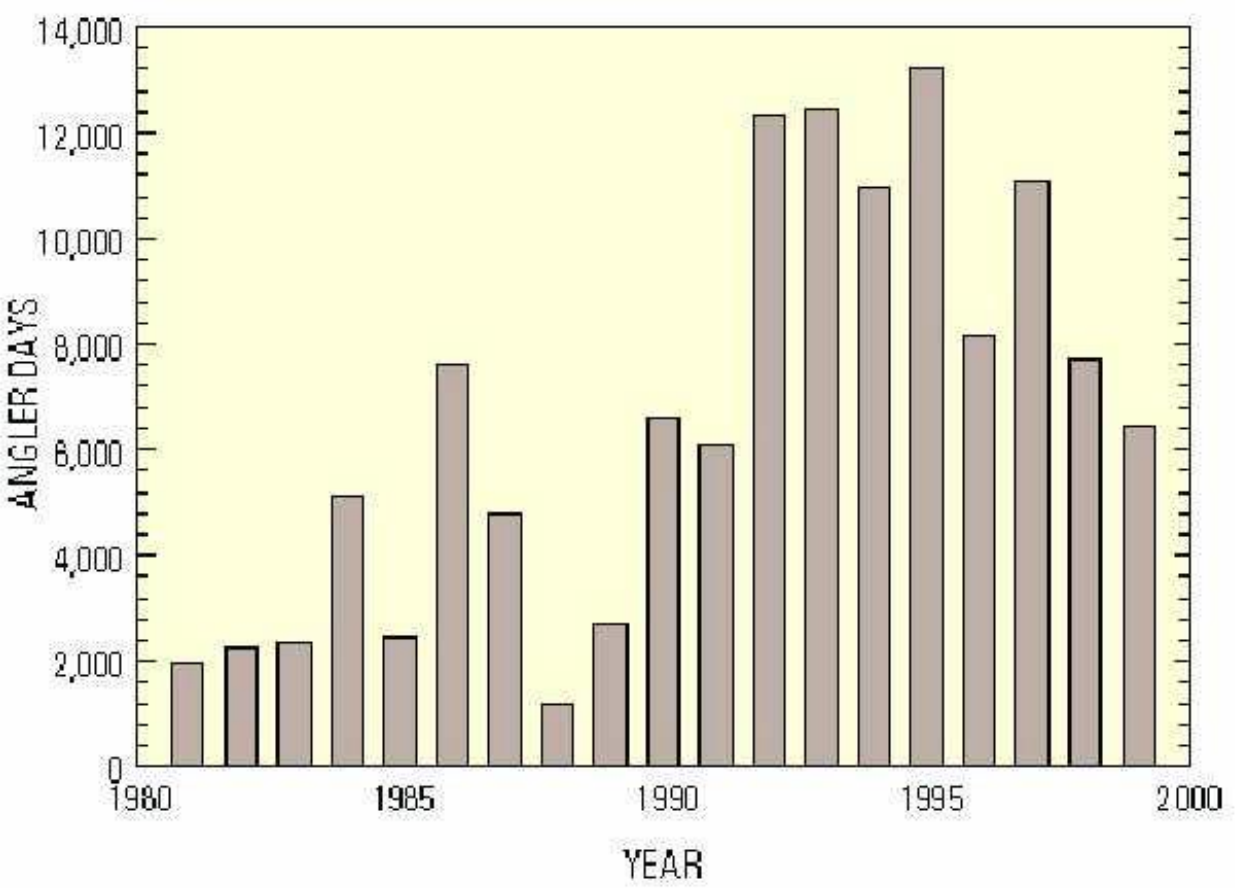
> "Between 1985 and 1990 the number of visitors flocking to Katmai's fishing areas continued to escalate. In 1990, activity summaries estimated that more than 11,600 fishermen utilized guiding companies to visit the park. Brooks Camp, a world-famous fishing mecca, attracted 7400 visitors, the most popular destination within the park…Other locations in the park, which attracted fishermen almost exclusively, were experiencing crowding problems of their own. Kulik River, the Naknek lake and river system, American Creek, and the Alagnak River system all attracted more than 500 guiding-company clients in 1989. Five other areas received at least 200 of these visitors; they included Kamishak River, Moraine and Funnel creeks, other Pacific coastal areas, the preserve lakes, and Big River. With the notable exception of the Kulik River, the five most popular areas were the same as those of 1985. Most of the areas which received between 200 and 500 guided visitors in 1989 had been relatively unknown four years before" (Norris 1992).

Through the 1990s recreational fishing intensified considerably on the Alagnak, as the lodges expanded their operations, and charter operations from elsewhere on the Alaska Peninsula seem to have increased their attention to the Alagnak as well. The total numbers of visitors were two to three times those of the 1980s (Curran 2003). Interviewees report that, at this point, the effects of lodge-based tourism were dramatic, and displaced many Native users from the river. Speaking of the transition since the late 1980s, Peter Apokedak recalls, "[You] see, the lodges popping up, all them boats, you know - day in, day out. June, July, August… [since] just 20 years ago, man, there's *lots* of difference" (PA). The expanding numbers of boats, especially jet boats, insured that the effects were not isolated, but were distributed widely throughout the river corridor and could not be easily escaped:

> "those lodges are already established, they…go through *all* fishing areas that's down here when they first…king season…then they fish all along this here river, all the way up, far as they can go. They've got *jets* now…big clients, like [at one big lodge] gets over 60, 80 people or more! Five, six people in a boat! And they take a good sized skiff! Size motors - 200 horses. This thing, you see them *every day* from whenever the…fishing opens! They're moving *up*river, *down*river - they go around over here to fish, they have to come back" (PA).

Similarly, Howard Nelson recalled,

> "Well, it's always been a good place to visit long before the majority of the lodges showed up. It was a real fun place to go. We used to go over there and hunt all the time, and camp out for the weekend, or a week, and not see anybody else, except whoever else was there *with* you! I mean, now you go over there, and you're trying to sleep in, and there's boats running by the cabin at 6:30 in the morning, to get into the fishing areas" (HN).



Graph 1: Total Angler Days, 1980-2000. *From Curran 2003*.

While resident communities still utilize the Alagnak River corridor for trapping, hunting, and fishing, visitors from elsewhere come to the Alagnak principally to fish for trout. The remoteness of the Alagnak insures that much of this fishing involves overnight stays, based at lodges or camps. These lodges or camps are typically maintained by guides. Surveys by Naughton and Gryska (2000), conducted on the lower Alagnak, suggest that roughly 80 percent of anglers are guided. Curran (2003: 5) notes that the distribution of campsites and fishing sites is uneven, with concentrations of activity "at commercial lodges operated on a private inholding at RK 81, and RK 34, and RK 38 outside the Wild River corridor at RK 11 and RK 16." The addition of new capacity has been discussed by lodge owners along the Alagnak in recent times (quoted in Evanoff 2008). Today, the Alagnak is highly accessible, being visited by tourists using a diverse range of recreational vehicles. Curran (2003: 4) notes that

> "The Alagnak River is accessible by floatplane, by wheelplane at a private airstrip, and by motorized or nonmotorized boat. Noninflatable motorized boats enter the river from Bristol Bay via the Kvichak River and can travel

> the entire length of the Alagnak and Nonvianuk Rivers. Shallow river depths upstream from about RK 57 generally restrict motorized travel to jet boats, and reaches upstream of the Alagnak–Nonvianuk confluence are not readily passable to motorized boats at particularly high or low water levels. Inflatable boats, with or without motors, typically enter the Alagnak or Nonvianuk Rivers at Kukaklek or Nonvianuk Lake, respectively, and are usually flown out from middle or lower river reaches."[166]

Visitors also commonly access the River by floatplane, landing at Nonvianuk or Kukaklek Lakes, or on the River itself in suitable places, such as in the vicinity of Grassy Point.

Certain tourist pressures have moderated in recent times. Interviewees note that a change in the ownership of Katmai Lodge in roughly 2005 brought a noticeable reduction in the number (and speed) of boats on the river, and the new lodge owners exhibited a much higher level of concern regarding visitor impacts than prior owners. This change had ripple effects among the lodges, some suggest, as competition for fishing holes declined and lodge-village relations generally improved. Some suggest that many of the harshest complaints of Alaska Native river users regarding visitor impacts might be traced to their experiences with the prior owner of that lodge. (The present owners are held in relatively high regard and, in fact, provided assistance in the current project.) The Katmai Lodge situation is a cautionary tale of the potential effects of single lodge owners' effect on NPS-Native community relations, but also provides a hopeful message, suggesting that some of the worst problems reported by interviewees may have been idiosyncratic and could be improving. Moreover, increased Native corporation involvement in the tourist industry has given Native communities more of a voice among lodge owners – both through increased rapport and through the financial clout of the corporations in present and future economic enterprises. Partnerships between lodges and Native corporations in river-based tourism have shown promising results in recent times, providing economic benefits to Native and non-Native river users alike, while increasing attention on how to ameliorate the adverse effects of tourism. These partnerships may provide options for future tourism planning and management as the NPS seeks to foster both sustainable, long-term tourism while protecting an enduring Native presence of the river.

THE REPORTED EFFECTS OF NON-RESIDENT VISITATION

As indicated earlier in this document, this report makes an effort to provide a faithful accounting of all of the major themes and perspectives mentioned by interviewees in the course of the current ethnographic research as well as past studies. Interviewees' comments from interviews and meetings regarding visitor effects on Alagnak River have been reviewed and analyzed, in order to reveal recurring themes; these themes are outlined in the pages that follow. This effort to provide a faithful account has been consistent, no matter whether the comments from Alaska Native interviewees are positive, negative, or neutral - and regardless of whether they address factors that are within the control of NPS managers. We do this, with the hope that a systematic effort to record these views and opinions will aid the National Park Service in its mandate to manage the River's lands and resources. By including information on subjective values and opinions, this does not necessarily suggest an endorsement of these views and opinions, or an implicit judgment on their accuracy. The "ground truth" of Alaska Native river users' concerns has been the focus of ongoing research by the National Park Service, and it is the goal of the materials that follows to aid these efforts to identify, assess, and if necessary rectify certain problems on the river. By seeking to fully understand and anticipate concerns raised by Alaska Native river users, the NPS will gain perspectives on the management and interpretation of lands and resources along the Alagnak River corridor that may be of value for both short- and long-term planning horizons.

It is important to bear the goals of this study in mind when reviewing what follows. This is because, taken together, materials from past ethnographic interviews and meetings regarding the Alagnak reveal a common perception among traditional users that "the place is being overrun," "there is way too many people there and the resource is being damaged," or being "abused, misused, and overused" (Katmai Research Project 1997). Interviewees consistently suggest that the increase in non-resident visitation has had widespread impacts upon patterns of Alaska Native use along the river.[167] When asked to discuss the changes they have seen with the rise of modern tourism on the Alagnak, we often hear the changes are "*everywhere…lots* of changes, with *everything*" and the changes are not generally described as positive (VW). Many Alaska Natives, elders especially, share the perspective of Ella Charley, who asserted "let 'em find

another river to fish in. And let the people go back and enjoy that river, like we used to" (Charley in Charley and Setuk 1998).

To be sure, not all Alaska Native comments on the rise in tourism along the Alagnak are negative. Some interviewees spoke enthusiastically of the economic potentials of Alagnak River tourism, or expressed appreciation for the effects of NPS management in preserving lands and resources that are of importance to the Alaska Native community.[168] Some also note that relationships with specific recreational users, as well as lodge employees, are often congenial and even sometimes cooperative.[169] There are also significant generational differences in the perceptions of tourism, with younger people often being much more accepting of tourism as the "norm" along the Alagnak. George Wilson, Jr. commented directly and effectively on this point:

> "I think the older generation doesn't like it because feel like they're being intruded upon, but, to me, I just see it as part of change.... I feel like all this doesn't belong to me. I just get to use it for a little while, while I'm here. And I don't mind sharing it. [Younger people] are just kind of used to it. All the younger ones already seen it and been adapted to it, or it's the norm" (GE).

Still, comments on the whole were negative, addressing problems that Alaska Native interviewees believe to undermine Alaska Native interests on the river, and possibly the integrity of their broader cultural, social, economic, and dietary traditions.

Many concerns expressed by interviewees might be generally understood to be about the "disrespect" that they feel is sometimes being applied to the Alagnak and its resources by visitors and those who cater to them. This includes disrespect toward the land and its resources through such activities as catch-and-release fishing, the use of high-speed boats that create wakes and frighten wildlife, or what is seen as the overfishing of certain species. This also includes disrespect toward both ancestral and modern Alaska Native communities, through such actions as trespass and looting on allotments, conflicts with subsistence users, and the like. On most of these counts, the concerns of NPS resource managers and Alaska Native users are consistent with one another. Still, many Alaska Native river users view the NPS and other agencies as prioritizing the needs of recreational visitors over families with very ancient and immediate ties to this place. The damage that is sometimes done to the River is seen by some as being emblematic of national priorities that give recreational users – most of them affluent and non-Native – high priority and contribute to the continued

displacement of longstanding Native uses. While difficult to quantify or even fully characterize, these symbolic dimensions should not be lightly dismissed, as they factor into any public debate about the fate of the River, explicitly or implicitly.

When reviewing the concerns expressed by Alaska Native interviewees, it is also important to bear in mind that there are often divides of race, class, ethnicity, education and religion between many Alaska Native river users and recreational river users. These sometimes complicate relationships between the two groups, who often have different views and values associated with resources on the river (though these views and values may be gradually converging with time due to changes both in Alaska Native society and within the larger majority society of the United States). Alaska Native river users are generally accustomed to small and tight-knit communities, where respectful relationships neighbors and respectfully cautious dealings with natural world are key to survival. To these people, visitors can seem privileged and reckless, reserved or rude: "It's different from nowadays, because most times people who come in now, they're not courteous to other people like they used to be. They don't care what they do, or they just go do it without asking permission" (SN). There are always differences between the perceptions of "insiders" and "outsiders" at tourist destinations, but here these differences are often pronounced.

It is clear that Alagnak River has a history of recreational use that precedes the designation of Alagnak Wild River and the National Park Service has inherited many challenges that come with this history, Alaska Native interviewees generally have described an increase in non-resident visitation since 1980 and attribute the change in no small part to the Wild River status. "Once they named it "Wild and Scenic River," that changed everything, I don't even go up there anymore" (quoted in Evanoff 2008). Similar comments have emerged in earlier ethnographic investigations, making it clear that the Wild River status is perceived as a cause for the river's increased visibility as a tourist destination.[170] There is also a perception apparent among some interviewees that the NPS has historically "promoted" tourist development of the area, and that some of this promotion was originally done without thoroughly considering the impacts on subsistence resources and practices. These perceptions, no doubt, color some of the statements made by Alaska Native interviewees regarding the fate of Alagnak River. It is also clear that, while many (and perhaps the large majority) of visitors are very respectful of the natural and cultural resources of the Alagnak, the actions of those who damage those resources tend to be more visible and more widely discussed, which colors community perceptions of tourism on the river. As George Wilson, Jr. notes,

> "I think most people [tourists] intend well, and try to be good stewards and things like that. You get bad with anything, but I think the majority of them are pretty nice people" (GE).

A few additional caveats are in order before entering into a more detailed discussion of Alaska Native views on non-resident impacts on the Alagnak. First, it is important to note that both Native use and visitor impacts are dynamic. Use of the Alagnak has arguably changed, and subsistence use declined somewhat, even since this project was originally proposed – in part due to visitor effects and in part due to changes within Alaska Native communities that have little, directly, to do with the river. Moreover, as noted elsewhere, certain lodges and lodge owners have had disproportionately positive or negative effects on the issues at hand. Thus, Alaska Native interviewees may recall certain periods (such as the 1990s) as being times of especially severe impacts, and may express concern about those impacts without referencing, or even necessarily being aware of, their partial abatement in the years since. Increases in the availability of newer technologies, such as shallow-draught jetboats, also have changed the geography of both visitor and Native use on the river in recent years, altering the geography and timing of Native-visitor encounters. Issues identified in 1990s or early 2000s interviews quoted in this document may have improved or worsened in the intervening years.

Also, a number of interviewees spoke of concerns regarding the environmental health and management of areas outside of the Alagnak Wild River corridor that nonetheless are linked to management concerns within the Wild River portion of the Alagnak. Fisheries and erosion issues on the Alagnak estuary, for example, are often mentioned, as this part of the river is subject to considerably more use and development than the rest of the river. Thus, some discussion of visitor impacts here takes a Basin-wide perspective, even though it is clear that only a portion of that Basin lies within Alagnak Wild River. Moreover, some interviewees clearly are concerned about the *trajectory* of environmental impacts even if the current levels of environmental impact are seen as acceptable; thus, even if certain contemporary conditions are acceptable (such as water quality), the perceived intensification in river use is believed to be pushing these conditions toward an unacceptable condition. This perspective became clear, for example, when meeting participants spoke of water pollution associated with motorboat use and shoreline waste: "[There are problems like] erosion from the boats from in-river fishing….there's erosion along the banks. In the future this could get worse, especially in an area that's not used to that kind of impact" (quoted in Evanoff

2008). Pollution is minor but detectable, one meeting participant noted, but in light of anticipated growth in river usage, "I could see a lot more water pollution in the future" (quoted in Evanoff 2008). An effort has been made in the pages that follow, then, to differentiate between impacts that are observed and those that are anticipated based on observed trajectories in river usage.

While it is often difficult to make the distinction between which impacts are "direct" and which are "indirect," we use this distinction advisedly in the pages that follow to organize some of this discussion. Direct impacts are generally those that are immediate, affecting lands and resources along the river. Indirect impacts include a variety of outcomes from visitation that are less tangible, or are responses to those immediate visitor impacts on the lands and resources along the Alagnak. Both direct and indirect impacts are of concern to Alaska Native interviewees, and we attempt to summarize the full range of direct and indirect effects of tourism that interviewees reported to be of concern.

Direct Effects

Wakes, Erosion, and Water Quality

Of all reported concerns expressed within formal and informal interviews, Native interviewees mentioned bank erosion most frequently. Erosion is understood to be a constant on the Alagnak - a fact implied by the name of the river, itself, which alludes to its wandering courses. All interviewees recognize that the shores of the Alagnak have shifted with time, involving both erosion and deposition. However, modern circumstances make this erosion more menacing on various counts. What has changed, interviewees suggest, is the rate of erosion, due especially to the erosive force of wakes from jetboats and other motorized craft traveling along the River in unprecedented numbers and at unprecedented speeds in recent decades. Interviewees agree almost uniformly that the larger, faster boats introduced especially since the 1980s have had the effect of accelerating erosion on the river, as well as bringing a number of secondary impacts such as increases in turbidity and non-point source pollutants from boat motors and refueling (Burgner 1991; Bjornn and Reiser 1991). As Steve Nowatak notes,

> "Sometimes they use what they call high powered boats. They'd create banks or big waves that would erode where they used to be fishing and stuff. Pretty soon that bank would erode, or not be there anymore because of the waves" (SN).

Biophysical analysis of the Alagnak has provided general corroboration of these perspectives, with a few caveats. Recent scientific studies, such as that of Curran (2003) have concluded that the most measurable impact on water quality in the Alagnak River is the erosive effect of waves formed by the wakes of motorboats. The impacts of this process are principally the erosion of shorelines and temporary, localized increases in sediment in the river. High, exposed banks are especially vulnerable and exhibit sometimes rapid (>1 m/year) erosion. While the rates of erosion have increased, the processes and geographical dispersal of erosion-prone areas have remained fairly consistent along the river's course in recent decades, suggesting that areas with historical erosion continue to do so, but at rates that exceed the historical baseline (Curran 2003).[171]



Figure 65 – A boat wake running up on a rapidly eroding riverbank, middle reaches of the Alagnak River. Douglas Deur photo.

Interviewees note that the processes of erosion are said to increase or decrease with the number of boats, the size of their motors, and the speed at which they travel. (For this reason, events such as the 2005 sale of Katmai Lodge may have actually helped to reduce the rate of erosion on certain parts of the river.)[172] In order to curb erosion, many interviewees agreed that regulatory caps on these three variables might have a positive effect: "I think the biggest benefit would be limiting the size [of the motor]" (GE). Certain types of areas are said to be especially prone to this erosion, such as sandy or poorly-consolidated pebble banks, in those portions of the river that are deep enough to allow boats to travel at speed. As Peter Apokedak notes, "[it] erodes so bad wherever it's… a little rocky [a]bank that will *really* erode. Little waves pounding… [and on some] sandy beach, sandy spots" (PA). He identifies the lands underlying the cabins of Nick Jones and John Tallekpalek as good examples of the types of land most prone to erosion.

In discussing their concerns about erosion, Alaska Native interviewees typically emphasize indirect as well as direct effects of erosion as being fundamental to their concerns regarding visitor impacts, which are summarized here. Critically, most interviewees agree that Native allotments and cabins have been undermined by accelerated erosion associated with visitor boat traffic. These effects are of particular concern to traditionally associated families on the Alagnak, who suggest that these effects are widespread along the river. A number of Alaska Native river users' cabins have been lost to erosion: "I watch that bank - on both sides of the river get eat away. Because of them [boats]… especially down at the lower parts toward the bottom" (JW). "They've got a problem with erosion on the Branch River…my brother…had to move his cabin" (quoted in Evanoff 2008). Interviewees note that several allotments have been so eroded that their original building site "is out in the middle of the channel now" (PA). In a few cases on the lower River, cabins have been landlocked by abruptly shifting riverbeds, which leave these structures perched on islands that used to be part of a contiguous bank. Others have been moved at least once to avoid being lost to shorebank erosion. Mary Tallekpalek's cabin has been moved three times, according to interviewees, and is still precariously close to being lost to shifting river banks.

Erosion is said to be severe at Branch Village, where a number of structures have fallen into the river in recent times: "You go over there now, and it's so much erosion, it's [a] real pity!...All the buildings in the village… lot of them in the water" (PA). Similarly, Howard Nelson observed,

> "There's a lot of erosion. The village itself over there, the current village [Branch Village] is eroded to where the homes that were originally built a hundred feet from the river are now gone. And a lot of that was from the erosion from the boats going by fishing for kings. We were over there one time when they were doing that, and there was like nine skiffs in that little stretch, and they're all going up stream, creating a wake? We're actually watching the bank fall into the river, because of the wave action. And that house that we stayed in, Mary T. and Nick Jones', is gone, because it's all eroded away. Or caved into the river!" (HN).

Martha Crow also speaks of Mary Tallekpalek's fish house falling into the water, where its roof can still be seen sticking above the water's surface, presenting a minor navigational hazard to boaters in the area: "that's all *eroding*, so everything is changing, the river erodes, so where the camps used to be, like, the—Mary T's fish camp, or—smokehouse fell in" (MC). And Joe Woods makes similar observations regarding the rapid erosion at Branch Village, where – he notes – most of the waterfront portion of the community has eroded away, leaving what were largely upland structures remaining:

> "the old village down there…if you go down there to this day, you won't find the house…you'll find them all washing into the water, because all the boats, and motors that go up and down that [river], and airplanes that land in there…There ain't no more cabins there… I think you only got…the ones up on the hill—the church should be still standing! You should have…Charlie Andrews' [cabin] up there, my dad should have a cabin still there, Mikey Andrew [Sr.] should have a cabin still there" (JW).

This lower section of the river is said to be more prone to erosion during high water, such as when high tides and high runoff coincide, allowing wakes to reach further up the bank – an issue that is most pronounced on tidal sections of the river. As Peter Apokedak notes, of these areas, it is "not so bad when the river is low. This is when the river is high, and now it goes right over right back around here, big tides… [low water] slows the erosion some" (PA). There was a natural beach or sandy point extending into the water along Branch Village that was said to have protected the waterfront, he notes, but this has largely disappeared: "the short area was…like a protection, point there. But that there, all eroded, all those buildings see, inside there, all are washing away!" (PA). National Park Service staff have sometimes been contacted regarding Alaska Native concerns regarding this historically important area, though interviewees felt that practical solutions had so far been elusive:



Figure 66 – The remnants of Mary Tallekpalek's fish house, eroded into the river, are now a now a minor navigational hazard sitting a short distance downstream from Branch Village. Douglas Deur photo.

> "oh, we talked about it! Well, in fact, we talked about it when [the NPS sent a] representative…You see how bad it's eroded? Since then? This here river's—it's from the big tides, and that big wind…from boats…I'd say just [eroding a] little at a time, and man, some of these [places eroded] over a hundred feet or more!" (PA).

While this area is outside of the Wild River, interviewees generally see its fate as being indistinguishable from issues of tourism within the Wild River, and some part of the erosion as being traceable to boat traffic drawn to the river by Alagnak's Wild River imprimatur.

Erosion is also said to be especially problematic on the middle river, within the Wild River's jurisdiction, in the vicinity of Grassy Hill and Lucky Point:

> "Grassy Point… that place used to be [a] *big bluff*…all that eroded, now you could see that, the other side of the big bluff there used to be. That's how much it eroded. Nick [Apokedak, Peter's brother] had to move his

> cabin…he wanted to move it *again*! I might have to do that help all the boys, down the road here. It kind of helps. But still - jets, you know, they go every place… [Lucky Hill and Grassy Point] that's where the big erosion is" (PA).

Similarly, Howard Nelson noted,

> "It's [erosion] pretty much evident on that whole river. There's a place over there called Grassy Point where these people get picked up? That bluff that's just around the corner from there is eroding away so hard that it's probably going to become an island here. I mean it's going take away, like, a hundred feet of bluff because it's just dropping into the river" (HN).

For elderly river users, the effects are often seen as tragic – erasing places of personal importance from the landscape, and removing the Native footprint from the land too. As Mary Olympic recalls,

> "I was *crying* when we go to…Eau [Andrew]'s place…I was *so* sad, I start cry. Big, nice smokehouse, *phioo!* (*makes a sound like falling down*)…fall [in] river, take 'em out. I was *so* sad, I start to *cry* about…make me sad…*Ev-ry-thing* change…Mary Nelson…She used to have smokehouse, washed out too!" (MO).

The erosion, as noted elsewhere, is even understood to have spiritually destabilizing effects, as burials are sometimes exposed, resulting in the unsettling of the spirits of the dead. Burials are numerous, some note, so the hazard of their erosion remains high along many portions of the river corridor - especially those with recorded village sites. Interviewees note that such erosion also damages or destroys archaeological sites, from those that are quite ancient to those settlements that were occupied even in living memory. This phenomenon has been reported by NPS archaeologists surveying the river as well (Dixon 1998).

Also, some suggest that erosion hastens certain land use conversions that remove the Native presence from the land. Some houses have washed away, only to be replaced by competing functions that preclude redevelopment. Interviewees mentioned, for example, that Elma Peterson's house had washed away due to erosion, and the family

had opted not to rebuild; in turn, the No See Um Lodge had been built over the remaining, stable portion of the site on former allotment lands.

Regardless of how much the rate of erosion may have changed, it is also worth noting that the ability of Alaska Native families to respond to erosion has changed. Compounding the effects of accelerated erosion, the communities' ability to respond to erosion has been compromised by changes in patterns of Native river use. In past times, there were large, multigenerational populations visiting the River together regularly; it was arduous, but by no means impossible, for a work party to come together and pull a cabin back from the eroding riverbank. Today, Alagnak's Alaska Native users commonly arrive in very small groups, or even alone. The river users are often older – even elderly – members of the communities. The prospect of moving a building from the river's brink has become far more challenging today due to these social constraints. Today's elders may have access to motorized vehicles, but the area is infrequently visited by ATV, and there are serious technical challenges to moving structures with motorboats or snowmachines. Likewise, the relocation of structures was formerly something that could be done with considerable latitude as to cabin location; the modern allotment system, as well as the terms of ANILCA and ANCSA, have together "locked down" the pattern of Native occupation and land use. Historically, a person whose cabin site was being undermined could choose to relocate to a wide range of locations, but today there are often few good and accessible on-site options, and no off-site options, for new cabin sites on eroding allotments.

In addition to displacing some river users outright from their cabins and allotments, erosion is said, in turn, to affect riparian vegetation, affect water quality, and potentially increase sediment deposition in fish spawning gravels downstream (Deur et al. 2013, Deur 2008b, Curran 2003). The redeposition of eroded material is widely cited as a concern: "All that sand…all that stuff just sweeps down the river" (PA). Some river users express concerns regarding the possible effects of accelerated deposition on fish spawning areas, which may undermine the long-term viability of certain species: "spawning grounds. I'm sure…some of them are affected" (PA). Some also express concern regarding changes in the navigability on the river due to changes in channel configuration, which are said to be disorienting and potentially dangerous, even to long-time river users:

> "some places …you would have really noticed. Sometimes channel changes, that's from erosion… You're used to this channel [and you are]

> going through there and there goes your prop! And they swear up and down, you know" (PA).

Various scientific sources suggest that increased bedload from upstream disturbances can smother, or otherwise affect, the redds of anadromous fish as some Alaska Native interviewees have suggested, but generally only downstream from sediment sources (Chapman 1988). Much of the Alagnak's prime salmon spawning habitat anecdotally appears to be upstream from areas of accelerated deposition, so effects are somewhat difficult to discern. Turbidity from visitor impacts may occur during periods of peak visitation; however, bank destabilization has the potential to create pulses of mass wasting and elevated bedload during low-frequency flood events that may occur during other times of the year (Jones and Fahl 1994). Incidentally, food and human waste disposal – two issues discussed elsewhere in this document – may have measurable local impacts on water quality, but Curran (2003) has concluded that these impacts are not having a measurable impact upon overall water quality in the river.

As noted elsewhere, there are prophesies among the Alaska Native communities of future collapses in the population of salmon and other fish on the Alagnak. Some of these pertain to the phenomenon called "double winter," a short-term climatological disruption. Other prophesies conveyed to the Alagnak people by Chief Evan, allude to the certainty of future salmon population collapses due to water quality problems. As Mary Olympic says,

> "my ap'a's *story* make me kind of *scared!* When they going to be poison the water, we can't drink water from the river? Salmon *could* come, but salmon water turn poison. It *is* true, I think, ap'a's story" (MO).

For some individuals, especially the elders of these communities, this puts the matter of water quality in a different and more dramatic light – a point that should be considered when monitoring water quality on the Alagnak, as well as in the course of agency-village consultation on the matter.

Trespass, Vandalism and Theft at Cabins and Allotments

The unwelcome occupation of cabins by recreational river visitors, as well as vandalism to cabins on the river is an issue of enduring concern. Interviewees frequently expressed concern regarding the trespass on and use of allotment lands, as well as inadvertent damage or "vandalism" to cabins and other features on allotment lands. As Violet Wilson notes,

> "I know a lot of the people that have Native allotments up there were upset because the people that come floating down, camping and making a mess. I know the allottees don't like the destruction these tourists cause" (VW).

Past researchers have reported "numerous complaints from the land owners about trespassing on Native allotments," a pattern that was reaffirmed and clarified significantly in the course of the current research (Katmai Research Project 1997). Indeed, this has been an issue of recurring importance since the designation of Alagnak Wild River. In response to the draft 1983 Alagnak Wild River Management Plan, for example, the Bristol Bay Native Corporation suggested that more emphasis was needed on potential visitor treatment and trespass on Native allotments, noting that this was already a growing issue. In response, the NPS indicated that

> "The National Park Service will work with local landowners, including Native corporations and Native allotment owners or applicants, to address trespass and resource management problems and other issues of concern. The National Park Service will enter into cooperative agreements with the Bureau of Land Management and the effected Native corporations to manage the two public use easements on the Alagnak River. The National Park Service will designate camping areas on public land at several locations to discourage trespass problems on adjacent private property" (NPS 1983, Appendix 1: 1-2).[173]

Most trespassers are recreational visitors to Alagnak Wild River (though there is some modest level of trespassing by non-Native Alaska Peninsula residents as well).[174] Joe Woods, a former professional Trespass Officer on the Alagnak, noted that trespass on private and allotments lands is often extensive, especially during the peak summertime recreational fishery:

> "The most use I ever seen out of this river was at the confluence at the Forks. And because all the rafters that came down it, that was the best spot [for a Trespass Officer] to stop! And that…whole Fork area is nothing but Native allotment. You got Native allotments on the south side… I had to go move them… I *asked* them to remove themselves" (JW).

Both private allotment owners and Native corporations have posted "no trespassing" signs, he notes, but recreational visitors have sometimes torn them down: "they'd take them, pull them out, and throw them away!" (JW). In some cases, lodges and other charter operators have charged guests for tours that include organized group visits to private lands, such as at Branch Village – a phenomenon that some Alaska Natives find disturbing.[175] Chartered visits to such places as the Branch River church and associated cemeteries, in particular, were described as "disrespectful" and inappropriate in the view of many interviewees (EC).



Figure 67 – One of many "Do Not Trespass" signs posted on Native allotments on the banks of Alagnak River with the support of the Bristol Bay Native Association. Karen Evanoff photo.

The Estrada cabin and allotment (allotment 01-132) is often cited as an example of the effects of visitors on cabins. In spite of "no trespassing" signs posted on the site, the cabin is said to often be occupied by recreational users. The cabin is used heavily in part because of its visibility, and in part because of its proximity to a popular drop-off point for rafters. As Howard Nelson observed,

> "[the Estrada cabin] has been utilized by the rafters because it's a pick up and drop off point for these rafters, and then if the weather's bad, or whatnot…see, if they're coming downstream with the raft full of moose meat, you know, they're not going to camp on the sand bar, or across the other side of the cabin like they're told or asked to, you know. They're going to leave their moose and raft over there, and then go sleep in the cabin where the bears aren't going" (HN).

Concerns regarding the high levels of trespass on the Estrada allotment have been mentioned in studies of the Alagnak from prior decades.[176] A number of interviewees noted similar problems at their own family cabins: "Somebody come in there without permission from us! From me" (MA).

Interviewees note that not all allotment users are opposed to visitors using their cabins and lands, if recreational users were to seek permission from (and in some cases, compensate) the property owners as part of this process. Similarly, they note, recreational users have the opportunity to approach the corporations for use of corporation lands, but relatively few visitors seek such official sanction. As George Wilson, Jr. notes, "all this land is the Native corporation land that they hunt on. And none of them get any permits from the corporation" (GE).

The impacts of trespass are more than symbolic. Many interviewees spoke of a cabin, formerly owned by Charlie Andrew, which burned to the ground in recent decades. "One [cabin] was actually burned down by rafters" (HN). Interviewees indicate that the cabin had been used by a visiting tourist who left a roaring fire unattended in the woodstove upon their departure, which overheated and burned the cabin to the ground. This is seen by many as a prominent cautionary tale regarding the potential negative effects of Alagnak Wild River users on Native interests generally and cabins in particular. Some river users express concern that other cabins, such as the Estrada cabin, may ultimately be burned down in an accidental fire like the Andrew cabin.

Theft from cabins is also a recurring concern – mentioned by many interviewees for this study and studies that have preceded it.[177] George Wilson, Sr. of Igiugig, for example, reports that he has had pots and pans as well as other personal items looted from all three of his trapping cabins – presumably by recreational river visitors. To outsiders, this may seem like a minor inconvenience. However, in such an isolated setting, often visited in the winter many hours away from homes in the village, the absence of cooking gear can present significant challenges and can pose real hardships or even dangers to cabin owners. Similarly, cabin owners have found that their firewood and fire starter has sometimes been consumed and not replaced by recreational visitors, resulting in genuine safety hazards during cold weather:

> "we respected [cabin owners' property in past] years…you know, we make shavings for starter – fire starters – and we leave them as we find it. Clean the dishes, little wood what we use…ha! And now when you go to one of them cabins…*bare*, and…just…why they take 'em, I don't know!" (PA).

Traditionally crafted items and other items left in cabins are also said to be looted as "souvenirs" too. Dallia Andrew, for example, shared accounts of fishermen stealing a traditional canoe from a Native allotment:

> "His brother had the homemade canoe! …They steal that one too. Some fisherman come in took that away, too! We never see them, and we didn't know who did it! It's hard to find out" (DA).

In an effort to present theft, cabin owners have had to use unprecedented tactics, removing gear from cabins or even barricading their entrances. Indeed, during field visits undertaken for this study, George Wilson brought a pair of snowshoes home to Igiugig from one the Middle Camp cabin, "so they don't walk away with the tourists!" (GW).[178]

Interviewees note that recreational river visitors tend to see the entire river as "wilderness" – perhaps influenced by its "Wild River" status – and that some visitors may have difficulty appreciating that so much of the Alagnak River shoreline is private property. Some recreational visitors have expressed surprise that any of the undeveloped shoreline is privately owned. As Joe Woods notes,

> "If I went to the Stateside and camped on *your* property…I'd be thrown in jail within *minutes*. I don't know *why* you guys do it up here!" Not too many people can answer that question. "*Oh, we didn't know nobody* owned *land here!"* I was, "Well, get a map and find it!" (JW).

Similarly, given the scale, rough construction, and general condition of these structures, it is possible that river visitors from places outside of Alaska view these cabins as derelict and "abandoned." For relatively affluent and urban visitors who might make such assumptions, there are perhaps fewer inhibitions about trespass, vandalism, and souvenir hunting at these cabins than they would be the case with structures that they might understand to be fully claimed and regularly occupied. Some suggest that this observation highlights potential needs for further communication with, and interpretation for, Alagnak visitors on the subject – demonstrating that, while rustic, these structures are still valued, used, and often required by Native Alaskan families for temporary housing, sustenance, emergency shelters, and the intergenerational transmission of cultural knowledge on the Alagnak. This perspective is conveyed somewhat within the NPS map of the Alagnak and the Alagnak cultural booklet, but strong incentives exist to convey the message more broadly to independent travelers, charter guides, and others who might visit cabins along the River.

Trash is said to be a major issue of concern along the Alagnak as well – especially but not exclusively on Native allotment lands. A number of interviewees expressed concern regarding the accumulation of litter and human waste – not only on allotment lands, which is of special concern, but along the entire riparian corridor.[179] Like other impacts discussed here, the incautious disposal of these things implies "disrespect" in the view of many Alaska Natives who own allotments or simply use the river corridor.[180] As a trespass officer, Joe Woods saw frequent littering:

> "if they take their trash and stuff with them, they wouldn't create a problem. But you'll find beer cans, and pop bottles, and sandwich bags. In fact, even some of …the big commercial companies, they throw a lot of trash around. Their scrap food, and stuff, instead of taking it, putting it in a designated spot, they take it down the river, dump it wherever they can, or wherever they want to…you'll find garbage bags in the trees, and bears and stuff will get into them" (JW).

Patrick Patterson, Jr. reported similar concerns:

> "When I was there, there was a lot of pollution there. I mean not just paper and cups. They didn't bother to clean up. A lot of the hunters now. They don't have to take anything out, and then when the leaves fall off, you see it [the lodges don't haul in all the trash] I run the landfill. And I don't see them bringing the stuff in they should be bringing in" (PJ)!

Some interviewees suggested that, if there was one possible advantage of trash along the river, it was that Alaska Native river users had the opportunity to salvage large quantities of fishing tackle left behind on the banks and in the trees of their allotments by recreational fishermen.[181]

In response to the visitor pressures, the Native corporations associated with the Alagnak – including the Bristol Bay, Levelock and Igiugig Corporations – have developed trespass monitoring programs. Trespass officers who have worked on the Alagnak for these programs report mixed experiences with visitors found trespassing on Native lands. Most are respectful. As Joe Woods notes,

> "they never used to give me no trouble. I only had one guy who went [to] reach for something… [I told] him if he reached for it, he was going to be talking to somebody more powerful than me! But I no—had no trouble" (JW).

Yet, Howard Nelson notes that, even when in full trespass officer uniform, he had surprising difficulty convincing recreational users that they were trespassing on private lands, let alone getting them to respond promptly or appropriately:

> "They get pretty unfriendly when you tell them they're trespassing. I was a [trespass officer] for a number of years, and I was over there in full uniform trying to tell these people that they're trespassing, and they said, "Nobody's gonna tell me to move!" … they just have no concept that anything out here…just because nobody's around it, it belongs to someone!...I was trying to get this guy to tell him he's trespassing on Corporate land, and he's still sitting there, flipping his rod out back and forth (HN)!

Most of the actions of the monitors are informational, seeking to entice visitors to voluntarily stop trespassing on Native lands. There are sometimes programs in place to



Figure 68 – The Levelock Corporation cabin, used to house trespass officers on the lower end of Alagnak Wild River. Douglas Deur photo.

issue citations to trespassers hunting on Corporation land, but these programs are not always in force:

> "when they did have it, they'd issue them citations. That went through BBNA. They were the ones who were supposed to handle it. But as far as [the future] I'd like the corporation to take more initiative and be the ones involved with seeing it through to whether it be Fish and Game or whomever" (GE).

In 2011, Levelock Corporation constructed a new cabin on Corporation land at the western entrance to the Wild River. This cabin has served as a base of operations for efforts to monitor visitor activities along the Alagnak – especially trespass on Native allotment and corporation lands. The cabin also serves as a landmark for river guides, marking the entrance to the Wild River.

When asked about solutions to these challenges, some interviewees expressed the view that more extensive and forceful monitoring was necessary. However, in almost every case, interviewees who spoke of the issues of trespass, vandalism, and trash on Native lands expressed the view that recreational visitors' misperceptions of the Alagnak's human history were part of the problem. In their view, communication and public education were critical elements in the prevention of these problems. As Violet Wilson recommends,

> "I think what you ought to [communicate] with people that have Native allotments. To talk to them...Because a lot of people are really touchy about their Native lands. I have Native land… I don't care if they use it, you know, but not to destroy it...There's nothing wrong with them going on it, and stuff like picking berries, and whatever" (VW).

The National Park Service has responded to these concerns in part by the continued production and distribution of a booklet addressing Native uses of the river, which includes rough maps of allotment configuration along the river (NPS 2006).

Crowding

Interviewees for this study, and those that have preceded it, have consistently identified crowding is a significant concern to Alaska Native users of Alagnak Wild River. In just two to three decades, they suggest, the river has been transformed by the sheer numbers of recreational fishermen and other recreational river users:

> "it's not like it *used* to be. I used to be able to go up and down that river, and not see nobody for *weeks*… Now you got six lodges on it" (JW).

Interviewees generally agree that "from June, July, August, September every day there's traffic on that river" (quoted in Evanoff 2008).[182]

Crowding is said to have a variety of impacts, such as scaring away game, increasing noise and riverbank erosion, and impinging in various ways on the experiential needs of Alaska Native river users. Cumulatively, this crowding is said to contribute to the "displacement" of Native river users. The observations of Michele Morseth on these views, recorded a decade and a half ago, are still very true today:

> "The local Natives feel displaced by the sheer numbers of fishermen…who take up space, scare the moose, and value other things than the natives" (Morseth 1998).

Regular users of the river describe vivid accounts of the crowding they have witnessed, especially during the summertime peak of visitation. Joe Woods recalls,

> "I used to be Trespass Officer down there, back in about 1998 to 2001. And back then, it was *lots* of people. There's more people on that – it looks like…the north line Egegik during fishing season….when the kings are in, and when the salmon are in, it's just *miserable*…I mean, there's too many boats in there! You can count fifty, sixty skiffs there—a *day*. Easy. Couple hundred people! Fourth of July is the *worst* time to be on that river. I counted five hundred and some people in some sixty-some boats. [Add to that the Alaska residents with] float planes that come in there, and you get people from *all over*, from Kenai, and Soldotna, and Anchorage…they *all* hit that river" (JW).

Similarly, Teddy Melagnak observes,

> "Boy, there're a lot of airplanes going up that way. Every time I asked…they just in from Branch River. They going back up again and all that. There's a load of people in airplanes, going fishing…. Every year they go up that way…most of the moose hunters, they go up that way…I went up there last year. I took a ride up that way just to look around, and every tree fork, 2, 3 corner, you ran right into a tent, or people walking. Yeah, there were people all over" (TM).

Some attribute this change specifically to the designation of the Alagnak as a Wild River. Patrick Patterson, Jr., in particular, spoke about when the Branch River was designated a Wild River:

> "[Before the designation] we'd stay on that river, running around with our setnet skiff until we ran out of gas, and then, our food, and then we'd come home. And that went on quite a bit until they turned into a "Wild & Scenic" river. And then people started coming in there in hordes, and the drifters, and that. And since they didn't do this river any favors, turning it



Figure 69 – Lodge-based fishermen, in the waters immediately adjacent to Branch Village. Douglas Deur photo.

> into a "Wild & Scenic River"…I've been up there since they turned it into the Wild and Scenic River. I've quit going up, because there's just too many people on it!...I wasn't even 5 years [after the designation]...there was people everywhere" (PJ).[183]

Alaska Native river users generally attribute the significant crowding to the combined effects of Wild River designation, lodge promotion, and growing attention to the river in print and television media outlets. Howard Nelson noted that Wild River status had placed the Alagnak in the public eye in a way that was rare among Alaska Peninsula waterways, and mentioned seeing the Alagnak featured in a surprising range of venues:

> "With the Alagnak River being touted as one of the angler's paradise, not only in Alaska Magazine, Fly Fishing magazine, they've even had documentaries on the Outdoor Channel. You know, there's a lot more people utilizing that river because of these promotions. And starting today, even, there won't be one bend in the river, over there that you're not going to run into anybody that's not a local" (HN).

Moreover, these river users acknowledge that crowding has been much complicated by technological developments that have made boat and airplane access so easy to every part of the river: "If you had a jet boat, you can go all the way up to Charlie's cabin, and that's…40 miles up the river! [And now] if you had a jet boat, you can go all the way up into Nonvianuk Lake" (JW).

Noting that solitude was part of what they valued about the Alagnak, a number of interviewees suggest that crowding alone has significantly eroded the experiential values of the river in recent times. As Joe Woods observes, in the mid-20th century,

> "it was good! I enjoyed it back then! Now you go down and… all you see, is boats and planes, and people! You even get commercial *boats* up in there, commercial fishermen boats…up to the old village" (JW).

As will be discussed in more detail, this crowding has a variety of indirect effects, including the avoidance of the Alagnak by a growing number of traditionally associated Alaska Native river users – a trend confirmed by past studies (Deur 2008; Morseth 2000).[184] These effects compound larger historical and transportation pressures that have pushed Alaska Native river use into its lower, tidal reaches.[185] In light of these pressures, a number of individuals have expressed a desire to battle the crowding by capping the number of individuals visiting Alagnak River.[186]

Boats and Public Safety

"Crowding" can mean many different things, and have a variety of impacts. When discussing the topic of crowding in detail, interviewees often addressed the public safety hazards to themselves and to visitors caused by the number of motorized boats on the Alagnak. Interviewees generally suggest that the number of boats traveling on the Alagnak River has been excessive at peak times, especially but not exclusively due to the number of boats being launched from the lodges.[187] These boats, they often suggest, have motors that are unnecessarily large and powerful for a river that is characterized not by long open reaches, but by complex braiding, a meandering main channel, and myriad side channels.[188] The speed of many motorized boats, they suggest, creates hazards in light of the complex channels and many "blind corners" found on the river. As Peter Apokedak suggests, for example, large jetboats come quickly around blind corners "and you really have to get out of the way!" (PA). Many

of the people driving these boats are relatively new to the area, they note, and are scarcely able to anticipate or preempt the dangers when they encounter other boats, rafts, or wading pedestrians.

Certain interviewees discussed how crowding and excessive speed, when combined, has created a genuine hazard of collisions. Some interviewees report seeing visitors physically injured due to boat collisions on the Alagnak. Joe Woods, for example, recalls,

> "I seen two people get hurt over there. Well, they were outside operators. One guy got run over by one other skiff! I had a set—I had a subsistence net across the river, and I was sitting there watching it. I had a big school of fish hit it! And one operator slowed right down. And the other guy slowed down too slow. And when his bow came up, it came back down, and it was on top of that guy's motor. I watch people damn near drowned in it. Just being *dumb!"* (JW).

Stories of other minor collisions and "near misses" were shared by a number of interviewees. Similar collisions have been noted by interviewees for past projects relating to the Alagnak too. For example, interviewees for the Katmai Research Project reported,

> "They keep a fish camp on the Branch and…they talked about how much things have changed on that river with the sport fishermen. They told me of a friend of theirs from Levelock who was hit in his skiff by a jet boat. They said it did a lot of damage. They said they have almost been hit and that you have to be very careful when you travel on that river because it is so small and twisty and the sport jet boats travel at 40 or 45 miles an hour. He would really like to see a limitation on the size of engine they allow on that river, he said some boats now have 150 and 200 hp, while most of the locals get around with a 20 or 25 hp. He said the size engine they use is totally sufficient and should be the limit. I asked them if they had been displaced from any areas due to sport activities and they said no, but they did have to act differently and be much more careful on the river due to boats and off the river due to bears" (Katmai Research Project 1997: 12).

Some interviewees also note that recreational users – unfamiliar with both the river's complexities and local conventions regarding right-of-way – often stay in the main

channel of the river rather than leaving it open for through traffic. This enhances the odds of collision, they note, while also creating obstacles to utilitarian boat traffic.

