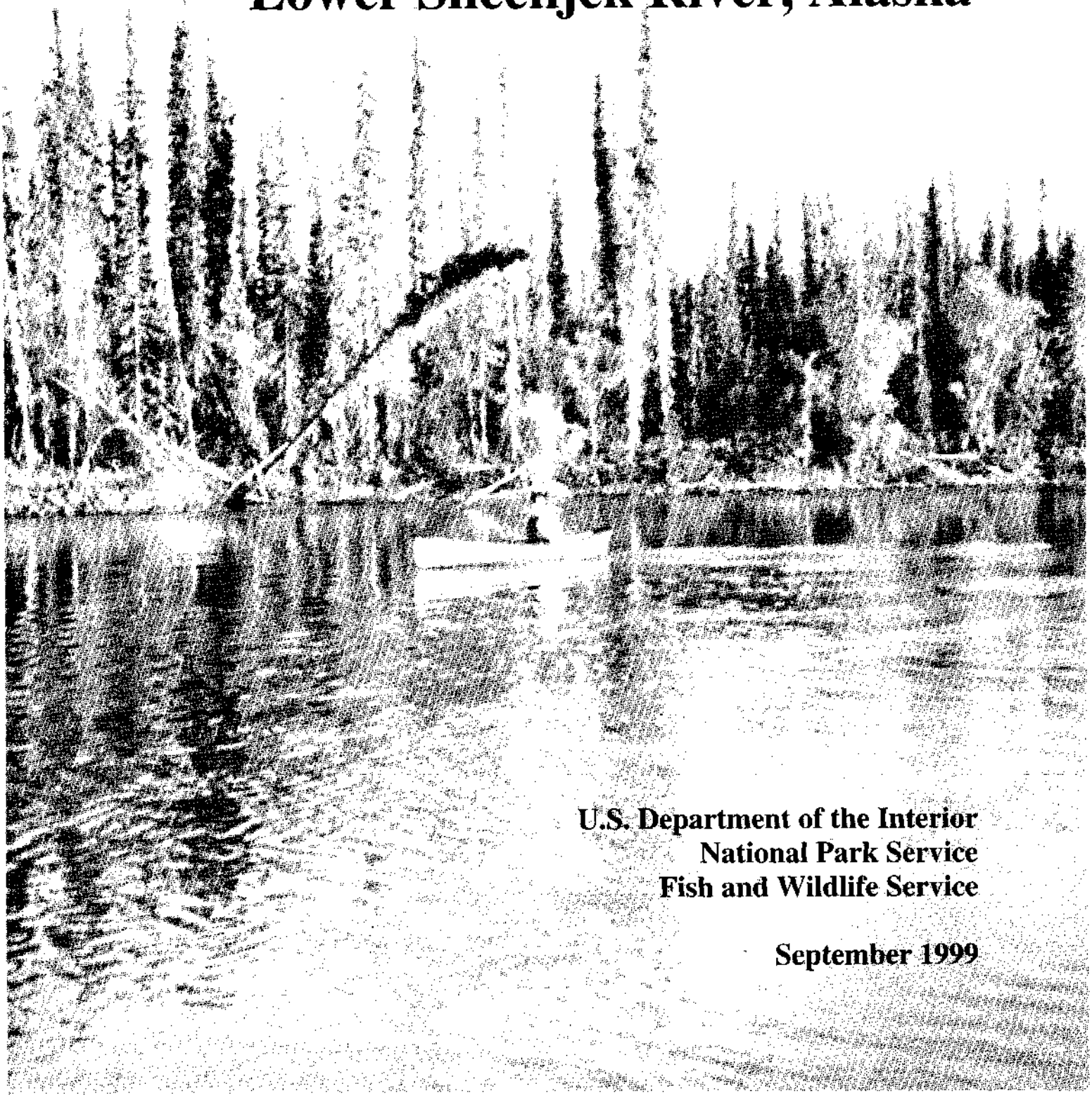
Final Wild and Scenic River Study and Legislative Environmental Impact Statement

Lower Sheenjek River, Alaska



U.S. Department of the Interior
National Park Service
Fish and Wildlife Service

September 1999

United States Department of the Interior

NATIONAL PARK SERVICE
2525 Gambell Street, Room 107
Anchorage, Alaska 99503-2892

IN REPLY REFER TO:

L32 (RTCA-Sheenjek)

OCT 20 1999

Dear Reviewer:

Enclosed for your information is the combined final Lower Sheenjek Wild and Scenic River Study and Legislative Environmental Impact Statement (final study/LEIS). The final study/LEIS was required by Section 5(a) of the Wild and Scenic Rivers Act as amended by Section 604 of the Alaska National Interest Lands Conservation Act. It evaluates the segment of the Sheenjek River from its mouth to the northern boundary of the Yukon Flats National Wildlife Refuge, a distance of about 99 river miles.

The final study/LEIS was done cooperatively by the US Fish and Wildlife Service and National Park Service, as the latter agency was delegated Wild and Scenic River study responsibility by the Secretary of the Interior. The study began in the early 1980's with a draft study/LEIS mailed out for public comment in the fall of 1984. It recommended designation of the study segment by Congress that was supported by the majority of comments received. Funding and administrative constraints, however, prevented completion of the Study/LEIS process.

The effort resumed in 1997, but the intervening time required updating the earlier work and additional public involvement to ensure that information was accurate and up-to-date. This final study/LEIS is the result of that work. It recommends designation of the study segment by Congress. The majority of written comments provided during the 1998 review supported designation of the Lower Sheenjek River (50 of 51 individuals and 10 of 15 organizations with two organizations providing only comments without any recommendations).

A record of decision for the final study/LEIS will be completed no sooner than 30 days from the above date.

If you have any questions, contact Study Leader Jack Mosby at 907-257-2650, or Yukon Flats National Wildlife Refuge Manager Ted Heuer at 1-800-531-0676 or 907-456-0440.

Sincerely,

Robert D. Barbee
Regional Director
National Park Service

David B. Allen
Regional Director
US Fish and Wildlife Service

Enclosure

Final Wild And Scenic River Study And Legislative Environmental Impact Statement Lower Sheenjek River, Alaska

Lead Agency
U.S. Department of the Interior, National Park Service

Cooperating Agency
U.S. Department of the Interior, Fish and Wildlife Service

Type of Action
Administrative ( ) Legislative (X)

Abstract
The Lower Sheenjek River has been studied for inclusion in the National Wild and Scenic River System. The report describes and evaluates two alternatives, including a proposed action (preferred alternative) that recommends Congressional designation of the Lower Sheenjek River within Yukon Flats National Wildlife Refuge. The Study/Legislative Environmental Impact Statement was required by Congress as part of Alaska National Interest Lands Conservation Act. An initial study was conducted from 1981-1985, but was not completed because of funding constraints. A Revised Draft Study/Legislative Environmental Impact Statement was released in September 1998 to update and replace the previous Draft Study/Legislative Environmental Impact Statement. This Final Study/Legislative Environmental Impact Statement was revised following December 1998 public meetings and written comments on the Draft Study/Legislative Environmental Impact Statement.

Contacts

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EXECUTIVE SUMMARY

Purpose and Need

Study of the Lower Sheenjek River for possible inclusion in the National Wild and Scenic Rivers System was authorized by Section 5 (a) of the Wild and Scenic Rivers Act as amended through Section 604 of the Alaska National Interest Lands Conservation Act of December 2, 1980 (PL 96-487). The proposed action (preferred alternative) is a recommendation that Congress designate the Lower Sheenjek River as a National Wild River. The purpose of this action is to preserve the free-flowing condition of the river and to protect the "outstandingly remarkable cultural (subsistence), wildlife, scenic, and recreational values" associated with the river, its water quality, and the adjacent lands. The need is to guide future land use decisions to protect those values in the river corridor.

Findings of the Wild and Scenic River Study

According to the Wild and Scenic Rivers Act, a river segment must be in a substantially "free-flowing condition" and it must possess "outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, or other similar values" to be eligible for inclusion in the National Wild and Scenic River System.

The Sheenjek River is a 277 mile-long free-flowing, unpolluted tributary of the Porcupine River. The study area includes the lower part of the river within the Yukon Flats National Wildlife Refuge and extends two miles outward from either bank; it is about 99 miles in length. The river outside the study area (within the Arctic National Wildlife Refuge) is already included in the National Wild and Scenic Rivers System. The entire study area is eligible and suitable for inclusion in the National Wild and Scenic Rivers System and meets the classification criteria as wild.

The study area has outstandingly remarkable cultural (subsistence), wildlife, scenic, and recreational values. The river and adjacent corridor have historically provided access to important resources used by local people for subsistence. The river area also provides habitat for waterfowl and other migratory birds, moose, black bear, grizzly bear, and beaver, and has appealing scenery that features a riverscape of thick forests, boggy meadows and flatlands, and expansive sand and gravel bars. Finally, it offers excellent boating waters and camping opportunities with good accessibility. Because the Upper Sheenjek River is already included in the National Wild and Scenic Rivers System, designation of the Lower Sheenjek River offers an excellent opportunity to protect an entire watershed in the region, with its diversity of biophysical settings.

Although there is little private land within the study area, there are several cabin sites used for hunting, trapping, and other activities. Except for six Native allotments totaling about 800 acres, all of the river area is federally owned.

Alternatives Considered

Alternative A: Under this alternative, the Lower Sheenjek River (within the Yukon Flats National Wildlife Refuge) would be recommended for addition to the National Wild and Scenic Rivers System for its outstandingly remarkable cultural (subsistence), wildlife, scenic, and recreational values. The segment

would be classified as wild, and management of all federal lands would be with the U.S. Fish and Wildlife Service. Management objectives would focus on keeping the area free from water resource development projects, minimizing the impact of recreational use on the rivers' outstandingly remarkable values, and generally maintaining the undeveloped character of the river corridor. Designation would likely provide additional protection and management attention relative to other rivers and resources in the Yukon Flats National Wildlife Refuge, and would encourage consistent management of both the Lower and Upper segments of the river (the Upper Sheenjek River is already part of the National Wild and Scenic System). No expenditures for administrative or public use facilities are recommended under this alternative, although funds would be required to develop a river management plan (estimated at $40,000) and for annual corridor administration (estimated at less than $5,000 per year). No land acquisition is needed under this alternative.

Alternative B: No Action. Under this alternative, the Lower Sheenjek River would not be recommended for addition to the National Wild and Scenic Rivers System. The river's resource values would not receive additional protection or management attention relative to other rivers or resources in the Yukon Flats National Wildlife Refuge.

Public Comment

People living in the vicinity of the Lower Sheenjek River (in Fort Yukon and other nearby villages) are concerned about additional regulations or restrictions that might result from designation. While some support designation, there appears to be general opposition to additional conservation units.

Agencies of the State of Alaska have expressed concern regarding how the river corridor might be managed differently if added to the National Wild and Scenic Rivers system. For example, concern was expressed for continuation of reasonable access to private land within the corridor, continuation of customary and traditional uses and activities, navigability, and continuation of numerous state management authorities.

The majority of comments provided during the 1998 Draft Study/Legislative Environmental Impact Statement (by residents of Anchorage, Fairbanks, other communities in Alaska, and other interested persons from outside Alaska, and a variety of environmental and recreation organizations) favored designation of the Lower Sheenjek River (50 of 51 individuals, 10 of 15 organizations)). Support was generally associated with assuring protection of the free-flowing, undeveloped character of the river and similar values.

Three organizations (Alaska Outdoor Council, Alaska Miner's Association, and the Alaska Citizen's Advisory Commission on Federal Areas) opposed designation of the Lower Sheenjek. Their comments focused on the adequacy of existing Refuge management, the lack of development threats, or disagreement with judgments that the Lower Sheenjek's resources are "outstandingly remarkable." Two organizations provided only comments without any recommendations.

Comments received for the 1984 Draft Study/Legislative Environmental Impact Statement and the 1998 Draft Study/Legislative Environmental Impact Statement are summarized in the "Consultation and Coordination" section. This is the revised Final Study/Legislative Environmental Impact Statement for the Lower Sheenjek Wild and Scenic River Study.

Proposed Action (Preferred Alternative)

The proposed action (preferred alternative) presented in this Final Study/Legislative Environmental Impact Statement recommends Congressional designation of the study river segment (Alternative A). This proposed action recommends providing statutory protection of the outstandingly remarkable cultural (subsistence), wildlife, scenic and recreational values of the Lower Sheenjek River. If acted upon by Congress, this action would complete the inclusion of the entire length of the Sheenjek River to the National Wild and Scenic Rivers System and provide consistent management for the entire river by the U.S. Fish and Wildlife Service.

Summary of Effects of the Proposal and Alternatives

There are no known imminent threats to the free-flowing character or outstandingly remarkable values of the Lower Sheenjek River. All federal lands along the study river segment are in the Yukon Flats National Wildlife Refuge. Under the no action alternative, refuge lands would be protected from development or other activities incompatible with refuge purposes. Management directions provided in the Refuge's Comprehensive Conservation Plan largely focus on the protection of fish and wildlife and their habitat, and they can be administratively changed during revisions or amendments to that plan. Wild designation would provide additional statutory protection for the specifically identified resources in the corridor, and ensure more focused management attention on those outstandingly remarkable values.

Inclusion in the National Wild and Scenic Rivers System would assure that the river area would be managed to maintain its natural condition for the benefit and enjoyment of present and future generations. Designation would be compatible with the purposes for which the Yukon Flats National Wildlife Refuge was established. Management would protect identified values of the river as well as ensure compatibility with refuge purposes and the National Wildlife Refuge System mission.

This added protection would benefit present uses of the river, including subsistence and recreation. Some other potential uses, however, would be restricted or foreclosed. For example, oil and gas development and major water resources projects would be precluded. Although none have been proposed for the area, the construction of potential future roads, pipelines, or utility lines could also be affected by cost increases or design/location restrictions needed to protect river values.

Abbreviations Used in Text

ANWR	Arctic National Wildlife Refuge
ANILCA	Alaska National Interest Lands Conservation Act
EA	Environmental Assessment
EIS	Environmental Impact Statement
LEIS	Legislative Environmental Impact Statement
NPS	National Park Service
NEPA	National Environmental Policy Act
NWR	National Wildlife Refuge
YFNWR	Yukon Flats National Wildlife Refuge
USFWS	United States Fish and Wildlife Service

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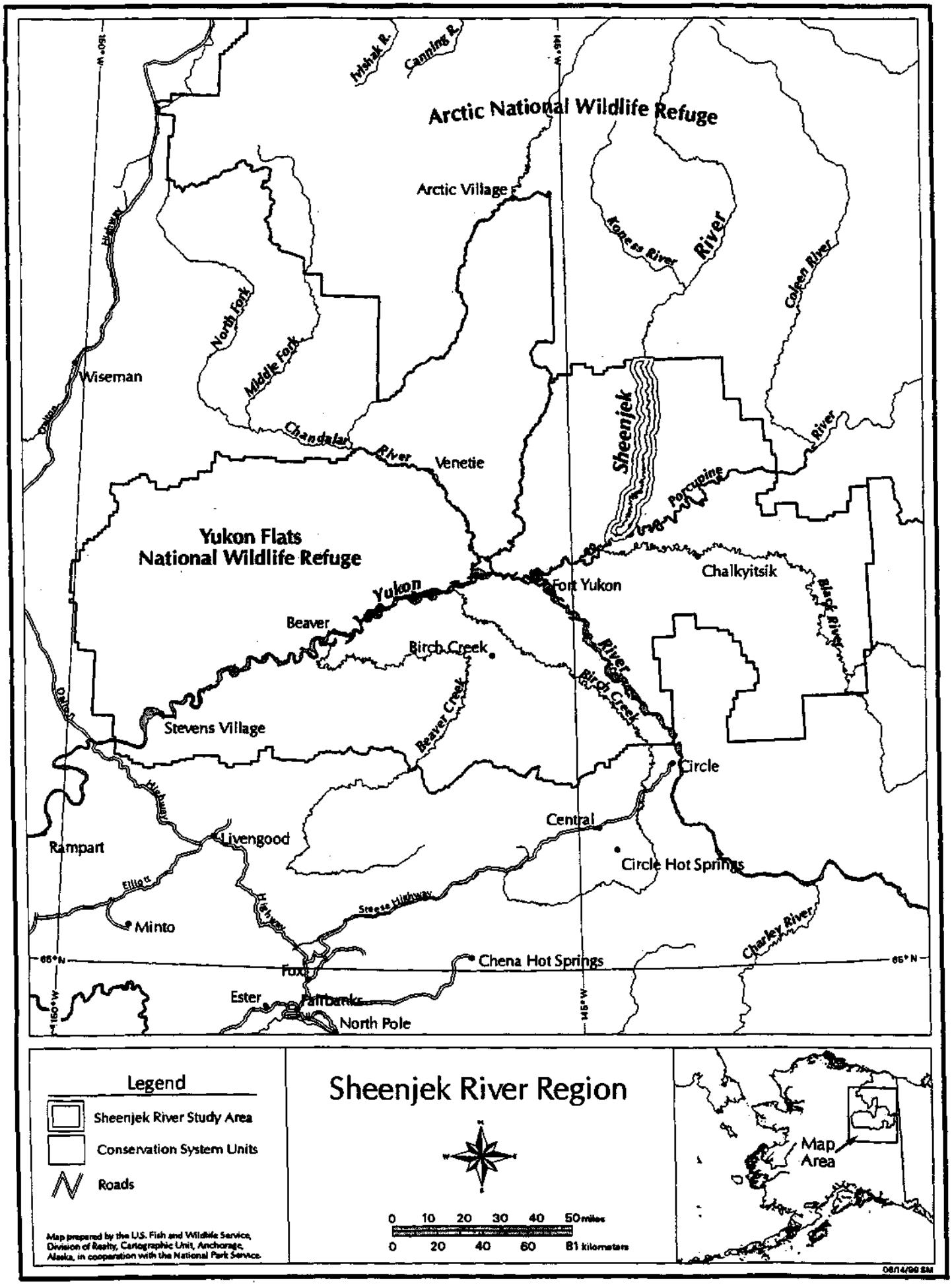
Arctic National Wildlife Refuge
Arctic Village
Kongakut River
Canning River
Hulahula River
Wiseman
North Fork
Middle Fork
Chandalar River
Venetie
Sheenjek River
Coleen River
Porcupine River
Yukon Flats
National Wildlife Refuge
Yukon River
Fort Yukon
Chalkyitsik
Black River
Beaver
Birch Creek
Beaver Creek
Stevens Village
Circle
Central
Circle Hot Springs
Rampart
Livengood
Minto
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Chena Hot Springs
Charley River
Fox
Ester
Fairbanks
North Pole
65° N
150° W
145° W
Legend
Sheenjek River Study Area
Conservation System Units
Roads
Map prepared by the U.S. Fish and Wildlife Service, Division of Realty, Cartographic Unit, Anchorage, Alaska, in cooperation with the National Park Service.
Sheenjek River Region
0 10 20 30 40 50 miles
0 20 40 60 81 kilometers
Map Area
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Chapter 1: Introduction

The Sheenjek River flows approximately 277 miles from the Brooks Range south to the Porcupine River near Fort Yukon in interior Alaska (see Region Map on facing page). Through its length, the river traverses a variety of biophysical environments, from the alpine and sub-alpine tundra of the Brooks Range to the boggy spruce forests and meadows of the Yukon Flats. These environments and the diversity of aquatic and wildlife species that inhabit them, in turn, provide high quality opportunities for subsistence and recreation use. Although some other rivers in the region possess similar characteristics, the Sheenjek River basin provides an exceptional representation of the river environments and resources of interior Alaska.

Congress recognized the value of conserving the natural resources of the region, including those in the Sheenjek corridor. In 1980, as part of the Alaska National Interest Lands Conservation Act (ANILCA),[1] Congress expanded the Arctic National Wildlife Refuge (ANWR) and created the Yukon Flats National Wildlife Refuge (YFNWR) which encompass the river. ANILCA also designated the Upper Sheenjek within the Arctic Refuge as a National Wild River for its outstandingly remarkable scenic, fish and wildlife, and recreational values, and called for a Wild and Scenic River study of the Lower Sheenjek River within the Yukon Flats Refuge.[2]

The Wild and Scenic River study of the Lower Sheenjek River began in the early 1980s, and a Draft Study/Legislative Environmental Impact Statement (LEIS) was mailed out for public comment in 1984. The report recommended designation of the study segment by Congress, and the majority of comments supported this recommendation. Funding and administrative constraints, however, prevented completion of the Study/LEIS process.

The effort resumed in 1997, but the amount of intervening time required an extensive review of earlier work and additional public involvement to ensure that information was accurate and up-to-date. A 1998 Draft Study/LEIS was the output of this resumed effort, and it replaced the 1984 Draft Study/LEIS. Public comment and agency review of the 1998 Draft Study/LEIS then served as the basis for the development of this Final Study/LEIS.

Purpose, Need, and Objectives of the Study

The purpose of the study is to explore the issues associated with designating the Lower Sheenjek River as a National Wild River. The need for the study was identified by Congress through ANILCA. The Department of the Interior is responsible for conducting the Study/LEIS, and then making a recommendation to the President. The President, in turn, will transmit the Study/LEIS with his recommendation to Congress, which makes the final decision whether the river should be designated. If Congress adds the river to the National Wild and Scenic Rivers System, the U.S. Fish and Wildlife Service (the proposed managing agency) will prepare a management plan for the affected river area.[3]

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[1] Public Law 96-487; hereafter referred to as ANILCA

[2] Study of the Lower Sheenjek River as a possible addition to the National Wild and Scenic Rivers System was specifically authorized by section 604 of the Alaska National Interest Lands Conservation Act which amended section 5(a) of the Wild and Scenic Rivers Act (PL 90-542).

[3] The National Park Service (NPS) is assisting the U.S. Fish and Wildlife Service (USFWS) in conducting the study because it has Wild and Scenic River study authorization from the Secretary of the Interior. NPS will not assume any management responsibility for the Lower Sheenjek River, which remains with USFWS.

Within this general purpose and need, specific objectives of the Study/LEIS are to:

- Summarize information about the river, its resources, and values.
- Evaluate the eligibility of the river for inclusion in the National Wild and Scenic River system: Is the river free-flowing? Are the river's resources and values "outstandingly remarkable?"
- Identify the appropriate classification for the river in accordance with the Wild and Scenic Rivers Act: Is the river "wild," "scenic," or "recreational?"
- Evaluate suitability of designation: Can the river be managed effectively for those values through inclusion in the system? Should it receive the additional protection this designation would provide?
- Determine likely consequences of designation vs. non-designation as required by the National Environmental Policy Act (NEPA).
- Document public involvement and coordination with affected parties at various stages in the study as required by NEPA.
- Develop an interim management plan to guide management actions in the corridor until Congress has decided whether to designate the river.

In meeting these objectives, the Final Study/LEIS has been prepared in accordance with the NEPA of 1969 and the regulations of the Council on Environmental Quality (40 CFR 1506.8).

Purpose and Need for Proposed Action

The proposed action (preferred alternative) recommends Congressional designation of the Lower Sheenjek as a National Wild River. The purpose of this action is to preserve the free-flowing condition of the river and to protect the outstandingly remarkable cultural, wildlife, scenic, and recreational values associated with the river and the adjacent public lands. The need for this action is to guide future land use decisions so they protect the outstanding values associated with the river and adjacent corridor.

Document Organization

The document is divided into several chapters that address the objectives stated above. Chapter 2 on **concepts and methods** reviews the Wild and Scenic Rivers Act, the designation process, and the integration of that process with the requirements of NEPA. For readers unfamiliar with the Wild and Scenic Rivers Act, this includes a discussion of eligibility and "outstandingly remarkable values," classification, and suitability. It also includes a brief discussion of the NEPA process and how it directed the study and report format.

Chapter 3 describes the **findings of the Wild and Scenic River study.** This chapter explores whether the Lower Sheenjek is eligible and suitable for inclusion in the National Wild and Scenic Rivers System, and how it may be classified if it is included.

Chapter 4 provides a **description of the alternatives**. In this case, there are only two: designation and non-designation (no action). This chapter describes how the river and its values may be managed differently under the two alternatives. It also describes alternatives considered, but rejected.

Chapter 5 provides a **description of the river and its surrounding environment**. This chapter summarizes available information about the river and its resources ("the affected environment"). It includes discussion of the: 1) regional context (e.g., physical setting, climate, socio-economic characteristics, land use, and land ownership); 2) specific natural and cultural resources in the study area (e.g., geology, vegetation and soils, hydrology, fish and wildlife); and 3) current and potential human uses (e.g., access/transportation, subsistence use, recreation use, and mineral, oil and gas, forest, and water resource development).

Chapter 6 describes the **environmental consequences of the two alternatives**. These follow from the discussion of the various resources listed above, and explore how those resources may be affected by designation or non-designation.

Chapter 7 describes the **consultation and coordination** employed in conducting the study and developing this document. This includes a list of agencies and organizations consulted during the study, a chronology of the study, and comments generated during various stages of the study.

Appendices include: A) interim management guidelines for use until Congress has decided if the river should be designated; B) an evaluation of impacts on subsistence as required by Section 810 of ANILCA; C) a list of wildlife species found in the river corridor; D) a letter from the USFWS Northern Ecological Services reviewing endangered species and critical habitat in the Lower Sheenjek as required by Section 7 of the Endangered Species Act; and E) Estimated costs for the study.

Chapter 2: Concepts and Methods

This section of the report reviews the Wild and Scenic Rivers Act, the study process, and the integration of that process with the requirements of the NEPA. For readers unfamiliar with the Wild and Scenic Rivers Act and its application, this includes a discussion of eligibility and "outstandingly remarkable values," suitability, and classification. It also includes a brief discussion of the NEPA process and how it directed the study effort and the format of this report.

The Wild and Scenic Rivers Act[1]

Congress passed the Wild and Scenic Rivers Act in 1968.[2] The intent of Congress in establishing the national system of rivers is defined as follows:

> *It is hereby declared to be the policy of the United States that 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. The Congress declares that the established national policy of dams and other construction at appropriate sections of the rivers of the United States needs to be complemented by a policy that would preserve other selected rivers or sections thereof in their free-flowing condition to protect the water quality of such rivers and to fulfill other vital national conservation purposes.*

The original Wild and Scenic Rivers Act designated eight river segments and prescribed methods and standards by which additional rivers could be added to the system. Numerous amendments to the Act and designations by the Secretary of the Interior through December 1998 have established protection for a total of 154 river segments, totaling about 10,800 miles.

Table 1 provides some additional information about the National Wild and Scenic Rivers System. Oregon has the most river segments in the system with 46 (totaling 1,785 miles), while Alaska has 25 river segments, but with nearly twice the mileage (totaling 3,210 miles). All of the Alaska rivers were designated as part of ANILCA, which also authorized study of 12 additional segments. Ten of the 12 studies have been completed, and although three recommended designation (all were in the National Petroleum Reserve), Congress did not designate any. The Lower Sheenjek River and the Squirrel River[3] are the two remaining studies from the ANILCA authorizations.

The Wild and Scenic Rivers Act carries specific protection mandates ranging from the prohibition of dams or other major water resource projects to the withdrawal of lands in the corridor from mineral entry. The Act also requires identification of the "outstandingly remarkable values" for designated rivers and the development of management plans that detail how those values will be protected. Recognizing that

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[1] The information in this section is based on Final Revised Guidelines for Eligibility, Classification, and Management of National Wild and Scenic River System areas (Federal Register, 1982), and A Synopsis for Guiding Management of Wild & Scenic Rivers in Alaska as adopted by the Alaska Land Use Council (November 1982).

[2] Public Law 90-542

[3] The Squirrel River Study/LEIS is also in the process of being completed by the Bureau of Land Management; although the river was found eligible, it does not recommend designation.

Table 1. Number of segments and miles in National Wild and Scenic River System by leading states.

State	Number of river segments[1]	Number of miles
Oregon[2]	46	1,785
Alaska	25	3,210
Michigan	16	626
California	14	1,749
Arkansas	8	210
Idaho	7	507
All other states	38	2,713
Total	154	10,800

[1]Defined by distinct river name in the Wild and Scenic Rivers Act as amended. In most cases, tributaries are not counted as separate segments.

[2]Includes the Snake River in Hells Canyon, which forms the Oregon-Idaho border; the Snake is not counted in Idaho totals.

specific protections depend on recognized values and the management plan designed to protect them. designations by Congress in recent years have often included information about how the rivers will be managed. For several rivers, management plans have actually been completed prior to designation.

Wild and Scenic River status is distinct from other conservation designations such as Wilderness, which focuses on a high level of preservation and non-impairment of the natural environment. In contrast, Wild and Scenic rivers are established to maintain existing conditions at the time of designation, which may include substantial human use and development. People may have important, active roles in a river corridor environment, and Wild and Scenic River status may both recognize and protect those roles.

Designation is the act of including a river in the National Wild and Scenic Rivers System. A river can only be designated by an Act of Congress, or in special situations by the Secretary of the Interior. The steps leading to designation typically involve an extensive study of the river, usually led by staff from the National Park Service, Bureau of Land Management, or U. S. Forest Service.

Section 4(a)(ii) of the Wild and Scenic Rivers Act requires that studies address several topics, including:

- characteristics which do or do not make the river area a worthy addition to the system;
- current status of land ownership and use in the area;
- reasonable foreseeable potential uses of the land and water which would be enhanced, foreclosed, or curtailed if the area were included in the National Wild and Scenic System;
- which federal agency should administer the river;
- the extent to which administration and costs should be shared by State and local agencies;
- estimated costs to the United States to acquire necessary lands or to administer the area.

In addressing these topics, Wild and Scenic river studies have evolved over the years and are currently organized around three major issues: 1) eligibility and the identification of "outstandingly remarkable values;" 2) classification of the river, which helps guide management actions in the river management plans; and 3) the suitability of having federal agencies manage the river and corridor for those outstanding values. Each of these concepts is discussed below.

Eligibility and "Outstandingly Remarkable Values"

To be eligible for inclusion in the National Wild and Scenic Rivers System, a river segment must meet two criteria as set forth in section 2(b) of the Wild and Scenic Rivers Act: 1) it must be in a substantially free-flowing, natural condition; and 2) it must possess at least one outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar value.

"Outstandingly remarkable" values are not defined in the Act, so determining qualified resources is not simple. Guidelines for eligibility (Federal Register, 1982) note that determinations are to be "professional judgments" on the part of the study team, and that these judgments need to be documented in the study report. Accordingly, determination of "outstandingly remarkable" values is best seen as a process that begins with study team evaluation and description, but is completed only after Presidential and Congressional review.

In previous studies, "eligible" values have been variously defined in terms of nationally or regionally significant values, values exceptional for those found in a geographic area, unique values, or values representative for a region. While each of these definitions provide some guidance, determining what is "outstandingly remarkable" ultimately involves comparing one river's resources to those of other rivers. This evaluative dimension is a part of most natural resource issues, but it is particularly central in the designation of conservation units such as Wild and Scenic Rivers. The purpose of the National Wild and Scenic Rivers System is to protect outstanding rivers of different types throughout the country. In the final analysis, study teams are asked to make professional judgments about the qualities of the study river, and clearly document the criteria used for those judgments. The President and Congress then have the necessary information to make their own decision about whether the river should be designated.

Classification

Wild and Scenic River studies must determine if the river segment should be classified wild, scenic, or recreational. These classifications broadly define the level of development of the river corridor at the time of designation. For the purposes of classification, a river may be divided into further segments, and there may be alternative classifications explored through the NEPA process. The following criteria from section 2(b) of the Wild and Scenic Rivers Act were considered in determining an appropriate river classification:

Wild river areas
Those rivers or sections of rivers that are free of impoundments and generally inaccessible except by trail, with watersheds or shorelines essentially primitive and waters unpolluted. These represent "vestiges of primitive America."

Scenic river areas
Those rivers or sections of rivers that are free of impoundments, with shorelines or watersheds still largely primitive and shorelines largely undeveloped, but accessible in places by roads.

Recreational river areas
Those rivers or sections of rivers that are readily accessible by road or railroad, that may have undergone some development along their shorelines, and that may have undergone some impoundment or diversions in the past.

Suitability

After eligibility and classification have been determined, the final issue is whether the river is a suitable addition. This determination requires judging whether the benefits of designation outweigh the costs of managing for those values. While this judgment is ultimately made by Congress, study reports make a suitability determination for consideration by the Secretary of the Interior and the President, which is then passed on to Congress. Information typically relevant to this determination includes descriptions of:

- the extent of public lands in the river area;
- costs required for acquisition, development, management, and operation of the river as a Wild and Scenic river;
- public, local, or state interest in acting to protect and manage the river;
- the feasibility and timeliness of designation;
- interests of local residents; and
- competing land management priorities.

The fundamental issue is whether Wild and Scenic River status is likely to enhance and protect the values of the river at a reasonable financial and social cost. The systematic consideration of the impacts of designation, both positive and negative, is central to the suitability determination and are further explored during the impact analysis which is also conducted during a Wild and Scenic River study.

The National Environmental Policy Act Process

After collecting and analyzing information pertaining to eligibility, classification, and suitability, Wild and Scenic River studies must analyze the impacts of alternatives as directed by the National Environmental Policy Act (NEPA).[4]

NEPA is one of the central environmental laws in the country. It specifies that agencies consider environmental consequences before implementing any major federal action. More specifically, NEPA requires the preparation of reports that explore alternative actions and compare their impacts.

