



MEMORANDUM

EUGENE WATER & ELECTRIC BOARD
ELECTRIC DIVISION, GENERATION ENGINEERING

Rely on us.

TO: Commissioners Brown, Cunningham, Cassidy, Ernst, and Farmer
FROM: Suzanne P. Adkins, FERC License Manager
Mark Zinniker, Senior Engineer
DATE: February 9, 2010
SUBJECT: Walterville Fish Return Channel Project Update

ISSUE STATEMENT

This memorandum provides an update on the status of the Walterville Fish Return Channel. The agency consultation process for new construction to bring the fish entrance into agency criteria and improve the effectiveness of the return channel is nearly complete and the Army Corp of Engineer (ACOE) and Division of State Lands (DSL) joint permit application submission has been submitted. A new issue has arisen related to the property owner, Mike Miller.

Summary of Issues:

- The property owner, Mike Miller contests EWEB's authority to conduct the 2010 planned work;
- EWEB believes existing easement provides all necessary authorization;
- Miller's stated objective is to sell the property;
- Regulatory Compliance issues compel EWEB to complete work in 2010 provided ACOE permits can be obtained;
- An EWEB power line on property to Mr. Miller's irrigation pump was removed, and he has stated his desire to have the service restored

The purpose of this memorandum is informational only. No Board action is requested

BACKGROUND

The last staff update to the Board regarding the Return Channel was submitted on December 14, 2009. A copy of that document is attached for reference rather than repeating the background again in this memorandum (Attachment 1).

DISCUSSION

Since the last update, the property owner, Mike Miller has raised a concern about the use of the property and the existing easement with EWEB which authorizes access to the return channel and allows certain work.

On December 1, 2009 Mr. Mike Miller addressed the Board regarding the 1968 property easement agreement which grants EWEB access across his property to the Walterville Fish Return Channel. Mr. Miller stated he believes EWEB is exceeding the intent of the easement and requested that the Board ask staff to investigate this concern.

On January 11, 2010 Ken Wedin and Cheri Wilson met with Mr. Miller with the intent to focus on mutual interests, explain EWEB license requirements, address Mr. Miller's concerns and reach an informal, but mutually agreeable solution. The construction scheduled at the fish return channel during the 2010 in-water construction season was discussed in detail; maps and design drawings of the work were provided to Mr. Miller.

During the meeting Mr. Miller stated that EWEB's regulatory requirements related to the Return Channel is his "leverage" to force EWEB to either purchase his property or help him sell it to another entity.

Property Easement

The Contract, Easement and Agreement was granted to EWEB by Floyd and Frances Green, and recorded on March 11, 1968, at Lane County Official Records, and binds and benefits the successors and assigns of both parties. The document grants EWEB an easement for the following:

- Erect and maintain an electric distribution line for the purpose of a light
- Access to the Walterville Power Canal Tailrace Fish rack or barrier across existing roadways
- The right to excavate construct and reconstruct the fish return channel...from time to time.
- Construct and maintain a culvert crossing, granting EWEB access to both sides of the channel.
- Agreement releases EWEB of claims from the property owner due to the effects that the work in the fish return channel may have upon the McKenzie River.

The easement agreement has been reviewed by EWEB's attorney, Don Haagensen, who agreed that the proposed construction is within the intent of the original easement agreement. A copy of the letter is attached (Attachment 2).

Staff prepared and submitted an offer letter to Mr. Miller notifying him that EWEB intends to proceed with construction, but with the intended purpose of demonstrating our good faith in working collaboratively with him. This letter also proposes a 7-month lease for a half-acre construction staging area at the rate of \$500/month, and offers a number of other items including restoration of power to his irrigation pump. A copy of the letter is attached (Attachment 3)

Engineering Project Status

The final agency consultation took place on January 21, 2010, where the 90% design was verbally approved by NMFS, ODFW, and USFWS. EWEB is currently awaiting written approval for the designs from the Agencies. The Joint Permit Application has been submitted to the Department of State Lands and the Army Corp of Engineers. The Lane County Land Use Compatibility and Fill/Removal Permits have been submitted; a building permit application will be completed soon.

R2 Resource Consultants, Inc. is completing the design and construction specifications, with a deliverable date of February 18, 2010 at which time a package requesting approval will be prepared for FERC.

