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August 14, 1989

Mr. Boyd Evison
Regional Director
National Park Service
2525 Gambell Street
Anchorage, Alaska 99503

Dear Mr. Evison:

The State of Alaska has completed its review of the Draft Environmental Impact Statements (DEIS) on the Cumulative Impacts of Mining in the Denali National Park and Preserve, Wrangell-St. Elias National Park and Preserve, and Yukon-Charley Rivers National Preserve. The following comments are offered on behalf of state agencies. We hope these will be of use to the National Park Service (NPS) as it prepares final EISs on mining within these three park units.

GENERAL COMMENTS

Approach and Methodology

Central to the EISs is the concept of using quantitative methods to assess the cumulative impacts of mining within the NPS units. While the goal of using measurable changes to evaluate impacts is laudable, such analyses must rest upon a solid foundation of assumptions for the process to have meaning. In several respects, the state believes the methods used by the NPS are inadequate to support the conclusions drawn.

A crucial component of the impact analysis in the draft EISs is the identification of "resource protection goals" for certain "target resources." These goals are intended to allow use of quantitative values to estimate the effects of proposed mining activities. The thresholds contained in the goals would be used in determining the type and degree of regulation to be imposed upon the proposed activity.

There is, however, no justification given for individual goal numbers, beyond a statement that the "percentages reflect resource requirements and NPS mandates and authorities. . .." It is not clear, for instance, why a particular percentage was

chosen for one target resource (e.g. 90% as a short-term goal for arctic grayling habitat) and a different percentage chosen for other resources (e.g. 99% as the long-term goal for riparian habitat). If "Adequate data do not exist...to computationally derive or extrapolate resource protection goals," as is stated in the DEISs, then the use of numerical goals as the basis for quantitative evaluations is misleading and potentially invalid. At the very least, the reader deserves a narrative explaining why particular percentages of premining conditions were chosen for each target resource. As the documents presently read, the percentages appear to have been spontaneously generated, which jeopardizes the value of any subsequent calculations to determine cumulative impacts.

In addition, state reviewers questioned why the establishment of resource protection goals occurred for only a small subset of the listed target resources. Except for a statement that goals would not be established for target resources for which inadequate information exists, no explanation is given, although some of the target resources not included are probably as easily and reliably measured as those chosen. Despite the range of target resources listed in the documents, goals were given solely for fish and wildlife-related resources. This leaves other target resource values such as "recreation and visitor use" and "local economy" to be considered in a much more subjective way. Fish and wildlife values are likely, therefore, to assume an inordinately prominent role in NPS's regulatory decisions. Without an explanation of how and why individual resource protection goal numbers were established, it is unclear why they are only given for target resources. Certainly methodologies exist for measuring other resource values, and some may be easier to evaluate than those chosen.

In addition to the issue of how resource protection goals were derived, the methods used to assess impacts in the EISs warrant discussion. Each of the EISs identifies a "mineral development scenario" that could reasonably occur in each unit over the next 10 years and then depicts the cumulative impacts of this scenario. Mining claims, or clusters of claims, are identified as "study areas" for the evaluation of impacts. A predetermined percentage of resources impacted within each study area (the resource protection goal) is identified as the threshold which would trigger NPS action. A major problem with this methodology is that the impacts of mining are related only to the amount of resources contained within the study areas and not to the total available resources within the park. For example, a 10% "loss" in a study area may represent a less than 1% loss in the entire watershed, but because the analysis of the effects is confined to the study area, the resource protection goal is exceeded, and restrictions on mining activity would presumably follow. For example, grizzlies have a home range of many square miles, yet in

the Wrangell-St. Elias DEIS, the NPS contends that a loss of 224 acres represents a major impact. If such losses occurred in wildlife habitat areas considered to be critical habitat, such as denning areas, then they might indeed be significant. However, this does not appear to be the case, as the areas in question were not identified as having any outstanding or particular life function value. The NPS also neglected to point out that human disturbances have varied effects upon habitat, some beneficial. Some species, such as moose, may actually benefit from browse production stimulated by cutting house logs and firewood.

Confining the analysis of impacts to a narrowly-defined study area seems to be contradictory to the discussion on resources protection goals within Appendix 1, which repeatedly emphasizes ecological complexity and integrity at the ecosystem level.

Because of the problems identified above in the analysis of impacts, we do not think that the data presented necessarily support the conclusions of major impacts to fish and wildlife. While habitat disturbance has obviously occurred and is well described in the narratives, the use of calculations must be founded on objective methods and reasonable assumptions in order to be useful in assessing impacts. The state therefore urges the NPS to re-evaluate its current methodology and proposed management strategy prior to issuance of final EISs.