NEPA does not mandate particular actions, nor does it require choosing the alternative that would have the least environmental impact. Instead, NEPA prescribes a deliberative, systematic process for considering environmental impacts, thus ensuring that decisions are neither arbitrary nor capricious.

NEPA requires focus on four fundamental issues:

- The consideration of alternatives to the proposed action, including a no action alternative.
- The assessment of impacts for each alternative, including cumulative impacts.
- The creation of interdisciplinary teams to develop alternatives and assess possible impacts.
- Substantial public involvement throughout the NEPA process so that stakeholders and the public can observe findings and comment upon them.

[4] 42 U.S. 4371, hereafter referred to as NEPA.

Under NEPA, federal actions initially require preparation of an Environmental Assessment (EA). Environmental Assessments require interdisciplinary teams to develop alternatives and describe potential impacts of the alternatives, as well as include public involvement, but EAs are generally brief documents scaled to the level of potential impacts. An EA can result in one of two outcomes: 1) a Finding of No Significant Impact , whereby the action can be implemented, or 2) the need to develop an Environmental Impact Statement (EIS). In cases where the federal action is complex or likely to involve significant impacts, the EA step is often forgone in favor of the more detailed EIS.

The end point of an EIS is a Record of Decision, which describes the recommended action and why it was selected. In the case of Wild and Scenic River designation, a Record of Decision is filed before the recommendation and study are forwarded to the President, who transmits this to Congress. The final decision of whether the river will be designated is made by Congress.

An EIS is a full disclosure document developed in accordance with Council on Environmental Quality, the Department of the Interior, and NPS guidelines for NEPA processes. These guidelines specify how to involve the public in the EIS process; they mandate public meetings, the distribution of environmental documents, and specify certain periods of time for public comment on those documents. The final chapter of this report describes the public involvement conducted as part of this Study/LEIS, which has included public meetings in affected areas, extensive public comment periods, and the provision of information to interested parties.

Chapter 3: Wild and Scenic River Study Findings

This chapter summarizes the findings of the Wild and Scenic River Study, focusing on determinations of eligibility, classification, and suitability. These determinations were based on the criteria discussed in Chapter 2: Concepts and Methods, as well as information discussed in Chapter 5: The Affected Environment.

The Lower Sheenjek River study area included the 99 mile segment within the Yukon Flats National Wildlife Refuge.[1] The lateral boundaries of the study area were two miles from the river (see map of Sheenjek River Study Area on page 28). If the river were designated, the lateral boundaries would be an average of one-half mile from each side of the river (assuming Congress continues the pattern established by ANILCA).

Eligibility

The Lower Sheenjek is a river without any impoundments or other water developments, and is in a primitive, free-flowing condition. The Lower Sheenjek also has several values that can be considered "outstandingly remarkable" because they are representative for the Yukon Flats, a recognized physiographic region, and no river segments in this region with similar values are already included in the National Wild and Scenic System. The study area comprises a primitive natural landscape that typifies this interior Alaskan area, has a tradition of subsistence use, important wildlife habitat, expansive scenery, and offers high quality recreation opportunities. A discussion of each of these outstandingly remarkable values is given below.

Outstandingly Remarkable Cultural (Subsistence) Values

The Lower Sheenjek has played and continues to play an important role in the life of people who live in the Yukon Flats region. Local people have fished, hunted, and trapped along the Sheenjek for centuries, and the river was known as a primary travel route between the Yukon Flats and the Brooks Range, allowing for trade between the interior Athabascans and north slope Inupiat.

The river and corridor continue to provide important subsistence food sources for local people, some of who camp or reside along the river for portions of the year. The river also represents places that remind local people of their fundamental relationship with the land. While local people use other rivers in the Yukon Flats region in similar ways, the Lower Sheenjek provides an example of a river corridor where this use is traditional and continuing, and where place names, traditional associations, and oral histories of the river are part of an active cultural heritage. The cultural relevance and subsistence use of the Lower Sheenjek is thus representative of that for the region, and should be recognized if the river is included in the national system. In addition, no other interior Alaska segment of the National Wild and Scenic River System recognizes similar cultural or subsistence use as "outstandingly remarkable."

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[1] In the 1984 Draft Study/EIS, the Lower Sheenjek River within the Yukon Flats National Wildlife Refuge was described as 90 miles in length. The discrepancy with the current estimate of 99 miles is due to improved cartographic measurement of a sinuous alluvial stream. It does not reflect an actual "on-the-ground" increase in the length of the river or its associated linear corridor.

Chapter 3: Wild and Scenic River Study Findings

This chapter summarizes the findings of the Wild and Scenic River Study, focusing on determinations of eligibility, classification, and suitability. These determinations were based on the criteria discussed in Chapter 2: Concepts and Methods, as well as information discussed in Chapter 5: The Affected Environment.

The Lower Sheenjek River study area included the 99 mile segment within the Yukon Flats National Wildlife Refuge.[1] The lateral boundaries of the study area were two miles from the river (see map of Sheenjek River Study Area on page 28). If the river were designated, the lateral boundaries would be an average of one-half mile from each side of the river (assuming Congress continues the pattern established by ANILCA).

Eligibility

The Lower Sheenjek is a river without any impoundments or other water developments, and is in a primitive, free-flowing condition. The Lower Sheenjek also has several values that can be considered "outstandingly remarkable" because they are representative for the Yukon Flats, a recognized physiographic region, and no river segments in this region with similar values are already included in the National Wild and Scenic System. The study area comprises a primitive natural landscape that typifies this interior Alaskan area, has a tradition of subsistence use, important wildlife habitat, expansive scenery, and offers high quality recreation opportunities. A discussion of each of these outstandingly remarkable values is given below.

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The river and corridor continue to provide important subsistence food sources for local people, some of who camp or reside along the river for portions of the year. The river also represents places that remind local people of their fundamental relationship with the land. While local people use other rivers in the Yukon Flats region in similar ways, the Lower Sheenjek provides an example of a river corridor where this use is traditional and continuing, and where place names, traditional associations, and oral histories of the river are part of an active cultural heritage. The cultural relevance and subsistence use of the Lower Sheenjek is thus representative of that for the region, and should be recognized if the river is included in the national system. In addition, no other interior Alaska segment of the National Wild and Scenic River System recognizes similar cultural or subsistence use as "outstandingly remarkable."

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Photo 1. Local people use a variety of wildlife resources along the Lower Sheenjek (hide on drying rack).

Photo 2. Moose hunting is among the most important subsistence activities in the Lower Sheenjek corridor.

Photo 3. Local area residents sometimes build cabins in association with hunting, trapping or other subsistence activities. Designation would formally recognize the cultural value of these structures.

Outstandingly Remarkable Wildlife Values

The Lower Sheenjek provides important habitat for a variety of aquatic and terrestrial wildlife. The river supports the strongest fall chum salmon run in the Yukon River drainage, and numerous waterfowl and other migratory birds come to the river each year to breed and then rear their young. Moose, bears, marten, beavers, and other wildlife also can be found in the river corridor. While wildlife populations for the Lower Sheenjek are not exceptional for the Yukon Flats region, they are representative. There are interior Alaska rivers in the National Wild and Scenic River System, but they either feature mountainous terrain (e.g., Upper Sheenjek, Alatna, John, Kobuk, Noatak, North Fork Koyukuk, Delta), uplands terrain (e.g., Charley, Andreafsky, Gulkana, Forty Mile), or less forested wildlife habitat (e.g., Nowitna and Selawik). The two designated rivers similar to the Lower Sheenjek in terms of wildlife and wildlife habitat are Birch Creek and Beaver Creek; however, the boundaries of the designated portions of those rivers end as they enter the Yukon Flats. In summary, no other interior Alaskan Wild and Scenic River in the system protects these same ecological environments and associated wildlife.

Photo 4. The forests of the Lower Sheenjek provide excellent habitat for species such as boreal owls.

Photo 5. Moose also thrive in the high quality habitat along the river.

Photo 6. Bald eagles nest and fish along the river.

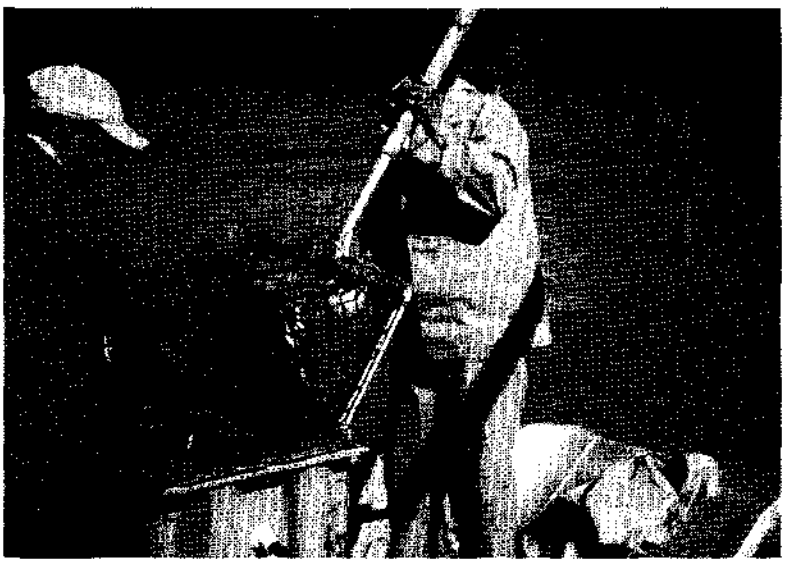

Photo 7. The Lower Sheenjek features the largest fall chum salmon fishery on the Yukon River system (technicians are counting fish).

Photo 8. The Lower Sheenjek corridor features a multitude of ponds, bogs, sloughs, and other wetlands which provide excellent nesting and rearing habitat for waterfowl such as these northern pintails.

Outstandingly Remarkable Scenic Values

The Lower Sheenjek does not provide extensive scenic diversity, and features thick spruce forest interspersed with open meadows and expansive sand and gravel bars. However, the river offers interesting scenic features in the immediate river environment. Throughout its 99 mile meandering length, the river has sharp cut-banks and sweeping bends; stillwater sloughs and oxbows; sand, gravel, and rock beaches and point bars; and frequent sweepers, log jams, and channel changes created by an active alluvial river. These scenic features, while common along the rivers of the Yukon Flats, provide a representative example of those for the region. As discussed with regard to wildlife (see above), there are several interior Alaska rivers in the National Wild and Scenic System, but they feature more mountainous or upland terrain, or they have less forested and more tundra-like lowlands. Beaver and Birch Creek, the two designated rivers closest to the Lower Sheenjek, do not include the sections of the rivers that have similar Yukon Flats scenery. In summary, there is no other interior Alaska Wild and Scenic River in the National System that offers this lowland, alluvial river scenery.

Photo 9. Lower Sheenjek scenery features thick spruce forests and an active alluvial channel.

Outstandingly Remarkable Recreational Values

The Lower Sheenjek offers outstandingly remarkable recreational values in at least three ways. First, it offers access to a landscape of flat, expansive muskeg and taiga forest that would be difficult to reach over land, at least in summer. The current is generally slow and the river winds back and forth in an oxbow pattern across almost flat ground. The river can be enjoyed by boaters in canoes or rafts without much concern for fast rapids; much of the river is easily boatable in powerboats as well. For recreationists interested in exploring the environment of the Yukon Flats, a trip on the Lower Sheenjek offers one of the best boating opportunities in the region.

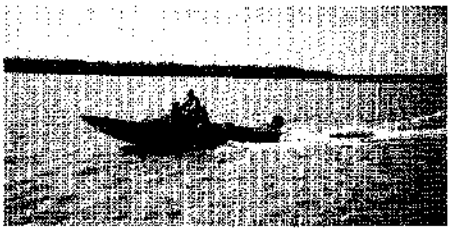

Photo 10. Boaters can access the Lower Sheenjek from the Yukon and Porcupine.

Second, the river has a variety of interesting features and micro-environments for recreation users to enjoy. There are many large camping beaches of gravel and sand as well as smaller point bars. There are also interesting meanders, oxbows, sloughs, and side channels, many of which are created by massive log jams. These require on-river route decisions and provide an element of challenge to trips, as well as offering opportunities to appreciate the active alluvial processes. The river has long stretches of taiga forest and open wet meadows which provide both scenic and wildlife habitat diversity, and can help visitors appreciate the expanse of the Alaskan interior. These environments also provide important habitat for waterfowl and other migratory birds, grizzly bears, black bears, moose, or wolves, offering both hunting and viewing opportunities. Finally, the river supports anadromous and resident fish populations that provide quality sport fishing opportunities.

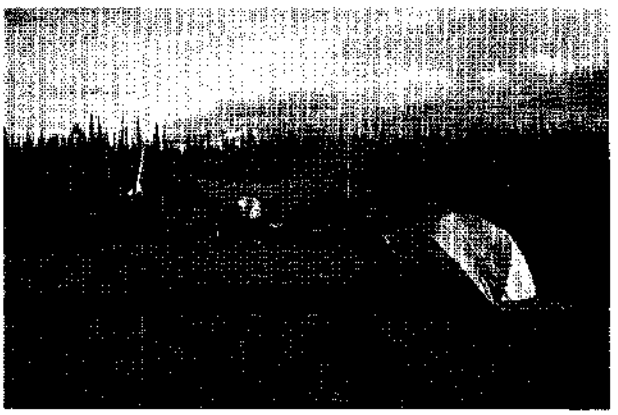

Photo 11. The Lower Sheenjek offers superlative camping opportunities on expansive gravel bars.

Third, the Lower Sheenjek has outstandingly remarkable recreation value because it is adjacent to the Upper Sheenjek, and combining the two segments provides one of the best long floating trips in interior Alaska. Recreation users who travel through both can experience a tremendous diversity of biophysical environments, and take advantage of opportunities to hike in the alpine splendor of the Brooks Range, navigate the interesting *aufeis* of the headwaters, run a short segment of Class II/II+ whitewater, explore the bluffs and subalpine hills of the Brooks foothills, and then move through the taiga forest and geomorphically-active lower river. Individually, none of these features may be extraordinary. Taken together, however, they provide an exceptional combination of features for recreation users to enjoy.

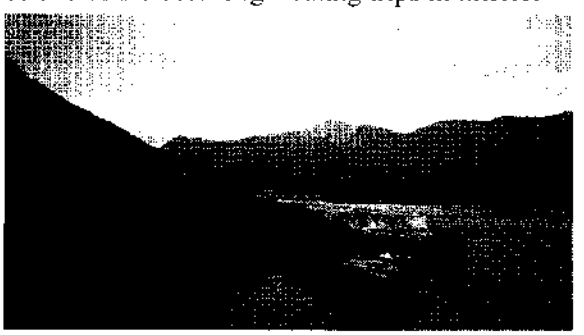

Photo 12. Combining trips on the Upper and Lower Sheenjek provides an exceptional long float trip.

While there are other interior Alaska rivers that offer recreation opportunities similar to those available on the Lower Sheenjek, no nationally designated river is within the Yukon Flats physiographic region or offers access to the same lowland environment. As noted above, the designated portions of Birch Creek and Beaver Creek (the Wild and Scenic rivers most often compared to the Sheenjek) both end as they enter the Yukon Flats region.

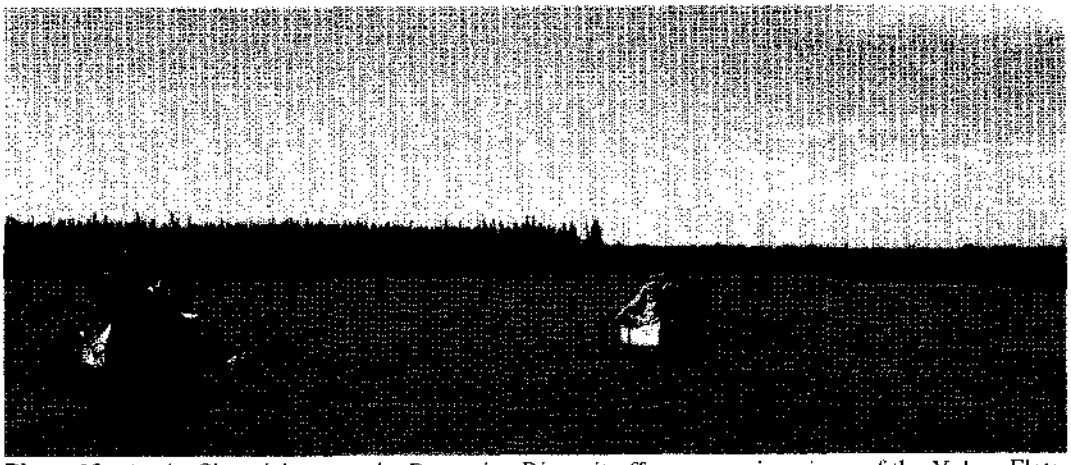

Photo 13. As the Sheenjek meets the Porcupine River, it offers expansive views of the Yukon Flats.

Summary

The Lower Sheenjek provides a superb example of the cultural, wildlife, scenic, and recreational values of interior Alaska, and no other Alaskan river segment in the National Wild and Scenic Rivers System currently protects this combination. As a free flowing river in a natural condition, with several outstandingly remarkable values, this study concludes that the Lower Sheenjek is eligible for inclusion in the National Wild and Scenic Rivers System.

Classification

Based on the classification criteria outlined in the Wild and Scenic Rivers Act, the Lower Sheenjek should be designated "Wild" if it is included in the system. There are no roads along or to the river, and development levels are extremely low. The river is unpolluted, free of impoundments caused by humans, and in a largely pristine, unmodified environment.

Suitability

The Lower Sheenjek is suitable for inclusion in the National Wild and Scenic system for at least three reasons. First, and most importantly, the river corridor is entirely within an existing conservation unit, the Yukon Flats National Wildlife Refuge, and almost all the lands along it are owned by the federal government. Native allotments would be excluded from the boundaries of the proposed designated river corridor, as recommended by guidelines established by the Alaska Land Use Council (1982), and consistent with the pattern of designations established by ANILCA. In addition, traditional uses of cabins and camps along the Lower Sheenjek would not be affected by Wild River designation; in fact, these uses would be protected as part of the cultural values of the river. Accordingly, there are no substantial costs

required for acquisition, development, management or operation of the Lower Sheenjek as a National Wild River.

Second, designation is both feasible and timely. Designation is feasible because no new administrative bodies are needed to administer the river. Designation is timely, at least from an administrative perspective, because Congress created the Refuge and authorized study of the river through ANILCA in 1980. The Lower Sheenjek Wild and Scenic River Study/LEIS, in fact, should have been completed in the mid- to late-1980's, but funding constraints made this impossible. As the last remaining study authorized by ANILCA, it is time to forward the findings on to the President and Congress to consider.

Third, there are no significant competing land management priorities in the corridor because the Lower Sheenjek does not have significant timber, mineral, or water resources that would be precluded from development by designation. While there is some moderate development potential for oil and high potential for natural gas, development of those resources are also unlikely to be precluded by designation given current technology. Note: Chapter 5 will describe these resources and Chapter 6 will discuss the impacts of designation on potential development.

There are, however, at least two arguments against a "suitable" determination for the Lower Sheenjek. First, local residents show mixed attitudes toward managing the river as part of the National Wild and Scenic Rivers System. While many people express an interest in maintaining the river as it is, there is also general distrust of any governmental program that has the potential to add a new layer of regulation. As will be discussed, however, designation of the Lower Sheenjek does not require regulatory approaches to protect outstandingly remarkable values. In addition, identifying cultural uses as an outstandingly remarkable value shows government intent to maintain, rather than restrict, current and traditional uses of the river. As will be discussed in Chapters 4 and 6, designation could also provide opportunities for Refuge staff and local people to coordinate and jointly develop management activities in the area.

Second, there are no foreseeable threats to the outstandingly remarkable values in the near future, so one could argue there is not a compelling need to protect them through an additional designation. While this point appears valid in the short term, a historical perspective suggests a different conclusion. For example, when Yellowstone National Park was designated in 1872, few foresaw the conservation challenges it faces today. Because it was designated and received added statutory protection for its values, however, managers were and are able to address many of these challenges.

At some point in the future, there may be developmental threats to the cultural, wildlife, scenic, or recreational values of the Lower Sheenjek. With the additional protection of Wild and Scenic River designation, the U. S. Fish and Wildlife Service is more likely to have the financial, administrative, or legal resources to address those threats. Although the river also receives protection as part of the Yukon Flats National Wildlife Refuge, those purposes are broader. The Refuge purposes do not require more focused efforts to manage the specific values identified for the Lower Sheenjek River.

In summary, designation of the Lower Sheenjek is timely and feasible. Although local residents showed mixed attitudes toward designation, there is a broad base of support from other groups and the public. Designation is also unlikely to hinder development of significant extractive resources in the area. It can, however, identify important cultural, wildlife, scenic, and recreational values in the corridor and ensure that those will receive management attention over the long term. On balance, the Lower Sheenjek is suitable for inclusion, particularly if the ambivalence of local people and the state can be addressed through cooperative management efforts that explicitly recognize customary and traditional uses as an outstandingly remarkable value.

Chapter 4: Description of Alternatives

This chapter describes the proposed action and alternative. In this case, there are only two: designation and non-designation (no action). Short discussions of the alternatives describe how the river and its values might be managed differently under each.

Alternative A: Designation (Preferred Alternative)

This alternative would recommend designation of the 99-mile segment of the Sheenjek River (that within the Yukon Flats National Wildlife Refuge) as a National Wild River. The U.S. Fish and Wildlife Service would administer the designated river area. This designation is consistent with the existing management direction of both the Yukon Flats and Arctic National Wildlife Refuges (as per Comprehensive Conservation Plans for those refuges). Designation would ensure long-term management and protection of the entire river's outstandingly remarkable values through the mandatory development of a river management plan for the Lower River.

The river management plan would be prepared by the U.S. Fish and Wildlife Service, but structured as a cooperative effort with the State of Alaska and local interests. The plan would follow a collaborative approach that provides both formal and informal opportunities for "stakeholders" (such as the State of Alaska, individual private landowners, regional Native corporations, and both recreation and subsistence users of the river) to help develop and revise components of the plan.

Lateral boundaries for the designated river area would be established in conformance with section 606 of ANILCA. The boundaries would include only federal lands and not more than an average of 640 acres per river mile. The private lands within the study area (six Native allotments) would not be included within the boundaries of the river area. No federal land acquisition is proposed under this alternative.

Management of the wild river area would focus on preserving and enhancing the outstanding cultural, wildlife, scenic, and recreational values of the river corridor. Site-specific resources (e.g., specific cultural sites, wildlife habitat, etc.) requiring special management efforts would be identified, and management practices would be developed for their protection. The following objectives would govern Fish and Wildlife Service management of the river segment as a component of the national system:

- Maintain the free-flowing condition and high water quality of the river.
- Protect the outstandingly remarkable values identified in this report.
- Continue existing uses in the river corridor, including but not limited to subsistence, trapping, hunting, fishing, fish and wildlife habitat protection and enhancement, and recreation.
- Control and manage recreational use of the area as necessary to protect natural, cultural, and recreational values, as well as private property.

Consistent with the Yukon Flats Comprehensive Management Plan, management actions would be limited to the minimum necessary to achieve these objectives. Appendix A outlines interim river management guidelines, suggesting the potential content of any eventual river management plan. It also suggests a collaborative planning approach for developing a cooperative plan with the State of Alaska, local Native interests, private landowners, and both recreation and subsistence users.

Under this alternative, recreation use on the river is likely to increase slightly because of increased population levels in the state, increased tourism levels to Alaska, and increased interest in river recreation. However, use of the river is extremely low at present (estimated to be fewer than ten trips per year). Designation could potentially increase awareness of recreation opportunities on the river and thus increase use levels, but these are unlikely to be large. The Upper Sheenjek has been designated since 1980 and continues to have low use levels (estimated to be fewer than forty trips per year). Use levels on the Lower Sheenjek are expected to remain lower than those for the Upper Sheenjek regardless of the outcome of designation or the level of public attention directed toward the river. Many recreation users will continue to leave the river after running the Upper Sheenjek because of limited vacation time (the entire river requires about two weeks to float).

The river management plan would address issues that might result from increased use such as user impacts, conflicts between recreation and subsistence users, and trespass/vandalism on private property. The plan would also identify opportunities for providing better information about the river to the public. Off-river education and interpretation efforts are seen as the primary strategy for maintaining the quality of recreation opportunities as well as addressing most of the recreation management challenges in the river corridor. Regulation of recreation use is expected to be minimal.

Traditional subsistence activities, including fishing, trapping, and hunting are expected to continue in the river corridor at current levels under this alternative. However, the few privately-owned properties and traditional camps and cabins under permit along the river are expected to receive slightly more use and become more developed within the next 20 years. Due to the scattered locations of these parcels, the overall level of development is still expected to be low (no more than three new cabins or associated outbuildings are expected to be developed).

The river management plan is expected to follow existing policy and regulations regarding the construction of cabins on public land (50 CFR 36.33) as part of traditional subsistence or other allowed uses. These regulations grant non-transferable five-year special use permits for the construction or replacement of these kinds of buildings (not for recreational cabins). Under this alternative, however, additional management attention is expected to ensure that development does not diminish the outstanding values of the river. The existing policy that allows cutting of firewood and house logs, for example, might be slightly modified to minimize visual impacts to the scenic values of the corridor.

No systematic archeological survey work is planned under this alternative, but recognition of cultural resources as an "outstandingly remarkable" value would support survey work if any cultural sites became known as the naturally active alluvial river cuts through new areas. Any program for the survey and protection of cultural resources would be developed in consultation with the State Historic Preservation Office and the National Advisory Council on Historic Preservation.

The state's jurisdiction and responsibilities with respect to fish and wildlife, water quality, and similar interests would be unaffected by designation under this alternative. Designation, however, could result in slightly increased management attention to wildlife or other ecological issues in the corridor. While fish and wildlife conservation is a USFWS priority on all Refuge lands, Wild and Scenic Rivers within conservation units have historically received additional regard when research or management projects are being developed.[1]

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[1] For example, the U.S. Forest Service has conducted more instream flow research on Wild and Scenic Rivers than on other rivers on Forest Service lands in Idaho, even though this research applies to the protection of fisheries, recreation, and channel maintenance on all its rivers.

The Federal Energy Regulatory Commission would be prohibited from licensing the construction of any dam, water conduit, reservoir, powerhouse, transmission line, or other water resource project under the Federal Power Act on or directly affecting the Lower Sheenjek. Federal agencies would also be prohibited from assisting by loan, grant, license, or otherwise in the construction of any water resources project that would have a direct and adverse effect on the values for which the river was designated (Wild and Scenic Rivers Act, section 7(a)).

The Yukon Flats, including the Lower Sheenjek River corridor, has been identified as having moderate potential for oil development and may have high potential for coal bed methane gas development. Under this alternative, however, no oil and gas exploration would be allowed in the corridor by statute.

The river corridor has low potential for mining development and there are no current claims in the corridor. No known mining claims, transportation corridors, or existing rights-of-way would affect future management of the Lower Sheenjek River. In addition to already being withdrawn from all forms of appropriation or disposal under the public land laws (including location, entry, and patent under the mining laws by virtue of National Wildlife Refuge status), all federal lands within one-half mile of the bank of the river would be withdrawn from operation of the mineral leasing laws (ANILCA, section 606, and National Wild and Scenic Rivers Act, section 9(a)).

No specific development needs are anticipated. Additional federal costs would accrue from planning and management for the designated river area. The majority of these costs would occur during preparation of the river management plan (estimated at $40,000), but small annual expenditures (less than $5,000 per year) are envisioned to implement the plan and monitor river resources. Appendix A includes information about the costs of preparing a management plan and managing the river in subsequent years. There would be no additional federal costs directly attributable to this action in the near future.

The Lower Sheenjek River is an extremely active alluvial river whose meanders can change dramatically over the course of years. Under the designation alternative, lateral boundary adjustments of the National Wild River may be necessary. Section 3(b) of the Wild and Scenic Rivers Act allows for the amendment of boundaries due to natural hydrological action following notice in the Federal Register and to both houses of Congress.

Alternative B: No Action (Non-Designation)

Under this alternative, the Lower Sheenjek River would not be recommended for designation. No additional statutory protection of the lower river's values would be provided beyond that provided by the Yukon Flats National Wildlife Refuge Comprehensive Conservation Plan.

The Yukon Flats Comprehensive Conservation Plan currently classifies the Lower Sheenjek in its "minimal management" category, and this is expected to continue if the river is not designated. This management category is intended to maintain the pristine condition of those areas which have high fish, wildlife, and wilderness values, but which have not been designated as Wilderness by Congress. In general, this type of management is similar to management that would be applied under wild river designation, at least in the short term. Major resource developments such as commercial timber harvests, sand and gravel removal, and oil and gas exploration are currently not permitted, and only minor modifications to the environment are allowed for habitat improvement (and only on a case-by-case basis). The most significant difference between "minimal management" and more formal protection provided by wild river designation is that the former can be changed administratively, whereas Congress can only change the latter.

Land ownership status and low resource development potential suggest that "minimal management" protections would remain in the foreseeable future. Almost all of the lands within the river corridor would remain in federal ownership and be managed by the U.S. Fish and Wildlife Service. Significant activity or development on the scattered private holdings are also not expected. Traditional subsistence activities, including fishing, trapping, and hunting are expected to continue as the major uses of these holdings. Any activities not already addressed by regulation on federal lands would still require permits from the U.S. Fish and Wildlife Service and can be regulated consistent with applicable laws and the Refuge Comprehensive Conservation Plan.

Under this alternative, recreation use of the Lower Sheenjek is expected to increase slightly for similar reasons discussed for Alternative A. It is possible that recreation use would increase slightly less than with Alternative A, however, because designation might publicize opportunities to some degree. Under this alternative, focused management of recreation use would not be provided under the "minimal management" categorization.

No archeological survey work is planned under this alternative.

Subsistence use by local residents is expected to remain at similar levels whether the river is designated or not. The few privately-owned properties along the river are expected to receive slightly more use and become more developed within the next 20 years. However, due to the scattered locations of these parcels, the overall level of development is expected to be small (no more than three new sites are estimated to be developed). Any activities taking place on refuge lands (e.g., timber cutting) would continue to require permits from the U.S. Fish and Wildlife Service, but no special attention to managing those activities to prevent impacts to the river's values would occur under this alternative.

The Lower Sheenjek River corridor has been identified as having moderate potential for oil development and may have high potential for coal bed methane gas development. Under current regulations (43 CFR 3101.5-1(b)) and the refuge management plan, oil and gas development and exploration is prohibited. However, unlike the designation alternative, this could be changed administratively.

No known mining claims, proposed transportation corridors, or existing rights-of-way would affect future management of the Lower Sheenjek River. All of these activities are currently not allowed in the Sheenjek corridor by virtue of the "minimal management" classification or law, although the former could be changed administratively.

No significant changes in the river corridor are anticipated in the foreseeable future under this alternative, but it does not offer long term statutory protection of river's outstanding values, nor direct management attention toward protecting those values. Protection of these values would be compatible with the purposes of the refuges, but under this alternative it would not be an explicit objective of refuge management.

Alternatives Considered but Rejected

An additional alternative was considered during the 1980's component of this Study/LEIS that explored designation of a shorter segment of the river. This segment, however, was in a land parcel added to the Arctic Refuge and became part of the Upper Sheenjek National Wild River in 1983. Wilderness evaluations and recommendations were already completed as part of the 1987 Refuge Comprehensive Conservation Plan. Other segment divisions were considered as alternatives based on land ownership,

geography, and natural resources during this component of the Study/LEIS, but these were judged to be artificial and not pursued. The entire Lower River is relatively uniform in its biophysical setting and in how it is used. Accordingly, only two alternatives were analyzed.

Summary of Alternatives

Management of the river and adjacent corridor is likely to be similar *in the near future* under either alternative. Major resource development is currently not allowed in the area, and managers already focus on maintaining important resources while allowing traditional uses. The substantive difference between the two alternatives is that designation would formally recognize specific outstandingly remarkable values in the corridor, and provide *statutory protection* of those values into the future. In contrast, those values are only generally recognized in the Yukon Flats National Wildlife Refuge Comprehensive Conservation Plan, and current management of the area *could be changed administratively* when the plan is revised.

Chapter 5: The Affected Environment

This chapter provides a description of the river and its surrounding environment. It summarizes available information about the river and its resources ("the affected environment"). This includes discussions of the regional context (e.g., physical setting, climate, socio-economic characteristics, land use and land ownership), specific natural and cultural resources in the study area (e.g., geology, vegetation and soils, hydrology, fish and wildlife), and current and potential human uses (e.g., access/transportation, subsistence use, recreation use, and mineral, oil and gas, forest, and water resource development).

Regional Setting

Physical Setting

The region is bounded by the Brooks Range to the north, the Yukon River to the south, the Christian River to the west, and the Canadian border to the east (See Regional Map on page x). The region includes three distinct physiographic provinces: alpine (eastern Brooks Range), piedmont (Porcupine Plateau), and flats (Yukon Flats). The alpine province is characterized by steeply sloped mountains with summits over 7,000 feet in elevation, evidence of extensive glaciation, alpine tundra, and scattered stands of stunted spruce trees. The piedmont province is an upland area with rounded summits up to 3,500 feet in elevation and mixed forests of spruce, poplar, aspen, willow, and birch. The flats province is a broad marshy floodplain containing thousands of thaw lakes, oxbows, and sloughs; its elevation varies from about 400 feet on the floor to 600 feet at the tops of the silt- and gravel-covered terraces.

