WATERWATCH OF OREGON * STEAMBOATERS * THE NORTH UMPQUA FOUNDATION
UMPQUA WATERSHEDS * UMPQUA VALLEY FLY FISHERS
NORTHWEST SPORTFISHING INDUSTRY ASSOCIATION
NORTHWEST GUIDES AND ANGLERS ASSOCIATION * OREGON WILD
PACIFIC COAST FEDERATION OF FISHERMEN'S ASSOCIATIONS * PACIFIC RIVERS
INSTITUTE FOR FISHERIES RESOURCES * PORT ORFORD SUSTAINABLE SEAFOOD
CASCADIA WILDLANDS * OREGON CHAPTER SIERRA CLUB * NATIVE FISH SOCIETY
ROGUE FLYFISHERS * WILD SALMON CENTER

Curt Melcher
Director
Oregon Department of Fish and Wildlife
4034 Fairview Industrial Drive SE
Salem, OR 97302

May 13, 2019

Re: Winchester Dam Fish Passage

Dear Director Melcher,

We are writing to thank you, the Oregon Department of Fish and Wildlife (ODFW) Statewide Fish Passage Program staff, the Roseburg Umpqua Watershed District Office staff, and the members of the Oregon Fish Passage Task Force for your consideration of the October 3, 2018 letter requesting that Winchester Dam on the North Umpqua River receive an appropriately high ranking on the next iteration of ODFW's Statewide Fish Passage Priority List. As you know, with the approval of the new statewide list by the Oregon Fish and Wildlife Commission on April 19, 2019, Winchester Dam is now ranked in Group 2. This makes Winchester the second highest ranked privately-owned dam on the statewide list. We believe this ranking better reflects this obsolete structure's harm to the various species that make up one of Oregon's most prized and important fisheries.

Given the high cultural and economic value of the North Umpqua fishery, and the ongoing serious harm resulting from Winchester Dam's fish passage problems, we would appreciate the opportunity to work with ODFW to help address these issues as quickly as possible. To this end, we would like to respectfully request access during the month of May for a contractor to provide an independent evaluation of fish passage conditions primarily aimed at Winchester Dam's fish ladder. WaterWatch of Oregon and partners have already secured River Design Group as a contractor for this work and will cover all associated costs of this initial evaluation. Attached please find the scope of work provided by River Design Group, which includes survey, analysis, and direct assistance to ODFW staff.

We are aware that at various times over the years, and as recently as November 2018, WaterWatch and partners have made requests to ODFW to access to this ladder to conduct the aforementioned fish passage evaluation. Unfortunately, these requests have been rebuffed.

We understand that there has been some concern that ODFW must receive permission from a third party, such as the Winchester Water Control District, to allow a professional contractor access to Winchester Dam's ladder. To address this uncertainty, on November 28, 2018,

WaterWatch of Oregon submitted a document request to ODFW for "Any deeds, easements, or other documents memorializing or otherwise governing ODFW access to, use of, and ownership of, the fish ladder at Winchester Dam." The documents received from ODFW responsive to this request are collected here: https://bit.ly/2UMIYFS. Based on an expert review of these responsive documents, it appears ODFW is free to grant a contractor access to the ladder for the purpose of a fish passage evaluation. As far as we are aware, ODFW is not required to receive permission from a third party in this instance. In fact, it appears no relevant agreement, deed, or easement in ODFW files prevents ODFW from unilaterally granting our request – a request made to benefit the North Umpqua's fish and fisheries.

Please consider this request with urgency. Our already significant concerns over the fish passage problems at Winchester Dam have grown considerably since our October 3, 2018 letter to you. This is because the following facts have come to light since then:

1. ODFW appears to lack a substantive written system or analysis for maximizing fish passage efficiency at Winchester Dam at different flows. This came to light after WaterWatch of Oregon also requested "memorandum (or other documents) containing written procedures for ODFW management of the fish ladder at Winchester Dam" in their November 28, 2018 document request to ODFW. The responsive documents are collected here: https://bit.ly/2UNn9G9. This situation is concerning given that both ODFW and the National Marine Fisheries Service acknowledge that this older ladder is not constructed to current fish passage criteria set forth in administrative rule 635-412-0035. A River Design Group analysis would help ODFW address this issue in the near term to better protect the health of the North Umpqua fishery.
2. In a November 9, 2018 email, local ODFW staff reported a hole "approximately the size of a basketball" at the top of the dam, which drains "a significant amount of water" into the fish ladder. As ODFW notes in this email, this hole presents a false attraction flow within the ladder, adding even more difficulty for fish attempting to pass through the ladder. The hole itself may also be entraining, injuring, or killing fish which pass near the top of the ladder. The fact that an ODFW owned and operated fish ladder on one of Oregon's finest salmon and steelhead streams has been further impaired for six months and running is disturbing. At the same time, it is a matter of record that Winchester Dam's aged, cobble-filled crib structure regularly produces similar holes near the ladder and in other locations across the crib face which present false attraction flows and fish entrainment dangers. These false attraction and entrainment problems can persist for years between dam repairs. In this situation, maximizing the Winchester ladder's passage efficiency is imperative in the short term.
3. Winchester Dam's concrete south abutment lies partially on river sediment and debris, not bedrock, and therefore is perpetually undermined by flowing river water, at times creating cave-like holes large enough for human divers to explore.[1] Beyond the obvious structural and public safety issues this presents, this situation generates false attraction flows for fish which at various periods may exceed the flows through the dam's fish ladder. For example, the upwelling false attraction flow generated by a hole (or holes) under the dam, or general leakage under the south abutment, was noted and/or photographed during annual inspection visits by Oregon Water Resources Department (OWRD) staff in 2012 ("There was water flowing into the left [south] abutment… The condition needing the most observation is seepage around this abutment."); 2014

