

TO SUPPORT A LADDER

Listen closely to the statements regarding this hydro project¹ – Our own voices speak to the reality of neglect and indifference toward a valuable but dwindling natural resource.

The Final Order on the Potential for Cumulative Impacts Dorena Lake Dam Hydroelectric Project HE 559 states:

“Native migratory fish present in the Row River include spring Chinook salmon (*Oncorhynchus tshawytscha*), rainbow trout (*Oncorhynchus mykiss*), cutthroat trout (*O. clarki*), and Pacific lamprey (*Lampetra tridentata*). Winter and summer steelhead historically occurred in the Coast Fork Willamette.

“Prior to construction of Dorena Dam, spring Chinook salmon, and possibly winter steelhead (*O. mykiss*), entered the Row River (ODFW 1966, Dimick and Merryfield 1945, ODFW 1960).”²

On 3 June 2005, ODFW stated:

“Since its construction in 1949, Dorena Dam has been the uppermost limit of anadromous fish distribution in the Row River, and has prevented connectivity of native migratory fish populations above and below the dam.”³

On 12 January 2006, ODFW stated:

“While no spring chinook were documented in the survey area in 2005, ODFW agrees with the assumption that adults or juveniles may spawn and rear in the project-affected reach in some years; therefore mitigation and protection measures should be implemented under the assumption they would be present.

“The report reads that although the otolith analyses did not clearly detect steelhead in the juvenile *O. mykiss* samples, these findings are not conclusive that steelhead do not spawn in the Row River. The applicant cites other evidence to support a conclusion that it is highly likely that steelhead do spawn in the immediate project vicinity.”⁴

¹ Each of the documents I quote from below are listed in the Final Order on the Potential for Cumulative Impacts Dorena Lake Dam Hydroelectrical Project HE 559.

² OWRD (30 September 2008) Revised Proposed Final Order on the Potential for Cumulative Impacts Dorena Lake Dam Hydroelectric Project HE 559 at page 24.

³ ODFW (3 June 2005) Letter to Magalie R. Salas, Secretary, FERC, RE: Comments on Scoping Document 1.

⁴ ODFW (12 January 2006) Letter to Brent Smith, Northwest Power Services, RE: Comments on November 2005 Study Plan Dorena Hydroelectric Project (FERC 11945)

On 1 September 2006, the Draft Environmental Assessment (DEA) release by FERC stated:

“A diverse assemblage of native and non-native fishes is known to occur in the Row River Subbasin. Native species include Chinook salmon, rainbow/steelhead trout, cutthroat trout, mountain whitefish, western brook lamprey, Pacific lamprey, chiselmouth, peamouth, pike minnow, longnose dace, leopard dace, speckled dace, redbreast shiner, largescale sucker, mountain sucker, sand roller, threespine stickleback, coastrange sculpin, prickly sculpin, riffle sculpin, shorthead sculpin, torrent sculpin, mottled sculpin, and reticulate sculpin (BLM, 1995). Introduced fish species in the Row River Subbasin include carp, tench, yellow bullhead, brown bullhead, channel catfish, western mosquitofish, bluegill, warmouth, largemouth bass, smallmouth bass, white crappie, black crappie, and walleye (BLM, 1995).

“Completion of the Dorena dam in 1949 eliminated access to approximately 80 miles of potential habitat in the upper Row River Basin and created Dorena Lake. Currently, Dorena Lake supports a native cutthroat trout and rainbow trout fishery, as well as an introduced bass and panfish fishery.”⁵

“Spring Chinook and winter and summer steelhead historically occurred in the Coast Fork Willamette River (USFS and BLM, 1995). Upper Willamette River spring Chinook, although native to the upper Willamette River, were probably never abundant in the Coast Fork Subbasin (Oregon DFW, 1990). Symbiotics conducted spawning surveys in August and September 2005, but failed to find evidence of spawning Chinook salmon in the Row River in the project vicinity (ERI, 2005c).

“Rainbow trout downstream of Dorena dam spawn from mid-January through mid-June. Summer steelhead spawn from about January to mid-May (figure 7).”⁶

Commenting on the DEA, on 29 September 2006, ODFW stated:

“In addition, cutthroat trout and rainbow trout are native migratory species found within and upstream of Dorena Reservoir. ODEQ has designated the Row River above Dorena Dam as a migratory corridor for native fish and considers fish to be a beneficial use of the Row River. The proposed Project will have adverse impacts on these species via injury and mortality from entrainment into the penstock and turbines; therefore the proposed Project will have an affect on resources that extend well upstream of the reservoir.”⁷

⁵ FERC (1 September 2006) Draft Environmental Assessment, Symbiotics, LLC Dorena Lake Dam Project Docket No. P-11945-001, at page 41.