The Porcupine River and its major tributaries (the Sheenjek, Black, and Coleen rivers) drain the region. The Sheenjek River crosses all three of the physiographic provinces, but only the lower piedmont and flats provinces are represented in the river study area.

Climate

The climate of the region is generally classified as continental subarctic. It is a zone of considerable climatic extremes. For example, Fort Yukon holds Alaska's record high temperature of 100° F and also comes close to the record low at minus 75° F. During summer there is almost continuous sunlight for more than three months. During the winter the sun is above the horizon for about 3 hours each day, and the average length of daylight and twilight during winter is 6 to 8 hours. Rainfall varies from 7 to 10 inches annually; the region can technically be classified as a desert on the basis of low precipitation (University of Alaska 1978, pp. 11-1, 11-3).

Socioeconomic Characteristics

Even by Alaskan standards, the region is sparsely populated. The total estimated 1997 population of the region's villages was 1,024, including Fort Yukon (575), Chalkyitsik (87), Arctic Village (121), and Venetie (241). Fifty-six percent of this population lives in Fort Yukon (Alaska Department of Labor, Research and Analysis, Demographic Unit, 1997). During the past 30 years, the total population has been relatively stable due to an overall balance between the natural increase (the excess of births over deaths) and net out-migration. The area populace is predominately native (close to 90 percent) and the overwhelming majority of natives are Gwich'in Athabascan Indians (Alaska Department of Labor, 1997).

The cash and subsistence economies of the region are closely interrelated, with most residents participating in both economies. Variations in lifestyles among residents depend upon the degree to which they pursue subsistence activities as opposed to wage-earning activities. The principal sources for the cash economy are government jobs (such as in the school system), seasonal jobs provided by various construction projects, freight hauling, fire fighting, and Federal, State and Tribal government programs (e.g., unemployment compensation, social security benefits, permanent fund dividends, and tribal dividends). Other sources of cash income in the region include sale of furs and arts and crafts (University of Alaska 1978, pp. 5-1 to 5-7).

Subsistence activities are extremely important in the region for the food and shelter they provide, and for the cultural ties they make with a traditional way of life. Surveys taken in the region reveal that a significant proportion of the food for a large percentage of residents is provided by hunting, fishing, or gathering. Over 80 percent of the native households surveyed in the general area report that at least half of their food comes from subsistence activities. The proportion of food derived from subsistence for people living in Fort Yukon, however, is less than the proportion for people living in the smaller villages (University of Alaska 1978, pp. 5-1 to 5-7). Local timber is an important source of fuel and house logs.

Land Use

Land use is generally characterized as "occasional and intermittent," including "recreation, sport hunting and fishing, subsistence, seasonal residences, and resource exploration." The exceptions are the small concentrations of residential, service, and industrial land in Fort Yukon, Arctic Village, Chalkyitsik, and Venetie (Selkregg n.d., p. 292). Many families and individuals reside outside of the villages for periods (up to a season in length) in pursuit of a subsistence-based lifestyle. The places they choose to use depend on a variety of factors, including weather conditions and distribution of wildlife. Moose hunting, trapping, and fishing are the principal subsistence activities in the region.

There is no commercial agricultural development in the region, although there may be some potential for this type of activity. There are a few large gardens (1 to 2 acres) in Fort Yukon, and there has been at least one rice-farming venture. Agricultural experiments in "nearby" Ramparts on the Yukon River during the early 1920s also achieved some success in several crop varieties, particularly grains and legumes (University of Alaska 1978, p. 14-1)

Use of the region's forests is small in scale. The greatest current use of harvested timber is firewood, although some house log cutting also occurs. A special use permit is required to cut any live tree greater than six inches in diameter on Refuge lands. The Pacific Northwest Forestry Sciences Lab has estimated that there are 1,597,000 acres of potential commercial forest land with an estimated volume of 611,931,000 cubic feet of timber within an area roughly corresponding to the subject region (USDA, Forest Service 1982).

This has not been a very active area for mineral or petroleum exploration or development, and no significant developments exist to date. Occurrences of tin, lead, and lead-zinc have been identified in pockets lying between the Rapid River and the Coleen River.

Gold and copper have been identified on the Sheenjek River, but no production has been recorded (University of Alaska 1978, p. 16-5). Based upon early general assessments, the upper Porcupine region was rated moderate as a potential petroleum province or basin, while the Yukon Flats was rated high (Selkregg n.d., p. 127). Similarly, a report in final review suggests the Yukon Flats area has high

potential for coal-bed methane gas (Tyler, et all, 1998). There has been no development, however, and actual exploration has been sparse.

Recreational use of the region includes river travel, sport hunting and fishing, camping, and related activities. There are several rivers noted for their scenic beauty, primitive character, and suitable boating waters. Most of the area, except in the Brooks Range, is not well suited to long distance hiking. Moose and waterfowl are the primary objectives of sport hunters in the lowlands. Sheep are hunted in the Brooks Range. Grizzlies, black bear, caribou, and wolves are also taken by sport hunters, but mostly in association with the hunting of other species (University of Alaska 1978, p. 18-2).

Land Ownership in the Region

The major existing and potential landowners in the region are the federal government, state of Alaska, and native corporations. The principal Native landowners/land managers are Doyon Limited (the regional corporation), Gwitchyaa Zhee (the Fort Yukon village corporation), the Native Village of Fort Yukon (the tribal government in Fort Yukon), and Chalkyitsik (a Native corporation). Native allotments are found throughout the Yukon Flats region, and six allotments occur within the boundaries of the Lower Sheenjek Study Area. Almost all the federal land is managed by the U.S. Fish and Wildlife Service through the Yukon Flats National Wildlife Refuge and the Arctic National Wildlife Refuge.

Study Area

River Setting

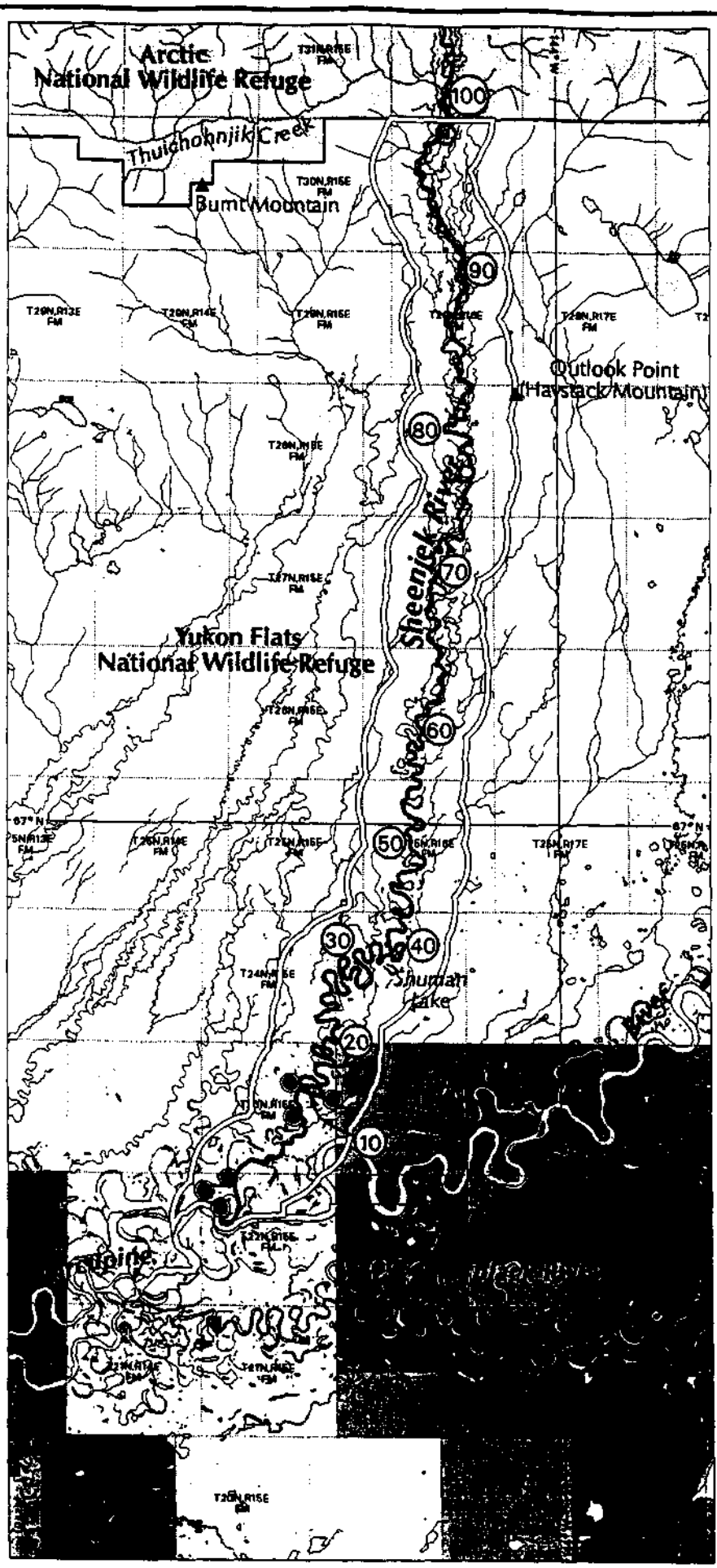
The Sheenjek River begins its 277-mile southward course in the Brooks Range, and passes through alpine and piedmont physiographic regions before entering the flats province near the northern boundary of the Yukon Flats National Wildlife Refuge (see Map 2 on the following page). The lower 99 miles of the river are within the refuge and encompass the Study Area.

The Lower Sheenjek's elevation is between 500 and 700 feet. The flats are a broad, forested alluvial plain, almost devoid of relief, containing numerous lakes, potholes, and oxbows. Extensive areas of swamp and muskeg are present. Stands of spruce, aspen, cottonwood, and birch grow throughout the area, especially along the stream courses and around lakes.

Through the flats, the Sheenjek is confined largely to a single channel with numerous meanders and banks of peat and silt. Occasionally the bank has eroded or collapsed, exposing underlying permafrost and masses of ground ice. In these lower reaches, bank vegetation and adjacent forests often restrict views, although there are open boggy meadows and large point bars that offer further views. Because the current is relatively slow in the lower reaches, the numerous oxbows and sloughs provide an expanded watercourse for canoe exploration, with numerous opportunities to view the wildlife of the area. There are extensive log jams on the river, which accentuates active alluvial channel formation.

Geology

The general geology along the Sheenjek River (within the Yukon Flats province) is mostly well sorted floodplain, terrace, and alluvial fan deposits with some areas of exposed mafic rocks. The Flats are an area of discontinuous permafrost.



Lower Sheenjek River Study Area within Yukon Flats NWR

N
W E
S

0 2 4 6 8 10 miles
0 2 4 6 8 10 12 14 16 kilometers

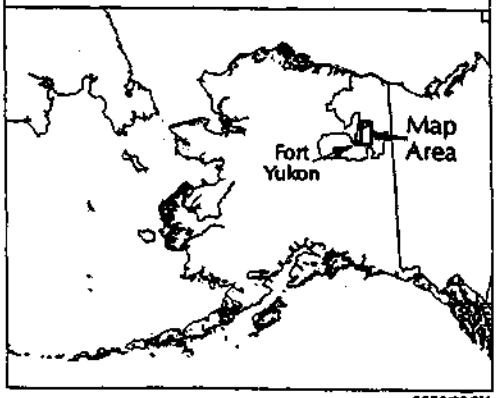
Scale 1:450,000
Albers Equal Area Projection

Legend

- Sheenjek River Study Area
- Native conveyed land
- Native selected land
- Native allotment selected*
- Native allotment conveyed*
- (10) River miles

* Allotment symbols do not depict actual allotment size.

Map prepared by the U.S. Fish and Wildlife Service, Division of Realty, Cartographic Unit, Anchorage, Alaska, in cooperation with the National Park Service.



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Vegetation and Soils

Throughout most of the study area, vegetation within a mile of the river is a mixture of forest, pond, meadow, and bog. These vegetation types are in various stages of natural succession. The predominant vegetation type in the study area is spruce forest, with occasional patches or meadows of tundra. The tundra is a mixture of lichens, dwarf willow, moss campion, low berry bushes, and other low plants. The forest is mixed black and white spruce, with birch, balsam poplar, aspen, and willow as well. Where hardwood dominates the forest stand, ground cover species include grasses and sedges along with rose, berry, and other low bushes. Crowberry and cranberry are common. Where spruce dominates, mosses cover the forest floor.

In much of the flats, where the river slows and many old oxbows and sloughs have formed, the immediate river area is a marsh habitat. The marsh is a very wet area covered with communities of mosses and coarse sedges. The wet areas are separated by slightly raised ridges of vegetation composed of mosses, Labrador tea, berries, and dwarf birch. Clumps and rows of spruce and larch trees grow on slightly higher ground. There are no known threatened or endangered plant species in the Lower Sheenjek River study area.

Regional estimates of commercial forest land and timber volume are reported in the section discussing regional land uses. No forest inventory has been conducted in the study area, but the more productive forest lands are known to lie adjacent to the river, particularly in the lower portions.

Based upon an estimate from the statewide Soil Conservation Service Exploratory Soil Survey map, 15 percent of the Lower Sheenjek River study area has class II and III soils (generally well drained and level).

Streamflow and Water Quality

The Upper Sheenjek (outside the study area) begins as a typical mountain stream with a steep gradient and numerous rapids, riffles, and boulders, and progresses through the piedmont area where it alternates between a swift single thread channel and wider, flat braided areas. As it enters the study area, the Sheenjek slows, becoming increasingly placid and wide, with cut banks of peat and silt. Through the flats, the river has the characteristic strong meander patterns of Yukon River tributaries.

During normal summer water conditions, there are no major rapids in the study area, but occasional riffles are created by gradient differentials caused by log jams and the active alluvial channel. On the International Whitewater Scale, the river is Class I (moving water with few riffles or waves; few or no obstructions and these are easy to avoid). The current speed is about 2 to 4 miles per hour (with a typical gradient between 2 and 6 feet per mile).

The U.S. Fish and Wildlife Service operated a stream gaging station on the Lower Sheenjek River (about 25 miles upstream of the confluence with the Porcupine River) from 1993 to 1998. Figure 1 shows the mean daily discharge hydrograph during the open water season for the five years (1993-1997). The hydrograph is typical of interior Alaskan streams. Peak flows occur in the spring with break-up and snowmelt. Isolated peaks occur during summer months due to thunder shower activity. Stream flow declines in the fall and through the winter.

With low levels of human use in the area, water quality is considered excellent and there are no known major sources of man-caused pollution. The only known on-site water quality measurements were taken

during State of Alaska hydrologic reconnaissance efforts in 1984 and 1985 (Maurer, 1997). These showed the river has "high quality water characterized by high concentrations of dissolved oxygen, low turbidity, and basic pH." The river also was shown to have relatively high average specific conductance and alkalinity values, which were attributed to the limestone geology of the drainage basin.

Water clarity can vary on the river. It is usually very clear during periods of low water which often occur in mid-summer, and which consistently occur by late August and September. During spring breakup, and after moderate to heavy rains, the water is often turbid from sediment washed into the river.

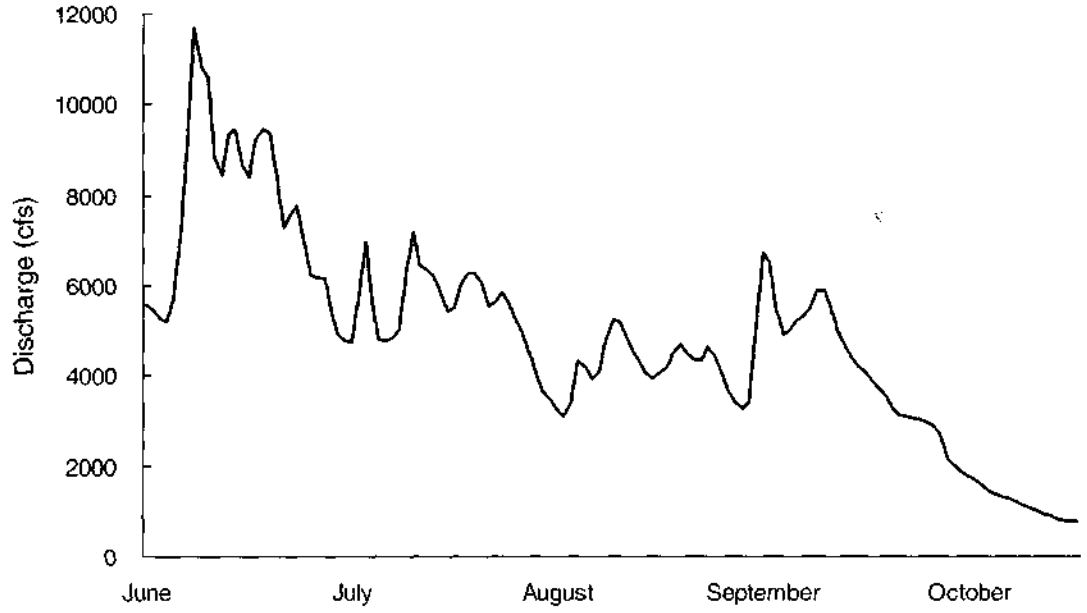

Figure 1. Average hydrograph (mean daily discharge) for open water season on the Lower Sheenjek River, 1993-1997

Wildlife

Note: Few comprehensive wildlife surveys have specifically focused on the Lower Sheenjek River. The wildlife information described below was largely compiled from surveys conducted by the US Fish and Wildlife Service and the Alaska Department of Fish and Game and apply more generally to the Yukon Flats region. While acknowledging that population estimates and habitat characterizations for the entire refuge are not specifically applicable to the river corridor, best professional judgments suggest that the Lower Sheenjek provides a diversity of habitat used by the majority of the species discussed.

The Lower Sheenjek River is situated in the northern portion of the Yukon Flats. The Yukon Flats is well known for its high concentrations of breeding migratory waterfowl and other birds. Its diverse and expansive habitats include breeding grounds for the highest densities of ducks found in Alaska, and it may be the most consistent production area in North America (Hodges et al., 1996). It is also an important stopover for waterfowl returning from northern regions of Alaska. Waterfowl that nest on the Yukon Flats include American wigeon, Barrow's and common goldeneye, bufflehead, canvasback, green-winged teal, lesser and greater scaup, mallard, northern pintail, northern shoveler, redhead, ring-necked

duck, surf and white-winged scoter, Canada goose, greater white-fronted goose, trumpeter swan, and tundra swan.

Breeding pair surveys conducted in 1991 indicate that the Lower Sheenjek contains low to moderate duck densities ranging from .8 to 13 ducks per square mile (Platte & Butler, 1991). Although goose surveys have not been conducted for the Lower Sheenjek, relatively low densities have been identified to the south on the Yukon (McLean, 1992). Swan densities are suspected to be low based on surveys conducted on parts of the Lower Sheenjek (USFWS, 1996). Aerial surveys of the Lower Sheenjek indicate that loons are common. Nearly 20,000 Pacific and common loons breed on the Yukon Flats (Lanctot & Quang, 1992).

Little information has been collected on other migratory or resident birds on the Lower Sheenjek River. However, specific data is available for adjacent areas of the Yukon Flats. A complete listing of all 159 avian species inhabiting the Yukon Flats are available in the refuge bird list (Appendix C).

The USFWS has only identified two endangered or threatened species that may occur in the Lower Sheenjek River corridor: the American peregrine falcon and the Arctic peregrine falcon. The former was delisted in August 1999, while the latter was delisted in 1994. However, the USFWS recommends avoiding impacts to these species as they have only recently recovered.

The Arctic peregrine nests in tundra areas in northern and western Alaska, but migrates through the rest of the state during spring and fall migration. There are no known Arctic peregrine nests within 10 miles of the corridor. The American peregrine nests in forested areas of interior Alaska and migrates through central, south-central, and southeast Alaska during the spring and fall. There are no known American peregrine nest sites within 10 miles of the Lower Sheenjek corridor; however, they may migrate or hunt in the area. For more information on these species, see Appendix D.

Large mammals inhabiting the refuge are characteristic of Alaska's boreal forest, shrub tundra, and northern alpine areas and include moose, caribou, and both black and grizzly bear.

Moose generally occur throughout the refuge in relatively low densities. A recent population survey for the Porcupine River area (which included the Lower Sheenjek below Shuman Lake) estimated densities of 0.5 moose per square mile (Bertram & Stephenson, 1997). The river also provides winter habitat for the Porcupine caribou herd. Black and grizzly bear are thought to be common due to the rich chum salmon fishery on the river.

Fur-bearing animals using the river corridor include beaver, coyote, lynx, marten, mink, muskrat, red fox, river otter, snowshoe hare, weasel, wolf, and wolverine. The Black River drainage to the east produces some of the most sought-after lynx pelts in Alaska. Aerial surveys suggest wolves occur at low densities, probably in response to low density prey populations (Stephenson 1992; 1997). Marten is the economic staple for most trappers in the region. Trapper interviews and harvest information suggest that mink, otter, and wolverine may occur in low densities in and around the Lower Sheenjek.

Little is known about small mammals on the Lower Sheenjek River. Species documented in other parts of the Yukon Flats include brown and northern bog lemming; dusky, masked and pygmy shrew; meadow, red-backed, tundra, and yellow-cheeked vole; and meadow jumping mouse. Other documented small mammals include Alaska marmot, red squirrel, and Yukon Flats ground squirrel.

Fish

Note: No comprehensive fishery inventory studies have been conducted in the Lower Sheenjek River or in the adjacent waters of the Porcupine River. Lower Sheenjek River fishery information in this section was compiled from several sources, including: an inventory study conducted in the headwaters of the Sheenjek River and nearby lakes, ADF&G salmon enumeration projects, a recent radio telemetry study, and documented fish species composition in streams within the upper Yukon Flats Basin with similar habitat features.

Craig and Wells (1975) conducted fishery inventory studies in the Upper Sheenjek River including Monument Creek, Koness River, Old John Lake, and Big Fish Lake. These studies were associated with routing of the proposed Arctic Gas pipeline in northeast Alaska. A total of ten fish species were documented. Arctic grayling, round whitefish, and slimy sculpin had the widest distribution and greatest abundance. These species are probably common in the Lower Sheenjek River as well. Other fish species present in the Sheenjek's headwaters and lakes, which may be present in the Lower Sheenjek River, include: longnose sucker, humpback whitefish, broad whitefish, least cisco, and burbot. Additional species commonly associated with main channel habitats such as sheefish and northern pike are likely present. In total, there are probably more than 15 fish species present in the study area. Specific fishery inventory and habitat studies are identified in the Refuge Fishery Management Plan (1990) for the Sheenjek River. USFWS will continue to seek funds to carry out these studies.

More complete fishery documentation exists for chum salmon as a result of annual aerial surveys conducted by ADF&G since 1973 as well as data gathered from a counting tower and riverine sonar facility (operational since 1981). Fall chum salmon are, by far, the most abundant salmon species in the Lower Sheenjek River. Chum salmon runs arrive in the river early August, peak in early September, and last until early October. Based upon spawning escapement counts, the Sheenjek River fall chum run is also one of the largest stocks within the Yukon River drainage. This stock is a major component of mixed stock subsistence and commercial fisheries that occur along nearly 1,000 miles of the Yukon River. The average spawning escapement for the Sheenjek River, from 1990 to 1996, was 131,706 chum salmon with nearly 250,000 salmon returning in 1996 (JTC, 1996). Among other Yukon River tributaries, only the Chandalar River offers fall chum salmon runs similar in magnitude to the Sheenjek. The current ADF&G fall chum spawning escapement objective for the Sheenjek is 64,000 salmon. Based upon extensive aerial surveys, the lower 100 miles of the river is the most important fall chum spawning habitat in the Sheenjek drainage. Principal known fall chum spawning areas are located at River Mile 12, 30, 45, 70, and 80.

The importance of these spawning areas were again documented in 1998 by USFWS and National Marine Fisheries Service using radio transmitters implanted in migrating fall chum salmon. Of the 481 transmitters deployed in the mainstem Yukon River near Rampart, 120 transmitters (25%) were relocated in the Sheenjek River (JTC, 1998). Follow-up aerial tracking surveys in the Sheenjek River documented spawning areas extending from the Refuge boundary at River Mile 99, downstream to the ADF&G sonar camp at River Mile 6. Results from these studies indicate that the Lower Sheenjek River Study Area encompasses the majority of the fall chum spawning habitat in the Sheenjek drainage.

Less is known about the abundance and spawning distribution of chinook and coho salmon in the Sheenjek River. A USFWS aerial survey in 1985 (best information available) documented 45 chinook salmon spawning in a 20 mile section of the mainstem Sheenjek River, approximately five miles below Thluichohnjik Creek (Rost 1986). Visual survey conditions were rated as poor and it is likely that the chinook stock is considerably larger than reported numbers indicate. The chinook run in the Sheenjek

River begins in early July and continues through early August with the majority of active spawning occurring in late July and August. In 1974, 28 coho salmon were counted during an ADF&G fall chum salmon aerial survey (Barton 1984). These fish were scattered from near the mouth of the Sheenjek River upstream to the Koness River. Coho stock abundance within the Sheenjek drainage is thought to be very small. Generally coho salmon spawn later than fall chum salmon; extending from late September to late October.

Cultural Values

Very little has been written about the historic or archeological values along the Sheenjek River. The region, however, particularly along the Porcupine and Yukon rivers, is rich in history and archeology. Many of the activities in the region probably also occurred in the Sheenjek drainage, since this was a natural travel corridor over the Arctic Divide and because the area has long been a source of fur-bearing animals.

The Sheenjek River served as a major north-south route for travel and trade between Athabascans and Inupiat. Oral histories of the Athabascan residents of the Yukon Flats illustrate this use of the corridor and also suggest the importance of the Sheenjek River as an early day hunting and fishing area. Today, evidence of prehistoric camps, such as stone ax cut tree stumps, may be found near salmon spawning areas.

The residents of Arctic Village have long had a historic tie to the upper portion of the study corridor. Sheenjek Village, an abandoned village site a few miles outside of the study area near White Snow Mountain, was home to several present day Arctic Village families in the 1930s and 1940s.

Some of the highlights of the region's more recent history in the Sheenjek River area include the establishment of a major trading post at Fort Yukon in 1847 by the Hudson's Bay Company; the growth of the fur trade until Fort Yukon became the company's most valuable post west of the Rocky Mountains; the subsequent moves of the post after the purchase of Alaska by the United States; gold prospecting in the late 1800s; and the temporary resurgence of fur trapping in the area in the 1920s.

There are no sites in the corridor listed as eligible for the National Register of Historic Places, but this is probably because of insufficient survey work. Because of continuing deposition and erosion, the most likely areas for the location of significant historic resources are on the few elevated areas adjacent to the river course (few of which occur in the Lower Sheenjek).

Subsistence Use

In terms of use-days, trapping remains the primary subsistence activity along the Lower Sheenjek River. Several individuals have active trapping camps along or near the river corridor, and may reside in the corridor for significant periods of time. A few individuals who live in Fort Yukon maintain shorter traplines, commuting by snowmachine or aircraft every week or two. Although there may be as many trappers in the area as in earlier years, the local consensus is that effort and total fur harvest have declined.

Hunting takes many forms along the Sheenjek River, varying by where people are from, their means of access, and their degree of dependency upon game as a food source. Most hunting is for moose, although black bears and an infrequent grizzly are taken incidentally. There is little available data on hunter effort and harvest, but local people suggest that 20 to 35 people (in parties of 6 to 12) travel up the Sheenjek

every fall. They probably take 10 to 15 moose. They typically use flat-bottomed riverboats with 25- to 70-horsepower outboard motors.

Most fishing on the river is incidental to other activities. It is primarily hook-and-line and is oriented toward northern pike and grayling. There are no known fish camps on the Sheenjek. A few subsistence users from Fort Yukon are believed to set nets for chum salmon near the mouth of the river; and nets are set by one or more local residents who have traplines along the river, primarily to gather dog food. Residents from Venetie or Arctic Village have occasionally taken snowmachines over land to the Sheenjek River for subsistence fishing in late fall and early winter, but this appears to have occurred more in the past. Besides salmon, whitefish and burbot may also be sought for subsistence purposes.

An important part of most trips on the river by local people is the maintenance of ties with their traditional lifestyle. Although the methods and tools used in conducting subsistence activities have evolved historically, the fundamental activities of hunting, trapping, fishing and camping on the river are the same.

The future of subsistence uses on the Lower Sheenjek River will depend on a number of interrelated social, political, economic, and biological considerations acting both within and outside the region. In general, trapping use can be expected to vary in response to the cycles of furbearer populations and fur product prices. Among local people, the effect of competing old and modern values is not predictable, although given the current renewal of interest in the land and traditional ways, it seems likely that trapping will remain the primary local use of the Lower Sheenjek.

Hunting effort in the area is likely to remain constant, but it could expand if moose densities increase. Although increasing economic opportunities in the region may reduce the actual local dependency on subsistence resources, higher income can be used to purchase equipment and cover transportation costs, thereby increasing the ease of participation in subsistence activities. It is not likely that intensive subsistence fishing operations will develop on the river, but existing uses are likely to remain static or slightly increase in relation to population increases.

Access/Transportation

Access to the study area occurs by aircraft and boats. There are no highways or railroads within or near the study area. The state has identified an RS 2477 right-of-way on an old winter tractor trail roughly paralleling the Sheenjek River, but it is about 30 air miles east of the river. Fort Yukon, which is served by scheduled commercial air service from Fairbanks and is a base of local air taxi operators, is about 20 air miles south of the Sheenjek River mouth.

The river generally does not offer reaches long and straight enough to land float planes, but several gravel bars usually provide landing opportunities for small wheeled aircraft (as long as river levels are low and log debris is not present). These sites change from year to year because the river is alluvially active.

Boaters commonly reach the Upper Sheenjek by float plane, landing on Last Lake or Lobo Lake, and then they float downstream into the Lower Sheenjek. As noted above, it is possible to fly into gravel bars on the river just to float the Lower Sheenjek, but relatively few boaters appear to do this. In contrast, it is far more common for Upper Sheenjek boaters to leave the river corridor from these gravel bars. The most common gravel bar pick-up areas are in the ten mile reach below the confluence with the Koness River, which is outside the Lower Sheenjek River Study Area.

In addition to these parcels, some of which may have cabins or other structures (land owners are not required to report these), there are eight permitted cabins (plus one tent frame) in the Lower River corridor. All of these were in use before ANILCA and they remain under permit to three individuals for their use in association with traditional subsistence activities. No new cabins or structures have been built under permit in the corridor since 1980.

Under provisions of the Alaska Statehood Act (PL 85-508) and the Federal Submerged Lands Act of 1953 (PL 83-31), the State of Alaska owns the bed of navigable waters (which includes land such as gravel bars that are below ordinary high water). In 1992, the State of Alaska gave notice of its intent to file real property quiet title actions on certain submerged lands in Alaska. In this notice, the State asserted that the Sheenjek River is navigable from its mouth to the confluence with Thluichohnjik Creek (located just north of the Yukon Flats – Arctic Wildlife Refuge boundary).

No response is required or has been made by the United States in regard to this State navigability assertion. For land conveyance purposes, the BLM may administratively consider a river navigable, but final navigability determinations for final quiet title purposes are addressed in Federal Court. No navigability determination has been made for the Sheenjek, so this study report does not assume State land ownership of the bed and gravel bars below ordinary high water. Land ownership and navigability determinations are independent of the Wild and Scenic designation process.

Chapter 6: Environmental Consequences

This chapter describes the environmental consequences of the two alternatives. These descriptions follow from the discussion of the various resources listed above and explore how designation or non-designation will affect those resources. A table at the end of the chapter summarizes consequences under the two alternatives.

Impacts Common to Both Alternatives

Impacts to several resources included in Chapter 5 ("the Affected Environment") were determined to be identical under either alternative and not affected by the study, and are not discussed further in this chapter. These include:

- Physical setting
- Climate
- Socioeconomic characteristics
- Geology
- Vegetation and soils
- Streamflow and water quality
- Regional transportation
- Traditional access to private property
- Mineral development
- Endangered species (see also Appendix D)

Alternative A: Designation as Wild River (Preferred Alternative)

Impact on the River's Free-Flowing Character

The primary purpose of designation would be to keep the river segment free flowing by prohibiting federal or federally-assisted water resource development projects. This would include prohibitions on impoundments designed to increase waterfowl productivity. These actions are unlikely even without designation, but this action provides statutory protection. Designation would thus ensure the preservation of the free-flowing character of the lower 99 miles of river and would preclude any major diversion of water.

Conclusion: The free-flowing character of the river would be ensured through statutory protection.

Impact on the Corridor's Undeveloped Character

Designation would help ensure the preservation of the undeveloped character of the refuge lands along the lower 99 miles of the river by foreclosing oil and gas leasing and development, mechanical habitat manipulation, or any other major development project. These uses in the corridor are unlikely even without designation, but designation provides additional *statutory protection*. Because of the small number and scattered locations, Native allotments along the Lower Sheenjek River are not expected to have a significant impact on the river's undeveloped character. Traditional subsistence activities such as trapping and hunting are expected to continue as the major uses of these lands and would be formally recognized as an outstandingly remarkable value of the corridor. Any permitted activities (e.g., timber cutting, cabin construction) taking place on federal land in association with these activities would

continue to require permits from the U.S. Fish and Wildlife Service. These would be regulated consistent with the refuge management plan and with attention toward the protection of the river's outstandingly remarkable values.

