JOINT COMMITTEE ON FISHERIES ENGINEERING AND SCIENCE

2017 Webinar Series

PRESENTER BIOGRAPHY

Since becoming a fish biologist, Rich Grost has migrated from Michigan to Wyoming, Alaska, and throughout the Northwest. He has degrees from Michigan State and the University of Wyoming, and has worked for engineering firms, as a self-employed consultant, and for the most recent 14 years as a PacifiCorp employee dedicated to the North Umpqua Hydroelectric Project. A large portion of his recent decade has been dedicated to conceiving, designing, building, operating and implementing the Soda Springs fish passage facility and program. He likes to think that an increasing number of the adult Chinook he catches in his backyard are a direct result of his labors 40 miles upstream.

WEBINAR INFORMATION

Date: Wednesday September 20, 2017
Time: 12:00p ET |9:00a PT
Duration: 60 Minutes
Webinar Platform: Skype for Business
(call in number will be provided to registrants)

Please RSVP and direct any questions or comments to Erin McCombs at fisheriesengineeringscience@gmail.com

SODA SPRINGS FISH PASSAGE PROJECT

RECIPIENT OF 2017 DISTINGUISHED PROJECT AWARD

Rich Grost

Pacificorp, North Umpqua Hydroelectric Project

The North Umpqua Hydroelectric Project was built from 1946-1956 and includes 8 dams and 8 powerhouses to supply an annual average of 100 MW. The most downstream dam, Soda Springs, is 180 miles from the ocean but blocked access of anadromous fish to about 8 miles of upstream river and creek habitat. The Soda Springs Dam Fish Passage Program began in 2003 and includes the following components:

- Off-site mitigation for about 1.5 miles of habitat that remains blocked;
- Fish passage facilities at Soda Springs Dam allowing access to 6.6 miles of historically accessible habitat;
- Annual funding for a monitoring program to determine the impact on fish production;
- A predator control study for the reservoir;
- Tailrace barriers at two powerhouses to protect adult fish form turbine impact or delay;
- Spawning habitat enhancement within the newly-accessible reaches; and
- Adaptive management via an interagency Resource Coordination Committee.

The fish passage facility includes a customized half-Ice Harbor fish ladder ascending 60 ft, a 5,000 square foot V-shaped three-stage wedgewire fish screen with 1.75 mm gap capable of screening 1,900 cfs at 0.4 fps water velocity, and smoothed spillway extensions. Primary design challenges were accommodating a 14-ft reservoir water level fluctuation and constructing in a narrow canyon with unstable geology. Primary operational challenges are maintaining so many moving parts and managing sporadically debilitating debris influxes. The first of these debris influxes caused a catastrophic failure of the fish screen during its first days of official operation. This presentation will span the history of this program and facility from conception thru the first 5 years of operation.

The Joint Committee on Fisheries Engineering and Science is hosting a free webinar series as part of its mission to engage scientists and engineers on topics related to fish passage. The Committee consists of members of the American Fisheries Society Bioengineering Section (AFS-BES) and the American Society of Civil Engineers Environmental and Water Resources Institute (ASCE-EWRI). It was established in January 2011 to foster communication between the two groups, provide opportunities for engineers and biologists to share relevant knowledge and learn from one another, and to collaborate on projects related to fish passage.