STATE OF ALASKA

BILL SHEFFIELD, GOVERNOR

DEPARTMENT OF NATURAL RESOURCES

OFFICE OF THE COMMISSIONER

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JAN 20 1983

January 13, 1983

Mr. Eric Yould
Executive Director
Alaska Power Authority
334 W. 5th Avenue
Anchorage, AK 99501

Dear Mr. Yould:

The Alaska Department of Natural Resources has reviewed the draft Exhibit E application for the Susitna Hydroelectric Project. We are submitting comments on this document which in part satisfy the agency coordination requirements established by the Federal Energy Regulatory Commission, (FERC). The formal position of the Department of Natural Resources regarding the Susitna project is contained in the Exhibit E comments which follow; our April 16, 1982 testimony to the Alaska Power Authority Board of Directors (copy attached) and the letter to Eric Yould from Reed Stoops dated October 11, 1982 (copy attached). We request that an unabridged copy of these comments accompany the perfected application submitted to FERC.

ORGANIZATION AND PRESENTATION OF EXHIBIT E

In some cases the Exhibit E text, tables, and figures do not reference the documents from which the material was taken. The consequence of this inadequate documentation is that the reader cannot determine the specificity, accuracy or sufficiency of the Exhibit E. We recommend that the specific references to original documents be included in this Exhibit E before the application is submitted to FERC.

WATER QUANTITY AND QUALITY

During the past two years the Department of Natural Resources has emphasized the great importance of acquiring a clear understanding of the relationship of various flow-release rates from the proposed dams and the corresponding impacts on downstream aquatic resources, habitats, and uses. This information is vital to enable DNR to make informed decisions with respect to instream flow reservations and water appropriations both of which are required in order to facilitate the Susitna Hydro Project. The flow releases schedules presented in Exhibit E for filling and operation of the Watana and Devil Canyon Dams have not been developed in consultation with the Department of Natural Resources or by a methodology approved by this Department which is charged by law with authority to adjudicate all water

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appropriations and instream flow reservations in the State. Indeed, Exhibit E does not explain the process by which these release schedules flows were devised. We strongly recommend that the license application contain a specific, detailed flow release schedule developed through a quantifiable instream flow analysis program coordinated with DNR and with state and federal fish and wildlife agencies.

Attached please find the entire text of the review comments from our Division of Land and Water Management. Please consult that text for additional specific comments relating to navigability, thermal modeling, and nitrogen gas supersaturation.

ACCESS

This department's comments regarding the proposed route from the Denali Highway to the project site should not be construed as support for that project route as the preferred means of access. This agency, along with the other state and federal resources agencies, has consistently favored road access to the project from the Parks Highway. However, if the route proposed in Exhibit E is selected, we recommend certain design modifications.

We recommend that the principal design criteria for the proposed route be the enhancement of scenic values and public safety. We consider the proposed high-speed design of the road inappropriate. The long-term use of the road after dam construction will be primarily sightseeing and recreation. The highway should, therefore, be designed to take maximum advantage of the scenic potential of the area which traverses some of the most dramatic in North America.

In addition to being an unattractive counterpoint to the natural landscape, the high-speed road proposed (55 miles per hour with 40 miles per hour at difficult curves) may create serious safety problems. The long braking distance for a vehicle traveling 55 miles per hour on a gravel road endangers the stop and go driver and those who park and stand along the side of the road to take photographs. Although a high-speed road will yield cost savings during dam construction, it is questionable whether these cost savings outweigh the long term benefits of a scenic road. The rationale for a high-speed access road design should be based on an explicit quantification of the cost saved by that design. We believe the scenic and public safety benefits foregone by a high-speed design when accumulated over the expected life of the road are almost certainly greater than the costs saved by such a design to facilitate the brief construction phase of the dams.

Although design standards for upgrading the Denali Highway between Cantwell and the proposed access road were not discussed in Exhibit E the issue merits comment because an upgrade will be necessary to accommodate project-related traffic. The portion of the Denali Highway affected provides exceptional views of the Alaska Range, Reindeer Hills and the

Talkeetna Mountains. The Alaska National Interest Lands Conservation Act (ANILCA) of 1981 called for a joint state, federal and private study of the scenic qualities of the Denali Highway. The intent was to encourage cooperative land management of lands adjacent to the highway to protect its important scenic values. The Denali Scenic Highway Study will be published in early 1983. DNR encourages APA to consider carefully the recommendations of that report and to support a design which is consistent with the study recommendations.

