ENVIRONMENTAL ASSESSMENT

36 CFR Part 9, Subpart D

AMRAP REGULATIONS

NATIONAL PARK SYSTEM UNITS - ALASKA

ENVIRONMENTAL ASSESSMENT

REGULATIONS GOVERNING ACTIVITIES UNDER THE ALASKA MINERAL RESOURCE ASSESSMENT PROGRAM (AMRAP) IN NATIONAL PARK UNITS IN ALASKA

36 CFR Part 9, Subpart D

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PURPOSE AND NEED FOR THE PROPOSAL

The National Park Service (NPS) in Alaska receives numerous requests each year from other Federal agencies to conduct mineral resource assessment activities inside the boundaries of conservation system units established by the Alaska National Interest Lands Conservation Act, December, 1980 (ANILCA)(16 U.S.C. 3142(e)(2)(C)). These requests are most often submitted under Section 1010(a) (16 U.S.C. 3150) which directs the Secretary of Interior to "*...assess the oil, gas, and other mineral potential on all public lands in the State of Alaska in order to expand the data base with respect to the mineral potential of such lands.*" Subsection (b) of Section 1010 mandates that mineral resource assessment activities carried out in conservation system units in Alaska "*...shall be subject to regulations promulgated by the Secretary.*" In December 1989, the National Park Service decided that no additional mineral resource assessment requests would be approved prior to the promulgation of regulations pursuant to Section 1010(b).

The purpose of these regulations are to comply with the requirements of Section 1010(b) and to provide a mechanism for ensuring the use of consistent permit applications and review standards regionwide. This environmental assessment (EA) evaluates the proposed rulemaking and other alternatives which could control AMRAP related activities on NPS lands. The regulations provide a vehicle for the NPS to ensure coordination of multiple agency activities in all the Alaska park units, provide for proper environmental review, identify program restrictions and exclusions provided for in Section 1010(a), and codify the approval standards for those activities as provided for in ANILCA, Section 1010(b):

> "*Such regulations shall ensure that such activities are carried out in an environmentally sound manner--*
>
> *(1) which does not result in lasting environmental impacts which appreciably alter the natural character of the units or biological or ecological systems in the units; and*
>
> *(2) which is compatible with the purposes for which such units are established.*"

DESCRIPTION OF THE PROPOSAL

The National Park Service proposes to codify regulations, under the authority of Section 1010(b) of ANILCA (16 U.S.C. 3150), at Title 36, Code of Federal Regulations as Part 9, Subpart D: Alaska Mineral Resource Assessment Program (AMRAP). These regulations would govern all mineral resource assessment activities conducted in Alaska national park units by Federal agencies authorized by the Secretary of Interior in the regulations.

The regulations establish a formal framework for the receipt of applications by the NPS and provide standards for their review. The regulations also list the specific authorities for the proposed mineral resource assessment activities, define the scope of the regulations applicability, list the Federal agencies which are eligible to apply for permits and formalizes a coordination, application, environmental compliance and permitting process.

The following regulations would be codified at 36 CFR Part 9, Subpart D:

36 CFR Part 9, Subpart D
ALASKA MINERAL RESOURCE ASSESSMENT PROGRAM

Section	*Title*
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Authority: Alaska National Interest Lands Conservation Act (16 U.S.C. 410hh, 16 U.S.C. 3101, et seq.); National Park Service Organic Act of August 25, 1916, as amended, 16 U.S.C. 1, et seq.; the acts establishing the units of the National Park System in Alaska (16 U.S.C. 347 et seq.; 16 U.S.C. 410bb et seq.); and the Wilderness Act, 16 U.S.C. 1131 et seq.

9.80 Purpose.

These regulations govern the conduct of mineral resource assessment activities authorized under Section 1010 of the Alaska National Interest Lands Conservation Act (ANILCA), 16 U.S.C. 3101, et seq., in units of the National Park System in Alaska. The regulations are designed to ensure that authorized Federal agencies carry out mineral resource assessment activities in an environmentally sound manner that (1) does not result in lasting environmental impacts that appreciably alter the natural character of the units, or biological or ecological systems in the units; (2) is compatible with the purposes for which such units were established; and (3) ensures that all units are left unimpaired and preserved for the enjoyment of present and future generations.

9.81 Scope and Applicability.

These regulations apply to all activities conducted by authorized agencies or their contractors on public lands in units of the National Park System in Alaska under the Alaska Mineral Resource Assessment Program (AMRAP), as authorized by Section 1010 of ANILCA. AMRAP activities conducted under this subpart shall be performed in accordance with ANILCA, the regulations in this Subpart, the terms and conditions of an approved permit, and other applicable statutes and regulations, and amendments thereto.

9.82 Definitions.

The terms used in the Subpart shall have the following meaning:

(a) AMRAP means the Alaska Mineral Resource Assessment Program as authorized by Section 1010 of ANILCA, 16 U.S.C. 3150.

(b) AMRAP Activities means any project, method, technique or other activity incidental to mineral resource assessments conducted by authorized AMRAP agencies, or their contractors, in units of the National Park System in Alaska pursuant to Section 1010 of ANILCA and an approved permit. AMRAP activities include access into, across or through a unit of the National Park System for the conduct of those activities. Only mineral resource assessment methods or techniques that do not result in lasting impacts on park resources and values may be permitted as AMRAP activities. Mineral resource assessment techniques may include aerial photography, remote sensing, hand-sampling of geologic materials, hand-sampling or hand-augering methods for geochemical analyses; and geophysical techniques such as magnetic, electrical, electromagnetic, chemical, radioactive and gravitational methods. Mineral resource assessment activities may be permitted as long as (1) no explosives are used, and (2) they are consistent with 9.86 of this Subpart, and (3) they are consistent with the provisions of the Wilderness Act of 1964 (16 U.S.C. 1131 et seq.) and NPS policies concerning wilderness management and the use of motorized equipment in wilderness areas. Core and test drilling for geologic information, including drilling of oil and gas wells, are explicitly prohibited as AMRAP activities in units of the National Park System.

(c) AMRAP agencies means those agencies in the U.S. Department of the Interior that are authorized by the Secretary to perform mineral assessment activities pursuant to Section 1010 of ANILCA.

(d) ANILCA means the Alaska National Interest Lands Conservation Act, 16 U.S.C. 3101, et seq.

(e) Regional Director means the Regional Director of the Alaska Regional Office of the National Park Service (NPS), or the Regional Director's designee.

9.83 Coordination of AMRAP Activities in National Park System Units.

(a) To facilitate compliance with this Subpart, each AMRAP agency will designate a coordinator who will serve as the central point of communications with the NPS on its AMRAP activities in Alaska. The AMRAP agency is responsible for notifying the Regional Director of such designation.

(b) By January 1 of each year, the designated coordinators for the AMRAP agencies will, in consultation with the Regional Director, schedule an interagency meeting to be held by January 31 of each year. Representatives of the AMRAP agencies and the NPS will meet to develop a mutually agreeable agenda of AMRAP projects and activities in Alaska units of the National Park System. Where practicable, AMRAP agencies will consolidate their field activities, including access and field camps, to minimize disturbance to park resources and values.