Conclusion: The undeveloped character of the river corridor would be protected by *statute* on the Lower Sheenjek River under this alternative. Any development in association with the scattered tracts of private land would have minor impacts on the overall undeveloped character of the corridor, most of which would be minimized by increased management attention.

Impact on Fish and Wildlife

Designation may help assure that the fish and wildlife resources of the Lower Sheenjek River would be maintained and protected in the future. Few changes in biological resources are likely to occur even without designation, as existing USFWS management direction requires the conservation of fish and wildlife resources. However, wild river status may help provide legal, financial, or administrative resources to address future impacts above and beyond what would be provided through regular refuge management.

Conclusion: Fish and wildlife values of the river corridor are likely to remain unchanged and would receive long-term protection and management.

Impact on Scenic Quality

Designation would provide greater assurance that the characteristic scenic features of the Lower Sheenjek River would remain unchanged in the future. Few changes in scenic quality are likely to occur even without designation, but wild river status may help provide legal, financial, and administrative resources to address future impacts.

Conclusion: The features that characterize the outstanding scenery of the river corridor would remain unchanged and would receive long-term protection and management.

Impact on Subsistence Use

Designation would not affect subsistence use or travel to subsistence use areas. Continuation of subsistence activities within national wildlife refuges and components of the National Wild and Scenic Rivers System is allowed by law. Subsistence use would be formally recognized as an outstandingly remarkable value of the corridor. Slight increases in recreation use have the potential to lead to conflicts between local people and recreation users. However, recreation use on the Lower Sheenjek is extremely low and generally limited to July and August, while most subsistence use occurs after August (chum salmon fishing and moose hunting), or during winter months. Accordingly, it seems unlikely that even minor conflicts between these two groups will develop.

Conclusion: Subsistence use of refuge lands would not change, and its stature may be enhanced by its formal recognition of subsistence use as an important value of the river.

Impact on Archeological Sites

The alluvial nature of the Lower Sheenjek River (a constantly shifting channel and high rates of erosion) make cultural resources exceedingly difficult to find. Some disturbance to unknown sites could occur

because of the possibility of increased visitor use. However, this would be minor because use levels are expected to remain low (see recreational use section below) and increased management attention on minimizing recreation impacts are more likely under this alternative.

Conclusion: No significant adverse impacts to sites would be expected as a result of designation.

Impact on Recreational Use and Experiences

Visitor use would be expected to slightly increase under this alternative regardless of whether the Lower Sheenjek is designated. It is possible that additional publicity surrounding designation could result in a few more trips to the Lower Sheenjek River than might otherwise occur, but this is very unlikely to result in any substantial or sustained use increase. The Upper Sheenjek has been designated since 1980 and designation of an additional segment seems unlikely to significantly increase publicity or to change the river's attractiveness to potential visitors.

With use levels remaining at low levels or slightly increasing, no significant impacts from recreational use are expected in the near future. Most camping takes place on gravel bars, which are resistant to impacts from occasional recreation use and are typically "cleaned" each year by high water. If impacts do become noticeable at commonly used campsites, increased management attention required by designation and a river management plan can help minimize those impacts. Off-river education and interpretation efforts are expected to suffice in these circumstances. Use limitations or other regulations designed to control recreation use levels are not expected to be needed in the near future. No major conflicts among visitors are expected.

Conclusion: The existing opportunities for outstanding recreational experiences would not change, and long-term protection of recreation opportunities would be enhanced by designation.

Impact on the Construction of New Cabins and Other Structures on Federal Land

Designation would require that any new development in the corridor have minimal impacts on identified cultural, wildlife, scenic, recreational, or other values. Structures not on private land would require permits to be built; these permits might specify setbacks from the river or other minor restrictions. The number of new developments on federal land is likely to be less than three cabins, and many are likely to take place at existing developed sites (replacements or additions to existing structures). If these were developed, new structures could be required to be located far enough back from the river that they would not be obvious to other users.

Conclusion: A small increase in the number of potential new cabins or other possible development is expected, but any new development would have minimal impacts on the outstandingly remarkable features of the river.

Impact on Trespass and Damage to Private Property

Designation might enhance the Yukon Flats National Wildlife Refuge's ability to support increased management of visitor use, including providing information on the location of private property and how to avoid it. This would help to mitigate conflicts between visitors and owners of private property.

Conclusion: Although trespass could slightly increase commensurate with small increases in recreation use, unintentional trespass could be reduced by increased management attention.

Impact on Oil and Gas Leasing and Development

Oil and gas leasing and development are not allowed under the current refuge management plan, which is an *administrative* rather than *statutory* closure. Designation would close the Lower Sheenjek corridor to oil and gas development by statute. The change in oil and gas leasing opportunity is expected to be minor even as there is estimated to be moderate potential for oil development and high potential for coal bed methane gas. In both cases, development is considered unlikely in the near future because studies have not identified specific oil or gas reserves, nor have they explored specific economic feasibility of development. More importantly, the area encompassing the Lower Sheenjek is currently closed to oil and gas leasing and exploration (in accordance with "minimal management" discussed in the refuge management plan). Finally, even if the refuge were opened to oil and gas development, existing technological improvements in oil and gas development are likely to allow fields below the designated corridor to be accessed from outside its boundaries.

Conclusion: Designation would ensure statutory protection from oil and gas development, which is only administratively provided under refuge management plan protection.

Impact on the Harvest of Forest Resources

No commercial timber harvest is allowed on refuge lands; only limited harvests for local use are expected in the river corridor. On federal lands, the U.S. Fish and Wildlife Service would regulate this local use. Under the designation alternative, timber cutting would be managed in accordance with existing regulations, with particular attention to minimizing visibility of harvests from the river.

Conclusion: Small scale personal use harvests of timber would be allowed along the river, but this alternative might require harvests to be set back from the river to protect scenic and wildlife values.

Alternative B: No Action (Non-Designation)

Impact on the River's Free-Flowing Character

The only action that would significantly change the free-flowing character would be a major water diversion or impoundment. The lower river channel is not physically suitable for even a low-level impoundment. A major water diversion is feasible; however, no such development has been proposed, and the national wildlife refuge status of the land surrounding the river and the wild river status of the upper segments make such development unlikely. However, under this alternative, water development is not precluded in the Lower Sheenjek River.

Conclusion: No significant change in the river's free-flowing character is expected; however, there would be no statutory prohibition of a major diversion in the future.

Impact on the Corridor's Undeveloped Character

The federal refuge lands in the corridor would be managed primarily to preserve wildlife habitat in its natural diversity. Current management direction does not allow oil and gas leasing and development, mineral entry, or other major development projects. Habitat manipulation (e.g., prescribed burning, logging, and so on) along the river would be allowable under this alternative, but is not considered likely

in the near future. Because of their small numbers and scattered locations, Native allotments along the Lower Sheenjek River are not expected to have a significant impact on the river's undeveloped character. Traditional subsistence activities, trapping, and hunting are expected to continue as the major uses of these lands. Any allowable activities (e.g., timber cutting) taking place on federal land in association with these activities would continue to require permits from the U.S. Fish and Wildlife Service. These activities would be regulated consistent with refuge management plans, but would not be reviewed for effects on the river's outstandingly remarkable values.

Conclusion: The undeveloped character of the river corridor would be maintained under the proposed management for the refuges; however, such protection is only administratively determined and subject to change.

Impact on Fish and Wildlife

The fish and wildlife resources of the Lower Sheenjek River would probably remain unchanged in the future, because refuge management focuses on maintaining and enhancing these biological resources. However, additional attention on the specific fish and wildlife resources of the Lower Sheenjek are less likely under this alternative.

Conclusion: The river's fish and wildlife resources would probably remain unchanged, but statutory protection and additional management to address potential impacts would be limited.

Impact on Scenic Quality

The characteristic scenic features of the Lower Sheenjek River would probably remain unchanged in the future, because current management direction does not allow major development in the corridor. However, this management direction could be changed administratively. In addition, current management does not require specific attention toward impacts on scenery as would occur under designation.

Conclusion: The features that characterize the river's scenery would probably remain unchanged, but statutory protection to address potential impacts would be limited.

Impact on Subsistence Use

Subsistence activities would continue to be a major use of the corridor. Fewer than 100 people currently use the study area for subsistence purposes. No change is expected in subsistence use of refuge lands. No change in existing use patterns is expected.

Conclusion: Subsistence use of refuge lands would not change.

Impact on Archeological Sites

The alluvial nature of the Lower Sheenjek River (a constantly shifting channel and high rates of erosion) make cultural resources exceedingly difficult to find. Some disturbance to unknown sites could occur because of the possibility of increased visitor use. However, this is likely to be minor because use levels are expected to remain low (see recreational use section). Adequate survey work to locate sites within the corridor has not been done, but potentially significant sites have been reported. No significant threat to

these resources is expected, but archeological surveys of the area are unlikely to occur under this alternative.

Conclusion: No appreciable change in the condition of sites would be expected; identification of sites is unlikely.

Impact on Recreational Use and Experiences

Visitor use is expected to slightly increase even if the Lower Sheenjek is not designated; increased tourism to Alaska, increased state population levels, and increasing interest in river recreation are the most important factors driving use levels.

With use levels remaining low or slightly increasing, no significant impacts from recreational use are expected in the near future. Most camping takes place on gravel bars, which are resistant to impacts from occasional recreation use and are typically "cleaned" each year by high water. If impacts do become noticeable at commonly used campsites, however, some management attention is likely to be directed at minimizing those impacts. Off-river education and interpretation efforts are not expected to be a focus of management under this alternative. Use limitations or other regulations designed to control recreation use levels are not expected to be needed in the near future. No major conflicts among visitors are expected.

Conclusion: The existing opportunities for outstanding recreational experiences would not change, but long-term protection of recreation opportunities would not be a focus of management attention.

Impact on Construction of New Cabins and Other Structures on Federal Land

The U.S. Fish and Wildlife Service might allow construction of new cabins under special use permits if these facilities were necessary to support an ongoing allowable activity (trapping, for example). Minor administrative facilities might also be required. A reasonable estimate is that three new cabins would be built on refuge land within the next 20 years. All activities on federal lands would be consistent with the approved management plan for the refuge, which calls for minimum management activities and protection of the area's natural character. No special management attention would focus on minimizing the impacts of this development on the outstandingly remarkable values of the river (e.g., no setback regulations are expected).

Conclusion: A slight increase in the number of new cabins (or similar minor development) is expected, and management attention on the impacts of these developments would be small.

Impact on Trespass and Damage to Private Property

There are a few private cabins along the river. Some trespass and vandalism have been reported. With slightly increasing numbers of visitors using the river area, the potential for trespass and vandalism would also increase. Visitor use in the corridor is not expected to receive particular management attention and off-river education designed to minimize unintentional trespass is unlikely.

Conclusion: Incidents of trespass would increase commensurate with increases in visitor use, but are still likely to remain relatively low. No special effort is likely to be made to minimize unintentional trespass by recreation users.

Impact on Oil and Gas Leasing and Development

Based on a one-mile wide corridor (one-half mile on either side of the river), approximately 78,000 acres of refuge land could potentially be available for oil and gas leasing and development under this alternative. The corridor has only moderate potential for future oil discoveries, however, even though coal bed methane gas potential is high (Tyler et al., 1998). In either case, development is considered unlikely in the near future, as studies have not identified specific oil or gas reserves, nor have they explored specific economic feasibility of development. In addition, exploration and production technologies would generally allow for oil and gas development to occur in areas outside the corridor. All YFNWR lands are currently closed to oil and gas leasing, including the Lower Sheenjek River corridor, although this could be changed administratively.

Conclusion: No change in oil and gas leasing and development opportunity is expected, but development could be administratively allowed in the future with a change in the refuge management plan.

Impact on the Harvest of Forest Resources

There are potential commercial timber resources within the corridor although commercial timber harvests are prohibited on the refuge. Very limited cutting for local use is expected in the river corridor. The U.S. Fish and Wildlife Service regulates this activity on federal lands, but no particular attention to impacts on the river's outstandingly remarkable values is used to manage these harvests.

Conclusion: No change in timber harvesting opportunity is expected; management of local harvests on federal lands would be regulated according to existing regulations and refuge policy.

Impact Summary

Unavoidable Adverse Impacts

There would be no unavoidable adverse effects from implementation of any of the alternatives.

Short-term vs. Long-term Productivity

Designation would provide *statutory long-term protection* of the outstandingly remarkable recreational, scenic, wildlife, and cultural (subsistence) values of the Lower Sheenjek River. This would be consistent with the existing designation of the upper segment and compatible with the purposes for which the two surrounding national wildlife refuges were established. Management of the river corridor is expected to be very similar under either of the alternatives in the short term. In the long term, however, wild river status would preclude any changes in management that could adversely affect the values for which the river was designated.

Irreversible or Irretrievable Commitments of Resources

There would be no irreversible or irretrievable commitments of resources under either of the alternatives. Management of the corridor is expected to be similar in both alternatives, although Alternative A (designation) provides greater *statutory protection* and increased management attention to the outstandingly remarkable values of the river corridor. In contrast, Alternative B (non-designation) could

allow changes in management over the long-term should there be a change in management in the surrounding refuge.

Cumulative Impacts

Both alternatives are expected to have similar impacts in the near future. The substantive differences are between the *statutory protection of designation* versus the *administrative protection under the existing refuge management plan*. Accordingly, it is difficult to suggest differences in cumulative impacts of the two alternatives.

One possible difference in cumulative impacts concerns *potential* regulations that might be imposed on either local or recreational users if the river is designated and human use of the river results in significant impacts to the identified "outstandingly remarkable" values. However, as discussed above, educational rather than regulatory approaches are expected to be sufficient to manage for the river's values under the designation alternative.

A second possible difference in cumulative impacts refers to the accumulated effects of multiple additional National Wild and Scenic River designations in the area. However, no new designations are being contemplated, and the Department of Interior has recommended against inclusion of one nearby river, a 181-mile segment of the Porcupine. In summary, cumulative impacts of the two alternatives are judged to be similar.

Table 2: Summary of Environmental Impacts

Issue/Impact	Alternative A: Designation	Alternative B: No Action
Free-flowing character	Free-flowing character protected by statute.	Likely to remain free flowing, but not protected by statute.
Undeveloped character	Undeveloped character recognized and protected by statute and required management plan; additional management attention can help minimize future impacts.	Likely to retain undeveloped character, but no statutory protection or additional management attention to potential impacts required.
Fish and wildlife	Fish and wildlife resources would be protected by statute and management plan; additional management attention can help minimize future impacts.	Likely to retain abundance and quality of fish and wildlife resources, but increased statutory protection.
Scenic quality	Scenic values would be recognized and protected by statute and required by management plan; additional management attention can help minimize future impacts.	Likely to retain scenic quality, but no statutory protection or additional management attention to potential impacts required.
Subsistence use	Subsistence use would not change and would be formally recognized as an outstandingly remarkable value of the river.	Subsistence use is unlikely to change.
Archeological sites	No significant impacts to sites; surveys of sites are more likely to occur.	No significant impacts to sites; no surveys of sites is expected.
Recreational use	Existing opportunities would remain and be recognized. Use levels may increase slightly because of designation, but they are still likely to remain low. Off-river education and interpretation efforts likely to increase; these may help minimize impacts of recreation use.	Existing recreation opportunities likely to remain, but would not receive additional management attention. Use levels likely to increase, but perhaps less than under designation. Significant off-river education and interpretation efforts unlikely to be implemented.
Construction of new cabins on federal land	No difference in number or general location of new cabins. Setbacks or screening of new structures likely to be required for permittees.	No difference in number or location of new cabins for permittees.
Trespass and damage to private property	Unlikely to change; slight increase in recreation use offset by providing better information about private land to minimize unintentional trespass.	Unlikely to change.
Oil and gas development	No oil and gas development in corridor by statute; minimal loss in oil or gas development opportunity because of technology alternatives.	No oil and gas development in corridor by administrative decision.
Forest harvest	Setbacks and screening would be required with private firewood and house log harvests on federal land for cabin permittees and adjacent private property owners.	No screening or setback restrictions for private firewood and house log harvests on federal land.

Chapter 7: Consultation and Coordination

This chapter describes the public involvement efforts employed in conducting the study and developing this document. This includes a list of agencies and organizations consulted during the study, a chronology of the study, and summaries of comments generated during various stages of the study to date.

Chronology of the Lower Sheenjek Wild and Scenic Study

The Lower Sheenjek Wild and Scenic River Study/LEIS has had a long history. The Study/LEIS was initiated by the passage of ANILCA in late 1980, and the study process began the following year. This led to a Draft Study/LEIS, which was produced for public comment in 1984, and a Final Study/LEIS that was drafted (but never released) in 1985. At this time, however, funding and administrative constraints prevented further work on the effort, which remained dormant until 1997, when the current effort began. A chronology of the study process is given below.

December 1980	ANILCA passed; Upper Sheenjek within Arctic NWR is designated as National Wild River; study of similar designation for Lower Sheenjek is required.
May 1981	Letters mailed to the governor of Alaska, individual state agencies, individual federal agencies in Alaska, and native regional and village corporations and organizations with lands or interests in the study area. These letters announced the beginning of the study and specifically invited participation in the study process.
July 1981	News release was sent to local and statewide newspapers announcing the initiation of the study, and requesting information on the study area and identification of issues. At the same time letters requesting the same input were mailed to individuals and organizations in Alaska and in the Lower 48 whom the National Park Service perceived might be interested in the study.
August 1981	Initial field reconnaissance on river.
Aug-Sept 1981	Follow-up letters were mailed to state agency heads and leaders of native organizations with lands or other direct interests in the study area. These letters again requested information and invited direct participation.
October 1981	Study team meetings to consider study findings/alternatives.
Nov. 20, 1981	A "Notice of Intent to Prepare Report/Environmental Impact Statement and To Hold Public Meetings" was published in the *Federal Register*.
January 1982	Public information brochure was mailed to state and federal agencies, affected native organizations, and individuals and groups on the mailing list, explaining the study, presenting the findings of the study team, and describing the alternatives. Responses were requested. News release was sent to local and statewide newspapers announcing availability of the public information brochure and announcing the schedule of public meetings.
Jan.-Mar. 1982	Public review period and public meetings on preliminary study findings. Meetings in Anchorage (Jan. 20), Fairbanks (Jan.26), and Fort Yukon (Mar. 4). The public meetings were held to provide information on the study, to answer questions about the study findings, and to gather additional information on the area.

	Some expression of support for potential alternatives was also received. Little comment was provided in the Anchorage meetings. In Fairbanks, the comments were mixed, but the majority was in favor of designation. In Fort Yukon the expression was almost unanimously in favor of no-action (non-designation). A total of 38 written comments were received primarily in response to the public information brochure. The origins of written comments were Anchorage (6), Fairbanks (13), Fort Yukon area (1), other Alaska communities (5), Lower 48 (11), and unknown (2). From this total, 31 favored designation of all or portions of the study area and 7 favored the no-action (non-designation) alternative.
March 1982	Study team consideration of public comments and development of alternatives. Alternatives include no action (non-designation), designation of segment within Yukon Flats NWR, designation of segment between Yukon Flats NWR and Arctic NWR, or designation of both study segments.
October 1983	Arctic NWR expanded after state selections relinquished; segment of Sheenjek between refuges (on the expanded refuge lands) automatically designated as a Wild River.
September 1984	Draft Study/LEIS released.
Sept.-Dec. 1984	Public comment period on Draft Study/LEIS.
July 1985	A Draft Final Study/LEIS was prepared but never completed due to funding/ administrative constraints.
Winter 1996-97	Funding to complete Study/LEIS process obtained by NPS.
Spr.-Sum. 1997	Study/LEIS process resumes; Public Meetings and Comment Brochure released to update public on the process.
May-June 1997	Public meetings held in Fairbanks (May 13) and Fort Yukon (May 12 and June 25). Public comment open until September 5th, 1997.
July 1997	Field reconnaissance on river by NPS and USFWS.
Dec. 16, 1997	Notice of Intent to prepare a Draft Wild and Scenic River Study and Revised Draft Legislative Environmental Impact Statement published in Federal Register.
Sep. 9, 1998	Draft study/LEIS released by DOI.
Sep. 30, 1998	Revised Draft Study/LEIS sent to mailing list for public comment.
Dec. 1998	Public meetings in Anchorage (Dec. 8), Fairbanks (Dec. 9), and Ft. Yukon (Dec. 10).
Jan. 15, 1999	Public comment closed.

List of Agencies

The expertise of various agencies and groups was involved in the study of the Lower Sheenjek River. Both the initial study (conducted from 1981 to 1985) and the current study (summarized in this document) have been led by staff from the National Park Service in close cooperation with the U.S. Fish and Wildlife Service, which manages the adjacent lands.

National Park Service involvement is based on that agency's expertise regarding the Wild and Scenic Rivers Act and funding availability. In addition, the Fish and Wildlife Service did not have authority to conduct Wild and Scenic studies during the early 1980's study period. The National Park Service will not assume any management responsibility for the Lower Sheenjek River even if the river is designated.

Staff and officials from the Alaska Department of Fish and Game, Alaska Department of Natural Resources, and Doyon Limited have also been closely involved in the study process, participating on the initial study team, and commenting upon various study documents.

In addition, a variety of other agencies, organizations, and individuals have been involved in the study. A list of agencies and organizations that were sent copies of the Draft Study/LEIS in 1984 (and who were sent this Revised Draft Study/LEIS) is given below. Mailings were also made to individuals on the mailing list maintained at the Alaska Regional Office, National Park Service, Anchorage.

Federal Agencies

Department of Agriculture
- Forest Service
- Natural Resources Conservation Service

Department of Commerce
- National Marine Fisheries Service
- National Oceanic and Atmospheric Administration

Department of Defense
- Army Corps of Engineers

Department of Energy
- Alaska Power Administration
- Energy Research and Development Administration
- Federal Energy Regulatory Commission

Department of Health and Human Services

Department of Housing and Urban Development

Department of the Interior
- Bureau of Indian Affairs
- Bureau of Land Management
- Bureau of Mines
- Bureau of Reclamation
- Fish and Wildlife Service
- Geological Survey
- Minerals Management Service
- National Park Service
- Office of Surface Mining, Reclamation and Enforcement

Department of State

Department of Transportation
  Federal Aviation Administration
  Federal Highway Administration
Environmental Protection Agency

Alaska State Agencies (through the conservation system unit coordinator)

Alaska Power Authority
Citizens' Advisory Commission on Federal lands
Department of Administration
Department of Commerce and Economic Development
Department of Community and Regional Affairs
Department of Education
Department of Environmental Conservation
Department of Fish and Game
Department of Health and Social Services
Department of Law
Department of Labor
Department of Military Affairs
Department of Natural Resources
Department of Public Safety
Department of Revenue
Department of Transportation and Public Facilities
Division of Fish and Wildlife Protection
Division of Policy Development and Planning

Local Agencies

City of Fort Yukon
Native Village of Fort Yukon
Village of Beaver
Village of Arctic Village
Village of Chalkyitsik
Village of Venetie

Interested Groups

Alaska Center for the Environment
Alaska Chamber of Commerce
Alaska Coalition
Alaska Conservation Society
Alaska Federation of Natives
Alaska Historical Commission
Alaska Historical Society
Alaska Land Act Coordinating Committee
Alaska Legal Services
Alaska Miners Association
Alaska Native Foundation
Alaska Oil and Gas Association

Alaska Professional Hunters
Alaska Sportsmen's Council
Alaska Wilderness Council
Alaska Wildlife Federation
American Mining Congress
American Petroleum Institute
Arctic Environmental Information and Data Center
Association of Village Council Presidents
Audubon Society
Doyon Limited
Federation of Western Outdoor Clubs
Friends of the Earth
Institute of Arctic and Alpine Research
National Wildlife Federation
Sierra Club
Soil Conservation Society of America
Tanana Chiefs Conference, Inc.
Wilderness Society
Wildlife Management Institute
Wildlife Society

The document was also sent to all private landowners and cabin permittees in the study area.

Summary of Issue and Alternative Development 1981-1985

Issues and alternatives were developed during the initial study period (1981-1985). A summary of how the issues and alternatives were developed is provided below.

Issue Development

Issue identification or "scoping" involved public and agency responses to the study through letters, news releases, a public information brochure, and public meetings.

Letters requesting identification of issues and submission of information were mailed to the governor of Alaska, individual state agencies, individual federal agencies in Alaska, and native regional and village corporations and organizations with lands or interests in the study area.

A news release was sent to local and statewide newspapers announcing the study and requesting information on the study area and issues. Letters requesting the same were mailed to individuals and organizations in Alaska and the Lower 48 identified by the National Park Service as being potentially interested in the study. A public information brochure about the study, issues, and potential alternatives was distributed to federal and state agencies, groups, and individuals as well.

Public meetings to discuss the study were held in Anchorage and Fairbanks in January 1982 and in Fort Yukon in March 1982. The public meetings were held primarily to provide information on the study, to answer questions about the study findings, and to gather additional information on the issues to be analyzed.

Alaska state agencies submitted a list of issues through the conservation system unit coordinator. The state expressed concern about how the river area might be managed if designated. Among the state's principal concerns were the continuation of reasonable access to private and state lands along the river; provisions for transportation across the river corridor to develop state and private lands beyond the designated river area; continuation of customary and traditional uses and activities; and provisions for future programs and facilities for the protection and improvement of fish and wildlife habitat and species management.

Local residents were most concerned that wild river designation might restrict their activities on federal lands, such as new cabin construction or rebuilding of existing cabins and timber cutting. There was also some concern that designation might result in future controls on adjacent private lands even if designation pertained only to federal lands. Another local concern focused on the potential for designation to attract more recreation use to the river, which could increase trespass and damage to private property.

Principal concerns of residents of Anchorage, Fairbanks, other communities in Alaska, and areas outside Alaska included protection of the river's free-flowing character and associated values, maintenance of existing uses, and respect for local peoples' traditional uses and activities on the river.
A list of the impact issues identified through the scoping process is presented below. The list was examined to determine which pertained directly to the study and should receive further analysis. The starred issues (*) on this list were determined to be important for assessing and comparing impacts of the alternatives for the Lower Sheenjek River. Related issues from this list were sometimes combined into a single issue for analysis purposes.

Access

- traditional access to private property*
- future road development along or across the river corridor
- traditional public access to utilize wildlife and fishery resources
- access to mineral claims

Water Resource and Other Development

- hydroelectric development
- mineral exploration and development*
- seismic exploration for oil and gas*
- oil and gas drilling*
- new cabins and other structures on federal lands*

Transportation

- commercial barge operations
- regional road transportation*
- use of motorized boats
- future development of transportation, i.e., roads, landing strips, and docking facilities in or across the corridor
- expansion of river navigational facilities

Subsistence

- customary and traditional uses*
- cutting of firewood and houselogs*
- hunting, trapping, and fishing*

- conflicts with increasing numbers of recreationists*

Fish and Wildlife Management
- construction and maintenance of facilities needed for fish and wildlife management activities
- aerial and ground surveys of fish and wildlife
- management or research programs

Private Property
- new cabin construction*
- rebuilding of existing cabins*
- use and development of private lands
- trespass and vandalism*
- government condemnation of private lands to acquire access and scenic easements
- conveyance of selected lands to the state of Alaska or native corporations
- State of Alaska ownership of submerged lands under navigable rivers

Recreation
- quality and diversity of recreational opportunities
- impacts from increased recreational use*
- sport hunting and fishing

Other
- river's free-flowing character and associated values*
- harvest of forest resources
- water quality
- publicity about the river area
- possible national wilderness area designation
- wilderness qualities
- scenic qualities*

Readers should note that other issues (those not starred) were not ignored. However, many of these issues are 1) not affected by alternatives under consideration, 2) already addressed by existing laws and thus not relevant, or 3) pertain to uses of non-federal or private land and thus not relevant (Section 15 of the Wild and Scenic Rivers Act provides that nonfederal lands in Alaska are excluded from the boundaries of designated wild, scenic, or recreational rivers, and because prior valid claims to federal lands are not affected by designation). The issues in these three categories are listed below.

Issues not affected by alternatives
- Construction and maintenance of facilities to further fish and wildlife management activities
- Aerial and ground surveys of fish and wildlife
- Management or research programs

Issues addressed by existing laws
- traditional public access to utilize wildlife and fishery resources (section 811 of ANILCA)
- access to existing mineral claims (section 1110 of ANILCA)
- sport hunting and fishing (section 13 of the Wild and Scenic Rivers Act)
- management of fish and wildlife (section 13 of the Wild and Scenic Rivers Act)

Issues pertaining to non-federal lands and not relevant to designation

- new cabin construction on private property
- rebuilding of existing cabins on private property
- use and development of private lands
- government condemnation of private lands to acquire access and scenic easements
- conveyances of selected lands to the State of Alaska or native corporations
- State of Alaska ownership of submerged lands along navigable rivers

Finally, the following issues were identified because they are frequently important in wild and scenic river studies. However, they are not factors in the Lower Sheenjek River study.

- provisions of the comprehensive refuge management plans
- possible national wilderness area designation
- hydroelectric development
- regional river transportation
- water quality
- historic structures

Alternatives Development

Initial development alternatives began at a study team meeting on October 6 and 7, 1981. At this meeting, preliminary study findings were reviewed, and the river area's outstandingly remarkable values were identified. Four alternatives were also identified:

- No action (no designation)
- Designation of portion of river within Yukon Flats National Wildlife Refuge (99 miles)
- Designation of portion of river crossing state-selected lands (34 miles)
- Designation of both study segments (approximately 124 miles)

In January 1982, a public information brochure describing the study, the findings to date, and the alternatives were circulated to state and federal agencies, groups, and individuals that had indicated interest in the study. These groups and individuals were invited to indicate a preference for alternatives, propose additional alternatives, and comment on the findings or other issues. During the comment period, public meetings were held in Anchorage, Fairbanks, and Fort Yukon.

In October 1983 the alternative for designation of the portion of river crossing state-selected lands was dropped, since the state of Alaska had relinquished its claim to these lands and the area added to the Arctic National Wildlife Refuge. This segment of the river was thus automatically a part of the designated Upper Sheenjek Wild River.

In the current draft, only two alternatives are considered: designation and no action (non-designation).

Summary of Public Comment on the 1984 Draft Study/LEIS

The Draft Study and Environmental Impact Statement for the Lower Sheenjek Wild and Scenic River study was made available for public comment and review on September 14, 1984. The comment period ended on December 31, 1984. The proposed action in this Study/LEIS was designation of the entire Lower River.

Letters of comment from various federal and state government agencies and private organizations and individuals have been summarized below. Copies of all letters are available from the Alaska Regional Office of the National Park Service.

Federal Agencies

- USDA Forest Service: Concurs with designation proposal.
- Department of the Army. Designation would not affect any Corps of Engineer projects; no objections to designation proposal.
- US Department of Energy: Oil and gas potential in area is higher south of Porcupine River and outside study area. No objections to designation proposal.
- US Fish and Wildlife Service: Concurs with designation proposal.
- Office of Surface Mining, Reclamation and Enforcement: Concurs with designation proposal.
- Federal Aviation Administration, Department of Transportation: No comments.
- Environmental Protection Agency: Final draft should more clearly delineate outstandingly remarkable values that could be affected by the lack of designation (no action alternative). No objections to designation.

Alaska State Agencies

- Office of the Governor: Opposes designation and has several concerns.
- Citizens' Advisory Commission on Federal Areas: Opposes designation.

Private Organizations

- Northern Alaska Environmental Center: Supports designation for several reasons.
- Sierra Club: Supports designation for several reasons; interested in precluding habitat manipulation in corridor as well.
- National Audubon Society: Supports designation for several reasons.
- Alaska Oil and Gas Association: Opposes designation and suggests oil and gas potential of area has not been assessed with new technologies.

Individuals

Comments were received from 23 individuals of which 22 were clearly in favor of wild and scenic river designation and only one was clearly opposed. Of the 22 letters supporting designation, 21 of these supported Alternative C (designation of both segments) and one supported Alternative B (designation of Lower River only). Two of these letters made specific management recommendations or asked questions related to management of national wildlife refuges. These questions are not directly related to the wild and scenic river study and were referred to the U.S. Fish and Wildlife Service for consideration.

Summary of Comment from 1997 Public Involvement Effort

Articles about the river study were included in the May and November 1997 issues of the refuge's newsletter which is distributed to all post office box holders (~750) within the Yukon Flats, as well as to other interested individuals. A meeting notice news release was also mailed and FAXed to radio stations and newspapers in Fairbanks, Fort Yukon, and Anchorage on May 8th. A meeting notice was also placed as a newspaper ad in the Fairbanks Daily News Miner on May 9 and 12.

Three public meetings were held to review the process and further develop issues for the resumption of the Study/LEIS process. The following briefly reviews issues discussed during these meetings.

Fort Yukon Meeting

May 12 at Native Village Office

Ted Heuer (FWS) and Jack Mosby (NPS) gave a summary of how the refuge was established and why the lower Sheenjek River is being evaluated again for possible wild and scenic river designation. About 12-15 people attended; 12 people signed the mailing list

Much of the meeting focused on the need and purpose of a study and what Wild River status would mean for local people. There was a review of issues developed in the 1984 draft, and reiteration that the study was resuming and all issues remained open.