[1] See pdf pages 12 through 18 of 1986 Inspection Report here: https://bit.ly/2L73yBg

(Inspection Summary contains photograph on page 2 clearly showing upwelling current below south abutment but no commentary.); 2016 ("There is a location behind the dam near the staff gauge that may be leaking water from the upstream side of the dam, underneath the dam, to the downstream side of the dam."); 2017 (Photographs and commentary on upwelling seen in same location as photograph in 2014 Inspection Summary.); and 2018 (Inspection Summary is not yet public but this inspection sparked October 2018 repairs to south abutment.). ODFW and OWRD records show that during the most recent attempt to re-plug the apparently permanent false attraction cavern under the south abutment with concrete in October 2018, dam owners Winchester Water Control District did not seek any of the required permits for this work, did not hire an aquatic engineer or other engineer experienced in dams or in-water work, and did not follow many of ODFW's written recommendations to protect aquatic resources during the repair. This resulted in a pollution plume and fish kill when green concrete contaminated the river during the adult migration of federally-listed Coho salmon. A November 25, 2018 ODFW email reports local staff recorded the plume extended a third of a mile downstream and killed juvenile Chinook salmon and steelhead, as well as Pacific Lamprey ammocoetes and mussels. To date, the Winchester Water Control District has suffered no penalties or fines for their actions. This event in particular, demonstrating careless disregard for North Umpqua fisheries and lack of accountability for the Winchester Dam owners, has galvanized our organizations, members, and supporters. Again, in this situation, maximizing the Winchester ladder's passage efficiency is imperative in the near term.

To conclude, we support ODFW appropriately placing Winchester Dam among the state's highest priorities for improving fish passage. We now ask ODFW to work with us to address the serious harm this dam is causing the North Umpqua's runs of Oregon Coast Coho, spring Chinook, Fall Chinook, Summer Steelhead, Winter Steelhead, Cutthroat Trout, and Pacific Lamprey.

Thank you for your consideration.

Sincerely,

Jim McCarthy
Southern Oregon Program Director
WaterWatch of Oregon

Tim Goforth
President
Steamboaters

Becky McRae
Chair
The North Umpqua Foundation

Stanley Petrowski
President
Umpqua Watersheds Inc.

Mike McCoy
President
Umpqua Valley Fly Fishers

Liz Hamilton
Executive Director
Northwest Sportfishing Industry Association

Bob Rees
Executive Director
Northwest Guides and Anglers Association

Steve Pedery
Conservation Director
Oregon Wild

Glen Spain
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Greg Haller
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F/V Golden Eye

Josh Laughlin
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Cascadia Wildlands

Rhett Lawrence
Conservation Director
Oregon Chapter, Sierra Club

Jake Crawford
River Steward Program Director
Native Fish Society

Bob Van Dyk
Oregon and California Policy Director
Wild Salmon Center

Steve Day
President
Rogue Flyfishers

Enclosure

Cc:
Governor Kate Brown
Oregon Fish and Wildlife Commission
Timothy Walters, ODFW
Ed Bowles, ODFW
Bruce McIntosh, ODFW
Greg Apke, ODFW
Alan Ritchey, ODFW
Bernadette Graham-Hudson, ODFW

RDG
RIVER DESIGN GROUP

January 22, 2019

Jim McCarthy
Communications Director
WaterWatch of Oregon
PO Box 261
Ashland, Oregon 97520

Subject: Scope of Work for Winchester Dam Fish Ladder Survey and Analysis.

Dear Mr. McCarthy,

We have worked in the past with WaterWatch to develop field studies on the Winchester Dam and reservoir area located on the North Umpqua River. Based on our on-going discussions, it appears that additional field work and studies specifically targeting the fish ladder would be useful for helping identify potential fish passage problems and non-conforming irregularities. We are prepared to perform the field work and information as described below in our scope of work.

Task 1 – Fish Ladder Field Survey and Aerial Photos
We will perform a field survey of the existing concrete fish ladder and surrounding site. The survey will be performed with survey-grade GPS equipment to help develop an accurate as-built of the fish ladder. Benchmarks will be established for future use and monitoring. Vertical, geo-rectified aerial images will be collected for use in presentations and as a site underlay photo for the as-built drawing. An estimated discharge measurement will be determined for the fish ladder and current river flow.

Task 1 Deliverables: As-built drawing of existing fish ladder (plan view and profiles), aerial images, and survey data.

Task 1 Budget: estimated at $4,080

Task 2 – Fish Passage Analysis and Meetings
An analysis of the existing fish ladder will be developed that compares the as-built to current fish passage criteria available from NOAA Fisheries. An analysis of energy dissipation factor (EDF) will be developed to help determine compliance of existing fish ladder to required criteria. A river flow analysis will be developed to estimate the percentage of water going down the fish ladder versus required criteria. A cursory analysis of fish ladder attraction flows and fish guidance will be developed.

Task 2 Deliverables: Technical Memorandum describing performance of existing fish ladder and summary of existing condition versus required fish passage criteria, one meeting with client and one meeting with ODFW fish passage task force to present information.

Task 2 Budget: estimated at $3,930.

We are prepared to begin the field effort in February with delivery of the Technical Memorandum in March. We may be able to perform the field work and provide some information prior to the ODFW fish passage task force meeting in February but nothing formal. Please contact me if you have questions or would like additional information upon reviewing this scope of work and budget.

Respectfully,

Scott Wright, PE, PMP
Principal Engineer
River Design Group, Inc.