9.84 ***Application Requirements.***

(a) *By March 1 of each year, the designated coordinator of each AMRAP agency will forward to the Regional Director an application pursuant to 9.84(b) for proposed AMRAP projects and activities discussed and reviewed at the annual coordination meeting held under 9.83(b). Applications requiring additional information will be promptly returned to, or discussed with, the coordinator for the involved AMRAP agency to resolve any deficiencies.*

(b) *Applications will be submitted in a form and manner prescribed by the Regional Director and will contain at a minimum:*

(1) *The name of the AMRAP agency and responsible office and, where applicable, its designated contractual representative that will conduct the proposed activities;*

(2) *The name, office address and telephone numbers of the AMRAP agency persons or contractors who will supervise the proposed activities, and a list of all individuals names, addresses and telephone numbers who will be present at field activities;*

(3) *A list of any previous AMRAP activities or prior geologic and mineral assessments that have occurred in the proposed study area;*

(4) *A discussion of the overall project objectives, schedules and products, and how the proposed activities for the current application relate to the those objectives;*

(5) *A description of activities proposed for approval, including a detailed description of collection techniques, sampling methods and equipment proposed to be used in each area;*

(6) *Topographic maps identifying the specific areas in units of the National Park System where the agency proposes to conduct each AMRAP activity;*

(7) *The approximate dates on which the AMRAP activities for each area are proposed to be commenced and completed;*

(8) *A description of the access means and routes for each area in which work is proposed including an estimate of the number of flights or number of vehicle trips;*

(9) *A description of the field support requirements proposed for locations on lands within units of the National Park System, including camp sites, fuel storage areas and any other requirements;*

(10) *A discussion which documents that the proposed activities will be carried out in an environmentally sound manner utilizing the least impacting technology suitable for the purposes of the project;*

(11) *A description of how any disturbed areas, such as camp sites, will be reclaimed.*

9.85 ***Environmental Compliance.***

Each AMRAP agency is responsible for obtaining all required Federal, State and local permits and must provide sufficient information to the NPS to ensure appropriate compliance with the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.) and other applicable statutes.

9.86 ***Application Review Process and Approval Standards.***

(a) *The Regional Director will review applications submitted pursuant to 9.84 and will take action on such applications by April 15 of each year. If additional review time is necessary to ensure compliance with this Subpart or with other applicable laws, Executive Orders and regulations, the Regional Director will promptly notify the AMRAP agency of the anticipated date of a final decision.*

(b) *The Regional Director is responsible for approving AMRAP activities within units of the National Park System in Alaska.*

(c) To be approved, AMRAP activities must be carried out in an environmentally sound manner, as determined in appropriate environmental documentation, that:

(1) does not result in lasting environmental impacts which appreciably alter the natural character of the units, or the integrity of the biological or ecological systems in the units;
(2) is compatible with the purposes and values for which the units are established;
(3) does not adversely affect the natural and cultural resources, visitor use, or administration of the area.

9.87 Permitting Requirements and Standards.

(a) AMRAP activities may be conducted in units of the National Park System pursuant to a permit issued by the Regional Director in accordance with this Subpart, 36 CFR 1.6 and other applicable regulations, guidelines and policies.

(b) The NPS may restrict AMRAP activities in certain areas and during sensitive periods, such as nesting, calving and spawning seasons, to minimize impacts to fish and wildlife or to comply with existing policies or directives.

(c) All project areas affected by AMRAP activities shall be left in an unimpaired state by the AMRAP agency and its contractors. All costs borne by the NPS in cleaning or restoring an area affected by AMRAP activities will be recoverable from the AMRAP agency.

(d) Copies of all published information and written reports resulting from AMRAP activities conducted in units of the National Park System shall be provided to the Regional Director.

(e) The NPS reserves the right, without prior notice to the AMRAP agency or its contractors, to observe or inspect AMRAP activities to determine whether such activities are being conducted pursuant to this Subpart and the terms and conditions of the approved permit.

9.88 Permit Modification, Suspension, and Cancellation.

(a) A proposal to modify, supplement or otherwise amend an approved permit shall be made by an AMRAP agency by written notice to the Regional Director. The Regional Director shall review and act promptly on the proposed modification pursuant to the standards set forth in 9.86. An AMRAP agency requesting modification of an approved permit may not undertake any of the activities proposed under the modification prior to review and action by the Regional Director.

(b) The Regional Director may suspend, modify or cancel an AMRAP agency's permit by notifying the agency in writing, or orally in an emergency situation, when the Regional Director determines that:

(1) changes to the permit are necessary to address conditions not previously anticipated; or
(2) there is an imminent threat of serious, irreparable, or immediate harm or danger to public health and safety, or the natural and cultural resources and values of the unit; or
(3) the AMRAP agency or its contractors fail to comply with the provisions of ANILCA or any other applicable law or regulation, the provisions and conditions of the approved permit and any modification thereto, or any written or field orders issued by the Regional Director.

(c) Suspensions, modifications or cancellations shall be effective immediately upon receipt of oral or written notice from the Regional Director. Notices issued orally shall be followed by written notice sent by certified mail within three (3) working days confirming and explaining the action. Suspensions shall

remain in effect until the basis for the action has been corrected to the satisfaction of the Regional Director. Cancellation notices shall state the reason for cancellation and shall be sent by the Regional Director to the AMRAP agency at least fourteen (14) days in advance of the date the cancellation is effective.

(d) Suspension or cancellation of a permit to conduct AMRAP activities shall not relieve the AMRAP agency or its contractors of the obligation to restore any location in accordance with the requirements of this Subpart and the permit.

9.89 Appeals.

Written appeals made within 30 days of a final decision made by the Regional Director pursuant to this Subpart shall be reviewed by the Director of the National Park Service. Resolution of any outstanding issues shall follow current Department of Interior procedures for resolving interagency disputes.

SCOPE OF AMRAP ACTIVITIES: Promulgation of the proposed AMRAP regulations would result in AMRAP activities occurring in NPS units in Alaska, effectively reopening the parks closed to such use by the Director in December 1989. Therefore, this environmental assessment also evaluates the scope of potential AMRAP activities which may be proposed by AMRAP agencies for the purpose of conducting mineral resource assessments in the parks.

The goal of the U.S. Geological Survey (USGS) AMRAP program is a systematic investigation of Alaska's mineral resources through four progressively more detailed levels of study. Level I studies are statewide in area and published maps are generally at a scale of 1:2,500,000. Level II studies address large parts of the State and resultant maps are generally published at a scale of 1:1,000,000. Level III studies continue to receive the major effort of AMRAP and draw on many geologic disciplines to produce resource assessments at scales of 1:250,000 (1 inch = 6 miles) and 1:125,000 (1 inch = 3 miles). Level IV studies consist of detailed investigations of specific mining districts, mineral deposits or topics related to the genesis of mineral deposits.