Concern was expressed over the impacts of increased recreational use and the need to ensure that local uses would be given higher priority.

Concern was expressed about the general lack of local input into management. There were some comments about the over-regulation of local users.

There was some concern about the timing of the meeting (during the traditional spring waterfowl hunting period) and the lack of public notice for the meeting (although it was on the radio, in the paper, and notices were sent to the village office and posted in the village). NPS and USFWS agreed to return in June 1997 when more people could attend. It was also agreed that an informational brochure would be prepared and mailed out prior to that meeting.

Fairbanks Meeting

Fairbanks May 13, 1997 at Public Lands Information Center

Ted Heuer (FWS) and Jack Mosby (NPS) gave a summary of how the refuge was established and why the lower Sheenjek River is being evaluated again for possible wild and scenic river designation. Six people attended; three people signed the mailing list.

The meeting focused on the need and purpose of a study and what Wild River status would mean. There was a review of issues developed in the 1984 draft, and reiteration that the study was resuming and all issues remained open.

Attendees asked a series of questions about current uses and resources in the corridor, as well as some background on wild and scenic rivers in Alaska. Other questions asked whether an archeologist would be involved in evaluating cultural resources (the answer was "yes") and why USFWS was not lead on the

study (NPS has expertise and Wild and Scenic River study authorization). Questions also asked for a summary of advantages and disadvantages of designation.

Information Brochure

An informational four-page brochure discussing the Lower Sheenjek River Study/LEIS was developed following the first Fort Yukon meeting. It was mailed to almost 200 individuals and organizations throughout Alaska and the lower 49 states, 50 copies were sent to the Fort Yukon village office, and a half dozen copies were sent to each village office in the refuge in early June 1997. Issues and other concerns were requested in writing, by phone, or electronic mail by September 5, 1997.

Fifteen responses were received; seven recommended designation, two no action, and eight did not indicate a preference but offered the following suggestions: 1) consider the area open to all, 2) concerned about subsistence use be addressed, 3) concerned that someone from outside the area would be telling us how to live, and 4) would recreational hunting and trapping be permitted?

The State of Alaska, Division of Governmental Coordination also provided comments in 5 areas: 1) subsistence and recreational use, timing of each, and provisions to protect existing and future subsistence use; 2) coordinating management with the state on the state owned Sheenjek River; 3) management of recreational use especially if use levels increase; 4) reference to the Alaska Land Use Council "Synopsis for Guiding Management of Wild, Scenic and Recreational River Areas in Alaska" and provide a summary of these differences in Alaska; and 5) addressing and resolving local concerns most impacted by designation.

Second Fort Yukon Meeting

June 25, 1997

Ted Heuer (FWS), Greg McClellan (FWS) and Jack Mosby (NPS) held a two-hour open house at the village office. Seven people stopped by to talk about the study and refuge. Questions raised included: why the study was being done; size of the river corridor that would be protected; effects on RS 2477 proposals; how designation might affect subsistence activities, commercial guiding, and tourist activity. Concern was expressed about increasing number of people coming from outside the area; changes and the possibility of additional permits and regulations that would restrict local use of the area or access to allotments. It was also suggested that the refuge establish a field office in Fort Yukon.

Summary of Public Meeting Comment on 1998 Draft Study/LEIS

Introduction

Three public meetings were held at the following locations and times in December of 1998 to provide opportunities for the public to comment on the draft Lower Sheenjek Wild and Scenic River Study/Legislative Environmental Impact Statement (Study/LEIS). The draft documents was mailed September 30, 1998 over 300 people and organizations on the project mailing list.

Anchorage	Loussac Library	Tuesday, December 8th	7 p.m.
Fairbanks	AK Public Lands Info Center	Wednesday, December 9th	7 p.m.
Fort Yukon	Native Village Building	Thursday, December 10th	7 p.m.

These meetings were publicized through newspaper advertisements and listed in a cover letter accompanying the draft document. In Fort Yukon, public service announcements were also made over the radio and a local announcer interviewed agency staff prior to the meeting.

The following summarizes the general format of the meetings, and then reviews the discussion at each of the meetings. Throughout the summary, public comments/questions are provided in *italics*, while agency responses are given in regular type.

General Format

All three meetings began with introductions of the agency staff present, as listed below, and then a brief overview of the meeting purpose.

Ted Heuer	USFWS	Yukon Flats National Wildlife Refuge manager
Jack Mosby	NPS	Rivers, Trails, and Conservation Assistance program leader
Doug Whittaker	NPS/CSU	Graduate assistant at Colorado State University under contract with NPS to assist on this study
Jerry Stroebele	USFWS	Northern Region Refuge Supervisor (Anchorage meeting only)

Following the introductions by Heuer, Whittaker and Mosby presented a 15 to 20 minute overview of the Wild and Scenic River Study process and the study findings for the Lower Sheenjek. This overview included:

- A summary of the Wild and Scenic Rivers Act
- A summary of the size of the existing National Wild and Scenic River System
- A summary of Alaskan Wild and Scenic Rivers and the relationship with Alaska National Interest Lands Conservation Act of 1980 (ANILCA)
- Definitions of Wild and Scenic River eligibility, suitability, and classification
- A slide show illustrating resources of the Lower Sheenjek
- A summary of the Lower Sheenjek "outstandingly remarkable" values leading to an "eligible" finding
- A summary of pros and cons leading to a "suitable" finding
- A review of management actions likely under designation and the no action alternative
- A review of the steps necessary for designation (final study/LEIS recommendation is sent to the Secretary of the Interior, who forwards it to the President, who forwards it to Congress with his recommendation for the final decision on designation).

The remainder of the meetings were spent in open discussion with the public (summarized below). At the end of the meetings, we thanked attendees and reminded them that comments would be accepted and appreciated via mail or electronic mail until January 15, 1999.

Anchorage Meeting

Attendees:	Eleanor Huffines	NOLS/AWRTA
	Nicole Whittington Evans	The Wilderness Society
	Jack Hession	Sierra Club
	Alan Phipps	State Department of Government Coordination
	Warren Keogh	private citizen
	Elaine Zevenbergen	APU student
	Abby Wyers	APU student

General comments about the Study/LEIS or the river

- *Relations between local people and commercial recreation trips seems to be improving in recent years.*
- *Study/LEIS seems to be succinct and clear.*
- *The river provides excellent opportunities for long hiking/boating trips.*
- *The State would like to see a joint river management plan developed if the river is designated (because the river is likely to be asserted as navigable and thus owned by the State).*
- *There appear to be few conflicts between designation and other resource development. This is a good candidate for inclusion in the system.*

Questions and Answers

Do jetboats or other motorized users go up the Lower Sheenjek and will Wild and Scenic status regulate powerboat use?
Most local people have props on their powerboats; a few moose hunters from Fairbanks may operate jetboats on the lower river. Both types of boating use are traditional on the Lower Sheenjek and are not proposed to be limited or regulated under the management plan.

How is the Lower Sheenjek accessed by recreation users? Is there an airstrip or lake nearby for access to the lower river only?
Most recreation users float the lower river in conjunction with the upper river. It is possible to fly into one of two or three large gravel bars just upstream of the study area; these are the bars that many upper river boaters use to take out (and avoid the lower 100 miles because they have limited time). In any given year, these bars may or may not be usable because of debris or channel changes. However, airplane technology continues to improve, making shorter bars more accessible.

Are there any cultural resources on the Lower Sheenjek?
We were concerned about cultural resources and had Chuck Diters (USFWS archeologist) come along during the fieldwork. Because of the alluvial nature of the river (constantly shifting channel), finding such resources would be exceedingly difficult. There are few high points along the lower river, which would suggest suitable locations. No cultural resources work is planned for the corridor, but if any cultural resources were discovered, wild river status would help provide legal protection because they are identified as "outstandingly remarkable" values in the study.

Are "outstandingly remarkable" values ever prioritized?
"Outstandingly remarkable" values are not prioritized in a Wild and Scenic River study or management plan. The goal is to protect or enhance all "outstandingly remarkable" values.

Aren't recreation use and subsistence use of the river in potential conflict?
If recreation use were to rise dramatically, it is possible that it would begin to conflict with local use. However, there is little chance of even modest increases in recreation use in the near future because access is so difficult. In addition, most recreation use currently occurs in July and early August, while most subsistence use is associated with fishing, hunting, and trapping which occur in late August, September, and through the winter, respectively. Finally, most current recreation users appear to appreciate subsistence use and prefer a wilderness-like experience that features solitude and relatively low use levels. This information will be included in the final study. Proposed management of the river is expected to discourage high recreation use levels.

Does National Wild River status elevate recreation use above subsistence use?
No (see answer above). In any case, parts of ANILCA protect subsistence use and access, so any limitations on use of the river would not be applicable to subsistence use. And again, no restriction of use is expected to be needed on the Lower Sheenjek.

If Congress does not act, how long would any interim protection last? Is there a sunset clause?
From the date that the President sends the report to Congress with his recommendation, Congress has three years to pass a bill that would designate the river. If no bill is passed within three years, the river would not be designated. The interim protections provided by section 3(b) would terminate.

How strong is the opposition to Wild River status in Fort Yukon or other nearby villages?
We will learn more about this on Wednesday at the Fort Yukon public meeting. We expect to find both support and opposition. At the first public meeting in Fort Yukon in May 1997, there was general opposition. At a second public meeting in June 1997, local opinion was more mixed. There is always concern in bush Alaska about federal government designations and whether those may change local or traditional uses.

Is the river navigable? Who owns the river?
Navigability is a complex issue. For the purposes of this study, the lower river is not assumed to be navigable because no such determination has been formally made. However, the State has asserted navigability for the Lower Sheenjek and, if granted, it would own the water column and the beaches/gravel bars below ordinary high water. In such a circumstance, cooperative planning with the state will obviously be crucial. We expect to revise the study/LEIS to reflect interest in improved management/planning consultation with the State in any case.

Has the State voiced opposition to Wild River designation?
State representative responded: No formal decision on whether to support or oppose designation has been made. When the initial draft was sent out in the mid-80's the State was generally opposed. At this time, it is more accurate to say that the State has some concerns about designation. A letter with State thoughts will be forthcoming.

Did you consider other alternatives?
As discussed in the Study/LEIS, we considered developing alternatives with shorter segments considered for designation. However, these were judged to be artificial; there are really only two alternatives here (to

designate or not). Splitting the Lower River into any other segments does not make sense from any relevant resource or physiographic viewpoint.

How is Wild River designation different from Wilderness or National Park designation?
Wild and Scenic rivers are distinct from more protective designations in that they focus on specific "outstandingly remarkable" values, not blanket protection from development. Many Wild and Scenic rivers in the country have considerable development along their banks. Wild and Scenic status is essentially about preventing dams and other water resource development, and recognition for existing values. In the case of the Lower Sheenjek, all existing uses (such as trapping cabins associated with subsistence use, powerboat use, access to private allotments, etc.) are identified as appropriate and valued uses of the river and would be protected, not restricted. Wild River status, however, would preclude oil and gas development, mining, or corridor development on federal land (even as these are not proposed or considered likely for the corridor).

What is the difference between Wild River status and Refuge status?
Wild River status adds a legal protective layer beyond Refuge status. It specifically identifies subsistence, fish, wildlife, and recreation as "outstandingly remarkable" values to be protected. Refuge status focuses more broadly on fish and wildlife resources. Protection for the Refuge is provided by Congressional authorizing legislation and administratively in the Comprehensive Conservation Plan; protection via Wild River status would come from Congress. Practically, Wild River status is unlikely to result in management different from surrounding Refuge lands in the near future. In the long term, however, the river might receive greater management attention and priority than general Refuge lands.

Fairbanks Meeting

Attendees:	Paul J. Williams	private citizen and allotment owner on Lower Sheenjek
	Freda Williams	private citizen and allotment owner on Lower Sheenjek
	Chris Larsen	Northern Alaska Environmental Center

General comments about the Study/LEIS or the river

- *As a person with an allotment on the river, I'm not interested in attracting a lot of recreation use, which might ruin it.*
- *I had a cabin on the river that got burned down by a squatter (this was before I had title). I hope Wild and Scenic designation might help protect my land.*
- *There used to be more trapping up there than there is now (other areas such as the Porcupine and the Black are just easier to get to and there is a lot of open water on the Sheenjek in winter).*
- *Bill Russell's daughter wrote a book about life on the river – might be called "Home Schooling." Provides information about subsistence life.*
- *In general, I'm interested in keeping the river the way it is. If W&S means that, then I might support it.*
- *The Lower Sheenjek has a lot of grayling too. You could live off that.*
- *The river definitely changes channels a lot, and sometimes logjams can make travel impossible. The river cut right through my allotment a few years ago.*
- *To get to the river from Fairbanks you have to drive 3 hours to Circle, travel 2 hours on the Yukon to Fort Yukon, and then travel another 2 hours up the Porcupine. With a big boat (Carolina Skiff with 180 hp), you use some gas.*

- *I haven't been on the river, but the river seems like a good candidate for protection. No major development uses would be affected, and it would be good to protect a river from headwaters to the Yukon.*

Questions and Answers

Would I be able to build a cabin on my allotment if the river was designated Wild?
Yes. Wild River designation would only apply to a mile-wide corridor and none of the allotments (there are six along the river) would be included in the corridor. The Refuge might encourage allotment owners to consider building cabins out of sight of the river to help maintain the naturalness of the corridor and to discourage trespassing by recreation users. Building away from the banks makes sense in any case because river channels change so frequently.

Would a trapper who wants to build a cabin on the river be able to get a permit for that?
In the 19 years since ANILCA, no one has applied for a cabin-building permit on the Lower Sheenjek, but the Refuge would consider issuing one to any legitimate subsistence trapper. This would be done on a case by case basis, and we would likely encourage any development to be set back from the river for the reasons discussed before. Wild River designation would not change this process, as subsistence uses are considered one of the "outstandingly remarkable" values to be protected.

Could a trapper build a cabin and then go live on the river year-round?
In general, a permit to build a cabin would specify that the cabin be for subsistence use only, not year-round use. Cabin permits are not homesteading programs.

Fort Yukon Meeting

Attendees:	Tricia Waggoner	CATG
	Bentley Solomon	private citizen
	Pat Adams	private citizen
	Walter Flitt	Native Village of Fort Yukon
	Davey James	Native Village of Fort Yukon/CATG
	Steve Waggoner	private citizen and potential Sheenjek outfitter/guide

General comments about the Study/LEIS or the river

- *I'm concerned about the publicizing of this meeting; make sure you send future announcements of such meetings and any documents to Walter Flitt at the village office as well as to the tribal council. Also consider daytime meetings, longer stays, and try to arrange for more opportunities for people to come by (many are at Bingo tonight).*
- *As a person with an allotment on the river, I'm not interested in attracting a lot of recreation use, which might ruin it.*

Questions and Answers

What if we wanted to open up the river for oil and gas development, or to build a road across it?
The river is already administratively closed to oil and gas development; Wild River status would Congressionally prevent that development. If a road were proposed, there is a process for its consideration under Title 11 of ANILCA. No road proposals for this area have been made in the past. There are neither 17b easements nor any RS2477 claims for rights-of-way.

Will designation cause increased recreation use? Could someone open a store on the river to take advantage of the recreation use on the river in the future?
We don't think designation is likely to increase use very much. The upper river has been designated for 19 years and it still sees relatively low use levels. The lower river sees much less. A person who owned an allotment could open up a store since that is on private land. The Refuge would probably not permit commercial activities like a store on Refuge land.

What if an allotment owner wanted to bring some heavy equipment up to his place to build access from the river to his cabins or something like that?
First, what an allotment owner does on his land is up to him; they are outside of the Wild River boundaries. Second, Title 11 of ANILCA allows access to allotments so if there was a proposal to develop a road to an allotment, the Refuge would take a look at that. But the goal would be to minimize impacts on the Wild River values, and the Refuge would be able to work with people to make that happen.

How wide will the Wild River corridor be?
For the study, the corridor is two miles wide on either side of the river. If designated, the average would be about a half-mile wide on either side of the river (one-mile total width), with boundaries excluding any private land (allotments). The law requires exclusion of private land.

How will you define the river corridor in the future if the channel keeps changing so much? Couldn't the river move out of the boundaries you set?
That's an excellent point. We don't think there is a river in the National Wild and Scenic System that has such an active alluvial channel. It definitely could move (you can observe this just by looking at a map – there are oxbows and meanders that are several miles wide) outside the one-mile border. We will talk to people back in Washington about this issue. [Note: Section 3b of Wild and Scenic Rivers Act allows subsequent boundary amendments.]

Are motorized boats and planes allowed on Wild Rivers?
It depends on the river and the management plan. For the Lower Sheenjek, there would be no restrictions on motorboat or plane use, which are clearly traditional and have been recognized as such in this study.

What do you know about cultural resources on the river? You should hire locally and collect stories from elders about use of the river before they get too old. Chiefs are going to Washington D.C. to work on getting a project to retrace history of our villages. Potential elders include: Moses at Arctic Village, James Gilbert, and David Solomon in Chalkyitsik.
We were concerned about cultural resources and had Chuck Diters (USFWS archeologist) come along during the fieldwork. Because of the alluvial nature of the river (constantly shifting channel), he said that finding such resources would be exceedingly difficult. There are few high points along the lower river, which would suggest suitable locations. No cultural resources work is planned for the corridor, but if any cultural resources were discovered, Wild River status would help provide additional legal protection. As

far as learning about the history of local use, the Refuge would welcome any projects coming out of Washington that would help document use and cultural resources. Based on what we learned from Chuck Diters, however, it probably does not pay to go looking for sites on the Lower Sheenjek in comparison to other places in the area. The river changes so often that it is difficult to find evidence of camping use from last year, let alone from 50, 500, or 5,000 years ago.

How would you define recreation? You should define it better in the report.
That is a complex question. Recreation researchers formally define recreation as the experiences that people have when they are freely engaging in non-work activities. But we think you are concerned about the need for clarity so we can manage recreation use and make sure it does not conflict with subsistence use. We will revise the Study/LEIS to be clearer about recreation use, and how it might be managed.

I am a commercial outfitter/guide. How will Wild River designation affect my options for taking clients on the Sheenjek? Do they prohibit or limit commercial use on Wild Rivers elsewhere?
Because the river is already in the refuge, you need a commercial use permit in any case. The Refuge handles those on a case by case basis, and generally tries to work with the guide/outfitter to develop an operating plan that will minimize impacts on the land and wildlife. Wild River status would not affect this process, except that the Refuge might pay more attention to potential impacts on the "outstandingly remarkable" values. As far as we know, commercial use limits are only in place on rivers, which have considerable use impact problems, and those limits were adopted after extensive public input and studies. Because use and impacts are so low on the Sheenjek, the prospect of commercial use limits seems remote, (like the river). If they were ever instituted, you can be sure there will be an open public process.

Are there any other long rivers in the Wild and Scenic River System? Would this be the longest?
We think this would be one of the longest in the system, but the designated portion of the Noatak is longer at 330 miles. On the other hand, the designated part of that river ends upstream of the village of Noatak, so its entire length is not designated. If the Lower Sheenjek is added, the entire Sheenjek would be designated.

Other Issues (not specific to the Lower Sheenjek River)

- *There is a beaver problem up many of these rivers. Because the price for beaver fur is so low, trapping is down and the overabundance might be having biological consequences. Some concern about fish migration into/out of lakes that have outlets dammed by beaver.*
- *We are still concerned that hunting regulations allow hunting of the lead caribou herd (Porcupine herd). Local people don't think it is okay to harvest the lead herd, as these animals are key to the health of the herd at large (they choose the migration route).*
- *Need to hire locally when doing any studies.*
- *Land trade for military surplus land near Fort Yukon.*

Summary of Written Comments on 1998 Draft Study/LEIS

The public was invited to submit written comments via mail, fax, email, or by phone on the Draft Study/LEIS released in late 1998. Comments were accepted through February 1, 1999. The following summarizes and provides examples of comments. Comments from individuals are summarized in a table and by type. Comments from organizations are provided in their entirety. Criticisms of the study related to factual matters or logic involved in its conclusions have received short responses that include information about how the final draft has addressed those criticisms.

List of Organization Comments

Organization/Name	City & State	Support?	Type	Length
National Parks and Conservation Association (Chip Dennerlein via Joan Pascale)	Anchorage, AK	Support designation	Email & mail	2 para.
Knik Canoers and Kayakers (Eric Downey and Cathy Hart)	Anchorage, AK	Support designation	Email & Fax	2 para.
Fairbanks Paddlers and Alaska Wilderness Recreation and Tourism Assoc. (Ed Davis)	Fairbanks, AK	Support designation	Email	6 para.
American Rivers, Audubon (National and State), Alaska Conservation Alliance (joint comments)	Various	Support designation	Email & written	5 pages
Seattle Audubon (Georgia Conti)	Seattle, WA	Support designation	Email	2 para.
Northern Alaska Environmental Center Boreal Briefs #79 (Patrick Sousa)	Fairbanks, AK	Support designation	Email	3 para.
Alaska Discovery (Ken Leghorn & Susan Warner)	Juneau, AK	Support designation	Fax	3 para.
The Wilderness Society (Nicole Whittington-Evans)	Anchorage, AK	Support designation	Mail	2 pages
Sierra Club (Jack Hession)	Anchorage, AK	Support designation	Mail	2 pages
Northern Alaska Environmental Center	Fairbanks, AK	Support designation	Mail	2 pages
Alaska Miners Association (Steven Borell)	Anchorage, AK	Opposes designation	Mail	10 pages
Citizen's Advisory Commission on Federal Areas (Stan Leaphart)	Fairbanks, AK	Opposes designation	Mail	3 pages
Alaska Outdoor Council (Tamara Axelsson)	Fairbanks, AK	Opposes designation	Mail	4 para.
US Fish and Wildlife Service Northern Alaska Ecological Services (info on endangered species) (Patrick Sousa)	Fairbanks, AK	N/A	Mail	2 pages
US Environmental Protection Agency (compliance review; no objections but some comments)	Seattle, WA	N/A	Mail	2 pages

Summary of Organizational Comments

Fifteen organizations provided comments. Ten (67%) supported designation, three (20%) opposed, and two (13%) provided comments only without making any recommendations. Twelve (80%) were from

Alaska, five (33%) were from Anchorage, seven (47%) from Fairbanks, two (13%) from Seattle, and one (7%) joint letter from three organizations from Washington, DC and Anchorage. The actual letters from these organizations and responses to their comments follow this section.

Summary of comments from individuals

- A total of 51 individuals sent comments (41 by email; 6 by fax, 2 by mail, 2 by phone).
- 23 (45%) were from Alaska.
- 11 (22%) were from Fairbanks.
- 10 (20%) of the individuals who wrote reported having been on the Lower Sheenjek.
- 2 individuals reported they had not been on the river; the rest did not comment on their Lower Sheenjek experience and presumably have not been there (a total of 41 or 80%).
- 14 (27%) wrote two or more paragraphs of comments.
- 50 out of 51 (98%) support designation of Lower Sheenjek as a National Wild River.

Examples of individual support letters

This letter is to inform you that I support the efforts to designate the lower Sheenjek River as a Wild and Scenic River. This would protect important wildlife habitat and the cultural, scenic, and recreational values associated with the lower river. It would be wonderful and important to future generations to have the entire river length of this beautiful river designated as wild and scenic.

Gary Simpson
Albuquerque, New Mexico

I have floated the Sheenjek for pleasure a few times in the past 11 years. I have to say it is truly one of the finest subarctic river experiences in Alaska. The river is truly wild, wildlife is abundant, the river has outstanding scenery, and offers primitive wilderness experience so important on public lands. Designating the lower Sheenjek as Wild would preserve the free-flowing condition of the river and protect the cultural, wildlife, scenic, and recreational values associated with the river and its adjacent public lands.

I urge you to designate the lower Sheenjek as a Wild river, so the entire Sheenjek is federally protected against incompatible development.

Karen Jettmar
Anchorage, Alaska

Example of opposition letter (only one from an individual)

It appears the Sheenjek River wild and scenic river status is, obviously, another attempt to "LOCK-UP" and prevent oil, gas, and mineral exploration and development.

Judging from past state budgets, the state needs all the revenue they can get and oil, gas & mineral development is their best source.

Mark Ringstad
Fairbanks, Alaska

List of individuals sending comments

Name	City & State	Position	On river?	Type	Length
Mike Macy	??	Support designation	Yes	Email	1 para.
Jennifer Allison-Keim	??	Support designation	?	Email	1 para.
Frank Gallagher	??	Support designation	?	Email	1 para.
Dan Nicholson	Anchorage, Alaska	Support designation	?	Email	1 para.
Chase Hensel	??, Alaska	Support designation	?	Email	1 para.
Todd Kelsey	??, Utah	Support designation	?	Email	1 para.
Sean Schenk	??, WA	Support designation	?	Email	1 para.
Daniel Nelson	Akron, Ohio	Support designation	?	Phone	--
Gary Simpson	Albuquerque, NM	Support designation	?	Fax	1 para.
Mary Hertert	Anchorage, Alaska	Support designation	?	Email	3 para.
Macgill Adams	Anchorage, Alaska	Support designation	Yes	Email	1 para.
Dan Ritzman	Anchorage, Alaska	Support designation	Yes	Email	2 para.
Karen Jettmar	Anchorage, Alaska	Support designation	Yes	Email	2 para.
Bruce Baker	Auke Bay, Alaska	Support designation	?	Mail	1 para.
Sharon Walker	Bakersfield, CA	Support designation	?	Fax	1 para.
Marc Olson	Barrett, MN	Support designation	?	Email	1 para.
Brian Keane	Cincinati, Ohio	Support designation	?	Email	2 para.
Joyce P. Oswald	Denali Park, Alaska	Support designation	?	Email	2 para.
Alan Seegert	Denali Park, Alaska	Support designation	?	Email	1 para.
Sue Deyoe	Denali Park, Alaska	Support designation	?	Email	1 para.
Leslie Adams	Denali Park, Alaska	Support designation	?	Email	1 para.
Ann Leonard	Estes Park, CO	Support designation	Yes	Email	2 para.
Kathy Merritt	Fairbanks, Alaska	Support designation	?	Email	2 para.
Sheri Lewis (received by Fred Deines)	Fairbanks, Alaska	Support designation	?	Phone	--
Joseph Rueter	Fairbanks, Alaska	Support designation	?	Email	1 para.
Marin Kuizenga	Fairbanks, Alaska	Support designation	Yes	Email	2 para.
Frans Meuter	Fairbanks, Alaska	Support designation	?	Email	1 para.
Tonya D. Trabant	Fairbanks, Alaska	Support designation	?	Email	1 para.
Thomas J. Classen	Fairbanks, Alaska	Support designation	?	Email	1 para.
Pat Reinhard	Fairbanks, Alaska	Support designation	?	Email	1 para.
Beverly Reitz	Fairbanks, Alaska	Support designation	Yes	Fax	3 para.
Frank Keim	Fairbanks, Alaska	Support designation	Yes	Fax	1 para.
Mark Ringstad	Fairbanks, Alaska	Opposes designation	No	Mail	2 para.
Sharon Ziegler-Chong	Hilo, HI	Support designation	?	Email	1 para.
Barbara Kelly	Juneau, Alaska	Support designation	?	Email	1 para.
Nathan Sage	Kingston, RI	Support designation	?	Email	1 para.
David Naghski	Lewisberry, PA	Support designation	?	Fax	1 para.
Michael Rentz	Minnetonka, MN	Support designation	No	Email	1 para.
R. Glendon Brunk	Prescott, AZ	Support designation	?	Email	1 para.
Mark Black	Providence, RI	Support designation	?	Email	1 para.
Harrison Grathwohl, Ph.D.	Redmond, WA	Support designation	?	Email	1 para.
Robert Stagman, M.D.	Seattle, WA	Support designation	?	Email	1 para.
Steve Hauschka	Seattle, WA	Support designation	Yes	Email	2 para.
Kelly Coladarci	Silver Spring, MD	Support designation	?	Email	1 para.
Caitlin Cornwall	Sonoma, CA	Support designation	?	Email	1 para.
Richard Dale	Sonoma, CA	Support designation	?	Email	1 para.
Carmen T. Santasania	State College, PA	Support designation	?	Email	3 para.
Bill and Marilyn Voorhies	West Tremont, ME	Support designation	?	Email	2 para.
Carol Pinsky Blumenthal	Wilmington, DL	Support designation	?	Fax	1 para.
Charlie Milligan	Wingdale, NY	Support designation	?	Email	1 para.

American Rivers

January 14, 1999

Sheenjek River Study,
2525 Gambell Street,
Anchorage, AK 99503-2892

American Rivers, the National Audubon Society, the Alaska State Office of the National Audubon Society, and the Alaska Conservation Alliance hereby jointly submit their comments on the Revised Draft Wild and Scenic River Study and Legislative Environmental Impact Statement for the Lower Sheenjek River, Alaska, issued in January, 1998 (the "Study").

American Rivers, based in Washington, D.C., is North America's leading national river-conservation organization.

With over a million members and supporters in 518 chapters throughout the Americas, the mission of the National Audubon Society is to conserve and restore natural ecosystems, focusing on birds, other wildlife, and their habitats for the benefit of humanity and the earth's biological diversity.

The Alaska State Office of the National Audubon Society represents National Audubon in Alaska and coordinates with our 4 Alaska Chapters, which have a membership of about 2,200. The mission of Alaska Audubon is to conserve Alaska's natural ecosystems focusing on birds, other wildlife, and their habitats. Alaska Audubon bases its conservation advocacy on sound science and common sense.

The Alaska Conservation Alliance, a 501 (c)(3) organization, is a coalition of 31 Alaska conservation groups and eco-tourism businesses. ACA is dedicated to strengthening environmental organizations and empowering individuals to protect Alaska's environment through public education, training, advocacy, communication and strategy development, all with respect for communities and human dignity.

Our comments follow.

We are pleased to see that the study represent a collaborative effort between two agencies in the U.S. Department of the Interior, the U.S. Fish & Wildlife Service, the proposed "managing agency", and the National Park Service, which has "study authorization"

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No responses.

from the Secretary of the Interior and extensive recent experience in conducting such studies. Such sharing of federal expertise will surely enhance the effort to protect rivers that deserve to be included in the national wild & scenic rivers program

It is of course mystifying to us that a study, which was mandated by the Congress in 1980, is only being completed nearly twenty years later! And of course the lengthy delay, after an initial multi-year effort was terminated in 1985 due to "funding constraints", has necessitated an extensive review and updating of the prior work, thereby adding to the "cost to complete" the study. Be that as it may, however, we are pleased that the study has now been completed, and we support the proposed action, namely, Congressional designation of the Lower Sheenjek as a "wild" river.

Findings on Eligibility

To be "eligible" for inclusion in the national wild & scenic rivers system, a candidate river segment must be in substantially free-flowing, natural condition, and it must posses at least one outstandingly remarkable value. The Lower Sheenjek River meets these eligibility standards with ease. First, there are no impoundments or any other water developments on the river, which exists in a primitive, free-flowing condition. Study, p. 11. The two federal agencies also determined that the Lower Sheenjek has not one but four outstandingly remarkable values: Cultural, Wildlife, Scenic and Recreational Values. In particular, we applaud the decision of the planners to recognize "customary and traditional uses" of the river as an outstandingly remarkable value, thereby providing assurances to the local population that designation would not result in major changes in their way of life or their use of the river. Thus the "eligibility" criteria have been met

Classification

We agree with the proposed classification of the Lower Sheenjek as "wild", given the fact that there are no roads along or even "to" the river, and very low population levels near the river, with some of that being only seasonal. Study, pp. 11, 13.

Suitability

The suitability determination also "writes itself".

(a) Presence Within An Existing Federal Wildlife Refuge -The river corridor is within the Yukon Flats Wildlife Refuge, almost all the land along the river is federally owned, and the few private native allotments would be excluded from the boundaries. Traditional uses of cabins and camps would be protected in maintaining the "cultural values" of the river. It bears emphasis that as a result, there would be no substantial costs required as a result of designation, either for acquisition of land, development, management or operation. In short, this river is so "wild" that it can be protected by the designation, and essentially left alone.

No responses.

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(b) Lack of Competing Land Management Priorities - There also appear to be no competing land management priorities for the corridor, since the area does not have significant timber, oil, gas, mineral or water resources.

(c) Feasibility and Timeliness - We do not agree with the study's conclusion, in its broadest sense, that designation is "timely". Study, p. 13. It would have been "timely" to do so in the early 1980s, after twenty-five rivers in Alaska were designated in the Alaska National Interest Lands Conservation Act of 1980 and twelve additional Alaskan rivers, including the Lower Sheenjek, were identified by Congress for further study. However, given the characteristics of the Lower Sheenjek River, which exceed all of the criteria set forth in the Wild & Scenic Rivers Act, the river clearly deserves to be designated as a "wild" river in the national system. There is thus some truth in the old adage that "there is no time like the present" for designation of this river.

We believe designation of the Lower Sheenjek would be especially attractive since, combined with the Upper Sheenjek River, which was designated in the 1980 Act, the entire Sheenjek River would then be included in the national system, as it deserves to be. The study also concludes, for example, that combining the two segments of the Sheenjek would provide "one of the best long floating trips in interior Alaska." Study, p. 12.