⁶ Ibid. at page 43.

⁷ ODFW (29 September 2006) ODFW comments on DEA, Dorena Dam Hydroelectric Project- 11945, at pages 7-8.

“ODFW agrees that a wide variety of native migratory fish species inhabit the Row River Subbasin. ODFW is responsible for managing these species; including ensuring that these species are protected and appropriate mitigation measures are implemented when water development projects are constructed. ODFW agrees with information included in the DEA that there is substantial habitat available in the Row River above Dorena Dam. In addition, Dorena Dam prevents anadromous fish access to the subbasin’s better spawning and rearing streams, while resident cutthroat and rainbow trout are common in streams of the upper drainage (OSGC 1966).

“ODFW also agrees with the DEA statement that Dorena Reservoir supports a native cutthroat trout and rainbow trout fishery. ODFW also classifies rainbow trout and cutthroat trout in the Row River as native migratory species (ORS 509.585 and OAR 635-412-0005 (32) and 635-007- 0501). The DEA provides a reasonable summary of fishery information for the Project area, including a discussion of the extensive distribution of native migratory fish.”⁸

“The fact that Willamette spring Chinook tend to spawn in the upper stream reaches of the Willamette River and tributaries is well established through historic and current observations, scientific study, and as demonstrated by the Willamette spring Chinook hatchery program that is intended to mitigate for the Corps many dams in the Willamette basin. Dorena Dam prevents anadromous fish access to the subbasin’s better spawning and rearing streams. Without access to spawning habitat in the upper basin, it is unlikely that meaningful production of spring Chinook salmon will occur.”⁹

“The potamodromous nature of Willamette River trout is well documented; and there is no evidence in the DEA to support a conclusion that trout are not congregating below the dam, while other evidence on the FERC record supports that fish do congregate at the base of the dam. For example, the FLA and DEA indicate that bald eagles feed in the dam discharge or tailrace, clearly indicating a preference for this location (FERC 2006 and Symbiotics 2004). If fish were not congregating in the tailrace, eagle feeding would be expected to be more random in the Row River.”¹⁰

Commenting on the DEA, on 12 October 2006 the U.S. Fish and Wildlife Service stated:

“The DEA states that the potential for Chinook salmon to be present and use a fish ladder is low and that there are no known spawning populations of wild steelhead in the Row River that would benefit from the provision of passage to upstream habitat. The DEA also concludes that water temperatures downstream and the presence of predaceous fish in the reservoir would necessarily limit any benefits of providing upstream passage. These statements mischaracterize the

⁸ Ibid. at page 10.

⁹ Ibid. at pages 12-13.

¹⁰ Ibid. at page 13.

current management situation. According to ODFW, spring Chinook salmon are once again naturally reproducing in the Coast Fork Willamette drainage and may occur naturally up the Row River as far as Dorena Dam (Eric Moberly, ODFW, pers. Comm.). Additionally, ODFW is stocking Mosby Creek, a tributary of the Row River below the proposed project with excess spring Chinook in an effort to re-establish runs to the Row River in general.”¹¹

Please note: OAR 690-051-0200 (3) is followed by special requirements for projects “proposed at an undeveloped site” [OAR 690-051-0200 (3)(a)] and for projects involving “modification of an existing facility” [OAR 690-051-0200 (3)(b)]. On its face, the command that “no project shall be approved that may result in mortality or injury to an individual anadromous salmon” seems to be in addition to, not an alternative for, the special requirements for projects proposed at an undeveloped site and for projects involving modification of an existing facility. This is a strict rule, but commensurate with the precarious hold endangered species of anadromous salmon in Oregon have on their continued existence.¹² The National Marine Fisheries Service (NMFS) is the agency best suited and vested with legal authority to determine whether this proposed project may result in mortality or injury to an individual anadromous salmon. At the request of FERC, NMFS prepared a biological opinion as to the effects of the proposed project on endangered species, including anadromous salmon.

The biological opinion that NMFS released on 21 August 2008 stated:

“This Biological Opinion (Opinion) is the result of an interagency consultation under Section 7(a)(2) of the Endangered Species Act (ESA) on the effects of the issuance of an original license by the Federal Energy Regulatory Commission (FERC) to construct, operate, and maintain the 8.3-megawatt (MW) Dorena Lake Dam Hydroelectric Project (FERC Project No. P-11945-001) on one listed species of Chinook salmon. FERC is the Federal Action Agency in this consultation because it issues the hydroelectric license and is responsible to ensure compliance with terms and conditions of the license.