The U.S. Bureau of Mines (USBM) typically collects mineral resource assessment data to specifically determine the location, type, amount and physical extent of mineral resources. Most information is gathered from surface and near-surface exposures and the work involves mapping to document the configuration and location of mines, prospects, claims and mineralized areas.

The Minerals Management Service (MMS) assesses the oil and gas and other mineral potential on the Outer Continental Shelf (OCS). Currently, the MMS is actively assessing the oil and gas potential of offshore basins in the OCS through analysis of geophysical data and relevant geologic information. The information is used to evaluate the potential monetary worth of individual OCS lease blocks, appraise the resource potential of entire basins, and formulate geologic models for basin development. The MMS also conducts specialized studies of Deep Stratigraphic Test wells and exploratory wells drilled on OCS lands. One technique which the MMS utilizes in determining the oil and gas potential of offshore basins is by examining onshore outcrops of the oil bearing strata. In many instances, particularly for the Gulf of Alaska, such onshore outcrops occur within the boundaries of NPS units.

Geologic, geochemical, geophysical and mineral occurrence data is compiled, synthesized and interpreted in numerous USGS publications. The USGS, in conjunction with several other Federal agencies, also produces an annual report on Alaska's mineral resources, a portion of which reports on mineral resource assessments conducted on NPS lands (USDOI, USGS 1981-89).

Access: AMRAP agencies utilize a variety of access methods to accomplish assessment activities. Typically, remote sites in undeveloped park areas are accessed by small helicopters, such as a Bell 206 or Hughes 500 series. The amount of helicopter use would vary from point to point transport of people and equipment from a particular staging area to a camp or work site, with intermittent moves through the day, to nearly continuous use for moving AMRAP agency personnel along transect lines on systematic, multi-year large-scale reconnaissance studies. Sites may also be accessed by foot from nearby airstrips or lakes where small fixed-wing aircraft may be used. Aircraft would also be used for aerial photography, remote sensing and other aerial data collection techniques. Some sites may be near enough to existing roads that four-wheel drive vehicles or pack animals may be used. In a few situations, boat access may provide the means of access.

Support Camps: Typically, mineral resource assessment activities are staged from a center of operations outside the park, such as a nearby town, village or other facility where lodging, food and fuel can be obtained. Occasionally such commercial facilities are found inside the park as well, and where appropriate, these may also be used to support AMRAP activities. Where commercial facilities are unavailable the AMRAP agency may need to establish a field camp close to the assessment activities. Occasionally, the AMRAP agency may request that the NPS allow a camp inside of a park. These camps would be evaluated on a case-by-case basis and would be limited to the minimum duration and facilities necessary. A typical camp may involve several tents to provide shelter for people and supplies, and perhaps a small fuel cache.

Sample Collection Techniques: USGS Level III studies are reconnaissance in scale and field work is usually based from a single fixed camp, utilizing helicopters for movement within the quadrangle. The actual field work is a combination of 3-5 mile long traverses, usually along ridges, with geologists working on foot, with "spot hops" by helicopter to fill in the holes between traverses. Sample collection is usually limited to fist-sized samples, although larger samples are taken for certain analytical techniques such as radiometric dating. The USGS does not utilize any drilling or trenching to collect samples.

In a typical quadrangle, the density of stations is about one station per 1-5 square miles, resulting in an average of 500 landings per quadrangle. There is often some detailed work to study critical geologic localities or mineral deposits, but the bulk of the effort is regional rather than detailed. A quadrangle usually takes 3-4 field seasons to complete, each with 30-45 field days with a party of 5-10 geologists and support personnel. Once completed, that quadrangle would not likely be restudied for decades.

Geochemistry studies typically involve the collection of stream sediment, heavy-mineral-concentrate of stream sediment, stream water and occasionally vegetation samples such as willow, alder or moss. These sample media are usually collected from small first-order stream drainages, but sampling of larger drainages is necessary in some instances when landing conditions are hazardous for helicopters.

Geophysical sampling also may include collection of paleomagnetic specimens by use of a hand-held drill to remove cylindrical samples about four inches long and one inch in diameter. Approximately seven of these paleomagnetic specimens may be collected per lithologic unit per 1:250,000 scale quadrangle.

When magnetotelluric and audio-magnetotelluric profiling is done to define geologic structures, helicopters are required to land about every mile along a 30 mile line. The ground surface is disturbed by breaking off rock samples and by digging a shallow (6 inch) hole to temporarily place electrodes that make electrical contact with the ground.

Low flying aircraft are used to collect geophysical data above study areas. Helicopters flying at about 500 feet above the ground tow magnetometers on a 100 foot long tether in areas of high topographic relief, or where aeromagnetic profiles are needed to help discern geologic features. Flight lines can vary from as close as 1/4 mile where aeromagnetic maps are to be prepared, to 15-20 miles apart, or even a single flight line.

Fixed-wing aircraft are used to do broadscale surveys. Flight line spacing for these surveys is usually 1/2 mile, but can be as close as 1/4 mile in high interest areas. Altitude can be as low as 400 feet above the ground if radiometric data are being collected, however most surveys specify 1,000 feet due to topographic relief. Fixed wing aircraft are often used in field operations to transport people, supplies and fuel to and from the support camp.

Hard-rock samples taken for assay usually consist of no more than several pounds of rock beaten off an outcrop with a hand-held rock hammer. Placer gravel samples collected for panning are usually derived by digging 1-2 cubic feet of material from a stream or river bank or gravel bar. Holes are filled before leaving the site. In rare cases, a larger, more extensive bulk sample is taken using hand tools or shovels.

ENVIRONMENT AFFECTED BY THE PROPOSAL

The proposed regulations govern all mineral resource assessment activities conducted by Federal agencies under the authority of ANILCA section 1010 in all fifteen National Park Service units in the State of Alaska. Since the diversity of the possible environs on which these activities may be conducted covers the entire spectrum found in the State of Alaska, it is not possible to succinctly describe them in this document. However, the general environment of each unit has been adequately described in recent general management plans, wilderness suitability reviews and accompanying environmental compliance documents for each of these units of the National Park System in Alaska. This environmental assessment incorporates those descriptions by reference and the reader is referred to the Selected References section for a listing of the applicable documents.

National Park Service lands in Alaska comprise 54,685,030 acres in 15 different units (see Table 1), extending from Glacier Bay in the southeast, to Aniakchak on the Aleutians, to Noatak River and Gates of the Arctic in the Brooks Range north of the Arctic Circle (see Figure 1). Of this total, 1,796,122 acres are in non-federal ownership within the boundaries of the units and would be unavailable for AMRAP activities. The remaining 52,888,908 acres in federal ownership contains 32,355,000 acres formally designated as wilderness by ANILCA in eight of these units.