It is important to note, too, that recreational fishermen often fish with their lines in the main channel. Native boaters make efforts to avoid these fishing lines, but have no choice but to stay in deeper water, avoiding the considerable dangers and expense caused by bottoming out on the gravel riverbed. Sometimes recreational fishermen have the time and consideration to reel in their lines, but sometimes they do not; often, with the swift river current, Native boaters cannot safely idle their boats while they wait for this to happen. As a result, Native river users often collide with recreational fishermen's lines, tangling them or breaking them as they pass.[189]

The density and speed of recreational boats, coupled with the threat of collision, have had a number of secondary effects on Native river users. Interviewees note that their use of the Alagnak requires the extensive use of the waterways for transportation, including boat travel for access to cabins, as well as for hunting, fishing, trapping, plant gathering, and other traditional activities. For this reason, some suggest that the effects of crowding on the waterways are experienced disproportionately by Native river users, who use boats as their primary mode of summer transportation, and must use the water to access most traditional use areas along the Alagnak during frost-free times of the year.[190] In turn, the speed and abundance of boating visitors may be prompting an intensification of motorized transportation by resident, Alaska Native users. Those resident users who can afford faster boats increasingly purchase them – in part, they say, in order to safely navigate a river full of recreational users, as they required the extra speed and maneuverability to circumnavigate boats and other new obstacles.

Noise

The frequent noise from motorized vehicles – particularly motorboats – was said to detract from the experiences of Alaska Native river users. Especially for those who remember a time before extensive motorized use of the river, the noise is said to detract significantly from the river's solitude. This solitude, some suggest, was once an important experiential component of the extended stays on the Alagnak River corridor, with its remoteness from the everyday lifestyle of the villages. This noise was said to scare game and change the patterns of movement of animals along the river corridor.

Such noise was also said to disturb even brief and mundane uses of the river; as Howard Nelson recalled of one such episode,

> "We were actually having a family outing…we had campfire going and having a picnic, and these boats from downriver lodges were just rude! I mean, they come in with their big boats… making all kinds of noise" (HN).

Interviewees noted that the river guide boats were a significant contributor to this noise, which reaches a crescendo in the summer months. However, the riverboats of Alaska Peninsula residents were said to sometimes be even louder and more disruptive than the river guides' boats, even if they were less numerous: "A lot of the guys that come up from Naknek to hunt, even, are running V-8 jet boats, and those things are just louder than heck!" (HN).

Catch and Release Fishing

In addition to concerns about the impact of overharvesting and habitat impacts, a number of interviewees and meeting participants expressed concerns about the effects of catch-and-release fishing upon the fish. This theme received frequent mention in interviews as well as most public meetings relating to the discussion of visitor impacts on the Alagnak. As one participant of early scoping meetings for this project questioned, "How would you feel if I put a hook in your mouth and pulled it out? That's catch and release" (quoted in Evanoff 2008). Such views were widespread, reflecting widespread objections to the practice on both material and symbolic grounds. The impacts of catch-and-release fishing have received considerable attention in recent years from Alaska Native communities and regulatory agencies alike. A modest literature has developed regarding the impacts on the practice, and the Alaska Department of Fish and Game has examined this issue as part of their mandate to manage fish populations on the Alagnak River (Meka 2003).

Some suggested that the practice of catch-and-release fishing causes increased fish mortality which, in turn, undermines Alaska Native subsistence harvests. Teddy Melganak, for example, notes,

> "Lot of sport fishermen [on the Alagnak]. Lot of salmon, they come in early there, they're just silver like around here. They catch them, and they let them go…seen a lot of them drifting out…they die… Oh, some of them die. Even a trout. I see them drifting underwater… it's just killing them!" (TM).[191]

Similarly, interviewees such as Dallia Andrew observe,

> "I saw those sport fishermen. Sometimes now I start taking my camera with me. Sometime we see the salmon just a dead…from the hook or something. They just die out…before they spawn*!* They're just dying out" (DA)!

As a result of elevated fish mortality, interviewees suggest, certain game fish are believed to be less common on the Alagnak. Howard Nelson, for example, suggested that catch and release fishing has reduced the number of rainbow trout and greyling in the Alagnak:

> "I do know before they did that… we would go up river to Charlie's cabin…about 17 miles up or so, and fish where we used to catch fish, rainbows and greylings all the time. There was…suddenly nothing" (HN).

In addition to increasing fish mortality, some suggested that they have observed catch-and-release fishing undermining the health of the fish, so that the fish remain wounded and sometimes ill or undernourished after being caught and then released. River users provided numerous and consistent observations on this point. Some examples, of these observations are as follows.

From Dallia Andrew:

> "sometimes sport fishermen they get trout, whatever, they let go. They wouldn't die right away, but later on it'll die. And some time we catch 'em, they're skinny, still, mouth still got cut from the hook or whatever they did with the fish…" (D. Andrew in Andrew and Andrew 1995).

From Joe Woods:

> "now…you catch rainbows over there. You'll see their scars on their mouths from all the hooks that they've been caught…it's tough!...that catch-and-release …it saves on the fish, I guess. But man, it sure beats up the ones that sure love to bite hooks!" (JW).

From George Wilson, Jr.:

> "Just on some of the trout I have caught, and they look quite scarred. I was surprised my cousin just a couple years ago caught like a ten-pounder that I haven't seen in 15 years come outta there! But it was quite beat up" (GE).

And from Patrick Patterson, Sr.:

> "I would like to see them do away with the law of catch and release. That is the worst law they ever passed. You go up the Branch and the Kvichak you can't get a good trout to eat, their mouths are all tore up and full of sores. Same way up at Iliamna and Kvichak River. I've got a little eddy in the front of my cabin on the Kvichak River and trout are so thick they would swim around in that eddy and Emily reached down and picked out one with her hands. The fish are so sick they are dying, they are so sick with their mouths open" (PP).

A number of Alaska Native river users have called for the use of barbless hooks to minimize these impacts of catch-and-release fishing (Morseth 2000). As Patrick Patterson, Sr. observes, "If they want to do catch and release they should at least take the barbs off the hooks, it makes them a better sportsman if they catch them without them barbs. It tears them up" (PP). Support for this recommendation seems to vary, with some river users seeing the complete prohibition of catch-and-release fishing to be the only satisfactory solution.

It is important to recognize that many of the objections to catch-and-release fishing emanate not only from a concern regarding the measurable, material outcomes of this method of fishing. These objections are also rooted in a view, widespread in Alaska Native communities, that this practice is a mark of disrespect for the fish and is inconsistent with traditional values the prescribe careful and respectful treatment of game fish. The idea that catch-and-release fishermen are "playing with fish" in damaging and disrespectful ways is widespread. "These days now, they just play with fish" (MO). "We told them, 'we're not playing with game!'…we catch fish, and we keep it" (SN). The death of fish that are not consumed but killed for recreational purposes is

seen as offensive, as well as wasteful, contradicting Native values requiring that "nothing went to waste when gathered" (MN).[192] In keeping with traditional values, interviewees generally express the view that fish that have been caught should be consumed. "It would be better off just to keep them!" (RA). "[When] we catch them up there, we catch them to eat!" (TM). Objections to the "disrespect" manifested by non-Native catch-and-release harvest methods is a widespread phenomenon in North America, and has been noted elsewhere in Alaskan contexts (e.g., Nelson 1983).[193] These signs of "disrespect" appear to be conceptualized by some Alaska Native users as a contributing cause of reduced fishing success on the River, possibly raising cosmological barriers to the fishes' return and compounding the more tangible, material impacts on fish populations that might arise from catch-and-release fishing.

Other Impacts on Fish and Fishing

The potential impacts of recreational river use on fish and fishing is an issue that is of concern not only to regular river users, but many Alaska Natives of the area generally, reflecting the regional significance of commercial fishing. The Alagnak is a salmon spawning river of importance to the larger Bristol Bay fishery and so, while specific impacts on resources along the Alagnak might affect regular users of that river, impacts on the fish population have the potential to impact those who do not visit the Alagnak. Thus, for example, residents of King Salmon who did not regularly use the Alagnak note that "We're basically concerned about the fish" (quoted in Evanoff 2008).[194]

A number of interviewees suggest that certain salmon runs have been depressed either seasonally or generally on the Alagnak due to the intensity of the both commercial and recreational fishing. Howard Nelson relayed accounts of this as a short-term phenomenon:

> "The owner of the Katmai Lodge said that the salmon runs, when there's no opener is really good. But as soon as they have an opener, just *bam*, shuts off…No more salmon going by for a week. [Where] Katmai Lodge is. Up here" (HN).

Commercial fishing is said to have had variable, but generally increasing effects on the lower Alagnak over time – initially, most of the commercial fishermen were nonresidents, but Native participation in the fishery has expanded over time:

"Commercial fishing! Never heard of them, either. All of a sudden there they opened it for us! Commercial fishing, set netting. So I had a seine for that" (PA).

In the past, some Alaska Native interviewees have blamed temporary declines in the salmon fishery on commercial fishing, but these concerns have been tempered somewhat by rebounds in salmon populations on the Alagnak in recent times (Troy Hamon pers. comm. 2012; Zimin 1998).[195] Even temporary downward fluctuations in king salmon appear to be of particular concern, as these fish are of particular importance on the Alagnak and are not widely available elsewhere.[196]

Trout populations are also of concern, and are often said not be as robust today as was the case historically. "I enjoyed fishing up there. It ain't as good as it was. Really, really, really good when I was younger" (PJ). In turn, state fishing restrictions to protect those stocks, motivated in no small part by nonresident fishermen, affect longtime river users. As George Wilson, Jr. notes, "The trout is probably one of my largest concerns. They've been doing some restrictions—for quite a while now, but I think the stocks are quite low" (GE). The reduction in trout availability, and perhaps some Alaska Natives' perception of trout subject to catch-and-release as "unhealthy" has resulted in increased pressure on alternative stocks. Again quoting Patrick Patterson, Jr., for example, "they [locals from Levelock] weren't getting rainbow or anything, so they were fishing pike" (PJ).

A number of interviewees discussed possible impacts of non-resident visitation upon salmon redds from trampling, turbation, or even intentional manipulation. In past meetings, some individuals have suggested that non-resident fishermen intentionally "stir up" the eggs of salmon and trout, in order to draw fish (Katmai Research Project 1997).[197] Others expressed concern that the relatively recent use of "jet boats" has harmed spawning grounds by churning up the gravel river bottom or even "sucking eggs" into the engines intakes (GW, AW). To many Alaska Native river users whose families have relied on the Alagnak for subsistence, these observations (or the reports of such observations, which circulate within Native communities) are horrifying. Concerns about these effects were basin-wide, but were linked to particular lodges; the change in management of the Katmai Lodge years ago was said to have reduced the frequency of these episodes.

The view of the Alagnak fisheries as being in decline is common among Alaska Native interviewees, based on both personal observations or, in the case of those who do not

use the river, second-hand information from other Alaska Native users.[198] Some, however, attribute perceived changes in fish population to be the result of a combination of factors, of which non-resident recreational use is only a part. Residents of King Salmon, for example, seem particularly concerned about the impacts of commercial fishing at the mouth of Alagnak River. They suggest that this portion of the river is overharvested and that the wake from boats in this lower portion of the river causes shoreline erosion which, in turn, compromises water quality in the estuary. Non-resident recreational impacts are not wholly discounted, then, but are placed in a broader Basin-wide context.

In addition to expressing concern about factors undermining the health and number of fish, Alaska Native interviewees discussed direct impacts of non-resident fishermen on their own subsistence fishing operations. A number of interviewees made comments on the practical difficulties of participating in the subsistence fishery amidst the tourist traffic of the Alagnak:

> "you have to worry about all your subsistence nets, and make sure they don't pick them. I had them do it before… pick the kings out of my nets… They used to just go and *pick* them. Just clean them, and take all the kings out. Leave you with nothing. [One time I] had a few people do it, and told them, "Next time I catch you, I'll blow your motor up, or do something to your motor!" I said, "I guarantee you, you aren't going to touch my nets no more!"" (JW).

Similar episodes have been reported by other interviewees, as well as in past NPS reports and planning documents (Deur 2008b; Katmai Research Project 1997).[199]

A few interviewees mention being actively discouraged from using certain portions of the river by fishing guides, though most of these occurrences appear to have taken place on portions of the Alagnak outside of the Wild River corridor. Some interviewees have suggested that "the guides are very territorial, staking out sections…and prohibiting other people from actually using it" (Katmai Research Project 1997). The upper Alagnak River was mentioned as a place where this is said to have happened in the past, such as the exit point from Kukaklek Lake, which has sometimes been used by non-resident anglers to the exclusion of resident people. Even when not forcibly challenged for access, a number of Alaska Native river users will tend to avoid fishing in certain areas, wishing to avoid crowding or potential conflicts with non-Native fishermen. As Patrick Patterson, Jr. notes, "It was still not bad fishing [but] it wasn't

like it used to be, where, I mean, sometimes we never see anybody except the people in the village. On that river" (PJ).

As noted elsewhere in this document, the issues outlined here are contributing to a relocation of subsistence fishing operations to other locations. Some families appear to be taking up subsistence fishing at different locations along the Alagnak than they did historically. In other cases, some even appear to have relocated to other river basins, such as fishing stations along the Kvichak and Naknek Rivers, where kin have historically established fishing camps. Some suggest that they still can catch enough fish to subsist, but that these fish are now being caught in different times and different locations than was the case historically.[200] Summer king salmon fishing, for example, is said to have become relatively rare, while fall redfish and silver salmon harvests have become proportionately more significant.

Effects on Game, Trapping, and Plant Access

In addition to expressing concern about the impacts of recreational river users on fish and fishing practices, Alaska Native interviewees also often expressed concerns regarding impacts on a range of other resource procurement activities along the Alagnak River corridor, including hunting, trapping, and plant gathering. A number of interviewees expressed the view that the growing number of nonresident hunters makes it more difficult to hunt, adding both demographic pressures on game animals while also affecting their movements in ways that make hunting more difficult. In the mid-20th century, the area was rich in game and the number of hunters was very small: "When I was a kid, there was nobody! Very few hunters! Maybe a few from Levelock" (PJ). In recent times, they suggest, "it's not good hunting, too many hunters" (quoted in Evanoff 2008).

The increased pressure is said to reflect a combination of factors including increased recreational hunting, as well as increased hunting by residents of larger Alaska Peninsula communities that have moved into more remote hunting areas as they experience their own localized hunting pressure. Interviewees often noted that increased hunting pressure near the large settlements of King Salmon and Naknek in particular has significantly reduced game close to these settlements.[201] In turn, this has displaced many traditional users of those lands to more remote settings for the purpose of subsistence hunting. As Howard Nelson noted,

> "There's times when I fly down to Nakenek/King Salmon [from Levelock] that there're just…a winter trail of snow machiners coming up from Naknek/King Salmon that go right up into the river, and then go up…it's a lot to do with the caribou hunting…it's a Tier 2 hunt area on the south side of the Alagnak, or the west side of the Alagnak" (HN).

Importantly, regular resident users of the Alagnak report that people with no prior history of using the Alagnak are now coming to hunt there because of increased hunting pressure close to such communities as Naknek and King Salmon.[202] Moreover, some families with ancestral ties to the River but no recent or personal experience of hunting there, are now returning in greater numbers – especially on the River's lower reaches.

The Alagnak has special appeal to both individual hunters as well as charter operators, interviewees note – in part because of its abundant, and in part because it is among the few federal lands in the area that are readily accessible and subject to federal hunting regulations. Joe Woods recalls seeing the effects of this phenomenon while working as a trespass officer on the Alagnak:

> "People coming up moose hunting …because that's the only Federal land in Bristol Bay that I know of that you can hunt on. Because [it's] "wild and scenic." And moose season opens up in August for Federal lands" (JW).

Recreational, and often charter-based, hunting was also said to have increased significantly in recent decades. Interviewees note that they had understood the lodges and other charters operating on the Alagnak were not originally supposed to have been allowed to hunt on the Alagnak – only to fish. In time, however, it became clear to Alaska Native users that hunting was part of the recreational activities that were to be supported by these operations. This is said to have especially "crowded out" local hunters, as they compete with recreational hunters for both game and permits. As Patrick Patterson, Sr. observes,

> "It has deteriorated almost 80%. At first when the lodges came in they were supposed to only do sport fishing and not hunt big game. That was the deal when they first came in – just sport fishing – not big game. Then

> pretty soon they got it so they could take big game. The sports people have a lot of pull. That's where the State gets a lot of their money from these hunters. That's my opinion…Local people don't get a chance to hunt. The permits seem like they are given to outsiders and when local people go get permits they are all gone" (PP).

At times, some note, the competition between sports and subsistence hunters has been intense. As Joe Woods notes, "you see it *all* down there. I mean, you can go down there for one day and you'll see [charter] operators, and locals hunting, side-by-side!" (JW). Not only is this said to put pressure on game, but also raises a host of safety concerns. Cumulatively, the pressure on game is high enough at certain times and places that game is said to become scarce by historical Alagnak standards. As Joe Woods recalls,

> "You get six, seven local boys up there, and then you get one or two outside operators, and then you're lucky to see *anything! But* they usually luck out, and find something along that way" (JW).

Some suggested that the cumulative effects of chartered hunting are great, so that even small-scale hunting charters can have a significant effect on the viability of Alaska Native subsistence hunting: "this affects us a lot. There's big game hunters now instead of just the sport fishing. This affects residents, their moose hunting" (quoted in Evanoff 2008).[203] Some Native men have served as hunting guides in past times, and it is widely suggested that these men – aware of and usually sensitive to local concerns – have had a smaller impact on Alagnak area hunting than other operators.

Even among interviewees who feel that regulations for the area are judicious, it is widely reported that the number of visitors allows for some level of unregulated hunting or poaching. In these cases, hunting is said to be undertaken coincidentally with other recreational tasks, or in a way that "bends the rules," concealed in some respects from regulators by the large visitor population. It is easier to take small game clandestinely in this setting, and waterfowl are said to be a common target:

> "The river has been really pirated lately. You go up there now you don't see any ducks… no ducks, no geese. You seen helldivers [grebes] but nobody wants to eat them" (PP).

The declining appeal of the Alagnak as a hunting venue for Alaska Native river uses is also said to be, in part, an outcome of the noise and disruption associated with having a number of people along the river engaged in various recreational activities. With the rise in tourism, game is said to move unpredictably, being skittish and often fleeing from the sights and sounds of visitors in various parts of the river corridor. Moose, waterfowl, and other game that concentrate along the riparian zone are said to be especially susceptible.[204] (A few suggest that moose has become scarcer along the Alagnak, when compared to historical numbers, due to a combination of possible factors, including not only hunting but reductions in breeding success due to such disturbances.) [205] George Wilson, Sr. noted significant effects on trapping as well, in part apparently because of these forms of disruption, rather than increased take of particular species: in recent decads, "[the] animals, they started to disappear" (GW).

A number of Alaska Native interviewees expressed concern about what they view as the wanton killing of game by nonresident hunters, especially recreational hunters who pursue moose and caribou. Interviewees often bemoaned the emphasis on "trophies" and the wastefulness that this seems to cause, as nonresident hunters take animals' heads and horns and often leave behind usable portions. As one individual notes,

> "there's the head-hunters. Three or four years ago I was hunting for caribou and I counted 10 caribou that was killed, just the upper half was taken, all the rest of the meat was wasted. They just took the antlers" (quoted in Evanoff 2008).

Similarly, Joe Woods observes,

> "[White men seek moose with] some 80-inch, 90-inch horns! On the moose. Some *nice*, *big* ones! I was *tempted* to shoot a couple of them. But *nah!* I don't *like* that stringy meat! I mean, get me a moose [with horns] the size of my hands and [it is] nice, tender meat… [The bigger ones] they're tougher! Then you got to cook them a longer time. [Charter operators] leave the *back* bones, the heads. They'll de-bone all the legs, debone the ribs…They won't take the heart, the liver, or the tongue… How many hearts and livers I get out of there…cause they don't want to take them! I'll *gladly* take all your bones from you! Just leave some of the meat on there, and I can cook them up!" (JW).

In turn, interviewees note, this has put pressure on different portions of the game population, with growing recreational pressure on big bull moose and, when available, caribou.

These practices of trophy hunting, and Alaska Native objections to them, have been reported in a number of interviews over the last three decades and appear to have been a concern since the beginnings of recreational hunting in the Alagnak region.[206] The anger and frustration expressed by some Alaska Natives regarding this practice along Alagnak River are motivated by a set of interrelated concerns: these wasteful practices are not only seen to undermine Native subsistence, but contradict fundamental tenets of Native belief on multiple counts. In part, these objections relate to broader concepts of "disrespect" as outlined previously in reference to fish. The practice of taking trophies and leaving the rest of the animal behind to rot or be scavenged appears to be viewed by some as being a cosmological problem, as much as it is a measurable game management problem – i.e., demonstrating forms of disrespect that may cause game to present itself less frequently for reasons as much spiritual as material. Others seem to primarily take issue with the perceived wastefulness of this practice, and suggest methods to reduce the waste even if trophy hunting persists unabated: "They could drop the meat off for the elders here or for dog teams" (quoted in Evanoff 2008). As will be discussed in a subsequent section, some also share the view that an increased number of bears along the Alagnak River is caused in part by visitor activities, including leaving animal carcasses along the river corridor; in turn, the increase in bears, they suggest, has resulted in a reduced number of moose and other game in the area.

A number of interviewees also made references to the adverse effects of visitation on riparian plant gathering areas, as well as on the integrity of riparian vegetation generally. Some mentioned that they had been displaced from popular berry gathering areas where lodges and other buildings have been constructed – the Alaska Trophy Adventures complex, which was built on the side of one of the places called "Blueberry Hill" was the most prominent example mentioned. Interviewees also noted visitor impacts on plant resources along the Alagnak. Trampling, social trails, and other forms of disruption to vegetation – especially berrying areas - was a point of concern to some river users.[207] New social trails are said to be numerous – especially near public cabins, popular campsites, and well-known fishing holes.[208] Alaska Native interviewees also expressed concern regarding the impacts of visitors' fires on vegetation, as well as structures and other landmarks along the river. Some fires are said to have burned out



Figure 70 – One of the Blueberry Hills, sitting on the south bank of the Alagnak. Douglas Deur photo.

of control and eliminated the vegetation over larger areas.[209] Some non-resident visitors are said to build fires in tundra areas where the fire leaves a lasting impression. In contrast, Alaska Native interviewees say of their own practices that "they were taught never to make fires on the tundra and that it should be done only on the beaches," and that they should use driftwood when available in the dry months to minimize the number of sparks from their fire that might ignite the tundra (Katmai Research Project 1997: 13). Here too, concepts of "disrespect" seem to explain some of these objections, with interviewees objecting to long-term physical impacts of short-term users.

Hazards and Logistical Challenges of Hunting among Tourists

There are other effects of visitation on hunting, beyond the increased competition and disturbance outlined above. Interviewees also commonly discussed the hazards and practical challenges to hunting on the modern Alagnak River. The area that has become much more populated in recent years, especially during the summer and early fall, when moose and other species are traditionally hunted. River users note that recreational visitors are geographically diffuse, not always located in predictable locations, and often not aware of how to behave safely in an area that is being actively

hunted. In some cases, this can result in significant hazards to public safety. As Joe Woods observed,

> "in the fall time—moose season, there's lots of hunters. It's… dangerous down there in some fall time when moose season's open. There's too many people, too many hunters, ennit? 'Cause that river, it's so windy…you can't see it around the corner, and you pull the trigger, and never know what's on the upper [bank] or down below you, or whatever" (JW).

Similarly, Howard Nelson observed,

> "Due to the fact that there's so many tourists over there - I mean rafters campers, there's lodges spread out all the way up to the middle cabin - it's not safe to hunt over there no more" (HN).

Overshot that might hit cabins, lodges, fishermen on the banks, or boats were all of concern. Other project interviewees have made similar observations.

Of particular concern were rafters, who travel in relatively silent craft so that they are not detected until they can be clearly seen, unlike motorboats which are heard long before they are seen. This presents a unique challenge in the winding, complexly braided channels of the Alagnak, with its dense riparian vegetation. More than one project interviewee reported almost shooting rafters by mistake, while hunting along the river. As one interviewee recalls,

> "One time I was there [on the Alagnak River] sighting in my gun and I saw movement. It was drifters, it wasn't a moose. Lucky I didn't pull the trigger! Scary thing, if they think you're shooting at them, they might shoot back" (quoted in Evanoff 2008).

Peter Apokedak also reports that he has almost accidentally shot rafters once when hunting ducks, as their raft drifted from behind a riparian island into his firing line:

> "the river rafters… go over there…You go over there - you don't know what's around the bend! Sometimes you're going to shoot your birds…here comes the rafter! Or sometimes you're on the hill, and you look around… sighting your rifle way up the creek, you know? I was

> going to do that one time, and I see movement out of the corner of my eye, and I looked, and there was a rafter! Well, if my eye was bum, they probably would have probably would've been shooting at us… you know, there's a lot of rafters" (PA).

Fear of this kind of accident, coupled with a perception that the game is often frightened away from the Alagnak River corridor by these recreational users, has resulted in the increased avoidance of the Alagnak by hunters, especially in the summertime. Some have relocated to other subsistence hunting areas in lieu of the Alagnak – principally, they suggest, to avoid these dangers.



Figure 71 - A camp of recreational rafters, fishing on the Alagnak – one of several encountered on the middle river in August of 2012. Douglas Deur photo.

Increased Threats from Bears and Other Risks

Some issues on the Alagnak, like erosion, are widely known to have existed prior to tourist uses of the river, but are said to have intensified significantly as tourism has increased. Among these types of hazards are bear encounters. Bears were said to have always been a potential threat on the Alagnak historically, drawn there by the abundant fish and relatively shallow, easily fished waters. Brown bears were said to be especially menacing along the river during fish runs, which is, regrettably, when the peak Alaska Native visitation has occurred along the river historically.[210] This coexistence of Alaska Natives and bears along productive fishing rivers at the time of the salmon runs is a recurring theme throughout many parts of Native Alaska, and communities typically have prescriptive and proscriptive guidance regarding the conduct of human-bear encounters embedded within their oral traditions. Mike Andrew in particular shared with the researchers a rich lore associated with bear encounters on the Alagnak and other nearby rivers. Young people were traditionally trained in methods of bear hunting and close-range self-defense that seem astonishing by modern standards. They were taught how to lunge forward when face-to-face with a bear, landing a sharp hatchet to the back of the neck in a spot that would – if successful – incapacitate the bear. Additional training focused on ascertaining the likely behavior of a bear based on its eye movements – to determine if it was going to attack or bolt away. Mike Andrew learned many of these skills from Chief Evan:

> "I could tell you a little story about a bear. Well, I used to go hunting with my grandpa. I was only ten years old. My grandpa, before it happened, he wants to me go out bear hunt. Hunt bear with a small hatchet…the hatchet, you got double blade, but you got to be really sharp. Just like a razor blade! … I was scared. First thing, before we went out, my grandpa teach me. He was my teacher…He said, "when the bear charge too close, we have to jump to the right." Because they [are] left-handed. If you jump on the other side, they'll *grab you*, and *throw* you in the air. Like a little ball. So when they jump onto the right side, they'll pass you. In one second, he's coming back. You jump. Then maybe three times, he slows down, then whack it behind the head. The sinew behind there. Then they fall down" (MA).

Comments by Mary Olympic and other interviewees indicate that portions of the Alagnak were especially "brushy" along the shoreline and were known to be especially

hazardous as they restricted visibility and increased the odds for accidental bear encounters.[211]

While these threats existed historically, interviewees generally expressed the view that the threat from brown bears had increased significantly with the rise in recreation non-resident visitation of the Alagnak Wild River corridor. Interviewees suggest that they "have to act differently and be much more careful on the river due to boats, and off the river due to bears" (Katmai Research Project 1997: 12); "it is crazy on the Branch, bears everywhere" (Katmai Research Project 1997: 9). Research by the National Park Service tentatively supports the concept that bear encounters have been a generally increasing threat along the Alagnak.[212]

Alaska Native interviewees noted what they perceived to be both increases in bear numbers and changes in bear behavior, as well as visitor behavior that seemed likely to induce bear conflicts. Interviewees consistently agreed that bear numbers had increased on the Alagnak and nearby Katmai National Park and Preserve. As Howard Nelson noted,

> "The only things that are still evident and only becoming more of is tourists and bears… You get off the boat to go hunting or berry picking, even, you're going to run into a bear over there…The bear situation over there has gotten real bad. I mean, in a four mile stretch of the river from Katmai Lodge to a place called "Lucky Hill", there was eleven bears sighted and that was just the ones you could see!" (HN).

Other interviewees agree with these observations. "Too many right now, they're all over" (TM)! "Bears are everywhere. We have no shortage of bears around here… they're really all over the place" (PJ). "Yeah, more bears than before, you could see them…Just like a puppy, them bears. All over…"Kind of scary…there's a lot of bears down [on] Branch River now. Not like old days!" (DA). "There was no bears! …I don't like those bears! Scary…There was not too much bears up there before the 1940s" (VA). "In those days [the mid-20th century] it was sort of rare to see bears" (SN, translating for MN). "In the past…we never even *thought* about bears!" (VW).

Some attribute these changes to regulation and other activities that have reduced subsistence hunting on the Alagnak and within the larger Alaska Peninsula:

> "It's because of the protection. Like before they used to hunt them , right? Now they now they have all those laws...According to my grandpa, they used to hunt them. They didn't come around. That's a protected park, now. They used to use them as subsistence…I know that my ancestors used to hunt bears, but they restricted it… we can't use bears as subsistence because that's protected. That's one of the issues" (RA).

This increase is also attributed to a number of other factors such as hunters and fishermen leaving animal carcasses along the banks, such as the carcasses left behind by trophy hunters. In addition, some note that bears are drawn to the food, trash, and human waste that have been increasing along the river's banks in correlation with the general increase in human population along the River. This observation has paralleled a general trend in brown bear populations on the Alaska Peninsula, which have been drawn to human communities and camps throughout the region. As Behnke noted shortly before the designation of Alagnak Wild River, "Productivity is high, and there have been increasing numbers of bears around canneries and communities in the area (Behnke 1978: 128).

Some interviewees have suggested that increased bear and human traffic has, in turn displaced other types of game from the river corridor. Moose were said to have been particularly affected:

> "right now it's hard to get a moose on Branch River because of so much traffic and so many bears, you know, you've got a combination of the two. And moose, they just don't like all that traffic, and then the bears, there's so many bears eating the dead salmon that…the moose just don't want to be there" (Alvarez 2002: 45).

As a result of the increased number of brown bears, some suggest, there has been a lower calf survival rate in the area, which they suggest has contributed to ADF&G closures of the cow moose season on the Alagnak. Increased bear numbers, some suggest, may have also affected the distribution of non-game wildlife and berry picking areas as well.[213] Some interviewees suggest that bear's diets on the Alagnak and nearby have gained breadth over time, perhaps reflecting increased population pressure on certain resources and places: "What we eat, they start eating. They started eating eggs! Salmonberries. Never used to eat them before. Now they eat everything what we eat" (DA).

Visitor numbers and activities are said to have other effects on bear threats along the Alagnak. Bears often become habituated to finding food at active or former visitor campsites, some suggest. Exposed to so many people, and with so few of them being hunters, bears are said to have grown increasingly tame around humans:

> "Long time ago, they used to take off long ways when they see you. Right now they are like a dog; they come meet you. They come and watch you from near the door… They're not scared at all. No, long time ago they see you miles away, they take off. Yeah, not no more. They're just like a dogs" (TM).

> "Some of the comments I heard about why bears are so wanting to be near people is because the sports fishermen, they see them all the time, and they scare them away, but then they see more and more, and they just get used to seeing humans. So they say, 'Well, maybe this guy's going to throw me a candy bar too.' So they have no fear of walking through the village in the middle of the day!... "They have bear issues in and around the camp, the cabins. I've even stopped by a couple of rafters and talked with them during the…middle of the day, they had bears raiding their kitchen stock. This one guy I talked to, his buddy was doing the dishes and rattling around the pans, and there was a bear sticking his hand into the mesh where the stove was, you know, pulling the food out!" (HN).

This tameness is said to have changed bears' "flight distance" in a way that causes all river users – Native and non-Native – to often find themselves in dangerously close proximity to bears.[214] This tameness also has allowed bears to become more of a threat at fish camps and other food processing operations along the river:

> "Remember all that fish used to be hanging up there, outside? And bears never touch them! Now, you hang one up there, it'd be, next morning, you would never see them. They'd be gone" (TM).

Bears have recently been seen raiding boats used in fish camps and other subsistence operations as well. As Mike Andrew recalls,

> "I thought I heard something in the boat. The bear was sinking that boat. Sinking all our food out. We didn't have nothing. We had to come home! …He come three feet. Big grizzly bear, 12-foot. Wow, it was scary" (MA).

In turn, this tameness is said to have adverse effects on the bears, themselves. Residents report seeing an increase in the number of bears injured or killed along the river after being shot by recreational fishermen who are frightened by bears willing to approach so closely. Native river users have occasionally had to shoot bears that enter active fish camps as well.

Some families have apparently changed their patterns of river use, and even stopped camping on the shoreline, due to an increased fear of bear encounters.[215] Some particularly express concern over taking children to the Alagnak River when there are mothers and cubs present:

> "they get more bears over there now. On Branch River, sometime even around town here. They're a danger, we have to get rid of them. 'Cause the kids, you know. The family with a bunch of kids playing around… Yeah, it's momma [bear] over there letting the baby go in the old Branch River catching all those trouts and rainbows, and moose, kill them and just leave them there" (A. Tallekpalek 1998).

Moreover, interviewees note that Native river users often must intervene when they see visitors exposing themselves to immediate bear risks; in turn, this sometimes exposes Native river users to increased risks of bear encounters. Joe Woods, for example, speaks of Native Trespass Officers helping visitors that are being approached, or even stalked, by bears along the river:

> "we always watched out for [people] like, if we traveled up and down river, we'd see something we didn't like, like if we had a bear sneaking up on somebody, and we'd *stop* [visitors]. Warn them about it, an' let them know. Just safety precautions…"You see moose, you see caribou but…you always see bears over there. I mean, that's bear country. Big time! And you got these guys coming down in them rafts… they don't understand that…I seen people park in feeding grounds! I tell them, "Man, you got a feeding ground over there! Move your camp, or else you're gonna be eaten!...[Visitors are] *sleeping* on bear trails—camping on bear trails! I said, "You guys are asking for trouble!" You won't catch me

> sleeping on no sandbar in the tent. [The] bears would [go] "ArrRAR!!"" (JW).

It is worth noting that visitors are said to engage in a variety of high-risk activities – including but not limited to unsafe interactions with bears. In doing so, interviewees suggest, these visitors not only put themselves at risk, but put subsistence users at risk as they attempt to assist. Again, quoting Joe Woods:

> "you know, White men, they always like to go up to their titties in water, anyway!...just because they got chest waders on, they think they can go that deep and go out there and fish!... I mean, they do *dumb* things!"(JW).

Alaska Native river users often step forward to advise visitors, they note, but must sometimes intervene in various ways to effectively rescue visitors from their own mistakes.

Indirect Effects

Interviewees report a growing list of "indirect" or "secondary" effects of Alagnak River tourism on their communities, resulting in part as an outcome of the direct effects outlined above. Some of these indirect effects are felt primarily on the river, but this is not always the case. While past studies suggested limited effect of Alagnak River use away from the river corridor (such as within the villages), interviewees report growing "indirect" effects – positive and negative - that can be felt within the villages, many miles from the river corridor.[216] This section provides a synopsis of the major categories of indirect effects reported by Alaska Native interviewees.

When interviewees are asked to discuss indirect effects, the list that they provide is considerable. Avoiding the tourists and their direct effects, people no longer use the river as much – especially in the summer and fall. This generalized "displacement" is perhaps the most widely cited indirect effect. As Howard Nelson summarizes it,

> "I haven't really gone back and done any kind of fishing since the catch and release…It just doesn't *seem* right that we were chased out just because of the influx of tourists and of course we're going be shooting, and whatever out of the boat, or up on land and it's just not safe to *be* over there. You know, there are places I want to go and see and not run into anybody, but over there you're running into people from all over the country. And they have no concept of Native allotments, private ownership of something that's wild, as you know the Branch River seems to be" (HN).

As an outcome of this displacement, interviewees suggest, they have fewer options for acquiring king and silver salmon, as well as moose, lingcod, and other foods traditionally linked to the Alagnak, resulting in a slight reduction in food diversity and security. There is less intergenerational transmission of knowledge regarding not only the specific history and landmarks of the Alagnak, but also the types of landmarks, such as shallow-water fishing areas. There is also increased resource pressure on locations away from the Alagnak River corridor, such as Yellow Creek. As visitors increasingly pass through adjacent villages en route to the Alagnak, there is increased visitor traffic in and out of the villages – most noticeably at the Igiugig and King Salmon airports in particular, which are stopover points for many local flights. Interviewees note that tourists pass through these airports all summer long, so that even isolated communities such as Igiugig do not "get normal" until October (MO); yet this traffic also brings regular and relatively inexpensive flight service to the outside world, which is widely seen as a benefit, but with complex consequences. There is a very slight increase in cash economies at places such as Igiugig, though it is difficult to measure, as well as occasional employment in guide services. Revenue from the lease or even the development of allotment and corporation land along the Alagnak varies over time, but does contribute to the economic stability of some area families and villages – especially Levelock and Igiugig. "The Corporation side of it, we're in business with the tourism. We own a lodge right over there. And I try and encourage that part!" (GE).

There are many dimensions to these "indirect effects," and it is somewhat difficult to always "connect the dots" neatly between particular chains of causation. One commonly mentioned example illustrates this point: the increase in high-speed boat traffic is said to bring an increase in the rate of erosion, which increases the rate at which structures are lost to the river, which reduces the frequency of Alaska Native use, which reduces opportunities for intergenerational transmission of knowledge regarding the river, which erodes the overall integrity of Yup'ik cultural knowledge and practice

within Alagnak-associated villages. While this chain of causality is entirely plausible, it is difficult to document each step in the process with tidiness and precision. It is clear, too, that each link in this chain is connected to a constellation of other social, economic, and biophysical variables that are not easily disentangled from the whole. For this reason, we present a general qualitative overview of these indirect effects, knowing that they are of deep concern to Alagnak-associated communities, while they are somewhat difficult to link conclusively to single variables that can be managed by the National Park Service.

There are many, more symbolic "indirect effects" as well. Many Alaska Native users express a sense of displacement that is as much symbolic as it is material, as if their community and their history are being gradually erased from the landscape. There are more "direct" forms of displacement that are apparent on the Alagnak, but displacement takes a number of forms; the secondary and tertiary outcomes of the Native exodus, such as the loss of river knowledge and river households, that make the absence more complete and enduring with time. Some see the Alagnak as just one piece of a much larger pattern of "disrespect" shown toward Alaska Native people and practices. There are those who feel somehow "violated" as places of deep personal importance are made available for viewing, camping, photography and other purposes amidst a steady stream of visitors.[217] As stated earlier in this document, many Alaska Native river users view the NPS and other agencies as prioritizing the needs of recreational visitors over families with very ancient and immediate ties to Alagnak Wild River. The adverse effects of visitation are often seen as emblematic of national priorities that give recreational users – most of them affluent and non-Native – higher priority than Native users. All of these are, to varying degrees, "indirect effects." While relatively intangible, they still continue to color Alaska Native views of events on the Alagnak, as well as views of the National Park Service and the larger federal government of which it is a part. What follows, then, is an overview of the major categories of "indirect effects" that have been reported by interviewees.

General Declines in Alaska Native Use and Visitation

Of the various indirect effects of visitation on the Alagnak, the most fundamental outcome appears to be the increased avoidance of the river by Alaska Natives from nearby communities. Many interviewees reported a growing tendency to avoid the river altogether, at least during times of peak recreational use. As interviewee Howard

Nelson lamented, visitation contributes to the displacement of Native river users in a variety of ways:

> "You know, it's because of the impacts of the fishers and the rafters, and campers, airplanes all over the place over there…. it's been noticeable for the last 20 years and at one point, [based on] Park Service information, was up to 14,000 visitor days a year" (HN).

Such comments have been made by interviewees for various past studies as well. Alex Tallekpalek, for example, observed that,

> "ever since these tourist camps they got now, I don't go over there very much. 'Cause every place you go 'round the bend, you see people fishing. You go on a little bit and a bunch of people are fishing, camping along the beach, y'know" (A. Tallekpalek 1998).

In some cases, Alaska Natives still visit the river because of its general importance to them, individually and collectively, but report that they do not participate in subsistence tasks as much as was done a generation ago. As George Wilson, Jr. notes,

> "I just don't like being around a bunch of people. It makes it more difficult to get game. When you got just got a lot more traffic. I don't run the river so much. I just kind of do a lot of sitting and calling and walking it. I enjoy that. Seeing 5, 6 boats a day, it gets tiresome. Yeah, you don't feel so remote" (GE).

These forms of displacement reflect the awkward fact that the peak time of traditional subsistence fish harvests on the river – summer – is now the time of peak recreational visitation. Thus, many individuals, such as Martha Johnson, express hope that tourist pressures might abate somewhat so that, at minimum, subsistence fisheries might rebound and thrive on the river on the long-term:

> "There's a lot of lodges up there now. I don't know how many but it's mostly for sports fishing. It would be good if the people could still go up there and subsistence fish and put up fish, because we put up a lot. I think putting up the fish is the most important" (MJ).

Of course, these changes are inextricably linked to broader trends in Native subsistence. As some interviewees attest, younger generations do not sometimes have the same interest in subsistence hunting and fishing that their elders do, and salmon are harvested in smaller quantities due to the absence of sled dogs.[218] Certain people who participate in subsistence harvests often choose to do so closer to home, where the costs and complexities of transportation are fewer. So too, the market for furs and the interest of many younger Alaska Natives in trapping has waned in recent decades. Nonetheless, Alaska Native interviewees are consistent in attributing their declining use of Alagnak River to the increased use of that river by recreational visitors.

Changes in the Timing, Objectives, and Locations of Resource Harvests

Even if some Alaska Native families opt to still use Alagnak Wild River for subsistence or other cultural purposes, the large number of recreational visitors on the river is said to have changed the seasonality of their use. Many Alaska Native users avoid in the river during the summer due to the especially high numbers of recreational users in that season: I sort of wait till *they're* gone, and then no-see-ums are gone. You have everything for yourself, pretty much" (PA). As Dallia Andrew, a regular subsistence user of the Alagnak, observes,

> "There's a lot of people in summertime. A lot of fishermen in the rivers, just like in Bristol Bay. Crowded. You have to find your way up the river… More [people in the] summertime, but fall and winter, hardly anybody" (DA).

Similarly, George Wilson, Jr. notes,

> "I don't go anywhere during the summer and end of August. I just usually go end of September, October. It's colder, but then there's no bugs. And then there's no people. I don't mind enjoying that…I don't personally take any salmon out during the summer for personal use, but I do go up there in the fall, usually after all the tourism [is] down…By then I usually just try and get silvers. There's only a couple of spots that are still real productive. The silver run seems to be doing fairly well. And they're just a lot of fun to catch" (GE).

This phenomenon was documented in past studies, including the Katmai Research Project, some 15 years ago, when this shift in the seasonality of resident use was probably at its peak:

> "[One interviewee] does not usually go onto the Branch River until fall time because of the activity there…[Another interviewee] used the Branch all the time for a lot of different animals. He said this has changed some though as the Branch is so busy that he only goes there regularly early and late in the year when the game is not spooked due to all of the boats and people" (Katmai Research Project 1997: 6, 16).

As an extension of this change, recreational visitors are said to have interrupted those subsistence pursuits that have historically taken place in summer, including king salmon fishing, moose hunting, and the like. Traditional summertime fish camps have been especially hard-hit by these seasonal pressures. As John Tallekpalek notes, "[village residents] never go over there in the summer when the lodges [operate]. Only me and [Mary Tallekpalek] that stays over there" (J. Tallekpalek in Tallekpalek and Tallekpalek 1998). Those residents who feel compelled to visit the river in the summertime for fishing only venture there briefly and late in the season, when non-resident visitor traffic is said to decrease:

> "Not much fish camps there anymore [on Alagnak River]. People go out on weekends or for a week, we go out more in August and September when there's not as much tourism" (quoted in Evanoff 2008).

Some of the early fall harvest of moose, salmon, and other resources has also been eclipsed by growing tourist pressures. As Howard Nelson recalled,

> "We used to go over there and hunt moose all the time and duck hunt during the fall. I don't even bother to go over there anymore, but there's just so many people running around" (HN).

As a result, the subsistence users of the Alagnak are utilizing the traditional resources of the Alagnak in different proportions today. The proportional significance of redfish,

silver salmon, and other fall harvests has especially increased as a result of this summertime displacement, even as the total subsistence harvest has ostensibly declined. This shift also has been facilitated by the timing of the commercial fishing season, which sometimes keeps Alaska Native men occupied until the fall.[219]

For similar reasons, some Alaska Native users report that their visits to the Alagnak are often compressed relative to their visits of prior decades – reflecting the limited window of frost-free access to Alagnak cabins and resources by boat. While visits are often shorter, they are also symbolically significant to some families – allowing them to maintain a foothold on the river in spite of summertime pressures that make Native use less tenable than before.

The temporally "compressed" nature of resource harvests runs up against another temporal phenomenon that was noted by various subsistence users of the Alagnak. As tourism has increased on the river, animals are more "skittish" and diffuse due to visitor traffic and related disturbances. As a result, it takes hunters more time to find and successfully hunt moose and other game. As the window of low-traffic days on the Alagnak has decreased, but the length of time required for hunting has increased, traditional users have found the hunt to be challenged by simple scheduling constraints that make other, off-river hunting sites more appealing.[220]

Moreover, while the reach of recreational users is ubiquitous along the Alagnak, Alaska Native resource harvests have proportionately intensified in those areas that are remote from lodges. Some Native resource harvesters watch the movement of lodge boats, detect patterns, then try to avoid them. Places with resource opportunities sitting a short distance off the river, such as lakes with fish, game, eggs, or berries, are sometimes gathered in lieu of resources immediately fronting the river. Lesser known parts of the Alagnak are at a higher premium than before, and the "discovery" of those places by recreational visitors is sometimes met with dismay.

Interviewees also commonly note that the tourist pressure on the Alagnak has displaced hunting, fishing, trapping and other pursuits to places well outside of the Alagnak corridor. Hunting pressure, safety concerns, and other factors have caused people to carry out subsistence and other cultural activities to move to successively more remote locations. As George Wilson, Jr. observes, this was compounded by subsistence hunters from places like King Salmon who were, themselves, displaced by increased hunting in their area:

> "I've noticed that when the air force base was in King Salmon. They started doing a lot more pressure in that area, and a lot of the local guys there that would traditionally hunt around there, they started moving in and just trying to get further out, whether they wanted to go on longer camp trips to go hunting or whatever, but then the generally started moving in. First into lower end Alagnak and the Branch River, Bear Creek. And then some of the local guys used to hunt there, they just started coming up the Kvichak" (GE).

For families that have regularly used the Alagnak, then, the river is even too busy in the fall to allow resource harvests during that season. Again, quoting George Wilson, Jr.,

> "If I do any camping, it'd be moose on the lower end. But the fall and the moose season is way too much traffic, so I don't bother. There's a fair amount of moose there, but I don't like running into a lot of guys. I don't mind going further away" (GE).

For many families who once used the Alagnak intensively, certain places are now visited regularly - partially or wholly in lieu of Alagnak River. Most go to Yellow Creek, Bear Creek, Jensen's Creek and other places on the Kvichak River Basin. For example, Patrick Patterson, Jr. explains that he now goes to the Kvichak and other rivers to avoid the crowds of the Alagnak:

> "When I go on our boat and hunting and stuff, I don't want to be in a crowd…The Kvichak is still pretty good yet. You see a few boats and stuff. Few fishermen, but nothing like the Branch has turned into" (PJ).

Among the alternative places for hunting, fishing and other pursuits, Yellow Creek was mentioned most frequently, and seems to be used by a growing proportion of Levelock and Igiugig families. Quoting some of the interviewees who spoke of this shift, "The Levelock people talk about going to Bear Crick to go hunting and stuff. Yellow Crick…all these other places...Branch River used to be the main [place]. Most of the guys hunted that" (PJ). "The majority of the people that go hunting that I know of, we're all going upriver [on the Kvichak, to Jensen's Creek and Yellow Creek]" (HN). "I just run up the Kvichak here into Yellow Creek…there's only probably about two guys

here that go up there with jet boats. You can go a couple days without seeing anybody" (GE). The Katmai Research Project noted a similar process in the mid-1990s. Speaking of one individual who formerly used the Alagnak extensively for hunting, they noted, "For moose he now often goes up the Kvichak or up Yellow Creek where there are fewer hunters and people" (Katmai Research Project 1997: 16).[221] Some of these areas are harder to hunt and fish than the Alagnak in its prime, but the lack of visitor pressure makes these lands more appealing to many traditional resource users all the same.[222] Ironically, Alaska Native use of this area is now faced with new challenges, including proposed large hard-rock mines such as the AUGN Mine, in the Yellow Creek area.