Regulatory Reforms

The DEISs do not adequately take into account the extensive regulatory reforms now in effect for mining activities that were not in effect in previous years. Current regulations administered by a variety of state and federal agencies are quite strict and offer significant resource protection. Miners must now recycle all mine process water, submit to strict US Army Corps of Engineers wetland stipulations, and reclaim and revegetate mined areas under regulatory supervision of the Division of Mining (state lands) or the Bureau of Land Management (federal lands). Additionally, the Alaska Department of Fish and Game has Title 16 regulatory authority for the protection of fish habitat within state and other lands. Hence, many of the past problems associated with mining, real or perceived, have been diminished through these regulatory reforms. The NPS's proposed action and the environmental consequences section of each DEIS need to be reconsidered in light of these reforms.

Effect of Management Strategy on Mining Activity

An additional weakness in the DEISs is that almost no attempt is made to assess the effects of NPS's preferred alternative on mining activity within the three parks. Although NPS' primary mandate is to protect park resources and the primary purpose of

an EIS is to evaluate the effects of proposed actions on the environment, NPS has the responsibility to assess the consequences of its actions on those individuals who will be most affected by them. In addition, the NPS must seek to balance Congress' explicit intent to allow mining on valid existing claims within parks with its own mandate to protect park resources. This balance is not evident within the DEISs. The state urges the NPS to explicitly and quantitatively evaluate the effect of its proposed management strategy on the level of mining within the three parks.

Subsistence

In a letter to the NPS dated October 6, 1986, the State recommended that the mining EISs address a variety of issues and information needs. One of the state's recommendations suggested that NPS:

> Describe human use of fish and wildlife in areas of mining and address the possible impacts to such use from mining and its associated activities. The state encourages the NPS to gather information on community resource use, as presently there is a minimal amount of information on this subject available. ADF&G is interested in exploring opportunities for cooperative data collection.

We believe that further work can and should be done to address this recommendation.

In addition, the "subsistence region" identified for each EIS should be depicted on a map to complement the rough written descriptions provided in the text. The discussions of subsistence uses and the ANILCA Section 810 evaluations are confusing because the "subsistence regions" used as the focus analysis appear to be different from the "regions" referred to in the wilderness recommendation EISs prepared for these three park units. Yet, the "very rough estimates" presented for subsistence harvests in both the wilderness and mining EISs are the same.

Additionally, it is not apparent how the "subsistence regions" used for analysis correspond to the areas utilized by the fish and wildlife resources known to be important for subsistence purposes in each park area under review.

Several references cited in the DEISs are NPS reports which the Subsistence Division of the Alaska Department of Fish and Game (DFG) has not received or reviewed. This has hampered DFG's analysis of the subsistence sections. Since DFG has collaborated with the NPS on several subsistence studies and anticipates further such cooperative efforts, we request that the NPS share such reports with DFG in the future.

Water Resource Protection Measures

Appendix 15 of the Denali and Wrangell-St. Elias DEISs and Appendix 14 of the Yukon-Charley Rivers DEIS contain a listing of the federal, state, and local laws and regulations with which mine operators must comply with before receiving approval to mine. The state requests that the following changes be made to this listing.

Item 1. In addition to the application of the effluent limitation guidelines, the Alaska Department of Environmental Conservation requires the installation of a stormwater by-pass to divert the surface drainage from entering the waste treatment facility. Therefore, additional run-off volume as a result of storm events should be nominal. However, wastewater discharges are not automatically exempt from the Alaska Water Quality Standards. We request that this be clarified.

Item 2. The state suggests adding the following phrase to the sentence ending in ". . . NPDES permits for mining operations in NPS units": "unless a dilution variance or mixing zone is granted which results in a higher effluent limit for turbidity."

Item 3. The state suggests re-writing the sentence beginning with "Alaska state mixing zones" as follows: "Alaska state mixing zones and start-up variances, and EPA dilution variances, will be accepted in plans of operation in Alaska national park units if the National Park Service determines, before EPA issues the NPDES permit, that no significant impacts will occur from the proposed action."

Item 9. To reflect recent changes in law, "an aggregate" should be added to this sentence prior to "1320 gallons." Also, federal regulations governing underground fuel storage require notification to the state by the owner-operator for tanks larger than 110 gallons and the owner-operator may be subject to additional regulations concerning tankage controls, depending on volume, use, etc.

Item 10. The state requests adding the phrase "to include a state wastewater disposal permit" after "all mining operations." This wastewater permit is both the state and NPS's means of assuring compliance with waste disposal regulations.