Wilderness designation restricts activities which may be permitted on those lands. All activities would have to conform with NPS Management Policies on Wilderness Preservation and Management and with the requirements of ANILCA and the Wilderness Act of 1964 (16 USC 1131 et seq.). Specifically, the use of motorized equipment in wilderness areas is not permissible. A comparison of management requirements for wilderness and nonwilderness areas (from the recent wilderness EIS's) identifies most activities which may be permitted in wilderness areas under ANILCA.

Section 1010(a) of ANILCA provides that "*...the Secretary shall allow access by air for assessment activities...on all public lands...*". The NPS has interpreted this requirement to include the option of permitting AMRAP agencies to use helicopters for access in wilderness areas, **when no other reasonable option exists.**

TABLE 1. NATIONAL PARK SERVICE UNITS IN ALASKA. (Source: The National Parks Index, 1989)

NATIONAL PARK SERVICE UNIT	FEDERAL ACREAGE DESIGNATED AS WILDERNESS	FEDERAL ACREAGE IN NON-WILDERNESS	NON-FEDERAL ACREAGE	TOTAL ACREAGE IN UNIT
ANIAKCHAK NATIONAL MONUMENT AND PRESERVE	0	590,047	12,732	602,779
BERING LAND BRIDGE NATIONAL PRESERVE	0	2,690,179	94,781	2,784,960
CAPE KRUSENSTERN NATIONAL MONUMENT	0	621,592	38,215	659,807
DENALI NATIONAL PARK & PRESERVE	1,900,000	4,125,644	2,447	6,028,091
GATES OF THE ARCTIC NATIONAL PARK & PRESERVE	7,052,000	1,177,946	242,571	8,472,517
GLACIER BAY NATIONAL PARK & PRESERVE	2,770,000	510,377	2,791	3,283,168
KATMAI NATIONAL PARK & PRESERVE	3,473,000	476,000	141,000	4,090,000
KENAI FJORDS NATIONAL PARK	0	649,946	19,595	669,541
KLONDIKE GOLD RUSH NATIONAL HISTORICAL PARK	0	2,721	10,470	13,191
KOBUK VALLEY NATIONAL PARK	190,000	1,536,463	23,958	1,750,421
LAKE CLARK NATIONAL PARK & PRESERVE	2,470,000	1,388,834	185,299	4,044,133
NOATAK NATIONAL PRESERVE	5,800,000	769,710	4,771	6,574,481
SITKA NATIONAL HISTORICAL PRESERVE	0	106	1	107
WRANGELL-ST. ELIAS NATIONAL PARK & PRES.	8,700,000	3,745,272	743,053	13,188,325
YUKON-CHARLEY RIVERS NATIONAL PRESERVE	0	2,249,071	274,438	2,523,509
TOTALS	32,355,000	20,533,908	1,796,122	54,685,030

IMPACTS OF THE PROPOSAL

Implementation of the proposed regulations would result in impacts on park resources primarily from the methods and routes of access to the sample sites, and from support camps or other facilities (such as fuel caches) located inside the park. Typical sample collection results in little visible scar to the landscape, and little or no lasting environmental impact. Most sample collection involves breaking rocks from an outcrop with a rock hammer, digging small surface holes with hand tools, gathering stream sediment or oil seep samples by hand or collecting small amounts of vegetation or water for chemical analysis. The small scars resulting from these activities would generally weather very rapidly and not be identifiable as man-made disturbances in the wilderness for more than a season or two.

The USGS has completed fifteen Level III AMRAP studies on 1:250,000 scale quadrangles that include NPS units, and has studies underway on nine more. Studies are tentatively scheduled to begin between 1989-1995 on another five quadrangles that include NPS units. These include one quad at Noatak, one at Bering Land Bridge, two at Yukon-Charley and one at Sitka.

In 1988, the USBM had mining district studies underway in the Valdez Creek Mining District (includes southeastern quarter of Denali) and in the Juneau Mining District, Glacier Bay/Mt. Fairweather area (includes most of Glacier Bay). The majority of work in these areas focused on deposits located outside the parks.

Impacts of Regulations on AMRAP Agencies

Promulgation of the proposed regulations, as required by ANILCA Section 1010(b), would result in some new administrative requirements on the part of the AMRAP agencies. The annual coordination meeting is already being held between the U.S. Geological Survey and the Bureau of Mines, so it may be expanded to include other agencies with identified AMRAP activities, as well as the National Park Service. The application form (Appendix C) would require AMRAP agencies to provide sufficiently detailed information about the purpose and scope of proposed activities, sampling techniques and other information regarding the activity several months prior to actual field work. It would also require the agency to provide information about other alternative sampling techniques that could be utilized, to ensure that the least impacting methodology is being employed on park lands. These requirements would have a minimal additional impact on AMRAP agency staff since most of the requested information is already necessary for their own advanced field planning efforts and would simply need to be reported to the NPS by the established date. The overall result would be a well planned, proactive program for analyzing, permitting and conducting AMRAP activities in park units in Alaska.

The application and permitting process established for AMRAP activities on NPS lands would somewhat reduce the flexibility that an agency might desire in pursuing permission for mineral resource assessment activities. Last-minute plans for activities resulting from opportunistic events (such as unplanned budget or helicopter availability) might be accommodated, but would still require an application form completed by the AMRAP agency and a permit issued by the NPS. Typically, NPS staff at all offices in Alaska are especially busy during the short 100 day field season, and rapid response to "emergency" requests for permits may not be accommodated as quickly as these agencies might desire. Some requests may not be processed due to limited staff availability.

The requirements of ANILCA, the NPS Organic Act, the Wilderness Act and park specific enabling legislation dictate strict resource protection and operational standards for activities such as mineral resource assessments in parks. The primary Congressional mandate for these units is conservation of resources and preservation of wilderness values. Therefore, all aspects of AMRAP activities would be subjected to stricter helicopter use standards, field camp establishment, use and site rehabilitation and a narrower range of allowable sampling activities than might be encountered on other federal lands which operate under different Congressional mandates.

Overall, the promulgation of regulations would not severely restrict AMRAP agency activities nor require excessive staff time to comply with them. They may, however, require more detailed advance planning on the part of the agencies in order to ensure that they have applied for all activities which might reasonably occur in a given season.

Impacts of Regulations on NPS Administration

Promulgation of the proposed AMRAP regulations would require the NPS to participate in an annual coordination meeting with the AMRAP agencies in Anchorage, review several AMRAP applications annually for completeness, complete appropriate environmental compliance and prepare special use permits for each application. The NPS would also monitor a portion of approved activities in the field to ensure compliance with permit conditions. These activities would be absorbed, at least initially, by existing staff in the Regional Office and parks, thus causing an incremental increase in workload for staff. These activities would occur during the normal advance planning period for the field season, and during a time when mining plans of operation are being actively reviewed and evaluated by NPS staff. The effect of numerous incremental workload increases such as this, without corresponding increases in staff or budget generally results in higher levels of stress and frustration for existing staff.

