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ALASKA POWER AUTHORITY
SUSITNA HYDROELECTRIC PROJECT
POSITION PAPER
RECREATION ISSUE R-2

EXECUTIVE SUMMARY

Issue

Significance of impacts on hunting and recreational trapping, including availability of resource, access, and quality of experience.

Position

It is the Alaska Power Authority's position that the Project will reduce the availability of moose, black bear and brown bear in the area. These reductions will affect the hunting experience to varying degrees depending on hunting demand, hunting location, and the hunter's expectations and prior knowledge of the area. The Project will provide improved access for hunters entering the area and moving within it by vehicle or boat, and this may lead the Alaska Board of Game to tighten hunting regulations in order to prevent overharvesting. A higher density of hunters in the project area may negatively affect the experience of hunters who now use the area because of its remote character.

The Power Authority also takes the position that the Project will not significantly affect recreational trapping. The intent of the Alaska Power Authority is to accommodate project-induced hunting and trapping opportunities as long as such opportunities are compatible with the management goals of the Alaska Department of Fish and Game and the Board of Games objectives.

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Present Knowledge

Existing information relevant to this issue includes the following:

Use of the Game Resource:

- o Species hunted in the vicinity of the Project include moose, caribou, Dall sheep, black bear, and brown bear.
- o Habitat that supports approximately 30-50 black bears will be inundated. This may result in reduced numbers of black bears and therefore, a reduction in hunter success.
- o Many black and brown bears harvested are taken by people hunting moose or caribou.
- o Current demand for hunting moose and caribou is high in the region but low in the impoundment area.
- o Hunting of Dall sheep is not expected to increase significantly.

Access to the Area:

- o The project access road will increase hunting opportunities by opening the area to hunters using vehicles, boats, and ATV's, concomitantly replacing fly-in and pack-in hunting.
- o New access patterns may redistribute hunting pressure and result in increased hunting of some species subpopulations. This may result in higher harvest levels and eventual reductions in hunter success rates.
- o The proposed access road may redistribute the heavy hunting use that now occurs along the Denali Highway.

- o Users that presently fly into the area disturbed by project features for a remote hunting experience will be adversely affected by the Project.

Recreational Trapping:

- o The number of trappers presently in the project impoundment areas does not appear to be large (between 7 and 9).
- o The project road and reservoirs may increase access to traplines for existing trappers and could increase the number of trappers by providing access to areas not presently being trapped. This possible increase will be dependent on the market value for furs.

Mitigation Measures Endorsed by Alaska Power Authority

1. Proposed Project Recreation Plan (APA 1983b Chapter 7) with campsites trails, and boat access to reservoirs to accommodate hunters, and focus activities to specific locations.
2. Proposed wildlife mitigation measures (APA 1983a Chapter 3, Section 4.4 and additional refinements) relevant to maintaining wildlife populations and, therefore, hunter success rates.

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ALASKA POWER AUTHORITY
SUSITNA HYDROELECTRIC PROJECT
POSITION PAPER
RECREATION ISSUE R-2

INTRODUCTION

Issue

Significance of impacts on hunting and recreational trapping, including availability of resource, access, and quality of experience.

Position

It is the Alaska Power Authority's position that the Project will not significantly affect the availability of game in the area. The Project will provide improved access for hunters entering the area and moving within it by vehicle or boat, and this may lead the Alaska Board of Game to tighten hunting regulations in order to prevent overharvesting. A higher density of hunters in the project area may negatively affect the experience of hunters who now use the area because of its remote character.

The Power Authority also takes the position that the Project will not significantly affect recreational trapping. The intent of the Alaska Power Authority is to accommodate project-induced hunting and trapping opportunities as long as such opportunities are compatible with the management goals of the Alaska Department of Fish and Game and the Board of Game's objectives.

DISCUSSION

The principal concerns of this issue focus on the land, water, and air access created by the Project and on the significance that increased use of

a remote area could have for existing and future hunting and trapping opportunities.