Dissociation, Intangible Values, and Cultural Transmission

The displacement of Alaska Natives that is reported along the Alagnak has a number of subtler ramifications, discussed by interviewees, that affect the larger integrity of Alaska Native cultural practice and values. Indeed, some hint that the larger "meaning" of the Alagnak has been in flux due, in part, to the effects of tourism. On one level, interviewees note that they simply view the Alagnak differently than they did historically. Once, the river was seen as a place of abundance, privacy and personal refuge, and as a cornerstone of the traditional homeland; today, though the river is still cherished, it is seen by certain elders as increasingly forbidding, dangerous, crowded and uncomfortably "exposed" to the outside world. The river was once prized for being relatively "pristine" and healthy, but is seen by some as increasingly polluted, materially and immaterially, by such diverse elements as noise, motor discharges into the water and air, and interpersonal conflicts. Once a place of deep personal meaning, various interviewee suggest that the river has been lost to outsiders and is no longer "theirs" – a sentiment that has been reported in past studies of the river.[223] For many families, between the 1970s and the 1990s in particular, the river's status shifted – from a place that was eagerly sought out and visited, to one that was increasingly avoided.[224] As past NPS researches have documented, people report being not just "physically" displaced from the river, but increasingly report being "psychologically" displaced from the river.[225] This perceptual shift in the status of the Alagnak is difficult to measure, but is apparent in many comments made by elderly members of the villages especially; such changing views both manifest and compound the larger processes of displacement.

Similarly, some interviewees suggest that, in time, expanding recreational visitation may result in this general "displacement" become complete, as younger generations return to the Alagnak less and less with their families. Interviewees for the Katmai Research Project made this point clearly and repeatedly, just as interviewees for the current project have:

> "[One interviewee] said in a way the Branch has already been lost to the local people and will only get worse in the future. He said people are still making a lot of use of it but that it is a generational thing and the laws and regulations are like slow fine tuning, slowly displacing people and altering the use and orientation of the younger generation" (Katmai Research Project 1997: 15).

Indeed, a number of interviewees for the current project have suggested that these elements of "displacement," make the Alagnak uninviting and unfamiliar to Native youth, who go there with declining frequency. "It would be good if the young people knew that they could go up the Branch and go hunting and fishing" (MJ). Some note that, if unchecked by new policies or other mechanisms, the decline in use and visitation by young people will effectively eliminate community ties to the river as young people do not learn to navigate the river, do not build personal attachments to the river, and do not learn about their cultural heritage associated with the Alagnak. As Martha Crow observes,

> "There *is* a big impact [of tourism]…the big impact is cultural change, itself…people change, times change…people from here don't go to Branch River. Like my mom says, she's from there, and her *parents* are from there—but you know [for] me, it's…like going to New *York*…I'm really disconnected from Branch River. I don't have *no*…sense of belonging there…when I want to come home, I know where my home is, it's Igiugig. So—times change, and…people change…*I* only go to Branch River when I work with the Park Service!" (MC).

Michele Morseth's interviewees from Igiugig explained similar sentiments well over a decade earlier:

> "In terms of cultural transmission, displacement from the river means that younger generation doesn't learn the river, doesn't learn how to hunt or

> fish it—doesn't learn its subsistence and cultural value. They learn about sport fishers and the land and river's monetary value—the river becomes removed from its cultural context" (Morseth 1998).

Proceeding from this observation, some interviewees suggest a broader, and more disturbing conclusion: that the use of the Alagnak is of such traditional importance as a locus of the transmission of traditional knowledge and values – relating not just to the Alagnak, but to the whole of Native life – that their displacement from the Alagnak is eroding the larger integrity of Yup'ik culture in the Alaska Peninsula region. They note that much of the corpus of Alaska Native traditional knowledge is transmitted through exposure to oral traditions, while on the land. Several elders spoke to this issue. As Dallia Andrew notes,

> "They [old timers] know they heritage from their ancestors. The older people taught them how, then they *pass* it to *us.* That's how we know from our parents. Their ancestors…they're not written down, our rules from old people" (DA).

So too, Mike Andrew speaks of the teaching values of these oral traditions:

> "We kind of pass it on to younger people…They're good to know, and a long time ago all the Native [people], when they've got the story, it's not written down, so maybe they have to talk about it" (MA).

And, Mary Olympic also asserts that this intergenerational transmission of knowledge is critical to traditional learning as well:

> "you just have to listen, all Elder[s] when we talk. Better way to listen. I think it's true, better way to listen. Especially when you get up in the morning, you have to…talk to them little bit. Mm-hmm! In the morning. Good to talk to them in the morning, when after sleep. Before they start [their day]. Better way, that's what my grandpa [Chief Evan] used to tell us…Better way, my life!" (MO).

So too, practical subsistence and environmental knowledge is transmitted in these ways. Mary Nelson noted that, at places such as the Alagnak, "most basic things are taught by immediate family, like picking berries, and getting fish ready for smoking.

It's mostly taught by immediate family… whatever she learned, it was all in Native language or tradition" (SN, translating for MN). Likewise, Dallia Andrew notes that traditional conservation values were transmitted through these exchanges, citing the example of traditional egg harvests:

> "We got enough eggs, we're done, we let 'them hatch. When we got enough birds, "Enough!" that's what old people told us. We just let them hatch, so they could populate, too… Wildlife, too. When you've got meat and you've got enough until next time, until you run out of some" (DA).

Exposure to Native oral tradition, in place, is widely said to be a source of ethical guidance and personal meaning to young Alaska Natives; without these experiences, interviewees suggest that young people are sometimes left morally adrift. Accordingly, many interviewees commented that the loss of traditional knowledge, caused in part by displacement from traditional use areas such as the Alagnak, has contributed to an erosion of traditional values and ethics. As Ralph Angasan notes, "forgotten history is probably the biggest excuse for wrong doings" (RA). So too, declining opportunities for traditional teaching on landscapes of traditional importance affects how Alaska Native people treat the land and animals on which they depend. Patrick Patterson, Sr. observes,

> "They should adopt what the elders used to do a long time ago and preserve the game. These young kids out here now they go shoot anything that moves just for the sake of shooting. You have kids that are five or six years old with a big rifle on their back going up Libbyville shooting all the stuff and wasting it, they don't eat it…I believe they should all know, you know, their heritage and what they grew up with. A lot of them just don't have a clue!" (PJ).

Interviewees generally suggest that regular access to places such as the Alagnak, involving both young and old, sharing knowledge between generations, insures the integrity of these most fundamental forms of knowledge and value. Displacement, in contrast, contributes to the erosion of these ancient traditions in ways that are destructive and enduring. This is a particularly vexing and intractable effect of tourism, difficult to remedy, but of keen interest to many Alaska Natives. Some propose developing opportunities to get young people back on the land in new ways – through

educational events, culture camps, or other organized activities, that might help reverse some of these trends.

Increased Regulation, Policing, and Conflict

Increased recreational visitation has brought a need for increased surveillance by land and resource management agencies that are mandated to protect the river and its resources, including the National Park Service, the Alaska Department of Fish and Game, and other federal and state agencies. In turn, this apparently also contributes to certain Alaska Natives' sense of "displacement" from the Alagnak River, as activities undertaken for countless generations along the river are now regulated by outside officials, and recreational visitors sometimes report complaints to authorities about legal Native resource harvest activities. As noted by interviewees for the Katmai Research Project:

> "they said their activities have changed around the Branch. They said they feel picked on and that the river is no longer like their river. He said the foods and wants are still the same but outside forces such as sportsmen and regulations have created some changes. They said on the Branch they are always looking over their shoulders, it is not as comfortable anymore. People try and report them to F&G. He said he has seen a sport guide poach a caribou but he went to talk to him and did not report him. He wants them to do the same with him but they do not. [The recreational users] feel like it is their river but it is his home…He said the river is much different than when he was young when they used to see very few people and they weren't watched wherever they went. Now there are people everywhere and they are always watching, wanting to turn people in for what they have done for generations" (Katmai Research Project 1997: 14).

People complain of a seeming escalation in the policing of the river: "bigger cops, *guns*" (PA). For many Alaska Natives, especially elders who describe personal experiences with "racial profiling" in earlier periods of American history, the presence of law enforcement officers can sometimes be uncomfortable in such a place as the Alagnak. Some interviewees report direct conflicts with law enforcement on the river that manifest these larger dynamics:

> "I had Park Service… stop me in the middle of the river with my boy, and my son had a plastic pistol. Toy gun. I mean, it was just a plastic gun they checked it out. They thought it was real. 'Cause…nowadays, it looks real!...I was told I couldn't cut trees down, I couldn't *hunt*, I couldn't do this on the river, I told them, "Hey, I own *land* up here!" And I says, "My whole *family* owns land on this river!" And I says, "I got use of *all* of it!"" (JW).

Certain traditional activities are now said to be forbidden, such as the use of open fires, and some suggest that it is uncomfortable for Alaska Native users to be chastised by relative newcomers for such practices.[226] (These frustrations are compounded by rumors of past NPS "cleanups" of the shoreline, in which it is said that old gear and even cabins were demolished on NPS lands early in the history of NPS management.) Many of the concerns about these encounters are as much symbolic as they are practical.

Still, it is important to note that a number of interviewees expressed thankfulness for the role of NPS rangers assisting in law enforcement actions relating to trespass, vandalism, and fish and game violations. Many interviewees praised NPS law enforcement for their assistance in the past, and suggested that conflicts with law enforcement are significantly influenced by the style of particular individuals, as well as their willingness to work cooperatively and respectfully with Native peoples. The issue, like many on the Alagnak, is complex.

Similarly, some interviewees suggest their growing sense that the Alagnak has become so crowded, and its management issues so complex, that it is becoming a locus of interpersonal conflict – a place where, at minimum, verbal confrontations with outsiders are uncomfortably and abnormally common. Interviewees reported a number of run-ins with fishermen, lodge staff, and law enforcement over the years. For example, Howard Nelson noted that he actively avoided portions of the river where commercial fishing and hunting operations were located, because of the potential for direct confrontation:

> "The reason I avoid them [commercial outfits] is you tell them what they're doing wrong, and some of them guys actually become confrontational …If I would stand there and push the point a little more than I could or need to, somebody would get hurt!" (HN).

Even the potential threat of such conflicts is unappealing to many Alaska Native river users, and may contribute to decisions not to return to the Alagnak.

Also, as noted in many places throughout this document, a number of interviewees particularly express frustration with the growth of hunting and fishing regulation and enforcement along the Alagnak as the recreational use of the river has continued to expand. Intensified hunting and fishing, some suggest, has undermined Native subsistence, while also – ironically and unfairly, in their view - subjecting Native people to increased policing prompted by largely non-Native resource pressures. Some note how different this was from the past condition of the river, when the Alaska Native communities could utilize the river without having to answer to non-Native regulators.[227] It is important to recognize that regulation is relatively new within the full time span of human use of the river; some interviewees still clearly recall their first encounters with direct fish and game regulation on the Alagnak. (Accordingly, some Alaska Native participants in project meetings have suggested that the NPS and the ADF&G could try to foster forms of passive, rather than "extractive," recreation along the Alagnak to minimize pressure on subsistence resources: "They should cater to photography, rather than taking from the land" [quoted in Evanoff 2008]). Interviewees often note that it takes time and effort to track changing regulations, and enforcement often creates frictions between Native and non-Native people even when all parties are compliant with regulations. Moreover, many interviewees note that the Native communities have a sense of the cause and effect in game fluctuations that are locally-attuned and sometimes, interviewees believe, of greater veracity than the formally documented information available to guide ADF&G management decisions. [228] As in all of the matters addressed in this section, Alaska Native interviewees especially chafe at the decline in their autonomy and control over this place of unique personal and cultural significance.

Economic Opportunities and Challenges

While Alaska Native interviewees most commonly focus on the negative outcomes of non-resident visitation on the Alagnak River, some discussed changes resulting from the increased visitation that were neutral to positive. A small number of individuals, for example, mentioned the outcomes of increased service sector employment opportunities along the Alagnak. Beginning no later than the mid-20th century, some

Alaska Native families worked for fishing and hunting charters, or led independent charter operations themselves. Mike Andrew, for example, used to work as a guide along the Alagnak River: "I was a guide for some…it was a moose hunter and a bear hunter! And when I took them way upriver, [it] was pretty good there" (MA).[229] Historically, independent guide work of this kind has often been the most successful form of economic participation in the Alagnak's tourist economy for village families.

However, interviewees widely suggest that the Alagnak's lodges have had negligible impacts on local employment opportunities within the villages. The lodges generally do not hire people from the villages, so that their principal effect on employment is through the Native corporations' hiring of trespass officers.[230] The lodges, some note, have a preference for young men from the Lower 48, who are eager to come to Alaska and work long hours for low wages for this opportunity – a prospect that does not appeal to many Alaska Native users, many of whom already have personal or political qualms about assisting the recreational fishery.[231] For many, participation in the lucrative commercial fishing industry or the traditional subsistence fishery offers rewards – from financial gains to personal freedoms – that are elusive to lodge employees.

Today's Alaska Native river users do not entirely discount the potential of tourism to provide income, or at least more steady income to their communities. They note that new jobs, however, may not come as much from the lodges as from alternative employment options, such as providing transportation to river visitors, or leading chartered fishing trips in a more organized and expanded way than what has been done historically. A small number of individuals within the communities have taken such work, but the future potential for such employment remains unclear. Flights are often routed through Igiugig, and that village has increasingly become a service center to people passing in and out of Alagnak River, which generates a certain amount of income and sometimes facilitates the sale of traditional crafts, but the cumulative economic effects of this are relatively small too. This does provide important indirect advantages, including an increase in the number of flights to King Salmon or Anchorage that are available to residents, which in turn decreases the cost for village residents.

Some village residents have worked for the NPS in such capacities as archaeological technicians, helping in field surveys along the Alagnak. Martha Crow reports working in this capacity a number of years ago. For some village residents, NPS employment is

one of the few mechanisms by which they can maintain regular connections to Alagnak while also making a living (MC).

A number of interviewees and meeting participants also spoke of the opportunities and challenges that have emerged from the leasing or sale of cabins, allotments, and corporation lands on the Alagnak. As noted elsewhere, a number of village families hold allotments on the Alagnak, while the Village of Igiugig, and the Village of Levelock all hold corporation lands along the river. The costs and benefits of the lease or sale of these lands to tourist-related ventures is a complex matter – far more complex than the following summary can encapsulate. Yet, today, this balance represents an important backdrop to most discussions of the river's use.

For some families with cabins along the Alagnak, the rental of cabins has long served as a source of income. After his retirement in 1965, for example, John Tallekpalek began renting his cabin to fishing charter operators:

> "I learned the…sport fishing came in. And used my cabin over in [Alagnak] River. And I lease it to him. So, the, after a while he was pretty loaded money. I only charge him $5000 a year. Well, after five years, then I raised the price up later on and after he makes the money. So, that work out good for me and my wife and… that way we wouldn't run out of money" (J. Tallekpalek in Tallekpalek and Tallekpalek 1998).

This income has been especially valuable for retirees, or those who are dependent on volatile industries such as fishing and trapping for most of their cash income previously and may not have amassed savings sufficient to meet all their cash needs.

Corporations have also been involved in leasing lands. Levelock Native Corporation, for example, has leased land to Katmai Lodge and their members have sometimes served as part of the river patrol employed by the lodge, providing modest employment for village residents. Some interviewees express enthusiasm for the potential of these allotment and corporation land lease arrangements, recognizing that the income derived from the leases could facilitate development of infrastructure and other amenities for the villages.[232] A few interviewees who have leased their allotment lands have expressed pleasure with the arrangement, and indicated that it has even bolstered their ties to the river – allowing them to afford better boats, for example, that allow them to visit the Alagnak more regularly, or to get complimentary flights from

the lessor to and from the Alagnak. In some lease arrangements, Alaska Natives are able to transfer maintenance and trespass monitoring responsibilities to the lessor - a significant relief to some cabin owners, especially those who are older and infirm. Meanwhile, a few village residents – perhaps the minority today - are more reserved in their enthusiasm, seeing this as a "devil's bargain" wherein the villages compound the problems along the Alagnak in exchange for modest income. Responses vary in part with the age of the individual, with younger members of the communities, as well as allotment owners, often being more enthusiastic about leasing arrangements than their elders.

Alaska Native communities' relationships with the lodges, of course, have been mixed. As noted elsewhere in this document, there are occasional conflicts with fishing operations based at the lodge, and the lodges have contributed to many of the resource pressures alluded to throughout this document. [233] Likewise, there has been much confusion in the past regarding the relationship between lease rights on private allotments and lease rights on corporation lands:

> "[One interviewee] talked about Levelock having their exclusive lease on the Branch with Katmai Lodge. He said that it is causing a lot of internal problems as the corporation has given exclusive use to Katmai Lodge to about 15 miles of the Branch River but inside that area are a lot of individual allotments which are now beginning to service other outfitters by allowing them to stay on their land. He said that …the operator of Katmai Lodge, gets mad at the corporation because he thought he had exclusive use but individuals are allowing other operators to use individual allotments inside that area. The corporation then gets into conflicts with individual shareholders who are leasing out to other users. He says it is all trouble" (Katmai Research Project 1997: 10).

A number of Native allotments have been sold to lodges and other non-Native interests over time – generating some income but also reducing the Native presence and footprint on the river.[234] Here too, opinions are mixed. Many village residents see this as a short-term economic strategy for families, often undertaken because of immediate economic hardship; in turn, some suggest, this will ultimately undermine families' long-term economic interests, as prices and land pressures increase on the Alagnak while Native land interests erode.[235]

On rare occasion, there have been sales or trades of corporation or allotment lands too. This has often not gone smoothly. Land boundaries and legal claims are often vague in this geologically dynamic and formerly unsurveyed area, introducing many opportunities for mistakes or outright fraud. As Peter Apokedak recalls,

> "Right up there where the Swan Bay is, Lynden Transport [got the land]. We traded—they had a line right along the beach here. We traded them and that isn't all they took! All that…beach front, all the way down to here someplace. We were going to put a little store over there. And it was in his land!...It was a Corporation land, yeah. When we traded them, here he took all the little beach front, all the way down to there! 'Cause he's a guide, you know. So they bought it and use it for get-away from Anchorage for, I guess" (PA).

Thus, some interviewees have noted that leasing of Native lands in the areas has created an ongoing tension between economic development and subsistence needs within certain communities. Some note that the original appeal of income for the village corporations is undermined by the growing awareness of the impacts of increased visitation on the experiences of village residents who continue to visit the river. For example, Levelock Corporation was reported to have leased land for the development of an airstrip to facilitate traffic to Katmai Lodge, which some river users found troubling: "it's kind of a two-edged sword, because what Levelock is doing [by leasing Corporation land and allowing for the airstrip] and the problem they are facing with their subsistence is that they are dealing with too much use" (Katmai Research Project 1997). Likewise, Morseth (2000) found similar concerns being expressed regarding Village of Igiugig lands on Kukaklek Lake.[236] While there is increased visitor pressure on those lands, and they are often trespassed upon by non-Native river users, these leasing arrangements have been described as a "huge financial benefit" to village residents. Additionally, the residents of the villages retain rights of access to facilities on the corporation lands so that, for example, Igiugig residents can use recreational cabins developed on their lands with lessors for subsistence use in the winter – much improving the quantity and quality of housing available in that area. (A small number of interviewees also mentioned that the presence of NPS facilities also represents a welcome outcome of the Wild River status of the Alagnak. The Nonvianuk ranger cabin and the weatherport on the Alagnak are considered to be of potential value for emergency use by families and individuals using the Alagnak for subsistence purposes in the vicinity of the cabins, who might need shelter in the case of emergencies or

inclement weather.[237] Such NPS facilities may have served as a "fallback" option for some Alaska Native users in emergencies, after certain cabins were removed from inside the original park boundary (Salmon 2002). Moreover, some village residents note that it is to their advantage to have corporation-sanctioned lodges providing lodging options to river users, as this can be done in a way that reduces trespass pressures on privately-owned cabins along the river.

Agreements that support continued subsistence user access are likely to ameliorate concerns that village residents may have regarding the leasing of corporation lands. Still, it is likely that certain tensions will continue to define the relationships between lodges and corporation lands, unless the corporations can forge agreements with lodge operators and other tenants on Native lands that can effectively strike this kind of balance between the needs of tourist-driven economic development and the needs of their shareholders for subsistence and other traditional uses of the river. Today's corporation managers are generally forward-looking in this respect, and try to strike a balance, seeking to capitalize on tourist development opportunities on the Alagnak, while seeking to minimize further adverse impacts on Native interests on the Alagnak. Some are increasingly using their economic influence to promote responsible tourism on the Alagnak, and foresee opportunities to build relationships with the NPS and river lodges to help build a more sensitive and sustainable tourist industry on the Alagnak in the years to come.

A Preliminary Discussion of Compliance Implications

What follows is a cursory overview of certain compliance implications of the project findings, anticipating that these findings may be used in the development of a future River Management Plan or be used in the course of other park planning. If undertaken, a full River Management Plan process will require attention to many of the issues addressed in this document as per the terms of a variety of federal laws, policies and regulations. It is all but certain that such a plan will be undertaken according to the terms of the National Environmental Policy Act of 1969, as amended. (NEPA, or P.L. 91-190; 42 U.S.C. 4321-4335 and 1979 regulations). This law is directed at the impacts federal or federally-permitted development might cause to the human environment, including the social and cultural relationship of people to the physical environment. Under NEPA, federal agencies have an obligation to consult with Alaska Natives and other Native Americans concerning planned actions including potential impacts to culturally important sites and resources. Under the terms of NEPA, federal agencies' consultation with federally recognized Alaska Native governments should be initiated early within the planning of a proposed action in order to avoid delays, to give sufficient time for adequate decision making, and to avoid potential conflicts [40 CFR 1501.2(d)(2)]. Under *NPS Management Policies 2006* federally recognized tribes (which include all of the villages associated with the Alagnak) can be invited to participate in the project scoping process for planned NEPA studies. NEPA requires that federal agencies request tribal comments on draft Environmental Impact Statements that affect lands and resources of concern to these tribes. The law also authorizes these tribes to be cooperating agencies in NEPA compliance.

The discussion that follows presumes that – in the event of a full planning effort - the NPS will be engaging all of the potentially affected Alaska Native communities as per the terms of NEPA, as well as Executive Order 13175 (on Consultation and Coordination with Indian Tribal Governments); the Memorandum for the Heads of Executive Departments and Agencies (issued by President George W. Bush on September 23, 2004); the Memorandum for the Heads of Executive Departments and Agencies (issued by President Barack Obama on November 5, 2009); *NPS Management Policies 2006* (sections 1.11.2, 5.2.1, and 8.5); NPS Director's Order 71A, and other pertinent federal guidance on consultation responsibilities of federal agencies.

Specifically, in this section we briefly consider the findings of this study in light of the National Historic Preservation Act, the American Indian Religious Freedom Act and Executive Order 13007, the Native American Graves Protection and Repatriation Act,

and Executive Order 12898. The Archaeological Resources Protection Act of 1979 (ARPA - PL 96-95) is largely beyond the scope of this ethnographic document. Still, this research has identified a number of places of known or suspected archaeological resources and may be revisited by park staff seeking to develop or refine comprehensive archaeological databases for Alagnak Wild River, aiding the NPS in ARPA compliance. It is understood that, while these federal laws represent the cornerstones of federal law and policy regarding modern Alaska Native cultural interests in federal lands, there are a variety of other federal and state laws that would have a bearing upon a full river planning process. Additional guidance might be sought from the NPS Alaska Region Support Office in Anchorage and the NPS American Indian Liaison Office in Washington, D.C. Again, by necessity, the observations in this section are made very tentatively, recognizing that as of the time of this writing there is no formal planning process underway. Still, these general observations are offered to support such a process, should it occur, and to illuminate some of the general compliance issues suggested by the research outlined in this report.

National Historic Preservation Act (Sections 106 and 110)

The National Historic Preservation Act of 1966, as amended (NHPA or P.L. 91-190) exists to facilitate the documentation of historical properties, the nomination of such properties to the National Register of Historical Places, and to provide for the consideration, minimization or mitigation of the effects of federal actions on such properties. Section 110 of the NHPA makes federal agencies responsible for the identification, evaluation and nomination of properties in their jurisdiction to the National Register of Historical Places; that such properties be managed in a way that considers the preservation of their historic and cultural values; and that similar considerations be given to historical properties that are beyond an agency's jurisdiction but potentially affected by agency actions. Section 106 of the NHPA requires that for any federal undertaking (including any project funded or permitted by the NPS), the NPS must consult with federally recognized tribes at the planning or scoping stage of a project to identify any properties or resources of significance to the tribes that would be eligible for listing on the National Register of Historical Places. Such properties are often, though not exclusively, Traditional Cultural Properties as defined in National Register Bulletin 38, but can also consist of "Cultural Landscapes" or other multiple-property districts that include places meeting Bulletin 38 criteria. If, through this consultation, it is determined that National Register-eligible properties may be affected by the proposed undertaking, the agency must consider the effects of the undertaking

on them and consult with the interested tribes about ways to "resolve" adverse effects. If adverse effects are expected, the process will involve the development of an agreement document (a Programmatic Agreement or MOA) in consultation with the traditionally associated Alaska Native tribes regarding the means that will be employed to consider and to resolve them – to "minimize" or "mitigate" the adverse effects of any proposed federal or federally-permitted action.

Much of the archaeological heritage of the Alagnak meets National Register criterion D and would be worthy of listing on that basis, but this archaeological assessment is largely beyond the scope of this document. The NPS has been recording and, as appropriate, nominating such archaeological resources along Alagnak Wild River actively since 1996. Specific places along the Alagnak Wild River may warrant National Register listing under Traditional Cultural Property (TCP) criteria, however, as outlined in Bulletin 38. While the length of the Alagnak Wild River might also warrant consideration as a TCP, the distribution of culturally significant sites is discontiguous and might best be treated as a "district" rather than as a conventional TCP. Those matters aside, it is clear that much of the length of Alagnak Wild River may meet the criteria for documentation and listing as a Cultural Landscape. The entire river is of pronounced, and arguably unique, cultural and historical significance to Native Alaskan communities, while a number of historical sites and structures associated with Native occupation still line the banks of the river. A Cultural Landscape nomination might allow the NPS to effectively "capture" the range of structures and physical elements of the landscape, along with all of the cultural knowledge and intangible values that are nonetheless potentially contributing to the Alagnak's National Register eligibility. In addition to seeking guidance from the NPS Cultural Landscape program, documenting the Alagnak River corridor as a Cultural Landscape may require a review of National Register Bulletins 18 and/or 30, as well as National Register Preservation 36, the 1996 NPS *Guidelines for the Treatment of Cultural Landscapes*, as well as other pertinent guidance on cultural landscape documentation and nomination. Whether pursuing a TCP or Cultural Landscape nomination, it is likely that the criteria identified for National Register eligible contributing resources as specified in National Register Bulletin 38 would be appropriate as the basis for inclusion of any individual site or resource within a larger multiple-property nomination centered on Alagnak Wild River. Potentially eligible areas would include not only National Park Service managed lands, but also Native corporation lands and allotments sitting within and adjacent to NPS lands. In this light, a collaborative documentation effort would be warranted.

In this light, it is important to reflect on what makes the Alagnak unique within the cultural and historical experiences of river-associated Native Alaskan communities, with some reference to National Register (and specifically Bulletin 38) criteria. The River is distinctive in part because of the range of resources it provided. The Alagnak is widely perceived by Native Alaskans in the region as a place of distinctive natural abundance, with complex river channels, lush riparian vegetation, and a variety of distinctive and appealing wildlife and game. The River therefore served as an abundant source of resources in good times and allowed Native communities of the area to reduce their risks in times of resource scarcity. Long ago, the Alagnak was a place where people could engage in highly productive shallow-water fishing at a large scale, allowing for the use of spears and other technologies in a way that was not possible in deeper rivers such as the Kvichak. King salmon have been abundant on the Alagnak relative to other river systems in the southern Yup'ik region beyond; the River has long been visited as the principal king salmon fishing ground of several communities, and subsistence fishermen still come to the River in search of these fish today. Moose hunting and brown bear hunting were once quite good along this river relative to many other rivers in the region. Mink, otter, and beaver trapping were also said to have been important historically, and the trapping of these species has continued to support Native crafts and economies into the present day.

Paralleling this natural abundance, the richness of community life along this River was also somewhat unique. It is clear that, at one time, the rich resources of the Alagnak sustained a remarkably dense population, ranging from the banks from the headwater lakes to the Kvichak confluence. The apparently large population at the time of contact was almost entirely displaced by the events of the 20th century, from the effects of the Spanish influenza epidemic to mandatory schooling in off-River settlements. Both the nature of historical occupation and subsequent loss of the River are somewhat unique to the communities of the region. So too, the River played a critical role in the transformation of traditional leadership and social organization within the Yup'ik-speaking communities of the region. Many events from the life of the last traditional chief in the area, Chief Evan Pupsugpak, are linked to the River; this chief served as an important bridge between the customs of traditional Yup'ik chieftainship and the new forms of leadership under the Russian Orthodox Church, where traditional chiefs became "Church Chiefs" and took on increasingly ecclesiastic functions. Using National Register criteria, events associated with the life of this historically significant individual might warrant inclusion as "contributing resources." During roughly the same period, the River witnessed significant reorganization and relocation of Native communities

associated with the demographic collapse and relocation of the 20th century – a process that involved the consolidation of communities on the middle and lower River and ultimately witnessed their relocation to modern communities such as Igiugig, Levelock, Kokhanok, Naknek, and others. All of these elements would be addressed in a National Register nomination that seeks to encapsulate the unique cultural and historical importance of Alagank Wild River under Bulletin 38.

The "integrity" requirements for National Register eligibility are worth considering as part of any planning process. As defined by the Code of Federal Regulations, integrity measures are defined as including "integrity of location, design, setting, materials, workmanship, feeling, and association" (36 CFR Part 60). National Register Bulletin 38 narrows these criteria to two: "integrity of relationship" and "integrity of condition." In the case of potential Traditional Cultural Properties, "integrity of relationship" suggests that a place continues to be viewed by particular historically associated populations "as important in the retention or transmittal of a belief, or to the performance of a practice," usually for some significant portion of traditional practitioners within a community (NPS 1990). Secondarily, "integrity of relationship" is meant to indicate that a site is singular and has a unique role in the retention or perpetuation of these cultural activities – that there are not, for example, other sites in the traditional territory of a tribe that can be used for what are essentially the same functions. It is clear that most of the Alagnak still exhibits "integrity of condition," as sites essential to continued use are present, though a case may be made that accelerated erosion may be undermining the integrity of condition in ways that would require impact minimization or mitigation measures. So too, it is clear that the Alagnak still exhibits "integrity of relationship," with strong and unique associations between Alaska Native communities and the river that are important to the continuation of certain types of cultural and historical knowledge and practice. As with "integrity of condition," the integrity of relationship may be threatened by reduced Alaska Native use of the river to avoid visitor effects – another influence that may need to be minimized or mitigated if all or part of Alagnak Wild River is found to be National Register eligible under Bulletin 38 criteria.

Employing the terms of the NHPA and National Register Bulletin 38, there are also certain places associated with the "artistic traditions" of Native Alaskan communities that have been utilized along the river historically. Furs taken along the Alagnak are still widely used in the manufacture of traditional clothing such as mukluks – one of the principal artistic traditions still to be found in Native Alaskan communities associated with the River. Certain families, such as that of George and Annie Wilson, still

participate in shared labor in the production of these items, with men trapping for the furs that are used by women in clothing production. Also prominent among these artistic traditions linked to the River is the gathering and use of red and grey pigments from particular sites along the riparian corridor. These are traditionally used to dye a variety of objects, and in recent times have been gathered for the dying and waterproofing of traditional Yup'ik clothing in a manner that is regionally distinctive. Certain grasses were also reported to occur along the banks of the river, which have been used both historically and recently in the production of baskets. This also may raise questions regarding the "minimization or mitigation" of visitor effects under various planning scenarios. Non-Native visitors to Alagnak Wild River affect the procurement of these items in various ways that may warrant consideration during any future planning efforts. Many non-food harvests occurred concurrently with subsistence harvests that are said to be displaced by visitation, while the distribution and quality of certain resources – fur-bearing animals prominently among them – are also affected in various ways by park visitation.

American Indian Religious Freedom Act and Executive Order 13007

Both AIRFA (Public Law No. 95-341, 92 Stat. 469) and Executive Order 13007 explicitly protect the religious interests of Alaska Native communities. The American Indian Religious Freedom Act of 1978 (AIRFA) affirms that the constitutionally guaranteed religious freedoms shared by all U.S. citizens also apply to Native Americans, including Alaska Natives. The law is in many respects a corrective action undertaken after almost two centuries of federal or federally-supported efforts to undermine traditional American Indian religious practices. This law states that it is the "policy of the United States to protect and preserve for American Indians their inherent right of freedom to believe, express, and exercise [their] traditional religions...including but not limited to access to sites, use and possession of sacred objects..." that are needed for the "exercise [of] traditional religions of the American Indian, Eskimo, Aleut, and Native Hawaiians."

The closely related Executive Order 13007 (Sacred Sites) protects Native American access to sacred sites, as well as the physical integrity of such sites. Specifically, this Executive Order specifies that federal agencies to "(1) accommodate access to and ceremonial use of Indian sacred sites by Indian religious practitioners and (2) avoid

adversely affecting the physical integrity of such sacred sites." In order to accommodate this provision on lands managed or affected by federal agencies, the identity of such sites must be identified through consultation and be substantiated through information provided by federally recognized tribes or an Alaska Native individual of such a tribe "determined to be an appropriately authoritative representative of an Indian religion."

As noted elsewhere in this document, Russian Orthodoxy is clearly central to community life, but there are elements of traditional religion that are seamlessly combined with Orthodox values and beliefs within the communities associated with Alagnak Wild River. Here, we briefly address certain religious and ceremonial practices that are relevant to river management and potentially protected under AIRFA or EO 13007.

Certain places clearly have had ritual significance to past communities and may have some role in the ceremonial practices of present and future generations. The account of a man who was taken away by "little people" into the high mountains east of the Alagnak suggests a traditional ceremonial use of springs near the modern site of Katmai Lodge. This spring has traditionally been used for spiritual "cleansing," and while no recent use of this type was mentioned, it is possible that the NPS might be approached regarding ceremonial use of this feature and similar springs.

The belief that the exposure of human remains by erosion results in spiritual distress among the dead is also salient in this case. Accelerated erosion may be (and among some Alaska Native interviewees, clearly is) construed as spiritually corrosive at burial sites. It is clear that Alaska Natives may require access to burial sites within Alagnak Wild River, and may possess the right to protect or participate in the reburial of human remains exposed by erosion as part of their free exercise of traditional religion as guaranteed under AIRFA. It is debatable, but conceivable, that federal planning that might reasonably be understood to facilitate accelerated erosion at burial sites, or even past or present church sites, may be inconsistent with the provisions of EO13007 prohibiting "adversely affecting the physical integrity of sacred sites."

Certain practices, associated with the placement of food, bones and other materials in the waters of the Alagnak also may be admissible as protected activities under the terms of AIRFA. As noted elsewhere in this document, Alaska Native river users sometimes leave food offerings in the water, which is explained to be a way to "honor" or "gift"

their ancestors. This is not apparently a ceremony undertaken independent of mundane activities or in specific locations, but is coincident with the consumption of food while on undeveloped portions of the River. The leaving of such offerings is likely to be a protected practice under AIRFA. This discussion may also be relevant to Alaska Native traditions involving the placement of animal bones in the water. As noted elsewhere, certain animals are believed to be spiritually unsettled until the bones are placed in the water. This does not only apply to animals killed by hunters; bones found inadvertently while traveling by land are sometimes placed in the water too. Once a person places the bones in a waterway, balance is believed to be restored. The placement of bones in the water is presumed to serve a spiritual function and might therefore merit consideration as a practice protected under the terms of AIRFA. There may be other types of offerings



Figure 72 – The rapidly eroding bank below the former Branch Village church site – where burials from the old village cemetery were exposed by rapid erosion in the years prior to Wild River creation. Places with graves along the Alagnak pose certain management and compliance challenges, perhaps extending beyond the limited scope of the Native American Graves Protection and Repatriation Act (NAGPRA). Douglas Deur photo.

or activities that were unreported in the course of this research, so consultation on the matter of traditional spiritual activities or offerings may be warranted if the NPS considers management actions that might affect or place limits on these practices.

The question of how, or if, Russian Orthodox sites might be addressed under AIRFA and EO13007 remain unclear. While outside of the Wild River boundary, the Russian Orthodox church in Branch Village is clearly a site of enduring religious importance to the region's Alaska Native communities. Moreover, a growing literature recognizes Russian Orthodoxy as it is practiced in certain Native Alaskan settings as a significantly Native religious practice, combining elements of traditional, pre-Christian spiritual practice within a cosmological and institutional framework defined by the Russian church. Multiple lines of evidence suggest that this is true among many Alagnak River users; the integrity of the Branch Village church, then, may warrant consideration under the terms of AIRFA and EO 13007, in addition to those laws and policies that might apply to the protection of church buildings in other contexts. The former location of the church and cemetery within Branch Village, where human remains were exposed by human remains and reported to "cry" until reburied, may be considered a sacred site to some traditionally associated Alaska Natives. (Similarly, the location of the flag pole that snapped upon the death of Chief Evan Pupsugpak may be a place of some modest enduring religious significance within the Branch Village.) Other former church sites within the Wild River and their associated burials may warrant some consideration under these legal instruments, but might be more appropriately addressed with reference to the terms of the Native American Graves Protection and Repatriation Act (NAGPRA).

Native American Graves Protection and Repatriation Act

The Native American Graves Protection and Repatriation Act of 1990 (NAGPRA, or (P.L. 101-601 and implementing regulations) also applies to planning and permitting on federal lands. This law exists to repatriate Native American (including Alaska Native) human remains, funerary objects, and certain types of cultural items from federal or federally supported collections to appropriate Native American communities. More relevantly to the Alagnak, NAGPRA also protects the integrity of Native American burials on federal lands or on lands that might be affected by federal or federally-permitted actions. This facet of NAGPRA seeks to protect Native American graves and encourages *in situ* preservation of archeological sites containing human remains and associated funerary objects. The law includes provisions for the disposition of human

remains and cultural items discovered inadvertently, either accidentally or though planned excavations, on park lands. Under Sections 3002(c), 3002(d), 3003, 3004, and 3005, NAGPRA regulations require consultation throughout certain processes: before intentional excavations, immediately after inadvertent discoveries, before the completion of inventories, and upon the completion of summaries of those inventories.

There are many places along Alagnak Wild River that contain, or can be reasonably expected to contain, human remains. All former village sites identified in this document can be expected to contain burials, including both formal cemeteries and less structured groups of burials. Recognizing that many river users report a tradition of burying the dead *in situ* at the place of death, it is also likely that human burials are found diffusely in other parts of the Alagnak River riparian corridor.

Potential visitor effects on human burials may be of particular importance to future planning on Alagnak Wild River. The exposure and dislocation of human remains by riverbank erosion is a topic of ongoing concern. Especially in Branch Village, it is clear that riverbank erosion can have an adverse effect on human burials that may be protected under the terms of NAGPRA. If human remains are exposed, consultation with traditionally-associated tribal governments would be required; repatriation or *in situ* reburial may be prescribed through such consultation. It is also clear that the erosion of these burials is perceived to have adverse spiritual impacts that may be regulated under other federal laws and policies. Any federally-permitted visitor activities that might accelerate the erosion of lands containing human remains may require consideration and some level of remediation under the terms of NAGRPA. So too, any direct visitor disturbance of burial sites may require remediative planning and monitoring – including both intentional damage to such sites (such as vandalism and looting) or through unintentional damage (such as camping atop burial sites while using ground-penetrating stakes or pits for human waste).

Alaska Natives associated with the Alagnak traditionally bury the umbilical cord of new babies in a special location – often at the community's fish camp. It is unlikely that these would be well-preserved, let alone recovered, along the Alagnak. If encountered, however, such body parts are sometimes treated as admissible as "human remains" under the terms of NAGPRA; their discovery is likely to require consultation and possible repatriation proceedings.

Executive Order 12898 (Environmental Justice)

Executive Order 12898 (Environmental Justice) is a Clinton-era executive order which has been of growing importance in federal planning and permitting assessments – spurring both department-level regulation as well as separate "environmental justice" sections of Environmental Impact Statements for federal actions. This Executive Order limits federal or federally-permitted actions that might have a disproportionately negative impact upon minority populations, including but not limited to Alaska Native communities. Specifically, this EO specifies that "to the greatest extent practicable and permitted by law…each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations in the United States" including populations that utilize resources affected by federal lands and permitting actions. The EO explicitly references federally recognized tribes and give the Department of the Interior primary responsibility for insuring compliance with this EO within programs affecting these tribes.

It is clear that there is a unique and enduring association between the Alaska Native communities of the Kvichak and Naknek River Basins (Igiugig, Levelock, Naknek/South Naknek, King Salmon, and Kokhanok) with the lands and resources of Alagnak Wild River. These communities would meet the EO12898 standard as being both "minority" and "low income" communities. An argument can be made that the adverse effects of visitation identified in this document and other NPS studies may meet the threshold of having a "disproportionate adverse effect" on these communities relative to non-Natives under the terms of EO12898. For example, if a specific federal policy, permitting action, or planning decision results in a measurable increase in erosion associated with boat traffic that might, in turn, affect the integrity of subsistence resources, allotments or cultural sites, and it can be demonstrated that these adverse effects are not shared equally by non-Natives – such as the non-Native people of the Alaska Peninsula region or non-Native river visitors - this would be inconsistent with the guidance in EO12898. In such a case, the agency may be required to demonstrate that it has undertaken efforts to minimize or mitigate those effects that disproportionately affect the Alaska Native community "to the greatest extent practicable and permitted by law."

Alaska National Interest Lands Conservation Act

The Alaska National Interest Lands Conservation act of 1980 (ANILCA) was responsible for creating Alagnak Wild River and a number of other NPS units throughout Alaska. There are a variety of management and compliance implications of ANILCA that pertain to Alagnak Wild River. Among the most critical of these implications is a mandate to define what constitutes "traditional" activities on Alagnak Wild River. Under the terms of ANILCA, and the regulations and policies written to articulate its applications on park lands, traditional activities are largely 'grandfathered' into ANILCA parks, as are the modes of transportation required to conduct traditional activities. Superintendents ordinarily have the discretion to restrict the continuation of traditional activities, only when it has been demonstrated that such activities (and the access required to undertake them) have an adverse effect upon park resources or public safety (see, e.g. ANILCA Section 1110(a), 43CFR36.11). The term "traditional" in this sense is critical to the language of ANILCA; the term is pivotal, but remains undefined, 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). Since the passage of ANILCA, the Secretary of the Interior and the NPS have assessed the implications of the term "traditional" as it applies to park management. Over time, as a result of new regulations developed in response to ANILCA (36 CFR 13), and key litigation (most notably *Alaska State Snowmobiling Association v. Babbitt*) the NPS has interpreted the presence or absence of an activity by 1980 as the effective 'litmus test' for whether an activity is determined to be "traditional" and therefore an admissible activity within modern NPS units.

In this light, all of the activities described in the "Resources Obtained in and around Alagnak Wild River" section of this document are likely to meet the standard of being "traditional" activities under the terms of ANILCA and related regulations. The long history of permanent human occupation (concluding only 11 years before the designation of the Wild River) followed by a period of widespread seasonal use for a diverse range of activities and resources, together contributes to a broad interpretation of what is likely to constitute "traditional" activities in this context. As such, all of these

activities undertaken by Alaska Natives within Alagnak Wild River – if reviewed formally by NPS staff – are likely to be deemed admissible activities for Alagnak-associated Alaska Native communities within Alagnak Wild River boundaries for the foreseeable future. This would include (but not be limited to) such activities as hunting, fishing, trapping, berry picking, gathering firewood, building fishing structures, and holding social gatherings, and would potentially involve (but not necessarily be limited to) the Alaska Native communities of Levelock, Igiugig, Kohkanok, Naknek/South Naknek and King Salmon. Transportation to access these resources and activity areas is also likely to be "grandfathered" into park management unless adverse resource effects can be substantiated (see Deur 2008b).

CONCLUSIONS:
OPPORTUNITIES FOR A COLLABORATIVE FUTURE

The Alagnak River has long been a place of importance to Alaska Native people – at once being a home, a source of subsistence and other natural resources, and a diverse landscape of deep cultural and historical meaning. In spite of the many changes of the 20th and early 21st century, Alaska Native communities still value the Alagnak deeply and see this place as important to their past, their present, and their future as a people. These attachments endure in spite of the effects of tourism on the river, which have grown dramatically in recent decades – effects that seem to have been attenuated in various ways by National Park Service stewardship.

While people may disagree on the causes and severity of the effects, there is little doubt that tourism has had, and continues to have, profound effects on the Alagnak. And, while some of these effects are positive, such as the growth in rental income for Native land owners, a large number are not. Indeed, many of these effects are seen as quite destructive to the integrity of the landscape, the many living things that dwell there, and the practices and attachments of Native people. Perceived effects may be understood to be direct, such as the accelerated erosion of Native allotments and increased competition for certain fishing or hunting sites – or indirect, such as the avoidance of the river by Native users, increased subsistence use of alternative areas, and the decline in culturally-rooted knowledge pertaining to the Alagnak. These issues are of much concern to our project's interviewees, and to a good portion of the communities of which they are a part.

As the designated land manager under ANILCA, the National Park Service is the inheritor of the historical richness of the Alagnak River corridor, but also of the management challenges that have been evolving on the Alagnak for decades – before, during, and after the designation of the Alagnak as a Wild River. While many interviewees view the National Park Service as being principally responsible for correcting these problems, it is also clear that many of the Alaska Native community's concerns are similar to those of NPS managers. Erosion, poaching, vandalism, littering, and many other issues are of immediate concern to the NPS. So too, those effects of tourism that might erode the cultural heritage of the river are widely understood to be detrimental to the overall integrity of Alagnak Wild River as a unit of the NPS. With this in mind, it is important to remember that the NPS and the Alaska Native communities, while not aligned on every detail, share many interests. It is possible to

envision a future in which the NPS and the Native communities that still treasure Alagnak Wild River might work collaboratively toward shared objectives - for the better good of the river, and the people who have considered it part of their home for uncounted generations. What follows is a conclusion, drawn extensively from the advice of Alaska Native consultants, that is meant to help illuminate possible pathways for this collaboration.

Recognizing their shared interests with the NPS, interviewees often raised suggestions that were both hopeful and helpful. Interviewees generally expressed a desire to have the issues on the Alagnak addressed through policy changes and planning efforts, involving collaboration between the NPS, Native corporations, and the resident and federally-recognized tribal governments within each village. Some noted that the villages have a unique government-to-government relationship with the National Park Service, and that, as Patrick Patterson, Sr. notes, "governments should work together and get more done" (PP). There are also shared natural resource concerns, such as large-scale environmental degradation associated with climate change or regional developments such as large-scale mining proposals adjacent to Alaska Peninsula park lands.[238] Some interviewees also note that the National Park Service has been receptive to, and often made good use of, planning efforts relating to the Alagnak undertaken in the past by villages and Native corporations with ties to the river. A watershed assessment by Levelock Village Council, overseen by Howard Nelson, was mentioned as a prominent example of a document that had been well-received by the NPS and involved some level of cooperation between villages and the agency (Levelock Village Council 2005).[239] Through ongoing communication – not just consultation-driven communication, importantly, but the creation of an ongoing and meaningful rapport – interviewees felt that the National Park Service and their villages had the capacity to solve many of the problems now facing managers of Alagnak Wild River. Some interviewees may be frustrated that past NPS river planning efforts on the Alagnak have been tabled in spite of considerable time and effort, but there remains optimism that a full planning process might yield results and will be undertaken in a collaborative manner.

Certain issues seem especially pressing to Alaska Native interviewees at this point in history. Most fundamentally, interviewees are especially eager to halt the overarching process of Native displacement from the river, as it is seen as having myriad negative effects on their cultural traditions and their subsistence. "I would like to see them use that river for what they did in the past" (PP). Though the river has not been

significantly developed, crowding and other factors have made some traditionally associated Alaska Natives feel that a river that was recently "theirs" has been lost to outside interests. For reasons both practical and symbolic, Alaska Native people, young and old, today seem eager not to let their connections to the Alagnak diminish. To stem the tide of Native displacement, they note, river planning will need to be scoped broadly, so that it might address many of the "direct" and "indirect" adverse effects of concern to their communities, as itemized in this document, and allow for some modicum of continued Native use on the river into the foreseeable future.

With similar intentions, some interviewees also propose more active efforts to help foster Native river use, including such efforts as youth programs that might educate Native youth about the river and get them to the river for educational events. Some note that residents of the Kvichak River villages often organize educational "culture camps" for Native youth from these villages, and that they might wish to host future culture camps on the Alagnak – possibly including some level of educational or logistical involvement by NPS staff. "Good idea to bring kids, that way they could learn" (DA). (Some note that Lake and Peninsula School District teachers have sometimes been given tours of the Alagnak on inservice days, and it is likely that there would be interest in curriculum that discusses the history of the River.) Such educational events on the river might help get young people "on the ground," learning about the Alagnak, and perhaps even gaining vocational training, in a way that helps sustain the intergenerational sharing of traditional knowledge that is not being passed on as readily through more conventional means:

> "if we had the High School kids get excited, look at the Branch River, take them up there, they could get to know the area. They have nothing to do sometimes; they try to find a job [but find] no job" (quoted in Evanoff 2008).

Such events, they note, might help to retain connections between Native youth and the Alagnak, in a way that has ostensibly been undermined by the growth of tourism on that river. Others stressed the need for interpretative training for resident users of the river, so that residents can partner with the NPS and serve as active presenters of their culture to outside audiences. The contents of the current report might help in developing the themes, content, and procedures for such an effort. Through this process, they suggest, they will help foster visitors' respect for this landscape that has sustained their ancestors for generations, while also forging respectful and enduring

relationships with the agency that now manages this unique place. Similarly, some interviewees expressed the view that cultural and historical information regarding the Alagnak is difficult to access, and recommended broader distribution of documents such as this report to villages, corporations and individuals within Native communities to help perpetuate knowledge of the Alagnak in spite of a growing sense of displacement from the river.