Special use permits are normally prepared by park staff at the unit where activities are proposed. This procedure would remain in effect for AMRAP activities. By receiving completed applications prior to the field season, it will be easier and more efficient for park staff to coordinate issuance of all special use permits and will provide for better resource protection by being able to consider cumulative effects of multiple activities.

Prior to AMRAP field activities, cultural resource protection legislation may require site clearance by qualified personnel. This would result in additional budget and logistical considerations for the NPS.

Impacts of AMRAP Activities on Wildlife

The primary effect of AMRAP activities on wildlife would result primarily from two activities: the use of helicopters and fixed-wing aircraft at low levels in otherwise quiet, remote wilderness areas, and the presence of humans at sample sites and field camps. Wildlife in general respond more to helicopter disturbance than the fixed-wing disturbance. Certain species would be more susceptible than others to disturbance from sampling activities, due to their habitat overlapping with sampling or field camp locations. The primary species of concern include grizzly and black bears, wolf and moose at field camp locations (typically lower elevation gravel bars or open terrain), while Dall sheep and raptors, primarily peregrine falcons, gyrfalcons, rough-legged hawks and golden eagles may be affected at ridgelines where sampling activities are typically concentrated.

A helicopter traversing an area enroute to another site would travel at sufficient altitude to have only minimal effects on wildlife, since the disturbance would usually be short in duration, the noise reduced and the aircraft not close enough to be threatening. A helicopter approaching a ridgetop for a landing would typically circle once or twice to determine wind direction, come in slowly to land and then either remain running for a brief period, or shut down after a few minutes. Several individuals would then exit the aircraft and reconnoiter the area looking for and collecting samples. Such sudden, noisy intrusions of man into otherwise serene wilderness environments can be very traumatic for some wildlife species in the immediate vicinity. Typical reaction might be for animals to flee the immediate area in a panic or temporarily abandon a nest. Some may even respond in a defensive posture at the intruders. If this disturbance occurred at a critical time, such as lambing or fledging, impacts to individual animals could occur. Sudden activity near a raptor nest can cause adults to flee the nest in panic often knocking chicks out of the nest to a likely death. However, since most of the activities are for short duration and occur only once in the same location, most animals would recover within a short period after the intrusion is over. The NPS would limit authorized helicopter use in sensitive areas and during critical periods to reduce impacts to wildlife.

Establishment of field support camps cause extended disturbance in various wildlife habitats, locally and temporarily displacing resident species. Improper food storage or disposal could also result in the attraction of black or grizzly bears, and if rewarded with food, may lead to modified bear behavior resulting in a dangerous situation for camp residents or future users of the area. A problem bear may even have to be destroyed if subsequent aversion training by the NPS is unsuccessful in modifying the bear's behavior. However, the likelihood that a bear will need to be destroyed is substantially reduced

because stipulations in AMRAP permits will require proper food storage at support camps.

Other research, emergency use and recreation activities may also occur in the same area, at the same time or later, resulting in an additional cumulative effect. However, provided that the disturbances do not occur repeatedly in the same area for an extended time, the overall effects on wildlife would be minimal.

Impacts of AMRAP Activities on Visitor Use/Wilderness Values

The National Park units in Alaska, and particularly the backcountry portions, are highly desired destinations for visitors worldwide seeking a truly solitary wilderness experience. Visitors to the remote portions of the Alaskan parks generally rate their experiences on the amount of wildlife seen and on a minimum number of man-made intrusions, whether encountering other parties directly, or their signs, or seeing low level aircraft. Trips are generally very costly and visitors become upset when their experience is adversely affected. Repeated or concentrated low level grid flights for mapping and sampling would interfere with wilderness character and visitor enjoyment.

Impacts of AMRAP Activities on Vegetation

The establishment of field support camps would typically result in localized vegetation trampling and some limited compaction of the organic mat and surface soils. However, rarely will this disturbance be severe enough to result in surface erosion. Vegetation would usually recover within one or two growing seasons, based on observations of similar field camps, and would not remain visible beyond one growing season. NPS permit stipulations would normally require camps to be established on gravel bars or other areas clear of vegetation whenever feasible.

Collection of vegetation clippings for chemical evaluation would be undetectable as only very small amounts are normally gathered for analysis at any one location.

Known locations and habitat of threatened and endangered plant species would be protected by stipulations attached to the permit.

Impacts of AMRAP Activities on Cultural Resources

With the exception of USGS aerial broadscale or aeromagnetic surveys, virtually all AMRAP activities have the potential to adversely affect cultural resources. AMRAP activities that may impact the anthropological or scientific value of cultural resource sites include random unauthorized collecting of cultural resources, increased access to sensitive areas and destruction or disturbance through subsurface activities.

Increased access often translates into increased disturbance of cultural resources. Access to AMRAP field locations by foot, ATV and boat would increase the potential for the disturbance, collection or alteration of historic and prehistoric cultural resource locations.

USGS Level III studies provide perhaps the highest potential for adverse effect to cultural resources. During the course of pedestrian surveys, well-intentioned geologists often recognize, and collect prehistoric tools and source materials. These same factors pertain to the recognition and collection of paleontological and historic period materials as well. Documented collection of artifacts, for NPS "display", by USGS personnel has occurred in park units. Although these collections were made with the best of intentions, the end result is the destruction of sites.

The USGS field surveys would commonly occur along ridges and elevated knolls; areas that statistically have shown the highest density of prehistoric lithic sites. One of the most commonly occurring type of prehistoric site, termed "overlook" sites, occur in these exact topographic situations and are often visible on the surface. Overlook sites can range from sparse scatters of a few lithic items to large complex sites that extend for miles along extensive ridge systems. Sites of this type are particularly vulnerable to collection due to excellent surface visibility of tools. Archeological "quarry" sites, sites that reflect initial tool material collection/manufacture activities, are also vulnerable. These sites commonly occur at exposed mineral outcrops or deposits that are likely to be visited by AMRAP personnel. With up to 500 helicopter landings in these areas the probability of site impact increases substantially. The excavation of holes during magnetotelluric and audio-magnetotelluric profiling could also impact unrecorded sites.

AMRAP support camps, if established within NPS units, may be placed on top of or adjacent to cultural resource sites. Many of the same camp-selection criteria used by earlier peoples would be considered by AMRAP crews; well-drained, level topography, access to potable water and mineral outcrops. In addtion to the potential of disturbance by artifact collecting, routine camp activities such as digging pit toilets and constructing fuel caches can damage cultural sites.

Field investigations by U.S. Bureau of Mines (USBM) personnel would occur at known locations of mineralization which, in many cases, have previously been mined. These "historic mine sites" contain structures, features and artifacts important to the documentation, understanding and interpretation of earlier occupation. Any visitation to these locales provide the potential for artifact collection, site alteration or destruction.

Special use permits issued to AMRAP agencies would contain as a stipulation, the requirement that known cultural resources within the vicinity of the mineral resource assessment activity shall not be altered, destroyed, collected or utilized in any manner by AMRAP agency personnel or their contractors in the conduct of AMRAP activities. In the event that concealed cultural resources are encountered during the sampling activity,

the Superintendent or his designee would be notified immediately. The discovery would be left intact and all necessary steps taken to protect it.