(d) Treatment of Potential Local Concerns - We are by no means insensitive to the concerns of the local population about inclusion of the Lower Sheenjek in the national system, and the potential for an added layer of regulation, as expressed at pp. 11-12 of the Study. Considerable effort was made during the "new" study period to obtain input from the local population, with two meetings at Fort Yukon in 1997 and one in Fairbanks. Three public hearings were also held in December 1998 on the study and its recommendations. This is "all to the good".

However, we believe some of this somewhat unfocused local concern might have been overcome if the local population had been involved with federal agency personnel in development of a management plan during the study itself, as has been successfully done by NPS in the case of several Eastern rivers in recent years (e.g. Great Egg River (NJ)). The potential for recurring interaction during development of such a plan would have ensured that all issues were "on the table", that the full impact of designation would be known, and that solutions could be devised to any specific issues that might be raised. But this route was not taken.

This issue can still be effectively managed, in our view, by a program of education about what the wild and scenic rivers program is - and isn't - and by effective liaison with the local population, as the study itself acknowledges. (Study, p. 41.) The study makes it very clear that no land acquisition is being proposed, and that virtually no additional administration would be required, in the event of designation. It also bears emphasis that the area we are addressing is extremely remote and undeveloped. At present the population in towns in the region is 1,024, or which more than half live in

1. Response: We agree that the study should have been completed in the mid-1980's. The point we were making in the Draft Study/LEIS related to the timeliness of this component of the study, and the idea that there is no reason to further delay its completion. This final draft revises this section to reflect our concern about previous tardiness and the need to complete the study now.

2. Response: We will continue to send information and meet with local people about the final study or other issues as needed. The Final Study/LEIS contains several revisions to reflect interest on the part of USFWS to conduct cooperative management on the river.

4

one town, Fort Yukon, which itself is outside the river corridor under study. In terms of recreational use, there are fewer than 10 river trips on the Lower Sheenjek each summer season. And all that can be contemplated in terms of future development along this segment of the river is three cabins or associated outbuildings (indeed, no new structures have apparently been built in the region since 1980).

The Interim River Management Guidelines set forth in Appendix A to the study also appear to be sensitive to local concerns, and to provide the necessary assurances to the local population. Thus, the elements all appear to be in place for a successful conclusion of the "outreach" effort, and for both designation of the Lower Sheenjek and development of an appropriate management plan.

Environmental Impact Statement

Chapter 5 of the study provides a comprehensive analysis of the "affected environment" of the Lower Sheenjek River area. Noteworthy elements include the wide temperature range of the area; the important subsistence economies of the area, which would be protected as an outstandingly remarkable value; the extremely limited non-public land ownership in the area; the excellent water quality of the river; and the fact that the entire river segment is canoeable.

Also, there is extensive wildlife in the study area (it is noteworthy, for example, that at one time the Hudson Bay Company outpost at Fort Yukon, southwest of the study area, was "the company's most valuable post west of the Rocky Mountains"). Finally, no mineral production has occurred in the area, and only minimal oil and gas exploration has been conducted. Thus the usual conflicts between preservation and development inherent in any consideration of wild and scenic designation for a particular river segment should be much reduced here.

Summary and Conclusion

The Lower Sheenjek River is certainly "wild" in its present state. The river is free-flowing, there is very limited population in the region, and very little development. More than 99 percent of the land is public land, and the handful of private parcels would be excluded from the proposed boundaries of the "wild" river designation. Local issues, such as they are, could be dealt with during the development of a management plan. Designation of the Lower Sheenjek River would "complete the job" of bringing the Sheenjek into the national system.

The study weighs two alternative courses of action: designation of the Lower Sheenjek as a "wild" river, and "no action". It is perhaps remarkable that the authors of the study conclude that, in the circumstances, the cumulative impacts of the two alternatives "are judged to be similar", since so little additional regulation would be implemented. However, we believe it is most significant that under the Wild and Scenic Rivers Act of

3.

3. Response: We agree and drew similar conclusions in other parts of the document. The cumulative impacts section in this Final Study/LEIS has been revised to reaffirm this point.

5

1968, as amended. "designation" of the Lower Sheenjek would provide statutory (rather than merely administrative) protection against federal water projects and against oil and gas leasing within the boundaries which would be established under a management plan. The Lower Sheenjek River is as wild as almost any in the federal system today, and

deserves to remain so. Thus, American Rivers, the National Audubon Society, the Alaska State Office of the National Audubon Society, and the Alaska Conservation Alliance support implementation of Alternative A: designation as a wild river.

Respectfully submitted.

Jack Hannon
Wild & Scenic Rivers
Program Coordinator
American Rivers

Daniel P. Beard /JH
Daniel P. Beard
Vice President for
Public Policy
National Audubon Society

Kay Brown /JH
Kay Brown
Executive Director
Alaska Conservation
Alliance

John W. Schoen /JH
John W. Schoen, Ph.D.
Executive Director
Alaska State Office
National Audubon Society

cc: Governor Tony Knowles (AK)
Bruce Babbitt, U.S. Secretary of the Interior
Don Barry, Assistant Secretary for Fish, Wildlife and Parks
George Frampton, Acting Chair, CEQ
Frank Rue, Commissioner of Alaska Fish & Game
John Schively, Commissioner of Natural Resources, State of Alaska
Jamie Clark, Director, U.S. Fish & Wildlife Service
Robert D. Barbee, Regional Director, National Park Service
Dave Allen, Regional Director, U.S. Fish and Wildlife Service
Chris Brown, NPS
John Haubert, NPS
Jack Mosby, NPS
Ted Heuer, Yukon Flats Wildlife Refuge Manager, U.S. Fish and Wildlife Service
Sylvia Ward, Executive Director, Northern Alaska Environmental Center

3. con't.

3. See previous page for responses to the American Rivers consolidated letter.

Citizens' Advisory Commission on Federal Areas

3700 Airport Way
Fairbanks, Alaska 99709-4699
(907) 451-2775
Fax 451-2761

January 15, 1998

Mr. Jack Mosby
Study Leader
Sheenjek River Study
2525 Gambell Street
Anchorage, AK 99503-2892

Dear Mr. Mosby:

The Citizens' Advisory Commission on Federal Areas has completed its review of the Revised Draft Wild and Scenic River Study and Legislative Environmental Impact Statement (Draft Study/LEIS) for the Lower Sheenjek River. We are pleased that the Department of the Interior is moving forward to complete this study and we appreciate the opportunity to comment. As noted in the current document, the Commission opposed designation of this river segment as wild river in comments submitted on the 1984 Draft Study/LEIS. The Commission found nothing in this most recent Draft Study/LEIS which causes us to reverse our previous position. Therefore, we support adoption of Alternative B, the no-action or non-designation alternative. We offer the following comments for consideration during preparation of the final LEIS.

General Comments

The Draft Study/LEIS presents no compelling arguments for designating the Lower Sheenjek as a wild river. While acknowledging that there are presently no threats to the river's free-flowing and undeveloped character, the document nevertheless attempts to support the proposed designation under the preferred alternative by implying that the current administrative protections afforded to the river and surrounding refuge lands are inadequate. In fact, while the "minimal management" classification imposed by the Comprehensive Conservation Plan (CCP) for the Yukon Flats National Wildlife Refuge is an administrative designation, both the river and the surrounding uplands are protected from incompatible activities by a number of federal statutes.

The Alaska National Interest Lands Conservation Act (ANILCA), the National Wildlife Refuge System Administration Act of 1966, and the National Wildlife Refuge System

1.

1. Response: The National Wildlife Refuge System Administration Act of 1966, the Alaska National Interest Lands Conservation Act of 1980, and the National Wildlife Refuge System Improvement Act of 1997 all protect the proposed corridor from any use or activity that the refuge manager determines would not be compatible with the purposes for which the Yukon Flats National Wildlife Refuge was established. In all likelihood "any activity or use of a sufficient magnitude to threaten the resources of the Lower Sheenjek" would not be determined to be compatible. However, a refuge compatibility determination is an administrative decision based on "the sound professional judgement" of the refuge manager, whereas Wild River status provides additional statutory protection.

January 15, 1999 2

Improvement Act of 1997 each contain provisions prohibiting any use within a refuge unless such use is determined to be compatible with refuge purposes. The Yukon Flats CCP clearly states that a site-specific compatibility determination will be required for all activities or uses requiring special use permits. A compatibility determination is required regardless of the management category designation for a particular area of the refuge. Certainly, any activity or use of a sufficient magnitude to threaten the resources of the Lower Sheenjek would have to meet this compatibility test.

Further, an examination of the CCPs for the Selawik, Nowitna and Arctic National Wildlife Refuges, each of which also contains a Wild River management plan, indicates that there are minimal differences between activities and uses allowed in the "wild river" and "minimal" management categories. For example, large scale habitat improvement may be allowed in minimal management areas, but not within a wild river corridor. Even then, while technically allowed, large scale habitat improvement within a minimal management area would still require NEPA compliance, a compatibility determination and revision of the refuge CCP. 2.

The Department of the Interior is also aware of the concerns of local residents and property owners regarding designation of this river segment. While we are not aware of any vehement opposition to designation, neither are we aware of any local strong support. What we have found is that much of the concerns arise from the uncertainties about how designation will affect continuation of traditional activities and the potential for conflicts with an increase in the number of river users. Past experience with other designated rivers has demonstrated that the increased attention and use which results from designation generally means an increase in conflicts between river users. Too often, those conflicts are resolved at the expense of local users and traditional uses. 3.

This Commission is also concerned about the effects of designation on the jurisdiction and management authority of the State of Alaska with respect to the water column and the lands beneath the navigable waters of the lower Sheenjek River. Although the Draft Study/LEIS states that State's jurisdiction and authorities would be unaffected by designation, we do not believe this will be the case, particularly if recently proposed DOI regulations are adopted. These draft regulations (63 FR 67834) which will apply to all designated wild and scenic rivers and could potentially affect the ability of the State to conduct fisheries enhancement and other projects on the Sheenjek, even though it is a State-owned navigable river. 4.

Specific Comments

Impact on Fish and Wildlife (pg. 39). This section concludes that "statutory protection and additional management to address potential impacts [to the river's fish and wildlife resources] would be limited" under the no-designation alternative. We find no statutory provisions in the Wild and Scenic Rivers Act or ANILCA which mandates a higher standard of protection of fish and wildlife resources within a designated river. We believe this conclusion to be incorrect. 5.

2. Response: We agree there is little difference in current management regimes, and note that short term management in the future is also likely to be similar. However, we continue to note that Wild status would apply statutory protection against certain types of development, while refuge "minimal management" status only provides administrative protection. This Final Study/EIS emphasizes this distinction.

3. Response: We don't know what rivers they are referring to, but the Upper Sheenjek, the river most likely to predict use levels on the Lower Sheenjek, did not experience a dramatic increase in use after it was designated in 1980. More importantly, our analysis of use patterns on the Sheenjek suggests that use is unlikely to increase substantially in the near future. In addition, we are sensitive to the recreation/local use conflict issue, which was a topic at public meetings. The final draft has been revised to reflect the potential for conflict and why different seasons of use make this conflict unlikely. Finally, we refer the authors of this letter to sections of the report that emphasize the importance of local use and the subsequent identification of that use as an "outstandingly remarkable" value. Given this emphasis, we believe that management plans for the river must ensure that recreation and local users receive equal consideration when resolving conflicts.

4. Response: As noted in this Final Study/LEIS, a formal navigability determination has not been made for the Lower Sheenjek (see Chapter 5, Land Ownership). However, we do agree that Wild status would prevent certain fisheries enhancement projects if those impounded or diverted water, or otherwise harmed "outstandingly remarkable" values. In this way, it may be accurate to observe that state jurisdiction would be affected if the river is declared navigable. The revised Final Study/LEIS clarifies this point.

5. Response: We generally agree that management attention is unlikely to be less because fish and wildlife resources are the top priority of refuge management. However, the Wild and Scenic Rivers Act does mandate higher protection for "outstandingly remarkable" values which would include fish and wildlife for the Lower Sheenjek. Accordingly, wild river status could encourage greater management attention. On a number of rivers in the Lower 48, decisions to conduct fish and wildlife studies or management actions depend in part on whether a river is or is not in the National Wild and Scenic System. Revisions in this Final Study/LEIS attempt to make this subtle distinction more clear.

January 15, 1999 3

Impact on Construction of New Cabins and Other Structures on Federal Lands (pg. 40) This section states that no special management attention would focus on minimizing the impacts of any construction of cabins under special use permits, such as requiring that the cabin be set back from the river bank so that it would not be seen from the river. In fact, the U.S. Fish and Wildlife Service Cabin Management Policy states that new cabins will not be located directly on the banks of a navigable or floatable river; they will be set back a minimum of 100 feet leaving a buffer of standing vegetation. This policy applies to all refuge lands.

In conclusion, this Commission does not believe that the proposed designation is warranted, as adequate protection of the resources associated with the Sheenjek is provided by the refuge management plan as well as by agency management regulations and policies. We support adoption of the no-action alternative.

Sincerely,

Stan Leaphart

Stan Leaphart
Executive Director

Cc: Senator Ted Stevens
Senator Frank Murkowski
Congressman Don Young
Governor Tony Knowles

6. Response: The cabin policy cited by the Commission was replaced by regulations on "cabins and other related structures" which were published in the Federal Register on July 27, 1994, and codified in 50 CFR 36.33. The cabin regulations do not specifically require a 100-foot setback from rivers. However, a refuge special use permit is required to "construct, use and/or occupy a cabin" on any National Wildlife Refuge in Alaska. The 100-foot setback can be (and has been) used by many refuge managers as one of the conditions of a cabin construction permit.

ALASKA MINERS ASSOCIATION, INC.
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JAN 27 1999

January 24, 1999

Sheenjek River Study
2525 Gambell Street
Anchorage, AK 99503-2892

RE: 1.32(RTCA-Sheenjek), Revised Draft Wild and Scenic river Study and Legislative Environmental Impact Statement--Lower Sheenjek River, Alaska

Dear Sirs,

Thank you for the opportunity to comment on the subject study and LEIS. We recognize that this letter did not meet the comment deadline but request that it still be considered during evaluation of the Study and the LEIS.

The proposed action (preferred alternative) recommends Congressional designation of the lower 99 miles of the Sheenjek River between the boundary of the Yukon Flats and Arctic National Wildlife Refuges and the Porcupine River. The adjacent proposed boundaries would include approximately 99 square miles of federal uplands that are a part of the Yukon Flats National Wildlife Refuge. The study is required by Section 604 of the Alaska National Interest Lands Conversation Act (ANILCA) and directed that recommendations be submitted to the Congress no later than three fiscal years following enactment of ANILCA [Section 604(b)]. Section 602 designated that part of the Sheenjek River in the Arctic National Wildlife Refuge as a unit of the National Wild and Scenic Rivers System. ANILCA also established the Yukon Flats National Wildlife Refuge and directed that the 8,640,000 acre refuge be managed, among other things, to include the conservation of fish and wildlife populations and habitats in their "natural diversity", international treaty obligations for fish and wildlife and their habitats, and subsistence for local residents [Section 302(9)]. Section 604(b) also required a similar study of the Porcupine River, Alaska.

This Revised Draft, Wild and Scenic River Study and Legislative Environmental Impact Statement (hereinafter referenced as LEIS) was preceded by a 1984 draft that was open to public comment. The 1984 draft recommendations for inclusion of the lower Sheenjek in the National Wild and Scenic Rivers System by Congress was not supported by local residents or the State of Alaska. The reason for waiting 15 years to re-float the failed 1984 proposal is asserted to be a lack of funding by the Department of the Interior.

The Alaska Miners Association has carefully reviewed the LEIS and the earlier 1984 draft. **It is our conclusion that the LEIS does not describe, with the possible exception of chum salmon, any "outstanding remarkable" values, over other rivers in the Arctic or Yukon Flats national wildlife refuges, which are a necessary quality for a river to be included in the National Wild and Scenic Rivers System.** We especially note the fact "...there are no significant competing land management priorities for the [study area]..." and "...there are no foreseeable threats..." (Pages 13

1. Response: Legislation urged efficient completion of the studies, but it did not require studies to be completed within any specified time period. The original study process got underway in May 1981, and the planning team collaboratively developed the June 1984 Sheenjek draft environmental impact statement (EIS) and wild and scenic river study, which recommended designation. The 1984 Final Study/EIS was being prepared in late 1985, but funding for the project was exhausted and staff were transferred to other projects. In the intervening years, requests for additional funding to complete the study report/EIS were not available due to higher national priorities. In fiscal year 1997, additional funds were finally made available to complete the project. Due to the long delay, the Study/EIS had to be revised and updated with more current information, as detailed in this report.

2. Response: The Study/LEIS carefully explains why the Lower Sheenjek's values are "outstandingly remarkable" and recognizes the evaluative quality of these judgments (see Chapter 3, Eligibility). Reasonable people may disagree about what is or is not "outstandingly remarkable." Accordingly, one goal in a Wild and Scenic river study is to develop clear reasoning for Congress to consider. The study team believes it has accurately characterized values on the river as representative for the region rather than unique. We also feel they are accurately characterized as being values that are not already included in the National Wild and Scenic River System. Accordingly, we think we are presenting Congress with the information it needs to make the final determination of whether such resources deserve recognition as "outstandingly remarkable."

and 14). **Accordingly, the designation of the lower Sheenjek River as a wild river area is not appropriate.**

Since the ANILCA mandated study and report to Congress expired in 1984, we recommend that the effort be shelved and the savings from preparing a final LEIS and administrative support for Congressional action be used to provide pro-active management of the existing values of the lower Sheenjek River. 3.

If the Department of the Interior intends to continue with preparing a final LEIS, the following deficiencies need to be resolved:

1. The LEIS is deficient in evaluating the long-term cumulative impact on subsistence resources and uses in the lower Sheenjek study area from Alaskans and visitors for recreation that would reasonably result with designation as a wild river. 4.

2. The LEIS is deficient because it does not evaluate the long-term cumulative impact of recreation and subsistence by the potential addition of the Porcupine River to the National Wild and Scenic Rivers System. 5.

3. **The LEIS is deficient because it does not identify "any outstandingly remarkable" aspects of the lower Sheenjek study area that distinguish it from any number of other rivers. *Statements in the documentation make the very point that the area is similar to many other such areas.*** 6.

4. **The LEIS does not explain that at least 92 miles of the bed and river bank below mean high water of the lower Sheenjek are owned by the State of Alaska under the provisions of the Alaska Statehood Act** (see page 35 of the draft and pages ii and 33 of the LEIS). The LEIS does not indicate whether the BLM finding on the ownership of the Sheenjek River due to its being navigable did or did not use the standards of navigability established by the Gulkana Decision. These two facts are very important since ANILCA Section 606(a)(1) prohibits the boundaries of National Wild and Scenic River component in Alaska from including "...any lands owned by the State or a political subdivision of the State nor shall such boundary extend around any private lands adjoining the river as to surround or effectively surround such private lands..." The LEIS neither clearly shows these non-federal ownerships nor evaluates the long-term cumulative impacts on non-federal lands if the lower river is designated a wild river area. The long-standing controversy about use of state land associated the Fortymile Wild and Scenic River and recently initiated study of the Gulkana Wild and Scenic River are current examples where the statutory, regulatory, and policy provisions of the Wild Rivers Act add to the confusion. 7.

5. The LEIS is deficient in its discussion of the existing and proposed requirements of federal laws and regulations about decision making associated with the protection of wetlands. Also the LEIS does not discuss the recent creation of "essential fish habitat" and the pending federal regulations by the National Marine Fisheries Service and protections for Chum and other salmon reported to be in the lower Sheenjek River. Finally, the final LEIS needs to address the implications of the pending Department of the Interior modification of the existing regulations for managing units of the national wild and scenic rivers system. 8.

3. Response: See AMA response 1.

4. Response: We think these will be minor because the respective seasons are different; the Final Study/LEIS expands on this point (see Chapter 6, Impact on Subsistence Use).

5. Response: This analysis is unnecessary since the Porcupine has not been recommended for designation; the Porcupine River Wild and Scenic study (1985) recommended against designation. The Final Study/LEIS clarifies this point.

6. Response: See AMA response 2 on previous page.

7. Response: Additional information on navigability and its effect on boundary and land ownership issues are provided in this Final Study/LEIS. This is a complex topic area as noted by AMA; unfortunately, navigability has not been formally determined for the Lower Sheenjek, so the study team has been instructed to assume that the river is not navigable for this analysis. If the river is declared navigable (as asserted by the State), cooperative management with the state obviously becomes more crucial. Development of a cooperative planning effort with the state is discussed in greater length in this Final Study/LEIS.

8. Response: The regulations referenced by AMA are separate from Wild and Scenic designation decisions. Those regulations may well apply to management decisions on the Sheenjek, but they are not specific to the Sheenjek. Wild designation as recommended in this Study/LEIS is about additional statutory protection of specific resources on the Lower Sheenjek.

6. The LEIS is deficient in not discussing the existing management of the upper Sheenjek River since 1980 as a wild river and how that management would or would not also be applied to the lower Sheenjek River if it is added to the national wild and scenic rivers system. For example, we commend the Department of the Interior for its determination that construction of new cabins is consistent with the management principals for a wild river area, but note that this seems to be different than the way the Department is currently applying the criteria of wild river area management in Alaska. Are new cabins permitted in the wild river area of the upper Sheenjek? If not, then why are they considered an appropriate use in the lower river area? 9.

7. **The LEIS is deficient in its discussion of existing water quality which is stated to be excellent but no criteria or data is given to show describe the current water quality.** 10.

8. The 1984 draft listed the lower Sheenjek being 90 river miles long (page 9), while the LEIS says the lower Sheenjek is 99 river miles long. Where are the new nine miles proposed for addition in the LEIS located? The new river mileage also means that almost 10,500 acres would be subject to the restrictions of federal law and department regulation as a "wild river area". 11.

It is clear from the LEIS that the lower Sheenjek should not be recommended for addition to the national Wild and Scenic River System.

The attached specific comments illustrate the reasons for our conclusions that designation is not appropriate and that the LEIS is deficient.

Sincerely,

Steven C. Borell, P.E.
Executive Director

enclosure

cc. Senator Ted Stevens
Senator Frank Murkowski
Congressman Don Young
Governor Tony Knowles

9. Response: Consistent management between the Upper and Lower Sheenjek is not a given, but we agree that it is likely. The Upper Sheenjek's management plan is included in the Arctic Refuge management plan and it does allow the construction of new cabins in association with traditional subsistence activities, which is consistent with our analysis in this Study/LEIS. Additional discussion of the Upper Sheenjek management plan and the links between it and the development of a Lower Sheenjek management plan are presented in Appendix A.

10. Response: Water quality information for the river is currently sparse, but we have revised the Final Study/LEIS to reflect the information that is available (see Chapter 5, Streamflow and Water Quality).

11. Response: This mileage discrepancy is a function of better geographic information. The 1984 calculations were made by hand while the figures here were made with a mechanical cartographic tool. The final Study/LEIS includes a short explanation of this issue.

Specific comments from Alaska Miners Association:

Specific Comments on the Revised Draft, Wild and Scenic River Study and Legislative Environmental Impact Statement, Lower Sheenjek River, Alaska

(dated January 1998 and distributed September 30, 1998)

Ownerships and Access:

1. Under the terms of the Alaska Statehood Act **the State of Alaska, with a few exceptions, became the owner of all inland navigable waters, located in Alaska. Page ii, lines 33-35 should reflect this fact** (see Page 17, line 22 and Page 33, lines 16-22). | 12.

2. **Also the final study should recognize that ANILCA specifically amended the Wild and Scenic Rivers Act for additions to the national system in Alaska by excluding from the final boundary "...any lands owned by the State or a political subdivision of the State nor shall such boundary extend around any private lands adjoining the river as to surround or effectively surround such private lands..." [Section 606.(a)(1)].** As a minimum, the final LEIS should show the location of the river bed and banks below mean high water that the federal government believes to be non-navigable so that the long-term cumulative consequences on state and non-federal ownerships can be properly evaluated. | 13.

3. **The LEIS does not show where the additional nine miles of river are located**, why they were added, and the ownership of the bed and banks below mean high water for this additional river mileage and other non-federal land within or adjoining the almost 10,500 acres of federal land to be managed as a wild river area (90 river miles in the 1984 draft vs. the 99 river miles in the LEIS). | 14.

4. Page 24. **State property, especially of beds and banks of the lower river and its interconnected sloughs, RS 2477 right-of-ways, and other existing trails for trapping, timber-fire wood harvest, and subsistence should be shown.** Where is the private property in the study area referenced in the study? Are the private ownerships fee-title land or land still under control of the Department of the Interior, Bureau of Indian Affairs as native allotments? Is the only access to the lower Sheenjek by river boat? The 1984 draft indicates there were aircraft landing sites in the study area--are fixed-wing and rotary-wing aircraft access still happening and where? | 15.

"Outstanding Remarkable Values" of the Lower Sheenjek River:

5. Page 11, lines 17-19 make the point that the lower Sheenjek is outstandingly remarkable because it is like other rivers in the "region". **This statement is prima facie evidence that the Lower Sheenjek River does not qualify for designation as a wild river.** | 16.

Page 1, lines 8-10. Which rivers are referenced as being similar to the lower Sheenjek in the Yukon National Wildlife Refuge? What are the special and "exceptional representation" and values of the lower Sheenjek River basin that are not present in these other rivers in the refuge and interior Alaska? Specifically, how are the values for the lower Sheenjek River study different from values associated with it river basin and with the Porcupine River, Alaska? If the lower Sheenjek River is included in the national system, would the Porcupine River be recommended for non-inclusion since it also is another river in interior Alaska with similar values? | 17.

(AMA Page 2 of 8 was blank)

12. See AMA response 7.

13. See AMA response 7.

14. See AMA response 11.

15. Response: The Draft LEIS did show private allotments and state-owned land. Aside from the river itself, which is discussed in greater detail relative to the navigability issue, there are no state lands or potential state lands in the area. With regard to sloughs, etc., the river bed changes often and maps at the chosen scale do not show every one. We don't think there are any permanent trails in the corridor (just winter trails, which generally follow the river). There are no permanent airstrips on the river, as planes land on different gravel bars in different years depending upon water levels and debris. Revisions to the Final Stud/LEIS address these issues.

16. See AMA response 2.

17. Response: This Final Study/LEIS addresses this concern by discussing similarities and differences with specific rivers in the area or already in the National Wild and Scenic River System. The Porcupine was already studied for designation, and it was not recommended for designation in 1985; while the river was found eligible, it was not found suitable. The unsuitable determination was made based on opposition from local residents and the State of Alaska, and consideration for the extensive amount of adjacent private land that would be affected by designation.

6. Page 5 compares units of the national wild and scenic river system to other states. For example there are 46 in Oregon and 25 in Alaska. What is the relevance of this fact to the proposal to add the lower Sheenjek to the national wild and scenic river system? If the final LEIS is to include this reference, then it would be useful to compare the miles of river and acreages included within the boundaries of the 46 in Oregon to the 25 in Alaska? **Such comparisons are inappropriate and meaningless and should be removed.**

18. Response: We think the comparisons with other states are relevant because information about the size and characteristics of the National Wild and Scenic Rivers System are key to understanding what Congress considers eligible and worthy of designation. But we agree that more complete information about mileage by various states may be useful. The Final Study/LEIS includes a more complete summary of the National Wild and Scenic Rives System.

Subsistence:

7. Page 11, lines 32-33 say that subsistence use on the lower Sheenjek is used like other rivers in similar ways. What is the "outstanding remarkable" subsistence on this river that makes it different from other rivers in the area? For example, how are the volume and kinds of subsistence use on the lower Sheenjek River significantly different than subsistence on the Black River immediately to the south? Page 11, lines 38-39 assert that none of the other 25 units of the national wild and scenic rivers system in Alaska consider subsistence or cultural use to be important. What is the basis for concluding that none of the other 25 river units (for example the Nowitna or Andreafsky or John or Noatak or Kobuk rivers) do not have subsistence resources or subsistence use given very high priority management activity for the Department of the Interior regardless of the status of the federal land as wilderness, park, refuge or lands managed by the Bureau of Land Management? **Without showing the contrasts with other rivers the discussion on subsistence should eliminate this area from consideration for designation.**

19. Response: We can't speak for subsistence qualities on other rivers or in other studies. On the Lower Sheenjek, local cultural use is historic, and important to local rural residents, as well as representative for the region. Precisely because cultural subsistence use has not been identified as an important value on other Alaska rivers in the system, it fits with our criteria for "outstandingly remarkable."

8. Page 16, lines 30-37 and Page 18, lines 37-38. The assertion that subsistence use will not increase in the lower 99 miles of the Sheenjek River assumes that there will be no long-term demographic change or increases in the local rural and urban population in Alaska. How does this federal projection compare with local and state estimates of future Alaskans? How will designation as a wild river area prevent subsistence use from becoming a future "conservation issue"?

20. Response: The Study/LEIS uses state demographic statistics which suggest that dramatic population increases in rural interior Alaska are unlikely. There has not been a significant increase in population in the past 20 years, and the level of subsistence use in the area has not increased in the Sheenjek valley according to discussions with local people. This may be related to the price of furs and/or relatively low levels of moose. If those increase, subsistence use would likely increase; however, we know of no indicators that suggest dramatic increases in these areas are likely.

9. Page 36, lines 26-32. The impact of increased long-term cumulative impact on subsistence use by increase recreation use directly attributed to designation or by increasing subsistence due to rural population growth in Alaska has not been adequately considered to support the conclusion of no significant adverse effect.

10. Page 36, lines 13-14. Increasing recreation use is likely to cause conflict, especially with subsistence use. The LEIS indicates that existing subsistence uses and recreation uses are low. The increase of more floaters has not been evaluated for its cumulative long-term impact on foregone subsistence resource and recreation opportunities by existing or future Alaska residents. Is it envisioned that sport hunting for the limited wildlife resources of the lower Sheenjek will be prohibited as was the recent example for sheep hunting in the adjacent Arctic National Wildlife Refuge?

21. Response: The Final Study/LEIS includes additional discussion of this conflict issue, but continues to suggest that low levels of local and recreation use are likely in the foreseeable future. In addition, we continue to suggest that non-regulatory management options could minimize any conflict that does occur.

Wildlife:

11. Page 12, line 2 says that wildlife associated with the 99 square miles of the lower Sheenjek "are not exceptional for the region..." The LEIS does not discuss the presence of threatened or

22. Response: The Final Study/LEIS includes additional discussion of endangered species (see Chapter 5, Wildlife).

endangered species, and if present how designation as a wild river area would impact recovery efforts.

12. Page 27, lines 14-15 discuss birds in general terms of the entire Yukon Flats National Refuge What percentage of "well known" habitat for breeding migratory waterfowl and other birds in the Yukon Flats National Wildlife Refuge is located in the Lower Sheenjek River Study Area? How many of the 20,000 breeding Pacific and common loons in the refuge are reasonably expected to be in the Lower Sheenjek River Study Area? Reference to the total refuge are meaningless without answering these and similar questions.

13. Page 28, line 4. Appendix B should read "C". How does a listing of 157 bird species for the Yukon Flats National Wildlife Refuge apply to "outstanding remarkable" bird values of the study area? The LEIS identifies no unusual or special habitats for birds in the study area. If so, then admit it, if not then describe it.

Fish:

14. Page 11, line 44 says the lower Sheenjek has the "strongest fall run of chum salmon in the [entire] Yukon River drainage" and one of the "largest stocks" (Page 29, lines 5-11). **What is the basis for this assertion and what historical data support it?** This seems to be over-stating the situation since those same chum salmon have come through a very long trip along with other salmon up the Yukon River and then up the lower Porcupine River. How much essential chum salmon spawning habitat is associated with the lower Sheenjek River and how does that compare with other chum salmon spawning habitat in the Yukon River and Porcupine River drainages in Alaska? The LEIS indicates chum salmon spawning habitat is located at river miles 12, 30, 45, 70 and 80. Page 28 of the 1984 draft indicates that natural rechanneling in the vicinity of mile 45 has possibly destroyed salmon spawning habitat at river mile 45. Does chum salmon spawning habitat still exist at river mile 45 or if damaged how much remains? Has natural rechanneling impacted chum salmon spawning at river miles 12, 30, 70 and 80 since the 1984 draft was prepared?

15. The 1984 draft (Page 27) lists 15 other fish species that are known or "likely" to be found in the lower Sheenjek River. Are there important fish habitats for these fish and if so where?

16. The final LEIS should describe the requirements of the essential fish habitat protection as outlined in the pending regulations by the National Marine Fisheries Service and how these apply to the lower Sheenjek River with and without designation as a wild river.

17. The final LEIS should describe the federal requirements and the role of the U.S. Fish and Wildlife Service which also manages federal land adjoining the lower Sheenjek, for protecting fish habitat and wetlands under the Clean Water Act and the Rivers and Harbors Act and how these requirements would apply to the lower Sheenjek River with and without designation as a wild river.

Recreation:

18. Page 12, lines 20-45 and Page 13 lines 1-5 discuss the recreational values of the lower Sheenjek in general terms. **How is the recreation experience on the lower Sheenjek different from other**

23. Response: We disagree that wildlife estimates applicable to the refuge at large are meaningless for characterizing wildlife in the Lower Sheenjek corridor. They are also the best information available. The Final Study/LEIS is clearer about where the information applies. It states, for example, that while we can't be sure that all 157 bird species in the refuge use the Lower Sheenjek, our best professional judgment suggests the lower 99 miles of river provide a variety of habitats that would be used by the majority of these species.