On a related note, many interviewees bemoan the gradual disappearance of the cultural landscape, too, as structures are overgrown or, more commonly, erode into the river.[240] In their view, this hastens the erasure of the Native presence, both symbolically but in in very practical terms – limiting options for the continued use and occupation of the river. At this point, it would still be possible (and desirable) to undertake a Cultural Landscape assessment, as noted elsewhere in this document, documenting the history and integrity of those structures along the Alagnak. The number of historical structures is impressive and, at the time of this writing, we still have access to the final generation of elders who lived year-round on the Alagnak – who can still identify the former owner of every structure and tell something of the landscape's genesis and human history. This opportunity may not exist for more than another decade or two, as the last generation to live full-time on the river is increasingly elderly. With their assistance, we might yet be able to develop not only documentation, but preservation standards, that would facilitate continued Native use and bolster the overall integrity of the cultural landscape of the Alagnak. Moreover, as noted in this document, Alaska Native river users have considerable difficulties pulling cabins, smokehouses, and other infrastructure that are imminently threatened by erosion back from the bank. Many river users are elderly, work groups are small, and visitation is often sporadic. By assisting Alagnak users in minor relocations of structures, the NPS would materially assist river users and has a high probability for fostering relationships of enduring trust with nearby villages.

Because of erosion concerns, as well as broader concerns about noise and public safety, a number of interviewees have requested expanded restrictions on the number and speed of boats on the river.[241] When asked to identify any recommendations for how the Alagnak management could be improved, interviewees often mentioned these kinds of options as their first recommendation: "Maybe smaller engines? Then they will…have to go down smaller boats!" (PA) "Smaller horsepower for the commercial operators. For their outboard motors. Smaller boats" (JW). A few suggested that the NPS and other agencies should be principally encouraging "passive recreation" on

Alagnak Wild River. Non-motorized recreational opportunities – such as rafting – are relatively innocuous and do not bring the same kinds of erosion challenges or threats to public safety, they note, even if rafters do frequently camp on allotment lands. Some families in the Alaska Native community are said to have been involved with river rafting charter operations and some are eager to see these operations expand as an alternative to motorized river use.[242] Simultaneously, interviewees observed that continued motorboat access may be required for Alaska Native river users who must carry gear and game to and from the river.

Trespass, as well as vandalism and littering on private Native allotments, is also an issue of central concern to many interviewees. Interviewees consistently requested that more efforts be undertaken to convey patterns of private ownership to Alagnak Wild River visitors. They commonly recommended developing new, large, and very clear land ownership maps, and then posting or distributing these at all likely points of visitor access. As George Wilson, Jr. notes,

> "more of a detailed map of the private land owners along the Alagnak would probably be something that comes to mind [as an improvement.] I see the biggest benefit is that…if we had something like that we can give it to the existing lodges, and say "these are areas we want to stay off of" " (GE).

Some noted that visitors often arrive without an orientation from the NPS or lodges; in this light, they asked that charter flight operators and others who served as points of contact to visitors be responsible for conveying information on the location and sensitivity of allotment lands along the River. So too, some suggested that anyone promoting the use of the River through private websites and other media be encouraged to distribute information on allotment locations, sensitivities, and protocols for allotments and cabins. The NPS has made efforts to produce maps and booklets on these matters in the past, they note, but these are not distributed as broadly as they might hope, and the issues of trespass, vandalism and littering persist.

Also, to minimize impacts on the riparian corridor generally and allotment lands specifically, some Alaska Native interviewees requested that there be more designated campsites along the Alagnak on either NPS or Native corporation lands. Interviewees note that the number of good camping spots along the Alagnak that are not privately owned are surprisingly few; if a site had all the conditions for a good campsite, it

tended to be occupied long ago and ultimately incorporated into a Native allotment.[243] For this reason, a number of interviewees suggested that the NPS or the Native corporations need to consider providing designated campsites – especially in portions of the river where Native lands are densely packed. Again, as George Wilson, Jr. suggests,

> "I think [what] the Corporation can do, is make designated camping spots along the way that get an idea of how many miles they want to travel in a day, and give them some decent areas they can stop at where they won't be trespassing" (GE).

Barring these inducements to visitors, some interviewees proposed more aggressive policing of trespass issues by both corporation and NPS representatives, including fines for violators: "they need to start charging somebody—somebody's got to start *charging* for staying there" (JW).

As might be anticipated, there were also a number of proposals to effectively reduce visitor numbers, or to restrict recreational hunting and fishing. Interviewees often recommended revisiting Fish and Game regulations, to reduce the effects of sports hunting, as well as what are widely seen in these communities as the detrimental effects of catch and release fishing.[244] A few advocated an increased budget for Alaska Department of Fish and Game to monitor the Alagnak and expand enforcement on what is described as a growing poaching problem.[245]

Many Alaska Native interviewees are interested in participating in the tourist economy, but under terms more of their own choosing. The tourist economy that has emerged on the Alagnak has brought a variety of negative impacts to the subsistence and cultural practices of village residents, while bringing relatively few lasting economic benefits to the villages other than land lease revenues. While not uniformly troublesome, this has arguably hastened the conversion of Native economies and cultural practices already underway, pushing people away from subsistence activities and toward participation in 21st century cash economies. Certain individuals expressed enthusiasm for the development of cultural tourism that was small enough to be manageable, and might bolster – rather than undermine – cultural practices by creating incentives for cultural preservation. As George Wilson, Jr. notes,

> "I'd really love to see some kind of Native heritage center, or something with whether it be artwork or just Native crafts…I think [most of what we

> could support] is skin sewing and things like that. There's a couple of ladies making dolls, [and there's] one person…carving here…I think that there would be more community involvement, if it's just more of the people around here that would want to share some of their knowledge with the tourists, because they're more than willing to soak up anything that you can give them… But for whatever reasons they feel like they didn't want to… I think that it definitely has a lot of economic value to it" (GE).

In recent times, the manager of the Katmai Lodge, for example, has "expressed a lot of interest in wanting to bring people over to Levelock, and see the village," and this kind of tourist facility might allow Alagnak visitors to detour to the village when coming from or going to the river (GE). (Interestingly, the continuation of the craft traditions envisioned by Wilson might involve the continuation of harvests on the Alagnak of resources that are integral to enduring craft traditions.) Importantly, while village residents often express an interest in capping the numbers of tourists and their effects, there are relatively few – especially in the younger generations of village residents – who would wish to eliminate tourism altogether. Quoting Ralph Angasan, "I don't want to say that a complete shut out of tourists would be a better thing, because it pretty much fuels the economy here, but back in the day I'm pretty sure it would be a different opinion" (RA).

It is important to note that a number of interviewees recommended additional studies. Some advocated further documentation of cultural, or cultural landscape, knowledge, recognizing that the history of the Alagnak is rich, but that the number of elders who recall certain details about that history is declining. As Violet Wilson observes,

> "You know, there's not too many people left anymore that know a lot of this old history. And I think it's very valuable for somebody that is interested, especially if they have a purpose, to look for this kind of information. It should be available for them" (VW).

As an intentional outcome of the current study, some note, members of the research team including Naknek resident Adelheid Herrmann and Igiugig resident AlexAnna Salmon now have the experience and training to help oversee such cultural documentation efforts. Some also advocated more extensive research on the relationship between motorboat use and erosion at different points along the Alagnak, investigations of the extent and effects of motor noise, or detailed studies of the

response of game to tourist disturbances. A few advocated the development of a history of the emergence of lodges and recreational fishing on the River, providing more detail than what was attempted in the current study. Interviewees also often expressed support for a pending Katmai National Park proposal to retain a park Anthropologist and/or Tribal Liaison who can regularly meet with communities, serve as intermediary on issues of mutual interest, and develop planning and interpretive documents that support both agency and village interests.

The recommendations put forward here are just the starting point for discussion, of course. It is only through ongoing communication and consultation between the NPS and Alaska Native villages with ties to the Alagnak that the full range of visitor impacts might be understood, and the full range of prescriptions might be realized. Many of the concepts proposed in this conclusion might serve to minimize, or partially mitigate, some of the negative effects of tourism on Alagnak Wild River. In this respect, these suggestions may be of practical use to any future river planning activities. However, they are proposed with a broader vision. They might also help foster continued Native use on the river, and collaborative relationships between the NPS and the Alaska Native villages, for generations to come.

Residents of the villages of Igiugig, Levelock, Kohkanok, Naknek/South Naknek and King Salmon still value the Alagnak River highly today. In spite of the many changes since the passage of ANILCA, the river is still widely seen as a homeland, as a place of great natural abundance, and as a desirable place to visit – especially when tourists are few. As Joe Woods observes,

> "it's *fun*…it's a good experience if you know what you're doing. You expect the unexpected!...I wouldn't mind going back down there, for the summer again. [And there is] lots of wildlife…there's one thing I liked about Branch River, there were a lot of bears, and moose and caribou, and you get to see it *all*!" (JW).

Moreover, there are residents in each of these villages who have been eager to share their knowledge, hopes, and concerns about the river with members of our research team. As Mike Andrew asserts, "I'm happy with you guys. And I have lots of stories!" (MA). That willingness to share extends to NPS staff who might wish to come, to listen to these stories, and to help build lasting relationships of mutual trust with the villages of the greater Alagnak region. Interviewees were often eager – not only for

government-to-government consultation - but an enduring and less formalized relationship between their community and the NPS: “Let the Park Service know we want to invite them, bring in people for a community visit” (quoted in Evanoff 2008). Certainly, these villages, and the National Park Service, are here for the long term, and will need to find ways of resolving differences and accentuating mutual opportunities. They have much to discuss. More often than some might expect, they have parallel interests, as they seek to maintain the integrity of the Alagnak “unimpaired for...future generations.” It is our sincere hope that this report will help foster this long-term conversation, and sustain enduring positive and relationships between the National Park Service and those Native communities that still know and care deeply for Alagnak Wild River.

SOURCES

Contributors

Formal Interviewees

The following individuals provided valuable information and perspectives in the course of formal interviews and field visits that were incorporated into the current report:

Charles Andrew
Dallia Andrew
Mike Andrew, Sr.
Ralph Angasan, III
Vera Angasan
Ida Apokedak
Peter Apokedak
Elena Chukwak
Martha Crow
Adelheid Herrmann
Martha Johnson
Teddy Melganak
Howard Nelson
Mary Nelson
Steven Nowatak
Mary Olympic
Patrick Patterson, Jr.
Patrick Patterson, Sr.
Elma Peterson
AlexAnna Salmon
Annie Wilson
George Wilson, Jr.
George Wilson, Sr.
Violet Wilson
Joe E. Woods

Interviewee Initials

Initials are used in the text to specify interviewees as indicated:

AW	-	Annie Wilson
CA	-	Charles Andrew
DA	-	Dallia Andrew
EC	-	Elena Chukwak
EP	-	Elma Peterson
GE	-	George Wilson, Jr.
GW	-	George Wilson, Sr.
HN	-	Howard Nelson
JW	-	Joe E. Woods
MA	-	Mike Andrew, Sr.
MC	-	Martha Crow
MJ	-	Martha Johnson
MN	-	Mary Nelson
MO	-	Mary Olympic
PA	-	Peter Apokedak
PJ	-	Patrick Patterson, Jr.
PP	-	Patrick Patterson, Sr.
RA	-	Ralph Angasan, III
SN	-	Steven Nowatak
TM	-	Teddy Melganak
VA	-	Vera Angasan
VW	-	Violet Wilson

Other Contributors

A number of individuals provided valuable information and perspectives in the course of meetings or informal interviews that were undertaken as part of this study, and informed the current report, including (but not limited to) the following:

1) April Alexie	Levelock
2) Randy Alvarez	Igiugig
3) Charlie Andrew	Levelock
4) Keith Andrew	Levelock
5) Shirley Andrew	Levelock
6) Myrtle Lynn Anelon	Levelock
7) Clara Angasan	King Salmon
8) Nola Angasan	Naknek
9) Ralph "Bucko" Angasan, Jr.	King Salmon
10) Steven Angasan	Naknek
11) Brian Apokedak, Sr.	Levelock
12) Charlie "Dawsey" Apokedak	Levelock
13) Jenny (Mary) Apokedak	Levelock
14) Colter Barnes	Igiugig
15) Sergei Chukwak	Naknek
16) Eddie Clark	Naknek
17) Elizabeth Eckert	Naknek
18) Doug Finney	King Salmon
19) Roylene Gottschalk	Naknek
20) Johnny Gregory	Levelock
21) Gabe Gust	Igiugig
22) Linda Halverson	Naknek
23) Krystal Hansen	Levelock
24) Kristin Hawthorn	Igiugig

25) Katia Kvichak	Igiugig
26) Kannon Lee	Igiugig
27) Sylvia J. Mejorado	Naknek
28) Ruth N. Monsen	King Salmon
29) Dale Myers	Naknek
30) Ida Nelson	Igiugig
31) Dan O'Hara	King Salmon
32) Al Ring	Naknek
33) Bonnie Russ	Levelock
34) Dan Salmon	Igiugig
35) Julia Salmon	Igiugig
36) Tanya Salmon	Igiugig
37) Gene Sanderson	Naknek
38) Becky Savo	Naknek
39) Gustie Tallekpalek	Levelock
40) Joni Vay	King Salmon
41) Desirae Wassilie	Levelock

In addition, the following individuals have discussed uses of Alagnak Wild River in the course of ethnographic interviews conducted during the period from 1995-2002, and their information has been incorporated into the current report:

1) Randy Alvarez (2002)	Igiugig
2) Dallia Andrew (1995, 2000)	Igiugig
3) Mike Andrew, Sr. (1995, 2000)	Igiugig
4) Michael Andrew, Jr. (2002)	Igiugig
5) Ella Mae Charley (1998)	Levelock
6) Evan Chukwak (1998)	Levelock
7) Gabby Gregory (1999)	Kokhanok
8) Mary Nelson (1997)	Kokhanok
9) Mary Ann Olympic (1995, 2000, 2002)	Igiugig
10) Danny Roehl (1997)	Kokhanok
11) Dan Salmon (2002)	Igiugig
12) George Setuk (1998)	Levelock
13) Alex Tallekpalek (1998)	Levelock
14) John Tallekpalek (1998)	Levelock
15) Mary Tallekpalek (1998)	Levelock
16) Anne Wilson (1995, 2000)	Igiugig
17) George Wilson, Sr. (1995, 2000)	Igiugig
18) George Wilson, Jr. (2002)	Igiugig
19) Carvel Zimin, Sr. (1998)	South Naknek

Bibliography

Ackerman, R. E. and L. Ackerman
1973. Ethnoarchaeological Interpretations of Territoriality and Land Use in Southwest Alaska. *Ethnohistory.* 20: 315-334.

Ager, Thomas A. and Lynn Price Ager
1980. Ethnobotany of the Eskimos of Nelson Island, Alaska. *Arctic Anthropology.* 27: 26-48.

Alagnak Wild River Management Plan Interdisciplinary Team
2001. Alagnak Wild River Management Plan Interdisciplinary Team Meeting, July 9-10, 2001. Unpublished meeting notes, in Lake Clark and Katmai Cultural Resource Program files and Alagnak museum collections, Alaska Regional Curatorial Center, Anchorage AK. Series 003, D18.

Alaska Department of Fish and Game
1985. *Alaska Habitat Management Guide, Southwest Region, Vol. 2: Human Use of Fish and Wildlife*. Juneau: Alaska Department of Fish and Game.

Alaska Natives Commission
1993. Bristol Bay Residents Target Fisheries, Hunting Rights. *Alaska Natives Commission*. 2(2): 1.

Alvarez, Randy
2002. Interview of Randy Alvarez, as part of an interview with Dan Salmon and Randy Alavarez, conducted by Don Callaway and Bill Schneider, in Igiugig, Alaska, September 12, 2002. Transcript by Carol McCue. 2605: 01-10. Fairbanks: University of Alaska Oral History Program.

Anderson, J. P.
1939. Plants Used by the Eskimo of the Northern Bering Sea and Arctic Regions of Alaska. *American Journal of Botany*. 26: 714-16.

Andrew, Michael
2002. Interview of Michael Andrew conducted by Don Callaway and Bill Schneider, In Igiugig, Alaska, September 11, 2002. Transcript by Carol McCue. 2603: 01-39. Fairbanks: University of Alaska Oral History Program.

Andrew, Mike and Dallia Andrew
1995. Interviews of Mike Andrew and Dallia Andrew, conducted by Don Callaway and Bill Schneider, in Igiugig, Alaska, March 6-8, 1995. (Tapes #H95-24-1, 2; H95-25-1, 2; H95-26-1). Fairbanks: University of Alaska Oral History Program.

Andrew, Mike and Dallia Andrew
2000. Interviews of Mike Andrew and Dallia Andrew, conducted by Michele Morseth, in Igiugig, Alaska, Sept. 28-Oct 1. Unpublished notes in Lake Clark and Katmai Cultural Resource Program files and Alagnak museum collections, Alaska Regional Curatorial Center, Anchorage AK. No. ALAG-00028.

ANILCA
1980. Alaska National Interest Lands Conservation Act. 16 U.s.C. 3101 et seq. (1988), Dec 2 1980, Stat. 2371, Pub. L. pp. 96-487.

Bank, Theodore
1950. Botanical and Ethnobotanical Studies in the Aleutian Islands. *Papers of the Michigan Academy of Science, Arts, and Letters*. 36: 13-30.

Basso, Keith
1996. *Wisdom Sits in Places: Landscape and Language among the Western Apache*. Albuquerque: University of New Mexico Press.

Bean, Tarleton H.
1891 Report on the Salmon and Salmon Rivers of Alaska. *Bulletin of the U.S. Fish Commission, Volume 9.* Washington, D.C.: Government Printing Office. Pp. 165-208.

Behnke, Steven R.
1978. *Resource Use and Subsistence in the Vicinity of the Proposed Lake Clark National Park, Alaska and Additions to Katmai National Monument*, Anthropology and Historic Preservation, Cooperative Park Studies Unit, Occasional Paper No. 15. Fairbanks: University of Alaska.

Bjornn, T.C., and D.W. Reiser
1991. Habitat Requirements of Salmonids in Streams. *American Fisheries Society Special Publication 19*: 83-138.

Black, Lydia T.
1981. Volcanism as a Factor in Human Ecology: The Aleutian Case. *Ethnohistory*. (28) 4: 313-340.

Black, Lydia T.
1990. Creoles in Russian America. *Pacifica*. 2(2): 142-55.

Bodeau, Jean
1992. *Katmai National Park and Preserve, Alaska.* Anchorage: Alaska Natural History Association.

Boggs, K., S. C. Klein, J. Grunblatt, and B. Koltun
2003. *Landcover Classes, Plant Associations and Ecoregions of Katmai National Park and Preserve*. Anchorage: University of Alaska, Alaska Natural Heritage Program, Environment and Natural Resources Institute.

Braaten, Anne M. and Barrie K. Gilbert
1987. *Profile Analysis of Human-Bear Relationships in Katmai National Park and Preserve.* Logan, Utah State University Department of Fisheries and Wildlife.

Branson, John B.
1998. *Bristol Bay, Alaska: From the Hinterlands to Tidewater: A Grassroots Pictorial, 1885-1965*. Anchorage: National Park Service, Alaska Regional Office.

Branson, John B.
2007. *The Canneries, Cabins and Caches of Bristol Bay*. Anchorage: USDI National Park Service, Lake Clark National Park and Preserve.

Bundy Barbara
2007. A Norton Tradition Village Site on the Alagnak River, Southwest Alaska. *Alaska Journal of Anthropology*. 5(1):1–22.

Burgner, R.L.
1991. Life History of Sockeye Salmon (*Oncorhynchus nerka*). In C. *Groot* and L. Margolis, eds. *Pacific Salmon Life Histories*. Vancouver: University of British Columbia Press. pp. 1-117.

Cahalane, Victor
1959. *A Biological Survey of Katmai National Monument*. Publication 4376, Katmai Project. Washington, D.C.: Smithsonian Institution.

Carlson, Matthew R. and Robert Lipkin
2003. Alagnak Wild River and Katmai National Park Vascular Plant Inventory: Annual Technical Report. Inventory & Monitoring Report produced under Cooperative Agreement No. 1443CA991000013. Anchorage, AK: National Park Service Alaska Region Inventory & Monitoring Program.

Case, David S. and David A. Voluck
2002. *Alaska Natives and American Laws*. 2nd ed. Fairbanks: University of Alaska Press.

Chapman, D.W.
1988. Critical Review of Variables Used to Define Effects of Fines in Redds of Large Salmonids. *Transactions of the American Fisheries Society*. 117: 1-21.

Charley, Ella Mae and George Setuk
1998. Interview of Ella Mae Charley and George Setuk, conducted by Don Callaway and William Schneider, in Levelock, Alaska, May 5, 1998. (Tape #H98-17-02) Fairbanks: University of Alaska Oral History Program.

Chestnut, V. K.
1902. Plants Used by the Indians of Mendocino County, California. *Contributions from the U.S. National Herbarium*. 7: 295-408.

Chythlook, Molly and Philippa Coiley
1994. *The Subsistence Use of Beluga Whale in Bristol Bay by Alaska Natives, 1993.* Technical Paper No. 231. Juneau: Alaska Department of Fish and Game, Division of Subsistence.

Chukwak, Evan
1998. Interview of Evan Chukwak, conducted by Don Callaway and Bill Schneider, in Levelock, Alaska, March 6, 1995. (Tape #H98-17-4). Fairbanks: University of Alaska Oral History Program.

Clark, Donald W.
1984a. Pacific Eskimo: Historical Ethnography. In David Damas, ed. *Handbook of North American Indians, Volume 5: Arctic*. Washington, D.C.: Smithsonian Institution. Pp. 185-97.

Clark, Donald W.
1984b. Prehistory of the Pacific Eskimo Region. In D. Damas, ed. *Handbook of North American Indians, Volume 5: Arctic*. Washington, D.C.: Smithsonian Institution. Pp. 136-48.

Clark, Donald W.
1988. Pacific Eskimo Encoded Precontact History. In Robert D. Shaw, Roger K. Harritt and Donald E. Dumond, ed. *The Late Prehistoric Development of Alaska's Native People, Aurora* (Alaska Anthropological Association, Monograph Series No. 4). Pp.211-23.

Clark, Gerald H.
1977. Archaeology on the Alaska Peninsula: The Coast of Shelikof Strait, 1963-1965. *Anthropological Papers of the University of Oregon, 13*. Eugene: University of Oregon, Department of Anthropology.

Clemens, J., and Norris, F.
1999. *Building in an Ashen Land: Historic Resource Study of Katmai National Park and Preserve*. Anchorage: National Park Service. (revised and reprinted 2008).

Clifford, James
2004. Looking Several Ways: Anthropology and Native Heritage in Alaska. *Current Anthropology*. 45(1): 5-30.

Collins, Craig N. and Jason E. Dye
2003. Survey of the Chinook and Coho Salmon Sport Fishery in the Alagnak River, Alaska, 2001 and 2002. Anchorage, AK: Alaska Dept. of Fish and Game, Division of Sport Fish, Research and Technical Services.

Crow, Martha
2001. *Alagnak (Branch) River Repor*t. Manuscript on file, Lake Clark and Katmai Cultural Resource Program files and Alagnak museum collections, Alaska Regional Curatorial Center, Anchorage AK. No. ALAG-00034.

Crowell, Aron
1992. Postcontact Koniag Ceremonialism on Kodiak Island and the Alaska Peninsula: Evidence from the Fisher Collection. *Arctic Anthropology*. 29: 18–37.

Crozier, S. Neil
1983. *Cultural Resource Management Inventory, 36 Native Allotments, Bristol Bay Region.* Juneau: Bureau of Indian Affairs, Alaska Region.

Curran, Janet H.
2003. Channel Stability and Water Quality of the Alagnak River, Southwestern Alaska Water-Resources Investigations Report 02-4184. Anchorage: U.S. Geological Survey.

Davis, Nancy Yaw
1970. The Role of the Russian Orthodox Church in Five Pacific Eskimo Villages as Revealed by the Earthquake. *The Great Alaska Earthquake, Human Ecology Volume.* Washington, D.C.: National Research Council. Pp. 125-45.

Davis, Nancy Yaw
1979. Social Implications of ANCSA. In *Alaska Native Claims Settlement Act, 1971-1979: Commission Study 44*. Anchorage: Federal Land Planning Commission, Alaska. Pp. 166-227.

Davis, Nancy Yaw
1984. Contemporary Pacific Eskimo. In David Damas, ed. *Handbook of North American Indians, Volume 5: Arctic*. Washington, D.C.: Smithsonian Institution. Pp. 198-204.

Davis, Wilbur S.
1954. *Archaeological Investigations of Inland and Coastal Sites of the Katmai National Monument, Alaska*. Eugene: University of Oregon Department of Anthropology.

Deur, Douglas
2007. *Aniakchak National Monument and Preserve Traditional Use and User Groups Study*. Anchorage, AK: National Park Service, Alaska Support Office.

Deur, Douglas
2008a. *ATV Use by Residents of Igiugig and Kokhanok, Alaska in Katmai National Park and Preserve: A Thematic Overview*. Seattle: Pacific Northwest Cooperative Ecosystem Studies Unit, University of Washington, for Katmai National Park and Preserve, King Salmon, AK.

Deur, Douglas
2008b. *Alagnak Wild River Visitor Use Project: Alagnak Wild River Resident Users Study*. King Salmon, AK: National Park Service, Katmai National Park.

Deur, Douglas, Karen Evanoff, Adelheid Herrmann and AlexAnna Salmon
2013. Collaborative Research to Assess Visitor Impacts on Alaska Native Practices along Alagnak Wild River. *Alaska Park Science*. Anchorage: National Park Service, Alaska Support Office.

Dixon, R. G., & Associates
1998. Archeological Surveys along the Alagnak and Nonvianuk Rivers, Alaska, 1996 and 1997, Unpublished manuscript in Lake Clark and Katmai Cultural Resource Program files and Alagnak museum collections, NPS Alaska Region Curatorial Center, Anchorage AK. Accession No. ALAG-00013, catalog number ALAG 149/001.

Dumond, Donald E.
1971. A Summary of Archaeology in the Katmai Region, Southwestern Alaska. *Anthropological Papers of the University of Oregon, 2*. Eugene: University of Oregon Department of Anthropology.

Dumond, Donald E.
1972. The Alaska Peninsula in Alaska Prehistory. In F.W. Voget and R.L. Stephenson, eds. *For the Chief: Essays in Honor of Luther Cressman*. Anthropological Papers of the University of Oregon, No. 4. Eugene: University of Oregon Department of Anthropology. Pp. 29-47.

Dumond, Donald E.
1977. *Eskimos and Aleuts*. London: Thames and Hudson.

Dumond, Donald E.
1979. People and Pumice on the Alaska Peninsula. In P. D. Sheets and D. K. Grayson, eds., *Volcanic Activity and Human Ecology*. New York: Academic Press. Pp. 373-92.

Dumond, Donald E.
1981. Archaeology on the Alaska Peninsula: The Naknek Region, 1960-1975. *University of Oregon Anthropological Papers*. 21.

Dumond, Donald E.
1986. *Demographic Effects of European Expansion: A Nineteenth-Century Native Population of the Alaska Peninsula*, University of Oregon Anthropological Papers 35. Eugene: University of Oregon Department of Anthropology.

Dumond, Donald E.
1987. *Prehistoric Human Occupation in Southwestern Alaska: A Study of Resource Distribution and Site Location*. University of Oregon Anthropological Papers No. 36. Eugene: University of Oregon, Department of Anthropology.

Dumond, Donald E.
1998. Maritime Adaptation on the Northern Alaska Peninsula. *Arctic Anthropology*. 35(1): 187–203.

Dumond, Donald E.
2004. Volcanism and History on the Northern Alaska Peninsula. *Arctic Anthropology*. 41 (2): 112-125.

Dumond, Donald E.
2005. *A Naknek Chronicle: Ten Thousand Years in a Land of Lakes and Rivers and Mountains of Fire*. Anchorage: USDI National Park Service, Katmai National Park and Preserve.

Dumond, Donald E., Leslie Conton, and Harvey M. Shields
1975. Eskimos and Aleuts on the Alaska Peninsula: A Reappraisal of Port Moller Affinities. *Arctic Anthropology.* 12(1): 49-67.

Dumond, Donald E. and James W. VanStone
1995. Paugvik: A Nineteenth-Century Native Village on Bristol Bay, Alaska. *Fieldiana*. No. 24. Chicago: Field Museum of Natural History. 1-105.

Dunaway, Dan O.
1994. Surveys of the Chinook and Coho Salmon Sport Fisheries in the Alagnak River, Alaska,1993. Anchorage: Alaska Dept. of Fish and Game, Division of Sport Fish.

Elliott, Henry W.
1906. *Our Arctic Province, Alaska and the Seal Islands.* New York: Charles Scribner's Sons.

Evanoff, Karen A.
2008. Notes from community meetings between community residents and Dr. Douglas Deur and Karen Stickman Evanoff in Levelock, King Salmon, and Naknek, Alaska, April 2008. Unpublished notes, on file with the Chief of Cultural Resources, Katmai National Park and Preserve, Anchorage, AK.

Fall, James A.
1993. An Overview of Subsistence Uses of the Northern Alaska Peninsula Caribou Herd by Communities of Game Management Units 9C and 9E. Alaska Department of Fish and Game, Division of Subsistence Technical Paper No. 224. Anchorage.

Fall, James A., M.B. Chythlook, J.C. Schichnes, and J.M. Morris
1996. *An Overview of the Harvest and Use of Freshwater Fish by the Communities of the Bristol Bay Region, Southwest Alaska*. Subsistence Division Technical Paper No. 166. Juneau: Alaska Department of Fish and Game, Division of Subsistence.

Fienup-Riordan, Ann
1980. Social Structure and Ritual Distribution of the Nelson Island Eskimo. Unpublished Ph.D. dissertation. Chicago: University of Chicago Department of Anthropology.

Fienup-Riordan, Ann
1986. Traditional Subsistence Activities and Systems of Exchange among the Nelson Island Yup'ik. In *Contemporary Alaskan Native Economies*. S.J. Langdon, ed. Lanham, MD: University Press of America. pp.173-83.

Fienup-Riordan, Ann
2000. *Hunting Tradition in a Changing World: Yup'ik Lives in Alaska Today*. New Brunswick, NJ: Rutgers University Press.

Fitzhugh, William W. and Aron Cromwell, eds.
1988. *Crossroads of Continents: Cultures of Siberia and Alaska*. Washington, D.C.: Smithsonian Institution Press.

Fortuine, Robert
1989. *Chills and Fever: Health and Disease in the Early History of Alaska* Fairbanks, University of Alaska Press.

Gregory, Gabby
1999. Interview of Gabby Gregory, conducted by Don Callaway and William Schneider, in Kokhanok, Alaska, November 2, 1998. (Tape #H99-37-03) Fairbanks: University of Alaska Oral History Program.

Guédon, Marie-Francoise
1974. *People Of Tetlin, Why Are You Singing?* Mercury Series Number 9. Ottawa: National Museums of Canada.

Hammerlich, Louis L.
1954. The Russian Stratum in Alaskan Eskimo. *Word*. 10(4): 401-28.

Harritt, Roger K.
1986. A Model for Analysis of Lake Prehistoric Occupation of the Naknek Region, Southwest Alaska. In Robert D. Shaw, Roger K. Harritt and Donald E. Dumond, eds. *Late Prehistoric Development of Alaska's Native People*. Alaska Historical Commission Studies in History No. 190. Anchorage: Alaska Historical Commission. Pp. 300-33.

Harritt, Roger
1988. A Model for Analysis of Late Prehistoric Occupation of the Naknek Region, Southwest Alaska. In Robert Shaw, Roger Harritt and Donald Dumond, ed., *The Late Prehistoric Development of Alaska's Native People*. Special Issue, *Aurora*. Alaska Anthropological Association, Monograph Series No. 4. Pp.189-210.

Haynes, Terry L and Craig Mishler
1991. *The Subsistence Harvest and Use of Stellar Sea Lions in Alaska*. Division of Subsistence Technical Paper No. 198. Anchorage: Alaska Department of Fish and Game, Division of Subsistence.

Heard, William R., Richard L. Wallace, and Wilbur L. Hartman
1969. *Distribution of Fishes in Fresh Water of Katmai National Monument, Alaska and Their Zoogeographical Implications*. USFWS Fisheries Special Scientific Report, No. 590. (Washington, D.C.: U.S. Fish and Wildlife Service.

Heller, Christine A.
1953 Edible and Poisonous Plants of Alaska. Fairbanks: University of Alaska Press.

Hensel, Chase
1996. *Ethnicity and Discourse in Southwestern Alaska*. New York: Oxford University Press.

Hilton, Michael R.
1998. Integrating Natural and Cultural Resource Management in Katmai National Park and Preserve. *CRM*. 21(9): 17-19.

Hilton, Michael R.
2002. *Results of the 2001 Interior Rivers Survey: Reconnaissance-Level Pedestrian Survey of Alagnak and Savonoski River Corridors, Katmai National Park & Preserve, Alaska*. Manuscript in Lake Clark and Katmai Cultural Resource Program files and Alagnak museum collections, Alaska Regional Curatorial Center, Anchorage AK. Accession number ALAG-00012, catalog number ALAG 1304/006.

Holen, Davin L., Theodore M. Krieg, Robert Walker, and Hans Nicholson
2005. Harvests and Uses of Caribou, Moose, Bears, and Dall Sheep by Communities of Game Management Units 9B and 17, Western Bristol Bay, Alaska 2001-2002. Technical Paper No. 283. Juneau: Alaska Department of Fish and Game, Division of Subsistence.

Hussey, John A.
1971. *Embattled Katmai: Katmai National Monument Historic Resource Study*. San Francisco: National Park Service, Pacific-West Regional Office.

Jaenicke, Michael J.
1998. *Survey of the Rainbow Trout Sport Fishery on the Nonvianuk and Alagnak Rivers, 1996.* Anchorage, AK : Alaska Dept. of Fish and Game, Division of Sport Fish, Research and Technical Services Unit.

Jack, Martha
1971. *Uses of Plants by Alaskan Natives.* Fairbanks: University of Alaska Museum.

Jones, Anore
1983. *Nauriat Niginaqtuat = Plants That We Eat*. Kotzebue, AK: Maniilaq Association Traditional Nutrition Program.

Jones, S.H., and C.B. Fahl
1994. Magnitude and Frequency of Floods in Alaska and Conterminuous Basins of Canada: U.S. Geological Survey Water-Resources Investigations Report 93-4179. Washington, D.C.: U.S. Geological Survey.

Kari, Priscilla Russell
1985. *Upper Tanana Ethnobotany*. Anchorage: Alaska Historical Commission.

Kari, Priscilla Russell
1991. *Tanaina Plantlore, Dena'ina K'et'una: An Ethnobotany of the Dena'ina Indians of Southcentral Alaska.* (3rd ed.) Fairbanks: Alaska Native Language Center, University of Alaska.

Katmai Research Project, Katmai National Park, USDI National Park Service
1997. Katmai Research Project notes and files. Unpublished files and data sets. Anchorage, AK: National Park Service, Alaska Regional Office.

Katmai National Park, National Park Service
2002. Scoping Meeting for the Design of the Sociological Study of the Alagnak Wild River Comprehensive Management Plan, November 14, 2002, Anchorage AK – Minutes. Unpublished meeting minutes in Lake Clark and Katmai Cultural Resource Program files and Alagnak museum collections, NPS Alaska Region Curatorial Center, Anchorage AK. Series 003, D18.

Keim, Frank, et al.
2006. Marshall Cultural Atlas. (unpublished ms. and website) Fairbanks: Alaska Native Knowledge Network, University of Alaska.

Kresge, David T., Susan H. Fison, and Anthony Gasbarro
1974. *Bristol Bay: A Socioeconomic Study.* Fairbanks, AK: Institute of Social, Economic and Government Research, University of Alaska, Fairbanks.

Krieg, Theodore, Molly Chythlook, Philippa Coiley-Kenner, Davin Holen, Kurt Kamletz and Hans Nicholson
2005. *Freshwater Fish Harvest and Use in Communities of the Kvichak Watershed, 2003*. (Technical Paper No. 297). Juneau: Division of Subsistence, Alaska Department of Fish and Game.

Krupnik, I. and D. Jolly, eds.
2002. *The Earth is Faster Now: Indigenous Observations of Arctic Environmental Change*. Fairbanks, AK: University of Alaska, Fairbanks / Arctic Research Consortium of the United States.

Langdon, Steve J.
1991. The Integration of Cash and Subsistence in Southwest Alaskan Yup'ik Eskimo Communities. *Senri Ethnological Studies*. 30: 269-329.

Langdon, Steve and Rosita Worl
1981. Distribution and Exchange of Subsistence Resources in Alaska. Technical Paper No. 55. Anchorage, AK" University of Alaska, Arctic Environmental Information and Data Center.

Lantis, Margaret
1947. *Alaskan Eskimo Ceremonialism*. American Ethnological Society Monograph No. 11. New York: American Ethnological Society.

Lantis, Margaret
1959. Folk Medicine and Hygiene. *Anthropological Papers of the University of Alaska*. 8: 1-75.

Leighton, Anna L.
1985. *Wild Plant Use by the Woods Cree (Nihithawak) of East-Central Saskatchewan*. Ottawa. National Museums of Canada. Mercury Series.

Levelock Village Council
2005. *Levelock Watershed Community Planning Project: Final Summary Report*. Levelock, AK: Levelock Tribal Council and Agnew-Beck Consulting. http://www.commerce.state.ak.us/dca/plans/Levelock-LUP-2005.pdf

Liggett, Deb
2002. Alagnak Wild River Management Plan scoping meeting correspondence. Unpublished files, in possession of the PNW Cooperative Ecosystem Studies Unit, Seattle.

Liapunova, Rosa G.
1990. The Aleuts before Contact with the Russians; Some Demographic and Cultural Aspects. Kathy Arndt, trans. *Pacifica*. 2(2): 8-23.

Lund, Bob
1972. Alagnak River National Wild River Study. Anchorage, AK: U.S. Bureau of Land Management.

Luttrell, Mark
1997. *Site Reconnaissance Survey of the upper and Middle Alagnak River, Katmai National Park.* Manuscript on file, Lake Clark and Katmai Cultural Resource Program files and Alagnak museum collections, Alaska Regional Curatorial Center, Anchorage AK. Accession number ALAG-00013, catalog number ALAG 149/001.

MacDonald, Lewis G.
1951. Chronological History of Salmon Canneries in Central Alaska. *Alaska Fisheries Board Annual Report* 3. Pp. 71-84.

McCartney, Allen P.
1973. An Archeological Site Survey and Inventory of the Alaska Peninsula, Shumagin Islands, and Other Islands South of the Alaska Peninsula. Anchorage: U.S. Fish and Wildlife Service, Alaska Refuges Branch.

McCartney, Allen P.
1974. Prehistoric Cultural Integration along the Alaska Peninsula. *Anthropological Papers of the University of Alaska*. 16(1): 59-84.

McKennan, Robert A.
1959. *The Upper Tanana Indians*. Yale University Publications in Anthropology, No. 55.

Meka, Julie M.
2003. Evaluating the Hooking Injury and Immediate Physiological Response of Wild Rainbow Trout to Capture by Catch-and-Release Angling. (Unpublished M.S. thesis). Fairbanks: University of Alaska Department of Biology.

Miller, Joel
2003. Freshwater Fish Inventory of the Alagnak Watershed, Alagnak Wild River, Southwest Alaska Inventory and Monitoring Network Alaska Inventory and Monitoring Program. King Salmon, AK: Katmai National Park and Preserve.

Mishler, Craig and Rachel Mason
1996. Alutiiq Vikings: Kinship and Fishing in Old Harbor, Alaska. *Human Organization,* 44: 263-69.

Morehouse, Thomas A. and Marybeth Holleman
1994. *When Values Conflict: Accommodating Alaska Native Subsistence*. Institute of Social and Economic Research Occasional Paper No. 22. Anchorage: University of Alaska, Anchorage.

Morris, Judith
1986. *Subsistence Production and Exchange in the Iliamna Lake Region, Southwest Alaska, 1982-1983*. Technical Paper No. 136. Juneau: Alaska Department of Fish and Game, Division of Subsistence.

Morseth, Michele
1998a. *Puyulek Pu'irtuq! The People of the Volcanoes: Aniakchak National Monument and Preserve Ethnographic Overview and Assessment*. Anchorage: National Park Service, Alaska Regional Office.

Morseth, Michele
1998b. People of the Alagnak Wild and Scenic River: Can Alaska Natives and Ecotourists Co-exist? Presentation to the River Management Symposium. (transcript in files of Lake Clark & Katmai National Parks, Cultural Resources Division, Anchorage).

Morseth, Michele
2000. Interviews on Alagnak Wild River: Transcripts and Correspondence. Unpublished materials in the files of the Lake Clark and Katmai Cultural Resources program, Anchorage.

Morseth, Michele
2004. *Puyulek Pu'irtuq! The People of the Volcanoes: Aniakchak National Monument and Preserve Ethnographic Overview and Assessment*. Lydia Black, ed. Anchorage: National Park Service, Alaska Regional Office.

Moser, Jefferson F.
1899. The Salmon and Salmon Fisheries of Alaska. Report of the Operations of the U.S. Fish Commission Steamer Albatross for the Year Ending June 30, 1898. *U.S. Fish Commission Bulletin for 1898*. Vol. 18. Washington, D.C.: Government Printing Office. Pp. 1-178.

Moser, Jefferson F.
1902. The Salmon and Salmon Fisheries of Alaska; Report of the Alaskan Salmon Investigations of the United States Fish Commission Steamer Albatross in the 1900 and 1901. *Bulletin of the U.S. Fish Commission*. 21: 173-398. Washington, D.C.: U.S. Fish Commission.

Muller, E.H.
1952. The Glacial Geology of the Naknek District, the Bristol Bay Region, Alaska. Unpublished Ph.D. dis. Urbana: Illinois State University.

National Park Service, U.S. Dept. of Interior
1983. Alagnak Wild River, Alaska: Management Plan. Anchorage: National Park Service, Alaska Regional Office.

National Park Service, U.S. Dept. of Interior
1984. *Aniakchak National Monument and Preserve, Issues and Management Alternatives*. Anchorage: National Park Service, Alaska Regional Office.

National Park Service, U.S. Dept. of Interior
1986a. *Katmai National Park: General Management Plan, Wilderness Suitability Review, Land Protection Plan*. Denver, CO: USDI National Park Service, Denver Service Center.

National Park Service, U.S. Dept. of Interior
1986b. *General Management Plan, Land Protection Plan, Wilderness Suitability Review, Aniakchak National Monument and Preserve, Alaska.* Denver: National Park Service, Denver Service Center.

National Park Service, U.S. Dept. of Interior
1988. *Final Environmental Impact Statement for the Wilderness Recommendation, Aniakchak National Monument and Preserve, Alaska.* Denver: National Park Service, Denver Service Center.

National Park Service, U.S. Dept. of Interior
2006. *Alagnak Wild River: An Illustrated Guide to the Cultural History of the Alagnak Wild River*. Anchorage, AK: Lake Clark and Katmai Cultural Resources Program.

Naughton, G.P., and Gryska, A.D.
2000, Survey of the Chinook salmon sport fishery in the lower Alagnak River, Alaska, 1998. Alaska Department of Fish and Game, Fishery Data Series No. 00–26. Anchorage: Alaska Department of Fish and Game.

Nelson, Mary
1997. Interview of Mary Nelson, conducted by Judith Morris, in Kokhanok, Alaska, August 10, 1997. (Tape #H98-21-09-B) Fairbanks: University of Alaska Oral History Program.

Nelson, Richard K.
1983. *Make Prayers to the Raven: A Koyukon View of the Northern Forest*. Chicago: University of Chicago Press.

Nielsen, Mary Jane
2001. The Spirits are Still There: Memories of Katmai Country. In *Looking Both Ways*. Aron Crowell, Amy Steffian, and Gordon Pullar, eds. Fairbanks: University of Alaska Press. p. 84.

Norris, Frank
1987. Showing Off Alaska; the Northern Tourist Trade, 1878-1941. *Alaska History*. 2:1-18.

Norris, Frank
1992. *Tourism in Katmai Country*. Anchorage: National Park Service, Alaska Regional Office.

Norris, Frank B.
1996. *Isolated Paradise: An Administrative History of the Katmai and Aniakchak NPS Units*. Anchorage: National Park Service, Alaska Region Support Office.

Olson, Tamara L., Barrie K. Gilbert, and Scott H. Fitkin
1990. *Brown Bear Behavior and Human Activity at Salmon Streams in Katmai National Park, Alaska*. Logan: Utah State University Department of Fisheries and Wildlife.

Olympic, Mary Ann
1995. Interview of Mary Ann Olympic, conducted by Don Callaway and Bill Schneider, in Igiugig, Alaska, March 8, 1995. (Tape #H95-33-1). Fairbanks: University of Alaska Oral History Program.

Olympic, Mary Ann
2000. Interviews of Mary Ann Olympic, conducted by Michele Morseth, in Igiugig, Alaska, Sept. 28-Oct 1. Unpublished notes in the files of the Lake Clark and Katmai Cultural Resources program, Anchorage.

Olympic, Mary Ann
2002. Interview of Mary Olympic conducted by Don Callaway and Bill Schneider, In Igiugig, Alaska, September 12, 2002. Transcript by Carol McCue. 2601: 01-27. Fairbanks: University of Alaska Oral History Program.

Orth, Donald J.
1967. *Dictionary of Alaska Place Names*. Geological Survey Professional Paper No. 567. Washington, D.C.: Government Printing Office.

Oswalt, Wendell H.
1955. Prehistoric Sea Mammal Hunters at Kaflia, Alaska. *Anthropological Papers of the University of Alaska, No. 4.* Fairbanks: University of Alaska.

Oswalt, Wendell H.
1957. A Western Eskimo Ethnobotany. *Anthropological Papers of the University of Alaska*. 6: 17-36.

Oswalt, Wendell H.
1967. *Alaskan Eskimos.* San Francisco: Chandler Press.

Partnow, Patricia H.
1993. Alutiiq Ethnicity. (Unpublished Ph.D. thesis). Fairbanks: University of Alaska Department of Anthropology.

Partnow, Patricia H.
2002. *Making History: Alutiiq/Sugpiaq Life on the Alaska Peninsula*. Fairbanks: University of Alaska Press.

Patton, M.
1990. *Qualitative Evaluation and Research Methods*. Newbury Park, CA: Sage Publications.

Pavey, Scott A., Troy R. Hamon and Jennifer L. Nielsen
2000. Unique Observations of Sockeye Salmon Life Histories from a Recently Colonized Lake. Project summary. Anchorage: National Park Service Alaska Regional Office and U.S. Geological Service Alaska Service Center.

Petroff, Ivan
1884. Report on the Population and Resources of Alaska, 1880. 10th census of the United States, 1880. Volume 8. United States Census, Washington, D.C.

Porsild, A.E.
1953. Edible Plants of the Arctic. *Arctic.* 6: 15-34.

Rasic, Jeff
1998. *Report to the National Park Service on Comparative Collection Analysis of Artifacts from ILI-088, ILI-091 and ILI-099 with University of Oregon Collections*. Manuscript on file, Lake Clark and Katmai Cultural Resource Program files and Alagnak museum collections, NPS Alaska Region Curatorial Center, Anchorage AK. Accession number ALAG-00013, catalog number ALAG 149/001.

Ray, Dorothy J.
1983. *Ethnohistory in the Arctic: The Bering Strait Eskimo*. Fairbanks: Limestone Press.

Rich, Willis H. and Edward M. Ball
1928. Statistical Review of the Alaska Fisheries, Part I: Bristol Bay and Alaska Peninsula. Bureau of Fisheries Document No. 1041. *Bulletin of the Bureau of Fisheries*. 44: 41-95. Washington, D.C.: U.S. Bureau of Fisheries.

Riehle, J.R., and Detterman, R.L.
1993. Quaternary Geologic Map of the Mount Katmai Quadrangle and Adjacent Parts of the Naknek and Afognak Quadrangles, Alaska: U.S. Geological Survey Map I–2032 (1:250,000.). Washington D.C.: U.S. Geological Survey.

Roehl, Danny
1997. Interview of Danny Roehl, conducted by Judith Morris, in Kokhanok, Alaska, August 7, 1997. (Tape #H98-21-04) Fairbanks: University of Alaska Oral History Program.

Rousseau, Jacques
1947. Ethnobotanique Abenakise. *Archives de Folklore*. 11:145-82.

Salmon, Dan
2002. Interview of Dan Salmon, as part of an interview with Dan Salmon and Randy Alavarez, conducted by Don Callaway and Bill Schneider, In Igiugig, Alaska, September 12, 2002. Transcript by Carol McCue. 2605: 01-10. Fairbanks: University of Alaska Oral History Program.

Shephard, M.
2000. Ecological Units of Katmai National Park and Preserve. Anchorage: Alaska Regional Office, National Park Service.