Impacts of AMRAP Activities on Subsistence Uses

Appendix A contains the evaluation and summary of impacts on subsistence resources as required by ANILCA Section 810. The result of that analysis concludes that implementation of the proposed regulations would not result in a significant restriction of subsistence uses. Due to the temporary and geographically limited program, there would be a minimum of disturbance to subsistence users or subsistence resources.

Cumulative Impacts

In order to evaluate the potential cumulative impacts of AMRAP activities, there is a need to consider them in the context of other past, present and reasonably foreseeable future activities which may impact the same resources consecutively or simultaneously, thus incrementally creating potentially significant impacts from independently insignificant activities.

It is not possible at this stage to specifically identify instances where AMRAP activities would occur simultaneously or consecutively in the same or nearby areas as other backcountry activities in any particular park. It is very likely, however, that there would be some overlap with other NPS administrative or visitor use activities occurring in the same backcountry areas in the same season, thus resulting in some cumulative effect. Because of the minerals focus of AMRAP studies, it is also likely that some AMRAP activities could overlap with the NPS mineral management program field activities. The NPS has helicopter supported minerals-related field data gathering operations underway for several more years at Kantishna in Denali, in Wrangell-St. Elias, and possibly in Yukon-Charley. There is also wildlife research underway at several units involving aerial tracking of radio collared animals. Collection of vegetation mapping data for fire history and computerized digital mapping (GIS) involves helicopter use during summer months in up to four parks per year. Scenic overflights by visitors have become very popular activities at Denali, Kenai Fjords and Wrangell-St. Elias, contributing additional aircraft noise to backcountry areas. Search and rescue and fire suppression operations would contribute to cumulative aircraft usage in backcountry areas unpredictably.

The primary cumulative effect of these activities on park resources and visitor use results from increased aircraft usage and human presence in backcountry areas. Wildlife and backcountry visitors would be impacted the greatest. Visitor complaints of aircraft usage in wilderness areas may increase and some visitor experiences may be temporarily impaired. Wildlife would likely avoid using areas temporarily where human presence is frequent. The cumulative effects would be short-term. The overall long-term adverse cumulative effects on wildlife due to aircraft noise and human presence in backcountry

areas stemming from a variety of activities (e.g., from visitor use to scientific studies) has not been adequately examined and documented. There are indications that long-term effects can be expected from continual displacement of wildlife from certain areas and from physiological stress during critical periods.

In order to control cumulative impacts on park resources and visitors, stipulations would be attached to the permit issued to the Federal agency conducting AMRAP activities. Only at the permit stage is it possible to develop appropriate stipulations, since all the potential backcountry activities for a particular unit would not be known until shortly before the start of the field season. Each park resource manager must be cognizant of potential cumulative impacts when issuing special use permits for backcountry activities and has the authority to limit the number or type of activities, control the access means, or utilize whatever measures are needed to minimize resource impacts.

OTHER ALTERNATIVES CONSIDERED

Alternative A. NO ACTION (STATUS QUO): Under this alternative, the NPS would not adopt the proposed regulations governing mineral resource assessment activities in Alaska national park units. Selection of this alternative would be in direct conflict with ANILCA Section 1010(b) which mandates that regulations to control AMRAP activities be developed.

In the past, the NPS has accepted requests from Federal agencies for mineral resource assessment activities in parks and has processed them on a case-by-case basis under existing permitting authority for research activities. Typically this has resulted in no coordination of AMRAP projects between agencies, inconsistent responses, little or no documented environmental compliance, and usually last minute responses to requests received a month or less prior to proposed field dates. Although the environmental impacts of these activities are minimal and stipulations have normally been applied to protect sensitive resources, this process has been reactive and not fully in compliance with the requirements of Section 1010(b) of ANILCA which requires regulations to be promulgated.

Because no further AMRAP activities may be conducted in Alaska parks until regulations have been developed, selection of this alternative would result in no AMRAP permits being approved inside NPS units in Alaska. Effectively, this would prevent other Federal agencies from carrying out their mandates, under ANILCA Section 1010(a), on NPS lands in Alaska, to assess the oil, gas and other mineral potential on all public lands in the State of Alaska. "Public lands" are defined as all Federal lands, except for State and Native Corporation selections, per Section 102 (3) of ANILCA. The inability to access NPS lands for assessment activities would also curtail the ability of these agencies to assess the mineral potential of other federal lands, since a formation which outcrops inside the park is often examined to determine the mineral potential of the same formation buried many miles away.

This alternative would have no adverse impacts on natural and cultural resources, or visitor use in the parks as no mineral resource assessment activities would occur in the parks. No additional administrative workload would be incurred by NPS staff. However, AMRAP agencies would find themselves unable to comply with Congressional mandates to assess oil and gas and other mineral potential on 52.9 million acres of the public lands in Alaska (though these lands are closed to mineral entry by ANILCA).

ALTERNATIVE B: PROCESS AMRAP APPLICATIONS UNDER EXISTING COLLECTION PERMIT REGULATIONS AT 36 CFR 2.5

The NPS could amend the existing authority for 36 CFR Part 2 to include 16 USC 3150 for AMRAP activities and issue specimen collection permits to AMRAP agencies under section 2.5. These regulations currently govern all other "research" collection activities in

parks and have been used sporadically by the NPS in the past, in lieu of a formal rulemaking for AMRAP regulations, to approve some AMRAP activities. These regulations govern the actual collection of plants, fish, wildlife, rocks or minerals in parks, and could be used in conjunction with special use permit provisions at 36 CFR 1.6 for permitting AMRAP sampling activities, access and support facilities.

The NPS gets hundreds of requests for specimen collection permits from many sources, including educational institutions, State and Federal agencies, Native Corporations and oil companies. The NPS evaluates these requests against park management mandates and resource protection goals and objectives and decides whether to allow or disallow the activity. AMRAP activities are distinctly separate Congressionally mandated studies to be conducted by Federal agencies, and are separate and distinct from other discretionary research and collection activities. The NPS generally does not allow helicopter use for most research activities, but Congress mandated access by air be permitted for AMRAP activities, which is generally interpreted to include helicopter use. The NPS also has no specific Congressional authority to permit the use of the parks for casual exploration activities, whether by private individuals, the State, Native Corporations or oil companies. Therefore, a complete separation of AMRAP activities from other discretionary research collecting is necessary to maintain this distinction. In addition, 36 CFR 2.5 is a nationwide regulation applicable to all NPS units in the United States, while AMRAP is limited to Alaska park units. Inclusion of region-specific or park specific authorities and programs in Servicewide regulations would be cumbersome and confusing.

