DRAFT MEETING MINUTES

INSTREAM FLOW AND OTHER TOPICS

Blue Lake Hydroelectric Project (FERC No. 2230) Relicensing

September 8, 2004

Juneau, Alaska

The meeting convened in the large conference room of the Alaska Department of Fish and Game (ADF&G) Douglass Office at about 1:45 PM.

Attending in Juneau were:

Kevin Brownlee, ADF&G Sport Fish RTS, Juneau, (kevin_brownleee@fishgame.state.ak.us)

Charlie Walls, City and Borough of Sitka Electric Department ("City"), Utility Director, (charlie@cityofsitka.com)

Ben White, Alaska Department of Natural Resources (ben_white@dnr.state.ak.us)

Richard Enriquez, US Fish and Wildlife Service, Juneau (Richard_Enriquez@fws.gov)

Ken Coffin, US Forest Service, Sitka Ranger District (kcoffin@fs.fed.us)

Katherine Miller, National Marine Fisheries Service, Juneau, (katherine.miller@noaa.gov)

John Dunker, ADNR Water Resources (John_Dunker@dnr.state.ak.us)

Roger Birk, US Forest Service, Juneau (rbirk@fs.fed.us)

Karl Wolfe, City fisheries contractor (wildernesswolfe@gci.net)

Mike Prewitt, City relicensing contractor (cmikeprewitt@aol.com)

Attending via teleconference were:

Jim Ferguson, ADF&G Anchorage (jim_ferguson@fishgame.state.ak.us)

Margaret Beilharz, USFS, Oregon (mbeilharz@fs.fed.us)

Introduction

The meeting began with attendees introducing themselves and their affiliations.

Mike began by saying that the purpose of the meeting was to determine a schedule for instream flow settlement and other items related to relicensing. Mike described the agenda and topics the City wished to discuss.

He described the general Project relicensing schedule saying that the Project license expired on March 31, 2008, requiring the final license application to be submitted no later that March 31, 2006.

He said that, under the Alternative Licensing Process (ALP), the City needed to submit and take comment on a Draft License Application (DLA) and Preliminary Draft Environmental Assessment prior to the Final License Application (FLA). Mike said that there was a mandatory 90-day review of the DLA, and that it was the City's goal to submit the DLA about one year in advance of the FLA, to allow time for comment incorporation and further resource issue settlement.

Instream Flow

Mike started with prioritization of species, and said that the group had earlier placed coho and steelhead in the "high" priority category with pink and chum salmon in the "mid" priority category and king salmon in the "low" priority category. Margaret added that we had placed Dolly Varden char in the "mid" priority rank.

Mike asked about management objectives. He said that FERC would evaluate mitigation and enhancement proposals relative to agency resource management objectives. Kevin said that he did not have any today. Other agencies did not provide management objectives relative to fish. Mike encouraged the attendees to develop management objectives prior to terms and conditions negotiations.

Mike said that the draft data report for the Sawmill Creek IFIM study was available. He said that neither the City nor the contractor had run any fish preference curves with the hydraulic data. He said that the City would distribute the report in the near future.

He then said that, based on results of the nearly four full years of study on Sawmill Creek, the City had seen low numbers of coho and steelhead. Karl said that coho numbers had ranged between 10 and 25, and that steelhead ranged between 30 and 50. Mike said that one hypothesis was that the low numbers for these species resulted from the stream's limited rearing habitat. He said Sawmill Creek was in an incised canyon with little or no side channel or backwater habitat to serve as a refuge from high water velocities during the one or more years the coho and steelhead juveniles must spend in fresh water.

Karl added that pink and chum salmon, which do not require an instream rearing period, were very abundant in Sawmill Creek.

Mike said that the City, after viewing this evidence, wondered if it would be a wise use of the system's water to release it to augment either spawning or rearing for these species. Karl said he didn't believe that anything would be gained biologically by doing so. He said that resources could be better spent elsewhere, if more fish were the objective.

Considerable discussion ensued as to whether the IFIM results for coho and steelhead rearing would be valid. Mike said that the agency, City and contractor personnel in the field had had a difficult time identifying rearing habitat during cross-section selection. Karl added that rearing habitat might be a function of small microhabitats behind larger substrate particles, which could not be simulated using IFIM.