RECOMMENDATIONS

This memo is provided for Board information only. No Board action is requested.



MEMORANDUM

EUGENE WATER & ELECTRIC BOARD
ELECTRIC DIVISION, GENERATION ENGINEERING

Rely on us.

TO: Commissioners Farmer, Brown, Cassidy, Cunningham and Ernst
FROM: Cheri Wilson, Associate Engineer
Lisa McLaughlin, Staff Biologist
DATE: December 14, 2009
SUBJECT: Walterville Fish Return Channel Project Update

ISSUE STATEMENT

This memorandum provides an update on the status of the Walterville Fish Return Channel. The agency consultation process for new construction to bring the fish entrance into agency criteria and improve the effectiveness of the return channel has reached the 60% milestone. Army Corp of Engineer (ACOE) permit application submission is scheduled for mid-December.

The purpose of this memorandum is informational only. No Board action is requested

BACKGROUND

The fish return channel at the Walterville tailrace is intended to reduce project-related impacts to anadromous fish by providing return access to the McKenzie River below the Walterville Canal tailrace barrier. EWEB's obligations regarding the return channel are regulated by Article 419 of the FERC license for the project, which includes Agency oversight requirements included in the 2001 Biological Opinion.

Observations of salmon holding below the tailrace barrier have raised concerns over the effectiveness of the return channel in guiding fish back the river. Possible reasons for this include poor attraction water at the fish entrance and low velocity through the channel. In August 2008 EWEB retained the service of R2 Resource Consultants, Inc. (R2) to evaluate the existing conditions at the return channel, provide a biological and engineering opinion and present conceptual designs to improve the effectiveness of the channel.

In July 2009 EWEB staff contracted R2 to continue work on conceptual designs and begin the agency consultation process for the proposed work. As part of the new contract, R2 is also aiding staff with the permitting process, providing project construction oversight and documentation closeout. The conceptual design to improve the effectiveness of the channel was presented at the first agency consultation in September. These improvements include changing the configuration of the fish entrance and constructing channel constrictions whereby bringing the entrance into agency criteria. Consultation is a required

process that ensures aquatic species are protected by following agency guidelines and criteria.

A radio tagging study to assess upstream migrating spring Chinook salmon delay is required by articles 417 and 418 of our FERC license. Due to concerns with fish injury and poor salmon returns in 2008 and 2009, the study was delayed by the regulatory agencies until the spring Chinook salmon run is forecast at a minimum of 69,000 Willamette River fish entering the Columbia River. The forecast for 2010 is expected to be below 69,000 and given the cyclical nature of salmon runs, biologists expect the run to continue to increase in the short term. It is highly likely that the forecast for 2011 will be above 69,000 fish and EWEB will be required to conduct the upstream passage study. Construction at the return channel must take place during the 2010 construction season if we're to accomplish the study goals of assessing Chinook delay through what will be the long term conditions at the site.

DISCUSSION

September 2009 – Agency Consultation

The first agency consultation took place in September at the Portland office of the National Marine Fisheries Service (NMFS). EWEB provided an historic overview of the return channel and an update of the most recent channel realignment and intake gate construction. EWEB also took this opportunity to point out the substantially increased flow through the channel due to these recent improvements. R2 Resource Consultants Inc. presented conceptual designs for the fish entrance which featured a four (4') wide entrance with an overflow weir. Although the fish entrance met NMFS criteria for Chinook passage, it did not meet the guidelines suggested by Oregon Department of Fish & Wildlife (ODFW) for the passage of resident species. It was requested that the next iteration of the design include passage for all species.

Channel velocities were discussed with the conclusion that in-channel modifications would be necessary for a minimum of the first 200-feet. Historically fish have been observed entering the return channel only to exit back to the tailrace because of lack of attraction flow in the channel itself. There was strong opinion from ODFW in favor of channel constriction stating they would increase localized flow velocities and would give migrating species a cue to keep moving through the channel.

October 2009 – Agency Consultation

EWEB and R2 Resource Consultants Inc. presented the requested changes from the September meeting. Revisions to the fish entrance included a four (4') foot wide anadromous fish entrance, a seven (7') foot wide Obermeyer regulating weir and a two (2) step fish ladder with a one (1') foot wide submerged entrance for resident species. The revisions met all criteria and guidelines requested by the Agencies.