Information important for resolving this issue includes a description of the wildlife species in the project area^{1/} that receive hunting pressure, and a discussion of the potential project-related impacts on the wildlife species and on existing hunters and trappers.

Hunting Resource and Use.

The proposed Project is located within the Matanuska-Susitna Borough's six-million-acre Talkeetna Mountains Management Unit (ADNR 1982). This management unit is considered one of the state's premier big game hunting areas because of the abundance and variety of big game within its boundaries. Big game species hunted in the area include black and brown bear, Dall sheep, caribou, and moose.

Black Bear. Black bear are considered to be numerous in the forested portions of the project area. Hunting regulations for black bear are liberal. They allow a hunter to take three black bears per year with no closed season and no permit required. The average harvest of 66 black bears per year in Game Management Unit (GMU) 13^{2/} is considered well below the sustainable harvest level (Miller and McAllister 1982). The total number of people hunting black bear in the project area is presently not known. Most black bears tend to be taken in the fall and their harvest tends to be

^{1/} The project area is defined as the area bounded by the Susitna River to the east, the Alaska Railroad and Parks Highway to the west, the Denali Highway to the north, and approximately 20 miles to the south of the Susitna River.

^{2/} Game Management Units (GMU's) are areas established by the Alaska Department of Fish and Game (ADF&G) for game management purposes. GMU 13 is large and the proposed Project encompasses only a small portion of the area. See Figure 1 for reference.

incidental to moose and caribou hunting. This fact, along with the low harvest, indicates that in GMU 13 black bear is not a highly-prized game animal and that hunting pressure for black bear is not high (Miller and McAllister 1982). Black bear harvest in the project area has occurred mainly in the area between Indian River and Talkeetna, where access is by river boat, railroad, or all-terrain vehicle (ATV) off the Parks Highway (Miller and McAllister 1982).

Brown Bear. The brown bear population is presently considered to be high and productive in the project area (APA 1983a). Brown bear hunting in GMU 13 does not require either registration or a permit. The bag limit is one bear per year (ADF&G 1984a). This limit is liberal compared to all but one of the other 25 management units in the state, which stipulate one bear every four years and often by permit only (ADF&G 1984a). Harvests within the project vicinity^{3/} averaged 38 brown bear per year between 1980 and 1982 (Miller and McAllister 1982). A large proportion of those were taken from subregions that include the Denali Highway (Miller and McAllister 1984). Access for hunting brown bear away from roads is gained primarily by aircraft. As with black bear, many brown bear are taken incidental to moose and caribou hunts. Brown bears taken in GMU 13 are young, which suggests that hunters are not focusing on trophy-size bears (Miller and McAllister 1982). This would be consistent with the pattern associated with incidental takes. As with black bears, the total number of hunters in the project area is presently not known.

Dall Sheep. Harvests of Dall sheep and caribou are strictly controlled in the subregion of GMU 13 encompassing the Project. Dall sheep harvest is

^{3/} Project vicinity refers to an area larger than the defined project area (reference Miller and McAllister 1982).

controlled by the curl size of the horn (7/8 of a full curl is required). Most rams which achieve this horn length are harvested each year. The annual bag limit is one ram (ADF&G 1984a). In 1981, 29 hunters of Dall sheep were reported in the project area, compared to 370 hunters for the entire Susitna Basin (ADF&G 1984b).

Caribou. The number of caribou hunters and therefore harvest is controlled by a permit drawing, which is open to residents only. In 1983 there were over 9,700 applications for 1,750 caribou permits in GMU 13, indicating that demand is high (Pitcher 1984). Hunting information compiled in 1981 indicated that about 614 caribou were taken in GMU 13 and 14 with an average hunter success rate of 65 percent (ADF&G 1984b). In contrast, in 1981 the number of caribou hunters identified in the project area was about 117. Assuming the average hunter success rate of 65 percent, about 76 caribou would have been taken within the project area in 1981.

