



UNITED STATES
DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
New England Area Office
P. O. Box 1518
Concord, New Hampshire 03301

SEP 30 1981

MEMORANDUM

TO: Regional Director (AHF)
FROM: New England Area Manager
SUBJECT: Green Lake Hydroelectric Project

REC'D OCT 5 1981
KLEINSCHMIDT & DULLING

On September 24, 1981, Gordon Beckett and Chuck Stearns participated in a meeting at the Green Lake NFH with Messrs. Kleinschmidt, Bernie Dennison, and Charley Lord of FERC. Mr. Dennison raised several concerns about the potential impacts to the hatchery operation that could result from a hydroelectric project at Green Lake Dam.

Background

The Green Lake NFH has a written agreement with Bangor Hydroelectric for up to 30 cfs of water out of Green Lake. However, there is nothing to prevent Bangor Hydro from drawing the lake level down to the sill of the dam. Bangor Hydro has operated the Green Lake Dam for several years as a flow regulator to control the water level in Graham Lake, where they operate a hydroelectric plant. Therefore, the water level in Green Lake was never stabilized in the past, except to prevent drawing down so far that home owners around the lake complained. Mr. Dennison has flow measurements for several years, so the actual release records are available and can be used to determine appropriate levels based on past experiences.

Mr. Kleinschmidt has proposed to build a hydroelectric plant on Federal property just down from the parking lot by the hatchery building. He plans to pipe water from Green Lake Dam down along the gravel road leading from the hatchery water treatment plant. The pipe will be wooden, stave type construction and stained natural.

Green Lake Water Levels

Mr. Dennison was concerned that the project could reduce lake levels lower than those previously maintained by Bangor Hydro. This could change the water quality being drawn into the hatchery water intakes. Mr. Kleinschmidt said he plans to operate the summer lake levels within a six-inch range, to satisfy the property owners around the lake. The water level would be drawn down to a certain elevation during the winter and maintained to protect lake trout spawning areas. The exact date for this drawdown was not available, but would be about the same as in the past, probably about October 15th. Mr. Dennison thought this would satisfy his concerns about the possibility of a wide range of water levels in the lake.

Steve Kleinschmidt

Dam Maintenance

Mr. Kleinschmidt assured us that he would assume full responsibility, as the new owner, for repairs to the dam, at no cost to the FWS. Mr. Dennison thought this addressed his concern about the future maintenance of the dam.

Fish Ladder

Mr. Kleinschmidt reported, and it was later confirmed with Mr. Lyn Bond, that a fish ladder is undesirable at this dam because Green Lake has a cold-water fishery and Graham Lake has a warm-water fishery. In fact, Maine Inland Fisheries and Wildlife maintains a fish screen at Green Lake Dam to prevent the exchange of fishes between the two lakes. Mr. Bond has indicated that Maine Inland Fisheries and Wildlife would want the hydroelectric project's intake to be screened.

Stream Flows

There is approximately 2,000 feet of stream between Green and Graham Lakes. Its flows are intermittent in that it is dry during the summer and floods in the spring. Since the hatchery has been in operation, there has been leakage of about 1 cfs into the stream during much of the summer. There is some bass fishing at the lower end, where the stream enters Graham Lake but this area is covered by lake water regardless of the flows from Green Lake. Also, the hatchery discharge is above this area and would be returning about 25 cfs should Graham Lake be low.

Water to operate the hydroelectric plant will come from Green Lake and be discharged directly into Graham Lake. The hatchery draws off about 25-30 cfs, which is about equivalent to the inflow during late summer. There is not a fishery or habitat in the stream that warrants an additional release into the reach between the dam and tailrace discharge. However, about 1 cfs will continue to be released over Green Lake Dam as in the past. Mr. Kleinschmidt has said he will agree in writing to assure that the 30 cfs for hatchery operation has priority over any other uses for the water from Green Lake.

Public Access

The lake levels to be maintained by Mr. Kleinschmidt will protect the several public boat ramps around Green Lake. There is a private road through the hatchery grounds, but there is no need for the public to have access to the dam. Public fishing access will still be available below the project, where people now fish for bass at the head of Graham Lake.

Emergency Electricity

Mr. Kleinschmidt has offered to provide an electrical connection directly from the generator to the hatchery for emergency use. Apparently there are occasions when the hatchery is without electricity for several days at a time. Mr. Dennison considered this a valuable offer for the hatchery operation.

Use of Federal Property

Mr. Lord discussed the FERC provision under the Federal Power Act for hydro developers to use Federal property. Normally, developers pay a minimal annual use charge based on the amount of land that is used. In this case it will probably be a few acres because the generating building will be on a small plot and the penstock will require a very narrow strip of land along the water treatment access road. The penstock will also serve as a guard rail along the road. The benefits to the government and FWS as discussed, perhaps, could be considered more than adequate compensation.

License Conditions

Mr. Kleinschmidt has agreed to all the above as conditions of his license. It was decided that the best procedure is for Mr. Kleinschmidt to prepare a legal agreement between himself, Fish and Wildlife Service, and Maine Department of Inland Fisheries and Wildlife. This agreement would then be cited by FERC as a condition of the license. This provides the three parties an opportunity to negotiate favorable license conditions during the preliminary license stage, long before FERC becomes involved at the operating license stage.

Coordination With Maine

Messrs. Beckett and Stearns stopped in Augusta and discussed the items in this memorandum with Lyn Bond and Ken Anderson of Maine Department of Inland Fisheries and Wildlife. Commissioner Manuel was not in his office that day.

Summary

We will work with the applicant and Maine Inland Fisheries and Wildlife to draft a legal agreement for review by the Department of Interior Solicitor. We will be sure that all of our concerns are addressed as conditions for the FERC license. However, in this particular situation, it now appears that the hydroelectric project will not interfere with the hatchery operation.

Charles R. Maloy
Charles R. Maloy

Green Lake

WATER Treatment Plant

Wooden Stave Penstock

Dirt Road

stream

Spillway

Drops down to
stream out of
sight of
hatchery

Proposed
Generating
plant

Hatchery Building

Raceways



Graham Lake