It was further agreed the Obermeyer weir configuration would be revised to further increase the chances of Chinook finding the return channel, as well as passing debris without obstructing fish passage. Additional information about Obermeyer weirs, including photos, is included as an attachment.

Evaluation of options for channel modifications resulted in agreement that approximately 200-feet of channel would be filled with channel constriction used on 150-foot centers thereafter. ODFW

provided a conceptual design of the channel constrictions.

Other modifications to the area will include raising of the access road by approximately three (3') feet to prevent flooding and designing floodway relief from the pond to the return channel during high flow events. In addition, an overhead walkway will be added to the concrete entrance structure to provide access to the Obermeyer weir controls located on the north bank. The walkway will also aide O & M crew in accessing the structure should maintenance be necessary.

November 2009 – Agency Consultation

On November 13th, R2 presented the requested 60% design which incorporated changes from the October 13th meeting. These included: (1) filling the first 200-feet of channel with material and channel constriction placement; (2) a ' chamfered' edge on the concrete fish entrances to allow for Lamprey passage; and (3) and stoplogs to aid in the dewatering process during maintenance.

The next meeting is scheduled for January 15th, 2010 where EWEB and R2 Resource Consultants will submit 90% design for the project.

Next Steps

The Army Corp of Engineers and the Department of State Lands Joint Permit Application is scheduled for submission in December. A letter in support of the design has been offered from the NMFS to accompany the permit application. The 60% design package will be concurrently submitted in late December to the FERC for approval; FERC approval is expected mid to late spring. Based upon the current status of the permitting efforts, it is expected that construction of the project will begin at the beginning of the in-water work period on July 1, 2010 and continue through the summer.

In mid-January the fourth agency consultation is scheduled where the project will reach the 90% design milestone. Construction documents and specifications are in process and will be finalized once the 90% design has been accepted. Upon issuance of the ACOE permit the Construction Bid Package will be issued for bids. Once a qualified contractor has been selected the Request for Contract Approval will be presented to the Board approximately 8 weeks thereafter.

RECOMMENDATIONS

This memo is provided for Board information only. No Board action is requested.

ATTACHMENT

Obermeyer Hydro

An Obermeyer regulating weir is a steel gate panel supported on the downstream side by inflatable air bladders, see Figures 1 & 2. The weir gate level responds to internal air pressure in the bladder, headwater level and the change in flow rate at a set point. By regulating the flow at a set point, such as the anadromous fish entrance at the return channel entrance, this would allow EWEB to maintain the NMFS guidelines for fish passage, see Figure 3. No mechanical motors are required for gate operation.

The weir level is synchronized by a control system with the set points selected by the user at the point of application. Each control system includes a controlled source of compressed air and a means for controlled venting of air from the air bladders. Each system includes an air compressor, receiver tank and control valves. A power supply will be required to operate the control system with solar power as a back-up option.

Gate panels are constructed of high strength steel plate with an epoxy coating or galvanized steel according to purchasers' preference. Panels are slightly curved to allow space for the deflated air bladder when the gate panels are fully lowered, with stiffening ribs running parallel to the direction of the flow. The ribs provide strength to the structure without obstructing flow.

Obermeyer Hydro has been in business manufacturing gates and weirs since 1988. Gates and weirs installed in the late 80's are known to be operating as design with the original air bladder in place.