Access

The Purpose and Need section of all three draft DEIS's lists several issues which were raised, then dismissed during the scoping process. One of these concerns Revised Statute (RS) 2477 rights-of-way. Specifically, it was determined that although many people were concerned over the issue of RS 2477s, the evaluation of right-of-way issues was not within the scope of these EIS's. The NPS states that Title XI of ANILCA and its implementing regulations affirmatively provide for access regardless of an RS 2477 settlement issue. We agree that the resolution of the RS 2477 issue is beyond the scope of these EISs; however, we request that the EIS's clearly state that RS 2477 remains a critical issue, separate from Title XI, and that the validity of specific trails is, as yet, undetermined.

PAGE-SPECIFIC COMMENTS

Denali National Park & Preserve:

Page 7, fourth paragraph - The DEIS seems to overlook 3 years of extensive research conducted jointly by the State of Alaska and the Department of the Interior, which arrived at a land management decision in 1984 (Final Environmental Impact Statement, Kantishna Hills/Dunkle Mine) that runs counter to the proposed alternative in this document. Although alternative 'B' (the proposed alternative) will allow mining under strict supervision, alternative 'A' better compares to the conclusions reached in the 1984 study. The 1984 study group, comprised of seven state and federal agencies, including the NPS, recommended that 103,435 acres of the Kantishna Hills be open to mining and that traditional activities should be allowed on federal mining claims. This recommendation included most of the previously active mines and asked Congress to implement a leasing program of mineralized areas identified during the state-federal study. One of the co-signees of this proposal was the National Park Service. The overall consensus of the group was that the study area contained valuable mineral resources that warranted development under a controlled and environmentally sensitive leasing and location policy. In light of the 1984 recommendation, the Denali DEIS should provide an explanation and rationale for the current modified recommendations.

Page 8, final paragraph - The statement regarding management of hunting and trapping in preserves should be changed to read ". . . except that sport hunting is not allowed in parks."

Page 31, Geology and Mineral Resources - The three paragraphs of information on the geology and minerals resources of the park are inadequate for the purposes of this DEIS. Mining and the mineral resource endowment of this area is why the

U.S. Congress first initiated a special mineral resource study as part of the Alaska National Interest Lands Conservation Act (ANILCA). Kantishna has had a long history of mine activity interrupted only by the 1985 court action that prevented this traditional use. In fact, gold was produced there for 83 consecutive years. The DEIS should identify and describe the individual mine ventures active in the area when the court order was put into effect. The DEIS should also summarize findings submitted through published work in the area as well as the Salisbury and Dietz studies undertaken in 1983. Specifically inferred placer and lode resource values should be included in the summary. (This comment applies, in general sense, to the other two DEISs as well.)

Page 32, second paragraph - In the Transportation and Access section on this page, the statement is made that the 91.5 mile-long Denali Park Road begins at the park entrance on the Parks Highway and terminates at the Kantishna Roadhouse. Under the Transportation and Access section on page 56, it is stated that the Denali Park Road terminates at the airstrip, one mile past the Kantishna Roadhouse. This latter statement is incorrect and should be revised.

Page 35 - Under the Land Status & Use section, the land interests of the State of Alaska should include the state's right-of-way interest in the Kantishna Road from the north (pre-1980) boundary of Denali Park northwesterly to the Kantishna airfield. This right-of-way was obtained by the State via the Omnibus Act Quitclaim Deed, page 43. The land interests should also include the state's right-of-way interest for the Parks Highway.

Additionally, it should be noted that there may be other possible state land interests in the park associated with RS 2477 rights-of-way. A statement to this effect should be included in all three DEISs.

Page 43, third full paragraph, and page 289, third paragraph - The text states, "Trapping is not high on the list of subsistence activities." Since a Division of Subsistence technical report is cited here as a reference, we recommend that this language be replaced with the following wording: "Only a limited number of households in Cantwell currently engage in furbearer trapping." DFG's data do not specify the proportion of Cantwell households which trap in the Denali addition.

Pages 46-47 - These two pages provide a useful summary of mineral activities in the study area. Additional information on lode and placer gold production compiled by

year for the Kantishna area is attached. This information is based on federal, state, and territorial records and unpublished U.S. Mint returns.

Pages 62-66, Drainage overview of existing conditions - The DEIS documents miles of streams disturbed by mining activities and describes various features of the stream impairments and overall quality of fish habitat. Few would argue that mining has not, at times, had a negative impact on fishery resources. However, the DEIS fails to establish a perspective on how significant the disturbances are to the overall fisheries in the area.