Moose. Moose harvest is not as strictly regulated as caribou harvest. No permits are required for hunting moose. Regulations in GMU 13 presently restrict the take to one bull moose with a 36-inch or greater antler spread per season (ADF&G 1984a). However, due to the high hunting pressure from the Denali Highway, current regulations restrict the annual bag limit to one young bull moose in areas of GMU 13 near the Parks Highway. The intent of this regulation is to replenish the stock of larger antlered moose.

The number of moose hunters in 1983 in GMU 13 was approximately 3,100. These hunters took 862 moose, a success rate of approximately 28 percent. Approximately 243 of the 3,100 hunters were located within the project area.^{4/} These hunters took 105 moose, for a project area success rate of 43 percent (ADF&G 1984c).

^{4/}This assumed that 50 percent of all hunting in ADF&G reporting code units partially within the project area occurred in the project area.

A 1983 estimate of moose inhabiting the area within and adjacent to the Devil Canyon and Watana impoundment zones was approximately 2,800, compared to a 1980 estimate of approximately 23,000 moose inhabiting all of GMU 13 (Ballard et al. 1984).

Project impacts on hunting.

Inundation by the Watana reservoir will eliminate habitat for 30-50 black bears (APA 1983a). The Devil Canyon reservoir may eliminate additional black bear habitat. Because black bear are not heavily sought after game species, the inundation of that area is not expected to significantly affect black bear hunting opportunities. Population levels of Dall sheep and caribou are not expected to change noticeably as a result of construction of project facilities. Project facilities (notably the reservoirs) will eliminate important winter browse for moose, however, and may eliminate important brown bear spring forage. Preliminary estimates of the potential loss of moose carrying capacity range between 300-600 moose (APA 1983a, FERC 1984). This reduction in the moose population may in turn reduce hunting success rates. However, if mitigation to compensate for moose habitat loss is assumed, pre-project success rates are likely to be restored, or increased in other areas if mitigation is done in locations outside of the project area.

Indirect impacts from project-related access will have substantial effects on hunting. Road access will increase hunting in an area that previously was accessible, for the most part, only by air. This will substantially increase hunting pressure on unpermitted big game species such as moose and bear. Increased hunting in the newly accessible areas may increase hunter success rates for moose and bear in the short term. In the long term, however, bear and moose populations are likely to be reduced by overharvesting, if not actively regulated. This is particularly true for brown bear, since the proposed access road passes through prime brown bear habitat. Unregulated ATV use off the access road could result in considerable impact on game populations near the road, which in turn would

further reduce hunting success rates. This would be similar to existing situations where hunting activity adjacent to roads is high but success rates are low. On the other hand, access into the project area may disperse existing heavy use that occurs along the Denali Highway, thereby reducing crowding and related use impacts that now occur in areas such as Butte Lake.

The project reservoirs are also expected to increase access and therefore hunting use, particularly in drainages above Watana Dam such as Watana and Kosina Creeks. At present, hunters accessing the project area by boat use the Denali Highway bridge or float down the Tyone River from Lake Louise. Most boaters stop at or before Goose Creek, located below the mouth of the Oshetna River (Cole 1979). The Vee Canyon rapids, faster water, and the limited take-out locations downstream typically limit further boat travel. The Watana reservoir will eliminate these obstacles, thereby allowing easy access from the Denali Highway to Watana Dam. If public access to the reservoir is provided at the dam, hunting via boat is expected to increase in the project area. Float planes may use the reservoirs to gain access to adjacent areas for hunting. Impacts on Dall sheep at the Jay Creek mineral lick from hunters using the reservoir are not expected to be significant, since peak sheep use of the mineral lick is in May and June while the hunting season for sheep is in August and September (Tankersley 1984).