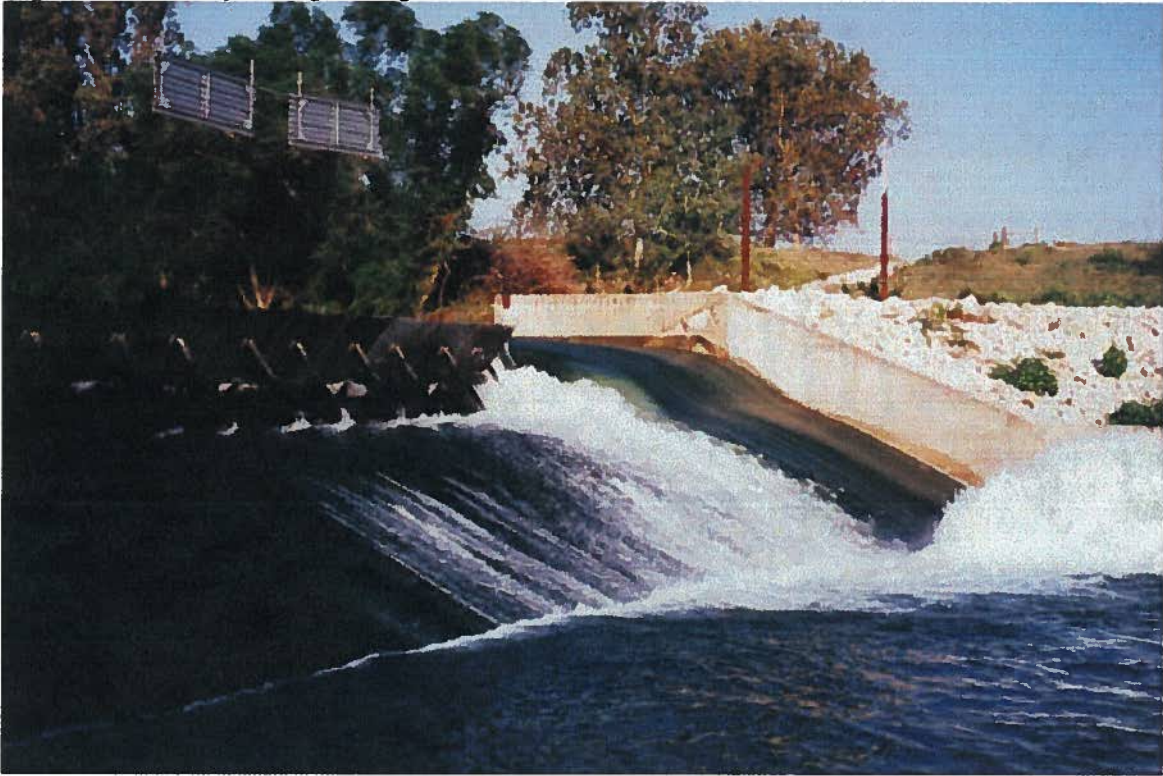
Figure 1 Obermeyer Regulating Weir – Upstream View



Figure 2 Inflatable Air Bladders



Figure 3 Obermeyer Regulating Weir – Downstream View





Eugene Water & Electric Board

500 East 4th Avenue/Post Office Box 10148
Eugene, Oregon 97440-2148
541-685-7000
www.eweb.org

February 9, 2010

**ORIGINAL BY MAIL
RETURN RECEIPT REQUESTED**

Michael P. Miller
3330 Hayden Bridge Road
Springfield, OR 97477

RE: 88216, 88220 Charley Lane
Springfield, OR 97478

Dear Mr. Miller:

I am writing this letter to notify you that the Eugene Water & Electric Board (EWEB) intends to move forward this summer (2010) with necessary work for the fish-return channel that is located on your above-described property and runs from the McKenzie River to the Waterville Power Canal Tailrace Fish Velocity Barrier. EWEB staff has had several discussions with you regarding this work. EWEB appreciates the discussions and has considered the matters you presented in the discussions as well as your comments to the EWEB Board of Commissioners on December 1, 2009.

EWEB will perform the work as authorized by the Contract, Easement and Agreement dated February 27, 1968 (collectively, Easement) that applies to your property. The work under the Easement that is necessary to be performed includes excavation, construction and/or reconstruction of the fish-return channel (referred to in the Easement as the "waterway" and "channel of the waterway"), and access work on existing roadways. EWEB has had its legal counsel confirm that the Easement authorizes this work.

As part of the work, EWEB would like to enter into an agreement with you for a staging area on your property and would also like to offer some voluntary improvements to address matters you raised in your discussions with EWEB staff, as summarized below:

- (1) A sum of \$500 per month from June 2010 to December 2010 to stage equipment and supplies near the work. The staging area would need to be approximately one half acre in size and would be located at a mutually agreeable site. EWEB proposes as a suitable location the area of the old gravel operation (see the enclosed map).
- (2) Planting of a privacy hedge around the residence on your property on the side facing the existing roadway.