Sheppard, William L. and David P. Staley
1992. *Archeological Overview and Assessment of Katmai National Park and Preserve*. Anchorage: University of Alaska, Alaska Natural Heritage Program, Environment and Natural Resources Institute.

Skinner, Ramona
1997. *Alaska Native Policy in the Twentieth Century*. New York: Garland Publishing.

Smith, G. Warren
1973. Arctic Pharmacognosia. *Arctic.* 26: 324-333.

Spang, Nick A., Mark E. Vande Kamp, and Darryll R. Johnson
2006. *The Alagnak Wild River Recreational Visitor Survey*. Technical Report NPS/CCSOUW/NRR-2006-02. Seattle: Pacific Northwest Cooperative Ecosystem Studies Unit.

Spurr, Josiah Edward
1900. A Reconnaissance in Southwestern Alaska in 1898. In *U.S. Geological Survey, Twentieth Annual Report, 1898-99*. Part VII (31-264) Washington, D.C.: U.S. Geological Survey. (56th Congress, 1st Session, U.S. House of Representatives, Document No. 5).

Stickman [Evanoff], Karen, A. Baluta, M. McBurney, and D. Young
2003. *K'ezghlegh Nondalton Traditional Ecological Knowledge of Freshwater Fish*. Fisheries Resource Monitoring Program, Final Report No. FIS 01-075. Anchorage, AK: USFWS Alaska Office of Subsistence Management.

Stickman [Evanoff], Karen A.
2008. Notes from community meetings between community residents and Dr. Douglas Deur and Karen Evanoff Stickman in Levelock, King Salmon, and Naknek, Alaska, April 2008. Unpublished notes, on file with the Chief of Cultural Resources, Katmai National Park and Preserve, Anchorage, AK.

Stirling, Dale A.
1982. *Historic Uses of the Alagnak ("Branch") River and Kukaklek and Nonvianuk Lakes*. Anchorage: State of Alaska, Dept. of Natural Resources, Division of Research and Development, Policy Research and Land Entitlement Branch.

Tallekpalek, Alex
1998. Interview of Alex Tallekpalek, conducted by Don Callaway and William Schneider, in Levelock, Alaska, May 5, 1998. (Tape #H98-17-01) Fairbanks: University of Alaska Oral History Program.

Tallekpalek, John and Mary Tallekpalek
1998. Interview of John Tallekpalek and Mary Tallekpalek, conducted by Don Callaway and William Schneider, in Levelock, Alaska, May 5, 1998. (Tape #H98-17-03) Fairbanks: University of Alaska Oral History Program.

Tingey, Ralph
2001. Federal Register Notice: Department of the Interior, National Park Service, Intent to Prepare an Environmental Impact Statement for the Alagnak Wild River Management Plan, Alaska. *Federal Register*. Vol. 66, No. 77. April 20, 2001. pp. 20326-27.

Tobey, Jennifer

2005. Historic Structures Inventory and Condition Assessment, Katmai National Park and Preserve, Alagnak Wild River and Aniakchak National Monument and Preserve, Alaska End of Year Report FY 2005, on file in the Alagnak collections, Anchorage, Alaska.

Townsend, Joan
1965. Ethnohistory and Culture Change of the Iliamna Tanaina. (Unpublished Ph.D. dissertation). Los Angeles: University of California, Los Angeles, Department of Anthropology.

Townsend, Joan
1979. Indian or Eskimo? Interaction and Identity in Southern Alaska. *Arctic Anthropology*. 16(2): 160-82.

Turner, Nancy J., Randy Bouchard and Dorothy I.D. Kennedy
1980. *Ethnobotany of the Okanagan-Colville Indians of British Columbia and Washington*. Victoria: Royal British Columbia Provincial Museum.

Turner, Nancy J., Laurence C. Thompson and M. Terry Thompson
1990. *Thompson Ethnobotany: Knowledge and Usage of Plants by the Thompson Indians of British Columbia*. Victoria. Royal British Columbia Museum.

U.S. Army Corps of Engineers
1954. *Harbors and Rivers in Alaska*. Interim Report No. 5, Southwest Alaska. Portland, OR: U.S. Army Corps of Engineers, Alaska District Office.

U.S. Bureau of Outdoor Recreation
1973. Alagnak River: Description and Analysis. Anchorage, AK: U.S. Bureau of Outdoor Recreation, Alaska Office.

U.S. Census Bureau
2000. United States Census, Miscellaneous Data Sets. Washington, D.C.: U.S. Census Bureau. Introductory web page at: http://www.census.gov/main/www/cen2000.html

U.S. Fish and Wildlife Service and National Park Service
n.d. Birds of the Alaska Peninsula, Cape Douglas to Port Moller. Jamestown, ND: Northern Prairie Wildlife Research Center. Species list available at http://www.npwrc.usgs.govakpenin.htm .

U.S. Heritage and Conservation and Recreation Service
1980. Wild and Scenic River Proposal: Alagnak River, Alaska. Washington, D.C.: U.S. Heritage and Conservation and Recreation Service.

VanderHoek, Richard
1998. Fire and Flood - Archeological Survey in the Dynamic Aniakchak National Monument and Preserve. *CRM*. 21(9): 10-11.

VanderHoek, Richard

2008. The Role of Ecological Barriers in the Development of Cultural Boundaries during the Later Holocene of the Central Alaska Peninsula. Unpublished Ph.D. dissertation, Department of Anthropology, University of Illinois at Urbana-Champaign.

VanStone, James W.
1967. *Eskimos of the Nushagak River: An Ethnographic History*. Seattle: University of Washington Press.

VanStone, James W.
1971. Historic Settlement Patterns in the Nushagak River Region, Alaska. *Fieldiana*. No. 61. Chicago: Field Museum of Natural History.

VanStone, James W.
1972. Nushagak: An Historic Trading Center in Southwestern Alaska. *Fieldiana*. No. 62. Chicago: Field Museum of Natural History.

VanStone, James W.
1984a. *An Archaeological Site Survey of Amaknak and Unalaska Islands, Alaska*. Anchorage: Alaska Division of Parks and Outdoor Recreation.

VanStone, James W.
1984b. Mainland Southwest Alaska Eskimo. In David Damas, ed. *Handbook of North American Indians, Volume 5: Arctic*. Washington, D.C.: Smithsonian Institution. Pp. 224-42.

Vestal, Paul A.
1952. The Ethnobotany of the Ramah Navaho. *Papers of the Peabody Museum of American Archaeology and Ethnology*. 40(4): 1-94.

von Langsdorff, Georg Heinrich
1993. *Remarks and Observations on a Voyage Around the World From 1803 to 1807*. V.J. Moessner, trans., R. A. Pierce, ed. Kingston, Ont., Limestone Press.

Ward, Peter
1971. *A Bibliography of Katmai National Monument, Alaska*. 2nd ed. Palisades, NY: Lamont Geological Observatory.

Wilson, George, Jr.
2002. Interview of George Wilson, Jr. conducted by Don Callaway and Bill Schneider, In Igiugig, Alaska, September 11, 2002. Transcript by Carol McCue. 2607: 01-38. Fairbanks: University of Alaska Oral History Program.

Wilson, George, Sr. and Anne Wilson
1995. Interview of George Wilson, Sr. and Anne Wilson, conducted by Don Callaway and Bill Schneider, in Igiugig, Alaska, March 7, 1995. (Tape #H95-23-2 & 3). Fairbanks: University of Alaska Oral History Program.

Wilson, George, Sr. and Anne Wilson

2000. Interview of George Wilson, Sr. and Anne Wilson, conducted by Michele Morseth, in Igiugig, Alaska, Sept. 28-Oct 1. Unpublished notes in Lake Clark and Katmai Cultural Resource Program files and Alagnak museum collections, Alaska Regional Curatorial Center, Anchorage AK. Accession number ALAG-00028.

Wilson, Michael R.
1978. Notes on Ethnobotany in Inuktitut. *The Western Canadian Journal of Anthropology*. 8: 180-196.

Willson, M. and K. Halupka
1995. Anadromous Fish as Keystone Species in Vertebrate Communities. *Conservation Biology*. 9: 489-497.

Wolfe, Robert J.
1979. Food Production in a Western Eskimo Population. Unpublished Ph.D. dissertation. Los Angeles: University of California, Los Angeles, Department of Anthropology.

Wolfe, Robert J.
1986. The Economic Efficiency of Food Production in a Western Eskimo Population. In *Contemporary Alaskan Native Economies*. S.J. Langdon, ed. Lanham, MD: University Press of America. pp.101-120.

Woodbury, Anthony C.
1984. Eskimo and Aleut Languages. In D. Damas, ed. *Handbook of North American Indians, Volume 5: Arctic*. Washington, D.C.: Smithsonian Institution. Pp. 49-63.

Workman, William B.
1979. The Significance of Volcanism in the Prehistory of Subartic Northwest North America. In P.D. Sheets and D.K. Grayson, eds. *Volcanic Activity and Human Ecology*. New York: Academic Press. pp. 339-67.

Wrangell, Ferdinand P. von
1839. Statische und ethnographische Nachrichten über die Russischen Besitzungen an der Nordwestküste von Amerika. K.E. von Baer, ed. St. Petersburg, Russia: Kaiserlichen Akadamie der Wissenschaften.

Wright, John M., Judith M. Morris, and Robert Schroeder
1985. *Bristol Bay Regional Subsistence Profile*. Division of Subsistence Technical Paper No. 114. Juneau: Alaska Department of Fish and Game, Division of Subsistence.

Yesner, David R.
1985. Cultural Boundaries and Ecological Frontiers in Coastal Regions; An Example from the Alaska Peninsula. In S. W. Green and S. M. Perlman, eds., *The Archaeology of Frontiers and Boundaries*. New York: Academic Press.

Young, Daniel B.

2005. Distribution and Characteristics of Sockeye Salmon Spawning Habitats in the Lake Clark Watershed, Alaska. Technical Report/NPS/NRWRD/NRTR-2005/338. Fort Collins, CO: National Park Service, Water Resource Division.

Young, S. B. and C. H. Racine
1978. *Ecosystems of the proposed Katmai Western Extension, Bristol Bay Lowlands, Alaska*. Wolcott, VT: Center for Northern Studies.

Zimin, Carvel, Sr.
1998. Interview of Carvel Zimin, Sr., conducted by Pat Partnow, in South Naknek, Alaska, January 27, 1998. (Tape #H98-22-02) Fairbanks: University of Alaska Oral History Program.

Zwiebel, Brian Richard
2003. Human Distribution in the Alagnak Wild River Corridor: Spatial and Temporal Patterns in Southwest Alaska. Unpublished M.S. thesis. Seattle: College of Forest Resources, University of Washington.

Appendices

Appendix 1

Contact Information for Communities
Participating in the Current Ethnographic Study

ALAGNAK RIVER - CONTACTS

IGIUGIG
(POP. 50 – 83% ALASKA NATIVE)

VILLAGE CORPORATION - IGIUGIG NATIVE CORPORATION
P.O. BOX 4009
IGIUGIG, AK 99613-4009
PHONE 907-533-8001
FAX 907-533-3217
WEB HTTP://WWW.IGIUGIG.COM/

VILLAGE COUNCIL - IGIUGIG VILLAGE COUNCIL
P.O. BOX 4008
IGIUGIG, AK 99613
PHONE 907-533-3211
FAX 907-533-3217
E-MAIL IGIUGIG@STARBAND.NET
WEB HTTP://WWW.IGIUGIG.COM

KING SALMON
(POP. 385 – 30% ALASKA NATIVE)

VILLAGE COUNCIL - KING SALMON VILLAGE COUNCIL
P.O. BOX 68
KING SALMON, AK 99613-0068
PHONE 907-246-3449
FAX 907-246-3553

KOKHANOK
(POP. 174 – 87% ALASKA NATIVE)

VILLAGE COUNCIL - KOKHANOK VILLAGE COUNCIL
BOX 1007
KOKHANOK, AK 99606
PHONE 907-282-2202
FAX 907-282-2264
E-MAIL KOKHANOK_VC@YAHOO.COM

LEVELOCK
(POP. 71 – 95% ALASKA NATIVE)

VILLAGE CORPORATION - LEVELOCK NATIVES LIMITED
P.O. BOX 109
LEVELOCK, AK 99625

PHONE 907-287-3040
FAX 907-287-3022

VILLAGE COUNCIL - LEVELOCK VILLAGE COUNCIL
P.O. BOX 70
LEVELOCK, AK 99625
PHONE 907-287-3030
FAX 907-287-3032
E-MAIL LEVELOCK@STARBAND.NET

NAKNEK
(POP. 614 – 47% ALASKA NATIVE)

VILLAGE CORPORATION - PAUG-VIK INCORPORATED, LIMITED
P.O. BOX 61
NAKNEK, AK 99633
PHONE 907-246-4277
FAX 907-246-4419
E-MAIL ADMIN@PVIL.COM

VILLAGE COUNCIL - NAKNEK VILLAGE COUNCIL
P.O. BOX 106
NAKNEK, AK 99633-0106
PHONE 907-246-4210
FAX 907-246-3563
E-MAIL NNVCAK@BRISTOLBAY.COM

REGIONAL

REGIONAL NATIVE CORPORATION - BRISTOL BAY NATIVE CORPORATION
800 CORDOVA STREET, SUITE 200
ANCHORAGE, AK 99501-6299
PHONE 907-278-3602
FAX 907-276-3924
E-MAIL HAWKINST@BBNC.NET
WEB HTTP://WWW.BBNC.NET

REGIONAL NATIVE NON-PROFIT - BRISTOL BAY NATIVE ASSOCIATION
P.O. BOX 310
DILLINGHAM, AK 99576
PHONE 907-842-5257
FAX 907-842-5932

E-MAIL TERRYH@BBNA.COM
WEB HTTP://WWW.BBNA.COM

SCHOOL DISTRICT FOR IGIUGIG AND LEVELOCK - LAKE & PENINSULA SCHOOLS
P.O. BOX 498
KING SALMON, AK 99613
PHONE 907-246-4280
FAX 907-246-3055
E-MAIL SATWATER@LPSD.COM
WEB HTTP://WWW.LPSD.COM

SCHOOL DISTRICT FOR NAKNEK AND KING SALMON - BRISTOL BAY BOROUGH SCHOOLS
P.O. BOX 169
NAKNEK, AK 99633-0169
PHONE 907-246-4225
FAX 907-246-6857
E-MAIL RHEBHARDT@NNK.GCISA.NET
WEB HTTP://WWW.THEBOROUGH.COM/SCHOOLS.HTML;
HTTP://ALASKA.IHIGH.COM/BRISTOLBAY/

REGIONAL DEVELOPMENT - SOUTHWEST ALASKA MUNI. CONF.
3300 ARCTIC BLVD. #203
ANCHORAGE, AK 99503
PHONE 907-562-7380
FAX 907-562-0438
E-MAIL WAYERS@SWAMC.ORG
WEB HTTP://WWW.SOUTHWESTALASKA.COM

CDQ GROUP - BRISTOL BAY ECON. DEV. CORP.
P.O. BOX 1464
DILLINGHAM, AK 99576-1464
PHONE 907-842-4370
FAX 907-842-4336
E-MAIL SOCKEYE1@NUSHTEL.COM
WEB HTTP://WWW.BBEDC.COM

BOROUGH

BOROUGH FOR IGIUGIG AND LEVELOCK - LAKE & PENINSULA BOROUGH
P.O. BOX 495
KING SALMON, AK 99613
PHONE 907-246-3421
FAX 907-246-6602
E-MAIL LPBORO@BRISTOLBAY.COM
WEB HTTP://WWW.LAKEANDPEN.COM

BOROUGH FOR NAKNEK AND KING SALMON - BRISTOL BAY BOROUGH
P.O. BOX 189
NAKNEK, AK 99633
PHONE 907-246-4224
FAX 907-246-6633
E-MAIL CLERK@THEBOROUGH.COM
WEB HTTP://WWW.THEBOROUGH.COM

Appendix 2

A Statistical Snapshot of the Villages in the Early 21st Century

APPENDIX 2:

A Statistical Snapshot of the Villages in the Early 21st Century

What follows is a cursory overview of the communities that are the focus of the current study, with statistical information principally regarding the communities as they were represented in the year 2000 U.S. Census.

Igiugig

The village of Igiugig sits on the south shore of Kvichak River, where it exits Lake Iliamna. Morris (1986: 37) notes of Igiugig that "The community site was formally a portage point for a reindeer station established at Kukaklek Lake during the early 1900s," though the community predates this period. Igiugig's population was 53 during the 2000 census. In the 2000 census, Igiugig residents identified themselves as being 71.7% Alaska Native or Native American, 16.98% White, 11.32% from two or more races, and 1.89% Hispanic. Approximately 30% of Igiugig residents who reported the language they speak at home in the 2000 census indicated that they spoke a language other than English – in this case Yup'ik. The community has more women than men, with 7.67 men for every 10 women.

In addition to relying heavily on subsistence hunting and fishing, the community is dependent on commercial fishing for cash income, with some families holding commercial fishing permits and others working in the canneries. In 2000, the median household income was $21,750, with subsistence hunting, fishing and gathering representing a significant source of non-cash income. Using financial data only, approximately 6.9% of the population is below the poverty level, and all of these individuals are aged 65 or above. The community has undertaken a number of ambitious development projects in recent years, including the development of new housing, renewable energy, and even community garden and recycling efforts. Many older community residents spent some portion of their earlier years living Alagnak River. The Igiugig airport is a common stopover point for visitors traveling to the Alagank, and Igiugig Native Corporation owns lands near the head of Alagnak Wild River.

Kokhanok

Kokhanok is a largely Alaska Native settlement, located on the south shore of Iliamna Lake. Like the other communities in this report, Alaska Native residents appear to include descendants of Yup'ik and Aluutiq-speakers, but some of Kokhanok's residents also identify as Athabaskan Dena'ina and have strong ties to the Dena'ina community on the north bank of Lake Iliamna. Approximately 18% of Kokhanok residents who reported the language they speak at home in the 2000 census indicated that they spoke a language other than English – apparently Yup'ik. Kokhanok's population was 174 during the 2000 census. In the 2000 census, Kokhanok residents identified themselves as being 86.78% Alaska Native or Native American, 8.05% White, 4.02% from two or more races, 1.15% Hispanic, and 1.15% from other races. The community has more men than women, with 14.2 men for every 10 women.

Economically, Kokhanok residents are highly dependent on subsistence fishing and hunting, with comparatively little industrial or tourist-based economic development. Reported quantities of subsistence take and the proportion of the diet derived from subsistence resources are consistently high – even by rural Alaska Peninsula standards. The median household income was $19,583 in the year 2000, with subsistence hunting, fishing and gathering representing a significant source of non-cash income. Using financial data only, approximately 42.6% of the population was below the poverty line, though these figures obscure the significant portion of the local economy that is derived from subsistence resources.

Levelock

Levelock is a predominately Alaska Native settlement, located along the Kvichak River, roughly 10 miles inland from Kvichak Bay. Levelock was home to 122 individuals according to the 2000 census. In the 2000 census, Levelock residents identified themselves as being 89.34% Alaska Native or Native American, 16.98% White, 5.74 % from two or more races, 4.92% White, and 2.46% Hispanic. Approximately 15% of Levelock residents who reported the language they speak at home in the 2000 census indicated that they spoke a language other than English. The median household income was $18,750, with subsistence hunting, fishing and gathering representing a significant source of non-cash income. Using financial data only, approximately 24.5% of the population lives below the poverty level, including 50% of residents 65 and over.

Levelock is a community with an especially direct tie to the study area. Speaking of Levelock, the researchers of the Katmai Research Project noted,

> "Many local people have historical ties to the Branch River area and Levelock residents continue to use the area. Levelock residents also have historical and contemporary ties to the Katmai Preserve area, especially Nonvianuk Lake. The village corporation owns land along the Branch River and some people have Native allotment lands there as well" (Katmai Research Project 1997: 3).

King Salmon

Located on the Naknek River, King Salmon is a hub of governmental offices, as well as shipping and transportation operations serving the larger Alaska Peninsula. The National Park Service, the Alaska Department of Fish and Game, and the U.S. Weather Bureau have maintained offices in King Salmon, while the U.S. Army Air Force maintained a base in the community from early in World War II through 1993. The community has regular scheduled air service, and serves as a transportation hub for both recreational and commercial fisheries in the Bristol Bay region. While there is a significant Alaska Native presence in King Salmon, the community is relatively diverse, reflecting this range of functions. King Salmon's population was 442 according to the 2000 census. In the 2000 census, King Salmon residents identified themselves as being 66.29% White, 28.96% Alaska Native or Native American, 3.17% from two or more races 1.13% African American, 0.45% Hispanic, 0.23% Asian, and 0.23% from other races. Unlike most other villages discussed here, King Salmon is home to a federally-recognized Alaska Native tribe, but the tribe does not represent the majority of the community. Of those King Salmon residents who reported the language they speak at home in the 2000 census, roughly 5% indicated that they spoke a language other than English – most of these being Yup'ik speaking members of the King Salmon Tribe.

The median household income in King Salmon was $54,375 in the year 2000. Dependence on subsistence resources is highly variable within the community, reflecting larger social and economic variation, with Alaska Natives generally being more dependent on subsistence resources. Approximately 12.4% of the population was below the poverty line, but none of these individuals were reported to be age 65 or over.

Naknek

Naknek is located on Naknek River estuary, where the river enters Kvichak Bay, itself a branch of Bristol Bay. Naknek's economy is largely driven by the salmon industry. Salmon canneries appeared in the Naknek area beginning in 1894, with the arrival of the Arctic Packing cannery, and the community experienced a boom in salmon cannery employment that lasted through the first half of the 20th century; in recent years, the community has had to respond to a shift to offshore salmon processing, and has increasingly served as a service center for the Bristol Bay fishing fleet.

Naknek's population was 678 during the 2000 census. In the 2000 census, Naknek residents identified themselves as being 51.47% White, 45.28% Alaska Native or Native American, 2.36% from two or more races, 0.74% Pacific Islander, 0.29% Hispanic, and 0.15% Asian. Of those Naknek residents who reported the language they spoke at home in the 2000 census, 4% indicate that they spoke a language other than English. The median household income was $53,393 in the year 2002. As in King Salmon, dependence upon subsistence resources varies considerably within the community, reflecting overall variability in the social, cultural, and economic circumstances of residents. Alaska Native residents appear to have a generally greater dependence on subsistence resources than the non-Native Naknek population. Approximately 3.7% of the population was reported to be below the poverty line, but none of those reported were age 65 and older.

South Naknek

South Naknek is an Alaska Native community located on the south bank of Naknek River, opposite from Naknek. While physically separate from the larger community of Naknek, and there is no bridge between the two communities and so travel between the communities requires the use of an airplane, a boat (in summer) or a snowmachine (in winter). Still, the two communities are fundamentally linked, with South Naknek residents visiting Naknek regularly for social and economic activities, and south Naknek high school students attending Naknek High School – regularly flying between the two communities in an airplane.

South Naknek's population was 137 during the 2000 census. In the 2000 census, South Naknek residents identified themselves as being 83.94% Alaska Native or Native

American, 13.14% White, 2.19% Hispanic, 1.46% African American, 0.73% Asian, and 0.73% Pacific Islander. Of those South Naknek residents who reported the language they speak at home in the 2000 census, only 2% indicate that they speak a language other than English. The median household income was reported to be $22,344 in the year 2000, with subsistence hunting, fishing and gathering representing a significant source of non-cash income. Using financial data only, some 27.1% of the population live below the poverty line, including 41.7% of those under 18 but none of these individuals are reported to be 65 or older.

Appendix 3

Effects of Tourism And Visitor Use On Local Native Communities And Subsistence Activities, Alagnak Wild River: A Project Proposal -

the original Project Proposal for Planned Ethnographic Project,
"*Evaluate the Effects of Tourism on Traditional Activities, Alagnak Wild River*"

Effects of Tourism And Visitor Use On Local Native Communities And Subsistence Activities, Alagnak Wild River:

A Project Proposal

by Michele Morseth

1997

Tourism, especially ecotourism, is a fast growing industry with a variety of economic, sociocultural, and environmental impacts which is affecting the Katmai coast, the Alagnak river and other park areas in Alaska. There has not been an ethnographic study of the effects of tourism and visitor use (including sport fishing, hunting fly-in bear viewing, commercial photography, etc.) on indigenous cultures, subsistence activities or resources. Subsistence use is protected by ANILCA yet effects of consumptive and non-consumptive visitor use are unknown.

This two-year preliminary ethnographic study will examine the effects of tourism activities (both consumptive and non-consumptive use) on subsistence activities and village life including effects on traditional land and resource use activities and potential clashes of cultures and values in the Alagnak Wild River area of KATM. It is intended that this study will be developed as a prototype to be applied in other park areas with high visitor use, as needed.

Consequences of Inaction

Tourism in many forms has greatly increased along the Katmai coast and Alagnak Wild River, impacting natural and cultural resources in ways that have only been minimally documented. Cultural conflict between visitors and northern peoples can manifest itself in social and physical impacts for residents and unpleasant visitor experiences. We have no clear idea of what impacts increased tourism might have on i) subsistence activities including methods of taking fish and game and patterns of land use, ii) cultural values and beliefs, iii) archaeological sites, iv) availability of subsistence resources, v) local economies, and vi) carrying capacity of the natural resources and villages impacted. Native groups have voiced concerns but have not been identified or targeted by a special ethnographic study. The study is essential to gather baseline information in order to articulate these resource concerns with NPS manage policy to effectively protect and preserve resources over the long term.

Problem Statement

Tourism, particularly ecotourism, is a fast growing industry affecting the Katmai coast and the Alagnak Wild River and many other park areas in Alaska. No one has studied indepth the effects of tourism and visitor use (including sport fishing and hunting, fly-

in bear viewing, commercial photography, etc.) on indigenous cultures, subsistence activities, or resources. The spatial dimensions of this increased visitation has also not been examined in the context of subsistence use of the same areas. Many rural economies rely heavily on the subsistence sector of their economy, yet there has not been any real cost/benefit analysis in terms of the effects on the mixed wage/transfer payment and subsistence economies of park associated villages nor has anyone weighed the social costs against the potential economic benefits.

The tourist industry, based primarily on the natural and cultural values of the park, is economically the second most important industry in the region, surpassed only by commercial fishing. Approximately 100 Incidental Business Permits were issued to operators in KATM last year. The Alagnak River is a major focus of recreational use (sport fishing and hunting, rafting) as well as subsistence use. Within the Alagnak River Corridor there are 12 Native allotments and 6 parcels selected and/or conveyed to Native corporations. Residents of Levelock, Igiugig, Naknek, South Naknek, and Clark's Point use the Alagnak River for fishing, trapping, and hunting.

We have no clear idea of what impact the visitor activities might have on local cultures, including cultural values and beliefs, cultural properties, subsistence resources, or ethnographic resources. This is of concern to Native groups, who believe, for example, that when a sport hunter kills a lead caribou, this will cause migration patterns to change thereby having immediate effects on subsistence practices. It is known that cultural sites, exposed by erosion along the coast are habitually visited by visitors to collect artifacts. Many other such concerns of Native groups have been voiced but not identified or targeted by a special ethnographic study. The study is essential to gather baseline information in order to articulate these resource concerns with NPS management policy to effectively protect and preserve resources over the long term.

This issue is complex and indigenous people of Alaska have begun to voice their concerns, yet there are many unknowns. Questions include:

1) What are the direct effects to subsistence use and the economy from an increase in visitor use in crucial areas?
2) What are these crucial areas where subsistence use and tourism overlap within park areas?
3) How are fish and animal populations or movements affected near villages and subsistence camps that rely on these animals for food or for tourist viewing?
4) How do rural communities cope with the influx of visitors who bring with them their own set of values and are perhaps critical of village lifeways?
5) How do young Native people internalize the conflicts brought by dual value sets if communities are trying to accommodate the foreign values of tourists?
6) How can impact to cultural and natural resources and subsistence economies be minimized while maximizing visitor experience?

The growth of visitor use threatens to change the natural and cultural resources of park areas before any baseline data can be gathered and threatens to cause conflicts between traditionally associated Native groups and non-local visitors.

Description of Recommended Project

This ethnographic study will examine the effects of tourism activities (both consumptive and non-consumptive use) on subsistence activities and village life including effects on traditional land and resource use activities, potential clashes of culture and values, and effects on cultural transmission in the Alagnak Wild River area, KATM. The Alagnak area has been selected as the initial focus of the study because of both the high visitor and subsistence use along its corridor. It is intended that this study will be developed as a prototype to be applied in the KATM coastal unit and in other park areas with high visitor use, as needed.

Appendix 4

NPS Project Management Information System (PMIS) Statement
for Planned Ethnographic Project,
"*Evaluate the Effects of Tourism on Traditional Activities, Alagnak Wild River*"

PMIS Statement for Planned Project,
"Evaluate the Effects of Tourism on Traditional Activities, Alagnak Wild River"

Project Identification - PMIS 55529	
Project Title: Evaluate Effects of Tourism and Visitor Use on Native Communities and Traditional Activities, ALAG	**Project Total Cost:** $183,182.00
Park/Unit: Katmai National Park & Preserve	**Region:** Alaska
States: AK	**Congressional District:** AKAL
Old Package Number:	**Reference Number:** KATM-C-030
Project Type: Non-facility , Multi-component	**Financial System Package Number:** KATM 055529
Contact Person: Jeanne Schaaf	**Contact Phone:** 907 644-3640

Project Status - PMIS 55529	
Date Created: 12/13/99	**Review Status:** Region-Reviewed on 02/13/2007
Date of Last Update: 01/29/07	**Updated By:** Jeanne Schaaf

Project Narratives - PMIS 55529
Description Project Description: This three-year preliminary ethnographic study will examine the effects of tourism activities (both consumptive and non-consumptive use) on traditional activities and village life including effects on traditional land and resource use activities and potential clashes of values in the Alagnak Wild River area of KATM. It is intended that this study will be developed as a prototype to be applied in other park areas with high visitor use, as needed. Tourism, including eco-tourism, typically develops without taking into account needs and priorities of resident communities. This project aims to investigate the impacts visitor activities might have on the Central Yup'ik and Dena'ina residents on or around the Alagnak River. The research questions include: What might tourist impact might be on 1) subsistence activities including methods of taking fish and game, and patterns of land use, 2) cultural values, beliefs, and identities, 3) cultural properties, 4) subsistence resource availability or, 5) local economies? Native groups have voiced concerns but have not been identified or targeted by a special ethnographic study. The study is essential to gather baseline information in order to articulate these resource concerns with NPS management policy to effectively protect and preserve resources over the long term.
Justifications

Project Justification: Tourism, particularly ecotourism, is a fast-growing industry affecting the Katmai coast, and many other park areas in Alaska. The growth of visitor use threatens to change the natural and cultural resources of park areas before any baseline data can be gathered. The Alagnak River is a major focus of recreational use as well as traditional use. This year, there are thirty-three operators licensed to guide sport fishing and/or bear-viewing trips along the river, and eight operators that may lead day hikes; those visitors who go backpacking, or ride the river on rafts or in kayaks, remain uncounted. Total numbers of visitors are thus impossible to know, but reach into the thousands each season. Flight seeing is also something that is not regulated, and the impacts of the noise of low flights on animal and human populations are unknown. Within the Alagnak Wild River corridor there are twelve Native allotments and six parcels selected and/or conveyed to Native corporations. Residents of Levelock, Igiugig, Naknek, South Naknek, and Clark's Point use the Alagnak River for fishing, trapping and hunting. There has not been an ethnographic study of the effects of tourism and visitor use (including sport fishing, hunting, fly-in bear viewing, commercial photography, etc.) on indigenous cultures, traditional activities, or resources.

Measurable Results

Project Methods: The first two years of the study will involve review of available historic and ethnographic literature for the region, tourism literature, and other related theoretical literature; further refinement of the research design; development of interview questions; and establishing relationships with study communities. Carefully framed interview questions will be help to elicit responses relevant to the research questions outlined above. The Park Anthropologist, with local assistance, will conduct interviews with key consultants in Levelock, Kokhanok, Iguigig, King Salmon and South Naknek. Taped interviews will be duplicated, transcribed, and coded. The third year of the project will be used for data analysis, follow-up research, and report preparation and publication. Project collections will be cataloged and archived. Duplication of tapes and transcriptions will be sent to UAF AK Native Language Center. Photographs will be archived.

Outcomes and Products There are multiple outcomes for this study. First, it will provide the NPS with valuable ethnographic data for this particular region, with emphasis on the interface between tourists and local residents. Especially in times of rapid cultural change, such baseline ethnographic data is critical. Second, it will provide Park managers with important information that can inform management decisions in relation to concessionaires, numbers of permits issued, involvement of members of local communities in decision-making processes, and ongoing communications between all involved parties. Third, the project can be used as a prototype for similar tourist-impact research in other Parks. As with Alagnak, most Park areas badly need such studies in order to assess current impacts and manage for future sustainability of tourist activities. Fourth, the research process will contribute to building working relationships between Park staff and area residents, an outcome that is always desirable. Fifth, hopefully such studies will contribute to making local residents both more visible and more comprehensible to visitors, concessionaires, and Park Staff.

Products include the final report; archived materials such as taped interviews, photos, printed matter and related objects; shorter syntheses of the report for managers, concessionaires and others; and possible oral and visual products such as power point slide

shows for related communities.

Project Activities, Assets, Emphasis Areas and GPRA Goals - PMIS 55529	
Activities • Interpret and Inform • Protection • Research	**Assets** • Campground • Ethnographic Resource • Historic Structure
Emphasis Areas • Alaska Subsistence Management • Compliance • Cultural Resource Protection • Education	**GPRA Goals and Percent Values** • Misc. Park-Specific Goals (Preserve Resources), 0% • Misc. Park-Specific Goals (Research and Study), 0% • Cultural landscapes , 20% • Ethnographic resources , 60% • Visitor Understanding , 20%

Project Prioritization Information - PMIS 55529	
Unit Priority: 9 **IN FY** 2007	**Unit Priority Band:** HIGH

Appendix 5

Cooperative Ecosystem Studies Unit Task Agreement for
"*Evaluate the Effects of Tourism on Traditional Activities, Alagnak Wild River*"
(Original Task Agreement Only - Modifications Not Included)

Pacific Northwest Cooperative Ecosystem Studies Unit

Task Agreement
National Park Service

TASK AGREEMENT NO.: J8W07080020

COOPERATIVE AGREEMENT NO.: H8W07060001

EFFECTIVE DATES: 09/20/08 to 9/30/13

COOPERATOR: Portland State University

PROJECT TITLE: Evaluate the Effects of Tourism on Traditional Activities, Alagnak Wild River

FY FUNDING: 2008

ACCOUNT # 9796-0810-CCA (411C)
9796-0802-UEE (411C)

NOT TO EXCEED: $22,520
$32,480

TOTAL: $55,000 (Phase I & II)

PROJECT ABSTRACT: The National Park Service and Portland State University will collaborate in the development of a study of possible visitor impacts on Native traditional activities in the Alagnak Wild River corridor, in south-central Alaska. This study will document historic and contemporary use of the Alagnak River corridor by Native Alaskan communities. It will help to illuminate Alaskan Native communities' traditional ecological knowledge pertaining to the Alagnak River and riparian corridor. The study will also document any impacts, both direct and indirect, of non-resident visitation of Alagnak River upon Native Alaskan communities, including their uses of lands and resources within the Alagnak River corridor. The research methodology will involve a review of the literature and of archival materials, but will rely primarily on ethnographic interviews. Researchers will work closely with participating communities in developing methodologies and products, to ensure compatibility with communities' needs and preferences. This project is planned in five phases.

SCOPE OF WORK: See attached.

Unless otherwise provided herein, the terms and conditions of H8W07060001 apply to this Task Agreement.

PORTLAND STATE UNIVERSITY

Karen Thomson
Contract Officer
Office of Research and Sponsored Projects

Date

NATIONAL PARK SERVICE
PACIFIC WEST REGIONAL OFFICE

Lilette J. Baltodano
Contracting Officer

Date

TASK AGREEMENT NO.:J8W07080020

Evaluate the Effects of Tourism on Traditional Activities, Alagnak Wild River

This Task Agreement by and between the National Park Service (NPS) and Portland State University (PSU) is issued against the Cooperative Ecosystem Studies Unit Cooperative and Joint Venture Agreement, H8W07060001, for the purpose of mutual assistance in conducting a project entitled "Evaluate the Effects of Tourism on Traditional Activities, Alagnak Wild River." Unless otherwise provided herein, the terms of the Cooperative Agreement apply to this Task Agreement.

ARTICLE I – BACKGROUND AND OBJECTIVES

The Alagnak (or "Branch") River, home to all five species of Pacific salmon, rainbow trout, arctic char, arctic grayling, and northern pike, has long served as a subsistence fishing river for Native Alaskan communities of the Alaska Peninsula region. Since time immemorial, these communities have maintained temporary residences along the Alagnak, fishing in the river while also hunting and gathering plant materials along the riparian corridor. Residents of past seasonal communities along the Alagnak relocated to permanent settlements, such as in the modern towns of Igiugig, Kokhanok, Levelock, King Salmon, Naknek, and South Naknek, in the early 20th century. Some of these families maintain cabins and Native allotments along the Alagnak River.

Following the passage of the Alaska National Interest Lands Conservation Act of 1980 (ANILCA, Public Law 96-487), the Alagnak Wild River (ALAG) was designated as a Wild River under Title VI, Section 601(25) and 601(44) of that Act. Alagnak Wild River was created, in part, to preserve the upper 56 miles of the river in a free-flowing condition, and to protect the river and its immediate environments for the benefit and enjoyment of present and future generations. The river is managed free of impoundments and diversion, inaccessible by road, and its shorelines contain only "primitive" visitor services. In recent years, ALAG has become a very popular fly-in recreational fishery. As this fishery has developed, Native Alaskan communities have reported to NPS representatives a number of direct and indirect impacts to their historical uses of Alagnak River.

NPS resource managers require information about river corridor recreational users' potential impacts upon existing Native Alaskan communities and their uses of Alagnak River, to make decisions about the appropriate balance between competing mandates involving disparate user groups. The NPS Organic Act charges the agency with managing, "by such means and measures as conform to the fundamental purpose to conserve the scenery and the natural and historic objects and the wildlife therein and to provide for the enjoyment for the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations." In addition, various NPS mandates require documentation and management of cultural resources and places that are of enduring cultural significance to resident populations. These mandates include, but are not limited to the American Indian Religious Freedom Act (AIRFA)of 1978 (P.L. 95-341); the Archeological Resources Protection Act (ARPA) of 1979, as amended (P.L. 96-95); the National Historic Preservation Act (NHPA) of 1966, as amended (P.L. 96-515); Executive Order 13007; and, Release No. 5 of the Cultural Resource Management Guideline (NPS-28), and its supplements.

Data describing recreational use during the summer, largely by non-local visitors, were collected by systematic counting and observation, and by the administration of mail questionnaires.[1] In addition, as the current project

[1] These include the Spatial and Temporal Patterns of Use in the Alagnak River Corridor NPS/PWRUW- NRTR 2005-02 NPS Katmai D-96, February 2005 [Zweibel, B. and Vande Kamp, M.] and The Alagnak Wild River Recreational Visitor Survey [Spang, N., Vande Kamp, M., & Johnson D., Technical Report NPS/CCSOU/NRTR-2006-02 NPS D-3, February

is in its planning phases, a summary study report of Native Alaskan uses of Alagnak Wild River, based principally on literature review, is being completed under a separate CESU task agreement.[2] Despite these studies, documentation of local residents' uses of the Alagnak River corridor, as well as potential visitor impacts on these uses, is insufficient to support NPS land and resource management mandates. Simultaneously, the Native Alaskan communities associated with Alagnak Wild River have expressed an interest in documenting their cultural knowledge of this area, both for the sake of cultural preservation and providing them a more credible voice in future natural resource management planning. The current study is designed to document information that will be of value to NPS resource managers, while also gathering information that will aid Native Alaskan communities preserve their knowledge of the Alagnak River corridor. Preliminary meetings with Native Alaskan residents indicate they wish to participate directly in the research process, by learning the skills of ethnographic documentation and then employing these skills in helping to gather data to support the project's goals; to the fullest extent possible, this research project will accommodate this innovative, community-directed approach to ethnographic research.

This project is conceptualized as a five-phase study. Phase I of the current study will involve a needs assessment, including a review of existing materials, communications with NPS staff and Native Alaskan representatives regarding project goals and methodologies, and the development of a work plan that will incorporate findings from these investigations. Phase II will involve initiating ethnographic research through the completion of Human Subjects documentation, the completion of any tasks required to obtain research permissions from participating Native Alaskan communities, and the development and implementation of training sessions for participating communities and appropriate NPS staff in methods of ethnographic documentation. Phase III will involve participation in ethnographic research, both through providing technical guidance to research "teams" made up of trained residents and/or the NPS research assistant, as well as through participation in original ethnographic interviews. Phase IV will involve development of a technical report that thematically summarizes project findings. Phase V will involve generating publications for public and/or Native Alaskan use, presenting project findings in a format that is publicly accessible.

An important aspect of this Task Agreement is the mutual benefit derived from the PSU and NPS cooperative relationship. The primary objective and purposes of this Task Agreement are those stated in Article I and throughout the task agreement. A secondary objective, however, is to foster the development of an academic program at PSU that is responsive to the search for practical solutions to the set of complex issues confronting contemporary National Park and other federal land managers. This project will enhance the knowledge base, and hence the capacity at PSU for development of technical outreach programs that are relevant to cultural and natural resource management in units of the National Park System and in many other federally managed areas. This collaborative project will also contribute to the capacity of PSU to develop and deliver curricula pertinent to the real-world job demands students will face after leaving academe.

2006]. Both are reports of the Protected Area Social Research Unit, NPS Pacific Northwest Cooperative Ecosystem Studies Unit, College of Forest Resources, University of Washington, Seattle, WA 98195-2100

[2] Entitled "Alagnak Wild River Visitor Use Project: Alagnak Wild River Resident Users Study," this report is authored by Dr. Douglas Deur of the Protected Area Social Research Unit, NPS Pacific Northwest CESU, PI for this project.

ARTICLE II – STATEMENT OF WORK

A. PSU will:

1. *PHASE I*

   a. Collaboratively undertake a study titled "Evaluate the Effects of Tourism on Traditional Activities, Alagnak Wild River," as described in Attachment I throughout this Task Agreement.
   b. Appoint Douglas Deur as Principal Investigator (PI).
   c. Coordinate a planning process for carrying out the research project, including communicating with NPS staff, Native Alaskan village and/or corporation representatives, Alaska Department of Fish and Game (ADF&G) staff, and other interested parties and stakeholders, regarding project goals and products, as well as identifying and compiling available documentation from published and unpublished sources of relevance to the project as described in Article VI and Attachment I
   d. On the basis of the planning process outlined in c. above, collaborate with the NPS Agreement Technical Representative (ATR) in the preparation of a detailed work plan and research strategy for Phase II and III as described in Article VI. Upon acceptance by the PI and the NPS ATR, this work plan will be considered integral to this Task Agreement.
   e. Be available for questions and requests emerging from the review of this work plan by the NPS ATR and other appropriate NPS staff, ADF&G staff, Native Alaskan village and/or corporation representatives and other interested parties.
   f. Produce a final draft of the project work plan that is responsive to the review comments of the NPS ATR and other appropriate NPS staff, Native Alaskan village and/or corporation representatives and other interested parties and stakeholders including ADF&G.
   g. During all five phases of the project, cooperate with the NPS ATR to ensure that the conduct of the project complies with the "NPS Interim Guidance Document Governing Code of Conduct, Peer Review, and Information Quality Correction for National Park Service Cultural and Natural Resource Disciplines," and any and all subsequent guidance issued by the NPS Director to replace this interim document.

2. PHASE II

   a. Complete all tasks required for UW Human Subjects review and approval of the proposed research.
   b. Comply with UW Human Subjects guidelines throughout the project duration.
   c. Complete tasks required to obtain consent to conduct research, as needed, from participating Native Alaskan villages and/or corporations.
   d. Develop and carry out training sessions on ethnographic documentation methods and protocols for residents of participating communities and any participating NPS staff who wish to participate in future ethnographic documentation efforts.
   e. As appropriate, submit revised work plans on an annual basis as described in Article VI. When accepted by the PI and the ATR, these revised work plans will be considered integral to this Task Agreement.
   f. Identify a team, as needed, to accomplish all Phase II-V tasks. The PI will assume a team leadership position by providing coordination and oversight throughout the project duration. In consultation with the NPS ATR, the PI may opt to enlist the assistance of PSU staff or hired consultants to complete specific project tasks; the PI will supervise the work of individuals enlisted in this manner. Moreover, the PI will serve as a coordinator, providing guidance as needed to NPS staff that are enlisted to assist on project tasks and coordinating research activities that involve multiple project participants.

3. PHASE III

    a. Generate a modification to this task agreement that accommodates additional funds and provides additional detail, as necessary, to the language pertaining to Phases III-V as currently contained in this task agreement.
    b. Provide technical guidance to research "teams" made up of trained residents and/or the NPS research assistant and other appropriate NPS staff.
    c. Conduct original ethnographic interviews with residents of participating communities regarding the primary themes of the study.
    d. Conduct additional literature review, as deemed appropriate by the project PI and ATR, to fill in any significant information gaps identified in Phases I-III.
    e. Assemble a team as needed to accomplish Phase III tasks.

4. PHASE IV

    a. Analyze findings of literature review and ethnographic documentation phases, and produce an integrated, thematic draft report that presents project findings.
    b. Be available to NPS representatives and Native Alaskan communities, as well as other interested parties enlisted to review the document such as ADF&G staff, for discussion or clarification during their review and examination of this draft report.
    c. Produce an integrated thematic final report that incorporates the review comments of NPS staff, Native Alaskan communities' representatives, Alaska Department of Fish and Game staff, and other interested parties enlisted by the NPS to review the document, to the extent possible. This thematic document will discuss historical and contemporary uses of the Alagnak Wild River corridor by Native Alaskans, and outline any impacts of non-resident visitation to this river corridor. In addition, this report will thematically address elements of Native Alaskan traditional ecological knowledge pertaining to the Alagnak River corridor that might be relevant to the major themes of the report. The report will also briefly address resource management options identified by Native Alaskan participants that might minimize or mitigate any negative impacts of non-resident visitation as outlined in the project report, and will identify topics that may require additional research.
    d. Provide participating communities with an opportunity to learn about the project and its findings through a mutually agreed upon activity such as a community lecture, to be determined by the PI, NPS ATR, and NPS research assistant collaboratively.
    e. Assemble a team as needed to accomplish Phase IV tasks.

5. PHASE V

    a. Communicate with representatives of the NPS and participating Native Alaskan communities regarding appropriate formats and venues for publication of project findings.
    b. Using excerpts from the project report and/or other project materials, generate no less than one publishable document that will be used to disseminate project findings, and initiate steps to seek publication of this/these document(s).
    c. Coordinate with appropriate NPS staff and participating Native Alaskan communities to determine the suitability of particular content for the above publication(s).
    d. Participate with appropriate NPS staff, participating Native Alaskan communities, and other interested parties in the review of a preliminary draft of this/these publication(s).
    e. Respond to reviewer comments on this draft publishable document and produce a revised version that is suitable for submission to a publication outlet.
    f. Submit this publication to a publication outlet.
    g. Collaborate with the NPS ATR in a 60-day wrap-up period following the due date of the last project product.

h. Clearly identify and acknowledge the NPS and other partner agencies, organizations and individuals in any published material produced under or directly derived from this project.
i. Compile a project archive consisting of copies of audio or visual recordings, field notes, informed consent form, as well as any photographs, maps, and other materials gathered in the course of the study.

B. The NPS will:

1. Provide financial assistance to PSU as provided in Article V. The budget, included as Attachment I, is incorporated into this Task Agreement.
2. Assign Lake Clark National Park and Preserve (LACL) Cultural Resources Chief, Jeanne Schaaf, as the project ATR. The ATR will interact directly with the PSU PI, collaborate as appropriate on research tasks, and contribute to management decisions throughout the duration of the project.
3. Collaborate with the PI in producing the detailed work plans, and specifically assist the PI in the identification of archival materials, recruitment and oversight of any other NPS staff participating in the project, coordination with Native Alaskan as well as State of Alaska and federal agency representatives.
4. Facilitate review of the draft work plan with appropriate NPS staff, ADF&G staff, Native Alaskan village and/or corporation representatives and other interested parties and stakeholders.
5. Inform the PI of the specific activities required to comply with the "NPS Interim Guidance Document Governing Code of Conduct, Peer Review, and Information Quality Correction for National Park Service Cultural and Natural Resource Disciplines" and any and all subsequent guidance issued by the NPS Director to replace this interim guidance.
6. As appropriate coordinate efforts to comply with the "NPS Interim Guidance Document Governing Code of Conduct, Peer Review, and Information Quality Correction for National Park Service Cultural and Natural Resource Disciplines," and any and all subsequent guidance issued by the NPS Director to replace this interim document
7. Assign NPS staff as needed to assist in identifying, collecting and organizing research related materials and mapping of inventoried properties. Communicate the names and contact information for these individual to the PI in a timely fashion.
8. Assign Karen Stickman, Cultural Anthropologist for LACL, to serve as the project research assistant; in addition to assisting substantively with the project research and participating in "community research team" interviews, Ms. Stickman will serve as coordinator with representatives from participating Native Alaskan villages and corporations as needed to expedite research efforts.
9. Provide the PI and his team with access to NPS files, archives and collections as necessary to inform the research and writing effort for the Study at mutually agreed upon times.
10. Collaborate as appropriate in the analysis of information gathered in the course of the study.
11. Provide review comments and recommendations on the draft and final reports in a timely fashion.
12. Coordinate official communications with participating Native Alaskan villages and corporations, as well as any other state and federal agencies that might have an interest in this research; this will include the coordination of the review and examination of the draft publication(s) and its/their components.
13. Provide review comments and recommendations on the bibliography and the project archive in a timely fashion.
14. Clearly identify and acknowledge PSU in all published material produced under or directly derived from this task agreement.
15. Provide stipends and/or audio/visual recording devices as appropriate to participants in the "community research teams."
16. In consultation with the project PI, organize meetings with NPS/ALAG staff and other project participants as needed throughout the project duration.
17. Collaborate with PSU in a 60-day wrap-up period following the due date of the final report.