Impacts on the quality of the hunting experience reflects the extent to which a setting and activity meets one's expectations and needs. Certain generalizations, however, can be made. If wildlife populations are overharvested the quality of the hunt will be diminished because fewer hunters will be successful. Also, as the number of hunters increases, competition becomes greater which in turn reduces the chances of success, and thus the quality of the hunt. This is happening now with moose

hunting from the Denali Highway. The quality of the hunting experience will be most significantly affected for existing hunters who presently fly or pack-in to the interior regions of the project area for a remote experience. Little can be done to mitigate this impact, short of closing the road to public use.

A final consideration that will affect future hunting opportunities in the project area is the conveyance of lands in the project area to Native corporations. It is expected that once conveyed, these lands will be either closed to public use, or subject to acquisition of entry permits from the Native corporations, with or without the Susitna Project.

Recreational Trapping. As noted in the FERC License Application (APA 1983a), it is difficult to distinguish between commercial and noncommercial trapping activity. While this paper focuses on recreational trapping, information presented is for trapping in general as data presently do not differentiate between recreational or commercial trapping.

Use of the Resource. To date, survey data show that approximately 25-50 individuals trap annually or every few years in the Middle and Upper Susitna Basins (Gibson 1985). The number of individuals trapping within the impoundment zones ranges between seven and nine (Gibson 1985). This relatively low number is thought to be due to the inaccessibility of the project area and the fact that trapping activity, recreational or otherwise, is closely tied to fur market values. For example, the fur value for beaver pelts is presently very low and trapping of this furbearer is minimal, especially in remote areas where the effort and cost of trapping is not compensated for by the low market value.

Project Impacts on Recreational Trapping. Access provided by the Project may increase trapping of the beaver population in the Deadman Creek and Deadman Lakes area and the fox population that inhabits the area near the proposed access road. However, due to low beaver prices, increases in harvest of beaver may not be extensive. Trapping which does occur would

likely result from efforts of recreational trappers. The remoteness of the region and general winter conditions that prevail in the area, however, will probably discourage much use by the "weekend trapper." Trapping of fox may not be significantly increased since populations are very low and few fox are trapped presently (APA 1983a). Access related to the Project may be beneficial to existing trappers as the road will allow easier access to existing traplines.

The project reservoirs will have both positive and negative impacts on trappers. The reservoirs will inundate significant amounts of pine marten habitat, possibly affecting about 11 percent of the pine marten population in the Middle Susitna Basin (APA 1983a). As a result, the reservoirs will eliminate or displace some trapping of pine marten and other furbearers. The frozen surfaces of the reservoirs will however, provide trappers with convenient access to surrounding areas. The reservoirs and access road will also facilitate access to trapping areas south of the Susitna River. Again, this could benefit existing trappers or increase trapping activity and competition if the areas are currently not heavily trapped. Land management plans of Native landowners will largely determine the future of trapping south of the river.