Finally, we recommend re-routing of the proposed access road where feasible to take advantage of the extraordinary vistas. Presently the road transects a large wetland in the upper Brushkana drainage. Consultants responsible for the aesthetics portion of Exhibit E recommended that this section of the road be re-routed to higher ground to the west. We concur and support that recommendation, which will also protect the wetland from the impacts of road construction and should result in lower long-term maintenance costs because of better soil conditions.

RECREATION AND AESTHETICS

We agree with the consultants' conclusions that recreation plans be focused on those opportunities occurring elsewhere in the project area rather than those directly associated with the reservoirs. Because of fluctuating water levels and steep shorelines, the reservoirs themselves will not present an attractive recreation environment except for occasional use by speedboats. The greater recreation opportunities will be associated with the access road and the many lakes, streams, and alpine hiking areas that can be reached from that road. The consultants' identification of recreation resources on Cook Inlet Region, Incorporated (CIRI) land raises the question as to how these recreation opportunities might be realized. We recommend that the Power Authority consider some sort of leasing or concession arrangement with CIRI to facilitate public recreation use on Stephan Lake. At least one public use site of a suitable size (40 acres or more) should be provided at Stephan for camping, fishing, and as a staging area for those people using the lake for float trips down the Talkeetna River. In addition, legal access across village and regional corporation lands should be secured and a trail constructed from the reservoir to Stephan Lake. In order to most effectively enhance the recreational potential of the proposed projects, we would recommend that the recreational element of Exhibit E add three sites adjacent to the Alaska Railroad. These sites are Indian River, Gold Creek, and Curry. Each of these sites would provide a destination point for recreation users of the Alaska Railroad and would provide a greater diversity of recreation opportunities. We recommend that management of the off-site recreational facilities associated with the access road are best met through the budgeting process of the Alaska Power Authority. If the Division of Parks is expected to manage these sites, then we will have to work closely with APA to identify priorities for project funding.

In summary, we feel that the consultant has done an excellent job in identifying the recreation opportunities and resources available in the project area and would request that the scope of the study be expanded to look at the identified sites along the Alaska Railroad as described above.

HISTORIC AND ARCHEOLOGICAL

The report on historic and archeological resources is well done and addresses all the pertinent questions about mitigation. We concur with the mitigation plan as presented in the draft document.

We concur with and support the proposed education program described on Page E.4.114. We consider such a program to be a necessary and effective part of any large construction project. If project personnel are adequately trained and sites are clearly marked, avoidance should be a viable mitigative measure in many of the indirect and potential impact cases.

TRANSMISSION LINE

The Access Plan Recommendation Report dated August, 1982 proposes routing a transmission line through a non-roaded area south of the proposed road between the dam sites. The line was well sited taking advantage of terrain and vegetation to minimize environmental and visual impacts as well as minimizing construction costs. We support the route proposed in the August report. We have since been informally advised that APA has decided to route the transmission line along the road between the dam sites to allow year-round access for maintenance (winter over-land access via all terrain vehicle is feasible without a road). If road access is determined to be absolutely necessary, we agree with this decision; it would be inappropriate to have two east-west road corridors through this area. However, presentation by consultants at the APA sponsored workshop in Anchorage during the week of November 29 to December 3, 1982, indicated that there may be excessive concern by maintenance engineers with year-round access. The consultants argued persuasively that maintenance by helicopters is not only feasible, but is cheaper than road maintenance and is a common practice in states other than Alaska. Helicopter maintenance has also proven itself in more rugged terrain and extreme weather conditions of southeast Alaska.

The need for road access in case of bad weather is a concern, but it is important to clarify precisely what is gained in terms of minimizing the risk of power outage by having road access. That gain should then be compared with the costs. In this case the major cost is a strong negative visual impact on the road between the dam sites. In contrast, the gain seems to be minimal. In short, the value of year-round access is not infinite and in this case may be significantly less than the costs.