In addition, statements about acidity and metal contamination in Eldorado Creek are inaccurate. A pyrite rich limestone unit in the Spruce Creek sequence causes most of the iron/metal spring activity in Eldorado Creek in areas where no man-made cuts exist. The narratives emphasize the damage wrought by mining in these small streams; however, when Moose Creek (a major fishing stream) is described (page 66), the DEIS does not mention much mine disturbance except for the short stretch from Eureka upstream to Willow Creek. Even here, the data is inaccurate since only a few small mine cuts were taken from this section in past years. The large scale 1922 hydraulic experiment did not move much pay here and the stream is in a more-or-less natural flow configuration.

Page 67-71, Grizzly and Black Bear, Moose, Caribou, and Wolf Habitats - The amount of ground disturbed for these species is remarkably small (in all cases, less then 2% of the total habitat) compared to the overall habitat utilized by these species in the study area. The additional disturbance anticipated from placer mine (360 acres) amounts to 1/2 % of the study area. The moose summary mentions that fewer moose were found on mined streams than on unmined streams. In some instances, disturbance of floodplain habitat results in changing existing vegetation to an earlier seral stage. This can result in habitat that is better for some species, such as moose. Well managed reclamation activities in Kantishna could have similar results.

It should be noted that when the Denali caribou herd reached record historical numbers (20,000 to 30,000 animals) in 1940, it was coincident with a time when mineral development levels were near all time highs. Several large scale placer mines and two underground lodes extracted placer and lode silver, gold and antimony during this time. The important point to be made here is that high levels of mining activity did not preclude high ungulate populations in the study area.

Page 72, Lode Claims - Reference is made to 156 tons of "low grade" silver ore shipped from the Silver King claims. Actually, the receipts from the mill operator in Fairbanks showed this ore shipment averaged 1.2 oz./ton gold and 75 oz./ton silver, which is considered high grade ore by most definitions.

Page 75, Local Economy - Statistics compiled by the Alaska Departments of Natural Resources and Commerce and Economic Development as well as by the 1983 Salisbury and Dietz study differ somewhat from those presented in the text.

In 1983, 21 mine operations employed 101; in 1984, 19 mine operations employed 84; and in 1985, 17 operations employed 77, according to results of state surveys. (See the enclosed table.) Mine operation income estimates are also attached. The second paragraph states "The drop in mining has not caused a significant decrease in overall employment." We find even seasonal mine employment important to local communities such as Cantwell, Healy, and Talkeetna. The Usibelli Coal Mine and Valdez Creek placer gold mine are currently the region's largest employers even though they hire only 125 and 136 people respectively. As earlier stated in the DEIS, mining makes its biggest employment and economic impact in rural areas.

Page 106, second paragraph - The reference "NPS 1988a" does not appear in the bibliography. The fourth paragraph concludes that additional mining in the Kantishna Hills study area would result in little new competition for subsistence resources. This would not necessarily be true if local rural residents constituted the work force.

Pages 83-155, Environmental Consequences - It is questionable whether the alteration of such relatively small areas (as measured in acres) has really had major long term impacts for grizzly bears, black bears, and moose, although loss of bears by Defense of Life and Property incidents may be a problem in specific situations.

Dunkle Hills Area - No mention of mining activity is made for the Dunkle Township sub-area of the overall study area and it is implied that there are no economic mineral values here. As pointed out in previous state/federal investigations, the Dunkle township contains mineralized terrain similar to that under development at the Golden Zone mine, just to the southwest. If allowed, exploration would almost certainly occur in the search for additional Golden Zone type ore bodies, probably in mineralized lodes, such as the Lucrata, Eagle, and Snoopy-Nim mineralized zones.

Page 186 - The premise upon which this and the other DEISs is based is not stated until this page, under the heading "Assumptions and rationale for delineation of study areas." The stated rationale is, in part, that each study area (subunit) is equally valued and that "...any degradation of a subunit would reduce the larger unit's overall value and national significance." On this premise, a single study area was defined which contains the greatest probability of mining activity in the foreseeable future, and the cumulative impact for the Denali Park and Preserve is presented in terms of this area. Since the study area represents only a very small percentage of the park and preserve (less then 5%), this leads to a very biased overall impact evaluation. (See our general comments above.)

Page 263-273, Appendix 9 - Without detailed appraisal data which may be confidential, the state cannot comment on the total valuations for the patented and unpatented claim blocks in the Kantishna and Dunkle areas. Of note, however, is the 1983 Dowl Engineering study that estimated the cost of claim acquisition in the study area at $150 million. The valuation premise (page 269) states that the value estimates are based on experience in valuing lands in the Alaskan real estate market. Evidently subsurface evaluation of inferred reserves or resources of mineral deposits were not taken into consideration.