Karl said that steelhead might find more rearing habitat because they seemed to prefer faster water than coho, but said steelhead rearing habitat was still quite limited in the stream.

Ken said he didn't think Sawmill Creek was a good silver salmon stream. He asked Mike if he thought anything could be done to better use the IFIM data, through more field work. Mike said he didn't know of any method for measuring more field data to improve upon our ability to evaluate rearing habitat.

After considerable discussion about the ability of Weighted Usable Area (WUA, the habitat simulation output of IFIM) to predict fish numbers, it was agreed that the group would proceed with initial IFIM analysis. Jim said that we probably wouldn't know about the next steps in the process until we evaluated the IFIM data.

Mike cautioned that the IFIM output, particularly for salmon or steelhead rearing, might not be the best basis for decisions on whether to release water to increase fish populations.

Kevin said that he understood from earlier meetings that the City was committed to searching for opportunities for sawmill creek fisheries which could be evaluated using, among other tools, the Blue Lake-Green Lake reservoir operations model.

Mike said the City was still committed to using the Blue Lake Reservoir Operations Model, and had made several changes in the model since the draft model paper had been sent out.

Katherine asked if the City could send out some example output from the revised model, and Mike said yes.

Sitka Electrical System Economics

The next topic was the energy and economics aspects of the Blue Lake project, as they related to instream flow. Charlie introduced the topic by saying that the Blue Lake and Green Lake Projects produce 95% of Sitka's electrical energy at the present time (see attached summary sheet). He said that, at the current time, the Projects, plus diesel generation, were adequate to meet Sitka's power requirements, which is currently about 100,000 megawatt hours (mwh) per year. In a dry year, the hydroelectric projects can produce about 100,000 mwh. He said that during a "wet" year, the Projects could provide as much as 130,000 mwh. In an average water year the projects can provide about 115,000 mwh.

Charlie also said that, because of expected increases in fuel costs, many of Sitka's residents who currently heat homes with fuel oil might change to electric heating, causing a substantial increase in electrical demand which would put Sitka in a hydroelectric energy deficit much earlier than currently forecast.

Charlie said that 1 cfs put through the turbines at the Blue Lake Powerhouse over a year's time would produce 165,730 kilowatt hours (kwh) of electricity. If that energy were to be replaced by diesel-generated energy, the replacement cost would be approximately 16 cents per kwh. The cost to replace 1 cfs would be $26,513 per year, or nearly $800,000 over the expected 30-license period. The replacement cost of 5 cfs, a more likely instream flow request, over the 30-year license period, would total nearly $4 million.

Charlie added that, under Sitka's current predicted growth rate of 1% per year, the total average generating capacities of the Blue and Green Lake Projects would be fully utilized in about 15 years. After that, all increased generation would have to be either from diesel or from another hydro project. He said that the Southeast Intertie is not likely to be a viable option for Sitka. Therefore, Sitka's electrical needs in the future will have to be met entirely from its own generating resources, without redundancy and backup from other connected facilities.

Based on these energy and economic figures, Charlie said that the City found it difficult to commit to releasing water into Sawmill Creek, given our limited ability to predict resulting fish numbers, and the small numbers of fish involved.

Charlie finished by saying that the City is interested in evaluating other alternatives for resource enhancement in the Sitka area which might bring more certainty and scale to the returns on investment. He encouraged the agencies to look into actions in which the City might participate financially to improve resources or activities in the area. He mentioned as an example the possible opening of Green Lake to recreational access via new or improved roads and other facilities. He also described the City's participation in enhancements for certain fisheries in the area through lake fertilization or other means.

No decisions were made regarding the City's proposals. Mike suggested that the agencies convene to discuss use of the IFIM study and any non-instream flow enhancement opportunities that might exist.

There was some discussion on the relicensing schedule. Ken asked if the flow chart schedules in the Scoping Documents were still accurate. Mike said he would check, and send out updated schedules if changes were necessary.

Settlement Agreement

The subject then changed to Settlement Agreements. Mike asked if any agency members had experience with and opinions on use of such agreements. Margaret said that such agreements were possible under the ALP and had been used favorably. Roger said that he was involved in a Settlement Agreement process on the Cooper Lake Project, and that the primary feature was that, using a Settlement Agreement, the Forest Service had "wrapped" all their terms and condition in the Agreement, and did not make a separate "4E" recommendation.