“The National Marine Fisheries Service (NMFS) is responsible for administration of the ESA with respect to anadromous salmonids. Section 7(a)(2) of the ESA requires Federal agencies to ensure that their actions do not jeopardize the continued existence of listed species or adversely modify or destroy designated critical habitat. To “jeopardize the continued existence of” means to engage in an action that reasonably is expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild, by reducing the reproduction, numbers, or distribution of that species (50 CFR §402.02).”¹³

¹¹ U.S. FWS (12 October 2006) Letter to Magalie R. Salas, Secretary, FERC, comments on the DEA, at page 3.

¹² OAR 690-051-0200 (3) has been referred to as the ‘one dead fish’ rule. See:

http://www.oregonhop.state.or.us/decisions/Water_Resources_Department/Case_Summaries.doc

¹³ NMFS (21 August 2008) “Biological Opinion on Dorena Lake Dam Hydroelectric Project,” at page 1.

Statements continued from NMFS's biological opinion released on 21 August 2008:

“Section 9(a)(1) of the ESA prohibits any taking (harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in any such conduct) of endangered species without a specific permit or exemption. Protective regulations adopted pursuant to Section 4(d) of the ESA extend the prohibition to threatened species. Harm is further defined to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns such as spawning, rearing, feeding, and migrating (50 CFR §222.102; NMFS 1999). Incidental take is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity by a Federal agency or applicant (50 CFR §402.02).”¹⁴

“9.1 Amount or Extent of Take

“FERC’s Proposed Action is designed to minimize incidental take of UWR Chinook salmon. In Section 5, NMFS described the mechanisms by which ESA-listed anadromous fish would likely be affected (taken) by Project construction, operation and maintenance. The following sections describe the amount or extent of take that NMFS expects would result based on the anticipated effects of the Proposed Action.

“9.1.1 Project Construction

“NMFS anticipates that Project construction could potentially kill or harm few, if any, UWR Chinook salmon. Short-term sediment releases, contaminant spills, and mercury mobilization could occur, but would take negligible numbers of Chinook salmon juveniles, fry, or adults because there are no anadromous fish located above the reservoir and few if any are expected in the Project tailrace area within the next few years. Based on numbers of fry captured by juvenile sampling in 2004 and 2005, NMFS conservatively estimates take of up to 30 fry-sized Chinook. If it occurs, take would occur within the Row River and possibly the Coast Fork Willamette below the confluence with the Row River during the 18-month project construction period.

“9.1.2 Project Operation and Maintenance

“NMFS anticipates that, over the 40-year term of this Opinion, Project operation and maintenance would kill or harm a very small number of UWR Chinook salmon adults, juveniles, and incubating eggs within the Row River Basin. Likely causes of take include injury or mortality of adult or juvenile fish attempting to pass through the tailrace barrier screen, or injury, mortality, or behavioral changes caused by contaminant spill or leaks, or failure of turbine shutoff controls resulting in extreme flow ramping downstream. However, the likelihood of these adverse effects occurring is small due to provisions that FERC would require

¹⁴ Ibid., at page 71.

Symbiotics to use such as tailrace barrier designs and evaluations, best management practices to avoid and minimize spills, and controls to protect against extreme ramping during project shutdown. NMFS assumes that presence of UWR Chinook salmon in the Row River directly below Dorena Dam will not substantially increase during the term of this Opinion, and thus conservatively estimates incidental take of no more than 2 adult Chinook and 30 juvenile or fry-sized fish per year.

“If the Proposed Action results in take of a greater amount or extent than that described above, FERC would need to reinitiate consultation. The authorized take includes only take caused by the Proposed Action within the action area as defined in this Opinion.”¹⁵

Note: NMFS’s estimate that construction of the project would result in a “take of up to 30 fry-sized Chinook,” and its estimate that operation of the project would result in a “take of no more than 2 adult Chinook and 30 juvenile or fry-sized fish per year,” seems well beyond the criteria that “no project shall be approved that may result in mortality or injury to an individual anadromous salmon.”

Apart from citing it as an item in the record, the Final Order from the Oregon Water Resource Department that I was protesting does not discuss NMFS’s biological opinion. Instead, it presents the following findings that are pertinent to mortality or injury to salmon:

“1. Native migratory fish present in the Row River include spring Chinook salmon (*Oncorhynchus tshawytscha*), rainbow trout (*Oncorhynchus mykiss*), cutthroat trout (*O. clarki*), and Pacific lamprey (*Lampetra tridentata*). Winter and summer steelhead historically occurred in the Coast Fork Willamette.