- (3) Improvements to the existing roadways to the extent they are affected by the work, once the work is complete.
- (4) Design, construction, and installation of pole(s) and distribution line(s) to provide three phase 120/240 volt electric service to the pump on your property. The new service would be designed to serve the pump load that previously existed and would be constructed and installed in the location of the prior electric service to the pump consistent with EWEB current construction standards.
- (5) Application of environmentally-friendly tackifier or a comparable substitute to Charlie Lane as needed to minimize potential dust from motor vehicles used for the work.
- (6) Imposition of a requirement that EWEB contractors and employees adhere to a 10 mph maximum speed limit at all times on Charlie Lane and your property during the work.

Additionally, you have indicated a desire to sell your property, and EWEB understands that you are currently discussing options for a potential sale to McKenzie River Trust. While EWEB does not have the authorization to pursue purchase of the property or to provide monetary contributions to the Trust for that purpose, EWEB would support the mutual resolution of a transfer of the property between MRT and yourself.

EWEB respectfully requests your response to items (1) and (2) above, as well as your preferences for timing of construction/installation of the electric service described in item (4) by March 1, 2010 so that EWEB can proceed with planning for those items and all other work.

To the extent reasonably possible, EWEB will provide you with an advance schedule of the work. EWEB staff would also be willing to meet with you to discuss the work and to discuss the details of the six items set forth above.

If you have any questions about this letter or the work, please feel free to call Mark Zinniker, Senior Engineer for Electric Generation, at 541-685-7449. Mark also would be happy to meet with you on your property to show you firsthand what is planned. Thank you.

Sincerely,



James P. Wiley, P.E.
Director, Electric Division
Eugene Water & Electric Board

c: Electronic Only: Don Haagensen (Special Council), Mark Zinniker, Lisa McLaughlin, Ken Wedin, Suzanne Adkins (EWEB)

Walterville Canal



1 inch equals 200 feet



Proposed Staging Area





CABLE HUSTON

CABLE HUSTON BENEDICT HAAGENSEN & LLOYD LLP ■ ATTORNEYS

DONALD A. HAAGENSEN

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February 12, 2010

VIA E-MAIL
ORIGINAL BY MAIL

Mr. Jim Wiley
Director, Electric Division
Eugene Water & Electric Board
500 East Fourth Avenue
Eugene, OR 97440

Re: Leaburg-Walterville Hydroelectric Project
Eugene Water & Electric Board

Dear Mr. Wiley:

Introduction

Our firm acts as special legal counsel to the Eugene Water & Electric Board (EWEB), a municipal corporation under Oregon law, for various matters regarding the Leaburg-Walterville Hydroelectric Project (Project) including obtaining and implementing the license issued by the Federal Energy Regulatory Commission (FERC) for the Project. Recently, EWEB requested that I review certain work EWEB intends to carry out this summer for the Walterville development of the Project. EWEB will carry out part of this work on property owned by a third party, Mr. Michael P. Miller. EWEB requested that I determine whether the work on Mr. Miller's property is authorized by the CONTRACT, EASEMENT AND AGREEMENT entered February 27, 1968 by EWEB and predecessors in interest to Mr. Miller (collectively, Easement). As explained in more detail below, I conclude that the Easement does authorize the work.

Description of the Work

Under the FERC license, the Walterville development of the Project diverts water from the McKenzie River to generate electricity at the Walterville power plant and then returns that water to the McKenzie River along a two-mile tailrace that is a prior meander channel of the McKenzie River. To restrict native fish species from entering the Walterville development,

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EWEB operates a fish screen at the point where water is diverted from the McKenzie River and a tailrace fish velocity barrier (velocity barrier) in the tailrace downstream from the Walterville power plant. In order to allow native salmonid fish that might migrate upstream in the tailrace to the area of the velocity barrier to continue migrating upstream in the McKenzie River, there is a fish return channel through which water flows from the McKenzie River, across Mr. Miller's property, and to the tailrace just downstream of the velocity barrier.

To ensure that the fish return channel operates properly, EWEB intends to carry out certain work during the summer of this year once EWEB has obtained the necessary governmental authorizations. EWEB will carry out four types of work to attract and to permit native salmonids to migrate upstream from the tailrace through the fish return channel to the McKenzie River.