24. Response: The Final Study/LEIS expands on what is known about the chum salmon fishery to be clearer about what we know and do not know. The river is constantly shifting, so the specific locations of spawning habitat may change from year to year. However, we have identified known spawning areas to the extent possible.

25. Response: The fisheries section in Chapter 5 has been revised to provide currently available information about various species. We acknowledge gaps in information about their specific habitat needs within the Lower Sheenjek corridor.

26. Response: New regulations and requirements relative to National Marine Fisheries Service designation of "essential fish habitat," the Clean Water Act, and the Rivers and Harbors Act are unlikely to apply differently regardless of whether the Lower Sheenjek is designated or not. These federal regulations or requirements are independent of wild river designation.

27. Response: We disagree with this notion. The Lower Sheenjek features a different environment that is more actively alluvial. The Yukon Flats landscape also has considerably more and different kinds of adjacent wetlands than the rivers mentioned by AMA, many of which do not feature lowland terrain in any case. In addition, the river is contiguous with the Upper Sheenjek, and thus offers opportunities for long wilderness-like river trips through a diversity of Alaskan ecosystems. Similarly, while some of those on the AMA list offer trips of similar length to a combined Upper and Lower Sheenjek trip, none offer a single trip from the Brooks Range to the flats.

rivers in Interior Alaska? The same description of the recreation resources of the Lower Sheenjek also applies all or substantial river miles within at least 14 other existing Alaskan units of the national system: Birch Creek and Beaver Creek, and the Alatna, Andreafsky, Charley, Gulkana, John, Kobuk, Mulchatna, Noatak, North Fork Koyukuk, Nowitna, Selawik, and upper Sheenjek rivers. Page 16, lines 11-13 indicate that recreational use will be low because the upper river is better and the time it takes to float the entire river. The potential future "conservation issue" of conflict between recreation and subsistence users of the lower river needs evaluation (see comments on Subsistence).

19. Page 14, lines 3-4. **The implication that regulatory approaches will not be used** on the lower Sheenjek River, or that any such regulations would be "minimal" if added to the national system is **misleading.** The universal pattern has been for increasing regulation of recreation on federal lands in Alaska including aircraft landings, snowmachine and motorboat use, and sport hunting.

20. Page 26, line 22 How does a Class I river difficulty classification correlate to the statement on page 25, line 20 about "extensive log jams on the river"?

Cultural:

21. The LEIS should re-examine and better explain the rationale for the unsupported assertion that protection of cultural or archeological resources would be enhanced by adding the lower Sheenjek to national system over the rest of the existing Yukon Flats National Wildlife Refuge.

22. Page 16, lines 39-44. The LEIS does not describe the cumulative long-term consequences to other archeological resources of the national wildlife refuge system when archeological survey work for the Yukon Flats National Wildlife Refuge in future years "may be" concentrated in the lower Sheenjek?

23. Page 18, line 35 What is the basis for asserting that the U.S. Fish and Wildlife Service and the Department of the Interior will not comply with long-standing Department mandate to survey and protect archeological resources on federal land?

Scenic:

24. Page 12, line 8 aptly summarizes the river setting as "...does not provide scenic diversity..." Lines 9 and 10 asserts the lower Sheenjek offers "superlative views of uninterrupted horizontal dimension" appears to describe what one sees from an aircraft. The view *from* the river or on its immediate river banks (see the six photos in the 1984 draft, pages 6 and 7) is a continuous forest along both river banks, an incised river and one with a legend indication a unspecified length flows through "rolling hills and steep vegetated bluffs".

Water Quality:

25. Page 26, line 34. Does the statement "water quality is excellent" mean that the lower Sheenjek and other water bodies in the adjacent square miles of federal land fully meet all state and federal water quality standards in its existing condition? If not, which federal and water quality standards

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28 Response: We don't agree that regulation approaches are universal on federal lands. On the Upper Sheenjek, for example, there are no motorized use regulations or use limits. In addition, the Study/LEIS is explicit in calling for continued traditional recreation uses including snowmachine and motorboat use, as well as airplane landings.

29. Response: Class ratings are based on whitewater difficulty, which is distinct from the difficulty of having to portage over a log jam if you choose the wrong channel. In most cases, the current is slow enough to allow boaters to easily maneuver around sweepers and log jams. Revisions in this Final Study/LEIS clarify this issue.

30. Response: This section was revised to reflect our understanding that wild status would not necessarily increase survey or study of archeological resources.

31. Response: The river is 99 miles long. There are sections where it is heavy forest as described. There are other sections where it cuts through low hills and shows bluffs. Still other areas have large point bars or open meadows that feature an uninterrupted horizontal dimension. We stand by these descriptions; additional photos included in this Final Study/LEIS illustrate this diversity of scenic features.

32. Response: See AMA response 10.

and which water bodies and/or river segments do not comply? **How can water quality be excellent without specifying the criteria being used and the existing water quality as compared to that criteria?**

Existing and Reasonably Expected Future Use:

Existing federal land is undeveloped and must be managed in accord with the provisions of ANILCA, which established the Yukon Flats National Wildlife Refuge. Reasonably expected uses of private and state land would not be developed in a manner that would harm the "outstandingly remarkable" values of the study area. Page iv, lines 9-13 assert there are no known immanent threats to the lower Sheenjek River; Page 32 lines 32-38 say there are no existing or planned water resource projects in the study area and that the river is not physically suitable for even a low-level dam. Other resource evaluations indicate "few changes are likely" for the free-flowing character of the lower river, its biological resources, scenic quality, unknown archeological sites, recreation use and experiences, subsistence harvesting forest products, and to private property. 33.

26. Page 25. The final LEIS should include appropriate scale resource maps showing geology, soils, vegetation, fish and wildlife should be included to illustrate the likenesses or differences of the lower Sheenjek River and its immediate environment from other federal land in the upper Sheenjek wild river area and the Yukon Flats National Refuge. For example the location of chum salmon habitat at five places in the 99 miles of river. What are the types and relative values of the protected wetlands in the lower Sheenjek study area? 34.

27. Page 19, lines 14-15. The assertion that the Department of the Interior would not give attention to the "outstandingly remarkable" values of the 99 square miles of federal land adjoining the lower Sheenjek River in its future refuge management plans is without basis and should be deleted. If true that the Department of the Interior intends to ignore the "outstandingly remarkable" values of these federal lands, then the document should so indicate the basis for not providing appropriate protection to public resources under its care and how wild river status would resolve non-compliance with the existing Congressional requirements for managing the Yukon Flats National Wildlife Refuge established in ANILCA. 35.

28. Page 14, lines 11-20. If the Department of the Interior cannot protect the values of the first world's first national park, Yellowstone, explain how the proposed designation of the 99 miles of the Lower Sheenjek as a unit of the national wild and scenic rivers system will cause better protection by the Department of the Interior from unspecified future "conservation challenges", or that the lower river will be "more likely" to have extra financial, legal, or administrative capabilities than for the ANILCA specified management of the Yukon Flats National Wildlife Refuge? 36.

29. Page 36, lines 20-31. We commend the Department of the Interior for its finding that the Wild and Scenic Rivers Act allows construction of new cabins on federal refuge land within the boundaries of a wild river area. Are new cabins permitted in the upper Sheenjek wild river area? If new cabins are prohibited by the provisions of the Wild River Act, then admit it and evaluate the consequences of locating a cabin or other development associated with subsistence use on the lower river no closer than one mile from the river bank. 37.

33. Response: See CACFA response 1, AMA response 2 and 5.

34. Response: While it is possible to develop maps as suggested, we believe the text description has provided sufficient information about these resources for the purposes of the Study/LEIS. River miles have been placed on the maps in this Final Study/LEIS to help identify spawning grounds.

35. Response: See AMA response 5.

36. Response: The challenges that Yellowstone faces can be addressed precisely because it does have statutory protection and receives subsequent attention. We don't know what long term threats will come the Sheenjek's way; wild status provides greater statutory protection from those possible threats. Also see AMA response 5.

37. Response: See AMA response 9.

30. Page 33, lines 5-7 and Page 37, lines 41-44. ANILCA amended the Wild and Scenic Rivers Act to expand the total amount of federal lands that could be included within the boundary of a wild and scenic river. At the same time, it restricted the limitation to oil and gas leasing for only the first one-half mile of the bank of a wild river area [Section 606. (a)(1)]. What is the potential for coal-bed gas within or closely associated with the study area or for energy transmission facilities across the study area to local residents in the refuge? 38.

31. What are the reasonably expected differences, if any, between the existing Department of the Interior management objectives of the upper Sheenjek Wild River in the Arctic National Wildlife Refuge submitted to the Congress and those proposed for the lower Sheenjek River if included by Congress in the National Wild and Scenic Rivers System? 39.

32. Page 38, lines 9-16. We support the Department conclusion that timber harvest can be permitted within the boundaries of a wild river area. The final LEIS needs to evaluate the long-term cumulative implications for moving timber cutting to avoid adversely impacting the "superlative views of an interrupted horizontal dimension"? If prohibited, then say so and evaluate the impacts

Costs:

33. Page iii, lines 7-10 indicate that less than $5,000 annually would be spent to manage the proposed wild river. The rationale is unclear for either designation or for spending additional federal funds for managing a resource that is under federal protection as a Congressionally designated ANILCA national wildlife refuge. The assertion of "no additional federal costs directly attributable to [designation] in the near future" (Page 17, lines 28-29) is inconsistent with previous statements about the financial, legal and administrative increased costs as suggested by the Yellowstone example. If prepared, the final LEIS should include the long-term cumulative federal costs, including preparation of a final LEIS, administrative support for Congressional action associated with Alternative A. **The entire discussion of costs in conflicting and does not recognize the pattern that added use will result in added controls and significant added costs to the agency.** 40.

34. The projected increased federal management cost does not comport with the statement on page 14 that the river will have increased funding, legal, and administrative expenses or that archeological surveys will be done. It also does not consider the increased costs for managing increased recreational use to protect natural, cultural and recreational values and private property and for managing subsistence uses (page 15).

35. The total costs associated with the previous studies, preparation of the LEIS, and public hearings-meetings should be identified in the final LEIS as well as the reasonably expected costs for preparing the final LEIS and for Department of the Interior administrative support of the legislation? 41.

36. What are the anticipated costs for preparing the river management plan, including public input, if the lower river is designated wild river?

37. What are the man-caused forest fire potential costs and resource loss from increased recreation use associated with the proposed designation of the lower Sheenjek wild river area 42.

38. Response: We have checked with BLM oil and gas experts and have found that the Yukon Flats may have high potential for coal bed-methane gas. In addition, the State of Alaska appears interested in the potential for tapping this resource for rural energy supply (e.g., within a few miles of villages like Fort Yukon). Our understanding is that little is known about the specific gas potential for any particular part of the Yukon Flats (i.e., the Lower Sheenjek corridor), nor the economic feasibility of developing that potential aside from the general notion that development would have to be within a few miles of a populated village. We also understand that a mile-wide corridor is unlikely to impose a significant burden on gas exploration, development, or transmission facilities given modern development technology (if gas exploration and development are opened in the refuge). The Final Study/LEIS has been revised to reflect this new information.

39. Response: Appendix A includes new information on this topic.

40. Response: We disagree that increased regulation is inevitable. We also stand by our estimate for the short term: these estimates are costs above and beyond those costs associated with management of the river and adjacent areas without designation. Additional discussion of planning and management costs is provided in Appendix A.

41. Response: The Final Study/LEIS includes a summary of these costs (see Appendix E).

42. Response: We cannot quantify change in risk of forest fire from recreation use but we expect it to remain low since we expect use to remain low. There is no necessary correlation between increased use and forest fire in any case because the places where people camp (on point bars near wet riparian areas) are unlikely to be high fire danger areas.

38. What are the costs for managing the upper Sheenjek wild river area average yearly and cumulative federal costs since 1980? | 43.

Environmental Consequences:

39This discussion should focus on existing or planned development of federal land as an integral part of the existing Yukon Flats National Wildlife Refuge **Since the provisions of the wild and scenic rivers act do not apply to non-federal land in Alaska it is especially important to clearly identify how existing management will not protect the existing values of the lower Sheenjek study area now and in the future.** If there are impacts to non-federal resources, then these existing and future impacts should be fully identified and evaluated. **The LEIS *does not* make a compelling case that additional Congressional designation will enhance the ability of the Department of the Interior to comply with the existing Congressional mandate for management of the refuge.** | 44.

43. Response: Actual management costs for the Upper Sheenjek are difficult to disentangle from refuge management budgets since staff and field travel costs are not broken out by particular resource locations. However, refuge staff estimate that in recent years, annual costs of less than $5,000 have been spent on activities directly associated with wild river management (campsite and wildlife inventories and so on). This further suggest that expenditures were likely even lower in the first 15 years after the river was designated. Cumulative costs attributable to wild river management since 1980 are probably less than $100,000. Readers should note that river management planning of the Upper Sheenjek were integrated with the Arctic Refuge comprehensive conservation plan and those planning costs are not included in this estimate. Similarly, resource specialist staff salaries (which are independent of the Upper Sheenjek's designation status) are not included in this estimate.

44. Response: The Study/LEIS has stated that differences in future management under the two alternatives (designation vs. no action) would be similar in the short run, but that designation adds an additional statutory level of protection and a focus on specific values in the river corridor. The Final Study/LEIS also carefully identifies potential impacts to non-federal resources (see Chapter 6).

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue
Seattle, Washington 98101

December 11, 1998

Reply To
Attn Of: ECO-088

Ref: 84-186-NPS

Mr. Robert D. Barbee
Alaska Regional Office, National Park Service
2525 Gambell Street
Anchorage, AK 99503-2892

Dear Mr. Barbee:

In accordance with our responsibilities under the National Environmental Policy Act and §309 of the Clean Air Act, we have reviewed the Revised Draft Wild and Scenic River Study and Legislative Environmental Impact Statement (LEIS) for the proposed **Lower Sheenjek River, Alaska**. The draft LEIS analyzes one action alternative to study the Sheenjek River for possible inclusion in the National Wild and Scenic Rivers System as required by Section 5(a) of the Wild and Scenic Rivers Act as amended through Section 604 of the Alaska National Interest Lands Conservation Act. The LEIS states that the purpose is to "preserve the free-flowing condition of the river and to protect the outstandingly remarkable cultural (subsistence), wildlife, scenic, and recreational values associated with the river and the adjacent public lands." The need is to "guide future land use decisions in a manner that assures protection of the outstanding values associated with the river and adjacent corridor."

Based on our review and the project's purpose of maintaining the undeveloped character of the river corridor, we have rated the revised draft LEIS LO (Lack of Objections). This rating and a summary of our comments will be published in the *Federal Register*. We have enclosed a summary of the rating system used in our review for your reference.

Although we support the intentions of the proposed project, our review revealed a number of minor concerns, which if addressed, would more comprehensively illustrate project information and impacts to the public. Our primary concerns relate to a lack of endangered species information, inclusion of specific information regarding river users, and State and Federal coordination efforts.

The LEIS lacks information about the presence of threatened and endangered species. Discussions with National Park Service staff indicate that listed species do not permanently reside in the project area, but pass through. We recommend that the LEIS include a summary of results from Section 7 consultation with US Fish and Wildlife Service (US F&WS). Inclusion of this information would disclose listed species, potential impacts and mitigation efforts deemed

1.

1. Response: We have made revisions to the Final Study/LEIS to explore this topic; a letter from the USFWS Northern Ecological Services on the topic is also provided in Appendix D.

necessary. Inclusion of this information also seems appropriate since the LEIS identifies US F&WS as a cooperating agency.

The LEIS and the reviewing public identify the increased potential for conflict between recreationists and subsistence users as a significant issue. The Affected Environment section of the LEIS describes subsistence uses, rafting, hunting, fishing and more minor land uses in the project area. We believe that the LEIS should contain additional analysis, if available, which details when and where uses occur and the potential for land use conflicts. Such analysis and disclosure would likely help quell public distrust of the project and would be consistent with NEPA (40 CFR 1502.15 and 1502.16). 2.

The State of Alaska owns the bed, banks and water in all navigable waters including the lower Sheenjek. Possible increases in river recreation use may require management of users as well as surrounding Federal lands. Because this Federal action impacts a state-managed resource, the LEIS should disclose how Federal agencies and the State have collaboratively determined to manage the bed, banks and water of the Sheenjek River. 3.

We are interested in working closely with the Department of the Interior National Park Service and US Fish and Wildlife Service in the resolution of these issues and I encourage you to contact Chris Gebhardt at (206) 553-0253 at your earliest convenience to discuss our comments and how they might best be addressed.

Thank you for the opportunity to review this revised draft LEIS.

Sincerely,

Richard B. Parkin

Richard B. Parkin, Manager
Geographic Implementation Unit

cc: Dave Allen, US Fish and Wildlife Service

2. Response: This Final Study/LEIS includes expanded discussion of the potential for recreation and subsistence use conflict. With low use levels and distinction in the seasons of use of these two groups, we conclude that conflicts are unlikely in the near future.

3. Navigability. Response: A navigability determination has not been formally adjudicated. However, we recognize the importance of developing a collaborative plan for river management with the state in the eventuality that it is declared navigable. Revisions in this Final Study/LEIS expand on these issues. See also AMA Response 7.

Alaska Outdoor Council
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December 10 1998

Project Leader
Lower Sheenjek River Wild River Proposal
Alaska Regional Office
National Park Service
2525 Gambell Street
Anchorage, AK 99503-2829

Dear Project Leader

The Alaska Outdoor Council appreciates the opportunity to review and comment on the "Revised Draft of the Wild and Scenic River Study and Legislative Environmental Impact Statement for the Lower Sheenjek River Alaska" dated January 1998 The Council represents approximately 40 outdoor organizations with over 12 000 members

The Alaska Outdoor Council opposes the NPS preferred alternative which would entail congressional designation of the lower Sheenjek River as a Wild River The Council opposes such a designation because Alaska already has portions of over 20 rivers protected by the Wild and Scenic River system and maintains that the lower Sheenjek River does not possess "outstandingly remarkable scenic, recreational, geological fish and wildlife, historic, cultural or similar values" as required by law The lower Sheenjek River is typical of dozens of other lowland rivers in Interior Alaska

The lower Sheenjek River runs through the Yukon Flats National Wildlife Refuge and there are no current or proposed threats to this river The Council believes that congressional designation as a Wild River is unnecessary for any reason except to exert yet another layer of federal control over state navigable waters

Copies of this letter will be sent to Alaska's congressional delegation seeking their help in preventing a further extension of federal control over Alaska's natural resources

Sincerely

Tamara Axelsson
Executive Director

Cc Honorable Ted Stevens
Honorable Frank Murkowski
Honorable Don Young

Seattle Audubon Society
Washington Nonprofit Corporation

January 10, 1999

Ted Heuer, Refuge Manager
Yukon Flats National Wildlife Refuge
Federal Building and Courthouse
101 12th Avenue, Room 264
Fairbanks, AK 99701

Dear Mr. Heuer,

I am writing on behalf of Seattle Audubon Society and its 5,000+ members about the lower Sheenjek River.

We support the inclusion of the lower Sheenjek River in the National Wild and Scenic River system. As studies have documented, the Sheenjek River provides excellent habitat for a variety of animals. Near and dear to the hearts of our membership are the birds that nest, brood, rear, molt, stage and feed in the area. Because many of these birds are migratory, Pacific Northwest residents enjoy them as they visit the Lower 48. An Audubon member who recently paddled the Porcupine River near the mouth of the Sheenjek reported seeing white fronted geese, boreal chickadees, osprey, sharp-shinned hawks, bald eagles, and red-tail hawks.

Seattle Audubon Society supports protection of critical wildlife habitat and, thus, strongly endorses the inclusion of the lower Sheenjek River in the Wild and Scenic River system. Please inform us about the final decision so we can apprise our members. Thank you for this opportunity to submit our comments.

Sincerely,

Georgia Conti
Conservation Committee

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Northern Alaska Environmental Center
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January 15, 1999

Yukon Flats National Wildlife Refuge
Attn: Ted Heuer
Federal Building and Courthouse
101 12th Avenue, Room 264
Fairbanks, AK 99701

Dear Mr. Heuer:

Thank you for this opportunity to comment on the proposed inclusion of the Lower Sheenjek River in the National Wild and Scenic Rivers System. The Northern Alaska Environmental Center is a nonprofit conservation organization with 1,300 members and has been based in Fairbanks since its founding in 1971. We are dedicated to preserving wilderness and natural habitats in interior and northern Alaska.

The "Revised Draft Wild and Scenic River Study and Legislative Environmental Impact Statement" for the Lower Sheenjek River finds that the preferred alternative would "recommend [the Lower Sheenjek] for addition to the National Wild and Scenic Rivers System." (ii) The Northern Center fully supports this alternative.

The Lower Sheenjek River is a free-flowing river with many "outstandingly remarkable" values, including scenic, wildlife, recreational, and cultural, all of which are outlined in the study. (11-3) Thus, the river qualifies for inclusion in the National Wild and Scenic River System. The Wild and Scenic Rivers Act of 1968 states that selected rivers "shall be preserved in free-flowing condition, and that their immediate environments shall be protected for the benefit and enjoyment of present and future generations." (5) Again, the Northern Center believes that the Lower Sheenjek River should be selected for inclusion and we fully support said recommendation.

Selecting the Lower Sheenjek would pose no undue hassle to the management agencies involved (U.S. Department of the Interior, National Park Service, U.S. Fish and Wildlife Service). The study notes that no land acquisition is needed for the preferred alternative, as the river and its surrounding environment is already fully contained within a national wildlife refuge. (5) Additionally, there would be no need for a new administrative body and the costs of river management would be minimal. (13)

Furthermore, there are no competing land management priorities for the river. The area has no significant timber, mineral, or oil and gas resources, thus no commercial interests would be affected by the Wild River designation. And the few existing cabins, camps, and native allotments would also be unaffected by this designation. Considering the relative ease with which this wild designation may be implemented, we believe that the Lower Sheenjek River merits serious consideration.

Apart from these logistical concerns, however, the Lower Sheenjek merits consideration simply for its own extraordinary values. The river and its environs are home to many species of migratory birds as well as large mammals such as moose, bears, and beavers. This river basin is recognized as a superb example of the cultural, wildlife, scenic, and recreational values of interior Alaska. The study notes that "no other Alaskan river segment in the National Wild and Scenic River System currently protects this combination." (13) And because the Upper Sheenjek is already designated as wild, it makes sense to include the lower portion and have all 277 miles of the river included in the National Wild and Scenic River System.

Additionally, the Northern Center believes that this action would mark a significant precedent in watershed conservation, thereby reversing Congress' trend of lackluster indifference evident since the Alaska National Interest Lands Conservation Act of 1980. This act mandated that twelve rivers in Alaska be studied for inclusion in the National Wild and Scenic River System. Of those twelve, seven were disregarded outright and three were recommended for inclusion (but have not yet been acted on by Congress), leaving only the Lower Sheenjek and the Squirrel as the two remaining studies. The Northern Center does not feel that the Lower Sheenjek should be granted this designation simply as the "token" river of ANILCA, however it could reaffirm that wilderness protection is an essential part of our nation's land management practices.

Mardy Murie, well-known as the "grandmother" of the conservation movement in Alaska, poled the Sheenjek River with her husband Olaus in the 1920's. Much later, she stood before the U.S. Congress and spoke in support of wilderness preservation. "Beauty is a resource in and of itself," she stated. "Alaska must be allowed to be Alaska, that is her greatest economy. I hope the United States of America is not so rich that she can afford to let these wildernesses pass by – or so poor she cannot afford to keep them."

In that spirit, I wish to close by reiterating that the Northern Alaska Environmental Center fully supports the inclusion of the Lower Sheenjek River in the National Wild and Scenic River System.

Sincerely,

Ross Coen
Wilderness Campaign Coordinator

printed on recycled paper

ALASKA DISCOVERY

Dedicated to the Enjoyment & Conservation of Alaska's Wilderness • Since 1972

January 13, 1999

Ted Heuer, Refuge Manager
Yukon Flats NWR
Federal Building and Courthouse
101 12th Avenue, Room 264
Fairbanks AK 99701
Fax (907) 456-0506
1 Page

Dear Mr. Heuer:

We strongly support the lower Sheenjek being included in the designation as a Wild and Scenic River so that the entire river will be protected. We have taken float trips on the Sheenjek for eight years and are planning another trip this coming August.

Margaret Murie, who was awarded the Presidential medal of Freedom as "a prime mover in the creation of America's great treasure, the Arctic National Wildlife Refuge," once said "I think the Sheenjek River is the most beautiful river in the world." We agree

As you know, the Sheenjek Raver is a prime habitat for migratory waterfowl, moose, bear and beaver. Please do everything in your power to protect this pristine Interior Alaska river for our future generations to enjoy its wildlife and its scenic beauty.

Thank you for your efforts.

Sincerely,

Ken Leghorn and Susan Warner
Owners

SEED SEQUOIA DRIVE, [illegible], ALASKA 99701 • ADMINISTRATION [illegible] • RESERVATIONS [illegible] • TELEFAX [illegible]

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January 12, 1999

Ted Heuer, Refuge Manager
Yukon Flats NWR
Federal Building and Courthouse
101 12th Avenue, Room 264
Fairbanks, AK 99701

Dear Mr. Heuer:

I support the designation of the Sheenjek as a Wild River. I am fortunate to be a co-owner to property on Beaver Creek and therefore know first hand how important such a designation can be in protecting a river.

Sincerely yours,

Jonathan G. Blattmachr

JGB.lg

cc. Sylvia Ward

Sierra Club
Alaska Field Office
241 E. Fifth Avenue, Suite 205, Anchorage, Alaska 99501
(907) 276-4048 • FAX (907) 258-6807

January 15, 1999

Mr. Jack Mosby
Rivers, Trails and Conservation Assistance Program
National Park Service
2525 Gambell Street
Anchorage, AK 99503-2892

Mr. Ted Heuer
Refuge Manager
Yukon Flats National Wildlife Refuge
Federal Building and Courthouse
101 12th Avenue, Room 264
Fairbanks, AK 99701

Re: Revised Draft Wild and Scenic River Study and Legislative Environmental Impact Statement for the Lower Sheenjek River, Alaska

Dear Messrs. Mosby and Heuer

The Sierra Club, a national environmental organization with chapters in every state, appreciates the opportunity to submit comments on the Lower Sheenjek River Draft Study and Legislative EIS (Study).

According to the Study, "The fundamental issue is whether Wild and Scenic River status is likely to enhance and help protect the values of the river at a reasonable financial and social cost."

The answer to that question is yes. Wild river status would bring a significantly higher level of protection to the river. At present, it flows across non-wilderness refuge lands that are subject to uses and developments that could dramatically change the character of the river corridor, and potentially disqualify it for wild river status. For example, it conceivable that dams or other major water resource development, roads, logging, mineral leasing, extensive habitat manipulation, and other development might be permitted in the river corridor if found to be compatible with refuge purposes.

Wild river status, by precluding the uses and developments noted above, insures that the river and its corridor will remain in their present natural condition.

Because administration of the lower river as a wild river would cost less than five thousand dollars per year, the financial cost of designation is reasonable. The social cost identified in the Study, a set-back requirement for subsistence wood-cutting and new or reconstructed subsistence cabins, seems a reasonable one, especially in light of the benefits: maintenance of scenic/aesthetic values, and protection of riparian habitat.

The Sierra club finds the case for wild river status very persuasive. In summary, the lower Sheenjek is suitable for addition to the Wild and Scenic Rivers System as a wild river for the following reasons:

* It has outstandingly remarkable wildlife, subsistence, and recreational values.
* As the upper river is already a wild river, adding wild designation for the lower would protect and give uniform management to the entire river as it flows across a variety of landscapes to its confluence with the Porcupine River.
* By providing the highest level of security for fish and wildlife habitat that sustains the local and regional subsistence economy, e.g., as a major chum salmon producer, wild river status would help accomplish the subsistence policy objectives of Congress in ANILCA.
* It provides excellent boating, camping, and wildlife viewing opportunities for river travelers.
* Virtually all land in the proposed corridor is federally owned, which means that usual use and management conflicts arising from multiple jurisdictions in other river corridors would not be present along the lower Sheenjek.
* Refuge management costs would be negligible.
* There would be no impact on current use and activities in the river corridor.

On the issue of suitability, the Study notes that local residents and the State have shown "no particular interest" in seeing the lower river added to the national river system. While this may have been an accurate description of an earlier state administration's position, the administration of Governor Tony Knowles may take a more enlightened position.

An excellent feature of the Study is the recommendation that the wild river corridor be one mile wide, as is case with existing wild rivers established by ANILCA. By contrast, the U.S. Forest Service, ignoring ANILCA, proposes a mere half-mile wide corridor for proposed wild and scenic rivers on the two national forests in Alaska.

In conclusion, the Sierra Club commends the authors of the study for a concise yet thorough analysis of the Lower Sheenjek river, and urges the Administration to forward a wild river recommendation to Congress.

Sincerely,
Jack Hession
Jack Hession
Alaska Representative

Knik Canoers & Kayakers, Inc.
PO Box 242861, Anchorage, AK 99524-2861
Tel: (907) 566-1554 www.kck.org

January 15, 1998

Ted Heuer, Refuge Manager
Yukon Flats NWR
Federal Building and Courthouse
101 12th Avenue, Room 264
Fairbanks, AK 99701

1 page via fax to (907) 456-0506

Dear Mr. Heuer:

I am writing today to support of the proposed designation of the Lower Sheenjek River as a Wild and Scenic River. The Knik Canoers & Kayakers (KCK) is an Anchorage-based volunteer nonprofit organization that has represented the interests of non-motorized boaters since 1970. Our club has a current membership of 312 households. We promote boating interests by encouraging paddlesports, disseminating information on safe boating, and advocating for boating interests on issues of access and conservation. KCK's constructive input has been welcomed by the Alaska State Parks, US Forest Service, National Park Service, Army Corps of Engineers, Ft. Richardson and other public entities. We appreciate the opportunity to comment on the study and draft LEIS for the Lower Sheenjek River.

We support the LEIS Preferred Alternative of designation as a Wild & Scenic River. We are particularly in favor of efforts that facilitate education and interpretation, ensure the continuance of the undeveloped, scenic character of the river, and non impactive use of the corridor, while excluding future impoundment or extractive use (such as oil and gas)

Sincerely,

Eric Downey, President
Knik Canoers and Kayakers

National Parks
and Conservation Association

ALASKA REGIONAL OFFICE

January 15, 1999

Ted Heuer, Refuge Manager
Yukon Flats NWR
101 12th Avenue, Room 264
Fairbanks, AK 99701

VIA FAX: 907-456-0506

SUBJECT: Wild and Scenic River designation for the Lower Sheenjek River

Dear Mr. Heuer,

Thank you for the opportunity to comment on the proposed Wild and Scenic River designation for the Lower Sheenjek River. The National Parks and Conservation Association (NPCA) supports this designation. NPCA was established in 1919 to protect and enhance the National Park System. Today there are nearly 400,000 members of which 1,150 are in Alaska.

The Lower Sheenjek is an excellent addition to the National Wild & Scenic Rivers System. It's a remote and wild area, largely in its natural state. The river is free-flowing, has no roads, no major development, few villages and low population. Although management of the area would remain largely unchanged, we recommend proceeding with the designation at this time as protection against future development possibilities.

Sincerely,

Chip Dennerlein
Alaska Regional Director

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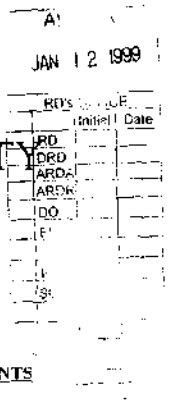
THE WILDERNESS SOCIETY

Sheenjek River Comments
2525 Gambell Street
Anchorage, AK 99503-2892



January 8, 1999

RE: LOWER SHEENJEK WILD AND SCENIC RIVER STUDY AND LEGISLATIVE ENVIRONMENTAL IMPACT STATEMENT COMMENTS

The Wilderness Society appreciates the opportunity to submit comments for the Lower Sheenjek Wild and Scenic River Study and Legislative Environmental Impact Statement (Draft Study LEIS).

The Wilderness Society (TWS), founded in 1935, is a non-profit membership organization devoted to preserving wilderness and wildlife, protecting America's prime forests, parks, rivers, deserts, and shorelines, and fostering an American land ethic. With 250,000 members nationwide, TWS has 800 members in Alaska, many of whom use the Chugach National Forest and are concerned about the management of its natural resources.

TWS supports the preferred alternative which would designate the lower portion of the Sheenjek River as a National Wild River. This designation would protect the outstandingly remarkable cultural, wildlife, scenic and recreational values associated with the river and the adjacent public lands.

As outlined in the Draft Study/LEIS, the Sheenjek River meets suitability requirements for a National Wild River in a number of ways: 1) the river corridor is entirely within a Conservation System Unit (Yukon Flats National Wildlife Refuge); 2) a designation is both feasible and timely; and 3) there are no significant competing land management priorities for the corridor (i.e. the river corridor does not have significant timber, oil, mineral or water resources). Designating the lower portion of the Sheenjek river as a National Wild River would protect the entire river corridor (the upper portion of the Sheenjek river is already designated a National Wild River), which is a relatively rare phenomenon in Alaska and the United States. Only a handful of entire river corridors are designated Wild in Alaska.

