

DOCKET No. AD04-4-000

**NOTICE REQUESTING APPLICATIONS FOR PANEL MEMBER LIST
FOR
HYDROPOWER LICENSING STUDY DISPUTE RESOLUTION**

Submitted by:

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I. COMPANY BACKGROUND

Craven Consulting Group (CCG), Oregon City, Oregon, is owned by Richard Craven who has over 30 years of consulting experience in Oregon. He has evaluated numerous water development projects, such as hydroelectric projects, by preparing environmental reports, including baseline reports, EAs, and EISs, permit applications to the FERC, U.S. Army Corps of Engineers and Oregon Department of State Lands, and Biological Assessments for the NOAA Fisheries and U.S. Fish and Wildlife Service (USFWS). His training and expertise in IFIM, water temperature modeling (SSTEMP/SNTEMP), ESA consultation, Informed Consent training, and demonstrated working relationships with NOAA Fisheries, USFWS, and ODFW will facilitate development of project documentation and be of supportive value to the FERC.

II. TECHNICAL EXPERTISE AND EXPERIENCE

- **Water Quality** – Experience in evaluating the impacts of project development on TMDLs, water temperature, turbidity/erosion, and dissolved oxygen. Conducted water temperature modeling on 40 miles of stream to evaluate changes in water quality as flow scenarios were modified for anadromous fish (steelhead, cutthroat, and Chinook salmon) on Elk Creek, Umpqua River Basin, Oregon.
- **Instream Flows** – Extensive training through the Instream Flow Group in Fort Collins, Colorado; application of IFIM techniques on projects such as the BPA Twisp River Project in Washington to evaluate disputed flow recommendations; use of IFIM modeling techniques to perform sensitivity analyses for recommended instream flows to protect fish; negotiation with agencies concerning appropriate flows necessary to protect fish and riparian characteristics.
- **Fish Passage** – Experience in evaluating the necessity for fish passage at artificial and natural obstructions; experience in conceptual design and permitting of fish screening and fish ladders. Examples include fish passage facilities at Upper and Lower Bennett Dams on the North Santiam River, Oregon. Past member and Chairman of the State of Oregon Fish Screening Task Force (1995 – 2001) and present member (Chairman) of Oregon Fish Passage Task Force; appointed member and elected Chairman of the Oregon review team for the federal Fisheries Restoration and Irrigation Mitigation Act (FRIMA) funding program where outside proposals are evaluated and recommendations made to the USFWS and ODFW for funding

- **Macroinvertebrates** – Experience in aquatic entomology in the Midwest and Pacific Northwest on projects designed to evaluate impacts of projects. Specific experience includes monitoring on the Columbia River to evaluate impacts of heated water discharge on benthos. Other related experience includes zooplankton monitoring over a 7-year period on the lower Columbia River and mid-Columbia River.
- **Threatened and Endangered Species** – Experience in preparation of Biological Evaluations and Biological Assessments for a variety of plant, wildlife, and especially fish species to support U.S. Army Corps of Engineers permit applications and state applications. Extensive consultation experience with state and federal agencies to negotiate and evaluate impacts of hydroelectric and other projects on ESA-proposed and listed species. Examples include the Santiam Water Control District's 1,000 cfs diversion on the North Santiam River that also has several hydroelectric projects; and the City of Salem's Upper and Lower Bennett Dams fish ladder project to replace old ladders with state-of-the-art fish ladders.
- **General** – Richard Craven has extensive experience to offer the FERC. This experience has been a result of educational background in inter-disciplinary studies with an aquatic ecology (fisheries) focus; work on a broad range of projects for over 30 years; and successful work with local, state, and federal agency personnel. This background allows a broad view of projects that will support the FERC in developing strategies for projects, identifying weak points of project applications, and identifying support studies that need to be conducted to address project impacts on resources.

III. KNOWLEDGE OF THE EFFECTS OF CONSTRUCTION AND OPERATION OF HYDROELECTRIC PROJECTS

CCG has prepared numerous FERC applications and Corps of Engineers Section 404 applications to address baseline conditions, impacts, and mitigative measures to avoid and minimize the impacts of construction and operation of various projects. The projects have involved instream flow studies to evaluate flows necessary to protect fish and riparian habitat; ESA compliance studies; water temperature studies; project adjustments to protect resources; erosion control measures to minimize and avoid turbidity and sedimentation; fish salvage plans to rescue fish as construction occurs; and ramping rates to minimize impacts either before or after construction. All projects have included extensive agency consultation and negotiation to develop applications and supportive

reports and to negotiate terms and conditions. Richard Craven also was a key person working with George Eicher Associates in the review of the literature and workshop to evaluate turbine mortality studies.