First, EWEB will perform work on the mouth to the fish return channel at the tailrace. This entrance is located on EWEB property. **Second**, EWEB will place six-inch sub-angular aggregate similar to native material on the bottom of the fish return channel from its mouth upstream for about 200 feet. Part of this work will occur on Mr. Miller's property. **Third**, EWEB will place approximately four to six constrictions in the fish return channel at about 150-foot intervals in the channel starting immediately upstream of the placement of the approximately 200 feet of aggregate. The constrictions will be located below the ordinary high water line in the channel. This work will occur on Mr. Miller's property. **Fourth**, EWEB will remove fill material at the entrance of the fish return channel at the McKenzie River. This work will occur on Mr. Miller's property. All of this work will be performed in coordination with the federal and state agencies with oversight for native salmonid fish species, the National Marine Fisheries Service, the United States Fish and Wildlife Service, and the Oregon Department of Fish and Wildlife. These three agencies have indicated approval of the ninety-percent design for this work.

Finally, EWEB will raise the existing roadway on the west side of the fish return channel approximately three feet to provide access along the most practical route along the fish return channel. This work is designed to allow access along the roadway including avoiding flooding of the roadway that might otherwise occur. Part of this work will occur on Mr. Miller's property.

Terms of the Easement

EWEB entered the Easement with Floyd A. Green and Francis I. Green to cover, among other properties, Lots 2 and 3 of Section 25 in Township 17 South and Range 2 West of the Willamette Meridian. The work EWEB intends to perform in 2010 that is not performed on EWEB property will be carried out on Lots 2 and 3.

The Easement states that it applies to the successors of the Greens, and it is my understanding that Mr. Miller is a successor in interest to the Greens. EWEB recorded the Easement in Lane County on March 11, 1968. As a result, the Easement would have been of record when Mr. Miller acquired his interest in the property.

February 12, 2010

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The Easement does not contain a termination date and contains no language indicating that it has a limited duration or limited effect. As a result, the Easement is still in effect and applies to EWEB work on Mr. Miller's property.

EWEB paid more than a nominal value for the Easement; the Easement recites that EWEB paid the Greens \$1,000. EWEB also agreed to construct and to maintain a dike across the fish return channel that could be used by the Greens for access across the fish return channel.

The Easement provides in significant part:

“The first parties [the Greens]: 1) hereby grant unto the second party [EWEB] an easement across the above described real property to erect and maintain an electric distribution line from near the first parties' residence to the site of the salmon fish rack or barrier, for the purpose of lighting said area as required by the Fish Commissioner, together with the right of access to maintain said line; 2) hereby grant unto the second party access to said salmon fish rack or barrier site across existing roadways, and across the property of the first parties above described, including a way along the channel of the waterway along the most practical route; 3) hereby grant unto the second party the right to excavate, construct and reconstruct the channel of said waterway between the Tail Race and the McKenzie River, from time to time in order to keep a sufficient flow of water which will attract and permit salmon to migrate through said waterway to the McKenzie River; 4) hereby release the second party from any claim of the first parties because of the effect that the clearing of said channel in the waterway may have upon the flow of the channels of the McKenzie River.”

Conclusion

In my view, the Easement authorizes the work EWEB intends to perform in 2010 as described above. EWEB's three types of described work within the fish return channel on Mr. Miller's property: (1) to place aggregate material, (2) to place approximately four to six channel constrictions, and (3) to remove fill at the upstream entrance of the channel, are all authorized by the Easement granting EWEB “the right to excavate, construct and reconstruct the channel of said waterway between the Tail Race and the McKenzie River, from time to time in order to keep a sufficient flow of water which will attract and permit salmon to migrate through said waterway to the McKenzie River.” EWEB's described work to raise the existing roadway on the west side of the return channel on Mr. Miller's property is authorized by the Easement granting EWEB “access * * * across the property of the first parties above described, including a way along the channel of the waterway along the most practical route.”

CABLE HUSTON

February 12, 2010

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If you have any questions about this letter or need any additional information, please let me know. Thank you.

Very truly yours,



Donald A. Haagenen

DAH:db

C (via e-mail): S. Adkins

L. McLaughlin

L. Robertson

K. Weiden

M. Zinniker