MITIGATION

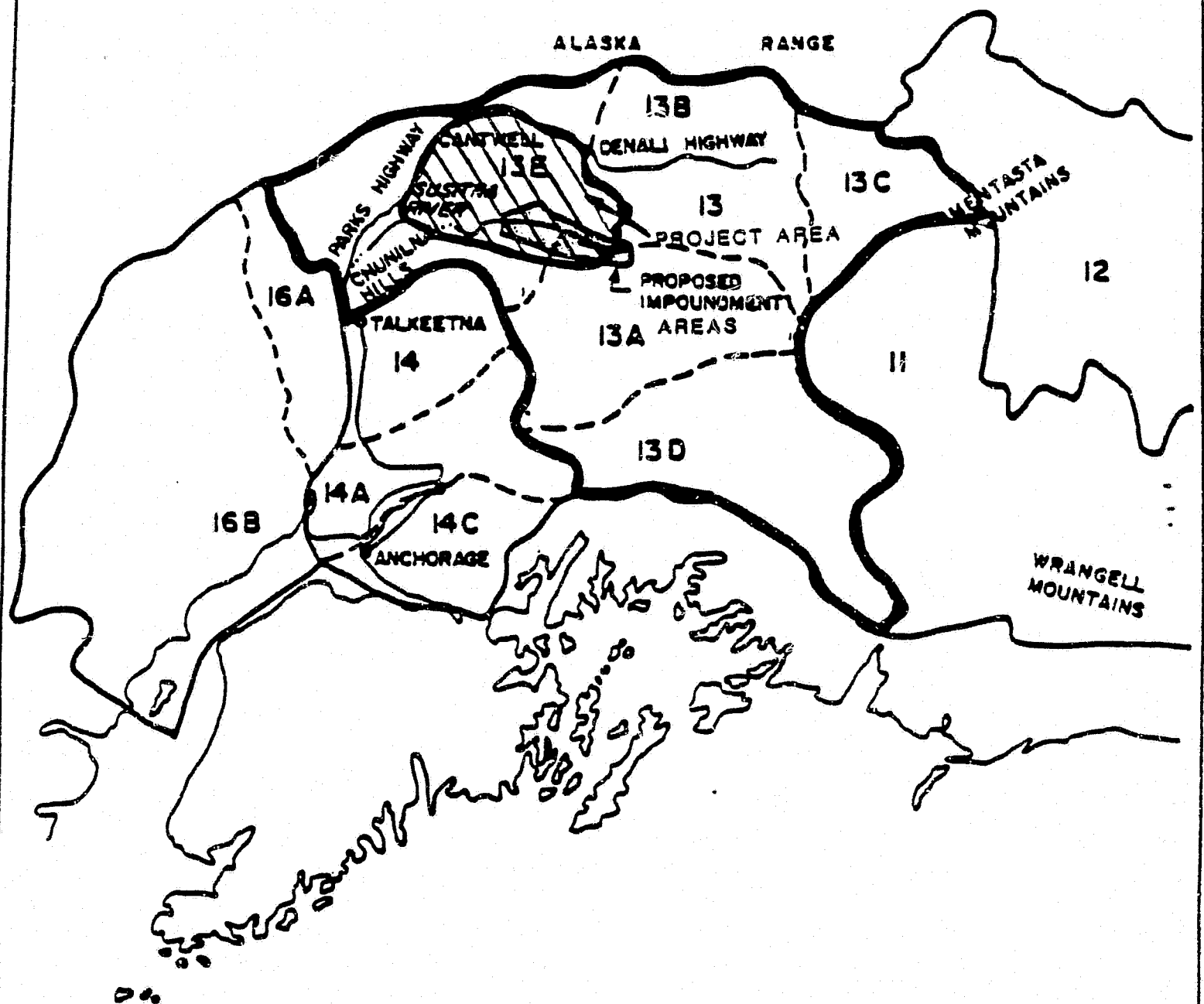
Mitigation Measures Endorsed by the Alaska Power Authority

Mitigation measures proposed by the Power Authority relevant to hunting and trapping impacts are as follows:

1. Proposed Project Recreation Plan (APA 1983b Chapter 7) with campsites, trails, and boat access to reservoirs to accommodate hunters, and focus hunting activities to specific locations.
2. Proposed wildlife mitigation measures (APA 1983a Chapter 3, Section 4.4 and additional refinements) relevant to maintaining wildlife populations and, therefore, hunter success rates.