“2. Prior to construction of Dorena Dam, spring Chinook salmon, and possibly winter steelhead (*O. mykiss*), entered the Row River (ODFW 1966, Dimick and Merryfield 1945, ODFW 1960). Upper Willamette spring Chinook salmon is a species considered by NMFS to be threatened, and therefore listed under the Federal Endangered Species Act.

“(a) By following the standards and prescriptions of ODFW the Project facilities, mitigation measures and operations plan will not have significant adverse impacts on fish populations including wild fish, anadromous salmon or steelhead, or their respective habitats.

“(b) Fish are presently prevented from safely passing upstream and downstream of Dorena dam. In lieu of constructing fish screens on the penstock, Symbiotics has entered into an agreement with ODFW to provide funding for a fisheries mitigation program for projects that will improve ecological conditions in the

¹⁵ Ibid., at page 71-72.

Upper and Lower Row River with an emphasis on improving the production of salmonids and the aquatic habitat upon which salmonids depend.

“(c) Project facilities and operation have been designed to mitigate, to the greatest extent practicable, adverse impacts upon spawning, rearing or other habitat areas necessary to maintain the levels and existing diversity of fish species.

“(d) Unavoidable adverse impacts on fish or to fish management programs will be mitigated through new projects funded by the fisheries mitigation program.

“(e) Project construction, timing and procedures are designed to minimize fishery impacts from instream construction work and premature or unnecessary land clearing and disturbances.

“(f) All fishery protective measures are scheduled to be fully functional when the project commences operations.

“(g) The proposed project is consistent with current ODFW management programs.”¹⁶

None of the findings above bear on the question of whether the proposed project may result in mortality or injury to an individual anadromous salmon. Thus, it seems that OWRD has not found, and could not possibly find in light of NMFS’s biological opinion, that this project would not result in mortality or injury to an individual anadromous salmon.

Statements continued from NMFS's biological opinion released on 21 August 2008:

"Historically the Upper Willamette supported large numbers (perhaps exceeding 275,000 fish) of Chinook salmon (Figure 3-3; Myers et al. 2006). While counts of hatchery- and natural-origin adult spring Chinook salmon over Willamette Falls since 1946 have increased, approximately 90 percent of the return is now hatchery fish. Current abundance of wild fish is estimated to be less than 10,000, with significant natural production occurring only in two populations: the Clackamas and the McKenzie (McElhany et al. 2007). The Clackamas and McKenzie are the only two watersheds in the ESU where sufficient habitat is still accessible and of sufficient quality to produce significant numbers of natural-origin spring Chinook.”¹⁷

“The UWR Chinook salmon ESU is currently at a high risk of extinction. Five of the seven populations in the ESU are currently at very high risk of extinction, with one population (the McKenzie) at moderate risk, and one (the Clackamas) at low risk. Natural production in these populations averages a few thousand fish

¹⁶ OWRD (30 September 2008) Revised Proposed Final Order on the Potential for Cumulative Impacts Dorena Lake Dam Hydroelectric Project HE 559, at Section V.B. Fish Resources (OAR 690-051-0200).

¹⁷ NMFS (21 August 2008) “Biological Opinion on Dorena Lake Dam Hydroelectric Project,” at page 20.

annually. Limiting factors for this ESU have come from multiple sources, including tributary dams, hydropower development, habitat degradation, hatchery effects, past harvest management, and predation.”¹⁸

“Myers et al. (2002) did not identify the Coast Fork Willamette subbasin as having supported a historical, demographically independent population of UWR Chinook salmon. However, the lower (valley floor) reaches were likely important as seasonal rearing areas for juvenile Chinook from populations that spawned in the Willamette’s eastside tributaries.

“The historical distribution and abundance of UWR Chinook within the Coast Fork subbasin are uncertain. Native spring-run Chinook were reported to have once spawned in the Row River drainage above the site of Dorena Dam (Dimick and Merryfield 1945), but any native run was probably extirpated by splash dams used in early logging operations (USFWS 1948). Completion of Dorena Dam eliminated access to approximately 80 miles of potential habitat for migratory salmonids (ODFW 1990).”¹⁹

Our voices coalesce: 'The time is now.'