The Draft Study/LEIS outlines the following as outstandingly remarkable values of the river corridor: subsistence, wildlife, and recreational values. The subsistence and cultural values of the river corridor are significant and have been developed over centuries. The Sheenjek was known as a primary travel route between the Yukon Flats and the Brooks range, which allowed for trade. While we understand local people in general do not support the idea of National Wild River designation, identifying and specifying subsistence as one of the outstandingly remarkable values of the river would protect subsistence opportunities in perpetuity from future incompatible development threats.

Described by Mardy Murie as one of the most beautiful rivers in the world, the Sheenjek provides a fantastic educational and recreational opportunity because of its cultural, wildlife and scenic values. Designating the lower river as Wild will ensure the protection of a river type which is not yet incorporated into the National Wild and Scenic River system. In addition, by adding the lower river to National Wild River designation the U.S. Fish and Wildlife Service will ensure a world-class recreational and educational opportunity along the entire river corridor.

In conclusion, TWS strongly supports the preferred alternative to designate the lower Sheenjek River as a National Wild River because of its outstandingly remarkable subsistence, wildlife and recreational values. We feel this action should be embraced by decision-makers particularly because there are no significant competing land management priorities within the river corridor.

Thank you for this opportunity to comment. If you have any question please do not hesitate to contact us.

Sincerely,

Nicole Whittington-Evans
Assistant Regional Director, Alaska

cc: Robert D. Barbee, Regional Director, National Park Service
Dave Allen, Regional Director, U.S. Fish and Wildlife Service
Ted Heuer, Yukon Flats National Wildlife Refuge Manager

ALASKA REGION
430 WEST 7TH AVENUE, ANCHORAGE, AK 99501
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Appendix A: Interim River Management Guidelines

The following are based on interim management guidelines for Wild Rivers in Alaska managed by the U.S. Fish and Wildlife Service and the analysis presented in this report. These guidelines are intended to provide management direction in the corridor until a management plan is developed. That management plan would probably incorporate most of these guidelines, but would not be bound by them.

Any future river management planning process will also involve significant public comment, and would adopt a collaborative approach. This approach would encourage representatives of local people and organizations, recreation users and organizations, and State of Alaska officials to participate on the planning team.

If the Lower Sheenjek is designated and a river planning effort commences, Arctic NWR officials have indicated interest in concurrently completing a river management plan for the Upper Sheenjek. The Upper Sheenjek was designated before federal guidelines required plans for designated rivers, and so it does not have a stand-alone management plan (although Upper Sheenjek management is covered in some detail in the Arctic National Wildlife Refuge Comprehensive Conservation Plan).

If the Lower Sheenjek is not designated by Congress, these guidelines will not be applied and management direction would be provided by the Yukon Flats Comprehensive Conservation Plan.

Management Goals

Designation of a wild river corridor requires additional focus and management attention on the river's outstandingly remarkable cultural, wildlife, scenic, and recreational values. This includes:

- Support for subsistence use of the river corridor and the cultural heritage it invokes by recognizing existing and past uses by local people, and ensuring those uses are continued into the future.
- Maintaining high quality wildlife habitat by limiting development along the river.
- Maintaining high quality scenery by minimizing visible development along the river.
- Maintaining high quality recreation opportunities that feature solitude, undeveloped natural landscapes, and a minimal management philosophy (few regulations).

Specific Guidelines

Private Lands

Private land owners (especially cabin owners) are concerned about the Wild River classification attracting large numbers of river travelers, some of whom may trespass on their land, enter their cabins, and damage or steal their property. Managers should demonstrate awareness and concern for private land owners' problems and take actions to help protect private property. For example, managers can advise river travelers about the existence of private land through an informational brochure to discourage unintentional trespass.

Managers may also be able to develop a cooperative agreement that encourages managers to help protect property while landowners minimize adverse impact along the river (i.e., leave vegetative screening along the property river bank, keep structures and equipment out of sight from the river, and use subdued color

paints). These types of actions may make private property less obvious and less likely to be investigated by river travelers. Cooperative agreements are not mandatory; Wild River designation does not affect private lands which will be located out of the designated corridor.

Oil and Gas Leasing and Exploration

Oil and gas development is already administratively prohibited in the study area, and designation would provide statutory protection from this type of development. These guidelines reiterate the need for this closure during Congressional consideration.

Mining

No claims exist in the corridor and the refuge is closed to additional new claims; Wild River status would support this closure.

Cabins

When possible, new trapline, guiding, or fish camp cabins on refuge lands in the Wild River corridor should be set back and screened from the river. This can minimize trespass by recreation users as well as maintain higher quality scenic values. Existing cabins on refuge lands may be partially concealed by permitting river bank vegetation to grow unchecked.

Logging

Small scale cutting for trapline, guiding, or fish camp cabins on refuge lands (or in association with nearby cabins on private land) usually involves hand logging conducted in summer. When possible, harvests should be set back or screened from the river. This will maintain higher quality scenic and wildlife values.

Access

Both the Wild and Scenic Rivers Act and ANILCA have specific provisions assuring access to private land. The law provides that boundaries for designated rivers in Alaska shall not surround private lands adjoining the river. Owners or occupiers of private lands within a designated river area are assured adequate and feasible access for economic and other purposes to their land. Adequate access may include the traditional or established means of access used by landowners at the time the river is designated or other access that will not harm the river's resources.

When possible, summer access trails should be aligned to minimize visibility from the river. Similarly, when possible, they should also be aligned on lands that are less susceptible to erosion or to avoid critical habitat areas.

Subsistence Use

Subsistence use is recognized as an outstandingly remarkable value of the Lower Sheenjek River and is to be allowed and protected. This includes allowing use of the river by local people for hunting, fishing, trapping and similar activities as long as fish and game resources are available (as determined by relevant state and federal wildlife laws).

Conflict between Recreation Users and Subsistence Users

Subsistence users have concerns about the presence of recreation users. Trespass and vandalism of subsistence camps or cabins is one issue, but local users have also expressed concern about recreation impacts on hunting and trapping success (more recreation use may scare game from the river), differences in philosophy about the taking of fish and game, and general antipathy toward users who dress differently, use different craft, and represent newer users of the resource. In contrast, there is little evidence that recreation users perceive much conflict with local subsistence users.

Education efforts of both groups is probably the best approach for addressing this issue. Information that shows public lands can help minimize trespass issues and might help explain local people's sensitivity toward recreation use of the area.

Hunting, Fishing and Trapping

Hunting, fishing and trapping seasons, limits, methods and means will be managed in accord with relevant federal and state fish and game regulations.

Education and Scientific Use

Wild and scenic rivers possess important educational and scientific values by presenting natural environments where human modifications are generally minor. In general, scientific studies of phenomena in the Lower Sheenjek will be allowed as long as they do not conflict with existing recreation or subsistence users.

Primitiveness

Leave intact the log jams, flood outwashes, cutbank-fallen trees, and other natural river features. Both subsistence and recreation users appreciate that there are hazards in natural environments and do not require management efforts to reduce those.

Commercial River Guiding

Commercial river guiding can be authorized with a Refuge Special Use Permit. Guiding permits can ensure appropriate minimum impact techniques are employed by guided users, and offer opportunities to educate them about preventing potential conflicts with subsistence users.

Boating Use Permits

A permit for boating use is not expected to be required on the Lower Sheenjek, where current recreation use is extremely low.

Camping

Recreation or subsistence camps have the potential to become noticeably impacted by consistent use. Periodic monitoring of popular sites may be needed to document impacts and design appropriate remedies. Because most camps are on sand and gravel bars which are "cleaned" by high water each year, camping impacts on the Lower Sheenjek are not expected to be a significant impact problem in the

foreseeable future. Constructed camping facilities on federal lands are not recommended; recreation and subsistence users should continue to use sand/gravel bars and pack out any equipment they pack in.

Campfires

Fires are a part of camping in Alaska. The Lower Sheenjek has considerable driftwood available for firewood; recreation users should be urged to use dead and down wood only, but no further regulations concerning firewood use are expected to be needed.

Litter Control and Sanitation

Garbage and trash cans will not be placed within the river corridor. Users are expected to haul out or burn any refuse they bring into the river. Human waste should be buried at least 100 yards from any water source.

Signs

Directional and information signs are inappropriate and not needed in a Wild River corridor. The location of points of interest in the river brochure should be made by reference to existing land marks.

Safety

Safety is important but so is fun and discovery. Excessive official safety guidance and surveillance can destroy the spirit of discovery on a river. Frequently, the more detail the agency uses in warning of hazards, the more susceptible the agency is to tort claims from failure to include even more detail.

The land and the river, not the agency, offer opportunity for risks. However, if a major hazard exists on the river the travelers should probably be advised.

Some hazards include *aufeis*, rapidly rising water level, cold water, trees and roots wads in the water, sweepers, and undercut banks.

Aufeis. Aufeis is the name given to ice formed when the stream ice becomes thick and the stream is freezing from the bottom restricting the flow. Water is forced to the surface and flows over the top of the ice freezing in successive layers, until finally the ice flow may be several feet thick. In summer the river cuts a deep channel through the ice to the river bed. The channel walls are vertical. In some places the river flows in a tunnel under the ice. Getting carried into a tunnel is hazardous.

Cold water. Early in the summer the water is extremely cold. Travelers should wear high buoyancy life jackets with waterproof matches and candles in the pockets for fire starting.

Undercut banks. The river is constantly cutting into the forest on the outside of the river bends. The frozen soil beneath the forest floor is melted by the water and erodes from beneath the forest floor. When the river level reaches above the undercut area, the surface flow is impeded by the bank while beneath the surface an under current flows swiftly. A person carried underneath may become tangled in tree roots or drift limbs.

The cutting of the banks causes trees to topple into the water while the root system of some still holds the base on shore. Boats swept against the trees are caught in the branches or root wads and sometimes overturned.

Monitoring and Law Enforcement

Maintain low profile while monitoring use and river conditions. Minimize use of motor boats or aircraft for administrative purposes, except as they may be used by the public. Helicopters, however, may be needed to conduct management activities and are not intended to be limited by this guideline. Aircraft use through the corridor should be at high altitude with low power setting whenever possible. Law enforcement patrols should be conducted by refuge staff and be combined with the monitoring patrols.

Motorized Equipment

Use of motorized equipment (except for snow machines, boats, airplanes, and helicopters) should be minimized by agencies when the sound will disturb other users.

Firearms

Refuge and river regulations permit hunting and carrying firearms. Target shooting and general plinking should be discouraged; other areas in the refuge are more appropriate for this type of activity.

Appendix B: Section 810 Subsistence Evaluation

Introduction

Section 810(a) of the Alaska National Interest Lands Conservation Act (ANILCA) states:

> *In determining whether to withdraw, reserve, lease, or otherwise permit the use, occupancy, or disposition of public lands under any provision of law authorizing such actions, the head of the Federal agency having primary jurisdiction over such lands or his designee shall evaluate the effect of such use, occupancy, or disposition on subsistence uses and needs, the availability of other lands for the purposes sought to be achieved, and other alternatives which would reduce or eliminate the use, occupancy, or disposition of public lands needed for subsistence purposes. No such withdrawal, reservation, lease, permit, or other use, occupancy or disposition of such lands which would significantly restrict subsistence uses shall be effected until the head of such Federal agency:*
>
> *1. gives notice to the appropriate State agency and the appropriate local committees and regional councils established pursuant to section 805;*
> *2. gives notice of, and holds, a hearing in the vicinity of the area involved; and*
> *3. determines that (a) such a significant restriction of subsistence uses is necessary, consistent with sound management principles for the utilization of the public lands, (b) the proposed activity will involve the minimal amount of public lands necessary to accomplish the purposes of such use, occupancy, or other disposition, and (c) reasonable steps will be taken to minimize adverse impacts upon subsistence uses and resources resulting from such actions.*

The Evaluation Process

ANILCA made additions to existing wildlife refuges and created new refuges as part of the National Wildlife Refuge System in Alaska. The purposes of the refuge involved in this study are stated in section 302 of ANILCA:

> *The purposes for which the Yukon Flats National Wildlife Refuge is established and shall be managed include:*
>
> *(i) to conserve fish and wildlife populations and habitats in their natural diversity including, but not limited to, canvasbacks and other migratory birds, Dall sheep, bears, moose, wolves, wolverines and other furbearers, caribou (including participation in coordinated ecological studies and management of the Porcupine and Fortymile caribou herds) and salmon;*
>
> *(ii) to fulfill the international treaty obligations of the United States with respect to fish and wildlife and their habitats;*
>
> *(iii) to provide, in a manner consistent with the purposes set forth in subparagraphs (i) and (ii), the opportunity for continued subsistence uses by local residents; and*

(iv) to ensure, to the maximum extent practicable and in a manner consistent with the purposes set forth in paragraph (i) water quality and necessary water quantity within the refuge.

In addition, components of the National Wild and Scenic Rivers System are to be administered pursuant to the Wild and Scenic Rivers Act, which states, in part:

Each component of the national wild and scenic river system shall be administered in such manner as to protect and enhance the values which caused it to be included in said system without, insofar as is consistent therewith, limiting other uses that do not substantially interfere with public use and enjoyment of these values. In such administration primary emphasis shall be given to protecting its aesthetic, scenic, historic, archeological, and scientific features. Management plans for any such component may establish varying degrees of intensity for its protection and development, based on the special attributes of the area.

Also, subsistence uses were to be permitted in the refuges and components of the National Wild and Scenic Rivers System in accordance with title VIII of ANILCA.

The potential for significant restriction must be evaluated for the proposed action's effect upon "subsistence uses and needs, the availability of other lands for the purposes sought to be achieved and other alternatives which would reduce or eliminate the use." Restriction on subsistence use would be significant if there were large reductions in the abundance of harvestable resources, major redistribution of those resources, substantial interference with harvester access to active subsistence sites, or a major increase in hunting by others than rural residents.

By asking the following series of questions and analyzing the responses, relative to the area and the proposed action, an evaluation of significance becomes possible.

1. Would the alternative cause a reduction in the population of wildlife, fish, and other resources upon which subsistence harvesting depends; and/or would the alternative cause a redistribution in those harvestable resources by either causing a decline in the population of wildlife or fish harvested for subsistence or by altering the distribution of those harvestable resources?

2. Would the alternative cause a restriction on access to the harvestable resources where harvesting historically has taken place?

3. Would the alternative lead to increased competition for the big game present there?

Proposed Action On Federal Lands

The Department of the Interior has identified the Lower Sheenjek River (comprising 99 river miles) as eligible and suitable for inclusion in the National Wild and Scenic Rivers System. This action would add statutory protection to the outstanding values in the river corridor. These lands and values are already receiving a high degree of protection by virtue of national wildlife refuge status and the existing and proposed management of the refuge lands. Addition of this segment would complete the Sheenjek as a component of the National Wild and Scenic Rivers System by adding the remainder of the river to the system. The other alternative considered was non-designation (no action).

Affected Environment

As described in the subsistence section of the EIS, subsistence use occurs in varying degrees along the lower Sheenjek River. Noncommercial trapping is the predominant subsistence activity. Hunting also takes place along the entire segment. Most fishing on the river is done incidentally to other activities. A few subsistence users from Fort Yukon are believed to set nets near the mouth of the river; and nets are set by one or more local residents who have traplines along the river.

Environmental Consequences

To determine the potential impact on existing subsistence activities, the three evaluation criteria were analyzed relative to existing subsistence resources which could be affected. The EIS describes the total range of potential impacts which may occur in the "Environmental Consequences" chapter. The evaluation criteria include:

- the potential to reduce important subsistence wildlife populations
- the effect the action might have on hunter access
- the potential for the action to increase hunter competition

The Potential to Reduce Populations

Under both alternatives, management of the river corridor would emphasize maintenance of existing conditions, including wildlife populations and wilderness character. Visitor use is expected to increase at similar rates under both alternatives and remain at relatively low levels. Because the upper portion of the Sheenjek River is already designated as a wild river, addition of the lower river is unlikely to contribute to additional use. This use would be confined to the immediate environment of the river and would not affect any wildlife populations or their habitat.

Conclusion: None of the alternatives including the proposed action would cause a reduction in the population or habitat of any harvestable resource or result in a redistribution of harvestable resources.

Restriction of Access

Under the alternative, all existing means and routes of access, including airplanes, motorboats, and snowmachines, would continue as allowed by law along the lower Sheenjek.

Under the proposed action, attempts would be made to locate any future motorized vehicle trails along the lower few miles of the river farther than 1/2 mile from the river to minimize impacts on the scenic, recreational, and other values of the designated corridor. Such restrictions would comply with provisions of ANILCA relating to subsistence and access.

Conclusion: None of the alternatives including the proposed action would restrict existing access to harvestable resources. If the river segment was designated, there might be restrictions placed on new routes of access proposed for the lower few miles of the river.

Increase in Competition

Under either alternative, visitor use of the river corridor is expected to increase but still remain at low levels. Because most of the recreational use of the river would occur during the summer months prior to big game hunting seasons, designation of the lower Sheenjek would not result in increased competition for big game.

The slight increase in use is also not expected to have any significant impacts on subsistence fishing or gathering activities.

Conclusion: None of the alternatives including the proposed action would appreciably increase competition for big game or other harvestable resources.

Availability of Other Lands for the Proposed Action

No other lands are available for this particular action because the river and its associated resources cannot be relocated. In addition, portions of the Sheenjek River have already been designated as a wild river, so this action would complete the previous designation. Management under the proposed action would be very similar to that proposed for the refuge lands without designation.

Alternatives Considered

The EIS analyzes two alternatives: no action, and designation of the lower 99-mile segment (proposed action).

Consultation and Coordination

The following agencies and organizations were consulted throughout the study process and were provided with preliminary copies of this evaluation:

U.S. Fish and Wildlife Service
Alaska Department of Fish and Game
Tanana Chiefs Conference, Inc.
Doyon Ltd.
Alaska Federation of Natives
Native Village of Fort Yukon

Public involvement during the study is discussed in Chapter 7.

Findings

Based upon the above process and considering all the available information, this evaluation could not forecast any reasonable foreseeable events that would entail a significant restriction of subsistence use.

Appendix C: Bird Species List for Yukon Flats National Wildlife Refuge

The following checklist of 160 species was compiled from refuge observations and published records.

ABUNDANCE (seasonal for migrants)

A = Abundant
C = Common (certain to be seen or heard in suitable habitat)
U = Uncommon (present but not certain to be seen; or locally distributed)
R = Rare (seen only a few times annually)
O = Occasional (seen only a few times in a five-year period)
X = Accidental (has been seen only once or twice; may not be seen again)

STATUS

Y = Year-round resident
B = Breeding species (migratory)
* Breeding has been documented for this species through observation of eggs, nests, or dependent (unfledged or recently fledged) young.
M = Migrant non-breeder traveling between summer and winter range
V = Visitor from outside its normal range

	Ab	St
LOONS		
___ Red-throated Loon	U	B
___ Pacific Loon	C	B*
___ Common Loon	C	B*
GREBES		
___ Horned Grebe	C	B*
___ Red-necked Grebe	C	B*
CORMORANTS		
___ Double-crested Cormorant	X	V
SWANS, GEESE, DUCKS		
___ Tundra Swan	R	M
___ Trumpeter Swan	U	B*
___ Greater White-fronted Goose	U	B*
___ Snow Goose	R	M
___ Brant	X	V
___ Canada Goose	U	B*
___ Green-winged Teal	C	B*
___ Mallard	C	B*
___ Northern Pintail	C	B*
___ Blue-winged Teal	R	B*
___ Northern Shoveler	C	B*
___ Gadwall	U	B*
___ American Wigeon	A	B*
___ Canvasback	C	B*
___ Redhead	R	B*
___ Ring-necked Duck	R	B*
___ Greater Scaup	U	B*
___ Lesser Scaup	A	B*
___ King Eider	X	V
___ Harlequin Duck	R	B
___ Oldsquaw	R	B
___ Black Scoter	R	B*
___ Surf Scoter	U	B*
___ White-winged Scoter	C	B*
___ Common Goldeneye	U	B*
___ Barrow's Goldeneye	U	B*
___ Bufflehead	U	B*
___ Common Merganser	R	B
___ Red-breasted Merganser	U	B*
___ Ruddy Duck	R	B*
EAGLES, HAWKS		
___ Osprey	U	B*
___ Bald Eagle	U	B*
___ Northern Harrier	U	B*
___ Sharp-shinned Hawk	U	B
___ Northern Goshawk	R	B*
___ Swainson's Hawk	O	B
___ Red-tailed Hawk	C	B*
___ Rough-legged Hawk	U	B
___ Golden Eagle	U	B*
FALCONS		
___ American Kestrel	U	B*
___ Merlin	R	B
___ Peregrine Falcon	U	B*
___ Gyrfalcon	O	B
GROUSE		
___ Spruce Grouse	C	Y*
___ Willow Ptarmigan	U	Y
___ Rock Ptarmigan	U	Y
___ Ruffed Grouse	C	Y*
___ Sharp-tailed Grouse	R	Y*
COOTS		
___ American Coot	O	V
CRANES		
___ Sandhill Crane	C	B
PLOVERS		
___ Black-bellied Plover	R	M
___ American Golden-Plover	R	B*
___ Semipalmated Plover	C	B*
___ Killdeer	O	B*
SANDPIPERS		
___ Greater Yellowlegs	O	M
___ Lesser Yellowlegs	A	B*
___ Solitary Sandpiper	C	B*
___ Spotted Sandpiper	C	B*
___ Wandering Tattler	O	B
___ Upland Sandpiper	O	B*
___ Whimbrel	R	M
___ Hudsonian Godwit	O	M
___ Ruddy Turnstone	O	M
___ Surfbird	R	B
___ Sanderling	O	M
___ Semipalmated Sandpiper	U	M
___ Western Sandpiper	U	M
___ Least Sandpiper	U	B
___ Baird's Sandpiper	R	M
___ Pectoral Sandpiper	U	M
___ Dunlin	O	M
___ Stilt Sandpiper	O	M
___ Buff-breasted Sandpiper	O	M
___ Long-billed Dowitcher	R	M
___ Common Snipe	A	B*
___ Wilson's Phalarope	X	V
___ Red-necked Phalarope	U	B*
___ Red Phalarope	R	M
JAEGERS, GULLS, AND TERNS		
___ Long-tailed Jaeger	R	B
___ Bonaparte's Gull	U	B*
___ Mew Gull	C	B*
___ Herring Gull	C	B*
___ Glaucous Gull	X	V
___ Arctic Tern	C	B*

	Ab	St
PIGEONS AND DOVES		
___ Rock Dove	O	V
___ Mourning Dove	X	V
OWLS		
___ Great Horned Owl	C	Y*
___ Snowy Owl	O	V
___ Northern Hawk Owl	U	Y*
___ Great Gray Owl	U	Y*
___ Short-eared Owl	U	B
___ Boreal Owl	U	Y*
KINGFISHERS		
___ Belted Kingfisher	U	B
WOODPECKERS		
___ Downy Woodpecker	U	Y
___ Hairy Woodpecker	U	Y
___ Three-toed Woodpecker	C	Y*
___ Black-backed Woodpecker	U	Y
___ Northern Flicker	U	B*
TYRANT FLYCATCHERS		
___ Olive-sided Flycatcher	U	B
___ Western Wood-Pewee	U	B*
___ Alder Flycatcher	C	B
___ Hammond's Flycatcher	R	B
___ Say's Phoebe	R	B
___ Eastern Kingbird	X	V
LARKS		
___ Horned Lark	U	B
SWALLOWS		
___ Tree Swallow	U	B*
___ Violet-green Swallow	U	B*
___ Bank Swallow	C	B*
___ Cliff Swallow	C	B*
JAYS, MAGPIES, CROWS		
___ Gray Jay	C	Y
___ Black-billed Magpie	X	V
___ Common Raven	C	Y*
CHICKADEES		
___ Black-capped Chickadee	U	Y
___ Siberian Tit	O	Y
___ Boreal Chickadee	C	Y*

	Ab	St
NUTHATCHES		
___ Red-breasted Nuthatch	O	V
DIPPERS		
___ American Dipper	R	B
KINGLETS		
___ Ruby-crowned Kinglet	U	B
THRUSHES		
___ Northern Wheatear	R	B
___ Townsend's Solitaire	O	B
___ Gray-cheeked Thrush	U	B
___ Swainson's Thrush	C	B*
___ Hermit Thrush	U	B
___ American Robin	C	B*
___ Varied Thrush	C	B
WAGTAILS, PIPITS		
___ White Wagtail	X	V
___ American Pipit	U	B
WAXWINGS		
___ Bohemian Waxwing	U	B*
SHRIKES		
___ Northern Shrike	R	B
STARLINGS		
___ European Starling	O	V
WOOD WARBLERS		
___ Orange-crowned Warbler	U	B*
___ Yellow Warbler	C	B*
___ Yellow-rumped Warbler	C	B*
___ Blackpoll Warbler	U	B
___ Northern Waterthrush	C	B*
___ Wilson's Warbler	R	B
SPARROWS, BUNTINGS		
___ American Tree Sparrow	U	B*
___ Chipping Sparrow	R	B*
___ Savannah Sparrow	C	B*
___ Fox Sparrow	U	B
___ Lincoln's Sparrow	U	B*
___ Golden-crowned Sparrow	O	M
___ White-crowned Sparrow	C	B*
___ Dark-eyed Junco	C	B*
___ Lapland Longspur	R	B
___ Smith's Longspur	O	B
___ Snow Bunting	U	M

	Ab	St
BLACKBIRDS		
___ Red-winged Blackbird	U	B*
___ Rusty Blackbird	C	B*
FINCHES		
___ Rosy Finch	U	B
___ Pine Grosbeak	U	Y
___ White-winged Crossbill	C	Y*
___ Common Redpoll	C	Y*
___ Hoary Redpoll	U	M

The Yukon Flats National Wildlife Refuge consists of 8.5 million acres and encompasses the Yukon Flats wetlands basin. This basin is located along the Arctic Circle and is bordered by the Brooks Range to the north and the White Mountains to the south. It includes 300 miles of the Yukon River, North America's fifth largest river; an estimated 40,000 shallow lakes, ponds, and sloughs; and 7,000 miles of rivers and streams. The rich wetlands of the Yukon Flats are some of the most productive waterfowl breeding areas in North America; an estimated 1.5 million ducks breed here annually. The Flats also include a variety of other habitats, such as forests of white spruce, paper birch, and quaking aspen; black spruce bogs; thickets of willow and alder; and grasslands and meadows. These habitats are important to a variety of songbirds, shorebirds, and upland game birds.

List was compiled by K.M. Sowl
Revised February 1999

Appendix D: Endangered Species Act (Section 7) Issues

United States Department of the Interior
FISH AND WILDLIFE SERVICE
NORTHERN ALASKA ECOLOGICAL SERVICES
101 12th Ave., Box 19, Room 110
Fairbanks, AK 99701
January 4, 1999

Mr. Jack Mosby
National Park Service
2525 Gambell St.
Anchorage, Alaska 99503

Re: Wild and Scenic River Designation of the Sheenjek River

Dear Mr. Mosby:

This responds to your request for a list of endangered and threatened species and critical habitats pursuant to section 7 of the Endangered Species Act of 1973, as amended (Act). This information is being provided for your use in preparing an Environmental Impact Statement for the proposed designation of the Sheenjek River as a Wild and Scenic River.

The following listed or previously listed species may occur in the area of proposed activity:

American peregrine falcon	(*Falco peregrinus anatum*)	Endangered
Arctic peregrine falcon	(*Falco peregrinus tundrius*)	Delisted in 1994

The American peregrine falcon nests in the forested areas of interior Alaska, and migrates through central, southcentral, and southeastern Alaska during spring and fall migration. There is no designated critical habitat for American peregrine falcons in Alaska. There are no known American peregrine falcon nest sites within 10 miles of the Sheenjek River, however they may migrate through or hunt in the area.

The arctic peregrine falcon (*Falco peregrinus tundrius*) was removed from the list of endangered and threatened species on October 5, 1994. The Service recommends that agencies and applicants avoid impacts to arctic peregrine falcons as they have recently recovered from threatened status, and could be emergency listed at any time if survey data indicate a reversal in recovery. This subspecies nests in tundra areas of northern and western Alaska and migrates throughout most of the state during spring and fall migration. There are no known arctic peregrine falcon nest sites within 10 miles of the project site.

Based on the project description provided, the Service concludes that this project is not likely to adversely impact listed species. Preparation of a Biological Assessment or further consultation under section 7 of the Act regarding this project is not necessary at this time. If project plans change, additional information on listed or proposed species becomes available, or new species

are listed that may be affected by the project. consultation should be reinitiated.

This letter relates only to endangered species under our jurisdiction. It does not address other legislation or responsibilities under the Fish and Wildlife Coordination Act, Clean Water Act, or National Environmental Policy Act.

Thank you for your cooperation in meeting our joint responsibilities under the Act. If you need further assistance, please contact Cathy Donaldson at (907) 456-0354.

Sincerely,

Patrick Sousa

Patrick Sousa
Field Supervisor

Appendix E: Estimated Costs of Wild and Scenic River Study/LEIS

This Wild and Scenic River Study/LEIS was conducted over multiple years in two distinct efforts. Information about the costs in the 1980-1985 effort is unavailable; estimated costs for the resumption of the Study/LEIS beginning in Fiscal Year 1997 are provided below.

Wild and Scenic River Study/LEIS Costs (1997 to present)

The following are costs above and beyond base expenditures paid to Refuge staff who also contributed expertise, reviews, and some sections of the Study/LEIS. It also does not include base salaries paid to the NPS staff person who participated in the fieldwork and administered the study process, or other NPS staff who reviewed and helped edit the Study/LEIS.

Fiscal Year 1997 (October 1996 – September 1997)

$30,000 to complete field reconnaissance on the river, begin gathering updated resource information, place a Notice in the Federal Register, place newspaper ads for scoping meetings, and cover travel costs of conducting the scoping meetings. A substantial component of this money (about $20,000) was spent in a cooperative agreement with Colorado State University for a doctoral student to participate in the fieldwork, organize resource information, participate in the public involvement, and rewrite the Draft Study/LEIS.

Fiscal Year 1998 (October 1997 – September 1998)

$7,600 to complete document revisions, print, and distribute the revised Draft Study/LEIS.

Fiscal Year 1999 (October 1998 – September 1999)

$22,000 to conduct and travel to three public meetings on the Draft Study/LEIS, place newspaper advertisements for those public meetings, to revise and print the Final Study/LEIS, to place Federal Register notices, and publish a final Record of Decision.

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List Of Preparers

The 1984 Draft Study/LEIS was prepared by Jim Morris, Outdoor Recreation Planner, National Park Service, Alaska Regional Office.

The 1985 Final Study/LEIS (prepared but never released) was prepared by Vaughn Baker, Outdoor Recreation Planner, National Park Service, Alaska Regional Office.

Primary consultants on the 1981-1985 Study/LEIS were:

- Abby Arnold, Tanana Chiefs Conference, Inc.
- Louis Barton, Alaska Department of Fish and Game
- Phil Berrian, Doyon Limited
- Ross Kavanagh, National Park Service, Alaska Regional Office
- Roger Kaye, U.S. Fish and Wildlife Service, Yukon Flats National Wildlife Refuge
- Mike Kramer, Alaska Department of Fish and Game
- Jim Kowalsky, Tanana Chiefs Conference, Inc.
- Judy Liedberg, U.S. Fish and Wildlife Service, Arctic National Wildlife Refuge
- Mitchell Sheldon, U.S. Fish and Wildlife Service, Yukon Flats National Wildlife Refuge
- Averill Thayer, U.S. Fish and Wildlife Service
- Joe Wehrman, Alaska Department of Natural Resources

The 1997-1999 Draft Study/LEIS was updated and revised by:

- Doug Whittaker, Colorado State University, who has been an outdoor recreation planner with the National Park Service and Bureau of Land Management in Alaska, and has expertise in river management issues.
- Jack Mosby, Alaska Regional Office, National Park Service, who is the program manager of the Rivers,Trails and Conservation Assistance program for Alaska and has considerable expertise with river planning and management issues in Alaska.

Sections of the Study/LEIS were contributed by staff from the Yukon Flats National Wildlife Refuge; additional members of that staff, the USFWS regional office in Anchorage, and NPS regional office staff in Anchorage also reviewed the document, or assisted in conducting field work. Contributors and reviewers (and their expertise and contributions) are briefly listed below in alphabetical order.

- Mark Bertram is the wildlife biologist for Yukon Flats NWR; he contributed the section on wildlife and reviewed the Draft Study/LEIS.
- Art Banet is an oil and gas specialist who works for the BLM, and provided recent information regarding oil and gas potential for the region.
- Fred Deines is the deputy refuge manager for Yukon Flats NWR and he reviewed the Draft Study/LEIS.
- Chuck Diters is the cultural resource specialist for the U.S. Fish and Wildlife Service at the regional office in Anchorage. He participated in the 1997 fieldwork and reviewed the Draft Study/LEIS.
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- Kristine Sowl is a biological technician for the Yukon Flats refuge and she reviewed the Draft Study/LEIS.
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- Glen Yankus is an environmental specialist with the National Park Service regional office in Anchorage. He reviewed the Final Study/LEIS.

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As the Nation's principal conservation agency, the Department of the Interior has basic responsibilities to protect and conserve our land and water, energy and minerals, fish and wildlife, parks and recreation areas, and to ensure the wise use of all these resources. The department also has major responsibilities for American Indian reservation communities and for people who live in the island territories under U.S. Administration.

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