SOCIOECONOMIC IMPACTS

The permanent townsite appears to have been located in an exceptionally wet area. Apparently the major criterion for locating the townsite was land status. A more appropriate location from the standpoint of land capability and general amenities for the inhabitants of the townsite would be in the Fog Lakes area south of the Susitna River on privately owned land. The townsite is particularly important because, as indicated in the Exhibit E, the tendency for workers to reside on-site depends on the quality of housing and other amenities. Exhibit E emphasizes that a high amenity site will minimize impacts on outlying communities by encouraging a higher percentage of workers to live on-site. We support this objective but do not think siting the townsite as proposed will help achieve it. We strongly suggest finding a more suitable location for the townsite.

Exhibit E projects minimal project impacts on local facilities and services due principally to the provision of on-site housing for workers. The total Mat-Su Borough population increase as a result of the project is projected as 4,700 in 1990 (peak year), 1,110 of whom are expected to live off-site in rural communities. Should that projection be accurate, the off-site impacts would, indeed, be limited. However, the projection assumes absolutely no in-migration by unsuccessful workers. This is a misleading assumption. In fact, in-migration by unsuccessful job seekers will probably be considerable. Such in-migration is a likely result of decreases in job opportunities in the lower 48 and has occurred in Alaska during construction of the oil pipeline. Current economic conditions would stimulate extensive in-migration to a greater extent than is predicted in Exhibit E.

If in-migration is seriously underestimated in Exhibit E, then a wide range of socioeconomic impacts is underestimated as well. Past experience in the state shows that boom conditions, such as the proposed dam construction would create, have led to rent increases, proliferation of sub-standard housing and strain on public facilities and services. The potential impact caused by unemployed in-migrants is particularly significant in light of their tendency to be more of a disruptive influence on small communities than employed in-migrants. Unemployed in-migrants, for example, tend to require more services such as public health and family assistance of various forms. They pay fewer taxes and may have little stake in the community, thus caring less about relatively minor issues such as yard maintenance and the appearance of local parks. In the small, rustic communities in the project area, these problems could create considerable tension between current residents and the new in-migrants. We consider the socioeconomic impact assessment to be inadequate without an attempt to estimate the numbers and effects of unsuccessful job seekers and their dependents who will move into the region.

It would be more accurate and useful to provide a range of projected population increases in affected communities rather than a precise number such as 263 in Talkeetna by 1990 or 75 in Trapper Creek. These numbers convey a precision not supported by the methodology or the probability of error inherent in such projections. More useful information for community planning purposes would be a high-low range. A key consideration in planning for public services is the population threshhold which requires new capital expenditures. For example, if a population increase of 300 would require a new community well in Talkeetna, the city would be better off knowing that it faces a probable increase of 250 to 350, rather than knowing that someone has disaggregated a series of numbers to produce an estimate of 263.

Exhibit E discusses generally the need for measures to ensure that the local unemployed get a chance at project-related jobs. Assuming there will be considerable competition for jobs by in-migrants and that the state's objective is to encourage local hire, it will be necessary to develop a clearly defined and legal program to achieve that objective. The measures recommended by Exhibit E are vague and do not reflect the significance of this issue to the state or the borough. We suggest more attention be given to developing a more comprehensive approach to address this issue in the Exhibit E application to FERC.

ALTERNATIVE ENERGY

The Exhibit E devotes about four and one half pages to the geothermal energy alternative. This information is factual and provides general background for the reader. The Exhibit E could be improved by noting that the Department of Natural Resources has a geothermal lease in the Mount Spurr area planned for May, 1983. The Exhibit E should acknowledge that geothermal energy is immune to fuel price escalation as is hydropower. We agree with the Exhibit E statement that little is known about the geothermal properties. Until exploration of the geothermal properties of Mt. Spurr has occurred the viability of geothermal power for the railbelt region is unknown. We recommend that the Exhibit E be revised to include this information.

In summary, we appreciate this opportunity to provide formal review comments to APA on the draft Exhibit E.

Sincerely yours,

Esther C Wunnicke

Esther Wunnicke
Commissioner

Attachments

cc: Division Directors
Special Assistants