The impacts of this alternative would essentially be similar to those described for the proposed action, since approximately the same level of activity would be anticipated by the AMRAP agencies. While some specific administrative steps would be different, essentially the same information would be required from the AMRAP agencies to apply for 36 CFR 2.5 and 1.6 permits. Therefore, this alternative would not require less work from the AMRAP agency or the NPS, except for the annual coordination meeting prior to the season.

LIST OF PERSONS AND AGENCIES CONSULTED

An interagency working group was assembled during the preparation of the draft AMRAP regulations and environmental assessment. Meetings were held in August and September 1990 in Washington, D.C. and Anchorage, Alaska to discuss the scope and content of the draft regulations and to review preliminary drafts. Agency staff on the working group and/or in attendance at these meetings included:

Office of the Secretary; Policy, Management and Budget
Office of Program Analysis, Toni M. Johnson, David Behler
Department of Interior, Office of Environmental Affairs, Henry Gerke, Tami Wiggins
Department of Interior, Regional Solicitor's Office, Alaska, Chris Bockman
Alaska Land Use Council, Alaska Cooperative Planning Group, Chairman, Curt McVee
U.S. Geological Survey
Office of Mineral Resources, Joe Briskey
Office of Energy and Marine Geology, Robert L. Rioux
Alaska Office, Don Grybeck, Will White
Bureau of Mines
Division of Resource Evaluation, Martin Conyac
Office of Regulatory Projects Coordination, Jon P. Stone
Alaska Office, Bob Hoekzema
Minerals Management Service
Offshore Resource Evaluation, Ed Ruiz
Branch of Rules, Orders and Standards, Bill Hauser
Policy and Planning, D.S. Skip Braden
Alaska OCS Region, Robert Klepinger, Jerry Shearer
Bureau of Land Management
Division of Mineral Policy Analysis, Robert Schrott
Alaska Programs Staff, Olivia Short
Alaska Office, John Santora
U.S. Fish and Wildlife Service
Division of Refuges, Noreen Clough, Dave Heffernan
Alaska Office, Gail Baker
U.S. Forest Service
Oil and Gas Program, Bruce Ramsey
Geology Program, Tom King
National Park Service
Mining and Minerals Branch (WASO), Carol McCoy, Sharon Kliwinski
Alaska Region Minerals Management Division, Floyd Sharrock, Alex Carter, Dennis Schramm, Judy Alderson
Denali National Park, Tom Ford, Phil Brease

Copies of the preliminary draft regulations and environmental assessment were provided to all of the agencies participating in the working group, and to each NPS unit in Alaska, for review and comment.

LIST OF PREPARERS

The environmental assessment was prepared by the National Park Service, Alaska Regional Office, Minerals Management Division staff and was circulated widely to the working group participants for refinement. Dennis Schramm, Environmental Specialist in the Resource Assessment Branch was the lead in the preparation of the environmental assessment, assisted by Judy Alderson, Environmental Specialist and Gene Griffin, Archeologist on the Cultural Resources section.

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APPENDIXES

APPENDIX A:
SUBSISTENCE - SECTION 810(a) OF ANILCA
SUMMARY OF EVALUATION AND FINDINGS

I. INTRODUCTION

This section was prepared to comply with Title VIII, Section 810 of the Alaska National Interest Lands Conservation Act (ANILCA). It summarizes the evaluation of potential restrictions to subsistence activities which could result from mineral resources assessments conducted by the Department of the Interior or its contractors in National Park Service areas in Alaska under Title X, Section 1010 of ANILCA.

II. THE EVALUATION PROCESS

Section 810(a) of ANILCA states:

> "In determining whether to withdraw, reserve, lease, or otherwise permit the use, occupancy, or disposition of public lands . . . the head of the federal agency . . . over such lands . . . shall evaluate the effect of such use, occupancy, or disposition on subsistence uses and needs, the availability of other lands for the purposes sought to be achieved, and other alternatives which would reduce or eliminate the use, occupancy, or disposition of public lands needed for subsistence purposes. No such withdrawal, reservation, lease, permit, or other use, occupancy or disposition of such lands which would significantly restrict subsistence uses shall be 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."

ANILCA created new units and additions to existing units of the National Park System in Alaska. Title II of ANILCA established and created additions to national parks for the following purposes:

"(a) In order to preserve for the benefit, use, education and inspiration of present and future generations certain lands and waters in the State of Alaska that contain nationally significant natural, scenic, historic, archeological, geological, scientific, wilderness, cultural, recreational, and wildlife values...

(b) ...to preserve unrivaled scenic and geological values associated with natural landscapes; to provide for the maintenance of sound populations of, and habitat for, wildlife species of inestimable value to the citizens of Alaska and the Nation, including those species dependent on vast relatively undeveloped areas; to preserve in their natural state extensive unaltered arctic tundra, boreal forest, and coastal rainforest ecosystems to protect the resources related to subsistence needs; to protect and preserve historic and archeological sites, rivers, and lands, and to preserve wilderness resource values and related recreational opportunities including but not limited to hiking, canoeing, fishing, and sport hunting, within large arctic and subarctic wildlands and on freeflowing rivers; and to maintain opportunities for scientific research and undisturbed ecosystems.

(c) ...consistent with management of fish and wildlife in accordance with recognized scientific principles and the purposes for which each conservation system unit is established, designated, or expanded by or pursuant to this Act, to provide the opportunity for rural residents engaged in a subsistence way of life to continue to do so."

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."

III. PROPOSED ACTION ON FEDERAL LANDS

Under Title X, Section 1010(a), a multi-year assessment of the oil, gas, and other mineral potential will be conducted on all federal lands in Alaska, including all fifteen National Park Service areas. Such assessments are conducted primarily by the U.S. Geological Survey and the U.S. Bureau of Mines, or their contractors. The field work is usually completed by a small crew of 2-5 persons who are transported to remote areas by helicopter or fixed wing aircraft. A temporary field camp is sometimes used as a base of operations, although the crew is often housed in a village or base of operations outside of the park unit. Typical work is a combination of 3-5 mile long traverses, usually along ridges, with geologists working on foot, with "spot hops" by helicopter to fill in the holes between traverses. Hand samples of soils and rocks are collected using hand-held rock

hammers, soil probes or augers. Water or sediment samples and small vegetation samples are occasionally taken. Intense sample grids for collection and mapping can be used which requires concentrated helicopter use in a small area for several days at a time. Aerial photography from fixed wing aircraft is conducted from a higher altitude. Field work would be likely to occur in only 4-6 units in any given year, and only in a portion of any specific unit in one year.

IV. AFFECTED ENVIRONMENT

Each unit has been inventoried previously to document vegetation, wildlife, cultural resources, and other parameters. Data on this and the surrounding environment is included in various reports listed in the Selected References section of the Environmental Assessment.

Due to the statewide nature of this rulemaking, the subsistence species harvested and the patterns of harvest vary from park unit to park unit. In most park areas primary means of access for subsistence are by motorboat or by snowmachine. Activities during summer months include fishing, berry picking and, later in summer, hunting. Since access during summer is by boat, most activities take place along river corridors or lakes. These areas are not usually heavily sampled for mineral assessment purposes, so conflicts with subsistence use would be very occasional. In northern portions of the state, snow cover provides the opportunity for wide ranging access, but by that time of the year, mineral resource assessment sampling is not ongoing and therefore conflicts are eliminated during this period.