13. As specified in Article VI, distribute electronic or hard copies of progress reports, work plans and revised annual work plans as necessary, and draft and final reports as specified in Article VI directly to cooperating partner agencies.

ARTICLE III – TERM OF AGREEMENT

This Task Agreement is effective on September 20, 2008 and will expire September 30, 2013.

ARTICLE IV – KEY OFFICIALS

A. For the NPS

ATR

Jeanne Schaaf
Chief Cultural Resources
Lake Clark National Park and Preserve
National Park Service
240 West 5th Avenue Suite 236
Anchorage, AK 99501
907-644-3640 (V)
Jeanne_Schaaf@nps.gov

Other Primary Project Participant

Karen Stickman
Cultural Anthropologist
Lake Clark National Park and Preserve
National Park Service
240 West 5th Avenue Suite 236
Anchorage, AK 99501
907-644-3638 (V)
Karen_Stickman@nps.gov

B. For PSU:

PI

Dr. Douglas Deur
Department of Anthropology
Portland State University
P.O. Box 751
Portland, OR 97202
503-436-8877
deur@u.washington.edu

C. Changes in Key Officials – Neither the NPS nor PSU may make any permanent change in a key official without written notice to the other party reasonably in advance of the proposed change. The notice will include a justification with sufficient detail to permit evaluation of the impact of such a change on the scope of work specified within this Task Agreement. Any permanent change in key officials will be made only by modification to this Task Agreement.

ARTICLE V – AWARD AND PAYMENT

A. NPS will provide financial assistance on a reimbursable basis to PSU in an amount not to exceed $55,000, for Phase I and II work. The chargeable appropriations and funding sources for this Task Agreement is/are as follows: 9796-0810-CCA ($22,520) and 9796-0802-UEE ($32,480). Depending upon NPS satisfaction with Phase I and II and the availability of funds, NPS intends to provide approximately $110,000 in additional financial assistance to complete PSU Phases III-V.

B. Standard Form (SF) 270, Request for Advance or Reimbursement, must be submitted for payment to the Contracting Officer at the convenience of PSU, but not to exceed monthly or less frequently than annually. The request for reimbursement shall be accompanied by a breakdown sheet showing cost in each budgetary item and shall be addressed to:

Attention: Contracting Division
National Park Service
Pacific West Regional Office
1111 Jackson St., Ste. 700
Oakland, CA 90607

C. Payment will be made via electronic funds transfer directly to PSU's account at their financial institution.

D. The result of work under each phase of this task agreement is considered to be independently useful. The data obtained from one phase, however, may be utilized for future phases, subject to satisfaction of the data, desirability for additional data, and available funding. Any future phase would be added through the issuance of a written modification to this agreement.

E. Funding sources: NPS 2008 CRPP Base and Ethnography funds - $55,000.

ARTICLE VI – PRODUCTS AND MILESTONES

A. Phase I research planning efforts will commence no later than September 21, 2008 with a series of conference calls to outline responsibilities for initial project planning and the construction of the detailed work plan. It is anticipated that ADF&G and other stakeholders will have expectations and information needs that will be considered in the direction and conduct of this research project. It is also anticipated that each of the participating Native Alaskan communities will have varying expectations of the methods and products for this research. In collaboration with the ATR, the PI will assess these agency, community and stakeholder expectations and, to the extent possible, generate a research plan giving them appropriate consideration.

B. All Phase I tasks shall be completed no later than November 15, 2009. All Phase II tasks shall be completed no later than August 31, 2010. All Phase III-V tasks shall be completed by a timetable agreed upon following completion of Phase I and II; both the timetable and budget for Phase III-V will be outlined in a modification to this task agreement. All project tasks will be completed by September 30, 2013.

C. The PI will communicate regularly by e-mail and telephone with the ATR in lieu of monthly progress reports. Written progress reports will be submitted to the ATR every six months beginning November 15, 2009. In addition to reporting work conducted during the reporting period, progress reports will provide a discussion of challenges facing the project, and may involve requests for assistance from the NPS in addressing these challenges. If necessary, existing work plans will be revised and distributed for review by NPS and ALAG resource management staff. If the PI submits revised work plans, the ATR and NPS will have 30 days for review and comment with an additional 30 days allowed for the PI and the ATR to collaboratively produce a final revised work plan.

D. The PI will submit a draft work plan to the ATR by July 30, 2009. This work will briefly summarize the outcomes of the planning process for future research, including communicating with NPS staff, Native Alaskan village and/or corporation representatives, ADF&G staff, and other interested parties, regarding project goals and products, as well as identifying and compiling available documentation from published and unpublished sources that will be of relevance to the project, as specified in Article II(1)d. It will outline specific research questions, research methods and protocols, and proposed final products. The NPS ATR

will facilitate the review of this document by appropriate NPS staff, participating villages, ADF&G staff, and other interested parties. Following the review of this document by these parties, the project PI will produce a final work plan that is responsive to reviewer comments no later than October 15, 2009. The NPS will facilitate the distribution of this final document to appropriate NPS staff, participating villages, Alaska Department of Fish and Game staff, and other interested parties.

E. The PI will assemble a team, if needed, to participate in Phase II tasks by January 30, 2009.

F. The PI will provide training materials and sessions to participating Native Alaskan communities no later than August 31, 2010. The PI will develop the content for training sessions on ethnographic documentation methods and protocols for residents of participating communities that might wish to participate in the ethnographic documentation efforts in later phases of the project. Materials used as part of this "content" may include readings, power point presentations, or other items. The PI and/or the NPS research assistant will present training sessions, along with any training materials, to each of the communities that wishes to participate in the gathering of ethnographic information.

G. All Phase III tasks shall be completed no later than January 30, 2012, though it is possible that actual project completion may precede this date. Precise timelines for PSU Phase III work shall be outlined in modifications to this task agreement, in the event that additional financial assistance is available.

H. All Phase IV tasks shall be completed no later than October 30, 2012, including the completion of a draft and final thematic project report. Precise timelines for PSU Phase IV work shall be outlined in modifications to this task agreement and in detailed work plans. It is anticipated, pending further project planning, that this report will consist of an integrated thematic document that will discuss historical and contemporary uses of the Alagnak Wild River corridor by Native Alaskans, and outline any impacts of non-resident visitation on this river corridor, Native Alaskan activities associated with the river corridor, as well as the communities themselves. In addition, this report will thematically address contextually relevant elements of Native Alaskan traditional ecological knowledge pertaining to the Alagnak River corridor, such as environmental processes and changes that might affect Native Alaskan patterns of resource use. The report will also briefly address resource management options identified by Native Alaskan participants that might minimize or mitigate any negative impacts of non-resident visitation as outlined in the project report, and will identify topics that may require additional research. The document will be reviewed by NPS and Native Alaskan communities' representatives, as well as other interested parties such as ADF&G staff, and shall be responsive to these reviewers' comments and recommendations.

I. All Phase V tasks shall be completed no later than June 30, 2013, including the completion of an anticipated publication-ready document that summarizes project findings in part or in whole. Precise timelines for Phase V work shall be outlined in work plans and modifications to this task agreement including ample time for internal NPS and appropriate peer review.

J. By July 30, 2013, three printed copies of the Phase IV final report and three printed copies of the Phase V publication-ready (or published) document(s), as well as electronic copies of each document, will be submitted to the project ATR, as identified in Article IV.

K. By July 30, 2013, one printed copy of the Phase IV final report and one printed copy of the Phase V publication-ready (or published) document(s), as well as electronic copies of each document, will be submitted to the NPS PNW CESU Research Coordinator at the following address: CFR, Box 2100, University of Washington, Seattle, WA 98195-2100.

L. By July 30, 2013, three printed copies of the Phase IV final report and three printed copies of the Phase V publication-ready (or published) document(s), as well as electronic copies of each document, will be submitted to Ms. Linda Whitson at the Pacific West Regional Office for distribution to NPS libraries and DOI archival facilities. Her address is: National Park Service, 909 First Avenue, Seattle, WA 98104-1060.

M. During the 60-day wrap-up period following July 30, 2013, additional materials may be submitted to the project archive consisting of materials assembled by PI, research assistant(s), and the ATR and delivered to the NPS for curation and future use by September 30, 2013.

ARTICLE VII – LIABILITY

Each party accepts responsibility for any property damage, injury, or death caused by the acts or omissions of their respective faculty, students, employees, or other representatives arising under this Task Agreement, to the fullest extent permitted by law.

ARTICLE VIII – ATTACHMENTS

Attachment I – Proposal
Attachment II – Budget – Phases I and II

Attachment I – Proposal

Evaluate the Effects of Tourism on Traditional Activities, Alagnak Wild River

I. Background

The Alagnak (or "Branch") River has long served as a subsistence fishing river for Native Alaskan communities of the Alaska Peninsula region. The River is home to populations of all five species of Pacific salmon, as well as significant rainbow trout, arctic char, arctic grayling, and northern pike populations. For generations, families have located along the banks of this River seasonally to harvest fish, hunt, gather plants, and carry out social activities. Prior to the 20th century, seasonal settlements lined the Alagnak River. Following the emergence of modern schooling, the influenza pandemic of 1918-20, and a number of other disruptions dating to the early 20th century, residents of these seasonal settlements relocated to permanent settlements some distance away, including (but not necessarily limited to) the modern towns of Igiugig, Kokhanok, Levelock, King Salmon, Naknek, and South Naknek. Residents of these communities have continued to visit the Alagnak for seasonal visits that still center on fishing in the river while also hunting and gathering plant materials along the riparian corridor. Some families maintain cabins and Native allotments along the River. In recent years, a growing non-resident population has discovered the fishing opportunities on Alagnak River. A growing recreational fishery has emerged. Lodges along the Alagnak now cater to visiting fishermen, many from outside of Alaska, some facilitating guided fly-fishing excursions.

The increase in non-resident visitation has raised a number of concerns among the Native Alaskan community that still uses the river. Some Native Alaskan river users have reported changes in the riparian corridor, such as declines in fish numbers or health, declines in water quality, trampling and other impacts on allotments and other riparian areas, changes in game abundance and location, and the like. Some Native Alaskan river users have also suggested that there are broader impacts of non-resident use of the river, such as changing opportunities for participation in guided fishing operations, displacement of hunting activities to places other than the Alagnak River, declining opportunities for social activities associated with seasonal encampment on the River, and the like.[3] Most of these perceived impacts are depicted as negative, but some Native Alaskans have informally reported positive impacts as well. Most are direct impacts, yet a number of indirect impacts appear to be likely but unexamined outcomes of these changes. While these perceived impacts have been mentioned in the course of past interviews and meetings, they have not been the focus of systematic inquiry in the past. Now, the National Park Service – which manages Alagnak Wild River, in conjunction with the Alaska Department of Fish and Game - will proceed with an ethnographic study that seeks to understand the full implications of these changes, including both direct and indirect outcomes of increased non-resident use of the Alagnak River on Native Alaskan communities. The study is expected to rely largely on qualitative interviewing, and to use relatively open-ended questions in the interest of identifying a range of cultural and social dimensions of Alagnak River use not previously discussed in reference to this area. The resulting documentation will assist the NPS in the goals of both gathering information that might help the NPS manage Alagnak Wild River in a manner that is consistent with enduring Native Alaskan uses of the river, as well as documenting cultural information that will be of intrinsic value to participating Native Alaskan communities that seek to record and sustain cultural information for future generations. While the products of this study are expected to include a thematic ethnographic report, it is also anticipated that Native Alaskan communities and NPS staff may wish to develop less conventional products from the outcomes of this research to achieve these goals.

[3] Comments on these perceived impacts of non-resident use of the Alagnak River corridor, available from existing interview transcripts, meeting notes, and other sources, are being summarized in a report entitled "Alagnak Wild River Visitor Use Project: Alagnak Wild River Resident Users Study," this report is authored by Dr. Douglas Deur of the Pacific Northwest CESU, and is anticipated to be complete by the end of calendar year 2008.

The current project is conceived of as a 5-phase study. Phase I of the current study will involve a needs assessment, including a review of existing materials, communications with NPS staff and Native Alaskan representatives regarding project goals and methodologies, and the development of a work plan that will incorporate findings from these investigations. Phase II will involve initiating ethnographic research through the completion of Human Subjects documentation, the completion of any tasks required to obtain research permissions from participating Native Alaskan communities, and the development and implementation of training sessions for participating communities and appropriate NPS staff in methods of ethnographic documentation. Phase III will involve participation in ethnographic research, both through providing technical guidance to research "teams" made up of trained residents and/or the NPS research assistant, as well as through participation in original ethnographic interviews. Phase IV will involve development of a technical report that thematically summarizes project findings. Phase V will involve generating no fewer than one publication for public and/or Native Alaskan use, presenting project findings in a format that is publicly accessible.

II. Introduction

The Alagnak (or "Branch") River has long served as a subsistence fishing river for Native Alaskan communities of the Alaska Peninsula region. Since time immemorial, these communities have maintained temporary residences along the Alagnak, fishing in the river while also hunting and gathering plant materials along the riparian corridor. Even as these communities have relocated to permanent settlements some distance away, such as in the modern towns of Igiugig, Kokhanok, Levelock, King Salmon, Naknek, and South Naknek. Some families within these communities continue to maintain cabins and Native allotments along the Alagnak River. The River is home to populations of all five species of Pacific salmon, as well as significant rainbow trout, arctic char, arctic grayling, and northern pike populations.

Following the passage of the Alaska National Interest Lands Conservation Act of 1980 (ANILCA, Public Law 96-487), the Alagnak Wild River (ALAG) was designated as a Wild River under Title VI, Section 601(25) and 601(44) of that Act. Alagnak Wild River was created, in part, to preserve the upper 56 miles of the river in a free-flowing condition, and to protect the river and its immediate environments for the benefit and enjoyment of present and future generations. The river is managed free of impoundments and diversion, inaccessible by road, and its shorelines contain only "primitive" visitor services. In recent years, ALAG has become a very popular fly-in recreational fishery. As this fishery has developed, Native Alaskan communities have reported to National Park Service (NPS) representatives a number of impacts to their historical uses of Alagnak River that are both direct and indirect.

NPS resource managers require information about river corridor users' potential impacts upon existing Native Alaskan communities and their uses of Alagnak River, in making decisions about the appropriate balance between competing mandates and disparate user groups. The NPS Organic Act charges the agency with managing, "by such means and measures as conform to the fundamental purpose to conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment for the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations." In addition, various NPS mandates require documentation and management of cultural resources, as well as natural resources and places that are of enduring cultural significance to resident populations. These mandates include, but are not limited to the American Indian Religious Freedom Act (AIRFA)of 1978 (P.L. 95-341); the Archeological Resources Protection Act (ARPA) of 1979, as amended (P.L. 96-95); the National Historic Preservation Act (NHPA) of 1966, as amended (P.L. 96-515); Executive Order 13007; and, Release No. 5 of the Cultural Resource Management Guideline (NPS-28), and its supplements.

A variety of data describing conventional recreational use during the summer months largely by non-local visitors has been collected by systematic counting and recording of the location of recreational use, and by administering mail questionnaires (The Alagnak Wild River User Distribution Survey DRAFT [Zweibel, Vande

Kamp, and Johnson] and The Alagnak Wild River Recreational Visitor Survey DRAFT [Spang, Vande Kamp, and Johnson], both in preparation). In addition, as the current project is in its planning phases, a summary study of Native Alaskan uses of Alagnak Wild River, based principally on literature review, is being completed under a separate CESU task agreement; entitled "Alagnak Wild River Visitor Use Project: Alagnak Wild River Resident Users Study," this study is authored by Dr. Douglas Deur of the Pacific Northwest CESU, PI for the current project.

Despite these existing studies, documentation of local residents' uses of the Alagnak River corridor, as well as potential visitor impacts on these uses, is incomplete and insufficient to support NPS land and resource management mandates. Simultaneously, the Native Alaskan communities associated with Alagnak Wild River have generally expressed an interest in documenting their cultural knowledge of this area, both for the sake of cultural preservation and apparently in the hope of providing Native Alaskan communities with a greater voice in future natural resource management planning in the area. The current study is therefore designed to document information that will be of value to NPS resource managers on the topic, while also gathering documentation of cultural information in a way that will aid Native Alaskan communities in preserving knowledge of the Alagnak River corridor. Preliminary meetings with Native Alaskan communities indicate that residents of these communities wish to participate directly in the research process, with residents learning the skills of ethnographic documentation and then employing these skills in helping to gather data to support the project's goals; to the fullest extent possible, this research project will accommodate this innovative, community-directed approach to ethnographic research.

III. Procedures

In all tasks, the Portland State University PI will work in collaboration with the National Park Service ATR and research assistant.

Phase I

In the course of Phase I of this five-phase research effort, the PI will conduct a needs assessment for future research, including communicating with NPS staff, Native Alaskan village and/or corporation representatives regarding project goals and products, as well as identifying and compiling available documentation from published and unpublished sources that will be of relevance to the project. Using this information, then, the PI will work with the NPS ATR in the preparation of a detailed work plan and research strategy for the remaining phases of the project. This work plan will address major research questions, methodologies, and final products.

Phase II

In the course of Phase II, the PI and participating staff will collaborate to complete all of the activities required to initiate field research. This will include developing a rapport regarding the project with participating Native Alaskan communities and state and federal agencies, as well as the university Human Subjects Division and other interested parties. The PI and the NPS ATR will complete all tasks required for Human Subjects review and approval of the proposed research, as well as completing any tasks required to obtain consent to conduct research from participating Native Alaskan villages and/or corporations. Working with the NPS research assistant, the PI will develop the content for training sessions on ethnographic documentation methods and protocols for residents of participating communities that might wish to participate in the ethnographic documentation efforts in later phases of the project. Materials may include readings, power point presentations, or other items. The PI and/or the NPS research assistant will present training sessions, along with these materials, to each of the communities that wishes to participate in the gathering of ethnographic information. It is the intent of this project to help participating communities build capacity in the documentation of ethnographic information, so that individuals in these communities might participate more fully in this and other

future research endeavors – an important if secondary benefit from this research effort. At this time, the PI will also work to identify a team, as needed, to accomplish all tasks for future phases of the project. The PI will assume a team leadership position by providing coordination and oversight throughout the duration of the project. In consultation with the NPS ATR, the PI may opt to enlist the assistance of PSU staff or hired consultants to complete specific project tasks; the PI will supervise the work of individuals enlisted in this manner on this project. The PI will serve as a coordinator, providing guidance as needed to NPS staff that are enlisted to assist on project tasks and coordinating research activities that involve multiple project participants.

Phase III

Phase III of this project will involve conducting the bulk of the original ethnographic research for this project. The project PI will conduct original ethnographic research with participating communities. In addition to (or, in some cases, in lieu of) the PI will provide technical guidance to research "teams" made up of trained residents and/or the NPS research assistant and other appropriate NPS staff, who will conduct original ethnographic interviews in the participating communities. Formal interviews will be audio recorded with the permission of participating communities and interviewees; the PI may opt to produce transcripts from these interviews that can be used in the construction of the final project report. The PI or project assistants may also participate in participant observation research, as deemed appropriate, to supplement formal ethnographic interviews and other forms of ethnographic inquiry. In order to fill any information gaps identified in the course of these interviews or preliminary project phases, the PI and/or the PI's research assistants will conduct additional literature review, as deemed appropriate by the project PI and ATR.

Phase IV

Phase IV consists of the analysis of project findings and the production of a final project report. Working in cooperation with the NPS ATR and research assistant, the PI will analyze findings of literature review and ethnographic interviews. On the basis of this analysis, the PI will produce an integrated, thematic draft report that presents project findings. The NPS will distribute this draft report to appropriate NPS reviewers, as well as Native Alaskan communities and/or interviewees, as well as other interested parties enlisted to review the document such as Alaska Department of Fish and Game staff. The PI will be available during their review for discussion or clarification. On the basis of resulting review comments, the PI will produce an integrated thematic final project report. This thematic document will discuss historical and contemporary uses of the Alagnak Wild River corridor by Native Alaskans, such as fishing, hunting, plant gathering, social gatherings, ceremonial activities, and the like, at a level of detail sufficient to set the context for discussions of the impact of increased non-resident visitation. The document will briefly outline the emergence of recreational uses on Alagnak Wild River and will thematically address any impacts of non-resident visitation to this river corridor noted by Native Alaskan interviewees. In addition, this report will thematically address elements of Native Alaskan traditional ecological knowledge pertaining to the Alagnak River corridor that might be relevant to the major themes of the report, such as changes in the abundance or distribution of biota that might affect Native Alaskan uses of the river corridor. The report will also briefly and thematically address any resource management options discussed by Native Alaskan participants that might have the potential to minimize or mitigate any negative impacts of non-resident visitation as outlined in the project report. The report also will identify topics that may require additional research in future studies. Prior to the completion of Phase IV, the PI will also be available to present the project's findings to participating communities through a mutually agreed upon activity such as a community lecture, to be determined by the PI, NPS ATR, and NPS research assistant.

Phase V

Phase V is proposed to insure that the information obtained in the course of this project is available to a broader readership that might be true of "in-house" project reports. It is intended that the project PI will generate no

fewer than one publishable document from the outcomes of the current study. In order to insure that sensitive topics and information are presented appropriately, the PI will communicate with representatives of the NPS and participating Native Alaskan communities regarding suitable formats and venues for publication of project findings. Using data or excerpts from the project report and other project materials, the PI will compose no fewer than one publishable document that will be used to disseminate project findings, and will initiate steps to seek publication of this document. (Publication will not be a condition of this project proposal, however, as the approval and timing of publication are not within the control of the project PI.) It is expected that the PI will work with NPS staff, participating Native Alaskan communities, and other interested parties in developing these materials, and will allow these parties to review and comment on these materials, prior to any effort at publication. Once a document has been reviewed and generally approved by these parties, the PI shall present the document to a mutually agreed-upon publication venue for consideration. In the course of these efforts, the PI shall also compile a project archive consisting of copies of audio or visual recordings, field notes, informed consent form, as well as any photographs, maps, and other materials gathered in the course of the study, and deliver these materials to the NPS for curation. The NPS may make copies of these materials for distribution to participating Native Alaskan communities.

IV. Products

Anticipated project products are outlined as followed:

1. The PI will submit a draft work plan to the ATR. This work will briefly summarize the outcomes of the planning process for future research, including communicating with NPS staff, Native Alaskan village and/or corporation representatives, Alaska Department of Fish and Game staff, and other interested parties, regarding project goals and products, as well as identifying and compiling available documentation from published and unpublished sources that will be of relevance to the project. It will outline specific research questions, research methods and protocols, and proposed final products. The NPS ATR will facilitate the review of this document by appropriate NPS staff, participating villages, Alaska Department of Fish and Game staff, and other interested parties.

2. Following the review of the draft work plan by participants and interested parties, the project PI and ATR will collaborate produce a final work plan that is responsive to reviewer comments. The NPS will facilitate the distribution of this final document to appropriate NPS staff, participating villages, Alaska Department of Fish and Game staff, and other interested parties. It is anticipated that the draft work plan will be submitted to the NPS ATR by July 30, 2009, that the review will take up to 50 days, and that the PI will submit the revised work plan to the project ATR no later than October 15, 2009.

3. The PI will develop the content for training sessions on ethnographic documentation methods and protocols for residents of participating communities that might wish to participate in the ethnographic documentation efforts in later phases of the project. Materials used as part of this "content" may include readings, power point presentations, or other items.

4. The PI and/or the NPS research assistant will present training sessions, along with any training materials, to each of the communities that wishes to participate in the gathering of ethnographic information. It is anticipated that these training sessions will be completed by no later than August 31, 2010.

5. The PI will produce a draft project report. This report will consist of an integrated thematic document that will discuss historical and contemporary uses of the Alagnak Wild River corridor by Native Alaskans, and outline any impacts of non-resident visitation on this river corridor, Native Alaskan activities associated with the river corridor, as well as the communities themselves. In addition, this report will thematically address contextually relevant elements of Native Alaskan traditional ecological knowledge pertaining to the Alagnak River corridor, such as environmental processes and changes that might affect Native Alaskan patterns of resource use. The report will also briefly address resource management options identified by Native Alaskan participants that might minimize or mitigate any negative impacts of non-resident visitation as outlined in the project report, and will identify topics that may require additional research. The document will be reviewed by NPS and Native Alaskan communities' representatives, as well as other interested parties such as Alaska Department of Fish and Game staff. It is anticipated that this final report will be submitted to the NPS ATR no later than August 30, 2012, though this date may be subject to revision.

6. The project PI shall produce a final project report that is responsive to these reviewers' comments and recommendations. It is anticipated that this final report will be submitted to the NPS ATR no later than October 30, 2012, though this date may be subject to revision.

7. The project PI will produce no fewer than one draft publishable document that will be used to disseminate project findings. (Publication will not be a condition of this project proposal, however, as the approval and timing of publication are not within the control of the project PI.) It is expected that the PI will work with NPS staff, participating Native Alaskan communities, and other interested parties in developing these materials, and will allow these parties to review and comment on these materials, prior to any effort at publication. It is anticipated that this draft document will be submitted to the NPR ATR no later than April 15, 2013, though this date may be subject to revision.

8. On the basis of review comments form NPS staff, participating communities and/or interviewees, and other interested parties, the PI will produce a final draft of this publishable document. At this time, following submission of the final draft to the NPS ATR, the PI shall present the document to a mutually agreed-upon publication venue for consideration. This publication may consist of a National Park Service published report, a university press volume, or an article submitted to a scholarly journal, depending on the nature of its content and the preferences of Native Alaskan communities, NPS staff, and other interested parties. It is anticipated that this document shall be completed and ready for submission to a publication outlet no later than June 30, 2013, though this date may be subject to revision.

9. By July 30, 2013, three printed copies of the Phase IV final report and three printed copies of the Phase V publication-ready (or published) document(s), as well as electronic copies of each document, will be submitted to the project NPS ATR.

10. By July 30, 2013, one printed copy of the Phase IV final report and one printed copy of the Phase V publication-ready (or published) document(s), as well as electronic copies of each document, will be submitted to the NPS PNW CESU Research Coordinator at the following address: CFR, Box 2100, University of Washington, Seattle, WA 98195-2100.

11. By July 30, 2013, three printed copies of the Phase IV final report and three printed copies of the Phase V publication-ready (or published) document(s), as well as electronic copies of each document, will be submitted to Ms. Linda Whitson at the Pacific West Regional Office for distribution to NPS libraries and DOI archival facilities. Her address is: National Park Service, 909 First Avenue, Seattle, WA 98104-1060.

12. At the close of the project, the PI will produce a project archive for NPS curation, consisting of project fieldnotes, maps, informed consent forms, and other project materials. During the 60-day wrap-up period following July 30, 2013, additional materials may be submitted to the project archive consisting of materials assembled by PI, research assistant(s), and the ATR and delivered to the NPS for curation and future use by September 30, 2013.

NOTES

[1] As Norris suggests, some of this river mileage was already managed by the NPS, so that the total number of newly protected miles under ANILCA was somewhat lower than these figures:

> "In order to provide greater protection to the Alagnak, Congress, as part of ANILCA, designated all but the lower 18 miles as a wild river. Theoretically, the newly designated wild river was 67 miles long, because it included both tributaries [upper Kukaklek River and all 11 miles of the Nonvianuk River] as well as the Alagnak's main stem. In practical terms, however, the creation of the wild river protected only 47.9 miles of the Alagnak: 19.5 miles of river that had already been protected along its south bank, and an additional 28.4 river miles that had been left unprotected on both banks" (Norris 1996: 205).

[2] The Bureau of Outdoor Recreation's 1973 "Wild and Scenic River Analysis" that documented the River's potentials and ultimately led to the creation of Alagnak Wild River noted that the River should be included as a Wild River due to its "outstandingly remarkable scenic, fish and wildlife, and recreation attributes" (NPS 1983: 1).

[3] As Michele Morseth has noted,

> "The river, not too many years ago, was home to quite a few people. There were villages with churches on it, reindeer were herded in the area… People [from the Alagnak River communities] apparently settled in Levelock, Igiugig, and Naknek but retain strong ties to the river. It is easy to get the impression that native people don't use the river very much—the only local people we saw were Mary and John Tallekpalek, and Charlie Andrews who uses their fish camp site – because his cabin was burned by visitors and then his allotment was again burned by campers. He and his sister have the allotment and they haven't had the resources to build a new cabin…regardless of the impression that the river is sportsfisher's heaven and there is not a native presence except for a few decaying cabins, the river is apparently used" (Morseth 2000).

[4] Two decades after Behnke's research, Morseth (2000) encountered a number of "local river allottees/users, who grew up along the [Alagnak] river, at Big Mountain or at Forks and continue to have fish camp, hunt, possibly trap, pick berries etc. and have strong feelings and opinions" about the use of the Alagnak today. Curran (2003: 5), too, noted that, amidst the fading traces of Native use on the landscape, there was still plenty of Alaska Native river use to be found along the Alagnak:

> "Subsistence uses of the Alagnak River are common, and seasonal camps with permanent structures are in use at several of the many Native allotments along the river corridor. Other Native allotments have permanent structures that are no longer in use, or are undeveloped."

[5] Since its original designation, Alagnak Wild River has been managed in accordance with the Wild and Scenic River Act, as well as the laws, policies and regulations that guide all National Park Service management. As part of this NPS management, lands and resources must be managed in accordance with a variety of federal laws pertaining to natural and cultural resources. National Historic Preservation Act of 1966, the American Indian Religious Freedom Act of 1978, the Archaeological Resources Protection Act of 1979, Executive Order No. 11593 on Protection and Enhancement of the Cultural Environment, and a variety of other federal laws and policies. Disturbance of burial sites is specifically prohibited under the Native American Graves Protection and Repatriation Act of 1990. Access to sites of religious or ceremonial importance is ensured under Executive Order 13007 on American Indian Sacred Sites. Any NPS action that might affect Native Alaskan use of, or access to, these sites requires direct consultation with Native Alaskan governments as mandated by National Environmental Policy Act of 1969, Executive Order 13175 on Consultation with Tribal Governments, and other federal laws.

This area was also protected under the Bristol Bay Cooperative Management Plan (BBCMP), developed by the Alaska Land Use Council - this plan called especially for the protection of the Alagnak River fisheries production as well as recreational uses. The Alagnak Wild River management plan was designed to be compatible with the BBCMP.

[6] As Norris (1996: 204) recounts,

> "Work on the Alagnak began as part of the general management plan process. In July 1983 an alternatives workbook, which listed management options for the river, was distributed to the public. The public was given time to comment on those options. Planners, however, were required to complete a management plan by the end of 1983. Therefore, they selected the public comments which pertained to the river, and prepared a management plan. The Alagnak River management plan was issued in November 1983."

In the original General Management Plan, the NPS noted that the river's primary values were fishing, boating, wildlife, and wilderness. The GMP advised entering into a cooperative agreement with the Alaska Department of Fish and Game "to more precisely define the status of resident fishes within the Alagnak River drainage" (NPS 1986). An archeological survey of the river corridor was also recommended in the GMP, but without specific timelines for implementation.

[7] The ethnographic information used to produce this booklet was based in no small part on the interviews of Martha Crow (Olympic) with her mother and others. The interview notes from this research effort are on file with the Lake Clark and Katmai National Parks and Preserves' Cultural Resource program, and would be available for future reference (Jeanne Schaaf pers. comm. 2008; NPS 2006). They are also being curated at the NPS Alaska Region Curatorial facility in Anchorage, accession number ALAG-00034.

As part of the Igiugig community, Martha Crow has also worked extensively with the National Park Service. She worked as an interpretive ranger at Brooks Camp in 1987-88; she worked as an archeological technician for the cultural resources team at the regional office from 1988-1996, in part assisting Jeanne Schaaf with Shared Beringian Heritage program field work in Bering Land Bridge National Preserve; she also worked with the shared Lake Clark/Katmai cultural resources program from 1997 until 2002 when she left the NPS. She also was a crew member on the Mink Island excavation team (on the Katmai National Park coast) from 1997 to 2000.

[8] Included in this National Register notice certain questions from a "preliminary list of planning issues" that are germane to the current study, including:

> "How can the important natural and cultural resources best be protected and enhanced, while providing for continued use of the river by present and future generations?" and "What level and type of use is consistent with the purpose for which the river was designated under the Wild and Scenic Rivers Act?" (Tingey 2001: 20326).

[9] To access these guidelines, please consult the websites of these two organizations at http://www.aaanet.org/ and http://www.sfaa.net/ respectively.

[10] Archaeologist Donald Dumond has established a typology to encompass all of the subsistence strategies found archaeologically on the Alaska Peninsula. In this typology, many past and present users of the Alagnak River area generally fit into Dumond's pattern for "Coastal Hunters, Fishermen, Caribou Hunters" of the Open Coast, which "includes those people who establish major hunting settlements on the unfreezing coast, located [on the coast with seasonal access to sea mammals, shelter from winds and accessibility by boat]; who fish seasonally; and who make seasonal excursions inland to take substantial amounts of caribou" (Dumond 1987: 33). Using a potentially relevant typology developed for cultural contexts along the Bering Strait by Dorothy Ray, subsistence in the Alagnak River corridor at contact was similar to what Ray (1983: 175) termed the "Caribou Hunting Pattern" – a category that involved a specialization in caribou and salmon procurement in the interior, with periodic seal and beluga hunting in estuarine contexts (see also Harritt 1986).

[11] In light of the ambiguity of ethnographic information from this early period, some sources do not take a position on the cultural specifics of the "Peninsula Eskimo" as they existed on the northern and interior Alaska Peninsula. The Peninsula Eskimo in this area were culturally linked with Alutiiq-speakers but did not consistently speak Aluttiq, using the Yup'ik found to their immediate north. The Aglurmiut spoke Central Yup'ik.

[12] Thus, in 1839, Wrangell reported that "The Agolegmyut, at the mouth of the Nushagak and Naknek rivers, number about 500 souls…" (Wrangell 1970: 14). Early authors such as Wrangell noted strong cultural similarities between these local communities and "Eskimos" throughout northern North America, clear to Greenland.

> "The Chugach and Kadyaks are purely maritime people; in their baidarkas covered with laftak they wage an implacable war on all sea animals, killing sea lion, seal, whale, and sea otter. They do not dress in caribou skins as do other people in this territory, but sew their park covers from the intestines and throat fur of sea and amphibious animals…At the present the Chugach, Kadyaks and all inhabitants of the Aleutian chain, as a result of long contact with the Russians, have changed in customs and forgotten their tribal traditions and this is why I do not present here a description of these peoples who in their primitive condition have been described by Messrs. Sarychev, Davydov and Langsdorf" (Wrangell 1970 [1839]: 13).

[13] For a time, relations were hostile between the two groups. Speaking of the Naknek drainage to the immediate south, Dumond reports that

> "In 1953 a Severnovsk native alleged that in very old days the two peoples ["Pacific Eskimo" Alutiiq and Aglurmiut] had fought each other with bow and arrow. In those same olden days, he said, the people of the lower Naknek River [Aglurmiut] never went upstream, and the Severnovsk people [Pacific Eskimo] never went downriver but repaired to the Pacific coast rather than to Bristol Bay to hunt sea mammals" (Dumond and VanStone 1995: 3).

[14] For more recent overviews of paleopathology in the region, see e.g. Kennleyside (2003).

[15] Likewise, Behnke and the researchers of the Katmai Research Project found that the communities directly related to the Alagnak and the northeastern Katmai area identified as "Aleut" while still being of significant Yup'ik ancestry and keeping Yup'ik certain traditions alive:

> "The aboriginal populations of the Katmai region included three Eskimo speaking groups, the Kiatagmiut, Aglmiut, and Peninsula Eskimo. Many… of these people who live in the Katmai proposal call themselves "Aleut" (Behnke 1978: 163).

> "The majority of people in Igiugig are Alaskan Native [and] most Igiugig residents identify themselves as Aleut. The older and middle generations speak "Native," which I assume is Yup'ik. All the villagers I spoke with were quite comfortable in English, although their vocabulary and comprehension is limited [compared to their use of Yup'ik]" (Katmai Research Project 1997: 2).

[16] Good general summaries of these communities, with their complex multi-ethnic origins, have been written by past researchers attempting to disentangle the cultural history of the Alagnak

River region, and perhaps these statements might serve as general guideposts in understanding the character of the region today:

> "Kvichak River Natives are culturally Yup'ik Eskimo, although they call themselves Aleut—the designation the Russians used. Traditionally they moved seasonally, pursuing lake and riverine resources most of the year, at times moving closer to the ocean to harvest seals and beluga, and harvesting small and large land mammals when they were available. In the 1800s the people of this area established permanent villages and built churches and became tied into the market economy. They participated in the fur trapping industry, first trading with the Russian American Company and later the Alaska Commercial Company [in Nushagak]. When the fur industry collapsed and the fishing industry exploded they participated in that. And at the same time they continued to live seasonally—harvesting different resources depending upon the time of year" (Morseth 1998).

> "There has been a great degree of intermarriage and mixture between ethnic and racial groups in the area historically. This dates back into the 18th and 19th centuries when intermixture occurred between Native peoples and the Russians. Large numbers of Scandinavians and other Europeans came to Bristol Bay to take part in the commercial fishery beginning around the turn of the century and many of these married Native women. Many people who consider themselves "Aleut" or Native have Scandinavian surnames, speak only English, have light-colored skin, and partake in all phases of American culture, as well as harvesting wildlife for food" (Behnke 1978: 163).

[17] In this area, certain significant differences in resource use were (and are) found between coastal and interior riverine areas. The portion of the seasonal round devoted to seal hunting among the coastal villages was often devoted to hunting of caribou and fur-bearers by interior villages (VanStone 1984: 206-07). In many cases, the communities effectively exhibited a hybrid pattern, combining coastal and interior patterns of resource procurement; the degree to which this has been the case seems to be a function of the social and economic integration of interior and coastal communities.

[18] As George Wilson, Jr. notes: "I don't know anyone that does [traditional] dances anymore. I think all that kind of gone away. All that heritage. We've been influenced for so long with the fishing industry, that I think all that kind of got lost" (GE).

[19] Interviewees consistently reported that there were a number of precontact settlements concentrated on Kvichak Bay, downstream from the confluence of the Alagnak, and that settlement in this area intensified with the arrival of the canneries. Details regarding these settlements were only recorded parenthetically in the course of interviews, and interviewees' recollections of specific settlements were sometimes sparse due to the century or more since the

abandonment of certain settlements. Interviewees recalled that the communities near the Alagnak-Kvichak confluence provided labor to the canneries that appeared in their midst in the very late 19th and early 20th centuries. A village at the approximate location of the Diamond J Cannery at Koggiung was mentioned most frequently – it was said to have been a village of several hundred people that partially collapsed at the time of the influenza pandemic, but was augmented by many survivors consolidating there from upriver villages. The Koggiung area still continued to be occupied by Alaska Native families well into the mid-20th century, as certain individuals (such as interviewee Pat Patterson) continued to work at the Diamond J Cannery into the late 20th century. A few structures still stand at this location today.

[20] Mike Andrew, for example, was 16 years old the first year he set netted in the early 1950s. He spent 42 years commercial fishing. His family including his wife Dallia and their three sons stayed on board with him during fishing season. All the families commercial fished on their own boats. This created scheduling conflicts with subsistence fishing. Dallia Andrew said that when their family was young, she would miss putting up fish and would take some from her parents (or she would put some up after fishing). When her boys got older and they could help Mike more on the commercial fishing boat, she stayed home from commercial fishing to put up fish at fish camp.

[21] It is clear that families from Alagnak had ties of kinship and friendship with these communities already. One interviewee recalled:

> "When [these interviewees] lived at Branch River they went to dances held in Nanek, Ewkok and Savonski…They wore clothing which consisted of parkas, pants and boots" (Katmai Research Project 1997).

Interviewees from King Salmon especially spoke of the effects of this eruption on the relocation on Savonosky and other communities south of the Alagnak:

> "Most of the families in *New* Savonosky came from Old Savonosky after the 1912 eruption…because 1912 they relocated during the eruption, and it's the stories they told is pretty amazing. Like how they traveled in… bidarkas… they went down river…from Old Savonosky, all the way to New Savonosky. On the south side. But as I said, it took them like less than a day! Traveling the night…it was thunder and lightning, and it was pitch black. So I thought that was really awesome" (RA).

[22] Interviewees alluded to other places in the Katmai region that experienced similar events and still house mass graves as a result. Teddy Melganak recalls that there is a large cross near the Orthodox church in Old Savanosky that marks a mass grave of flu epidemic victims:

> "That big cross is still down there! They got to put that big cross up sometimes. I put some boards underneath it, so it wouldn't get rotten. It's real big cross! …Right in the graveyard, right in there… right there by the church! …It's Old Savanosky down there. That's the church, still up yet" (TM).

[23] Some ethnographic accounts suggest the loss of one or both parents at this time, contributing to movement off the river:

> "[An interviewee] said he was born on the Branch but moved to Kukaklek when he was just a little baby. He said his father died when he was a baby on the Branch. His mother moved their family to Kukaklek" (Katmai Research Project 1997: 15).

[24] Dallia Andrew, for example, recalls of her childhood,

> "Mostly I growed up here Alagnak River, up the lake, Kokhanok. Move, they move around quite a bit them days… our relative, like our cousin or uncles, they marry to their sister or his brothers, we have to visit them for so long and return back. Them days they used to go by dogs. They never used to travel so much, maybe year after year go see your relative is how they growed up long time ago" (D. Andrew in Andrew and Andrew 1995).

Similarly, Gabby Gregory recalled,

> "The way I understand it [my parents are] from Branch River, then they move up to Kukaklek. I don't know what [year] that was. Back in 20s maybe...or earlier. Originally they're from Alagnak area...then I was born up in Kukaklek…I don't remember that place...I was [too young]...when I started remembering I remember here, Kokhanok. When we moved down back in earlier part of 1940s. '47 or '8 somewhere. Then I moved, we moved down to same place...back in 50s I guess. Then we moved back [to] Kvichak River, stayed there for about four five years then we moved to Igiugig. Stayed there for about good ten, twelve years or so. Then, from there I move up here [Kokhanok]" (Gregory 1998).

[25] Past interviewees have attested: "There were three [extended] families living at Branch River during this time (mid-1922)" (Katmai Research Project 1997: 20). Over the next two decades, this pattern had changed very little. Speaking of the early 1940s, Mike Andrew recalled, "That time used to have like four or five [extended] families in Alagnak. There was hardly people down there. I could remember." (M. Andrew in Andrew and Andrew 1995).

[26] As a young person, Mike Andrew was told that this diffuse pattern of settlement was best suited to the diffuse geographical requirements of hunting and fishing:

> "Everybody separate. Why do they do that? I could remember, folks told me they separate, one family stay one house so they could go hunt wild. And another family they go other place to hunt, too. Instead of one place they all know where to get the wild, like a moose and caribou, porcupine, beaver. They

all knew where to get it. So all them families they travel" (M. Andrew in Andrew and Andrew 1995).

[27] Mike Andrew's family, for example, moved to Alagnak from the Big Mountain area prior to 1935 while working as reindeer herders:

> "I don't remember what year they move from Big Mountain, they move down to Alagnak. That's [where] I was raised…down that Alagnak River, 1935. And my father told me they had reindeer, but I don't remember. I was born after they moved to Alagnak from Big Mountain" (M. Andrew in Andrew and Andrew 1995).

[28] The residents of this community were effectively part of the larger network of settlements that includes such communities as Igiugig, Kokhanok, and Levelock. Mike Andrew describes how, while isolated on the Alagnak River, he was able to meet and marry his wife, Dallia, through social gatherings and travel related to subsistence:

> "I meet Dallia 'cause she was younger than me. 'Cause we don't really talk, but I seen her once in a while because we live so far away. I live in Alagnak River. She live at Kukaklek, that's where she was raised. And we start travelling down this way, to Kvichak. That's where I met her. And lot of times I met them up on the lake, Kokhanok, when they was going to school. So we get, every time I see her, we know one another more all the time" (M. Andrew in Andrew and Andrew 1995).

Mike and Dallia were married in 1960.

[29] On this point, Mike Andrew recalls,

> "when I get old enough to go to school, [my father asked] me if I wanted to go school. I said, "I'm too bashful to stay with someone." So that's why I didn't went to school. I had nobody to stay with, 'cause my folks stay on Alagnak River. They don't want to go over there, so I didn't went to school. And we lived down there a long time before we moved [away] (M. Andrew in Andrew and Andrew 1995).

[30] Mike Andrew, for example, notes that the isolation of households on the river sometimes resulted in restricted opportunities for social interaction and learning:

> "There were hardly boys around me that time. I was, they're all a long ways away from me. So the only thing I learned by my mom, so showed me how to

hunt a while, so I was happy to learn" (M. Andrew in Andrew and Andrew 1995).

[31] A number of women also report that they moved to Alagnak River when they were first married, joining kin along the river before moving away again. Mary Olympic recalled moving briefly to the old village on the Alagnak in 1950:

> "I start moving down to Branch, 'cause my, my brother gonna get married from Branch. At, that, I think that's why they move down…[I moved down the Branch with] my parents. 1950. We move down. We move around from there. Branch. We stay down there for one, one year… we had a tent. Summer times we put up fish…One summer we stayed up there… one year and one summer. And fall come. We moved back up, little. Me and husband make new cabin. When he start making cabin, I help him…Down across from old village [Alagnak]. They call 'em Sluryaraq [area where one slides]. We rename it "coffee place" (Olympic 1995).

Mary Tallekpalek also reported moving to the Alagnak with her new husband:

> "I married a long time ago. We come over by Branch River. The guy got, uh, I, he told me to Mama, we [had been] staying in Naknek two years… Reindeer coming all the time. He don't like the place, too. Um, my oldest brother, Mama told me, us guys, "let's go back to Kokhanok. The reindeer, too much work."…they [used to] stop in [Alagnak]. Branch River, you call. Then they… let me marry to the man….we move all the time [before] that, never move no more and stay Branch River, all the time…. we get cannery, Branch River, [Alagnak], you call that" (M. Tallekpalek in Tallekpalek and Tallekpalek 1998).

So too, Mary Nelson reported that she moved to the Alagnak River for a time immediately after she was married. While there, their home served as the family's base of operations for an annual cycle of resource activities that included fall fishing and hunting based from camps up the Kvichak River. Their home was roughly a mile from the Kvichak confluence, and a short distance from the place where the Tallekpalek family lived (Nelson 1997).

[32] This point has received extensive attention in earlier studies:"People moved so they could go to school – no school there" (M. Andrew in Andrew and Andrew 2000). "[An interviewee] was born on the Branch River. They moved to Igiugig so their three sons could go to school" (Katmai Research Project 1997: 12). Likewise, Evan Chukwak recalls that he and his wife had to move away from the Branch in 1957 or 1958 so the children could attend school:

> "was living over at Branch River and…kids going to school, have to bring it over. They didn't have no school over there" (Chukwak 1998).

[33] This relocation was facilitated in part by the development and diffusion of new transportation technologies that allowed families to revisit abandoned areas more rapidly and frequently. Seen in this light, some of these new home villages were said to be pleasantly "central" to a number of different areas used by extended family groups that included Alagnak River residents and their descendents. For example, Katmai Research project notes mention interviews with

> "a husband and wife. He grew up in Igiugig. It was an ideal place to live. It was central to various locations that they would stay throughout the year. They would stay over on the Branch River trapping in the winter and would be on the Kvichak River and Kaskanak Creek during the winter, fishing through the ice. People used to live on the land. They traveled throughout this region on a seasonal basis. That was their lifestyle, which is different than what people do today" (Katmai Research Project 1997: 6).

[34] Mary Olympic, too, "considers that area to be her real home and is very familiar with the area" (Morseth 2000). Mary and her and her husband spent two winters living in the old village along the Alagnak, at the site of Nick Apokedak's allotment.

[35] As Behnke noted of these networks,

> "The residents of Levelock, Igiugig, and Kakhonak, are related socially and geographically. They also have relatives over on the Nushagak River, as well as in the Naknek River communities. Frequent visiting and family movements occur between these places and considerable boat, snowmobile and air travel connect them" (Behnke 1978: 148-149).

[36] The persistence of the relationship between these Alagnak families and Alagnak River has varied between communities, families and individuals. Some individuals suggest, like Mike Andrew, that they "grew up on the Alagnak River" even when they technically lived elsewhere (Morseth 2000). Communities most proximate to the Alagnak, including Igiugig and Levelock, appear to maintain the closest ties to the Alagnak: "Levelock is the one that uses the river the most. That's probably where their families are from" (quoted in Evanoff 2008). For others, the use of the Alagnak has tapered off considerably in recent decades: "The last time I was there was in the mid 80's" (quoted in Evanoff 2008).