Mike asked if the process required extensive participation by lawyers or agency legal offices, and Margaret and Roger said that the agreement(s) did need to be reviewed by their lawyers.

Mike said that he didn't think that the Blue Lake Project was complex or controversial, and that it was his impression that Settlement Agreements were best used when a large number of potentially competing resource interests had to be mutually addressed. He mentioned that FERC had seen a case in which a settlement had been brought under review by FERC because of conflict's with that agencies Federal Power Act requirements. He asked that the agencies among discuss among themselves whether they wanted to use a Settlement Agreement process.

No decisions were made regarding the Settlement Agreement process, but the matter would be addressed at a later date.

John said that permitting agencies should be careful that use of the settlement process might affect permitting decisions, such as ACMP approvals, which are currently delayed until late in the licensing process.

He added that other planning processes, such as that currently underway for Indian River near Sitka might result in decisions which would affect water use on the Blue Lake Project relicensing.

Study or Study Plan Comments

Mike then asked if there were any studies or study plans which the agencies might wish to comment on. He asked that agencies review their earlier study planning comments from Initial Consultation and the Scoping Processes, as well as comments on draft study plans sent out by the City. He said that now was a good time to add details which might have been missed along the way, while we still have some field time between now and the final license application.

Mike asked if there were any more topics, and none were presented.

He said that it would be good to have another instream flow meeting prior to November, to review any further discussions on the topics by either the agencies or the City. The group agreed to such a meeting.

Action Items

Action items from the meeting included:

For the City:

- City to distribute the IFIM data report;
- Mike to check the flow chart schedules and redistribute them if changes are made;
- City to send out an update of reservoir model and example of output
- Attendees to schedule instream flow meeting prior to November

For the Agencies

- Discuss resource management objectives
- Discuss need to use Settlement Agreement process
- Determine potential non instream flow mitigation or enhancement proposals
- Check study requests and City study plans to assure City is doing everything necessary

ATTACHMENT

Estimate of the value of water at Blue Lake Power House

Charlie Walls, City of Sitka, Alaska 9-8-04

Blue Lake Power House

A cubic foot of water put through the turbines at the Blue Lake Power House will drive about 18.92 kW of electric generator capacity.

The energy generated on an annual basis by 1 cfs is then:

18.92 kW X 365 days/yr X 24 hrs/day = 165,730 kWh

Diesel Plant

The City's price for #2 diesel fuel is determined by the fuel oil market and is expected to escalate at a rate higher than the prevailing rate of inflation.

The diesel plant will generate about 14 kWh per gallon of fuel consumed.

Assuming a current fuel price of $1.68 per gallon, the cost to generate a kWh in September 2004 with diesel is about 16 cents. (12 cents fuel + 4 cents O&M).

Sitka's Power Requirements

Currently Sitka's power requirements can be fully met with Sitka's existing hydroelectric generating capacity (Blue Lake plus Green Lake). In a dry year there is currently no surplus. In an average water year there is currently about a 15% surplus. In a wet year there is currently about a 30% surplus. The forecast is that Sitka's power requirements will grow at about a 1% annual rate, which in an average water year will result in increased supplemental diesel generation to meet Sitka's power requirements beginning about 2018. A key assumption is that most Sitka consumers will continue to heat their homes with oil. If rising oil prices cause the consumer to switch from oil to electric heat, Sitka will be in a hydroelectric capacity deficit under all water year conditions (wet or dry years).

Current Value of a cfs of water at the Blue Lake Power House

165,730 kWh X 16 cents/kWh = $26,517 per cfs per year for diesel alternative.

At 2004 prices, the cost to replace 5 cfs of hydroelectric production over a 30 year period would be: 5 cfs X $26,517/cfs X 30 years = $4 million

Conclusion

The water used for hydroelectric power generation at the Blue Lake Hydroelectric Project has a high economic and environmental value. Hydroelectric power production is the lowest cost alternative for Sitka, and is a renewable resource that does not pollute the environment. The alternative of diesel power production is expensive and pollutes the environment. The City of Sitka will oppose any decrease in the hydroelectric generation capability at Blue Lake unless there are clearly demonstrated compensating benefits.