On 3 June 2005, ODFW stated:

“The Applicant needs to include measures to address the requirements of the state fish passage statute. ODFW’s Fish Passage Law (ORS 509.580 - 509.645) establishes as state policy that upstream and downstream passage is required at all artificial obstructions in those Oregon waters in which migratory native fish are currently or have historically been present. For new hydroelectric projects, the FERC licensing process is the ‘trigger’ that initiates consideration of fish passage.”²⁰

On 24 March 2006, ODFW stated:

“RECOMMENDED LICENSE CONDITIONS *The licensee shall construct upstream fish passage at Dorena Dam. The ladder shall meet criteria established by ODFW in OAR 635-412-0035.* Construction of fish passage facilities must be completed prior to operation of the Project. The licensee shall conduct and complete a hydraulic evaluation of the upstream fish passage facility and ensure the facility operates within allowable hydraulic criteria prior to

¹⁸ Ibid. at page 25.

¹⁹ Ibid. at pages 28-29.

²⁰ ODFW (3 June 2005) Letter to Magalie R. Salas, Secretary, FERC, RE: Comments on Scoping Document 1 at page 4.

continuous Project operation, and monitor long-term performance to ensure the facility performance is maintained over the license term.”²¹

Commenting on the DEA, on 29 September 2006, ODFW stated:

“FERC staff is not recommending the adoption of *three of the most critical fish protection and mitigation measures recommended by the Program, 1) upstream passage, 2) downstream passage, and 3) mitigation for impacts caused by new projects*. FERC’s staff proposal ignores important measures that have been recognized by power and resource experts within the region and state as critical to the prevention of new impacts to fish (potamodromous and anadromous), and are considered necessary to provide equitable treatment for fish and wildlife resources in addition to other purposes for which hydropower is developed.

“FERC staff have suggested that upstream and downstream passage would have little benefit; however, this position is contrary to the expertise and recommendations of ODFW, FWS, and the applicant’s own proposal (screening and alternative mitigation); and is not based on any scientific information on the FERC record. These entities have determined that screening and addressing fish passage are justified, and agreed to provide similar recommendations to address this issue in lieu of implementing an entrainment study. *Approval of the Project without screening or addressing upstream passage is contrary to state fish passage law* (a comprehensive plan accepted under section 10(a)2(a)) and hydroelectric authorization law.”²²

“ODFW has developed management objectives for spring Chinook salmon in the Willamette Basin, with specific objectives for the Willamette River above the mouth of the McKenzie River. *Objective 1 of the Spring Chinook Chapters of the Willamette Basin Fish Management Plan is to achieve full mitigation for populations reduced or extirpated due to dam construction and operations. ODFW may, in the reasonably foreseeable future, release spring Chinook adults in the stream habitat located above the reservoir*. ODFW recommends that the geographical scope of cumulative impacts be expanded to include the entire Row River watershed and the Coast Fork Willamette River from its confluence with the Row River downstream to its confluence with the Willamette River.”²³

²¹ ODFW (24 March 2006)

Dorena Dam Hydroelectric Project- FERC 11945 Recommended License Conditions, at page 23.

²² ODFW (29 September 2006) ODFW comments on DEA, Dorena Dam Hydroelectric Project- 11945, at page 5-6.

²³ Ibid. at page 7.

Please note; the project is inconsistent with the Spring Chinook Chapters of the Willamette Basin Fish Management Plan.

In a recent letter from ODFW:

“Objective 1 of the Spring Chinook Chapters of the Willamette Basin Fish Management Plan is to achieve full mitigation for populations reduced or extirpated due to dam construction and operations. Construction of a fish ladder would allow for the potential reintroduction of anadromous fish in Dorena Lake and access to approximately 80 miles of the subbasin’s better spawning and rearing habitat, eliminated by construction of the Dam in 1949. Without access to spawning habitat in the upper basin, it is unlikely that meaningful production of spring Chinook salmon will occur.”²⁴

I wish to add the following. Commenting on the DEA, on 29 September 2006, ODFW stated:

“In addition, it is likely that during the life of the Project Chinook salmon will be released above the dam as part of restoration of Willamette spring Chinook populations. These fish will spawn and rear in areas above the reservoir and be affected by the project when they migrate downstream.”²⁵

The currently, proposed project makes no mention of how it is consistent with either the Objective 1 of the Spring Chinook Chapters of the Willamette Basin Fish Management Plan or any of the presented comments. I find this to be very detrimental to the survival of salmon in the Willamette River Basin.

Yet spoken in our own voice, one might question whether these are the voices of the past, spoken through us, waiting to recover their natural place.

The design of this project may provide an answer. And to that end, we are responsible.

²⁴ ODFW' (24 December 2008), ODFW's comments on Ordering Issuing Original License Dorena Lake Dam Hydroelectric Project (FERC 11945-001), page 3.

²⁵ ODFW (29 September 2006) ODFW comments on DEA, Dorena Dam Hydroelectric Project- 11945, at page 8.