[37] This is apparently the same village that is recorded in SHPO reports as being on the

> "South bank of the Alagnak River 18 miles upstream (east) of its confluence with the Kvichak River. Sec. 29, T12S, R42W, SM….there is an Abandoned village with several barabaras, remains of log church and graveyard with wooden Russian Orthodox crosses in various states of disrepair" (in Stirling 1982:24).

[38] It is possibly this church being discussed in somewhat cryptic notes from the Katmai Research project:

> "She thought the first church was built in 1924. She said the country burned down in 1927. She said this included the church and the graveyard except one grave that had a redwood marker and fence. She said in 1935 (or maybe the 1940s) a new church was built Then in 1960 they built a new church. She said the name was changed from Nicoli (St. ?) after the Apokedak's saw that the church in Tyonek was named the same thing. Now the church is St. Mary Protection. She said that St. Hermann, from Russia, traveled over the country and there were churches built at Diamnon J, three in Naknek, two along the Branch and one at Kaskanak (Katmai Research Project 1997).

[39] Some interviewees describe times when Igiugig was "about to fall apart" – with several families moving away and the airport being targeted for closure. At one point there was only a single student in the school (MO). Mary Olympic remembers that a petition was circulated in the community to keep the airstrip. She was approached while at fish camp by a person who insisted that "this piece of paper is important." She reports that she paused in the middle of fish processing, wiped off her hands, signed the petition, and went back to work. The school, she says, has been particularly important and the community would fall apart without it. Today, however, Igiugig is a bustling little community, with a number of kids in school (MO).

[40] For example, Mary Tallekpalek reported in the late 1990s that "The church was moved to Forks and then to the village where she is the last person living" (Morseth 2000).

[41] Speaking of Levelock, researchers from the Katmai Research Project noted that,

> "The Branch River is very important to this community as many individual allotments are located here and numerous families moved to Levelock from former settlement sites along this river" (Katmai Research Project 1997: 7).

[42] In the course of this research, Alaska Native elders shared a wealth of oral tradition. Some is rooted in the observations of recent generations, who have been in close and regular contact with the landscape of the Alagnak River corridor for much of their lives. Yet, some of it rooted in ancient storytelling traditions that were tied to the lands and living things of the Alagnak region, and the accumulated observations of unknown generations.

As one of several examples of observational data in recent times, Martha Crow recalls that when she was young, there were extraordinarily high densities of spiders on the lands around Evan Chukwak's cabin on the Alagnak: "there was *thousands*, and *thousands* of spiders, you just *look*, and…there's spiders everywhere" (MC). Such observations may be informative in their own right, but also point toward a variety of testable hypotheses with ecological ramifications.

Mike Andrew was an especially engaging and enthusiastic storyteller over the course of this research, sharing historical and mythic accounts from Alagnak region. One example of Andrew's ancient stories discusses how the fox got its red and black pelt:

> "One time we had a story about the red fox. Before…the fox wasn't red. It was white…No black, no red, nothing…He was traveling in the sun, there was no light, and no trees, no lake. Eventually a goose, couldn't fly! …When they changed the wing, they can't fly! In the fall time. He pushed him with his nose. You can have a big dinner afterward! He was singing a song! And this goose told him, "Here, fox, sing! You could eat me for dinner, now you're going to miss me, if you keep on singing"—In front of him, there was a lake, a pond with water. Quick sand—he was going for that! The goose, walking slow, when they got…closer, he start "Ku-luk, ku-luk, ku-luk!" He fly right over there…shht! Fall in the quicksand. And the fox…ran after him, he went into the quicksand. He couldn't swim! The quicksand with water, it wouldn't work! So he got up, go around that dry lake, around and around, and he come to "Somebody has a bonfire!" … we put him in the fire. So he looks at it. He looks at the water! … He said "Maybe I'm going to color myself…So he took a burn spark from the fire. First thing he painted, the tip of his hair. You know, fox get black? … Then his arm a little bit, both sides, and the back, and a little bit in his hair. Then she, "Look at the water!" "Wow, I look good now!" …young people gonna like him! That's true!" (MA).

[43] Mary Olympic marvels at how so many of Chief Evan's prophecies came true, and feels that it is critical that young people heed his lessons regarding resource scarcity in times ahead:

> "White people try to take over all over, these days now…I think he's right, it's going to be…when [they] buy it, this Alaska? …nowadays these days now, what happen, we can't do nothing? In the future, for the young ones, especially….berries…any kind of berries going to be dying…no more berries grow, everything die. I think it's true. Yeah, make me scared, was when he talk…no more berries, too, no more little reindeer, no more the deer. No more… my ap'a's story make me *scared*. I'm glad kids coming, all the kids coming to listen… it is true, really true" (MO).

[44] Stirling reports, "old village sites at the mouth of Kukaklek Lake, a few miles below the confluence of the Alagnak and Nonvianuk rivers, and [Branch Village] ten miles above the Alagnak River's mouth" (Stirling 1982: 2).He bases this in part on the accounts of Royce Perkins, a biologist with the Alaska Department of Fish and Game, who floated the river in 1971:

> "There are three native "settlements" on the Alagnak River. One of them [probably Branch Village], on the south bank appears to be permanently occupied by several families and many dogs. However, this perhaps is only in use seasonally. A second, smaller, cluster of houses lies on the north bank and probably is used as a fish camp, although at one time it was likely used year-round. The third group of buildings is at the mouth on the north bank. This is

the site of the village of Branch River, Abandoned several years ago. Four of five large frame houses now stand deteriorating" (Stirling 1982:5).

[45] In some cases, it is difficult to ascertain whether a family hailed from the Alagnak Village or the earlier village, as in the case of Mary Olympic's grandparents, who were said to have lived in the "older village" on the Alagnak River at the beginning of the 20th century:

> "before [my father] move up to Kukaklek they living down Alagnak, in older village. When he start, my dad reindeer herder. Then he move, 1906 he move up Kukaklek. And married, married to my mom, 1926" (Olympic 1995).

[46] It is unclear whether Mike Andrew referenced this village or "Branch Village" when noting that "Over 100 people lived at [the] village, downriver from [the] present site of church" (M. Andrew in Andrew and Andrew 2000).

[47] A number of interviewees note that there was an old Russian Orthodox church near the village. Interviewees such as Violet Wilson made brief reference to the configuration of the community, including this church: "And from that dog team trail, from the little village there, Alagnak, Alakanhok…cross to the Kvichak, there was an old church, and by that old church Walter Amundsen lived. He was a Norwegian guy...It [the church] was Orthodox" (VW).

[48] Mary Olympic often speaks of this place, giving it a prominent position in the recorded history of the river: "The primary village site is reported as being on the south side of the river, across from Coffee Point near Barbara Peterson's allotment (Olympic 2000).

[49] According to Royce Perkins, an ADF&G biologist who floated the River in 1971:

> "At the outlet of Nonvianuk Lake there are several buildings, some of which belong to Wein Consolidated Airlines. These are used by sport-fishermen. There are a couple of older log buildings which appear to have been a permanent home at one time. They are open and a note inside tells one he is welcome to stay overnight…
>
> "The next building we saw is at confluence of Alagnak and Nonvianuk branches. This small cabin appears to belong to a trapper and is in good repair…
>
> "for the remainder of the trip, we passed an increasing number of cabins and homes. Most of these are probably used as subsistence fishing and trapping camps" (quoted in Stirling 1982: 4-5).

Writing in the 1990s, Clemens and Norris (1999) identified eleven groupings of cabins that were extant in the Alagnak River Basin at that time, six of which are on the Wild River corridor. The six cabin groups inside the Wild River corridor include:

1) Peterson Cabin
2) Guide Camp Cabin
3) Apokedak Cabin Complex
4) Estrada Cabin Complex
5) Andrew Cabin Complex
6) Lower Alagnak River Cabin Complex

Elsewhere in the Alagnak River basin, but outside of the Wild River corridor, Clemens and Morris also identified the Marlette Cabin, the Neilsen Cabin, Murray Cabin, the Agate Point Tent-Cabin Complex, and the Hammersly Cabin Complex. The Peterson cabin sits on the right bank of the Alagnak River and is owned by Barbara Peterson. Known locally as a "trapper's cabin," this structure is built in the middle of the Native Allotment owned by Peterson. The Guide Camp Cabin sits near the north end of the Barbara Peterson allotment, and is reported to be associated with a charter guide camp. The Apokedak Cabin is described as a "historic cabin and cache," sitting on the Native Allotment of Nick Apokedak; members of this family are still well represented in Levelock and participated in community meetings pertaining to the current project (quoted in Evanoff 2008; Clemens and Norris 1999). The Estrada Cabin Complex is reported to be located on the Native Allotment of Agnes Estrada. The log cabin is a prominent "landmark" along the River's right bank, and has served as a trapping and hunting cabin for decades (Bodeau 1991: 187-88). Evidence of earlier structures is apparently visible on site, and a long period of occupation at the site is suggested by rectangular housepits as well as past archaeological surveys for "prehistoric and historic resources" (Clemens and Norris 1999). The Andrew Cabin Complex is reported to sit on the Native Allotment of Wassillie Andrew. This cabin sits roughly two miles downriver from the Estrada Cabin Complex, on the right bank of the River. The "Lower Alagnak River Cabin Complex" consists of a cabin and various outbuildings, as well as "a complex of historic and prehistoric items." This cabin is located near the lower end of Alagnak Wild River and, unlike the other cabins identified here, is not situated on a Native Allotment (Clemens and Norris 1999). Surveys of cabins undertaken by the National Park Service in 2003-05 have clarified the locations and distribution of cabins along the riparian corridor.

[50] The Katmai Research Project identified certain individuals who reported recent building of this kind:

> "[One interviewee] has a Branch allotment, not very far up, at the second bluff. They started building a cabin up there last year. They are going to finish it this year. It's just a place that the family can go to get away. [Their] family lived there, their house and smokehouse are still there" (Katmai Research Project 1997: 17).

[51] Katmai Research Project participants noted,

"The harvesting trips of Levelock residents seemed to be of longer duration than the harvesting trips of other village residents. This is in part due to the fact that many households or kin groups keep cabins on the Branch River which are used for overnight stays as well as season stays" (Katmai Research Project 1997: 7-8).

[52] Violet Wilson also speaks of Old Wasson Carey's trapping cabins that sat near her cabin on the Alagnak River:

"he had trapping cabins back there, he had about 2, 3 cabins. Beautiful cabins, too! He had nice, peeled logs, and he had varnish on them...Between Branch River and Old Creek. That's where Old's cabins were. I think the closest one to us was about 8 miles away. Toward Old Creek" (VW).

[53] Similarly, as Martha Johnson recalls,

"I was raised 11 years between Levelock and Branch River…It was [mostly] between the age of 4 and 9 – those years. Let's see I was born in 1937. I lived there one year with Sassa Woods…I have good memories of grandma "Smiley" and fish camp. Grandma Smiley is Anna Chukwak, not my real grandma but we just called her that" (MJ).

Elma Peterson recalls that Pete and Anna Chukwak were also known as Mr. and Mrs. Smiley. She recalls that the Hurley's lived on Alagnak River too: Bud Hurley, Billy Hurley, Fred and Olga Hurley.

Peter Apokadok also explained that hunting served this function after his family's relocation to Levelock so that his children could attend school: "Years ago when the people were over there…we'd go over there and *hunt* with them: Eau, Andrews, Chukwaks, John T[allekpallek]" (PA).

[54] Morseth summarized the functions of cabins as follows:

"These cabins and others like it are used, or have been in the past for summer fishing—both for day subsistence and sport fishing, and for weeks long fish camp to put up smoked red salmon, they are used for fall hunting of moose, fall fishing for "red-fish" or spawned out salmon and a few people continue to trap and use the cabins for trapline shelters" (Morseth 2000).

[55] The use of certain cabins along the Alagnak for these relatively short visits, in the course of hunting, may have intensified after certain cabins were removed from the newly expanded park boundary in the years after 1980. Dan Salmon (2002) discussed, for example, his extended family using the Gregory cabin on Alagnak Wild River, apparently after the removal of a cabin at the outlet of Nonvianuk Lake.

[56] Some families described cutting spruce logs in the area to construct their cabins in past times. Michael Andrew, for example, recalled of his family's Alagnak cabin:

> "we used to go a long ways to get there, like when we hunt moose. From our home, we go, cause we used to have our cabin made out of logs. Logs, out of spruce, them trees. We used to make cabin. And we put a stove…we make it by the river… we all got together and made that cabin; from that cabin when we hunt moose we go from there, we go, use our tent, leave the cabin. But when we come home we stay there. We used to make out of logs, we make a big cabin. And we have to pack it, pack it by sleigh. Timber, pack it, I could remember we used to pack lots when we made cabin that time. Boy it's nice to have a cabin. That kind that, not made of lumber - log cabin…Trapping cabin, we call it…Yeah, Alagnak river, that's where we got [a cabin], when we go" (M. Andrew in Andrew and Andrew 1995).

[57] George Wilson, Sr. recalls of his father,

> "Dad came up in 1919 to Nushagak, when he was 19 years old, from Nebraska. And he left Nebraska when he was 12, I think; 12 or 13, went to Colorado, Wyoming, then to Oregon, then to Seattle. And he got on the sailing ship and came up, came to Nushagak, there. And that's where he stayed. Never did go back to the lower 48. He liked it up here, enjoyed the people, the Natives, and the way of living, trapping. He built cabins all over these rivers here. He had cabin up in Nonvianuk Lake, too. And on the Branch. And then Yellow Creek. And over in Nushagak River, he built cabin. That's how he trapped you know, go in and find a place he liked, built a cabin and trapped there for quite a few years" (G. Wilson in Wilson and Wilson 1995).

[58] For example, Peter Apokedak noted that his brother, Nick Apokedak's cabin was acquired from Charlie Andrew, but also had belonged to Eau Andrew.

[59] Conversely, places without cabins along the Alagnak are sometimes compared to a "wilderness":

> "when you get quite a ways up that Forks,…you don't see hardly any cabins, I think there's only one or two cabins up above that are *livable,* anyway. But everything else is just like you're out in the wilderness!" (JW).

[60] Speaking of one interviewee, Katmai Research Project participants noted,

> "He said on the Branch they were having difficulty getting deeds, surveys, and all of the transfer stuff taken care of. He said it was a problematic area but they

were trying to work with the Park Service on the issue. He also talked about how land claims that had not been filed on by individuals by 1981 became 14C corporation lands. It was then dealt with by the corporation, as individuals with claims had to apply to the corporation for the deed, and it was awarded or sold. He talked about how much land over on the Branch is owned by the corp[oration], or individuals…Many people's allotment claims on the Branch River have yet to be settled after over 20 years. They don't know if they can use the land. If they build on it, and then find that it isn't theirs, they lose the building" (Katmai Research Project 1997: 10-11).

[61] Violet Wilson continues:

> "I know a lot of local people have their Native allotments up there. I think Barbara Peterson, that is where our place was. Above there Katherine Brown has got her mom's (Anisha McCormick) and John Knutsen (Smiley) has a Native Allotment there. Grandma Estrada left her allotment up there to my kids – Sonny, Kenny, Orville (my sons) and Charlie Boy Groat (my Brother-in-law). That is where Grandma Estrada and Frenchy Brooks lived, they lived close together, but Grandma had filed for an allotment in that whole area" (VW).

[62] Evan Chukwak reports that since moving to Levelock from Alagnak he still takes his children and grandchildren up the Alagnak every fall for hunting, fishing, and camping: "We do that every fall…Before the school start" (Chukwak 1998). They stay at his camp was below Katmai lodge – at the time of his interview in 1998, he had planned to give his allotment to his grandchildren, so that the family might be able to continue using the camp into the future.

[63] Joe Woods represented Levelock as a Trespass Officer for Bristol Bay Native Association, staying on the river for three or four months out of the year (roughly June 1 through October 1) in the early 1990s and 2000s:

> "I had a cabin down there, so…they put me up, bought me food, and bought my fuel, and all I had to do was count people in boats. And kick people off…private properties. Or Native allotments" (JW).

[64] As Dan Salmon observed,

> "Many travel down to the Branch using the river in the summer and the over-winter trails during the winter and access the areas in the forks of the Branch River where it goes to Nonvianuk and Kukaklek" (Salmon 2002: 5-6).

[65] Wolfe (1986, 1979) has taken a functionalist approach to subsistence harvests of southwestern Alaska Native Alaskan communities, suggesting that the continued use of subsistence foods is economically rational in light of the high cost of alternatives. For example, Wolfe (1979: 259) says of the southwest Alaska Yup'ik that "subsistence foods were harvested if their average

capital costs were less than the retail costs of food substitutes," Yet, many authors have taken issue with this approach, suggesting that subsistence resources tend to be prioritized for reasons that are as much cultural as monetary, and that there are a number of cultural obstacles to the adoption of some commercially available food substitutes (e.g., Langdon 1991, Langdon and Worl 1981). Clearly, there are many motivations for the continuation of modern subsistence practices.

[66] The theme of redistribution of game species within and between Native Alaskan communities is widespread within the ethnographic literature. Ceremonial redistribution of meat and fish is common in this region during boys' first successful hunts. Redistribution of fish and game to less mobile members of the community is also the norm in most communities of the region. These kinds of redistributions, as identified in the ethnographic literature, have been adeptly summarized by Langdon and Worl (1981). See also Lantis 1946.

[67] This is similar to how other interviewees have explained the fecundity of the Alagnak. "When we was down there they set [traps and also caught] fish and caribou, moose, beaver" (M. Andrew in Andrew and Andrew 1995). When there they "dry fish up…Hunt ducks. Hunt geese. Hunt beavers…Minks. Ducks" (Chukwak 1998). Summarizing subsistence practices in the Katmai region shortly before the time that Alagnak Wild River was designated, Behnke (1978) noted,

> "Moose, caribou, waterfowl, ptarmigan, rabbits, grayling, pike, lake trout, rainbow trout, char, smelt, whitefish, and the five species of salmon are among the major resources harvested by residents of this region for food. Spruce hens, porcupines, firewood, numerous plants and berries, salt-water fish, and several species of fur-bearers are also harvested. Sea mammals have not been of major significance, although seals and beluga are occasionally utilized by residents of Egegik, South Naknek, and Levelock. Brown bear are also occasionally taken for subsistence purposes, primarily for the fat, which is eaten with fall-dried salmon, by residents of the Kvichak villages" (Behnke 1978: 138).

[68] Behnke noted of the commercial fishery of the 20th century, that

> "Commercial fishing and associated cannery employment have been the major economic bases of the communities around the Katmai proposal since the early 1900's, and have resulted in highly seasonal patterns of employment in the area. During the summer, thousands of jobs are crated by commercial fishing, canneries and services, and thousands of workers must be brought into the region to fill them. Local residents are able to find employment during the short summer fishing season, but at its conclusion, the temporary workers leave, and many of the residents drop out of the labor market for the winter. Unemployment compensation, welfare and subsistence activities become important to many families" (Behnke 1978: 134).

[69] Writing in the 1970s, Kresge et al. reported,

> "Hunting and trapping are not as important to the Bristol Bay economy as they were before the development of the commercial salmon fishery. Before the fishery was established, wildlife was the major source of food and clothing; cash was needed only to purchase supplies. After the industry was established, most Bristol Bay Natives began to earn incomes from fishing and no longer completely depended on subsistence activities. However, wildlife still remains an important food source as well as a supplementary source of money income" (Kresge, et., al., 1974: 6).

[70] As recalled by Katmai Research Project interviewees,

> "June starts salmon time which continues into early August. They put up fish both here and on the Branch, depending on where they are. Wherever they are they stay put as smoking and putting up fish takes lots of work. They put up both kings and sockeyes. June is also a time to gather more [bird] eggs" (Katmai Research Project 1997: 13).

[71] Interviewees sometimes report that in recent years, a trip to the Branch River often,

> "is spur of the moment. To go out on an extended trip, you just say, "I think I'll go to Branch tomorrow." Eventually two or three skiffs get together and go. Who ends up going is just decided based on people's interest" (Katmai Research Project 1997: 5).

[72] Interviewees from the 2002 NPS ethnographic research project note that the residents of Levelock are, in some instances, originally from Igiugig, and continue to use lands and resources along the Alagnak River and other places from which they were displaced historically, suggesting a conservatism in the choice of hunting territories that persists in to the present day:

> "They utilize it -- they go up that way into…Branch River…But they also come up to Igiugig, you know…some of the people from Levelock used to live here in Igiugig a long time ago, and they used to utilize this area a lot" (Alvarez 2002: 41).

[73] Behnke has made similar points regarding the use of the river corridors of this area for moose hunting:

"The Alaska Peninsula habitat types of most importance to moose include stream bottoms and other brushy areas, where willow are available. High snowfall pushes moose down out of higher elevations in the winter" (Behnke 1978: 126-127).

[74] Speaking of residents of Naknek and their subsistence practices as they existed in the 1970s, Behnke noted,

"Moose hunting is usually conducted in three general areas: near the Naknek River and its tributaries; on the Branch River; or to the south in the upper King Salmon River-Becherof Lake area…Only a few residents of these communities hunt moose in the Branch (Alagnak) River, and access is mainly by boat or float-equipped aircraft. Several families with ties to Levelock regularly utilize the Branch for moose hunting" (Behnke 1978: 143-144).

[75] Similarly, Behnke noted,

"Residents of Levelock and Igiugig hunt moose along the Kvichak River and up the Branch (Alagnak) River by boat in the fall. One method of hunting on the Branch River is to drift downriver in the evening, watching for a moose to come out on a riverbank" (Behnke 1978: 148).

[76] Behnke notes that

"Moose are taken in the winter and occasionally in the spring by snow machine travelers, particularly around the villages and in the lower portions of the Alagnak River. Winter moose are frequently taken incidentally to trapping…Residents of Igiugig and Levelock do ascend the Alagnak River by boat and snowmachine… and utilize the [Alagnak region] for moose-hunting" (Behnke 1978: 148-49, 151).

[77] Similarly, Behnke notes,

"People from Levelock say that in the past, when moose were scarce all along [Alagnak] river, they would go up to the forks and hike into the hills south of the river toward the American Creek drainage where a few moose could be found" (Behnke 1978:157).

Evidence of a late arrival of large numbers of moose on the Alagnak can be found in sources such as Behnke:

"Moose apparently began to populate the Alaska Peninsula from the North about 1900, and occupied all suitable habitat by the early 1950's. During the

1960's their populations in the central Peninsula peaked and began to drop, declining one-half to one-third in that time" (Behnke 1978: 126).

[78] The land between Alagnak Wild River and Big Mountain is a readily-accessible caribou hunting area for residents of Igiugig and other communities of the region, for example, but it would be unlikely that a hunter would set out for the Alagnak River corridor specifically to hunt caribou (Morris 1986).

[79] On this point, Katmai Research Project participants noted:

> "They would trap in the winter on the Branch River and he would live at a fish camp in the summer. Before reindeer herding came into the area (and then caribou and moose), they lived on small game like ptarmigan, rabbits, porcupine, beaver, and geese and ducks. They would hunt beaver in the springtime, or whenever they were hungry. They would collect eggs when they needed something different" (Katmai Research Project 1997: 6).

[80] Moreover, a number of these small animals were still hunted and eaten while men were in the process of hunting moose: "When out on foot you have to eat anything. Porcupine. Ptarmigan" (Chukwak 1998).

[81] Evan Chukwak recalled declines in ptarmigan populations during a 1998 interview:

> "used to have, long time ago you used to have [you know, both sides] Branch River…[Alagnak] River. Used to be white ptarmigan all over place. On both sides… After that, no more. I don't [spend] that much time open any more [once] porcupines go away" (Chukwak 1998).

[82] This was also noted by interviewees for the Katmai Research Project: "They could get ptarmigan eggs, if they could find them, but the nests were hard to find" (Katmai Research Project 1997: 6).

[83] Researchers working elsewhere on the Alaska Peninsula have noted the continuity of certain pre-contact spiritual values and practices in the region despite the pervasiveness of Russian Orthodox traditions, especially as these practices relate to the hunt (Crowell 1992; Lantis 1947). In documenting the cosmology of the related Qaluyaarmiut, Fienup-Riordan (1980: 126) concluded that, in these people's worldview,

> "the natural world is a moral order subject to the same rules of hierarchy, power transference, and the cycling of souls as the human social order, and dependent for continuity on right relations within that order."

[84] These practices clearly influence the frequency and distribution of hunts in the Alagnak River corridor:

> "I asked [an interviewee] about the Branch and he said he goes over there but not as much as the other places because a lot of people use that area… he goes wherever he thinks or knows there is game. The areas of importance change from year to year as the river and the game always change" (Katmai Research Project 1997: 18).

[85] A number of individuals have noted that they preferentially hunt and fish close to villages when circumstances allow rather than ranging over relatively large areas. Occasionally, at communities like Igiugig or Levelock, it is possible to subsist without extensive travel, owing to a fortuitous if temporary proximity of game. Apparently speaking of the Kvichak River, George Wilson, Sr. noted,

> "fishing, lot of fresh fish out of the river, here. So we got a variety of food here. Right from the village, here, not far. Don't have to go very far to get any kind of a fish or bird, ptarmigan, and meat. So it's been real nice out here. Since I moved up I enjoyed trapping here" (G. Wilson in Wilson and Wilson 1995).

[86] Emphasizing moose and caribou harvests, ADF&G data leads to the conclusion that the communities generally

> "have broadly overlapping areas of use. This is primarily because of wide-ranging hunting for highly valued species such as caribou, which is only infrequently and unpredictably available close to most villages" (ADF&G 1985: 430).

[87] As Behnke noted of these villages,

> "Social relations also contribute to overlapping areas of resource use, since people with relatives in other villages often hunt or trap with them" (Behnke 1978: 138).

[88] This agrees with the observations of Behnke (1978: 157) who indicated that the northeastern expansion area of Katmai "is within the traditional subsistence area of the residents of Levelock, [Alagnak], Igiugig, and Kakhonak, who were dependent on the salmon and big game of the area."

[89] As Behnke (1978: 138) noted, the conventional maps of village subsistence territories often understated the geographical range of harvests due to the fact that airplanes in particular had expanded subsistence hunting into much larger regions than had been utilized historically. Similarly, the Alaska Department of Fish and Game has reported diffuse resource procurement

well beyond the conventionally mapped resource territories of individual villages in the Alaska Peninsula subregion:

> "Extremely large areas are covered by hunters and trappers of this subregion because many terrestrial resources are not abundant…A few hunters, mostly from Dillingham, fly across to the Alaska Peninsula to hunt caribou and perhaps moose. A number of the Dillingham hunters fly down the peninsula to hunt waterfowl in the fall" (ADFG 1985: 378, 410-11).

[90] Writing in the 1950s, the U.S. Army Corps of Engineers concluded that the tributaries of the Kvichak, including the Alagnak River, were the cornerstone of the highly productive Bristol Bay salmon fishery:

> "the Kvichak River tributaries are the most important salmon spawning streams entering Bristol Bay…Practically all of the lake, stream, and river systems are inhabited with large numbers of resident trout and grayling. These waters also support large numbers of anadromous fish composed principally of sockeye and king salmon and are the spawning grounds essential in maintaining the important fisheries of this region" (U.S. Army Corps of Engineers 1954: 68, 119).

[91] For contrast, Vera Angasan speaks about putting up fish in New Savanosky:

> "They have their nets different! They put posts on there...You have got to get up early to go pick fish! They put them up in the big hole...They dig a big hole and put them fish in there. They put green grass, they keep them cold" (VA).

[92] Families also gathered surplus wild meat, fish, and berries for special social events, such as those centering on the Christmas holiday:

> "before holidays come, they used to gather food, save it for this coming holiday, put 'em away without getting spoiled. Even fish, meat, cut 'em up, keep it cold long time. They never have no freezers I could remember. But they always keep it some place outside to keep it cold, without getting spoiled the meat. And fish. Or their really good smoked fish, put in there. People come, on holidays they put on table" (M. Andrew in Andrew and Andrew 1995).

[93] Martha Johnson, for example, recalls her family having a tent fish camp in her youth:

> "Fish camp is where I stayed with Sassa [Woods] and they put up fish there. Our fish camp where we went when we were kids was further up the river I think, we lived in tents there" (MJ).

[94] Often, fishing seems to be complete by the end of September. Supporting this view, in September of 1973 Mary Kaye Hussion, a canoe and kayak outfitter, reported: "The lower part has many Native allotments and fish-camps but nobody was there that late in the season" (quoted in Stirling 1982: 9).

[95] The Katmai Research Project also documented families traveling to the Alagnak specifically to obtain King and Coho salmon, which are said to not be as abundant or as readily caught on other rivers of the region:

> "If they put a net out for kings [on the Kvichak], they usually have better luck on down the river, where the main current is closer to the bank. Kings do not run up the Kvichak River much, in this area they mostly go up the Branch River and the Naknek River. They generally get a few kings in June to make strips, however; you know when the kings are coming because they follow the swallows" (Katmai Research Project 1997: 5).

> "He said they like kings and reds best of all as they dry the best. He said they never got many kings [throughout their fishing range] though and it takes a larger mesh size and special gear to get them. He said a lot of people do not take the extra effort and rely on the ease of getting reds for their fish. He said the people who want kings now often go to Branch and get them with a rod and reel. He said they always used to go to the Branch and get silvers with a rod and reel and now he just does it once in a while for a few fish and for fun" (Katmai Research Project 1997: 19).

[96] The distribution of spawning locations within watersheds of the region appears to have been underestimated in past studies, especially in places with turbid waters, a fact that has become apparent in recent radio telemetry studies (Young 2005).

[97] As Behnke observed of Alagnak redfish use,

> "red (sockeye) salmon which are beginning to spawn and have turned bright red. These fish are split and hung on racks to dry in the air. They provide a favorite food to a few Native families and are eaten with seal oil, rendered bear fat, or butter" (Behnke 1978: 145).

[98] Behnke observed this trend in the 1970s:

> "Salmon are used fresh throughout the summer and are prepared and stored in several ways. Kings are often cut, filleted, soaked in brine, and then slowly smoked to make "strips". Reds and other species are also smoked in a variety of ways. Methods of smoking and preparing a salmon have been introduced from

a range of different cultures, including local "Aleut", Scandinavian, and Europeans. Salmon are also canned, frozen, pickled and salted. Many families eat salmon in a variety of preparations throughout the year" (Behnke 1978: 145).

[99] For example, ADF&G biologist Richard Russell reported "an old native drying rack at Kukaklek with rainbow tails up to 10 inches across on it in the 40's" (quoted in Stirling 1982: 10).

[100] Katmai Research Project participants recall building fish traps to catch some of these species:

"[One interviewee – probably Mike Andrew] said he and his grandfather used to make fish traps and used them at -----'s cabin located on the Branch. They regularly harvested ling cod, grayling, whitefish and pike in the trap. The fish were used for both human and dog food" (Katmai Research Project 1997: 17-18).

[101] Behnke noted that some families traveled to portions of the Alagnak far from their fish camps to pursue these secondary species:

"Trips are made to good fishing spots to take grayling, char, rainbows, and dolly varden with hook and line. Some fishing is done by local residents far up the Alagnak River. Villagers occasionally ascend the Alagnak River and go up into Nonvianuk and even Kukaklek Lake, pulling boats up through the falls. Fish are also taken through the ice along the Alagnak River and Nonvianuk Lake" (Behnke 1978: 150).

[102] Ice fishing has been recorded in past studies of the Alagnak as well:

"In the 1950s people were still ice fishing for grayling up the Alagnak River in front of cabins, and one informant remembers ice fishing beginning as soon as the weather was good and the rivers frozen over. Grayling were caught incidentally while ice fishing for rainbow trout and Dolly Varden" (Krieg et al., 2005: 32).

"[Our interviewee] tends to do…ice fishing [on the Branch]. In the spring and fall he sets a net for whitefish which they say are a bit different than those harvested in Igiugig. The ones in the Branch are a bit smaller and shorter than those up by Igiugig" (Katmai Research Project 1997: 9).

[103] In recent years, there have been impressive rebounds in certain salmonid stocks along the Alagnak. Still, interviewees observe that there have been periods of relative scarcity. For example, as Carvel Zimin, Sr. recalled in 1998,

> "Branch River is a river we used to go up. And it was a beautiful river. You sit in a skiff there, and if you wanted fish, you just sit there and go like this [gestures] and the fish would jump in the boat. I mean they were thick, you know… it used to be hot fishing, [but now] the fish are gone" (Zimin 1998).

[104] Here too, Behnke's observations of the period are pertinent:

> "While men are working or fishing commercially in the summer, some elder people and women set gill nets near the village of out at fish camps to take salmon for family use and dog food. A few families use fish camps upriver from Levelock and downriver from Igiugig, as well as on the lower Alagnak River. Salmon are split and smoke-dried, as well as canned, salted and pickled. Some families put up quantities of fish for dog food. In the fall, people also go the fish camp to put up salmon from later runs" (Behnke 1978: 149-150).

[105] The Alaska Department of Fish and Game has recorded use statistics for the Alagnak River, as well as producing occasional summary reports that synthesize this data and place it in its larger biological and sometimes social context (e.g., Collins and Dye 2003, Naughton and Gryska 2000, Jaenicke 1998, Dunaway 1994), and this literature augments the picture provided here.

[106] As Mike Andrew notes,

> "[people were] trapping beaver 'cause we eat the beaver meat in winter time and we sell the skin. Try to…sell [hides] to buyers, you know. Long time ago" (M. Andrew in Andrew and Andrew 1995).

[107] Behnke recorded evidence of this pattern in the late 1970s, as the NPS considered the possible designation of Alagnak Wild River:

> "The Kukaklek-Nonvianuk areas are said to have large beaver populations and a number of people from the villages trap beaver in these areas….A number of trapping cabins in this part of the [proposed park expansion] are owned by Levelock, Igiugig, and South Naknek trappers" (Behnke 1978: 151).

[108] As George Wilson, Sr. notes,

> "as the river start to freeze up, like Alagnak River… once the river gets full of ice and freeze up, the mink will leave the river, most of them, and go inland in the smaller creeks and then you have to go inland after the animals then. Because the river freezes over, full of ice, and it's hard trapping on the river after it freezes.

Only some places you could get some traps out, where the banks still stick out" (G. Wilson in Wilson and Wilson 1995).

[109] Gabby Gregory, for example, recalled trapping with his father along the Alagnak, as well as Kukaklek Lake and other waterways on this edge of Katmai:

> "those days we catch beaver, when beaver season, [in] mink season, hunt mink in those creeks there, below somewhere that little creek there. Mink and otter… no wolf" (Gregory 1998).

[110] George Wilson's father, Clarence Wilson (born ca. 1897) was a non-Native man who married a Native Alaskan woman originally from Dillingham. Clarence trapped the Alagnak River corridor extensively. The couple had arrived in Levelock in roughly 1925 and began joining the residents of this community in trapping along the Alagnak soon thereafter (GW, Morseth 2000).

The Katmai Research Project describes a family of similar circumstances, though apparently not the Wilsons, who trapped the upper Alagnak area extensively:

> "His father came to the area as a trapper and prospector, he died way back in 1947. During his days of trapping he talked about working areas of the upper Branch River because no one else was trapping in that area. He didn't have to ask permission of anyone to use the area, but he seemed to know where other people were trapping and that you stayed away from those areas or else asked permission. He said that hunting was very different from this in that you could hunt anywhere and didn't have to ask permission of anyone. On the upper Branch he said he had cabins and trapped otter, mink, fox and a few wolverine. He said there were no lynx in those days in that area and that they were only found further inland" (Katmai Research Project 1997: 11-12).

[111] It is this type of trapping that seems to be described by certain interviewees of the Katmai Research Project:

> "They would spend entire winters over on the Branch River. They trapped muskrat and otter mostly. He learned to catch them on islands in the river, where they would see tracks coming up out of the water. They would set traps just a few inches under the water, where the muskrat or otter would be walking before coming out of the water. To trap beaver they would use snares" (Katmai Research Project 1997: 6).

[112] George Wilson, Sr. describes his trapping across multiple drainage basins in the 1960s, 1970s and 1980s:

> "Traveling up on that Branch, there…we would trap different areas for the beaver season. We'd go from Branch over to the King Salmon River some time. And then up to Kvichak on the Yellow Creek. And then down on the Bear Creek. And I even trapped down the coast, and I trapped up in Koktuli and Mulchatna area there" (G. Wilson in Wilson and Wilson 1995).

[113] One interviewee for the Katmai Research Project, possibly George Wilson, Sr., noted,

> "you need to get into timber, on the Branch River, to find them, he said. To find wolves, there has to be big game, like caribou and moose, around. The caribou are so abundant now, there should be some wolves… They prey on sick and weak caribou" (Katmai Research Project 1997: 6, 17).

[114] As interviewees for the Katmai Research Project noted,

> "To begin trapping you would just pick a good spot, like along a creek or river bank. You didn't have to get permission in old time days, when Alaska was a territory. There were only a few people around, only a few white people along the Branch, there was no school" (Katmai Research Project 1997: 19).

[115] George Wilson, Sr. reports that his trapping territory did not change much after relocation from Levelock to Igiugig:

> "Anne [Wilson] was born and raised here [in Igiugig] and she wanted to come back and spend some time up here and see if I would enjoy it. And I said, "Okay, I'll move up." So '76 we moved up and I started trapping up in this area, here. So, I enjoyed it. And it's been really nice, and I been trapping up there ever since, from out of Igiugig there, out on the trapline. And the cabins, they're not too far. And I go across to Branch when it freezes over. It's just a little farther northeast than where I was trapping [before moving here], but it's still in the same principal area that I did trap in. And we got a lot, still more lynx and wolverine than I did on that lower trapline. I usually go up the Branch, now. I got over in this higher country here, next to Kukaklek. And Nonvianuk, there's a lot of lynx and wolverine come through all the time. And then get a few wolves once in a while. So I enjoy the trapping up here…[the area I trap didn't change] much but just a little further northeast than where I was. But I still trapped at Branch River for mink and otter and fox. But I got into more lynx now, and wolverine and wolf…Up from the, closer to the mountains. Lot more lynx and wolverine,

wolves come out of there all the time, and get a chance to get some of them once in a while" (G. Wilson in Wilson and Wilson 1995).

[116] As Behnke noted in 1978,

> "Good prices for fox and lynx in recent years have caused people to travel farther and trap in areas not heavily used a few years ago. Kukaklek Lake, Nonvianuk Lake, and American Creek are all areas trapped by a few residents of Levelock, Igiugig, Kakhonak, Naknek, and South Naknek. Traplines from Levelock run up the Alagnak River, along the Kvichak River, and up creeks and tributaries to the Kvichak, as well as into the tundra and lakes west of the village. Igiugig people trap around the western shore of Iliamna Lake, into the Kaskanak Creek areas; toward Big Mountain, into the Kukaklek Lake Area, and toward the Alagnak River" (Behnke 1978: 150).

[117] Young trappers seem to have moved into the upper Alagnak in greater numbers at this time:

> "[Our interviewee] started trapping on the Branch River on his own when he was about 15 (1952). He mainly trapped otter, mink, fox, and some wolverine. There were no lynx at that time. They used #3 steel traps. Initially he trapped by his mother and then spread out. He said there was plenty of room, not too many trapping the far end of the Branch" (Katmai Research Project 1997: 20).

[118] As Behnke observed in the late 1970s,

> "Beaver, lynx, mink, otter fox, wolf, and wolverine are all trapped along the Alagnak, with trappers from Levelock, Igiugig, Naknek, and South Naknek traveling to different portions of it by snowmachines and aircraft. The families living at Alagnak also do considerable trapping in these areas. The Nonvianuk and Kukaklek Lakes area is utilized by trappers from all these communities and from Kakhonak some access to this area is by airplane, although people from Igiugig, Kakhonak, and Levelock travel there by snowmachine as well" (Behnke 1978: 157).

[119] The potential impacts of park expansion on the extensive trapping within Alagnak as well as certain headwater locations such as Kukaklek and Nonvianuk Lakes were of concern during the expansion studies occurring in the 1970s. As Behnke (1978) noted,

> "[the Alagnak is] recognized as a particularly good area for mink and otter trapping, and traps are also set along its course for fox, lynx, wolf, and wolverine…Certain species bringing high prices, such as lynx, are also more abundant within and near the proposal area, particularly in the upper Alagnak drainage and American Creek. A few trappers have large investments in time,

> experience, traplines, and cabins in the proposal which would be lost if they could not trap in the area" (Behnke 1978: 150, 172).

It is important to note that many non-Native trappers were using the Alagnak at this peak in trapping activity. In 1982, Stirling (1982: 21) reported the accounts of a Fish and wildlife Protection Officer, Dick Dykema, who was reported to be "very knowledgeable about trapping in the Alagnak River area and estimates that equal numbers of Natives and whites trap small fur-bearing animals [there]."

[120] It is possible that the expansion of NPS management in this area, with the park boundary expansions and the establishment of Alagnak Wild River also played a minor role in discouraging trapping in the Alagnak River corridor relative to other trapping territories in the larger region.

[121] As Katmai Research Project teams discovered in the mid-1990s,

> "No one (virtually or actually) is trapping over on the Branch River right now because of the low prices; there are lots of foxes, beaver, and mink because of the reduced trapping activity…There was very little trapping that occurred by residents of Levelock and its economic importance is currently slim to none. I was told there was a much greater degree of activity in the past, but that the decreases in fur prices have greatly affected this community's degree of activity. The types of furbearers found in the vicinity of the lower Kvichak and Branch Rivers are also those furs that are worth the least. The furs that-still remain semi-profitable (lynx, wolf and wolverine) are less abundant than up around Kokhanok and Igiugig" (Katmai Research Project 1997: 6, 7).

Beaver had apparently become scarce along the Alagnak for a period of time in the mid-20th century, but the populations had rebounded by the late 1990s. A small number of families, most being regular river users whose visits were not motivated solely by trapping opportunities, continued to harvest furbearers and benefited from this rebound in wildlife numbers. Beaver, in particular, were said to have rebounded significantly by the late 1990s:

> "Not much beaver, long time. When [we] fished…stay[ed over there] not many beaver. Now we get, get beaver now. …Mmm, I can, enough to get hunt. Lotsa, lotsa beaver…I got limit, he tell me, I skin, me and mama, all the time. I help my brother. I got limit, mama got limit" (M. Tallekpalek in Tallekpalek and Tallekpalek 1998).

> "When [our interviewee] was starting out he trapped the Branch in the late 40s, and traps there to this day. He says he goes down there early in the year for mink as there are lots down there. He said it is changing now though and the beaver are taking over" (Katmai Research Project 1997: 15).

[122] The Katmai Research Project also found that the Wilson and Andrew families of Igiugig were that village's primary trappers, while younger members of the community pursue these tasks less frequently, and sometimes avocationally:

> "There is one very active trapper in the village who travels and traps a great distance in the region. He runs trap lines that span 40 to 50 miles. His trapping excursions take him up toward Big Mountain, over to Kukaklek and Nonvianuk Lakes, and down around the Branch River. He is the only individual in the village who keeps several cabins and utilizes them for multi-day trapping excursions. One older couple in the village also takes numerous multi-day harvesting excursions, most often by boat to the Branch River and the lakes that are its source. The rest of the village seems to practice single day subsistence harvesting trips. There are a few younger men in the village who dabble in trapping for recreational activity" (Katmai Research Project 1997: 2).

[123] Writing in 1906, Elliot noted that "Reindeer cross and recross the Kvichak River in large herds during the month of September; as they range over to and from the Peninsula of Alaska, feeding, and also to escape from mosquitoes. At the mouth of this stream is one of the broadest deer roads in the country" (Elliot 1906: 397).

[124] Interviewees mentioned a number of locations north and east of the Alagnak. Peter Apokedak mentioned a place in that area called "Soda Springs," which had water that bubbles like soda water:

> "the water just bubbles up. It's got a fizz to it, you mix Tang with it and it's just like orange pop. It's by the Reindeer Station – Grandma used to send us down there with gallon bottles and we would fill them up and take them home and we would all drink soda water. It's kind of like Alka-Seltzer in a way. Papa sent some out one time to get it analyzed and they said it was sulfur water" (VW).

This general area was traversed extensively by reindeer herders of the early- to mid-20th century, as well as hunters and trappers from Kokhanok and other villages.

[125] Mike Andrew references such migration between traditional resource procurement areas and reindeer herding camps:

> "my folks used to have reindeers long time ago, they stay up the Kukaklek, and then Nonvianuk, in Kukaklek watch their herds. When they're done, watching their herds, they came down here" (D. Andrew in Andrew and Andrew 1995).

[126] Speaking of one interviewee, whose family ran a store that was apparently on or near the Alagnak, researchers from the Katmai Research Project recorded:

> "The old village on the Branch River was called Alagnak in earlier times. [He] said that the reindeer herders went from Igiugig to Levelock. His father…would talk with the herders and see what they wanted to trade for the reindeer. He said they didn't want money as much as they wanted flour, sugar and tea. He said that usually ten to twenty reindeer were traded at one time. [He] said reindeer trading ceased in the late 1930s" (Katmai Research Project 1997: 18).

Similarly, Michael Andrew recalled,

> "Before, they used to travel, go down and back, cause there was reindeer. Sometimes [my father would] drive two, three [herds], go down shopping [with] what they make, [then] go back to Big Mountain" (M. Andrew in Andrew and Andrew 1995).

[127] As people stopped reindeer herding by the mid-20th century, some families largely discontinued their regular visits to some portions of their larger territory, such as Kukaklek Lake or Big Mountain for the first time in recalled history – a trend that arguably reversed only after the widespread adoption of ATVs and, to a lesser extent, snowmachines:

> "I don't remember what year they move, when they [were] losing their reindeer herders. And so many years after the reindeer is getting less so they quit using [those areas]" (M. Andrew in Andrew and Andrew 1995).

[128] While most sources attribute the name of the Alagnak River to a different, Yup'ik origin (meaning 'making mistakes' or 'indecisive' in reference to the River's meandering course), it is interesting to note that the term "Alagnaq" is often translated as "salmonberry" in Alutiiq (see Deur 2007).

[129] Mike Andrew recalls people picking a diverse range of berries along the Alagnak and processing these berries into aqutak:

> "Cranberries, salmonberries, blueberries, blackberries, high bush [cran]berries, raspberries. They mix 'em up with Crisco, lard, and little bit sugar. They beat them up. Lot of times they put a little bit fish in it, boiled fish, white fish. You clean the bones out, put 'em in, beat 'em up and put 'em in a big bowl. Boy, that's nice. And we call it Native ice cream, berries all mixed together with the Crisco. Boy that's good" (M. Andrew in Andrew and Andrew 1995).

[130] Putting up berries for winter is still seen as an important annual task by families with ties to the Alagnak. As Mike Andrew observes,

> "Right today we still do that. I like to pick berries, so I help. Me and Dallia, we travel for berries, put it away. Not a long time ago - we still do it right today. We still get them while there's for holidays we do same thing. What we are teached when we are young, we still do it right today" (M. Andrew in Andrew and Andrew 1995).

[131] At lower elevations outside of the riparian corridor, berries are said to be generally scarce or of poor quality due to the absence of moisture. Exceptions may be found in the relatively well-watered uplands near the head of the Alagnak River Basin, which are also visited by people who traverse the Alagnak River corridor:

> "they pick [berries] up by Kukaklek, Battle and Nonvianuk Lakes, up by the mountains were there is more snow and the ground stays moist. They said down here around Igiugig it gets too dry in the summer and the berries are not very good. They have been traveling to these places for a long time [for berries], and when they go they travel up the Branch in a skiff and camp for a few days when they are there" (Katmai Research Project 1997: 12).

[132] Lichens (*Cladina*, *Cladonia*, *Cetraria*, and *Nephroma* spp.) have diverse uses within traditional Alaska Native diet, medicine, and material culture. Lichens, for example, have been used for temporary bedding, padding, insulation, cleaning agents, and in a number of other utilitarian applications that appear to be underreported in published sources. Lichens of the genus *Cetraria* (including *C.* crispa and *C. cucullata*) are used as condiments in some Alaska Native contexts, while *Nephroma arcticum* has been identified both as a food and a medicine (Wilson 1978: 187-88). Areas rich in lichen, such as *Cladonia* spp., are also noted to be good caribou grazing sites and are often preferred hunting sites (Rousseau 1947: 152). Similarly, mosses, such as *Sphagnum* spp., can be used as insulation, a cleaning agent, or bandages, while also having medicinal properties.

[133] Ella Mae Charley, for example, has described families gathering firewood along the Alagnak River by dog sled, even after moving away to communities such as Igiugig and Levelock:

> "We've gone to Branch River. We used to go up river and haul wood. Uh, many times. Go up there with a big, what do you call it, big saw. Cross-cut saw…Or five-foot saw. Stay up there all day. I would just muck around, play around just, as long as I could go with dad on the sled. We saw down two, three trees and haul wood back. Go to Branch River, I remember going to Branch River with the dogs couple of times. Over, uh, Branch River Village…we used to go Diamond J [and] Coffee Creek, down river…by Charley Jensen's or a ways past there. Yellow Creek, almost to Yellow Creek" (Charley in Charley and Setuk 1998).

[134] Mary Olympic refers to cutting these "Chistmas tree" conifers near the Alagnak River rapids for use as construction material:

"Lots of Christmas trees they call 'em…they was supposed to get some Christmas trees from there [by the rapids] but they didn't need it. They said they got a long Christmas tree, good for build a house" (Olympic 2000).