Figure 1

SUSITNA HYDROELECTRIC PROJECT



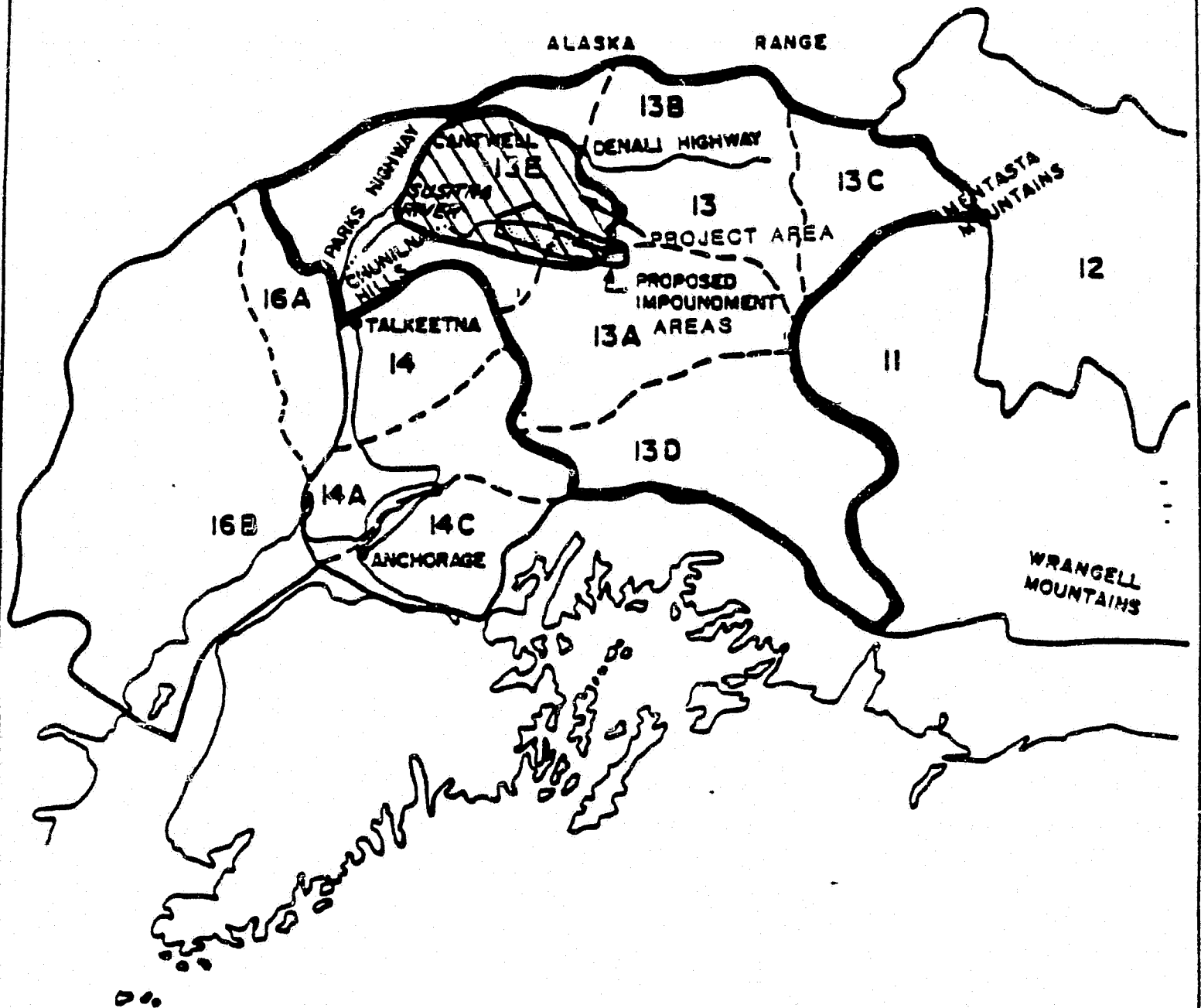
Source: Susitna Hydroelectric Project
FERC License Application
February 1983
Volume 7, Chapter 5

GAME MANAGEMENT UNITS
IN THE VICINITY OF THE PROJECT

FIGURE E.5.8

Figure 1

SUSITNA HYDROELECTRIC PROJECT



Source: Susitna Hydroelectric Project
FERC License Application
February 1983
Volume 7, Chapter 5

GAME MANAGEMENT UNITS
IN THE VICINITY OF THE PROJECT

FIGURE E.5.8

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