Page 286, Second sentence - We assume the proposed action is alternative 'B' and not 'C'.

Wrangell-St. Elias National Park and Preserve:

Page 33 - Information defining present mining activities in the park and preserve is difficult to glean from this DEIS. The five maps in the back pocket show only locations of 'scenario' mining claims. It is impossible to evaluate the validity of a cumulative mining EIS without a review of current mining activities.

In addition, there is little, if any, discussion of the potential for new discoveries within the park based on known trends and past production. The geologic descriptions of the areas are extremely brief and superficial, and need to be expanded. The tremendous importance of past productivity and the enormous potential for new discoveries within the parks have been understated and neglected in the DEISs. Although it would entail significant research and compilation, information should be included with regard to past and present production, known reserves and resources, and

mineral potential based on geochemical anomalies and geologic trends. (This comment applies to all three DEISs.)

Page 34 - Under the Transportation and Access section, it should be stated that the Alaska Department of Transportation and Public Facilities is actively working on the development of a Copper River Highway. The currently proposed route will begin at Chitina and proceed down the west bank of the Copper River to Cordova, skirting the boundary of the Park.

Page 34 - Under the Transportation and Access section, "Alaska Division of Transportation and Public Facilities" should be corrected to read the "Alaska Department of Transportation and Public Facilities."

Page 49, fourth paragraph - Since we have not had the opportunity to review the "NPS 1986f" and "NPS 1987a" references cited in this section, we are unprepared to comment on the statements attributed to these sources.

Page 50, third paragraph - Sockeye salmon should appear in the list of species harvested for subsistence purposes.

Page 51 - The Land Status & Use section does not address specific state-owned right-of-way interests in the park, obtained via the Omnibus Act Quitclaim Deed. These include the 20-mile-long McCarthy-Dan Creek Road, which begins at McCarthy and proceeds southeasterly to Dan Creek; the 1/2 mile long McCarthy-Kennicott River Road, which begins at McCarthy and proceeds west to the Kennicott River; the Chititu Branch, which begins at a point on the McCarthy-Dan Creek Road 14 miles southeast of McCarthy and proceeds for 6.5 miles southeast to Nazina; and the 6-mile long McCarthy-Kennicott Road, which begins at McCarthy and proceeds north to Kennicott.

Page 433, Access - We believe the number of people using particular study areas for subsistence purposes may be underestimated, especially for the Bonanza/Green Butte (Kennicott) Study Area. Although data analysis from the 1988 survey done in cooperation with the NPS and the U.S. Air Force is not yet completed, we do know that the McCarthy Road is used by residents of Chitina, Lower Tonsina, and Kenny Lake.

The reference "National Park Service 1988d" cited throughout this section does not appear in the bibliography, so we cannot evaluate how it was used in preparing this section.

Yukon-Charley Rivers National Preserve:

Pages 29 and 33 - Geologic data have been confined to three very brief and generalized paragraphs on these pages. While historic placer mining activity and production appear to be well documented, there is no discussion of the potential for new lode or placer deposits based on known geologic, geochemical, and geophysical trends. Only potential placer mining scenarios on previously mined creeks are presented, and those at a level less than in the past. The economic benefits of opening new deposits and reworking known placer deposits using modern mining methods have not been explored and should be. (This comment applies to all three DEISs.)

Page 35 - Under the Land Status & Use section, the land interests of the State of Alaska should include the State's right-of-way interest in the Coal Creek Road, a 7-mile long road beginning at the Yukon River landing near the mouth of Coal Creek proceeding southerly to the Coal Creek mining area. The right-of-way interest was obtained by the State via the Omnibus Act Quitclaim Deed, page 50.

Page 98, final paragraph, and page 295, sixth paragraph - The reference "NPS 1986" does not appear in the bibliography. There is a "NPS 1986a" which may be the source of this discussion, but we have not seen this document, so we cannot evaluate its content.

On behalf of the State of Alaska, thank you for the opportunity to review these draft environmental impact statements. If we can be of any assistance in clarifying these comments, please do not hesitate to call this office.

Sincerely,

Michelle Sydeman

Michelle Sydeman
State CSU Coordinator

cc: Commissioner Don Collinsworth
Department of Fish and Game

Commissioner Lenny Gorsuch
Department of Natural Resources

Commissioner Mark Hickey
Department of Transportation & Public Facilities

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