[135] This summertime preference for driftwood was also noted by researchers during the Katmai Research Project:

"They said that they use driftwood for their steam and smokehouse in the warmest summer months of June and July, when it is very dry, as it throws no sparks and thus diminishes any fire danger. They said they use spruce and birch at other times of the year and it doesn't matter if it sparks cause the ground is moist. They said they were taught to do this" (Katmai Research Project 1997: 13).

[136] Behnke seemed to anticipate some of these changes when writing in the late 1970s that,

"Today there is generally much less reliance on subsistence resources than there was twenty or thirty years ago, but this varies seasonally, annually, and between villages and families. Among many Native families, there is still considerable traditional knowledge about the environment and resources and for them, the whole subsistence realm is more complex and multidimensional than it is for many non-Native families. Although much of this tradition and knowledge is being missed by the younger generation who lack the language and experience in subsistence matters, there seems to be resurgence of interest in their heritage among many young people. Subsistence activities and land are central to this heritage, along with oral history and language. It is difficult to say what the outcomes of these various trends are likely to be, but many Native residents feel that it is desirable to maintain diversity and choice for future generations" (Behnke 1978: 164).

[137] Michelle Morseth commented perceptively on this point during her reconnaissance work on the Alagnak in the late 1990s:

"[Alagnak cabins] are also used as places for getting away from the busy village life—the life of TV, telephone, electricity etc. For older people they are where they really feel good, it is a place where they can think about people who no longer are living, about the way people used to live when there didn't seem to be so many problems. They can relax and feel at peace" (Morseth 2000).

[138] The Katmai Research Project identified similar patterns of use:

> "[One interviewee] said they went to fish camp [on the Alagnak] for a change and to get out of the village" (Katmai Research Project 1997: 17).

[139] As noted in the Katmai Research Project, people sometimes undertake these trips as one-day detours from the villages:

> "Sport fishing (rod and reel fishing) is usually a day trip. If you go for a longer period, you take your grub box. They will use their cabin on the Branch River as a base for sport fishing, but mostly it is a place to get away from the village, away from electricity, telephones, and television" (Katmai Research Project 1997: 5).

[140] One of Mike and Dallia Andrew's sons drowned on the Alagnak River while gathering wood in the course of a seasonal visit after their relocation away from the river. This apparently happened a short distance downstream from Branch Village. His remains were lost, possibly under ice, on the River. The family had nearly given up on finding his remains when someone in the villages had a prophetic dream about his whereabouts. They returned to the river and recovered the body, burying him in Levelock village.

[141] Teddy Melganak alluded to places such as this associated with burials in the Brooks Camp area:

> "That one building on the way up towards Dumpling there, people used to talk in there; they said it's a spooky building! Then they said sometimes there are dishes, and spoons moving around there, and nobody in there! They don't like that. I always think that that house is sitting right on top of the graveyard! … I think I can see a cross there, someplace around there, but further up there's a lot of little crosses all over, but they went down! … Washed out up towards the creek" (TM).

[142] Similarly, interviewees from past projects have noted, "It is easy to travel up the river, much easier than over land," some report (Katmai Research Project 1997: 12).

[143] Vera Angasan recalls traveling around the Naknek Lake area using this method:

> "We travel[ed] with the dog team? We did! Then we travelled with the boat in summer. Yeah. We went out with the sailboat, with One Arm Nick and them, and we have to row, because there was no wind! Too slow" (VA)!

[144] This use of boats to carry gear to and from camps at the beginning and end of the season is additionally corroborated by a 1979 letter from the Bristol Bay Native Corporation to Curtis V. McVee, State Director of the Bureau of Land Management, summarizing the use of Alagnak River as well as Kukaklek and Nonvianuk Lakes:

> "the area around both lakes have been historically and still are trapped in the winter by residents along Iliamna Lake and the Kvichak River. In the fall, skiffs are run up the Alagnak River to Kukaklek Lake, loaded with equipment and supplies which are utilized during the winter after freeze up" (Stirling 1982: 13).

Interviewees also mentioned traveling up the Alagnak to drop gear at their cabins:

> "In the early part of Oct. he goes up the Branch in his skiff to outfit his cabins. He mentioned 3 of them along the upper reaches of the Branch and the two lakes that feed it" (Katmai Research Project 1997: 15).

[145] Interviews from prior studies have made similar suggestions:

> "Spring is the best time on the Branch River, when it is flooded, because you can go places easier in the skiff. Late fall is really shallow, but it is good trout fishing and duck hunting on the Branch River that time of year, and all of the sport hunting and fishing is over" (Katmai Research Project 1997: 5).

[146] As one Katmai Research Project interviewee noted, "you have to think about weather and tides and the time of day that you will leave. You cannot get up the Branch River [from the Kvichak confluence] when the tide is out" (Katmai Research Project 1997: 5).

[147] Behnke (1978: 150) notes of Igiugig that "Villagers occasionally ascend the Alagnak River and go up into Nonvianuk and even Kukaklek Lake, pulling boats up through the falls."

The type of boats used over time has varied, providing different levels of access to portions of the river. The Brandal family reports using a johnboat to trek up the Alagnak River, apparently to hunt its banks. Ray and Henry Erickson report taking jet skiffs up the Alagnak River as far as the rapids "just for fun" while fishing for salmon in saltwater along the Alaska Peninsula (Deur 2007).

[148] Interviewees generally report that boats can travel up the Alagnak River above the confluence with Nonvianuk River, when water conditions are just right: "Usually motor boats don't go up there but they do occasionally, most of the use however is from rafters coming down from the lake" (Morseth 2000). "Some people simply don't travel upstream from the general area of their cabins, noting that it takes a lot of gas…It is also rocky and you have to know the channel" (Katmai Research Project 1997: 17). Travel by boat as far as the lakes is a slow and expensive journey: "It takes a lot of gas to run a skiff up to Nonvianuk" (Katmai Research Project 1997: 4).

[149] Mike Andrew spoke of the challenges of traveling this distance with a dog sled loaded with goods:

> "if you travel like one day from early in the morning, you travel with a load, if it's nice weather you want to make it home. You run eleven hours on the sled. Steady travelling 'til you get home. But if your weather's getting to be bad, you try to make it home on that day, you go early in the morning 'til night, then we'd be home" (M. Andrew in Andrew and Andrew 1995).

[150] Generally, land transportation options provide more rapid access to cabins and other use areas along the Alagnak than has been the case with boats:

> "He said to get up into the lakes by skiff you must travel down the Kvichak and up the Branch which takes, 3 to 4 days, on a snogo or ATV with good conditions you can be there in 2 to 4 hours depending on where you are going" (Katmai Research Project 1997: 14).

[151] As George Setuk has noted,

> "Before we travel four or five days sometime y'know before you even get a caribou or a moose, y'know. I used to go over there, Branch River and camp. Way, way up there next to the mountains up there, by that mountain…a whole bunch of us would take off. [Now we don't have to do that]" (Setuk in Charley and Setuk 1998).

[152] As Behnke noted in 1978, "Snowmobiles are used for hunting caribou, moose, and small game, as well as for trapping and getting to good fishing spots" (Behnke 1978: 140).

[153] Howard Nelson, for example, recalled, "I know *I* was running the Branch River with the first Hondas *I* had, and that was '90" (HN).

[154] Some families reported having to largely forego the use of snowmachines in recent years, opting for ATVs or airplanes for up to 11 months of the year in the Alagnak areas: "in periods of no freeze-up it's real difficult…[a four-wheeled ATV] gives you the most options to get to most places the most amount of time in a given year" (Salmon 2002: 9) Snow machines and dog sleds, hey suggest, are no longer viable transportation options in the region due to absence of long-term snowpack over multiple consecutive years.

A growing literature addresses the impacts of climate change in northerly latitudes on indigenous cultural and subsistence practices. See, e.g., the papers in Krupnik and Jolly (2002).

As late as 1983, the National Park Service suggested that the Alagnak was not accessed by ATVs, though it is also clear that ATVs were in use within the communities that accessed the Alagnak:

> "Local residents use the river via motorboat and snowmachine for sport and subsistence purposes. Overland access, except as noted above, does not exist" (NPS 1983: 18; cf. Deur 2008a).

[155] Behnke noted that

> "Those who have the most income, and therefore theoretically have the least need of subsistence resources, are most able to purchase easy access to resources through the ownership or charter of specialized vehicles" (Behnke 1978: 166).

Yet, in light of the social cohesion both within and between these communities, as well as the well-documented practice of food sharing within and between communities, the benefits of transportation technology and access to vehicles is broadly distributed throughout the villages.

[156] Carvel Zimin, Sr. recalls that the Alagnak was at one time a major travel corridor for area residents traveling into the mountains and lakes near the head of the river: "Igiugig would come over and Levelock went up the Branch River and into Nonvianuk" (Zimin 1998).

[157] As Behnke noted in the 1970s, "Snowmobile trails connect Kokhanok, Igiugig, and Levelock and go from Levelock to Naknek. They also go up Branch (Alagnak) River" (Behnke 1978: 140).

[158] Behnke also noted the use of snowmachines over the frozen Alagnak:

> "The river is used as a snowmobile route once it freezes well as are its sloughs and tributaries. It gives access to a large area for hunting and trapping in the winter" (Behnke 1978: 150).

[159] As Dan Salmon observed,

> "you don't want to drive on that river when its frozen. It's dangerous. Down at the lower end it's fine, but you get up to the upper end, where the water's really circulating, the rapids, and it's not good traveling in the wintertime" (Salmon 2002).

[160] As George Wilson, Sr. notes,

> "the Branch River when it freezes over, it raises about…8 feet or more of solid ice, slush. And then the water drains out from underneath and it leaves a lot of places really dangerous, walking on the river. And so we go inland [because] it's hollow some place, you know. The ice will fall out. It freezes over, then the water drains out from underneath there…And then it just freeze over really thin with ice and then the water start draining out from underneath. In a lot of places it's just thin ice with nothing underneath but dried up snow. And it'll fall, sometime

8, 10 feet down. It's hard to get out…if you don't watch yourself" (G. Wilson in Wilson and Wilson 1995).

[161] Katmai Research Project interviewees spoke of the forks as a destination, but also as a barrier, which sometimes represented the furthest upstream extent of peoples' journeys:

> "He said with dogs he would also travel up to the fork in the Branch River. He said traveling up that way you could get up a little higher near timberline and find moose" (Katmai Research Project 1997: 16).

[162] Royce Perkins noted in his report to the ADF&G in 1971:

> "Due to the apparently very heavy traffic of sport fishermen at the outlet of Nonvianuk Lake, I would suggest the placement of a man here during summer. In the two days we were there I gave four citations for violations" (quoted in Stirling 1982: 6).

Peter Shepherd, another employee of the Alaska Department of Fish and Game, floated the Nonvianuk branch of the Alagnak River in August of the same year, and reported that:

> "Three planes landed while we were there carrying a total of 13 fisherman (4 of whom were without licenses and/or fishing w/multiple hook and were cited). Nearly all of these people took their limit of 5 rainbow" (quoted in Stirling 1982: 6).

[163] As Behnke observed at the time,

> "People from other communities in the Bristol Bay area, as well as from Anchorage and other Alaskan communities, come to the central Alaska Peninsula to fish and hunt, some of these are people who primarily desire caribou or moose meat, including those from distant Bristol Bay villages who charter aircraft to the area in order to take caribou. Others are primarily interested in recreation or in obtaining trophies…Before the early 1970's, most non-local hunting was done by guided non-residents, but since that time increasing human populations in Alaska and competition for dwindling wildlife resources near urban centers in the state have drawn hunters to the Alaska Peninsula. This area is the most accessible of the better moose, caribou, and brown bear hunting areas in the state" (Behnke 1978: 130-31).

[164] Speaking of the Enchanted Lake Lodge, Norris noted that

> "As early as 1974, lodge guests took part in flights to nearby fishing holes. Due to Seiler's expertise guests were, in effect, able to follow the concentrations of sport fish during the summer. Lodge guests typically flew to such locations as Brooks Camp, American Creek, Alagnak River, Moraine and Funnel creeks, Idavain Creek, and Kulik River" (Norris 1992).

[165] Likewise, the first Alagnak River Management Plan noted that, the early 1980s, a growing number of hunters targeted moose along the River corridor in the fall by floating the River (NPS 1983: 17).

[166] Some Native Alaskan families have apparently been involved with these rafting operations. One participant in project meetings alluded to one such family:

> "I have a friend with a rafting business on the Alagnak River. They float the river, have a breakfast and overnight there. They land on a sand bar there, they dismantle their tents and fly back out. There's no more than 6 people at a time. They're very environmentally conscious" (Evanoff 2008).

[167] Katmai Research Project researchers provided a representative account from one interviewee:

> "He said, and this was confirmed by others, that the fishermen did affect activities and resources on the Branch River. The size of some of the outboard motors was considered way too big for the river. Once to King salmon arrive, that river gets very crowded with skiffs and fishermen" (Katmai Research Project 1997: 4).

A number of interviewees from other research projects have provided similar accounts, suggesting that Alaska Native use of the river has changed in response to the growing number of visitors. For example, George Setuk recalled of the Alagnak River that

> "[now it's all] sports fishing. Sports fishing boys, not…like before...when we were younger we used to go like to Branch River. We used to enjoy going to Branch River. We used to go to the village. We used to go up river and go fishing. We used to go picnicking or whatever…now [there is a lot of non-resident] camping. And now you go over there and there's just people and tourists and lodges and everything all over. And it's not the same…Not the same. There's just a big influx of tourists" (Setuk in Charley and Setuk 1998).

Indeed, during the review of ethnographic notes, transcripts, and recordings from past studies, as well as in the recent meetings held as part of this project, only one individual suggested that non-resident visitors were not having tangible impacts on Alaska Native uses of the Alagnak, and this individual apparently did not, himself, use the Alagnak for resource procurement:

> "[This interviewee] said that the Branch is getting crowded and it is very different from when he left. He said the amount of people is the difference and that he did not think it was changing peoples' use of the areas. [He] is not a harvester in any way so it does not affect him" (Katmai Research Project 1997: 17).

[168] George Setuk, for example, noted that the amount of attention that the Alagnak gets from tourists is a double-edged sword:

> "[It] really limits what we always enjoyed. But it, y'know, on the other hand, maybe it's good that it is a park because then there's more protection for our part. But then we don't get to utilize it like we used to" (Setuk in Charley and Setuk 1998).

[169] Speaking of the lodge employees, John Tallekpalek reported that "they don't bother us… we put up fish. And if we need something, they give it to us" (J. Tallekpalek in Tallekpalek and Tallekpalek 1998). Another interviewee reported that "the guides give them food and help them out at their fish camp on the Branch" (Katmai Research Project 1997: 9).

[170] As noted in the Katmai Research Project,

> "He said one of the biggest local changes since his youth has been on the Alagnak River and the Wild and Scenic River designation. He said the promotion of this really affects the lifestyle of locals. He didn't know when it came into being but he was quick to say that no one asked the locals if they wanted it to be that way" (Katmai Research Project 1997: 14).

[171] Curran (2003: 1) concludes that

> "this increase in erosion rates has not altered the mechanisms of channel change, which in the past 50 years have included complex, compound channel changes and meander migration" (Curran 2003: 1).

[172] As George Wilson, Jr. notes, erosion was a large problem,

> "especially when [the prior owner] was running the Katmai Lodge over there. He had a whole lot of real big boats. I'm sure that he sped up the erosion process. I understand that all rivers change regardless of who's using it, but that definitely made an impact" (GE).

[173] Interviewees for past projects have described an history of collaboration with the National Park Service to remedy the issue over the years since this original Management Plan was developed:

> "One important (political) issue was in regard to land ownership and issues of trespass and vandalism along the Branch River. One corporation official told me he was trying to work with the National Park Service to develop a program in which users of the Wild and Scenic River corridor were informed of land ownership patterns and status before they embark upon their trips…[One Alaska Native advisor] said they were trying to work with the Park Service on the issue of informing users of that river on the land status. He said that is a way they can work on solving problems of trespass, vandalism, etc. He said they have an enforcement officer for lands over there but it is difficult because people do not listen and want proof when he stops them and tries to keep them from using private lands. He said that the enforcement officer needs a camera and a map to carry with him. He also said these people and outfitters need to be informed prior to their trips. He said people camp wherever they please" (Katmai Research Project 1997: 7-8, 10).

[174] Non-Native residents from the Alaska Peninsula are often accustomed to trespassing on Native allotments after years of repeat visits to the Alagnak. As George Wilson, Jr. notes,

> "I've told them before that this is private property. But they're accustomed [to] doing it for quite a few years, and just kind of like a given. But if I have to go down there and use any of *their* lands, I have to pay!" (GE).

[175] Howard Nelson noted,

> "Their interests over there are strictly for themselves, because there was actually a Lake and Penn school deal that they had at the lodges over there, and the guides took these teachers downstream and gave them a tour of the village church and charged them people 35 dollars a head to trespass on the Corporate, private property up into the church and take pictures and bring them back to the skiff! This is documented from the teachers in the Lake and Penn school district" (HN)!

[176] During her visit to the site in 1997, Michele Morseth reported seeing freshly trampled vegetation, fire pits and toilet paper on the allotment, while the borders had been marked with three "no trespassing" signs (Morseth 2000).

[177] Participants in prior studies have also referred to thefts being a problem in cabins along the Alagnak. The Katmai Research Project quoted individuals who had personal experiences with theft:

> "He said he used to leave the door open to his house but cannot do so anymore, saying you have to lock everything. [He] said it is bad in the village but it is worse over on the Branch were theft is real bad as cabins are always broken into. He said that people cabins are being vandalized and broken into more and more each year as the river gets busier. [He learned of a cabin where] someone over there stole a 100 gallon container of propane and two chain saws. He said that was just the most recent occurrence. He said a lot of the theft is also due to young people from the villages who he described as "lost"….[He] said locks don't even stop people over on the Branch and it is often better to leave things unlocked and take everything home when you leave" (Katmai Research Project 1997: 19).

[178] While the vast majority of the impacts are said to be from recreational visitors, river users note that the respect shown to cabins and allotments by Alaska Native youth has declined in recent years too, so that theft by locals is a growing concern. As Peter Apokedak notes,

> "even our *own people* got to be like that! So it's not [just] outside people doing it, too. But our own people starting to vandalize your cabin… Years ago…the whole property is *yours*…nobody *touches* it! ...they had stuff down the beach…we don't touch it! Charlie Wilson had drum of gas *all winter* down there!…nobody touch it! They want something, they *ask!* Lot of times, you [say] "Sure! I got…*big* pile down there." Now they *steal* it!" (PA).

[179] In a 1995 meeting, former Katmai Superintendent, Bill Pierce, also identified an increase in human waste along the riverbanks as a major problem emanating from increased visitation of Alagnak Wild River (Katmai Research Project 1997).

[180] Interviewees speaking with Michele Morseth in the late 1990s made similar comments: "Allotment owners talk about the trash and toilet paper and vandalism and the disrespect of people using private land without asking" (Morseth 1998).

[181] As Joe Woods notes,

> "one thing nice about it in the fall time, was you go over there when the tides are out and go *shopping!* You know, pick up all the hooks they leave on and their snags and stuff. Yeah. I had people stop by, and [say] "What you looking for?" I says, "I'm going shopping!" "What you shopping for?" "Hooks." I come out with four or five *tackle* box full of king salmon hooks, and pixies…I mean, *every hook* you can *think* of" (JW).

[182] During the Katmai Research Project of the 1990s, a number of interviewees expressed the view that "the place is being overrun" (Katmai Research Project 1997).

[183] Patrick Patterson, Jr. elaborated considerably on his negative feelings towards park and refuge designation:

> "I don't like refuges, I don't like parks…I think they're the biggest waste of land. The animals don't use them!...They take up too much land and they put it aside. Nobody's going to go and use it. Nobody's going to look at it...They do not care about the land at all. They just want bears… Because they're taking all this land. Anything with a tree on it and high ground belongs to the park system or the refuges. Then they don't want you in there! They literally don't want you in there!" (PJ).

[184] Morseth (2000) reported that a common response to her initial inquiries from potential interviewees was "I don't go up the Branch anymore, there's too many people up there."

[185] For reasons of crowding, access, and the historical relocation of upriver villagers to the Alagnak mouth, many interviewees observe that "We spent most of our time on the lower end [of the river]" (PJ).

[186] As one Katmai Research Project consultant noted on this point, "It's evident to me [that the guided fishing] industry is not going to police themselves, we're going to have to impose restrictions on use" (Katmai Research Project 1997).

[187] This has been a recurring theme in studies of the Alagnak. One interviewee for the Katmai Research Project, for example, told researchers for that project noted that "there are only four lodges down there but the number of boats they have is astounding, one lodge alone has close to twenty boats" (Katmai Research Project 1997: 14).

[188] The issue of boat motor size receives frequent mention among interviewees – both in this research and the projects that have preceded it. At the onset of research on non-resident visitors' impacts on the Alagnak, Morseth (1998) summarized the perception of boat traffic that she encountered in the mid- to late-1990s:

> "[Interviewees suggest that] the boat engines have gotten bigger and bigger over the years and people are concerned that it impacts the fish, the river banks and creates too much noise on the river…the constant use of many boats is what people object to—it is seen as scaring the fish, scaring the moose and just creating a highway on the river" (Morseth 1998).

[189] For example, when asked to discuss any changes he had seen over the years on the Alagnak, Mike Andrew noted

> "More fisherman. That's a change, there's lots of little boats. Like when we travel to our cabin from here to Alagnak, come to lots of little boats. And we have to slow down, some time, 'cause they fish right in the channel where we go.

> Alagnak, the channel, some places is narrow, about five, six feet, sometimes. And you don't wanna go on the gravel. And they kind of wave us off. When they wave me, I stop. I tell them, "I can't go in this gravel with my prop. 'Cause they're expensive." And I tell them to reel their hook so let me go by. They take my word. Sometime they pick their hook and raise, let me go by" (M. Andrew in Andrew and Andrew 1995).

Likewise, Dallia Andrew noted that there were significant challenges from navigating both the boats and the fishing lines in the main channel, which sometimes appears to result in direct conflicts between Native and non-resident river users:

> "There's a lot of sport fishermen, all over this river and Alagnak River. Some time you have hard time to go by so many, the lines. We don't wanna hit our prop in the shallow water. They tell us to not a go that way, but we know the channel. Even they tell us we run over their line, our prop's more expensive than, so we just run 'em over their line. Especially when they're out boat fishing. There's a lot of them down Alagnak River" (D. Andrew in Andrew and Andrew 1995).

[190] On this theme, the Katmai Research Project notes,

> "The use area for subsistence resources by the residents of Levelock seemed to cover the entire Kvichak and Branch River drainages and a good many of their tributaries, including the lakes that form the headwaters of the Branch River. The primary means of travel for most community residents during ice-free times is by water, and waterways serve as primary activity corridors. For this reason, the residents of Levelock are very affected by the water-oriented sport and tourism activity in the area" (Katmai Research Project 1997: 8).

[191] Similarly, Alex Tallekpallek has noted,

> "these camps they got here, they catch 'em, what do you do? Hold 'em and let 'em go. And you see a lot of them just drown dead. They were like in Branch River. We used to catch all kinds of fish over there. Trout, rainbows, y'know, steelhead. Now we can't. You're lucky if you get one. Takes you hours and hours to catch, to get anything. Branch River and up the river here used to be good. Now, not anymore…You see lots of trouts, they got them big scars there, some are torn, mouth. And they're dead, some of them, just barely moving" (A. Tallekpalek 1998).

[192] Similarly, Alex Tallekpalek has suggested,

> "[You see people] out there catching the big fish, look at 'em… take picture and then let 'em go. And, uh, pretty soon you see them drifting down the bay, down the river, half dead! Them days, long time ago we never had no problems like that, y'know. People used to catch fish, they divide it. Have to get so many divide to the people. Let the people have what they want. They only need that much" (A. Tallekpalek 1998).

[193] During her fieldwork in the late 1990s and 2000, Michele Morseth also found that a number of the Alagnak River users with whom she spoke addressed this relatively intangible concept of "disrespect" for the fish:

> "Many residents of the villages along the Kvichak are in their 50s to 70s [in 1998] grew up along the river in reindeer camps and seasonal family camps, and went to the [Russian Orthodox] church at Big Mountain and along the Branch river. These people continue to live by traditional beliefs about the way wild animals are to be treated, how and when to harvest them, and how the unused remains of these animals should be cared for and returned to their domain. For them the fishermen are not only physically displacing the locals, they are also treating the fish with disrespect—behaving in a barbaric, inappropriate way. Fish with mouth scars, eyes poked out, and other disfigurements are a painful sign of the threat to the relationship between people and the fish, between people and the natural environment that has been cared for, for many generations" (Morseth 1998).

These observations are consistent with those recorded by participants in the Katmai Research Project:

> "The population of Igiugig includes a number of residents in their 50's and 60's who grew up in reindeer camps and small family units along the Branch River and the Kukaklek Lake area. These people tend to hold onto traditional values regarding how wild animals should be treated, how and when to harvest and how the remains of these animals should be cared for once they have been killed" (Katmai Research Project 1997: 7-8).

[194] In studies on adjacent drainages, potential development along the waterfront, especially in spawning areas, has been identified as a greater threat to salmon populations than recreational or subsistence uses (Young 2005). The precise applicability of this research to the Alagnak case remains unclear. Any declines in the salmon population are problematic, some meeting participants noted, not only because of the short-term consequences, but also because it indicates that the overall health of the area might be declining. In this assertion, these individuals are consistent with the general finding that anadromous fish serve as "keystone species" in riverine environments (Willson and Halupka 1995).

[195] Speaking in 1998, Carvel Zimin noted,

> "you go up there now and there's spots on the river, you could drift that river, it used to be hot fishing, the fish are gone. And the sports fishermen are blaming it all on the commercial fishermen… "so-and-so Natives, they got a fish camp here and they're taking all the fish." [No.] It was the sports operations that killed it off" (Zimin 1998).

[196] As George Wilson, Jr. notes of these fluctuations,

> "The biggest changes I think I've seen are the stock. That's down a lot. A whole bunch. The biggest effects that I think is important… the salmon is doing quite well on the chums and things that. The kings the last year, whatever reason didn't show up. It's another concern" (GE).

[197] For example, Katmai Research Project participants reported,

> "talk about the jet boats with the big engines and how they travel in very shallow water, disrupting the spawning beds of the king and silver salmon. [One interviewee] said that they were a big reason for decreases in the number of fish" (Katmai Research Project 1997: 13).

[198] Speaking in 1995, former Katmai Superintendent, Bill Pierce, noted that the NPS had received "a lot of comments about a decline in the fishery, although we have no documented evidence of that" (Katmai Research Project 1997). In response to concerns expressed by residents, though, the NPS expanded their dialogue with the State of Alaska and commercial fishing guides regarding possible impacts on the fishery.

[199] Such instances appear in notes associated with the 1997 Katmai Research Project:

> "He also told me of an instance a few years back when some sport fishermen pulled up his net and put it on the beach. He confronted them and they complained to him that he was taking all the fish. He talked of how they didn't understand that those were the fish that would feed him over the winter, and until next year's fish" (Katmai Research Project 1997: 13).

[200] Speaking of the experiences of one interviewee, Katmai Research Project participants found that:

> "They have enough opportunity to get the fish they want to use. The main issue is the amount of traffic on the river, which is due to all of the lodges, but otherwise sport hunting and fishing don't impact her in putting up fish. It does limit their fishing for trout, because they have to go up river. She likes to go to Yellow Creek, but there are a lot of people around there now. There is good trout fishing not very far up the river, however, and she goes up with other people once in a while. She doesn't usually go onto the Branch River until fall time because of the activity there" (Katmai Research Project 1997: 11).

Similarly, Ella Charley suggested that the families of villages like Levelock and Igiugig could not use the same portions of the river that they had historically used and that subsistence activities had been pushed upriver to avoid certain areas with the heaviest non-resident use:

> "Can't do that now... You can't. No more. Unless you wanna go way up...up to the forks. That's where we used to go. Um, right where they took, Branch River forks…Good hunting up there. Good fishing" (Charley in Charley and Setuk 1998).

[201] As Patrick Patterson, Jr. noted, this started many years ago with military personnel hunting near the edge of these settlements:

> "King Salmon Creek was so overhunted by military—see, *they* had the right to hunt just like we did. And they let them! I asked them about what they did with the meat. "Oh, we take care of it." I said, "Can I see your facility where you do the kill,"and they would never show me. But they said they have a right to kill a moose if they've got a license, and well, actually, they got a free license! And caribou. They'd get 5 caribou a day" (PJ)!

[202] As noted in the Katmai Research Project,

> "Levelock people are seeing more and more people from the Naknek area out hunting on their corporation lands. There is no trespass officer that time of year. It is mainly people over on Branch River coming up from Naknek; outsiders (from Anchorage and elsewhere) do not have that much access to that area during moose season" (Katmai Research Project 1997: 7).

[203] Some individuals suggest that there is a significant qualitative difference between the visitors who spend time in the area and those hunters who fly in and out of the area for brief forays: "The tourists are nice; it's the hunters flying in and out [who are the problem]" (Evanoff 2008).

[204] As Ella Mae Charley noted,

> "We used to go up camping and we'd all drift down and get moose or, fall time, y'know. You can't do that no more. They pretty much run the animals out. You know. In the fall time it's pretty rare to get a moose over there now. Unless you go way upriver…Yeah, there's so many boats and jet boats and everything runnin' around over there, y'know. During the summer. It's not funny, and even in the fall" (Charley in Charley and Setuk 1998).

[205] There is much evidence to suggest that moose were already on the decline on the Alaska Peninsula prior to the designation of Alagnak Wild River:

> "This decline is believed to be related to habitat deficiencies, particularly scarcity of critical browse in winter months, which weakens moose, and may result in poor calf survival. Predation by wolf and brown bear are believed to have additional impacts on calf survival. Hunting and natural mortality have further reduced the adult populations" (Behnke 1978:126-127).

[206] In the 1970s, Behnke found that:

> "Most local people are highly critical of "head" hunting and those who take moose, caribou, ducks, or fish and throw much of it away later because it was improperly taken care of or stayed in the freezer too long" (Behnke 1978: 163).

Similarly, interviewees of the late 1990s reported seeing such practices along the Alagnak River and reported these as being objectionable. Alex Tallekpalek, for example, recalled,

> "Hunting. Used to be good. In Branch River there used to be good hunting over there. Moose. In the winter time, ever since, uh, you get anything you want in no time. But now since the hunters start coming in, they come down, the rafters, they catch moose. What they do? Cut the heads off, leave the meat… All they take is the head and horns. That's where the meat is. [Someday], oh, sometime the old people, people when they travel they'll see the carcass there, there meat, no head, just meat laying right on the ground. Y'know. A lot of people, they didn't like that, y'know. When the hunters coming and they kill 'em and just leave 'em. Why don't they kill 'em and bring the meat to the people? Let them have the, all that what they caught instead of letting it spoil out there [and letting] the bears eat 'em" (A. Tallekpalek 1998).

Likewise, Ella Charley reported seeing caribou killed for their antlers and the rest of the body left floating the Alagnak River:

> "All they did was take off the horns. That caribou was just drifting down the river. The whole caribou" (Charley in Charley and Setuk 1998).

[207] Interviewees also noted some vegetation impacts in the region from ATVs, though not along the Alagnak. Violet Wilson talks about the negative effects of ORV's on the berry patches: "those 4-wheelers and 3-wheelers, they wreck the berry country! I've seen it up in Levelock, it's terrible! Tracks all over, where they've been running around, and Levelock used to be a super place for berries!" (VW).

[208] The impacts of visitation on vegetation have also been documented by non-Native researchers traveling the river corridor. Curran noted that "There are no developed foot trails along the Alagnak Wild River corridor, although bears and anglers form informal paths along much of the river" (Curran 2003: 4). Likewise, on the topic of vegetation impacts, Morseth reported that

> "The river could use some documentation on just how much people are hammering vegetation. Judging from the NPS site, trails and bare spots develop quite quickly. Bears…seem to have had the greatest obvious impact on vegetation as seen from the river and they have made trails up banks and in the forest. Once one gets off the river the vegetation destruction by people becomes more apparent…It looks like campers are the biggest offenders but other areas have developed trails—maybe originally from wildlife" (Morseth 2000).

[209] As noted in the Katmai Research Project,

> They talked of having tundra fires once in a while and said they are caused by lightning or by the carelessness of rafters or sport hunters or fishers. He said they leave fires going and don't always watch them or put them out when they leave. They said on the Branch they have put out more than one fire they have found unattended. They also said there is an island in the river down there that was completely burned a few years back" (Katmai Research Project 1997: 13).

[210] Speaking of the elders of earlier generations, Mary Tallekpalek recalled,

> "they…was scared to walk, [on the banks] too far… in springtime. Brown bear, too many, Branch River, when you walk around" (M. Tallekpalek in Tallekpalek and Tallekpalek 1998).

[211] Speaking of one old village on the river, Mary Olympic recalled,

> "Boy, I really don't like that place. There's just…too many trees, you know, too many bushes, and too many mosquitoes. Bushes in these places I don't like. [When I was young] I tell my mom, "Gee, we should not move [here]. We should go back to Kukaklek. Good place"… we had fun alright. But I just, really don't like too many bushes. Can't see no farther. And lots of mosquito, too" (Olympic 1995).

[212] Threats associated with brown bears along the Alagnak River have been widely documented within literatures addressing the Wild River corridor (see, e.g., Olson et al. 1990; Braaten and Gilbert 1987). The National Park Service has been aware of the increased potential for human-bear encounters as visitation has risen along the Alagnak; indeed, "human/bear conflicts" have emerged as one of the major concerns discussed by park staff and superintendents when discussing the impacts of increased visitation along Alagnak Wild River (e.g., Katmai Research Project 1997).

[213] Steve Nowatak alludes to an island somewhere in the area where seagulls were once abundant but are now scarce:

> "There's an island, we call the "Grassy Island" up here. They said that place used to be just full of seagulls! Nowadays barely any. I guess time changes" (SN).

[214] This is said to be a growing concern in nearby villages on the Kvichak and Naknek Basins as well. As Peter Apokedak notes,

> "they're gettin' to be around here, too! They seen so many people now [in the] past twenty years…years ago, when we see them or [they] hear you they're gone! Well, growing up up there nothing ventured close…close to the camp… There's always noise - dog barking, or somebody pounding something… they even come around to the village! You got to watch out at night!" (PA).

[215] One Katmai Research Project interview recounted his family's experiences:

> "He said a big change on that river during his life time is the dramatic increase in the number of brown bears along the river. [Another interviewee] said that you now must always worry about protecting yourself. When they travel up the river they no longer make a camp on the shore but instead sleep in their skiff as they are worried about bears" (Katmai Research Project 1997: 13).

[216] For example, interviewees from the Katmai Research Project indicated that

> "Sports fishermen apparently do not adversely affect the immediate village according to one resident. He said, and this was confirmed by others, that the

fishermen did affect activities and resources on the Branch River" (Katmai Research Project 1997: 9).

"the sports fishing guys don't effect Levelock at all; they are never around. But they are thick on the Branch. He said the season is June, July and August and then the lodges close in September" (Katmai Research Project 1997: 9).

[217] As Howard Nelson noted on this point, Non-Native guides use the Branch Village church – sitting on private Native allotments - as a tour destination for visitors: "That's kind of like a private place. It's almost like someone invading your home with a camera…You go into a lot of these places where they have real old artifacts, pictures, portraits of anything" (HN).

[218] Clearly, increased non-resident visitation is not the only factor that has contributed to a decline in the use of the Alagnak River during certain times and in certain capacities. Broader changes in the patterns of land and resource use among these Alaska Native communities must be factored into any discussion of changing land use on the Alagnak specifically,

"Years ago they used the area [Alagnak River], this area was in use, it was a good trapping area. Now the elders are all gone, nobody took over and is doing that now. The buildings down there are all falling down and eroding. We still use Branch River for subsistence but not like in the 60's. Back then fur was in demand. Now, the old folks are gone. And we're slowing down on bear meat" (quoted in Evanoff 2008).

Violet Wilson spoke in particular depth about these trends:

"I don't think there's [hardly any fish camps] left anymore on the Branch River. Not that I know of. But way back then, everybody had their smokehouses and everything. Even back up until the 1986-1988, there were still local people putting up fish in the Branch River. I don't think any of the local people go over there to put up fish anymore…That whole area has changed. Because the elders passed away and the younger generation is there, they are different. Seem like to me they really don't get too involved with subsistence living. I don't know what made the change, I think, because with so much welfare and everything it's easier for them to go out and buy produce and stuff, so they really don't depend on subsistence foods anymore like we used to… Many years ago, we had to go hunting and fishing because there weren't stores around. We had our staples but we had to get our protein by hunting and fishing. This whole generation has changed…We always lived a subsistence way of life, we still do. Gosh, I feel sorry for people that don't have Native foods like we do. It's expensive, like here, in Anchorage, I hate to go to the store and buy meat especially, prices are horrible…compared to what was *then*, and *now*…there isn't that many people that lived *out* [on the land] like they used to" (VW).

[219] Joe Woods, a longtime Trespass Officer on the Alagnak, reports

> "we don't see very many residents till after the commercial season. After the fishing season. That's when I start warning the outside operators to stay off the shortcuts!...I said, "Because the residents are back, they're going to be taking all the shortcuts they can take!" (JW).

[220] Katmai Research Project researchers also found that successful hunting required longer stays for those who still visit the river, and noted that this facilitated the shifting of many hunters to off-river sites:

> "Lengthy harvesting trips can also be attributed to the intensive use the region receives from sport users. I was told several times that the number of sport users in the area have made it far more difficult for residents to get a moose and that it often takes several days. The increase in sport pressure along the Branch River has caused many people to start using other areas for moose hunting. The areas to which there seems to be shift in use include Yellow Creek and Ben Courtney Creek" (Katmai Research Project 1997: 7-8).

[221] Similarly, as Katmai Research Project researchers reported of one interviewee,

> "He said most of the sport hunters are fly-ins, but more and more of them are starting to be locally based. He said it is starting to be a real problem. He said that this is one of the reasons that he is now starting to avoid the Branch. Because there are so many sport users over there he says that is where Fish and Game is. He said it is the proper season but he also stays away just to avoid contact with Fish and Game. He said that Yellow Creek and Ben Courtney Creek are good places to go [instead]" (Katmai Research Project 1997: 16).

[222] As Howard Nelson recalls of places like Yellow Cree:

> "Mostly, we go up there to fish, I guess, because, you know, there it's almost too far to even want to hunt. Anything further than fifty yards from the boat is. You know, when you get up into that part of the country, you know, everything is way back" (HN).

[223] Michele Morseth encountered similar sentiments some 15 years ago:

> "People today express that they no longer feel that it is their area…the river is often crowded with people—their allotments might be occupied by campers—or their cabins vandalized when they come up river" (Morseth 1998).

So too, the Katmai Research Project reported,

> "The increase in the number of sport fishermen in the region also is changing the habits and attitudes of those people who use the Branch River area. The sentiment was expressed to me that residents no longer feel as if it is "their area", a feeling I can describe as psychological displacement from a familiar and commonly used place" (Katmai Research Project 1997: 2).

[224] For example, Patrick Patterson, Jr. reports that he no longer uses the Branch River like he did when he was younger:

> "I'm getting to where I don't [use the Alagnak River] either...When I was younger, I was gone! I missed many a birthdays of my wife's and heard about it later! Anniversary dates...But like I said, though, there's just [too many] people" (PJ).

[225] Katmai Research Project researchers reported,

> "The use of this river corridor by sport and tourism activities is an important issue to many village residents since many private allotments are located there. Sport users have increased dramatically in that area and it has caused concern as individuals are beginning to become psychologically and physically displaced" (Katmai Research Project 1997: 7-8).

[226] As Teddy Malagnak notes,

> "we can't make no fire no place or even on the beach. You make coffee, you use a Coleman stove…No campfire. They are really strict on that one. Park ranger around there, they keep an eye on that one. In case of fire, you know? Dangerous" (TM).

[227] For example, Mike Andrew recalls,

> "when first Fish and Game I see [on] that Alagnak River. And I didn't know what Fish and Game [was]. But I talked with him for three, four hours. Then he try to check on the sled what we had, you know. See what we caught. I tell him, we didn't caught anything. I tell him, if we caught something, we'll show you what we caught" (M. Andrew in Andrew and Andrew 1995).

Other interviewees and meeting participants have shared similar recollections: "One time I was fishing and the Park service told me what to catch and not to catch. I don't like that" (Evanoff 2008). Some, especially Dan Salmon, suggested that members of the community were often not aware of new NPS acquisitions or regulations pertaining to NPS-managed lands; this led to animosity when enforcement programs became established. Some residents, especially, in

Naknek, were vocally critical of the National Park Service more generally, due to past conflicts over such issues as boundary expansion and access to natural resources within park boundaries. Some expressed the view that they have little rapport with the NPS, and yet a rapport is needed if the two entities are going to help insure the long-term health of Alagnak Wild River.

[228] As Joe Woods notes,

> "I was there when they closed it down …for sports fishing? And commercial fishing? …it was [in the late 1990s]…the Kvichak wasn't getting no fish. But I stood on that bank, on the Branch for…5 days, and watch salmon go up, steady!... Not in the Kvichak, but boy, Branch River sure loaded up! It made the lodges mad, because I was the only one being able to subsistence [fish]…I was able to keep my nets in order. I'd keep trying to *call* up Fish and Game, tell them, "Man!" I says, "You need somebody *up* here. There's fish going by here like…you wouldn't believe!" (JW).

[229] Similarly, George Setuk recalls:

> "Well, I first help with the Kvichak Lodge. Hauling in lumber for them guys [in] '61 or '62. That, first, see I remember them, back then. 'Cause I helped them haul the lumber up there. Starting in Iliamna, first. And these guys didn't come in 'til later, y'know. Then they started in on the Branch River [in the 1970s]… We didn't have, didn't have any over there until the late, early '70's, probably. Then they start coming up" (Setuk in Charley and Setuk 1998).

[230] As George Setuk notes of the employment effects of the lodges,

> "Not, not a big influx. Only thing that I've seen...is, maybe because of the lodge we have to send people over…our trespass officers in the summertime…they send up people from here for trespass officers, for people trespassing on our property over there. It doesn't, it does not employ any local people. None of 'em. Upriver or Branch River. It just doesn't happen" (Setuk in Charley and Setuk 1998).

[231] Interviewees from the Katmai Research Project made similar observations:

> "Employment with the sports fishing lodges is not very attractive for most residents. Hours are long and guides are only paid minimal wages. Some villagers felt that it was fine to hire college-age kids who were willing to work for next to nothing. They said the outside guides learn a good fishing hole or two and that keeps the clients happy" (Katmai Research Project 1997: 4).

"He said the staff at the lodges are paid minimum wage or lower and people around here don't want to work for that" (Katmai Research Project 1997: 8).

[232] Comments on this potential were recorded in the course of the Katmai Research Project:

> "There were also ongoing discussions concerning Native allotments. Numerous opportunities to lease allotments for commercial recreational activities seem to be available, particularly for land located on the Branch River corridor" (Katmai Research Project 1997: 3).
>
> "Levelock Natives Limited is very involved in the sport fishing industry through leasing land on the Branch River to lodges. Not many people work directly in the industry but individuals do lease private allotments" (Katmai Research Project 1997: 7).

[233] Morseth found among Alaska Native interviewees of the late 1990s, "there is a loud and clear message out there though that nobody likes the way [certain lodges] brought more and ever more people to the river" (Morseth 2000). Morseth (1998) notes that the smaller operators who predated the large lodge operations were sometimes "nostalgic" for the relative quiet and abundance of the river of earlier years.

[234] Interviewees mentioned various specific examples of this. Peter Apokedak speaks of "Alma Peterson's old place [at *Iquaq*]. She sold it, I guess, to No-See-Um Lodge" (PA). Vera Angasan's family sold some of their land but retained other lands to use in the area: "They bought the old lady's land from there [by the Branch River], and they gave us a piece and move it up there somewhere. We go up there, once in a while" (VA).

[235] Certain interviewees for past studies find this trend troubling too:

> "[One interviewee] said all allotments on this river are key and have potential for tourism. He said their value will only increase into the future, he hopes there are no more local sales. Yet he talked about electricity, sewer, water, telephone, technologies, all these new things take cash and Natives want the ease and comfort of them. These things require people to have wage employment or sell some of what they have which is land" (Katmai Research Project 1997: 14).

[236] Morseth depicted the leasing of these lands as a problem within the communities: "Land around the lake is leased to one of the lodges [which has been a] contentious issue" (Morseth 2000). Recent comments from Igiugig residents suggest that this is not generally the case today.

[237] For example, Mike Andrew recalled,

> "They have a cabin right the mouth of Nonvianuk on east side. Then I went there, to that cabin. They were there and I went up there. Before, we used to travel with the little boat…Before, there was no cabin there. No Park Service. And even the camps, there was no cabin open, only one log cabin. Then when I come, too, a year after, we see cabin. 'Cause I wanted to see that cabin… who owns it. Then there were two people come over. I didn't know they was that two Park Service people there. And I asked them, "Whose cabin over there? I never see that cabin before. I come here several time, but every year I come there was no cabin."… So he told me, he said, "Park Service, they're the ones staying there. They build it." Kinda look over their land, the park, you know. And I start talking to them. "Someday I'll come by here, you guys not around." He said, "We welcome you stop in the cabin if it's open, if we don't lock it." And Park Service, them two guys, said, "We don't lock the cabin. We leave it open for people that come by." I told them "Some time we have emergency, wet, 'cause we travel. Some time we don't have a cabin." So I agree with them, I thank them when they told me they don't lock it. We welcome to stop there if we have to get away from the weather, when we, when you're travelling, you know, 'cause when you have no camp, [He told us to] stay there. I agree with them. It was nice. So when we have a lot of food, if you got food in the cabin, say we're welcome to eat what we could survive with when we travel. So I agree with them right there" (M. Andrew in Andrew and Andrew 1995; see also Andrew and Andrew 2000).

[238] Pebble Mine was mentioned frequently by interviewees, most of whom opposed the proposed large mine. Violet Wilson's views are representative: "I don't want the Pebble Mine, no way. I have commercial fished for 51 years, that is how I raised my kids so I am deadly against Pebble Mine" (VW).

[239] Howard Nelson discusses how the Park Service has been receptive to tribal input in the past:

> "I think that watershed plan was done in 2005, and then I'd written that documentary letter thing to Park Service about 2004. I brought back everything from that Park Service meeting, but it was like years ago…that head guy from Washington was even there…we had a round-table deal with that after, and we made copies and gave them out to everybody, and we had a discussion on it, and… they told me they were going [to] take this back and see if they couldn't implement anything that was in the documentary of that watershed plan that we developed to kind of integrate it into the protections of the Alagnak and Kvichak…I was doing some research on the Kvichak River, and in that I did find the Levelock watershed plan, and everything that we had done was in there" (HN).

[240] As Martha Johnson notes,

> "In the past there were not too many houses on the river when I was growing up and now I haven't been up there for many years except one year we went up there fishing with the fishing boat…It was all grown over where we used to stay" (MJ).

241 There has been some collaborative effort between villages and the National Park Service to address this issue in the past:

> "he said on the Branch it was awful. He said there is someone with a 300 hp motor who is flat out dangerous. He said most everyone else has 25 to 40 hp motors and they are just about blown out of the water. They are working with park service and the corporation to try and get a limit on allowable horse power on the river. He said it is crowded once the king season starts" (Katmai Research Project 1997: 8).

242 Still, it has also been clear that rafts and motorboats are a potentially hazardous combination - former Katmai Superintendent, Bill Pierce, identified "conflicts between motor boats and rafters" as a major problem emanating from increased visitation of Alagnak Wild River over a decade ago, and park efforts to minimize the conflicts has been ongoing (Katmai Research Project 1997).

243 As Morseth (2000) noted, "Surprisingly there are few really good campsites on the river" and most of the obvious choices have a long history of Native use, if not outright ownership as allotments. The attributes that make an area desirable as a campsite or a pickup site for visitors are often the same attributes that make an area desirable historically as a campsite or allotment site. These include a sandy or rocky beach that is suitable for boat landings, a level bank in a clearing with exposure to breezes that might clear insects, the presence of nearby fishing holes, and possibly the presence of nearby firewood. With visitors being drawn to attributes that define Alaska Native use areas, some level of trespass on Native allotments, cabin sites, and camp sites has presented a challenge since the beginnings of recreational use along the Alagnak.

244 As Patrick Patterson, Jr. notes,

> "I wouldn't have any big game, you know, very little. I'd cut back the sports hunter. They say [they] have just as equal rights as us, but I don't tend to believe that...I think if you make a park for people, or whatever it is, they should be allowed to use it. But I think they should limit it [visitors]…The only way to really get it to come back, you know, the fishing and stuff, is to have less users, less use" (PJ).

[245] Patrick Patterson, Sr. speaks of this matter:

> "They need more regulation up there more control to put a closer watch on these guys so they don't kill the moose and waste it. I don't remember ever seeing a Fish and Game floatplane up there at any time if Fish and Game could get more money they could probably do a better job. During the summer all their airplanes are busy on the commercial fishermen, and if they had more airplanes they could concentrate on the Branch River" (PP).