Those subsistence resources that may be affected by these activities are primarily those species such as Dall sheep that inhabit the higher rocky terrain where most sampling occurs. Small mammals such as arctic ground squirrels are also common at higher elevations. Grizzlies, moose and caribou occasionally traverse or utilize alpine areas.

Some work may be carried out in stream drainages for water or substrate sampling. Salmon, sheefish, grayling and whitefish are primary subsistence fish species.

V. SUBSISTENCE USES AND NEEDS EVALUATION

To determine the potential impact on existing subsistence activities, three evaluation criteria were analyzed relative to existing subsistence resources which could be impacted.

The evaluation criteria are:

- o the potential to reduce important subsistence fish and wildlife populations

by (a) reductions in numbers; (b) redistribution of subsistence resources; or (c) habitat losses;

- o what affect the action might have on subsistence fisherman or hunter access;

- o the potential for the action to increase fisherman or hunter competition for subsistence resources.

1) The potential to reduce populations:

There is no potential to reduce the populations of fish or wildlife. The nature of this work is temporary and localized and the numbers of subsistence species available to hunters and fisherman will not change. There will be no collection of wildlife or fish associated with these studies. Some very small vegetation samples may be collected, but they will not affect the availability of firewood or other subsistence uses of vegetation. There could be some temporary dispersal of large and small wildlife species due to helicopter noise, and from human presence in areas where there are normally no people. This could cause wildlife to temporarily divert around a camp area, or to be dispersed from a ridge area for several hours or a day. This impact would be small and temporary with no lasting redistribution of populations.

2) Restriction of Access:

No restrictions of access by qualified subsistence users would occur from the proposal.

3) Increase in Competition:

All work accomplished under the Section 1010 studies would be by personnel temporarily accessing the area only for purposes of the study. Consequently they would not be competitors for subsistence resources.

VI. AVAILABILITY OF OTHER LANDS

Under Title X, Section 1010(a), the Secretary is directed to conduct these mineral assessments on all federal lands, and therefore no other lands are suitable or available for this action. The proposed action would be temporary and localized in nature in any one field season, and therefore there would be abundant other lands available for subsistence purposes.

VII. ALTERNATIVES CONSIDERED

Under this program, the NPS is given limited authority to deny AMRAP activities within the park units. However, the NPS can stipulate how and when the activities should take place to protect the values for which the areas were established, and to limit the environmental impact. The proposed regulations provide the mechanism to ensure that the resources are protected.

The no action alternative presented would not change subsistence activities from the status quo. Alternative B would have basically the same minimal effects on subsistence use as the proposed action.

VIII. FINDINGS

This analysis concludes that the proposed action would not result in a significant restriction of subsistence uses. Due to the temporary and geographically limited program proposed, there would be a minimum of disturbance to subsistence users or subsistence resources.

APPENDIX B:
SECTION 1010 OF ANILCA

ALASKA MINERAL RESOURCE ASSESSMENT PROGRAM

16 USC 3150

SEC. 1010.(a) MINERAL ASSESSMENTS. - The Secretary shall, to the full extent of his authority, assess the oil, gas, and other mineral potential on all public lands in the State of Alaska in order to expand the data base with respect to the mineral potential of such lands. The mineral assessment program may include, but shall not be limited to, techniques such as side-looking radar imagery and, on public lands other than such lands within the national park system, core and test drilling for geologic information, notwithstanding any restriction on such drilling under the Wilderness Act. For purposes of this Act, core and test drilling means the extraction by drilling of subsurface geologic samples in order to assess the metalliferous or other mineral values of geologic terrain, but shall not be construed as including exploratory drilling of oil and gas test wells. To the maximum extent practicable, the Secretary shall consult and exchange information with the State of Alaska regarding the responsibilities of the Secretary under this section and similar programs undertaken by the State. In order to carry out mineral assessments authorized under this or any other law, including but not limited to the National Uranium Resource Evaluation program, the Secretary shall allow for access by air for assessment activities permitted in this subsection to all public lands involved in such study. He shall consult with the Secretary of Energy and heads of other Federal agencies carrying out such programs, to determine such reasonable requirements as may be necessary to protect the resources of such area, including fish and wildlife. Such requirements may provide that access will not occur during nesting, calving, spawning or such other times as fish and wildlife in the specific area may be especially vulnerable to such activities. The Secretary is authorized to enter into contracts with public or private entities to carry out all or any portion of the mineral assessment program. This section shall not apply to the lands described in section 1001 of this Act.

16 USC 1131 note

Consultation

Contracts

(b) REGULATIONS. - Activities carried out in conservation system units under subsection (a) shall be subject to regulations promulgated by the Secretary. Such regulations shall ensure that such activities are carried out in an environmentally sound manner--

(1) which does not result in lasting environmental impacts which appreciably alter the natural character of the units or biological or ecological systems in the units; and

(2) which is compatible with the purposes for which such units are established.

APPENDIX C:
APPLICATION FORM FOR AMRAP ACTIVITIES IN NATIONAL PARK SERVICE UNITS IN ALASKA

ALASKA MINERAL RESOURCE ASSESSMENT PROGRAM

PERMIT APPLICATION
FOR NATIONAL PARK SERVICE UNITS

Please type or print legibly.

(1) AGENCY APPLYING:_____ (2) DATE:_____

(3) CONTACT PERSON: _____

(4) PHONE NUMBER: (__)_____ (5) FAX NUMBER: (__)_____

(6) RADIO FREQUENCY OF FIELD HANDSETS:_____

(7) ADDRESS:_____

_____

_____

(8) PARK UNIT:_____

(9) PRINCIPALS INVOLVED: (List the names, titles, address and phone number of all individuals to be involved with the field operation).

_____

_____

_____

_____

_____

_____

(10) PROPOSED PROJECT INITIATION DATE AND DURATION: (Be as specific as possible)

_____

_____

_____

_____

(11) PUBLIC RELEASE OF DATA: (Indicate proposed means of providing for public availability of information collected and the estimated date of release).

_____

_____

(12) SPECIFIC PURPOSE OF PROPOSED PROJECT: (Describe the information to be collected and the purpose for which the information will be used).

(13) SPECIFIC LOCATION(S) OF PROPOSED SAMPLE SITES AND SUPPORT CAMPS: (Be as precise as possible. Attach copy of USGS 1:63,360 scale topographic quad).

(14) SAMPLING TECHNIQUE: (Fully describe the proposed sampling methodology including all equipment and any chemicals to be used; estimate the volume of samples needed).

(15) PROJECT ACCESS AND SUPPORT REQUIREMENTS: (Fully describe access means including description of equipment, routes, departure and landing points for aircraft, fuel storage needs, support camp needs, etc.)