IV. WORKING KNOWLEDGE OF LAWS RELEVANT TO EXPERTISE

- **Fish and Wildlife Coordination Act** – Extensive experience working with the USFWS to evaluate baseline conditions, impacts, and mitigative measures on wetland, plant, fish, and wildlife resources. These projects included ESA compliance reports (biological assessments), supporting environmental reports, consultation and negotiation, Corps of Engineers applications, and FERC applications. Examples include: Central Oregon Hydroelectric Project, Bend, Oregon; and Clackamette Cove Bank Stabilization Project, Clackamas River, Oregon.
- **Endangered Species Act** – Mr. Craven has extensive experience with plants, fish, and wildlife through the Section 404 process at the U.S. Army Corps of Engineers. Biological Assessments have been prepared on numerous projects, including projects that will have “no effect” to those “that are likely to adversely affect” proposed, threatened, and endangered species protected under the Endangered Species Act. Examples include: Santiam Water Control District’s fish screen and tailrace barrier project for 1,000 cfs diversion.
- **Clean Water Act** - CCG has provided Section 404 permit applications for numerous projects related to water resource development. These include hydroelectric, mining, irrigation district intakes/canals, and other entities. Examples are the City of Salem’s Upper and Lower Bennett Dams fish ladders to replace outdated fish ladders.
- **Coastal Zone Management Act** – CCG has not had extensive experience with the Coastal Zone Management Act (Act). Experience has been limited to a few projects on the Oregon coast near Coos Bay. For example, the proposed Nucor Steel project would need to be consistent with the Act, and an EIS was initiated to evaluate impacts on the coastal wetlands, endangered species, and other resources.
- **Wild and Scenic Rivers Act** - CCG is presently working on a project that involves prior disputed fill/removal activities on a Wild and Scenic river (Imnaha River) in Oregon. CCG’s role is to develop restoration/mitigation plans and to negotiate with the Forest Service, Environmental Protection Agency, and NOAA Fisheries in support of a consent decree settlement between the landowner and federal and state government agencies.

- **Federal Power Act** - CCG has worked on approximately 30 hydroelectric applications for either License or Exemption from License in the Pacific Northwest. Primary responsibilities included preparation of the environmental portions, Exhibit E of the applications. Through these applications, experience has been gained concerning preparation of various environmental documents as well as supporting studies. Examples are the Stayton Hydroelectric Project on the North Santiam; the Prospect Hydroelectric Project on the South Fork of the Rogue River; the Winchester Hydroelectric Project on the North Umpqua River; and the Bend Hydroelectric Project on the Deschutes River.

V. ABILITY TO PROMOTE CONSTRUCTIVE COMMUNICATION ABOUT A DISPUTED STUDY

Richard Craven is able to promote constructive communication about disputed studies. His broad background in aquatic sciences, public service work, on-the-ground experience, and working relations with local, state, and federal agencies will allow development of alliances that will help to defuse situations to the extent feasible. Two examples of long-term projects are the Palette Ranch Project and the Farmers Irrigation District Project.

The Palette Ranch Project in the Snake River Basin in northeast Oregon was the site of a serious dispute among the landowner, his consultants, and the state and federal regulatory agencies over activities on a Wild and Scenic river where several species of ESA-listed fish species occurred. Richard Craven was asked to review the dispute, provide the technical project management and interface with attorneys and state and federal agencies to help resolve the dispute. Agencies included the Corps of Engineers, Environmental Protection Agency, Department of Justice, ODFW, NOAA Fisheries, USFWS, and other agencies. As a result, a restoration plan was prepared by Richard Craven to support a consent decree among the parties. Monitoring activities for the restoration plan will be conducted by Mr. Craven.

A second example is the Farmers Irrigation District Project on the Hood River, Oregon. A dispute arose between NOAA Fisheries and the consultant for the district over the validity of juvenile fish tests for a new, patented fish screen that the district had developed using funds from BPA and other sources. Mr. Craven was asked to review the records and develop a strategy that would allow the parties to come to agreement. After review of the records, it was apparent that the existing tests were valid, but that difficulties between the consultant and the agencies were thwarting efforts to resolve the issues. In addition, construction and permitting issues relating to ESA needed to be resolved. The situation was resolved with additional tests, data reports, and extensive agency consultation.

VI. REFERENCES

Tom Glassford, Lands Program Coordinator
Wallowa Mountains Office,
Wallowa-Whitman National Forest
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NOAA Fisheries
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Rick Yarde, Environmental Specialist
Bonneville Power Administration
905 NE 11th Avenue, Portland, OR 97232
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Larry Rasmussen, Fish and Wildlife Biologist
U.S. Fish and Wildlife Service
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Ray Hartlerode, Fish Screening and Passage
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Jerry Bryan, Manager and Geologist
Farmers Irrigation District
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Yvonne Vallette, Aquatic Ecologist
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VII. SELECTED PROJECT EXPERIENCE FOR RICHARD E. CRAVEN

Richard E. Craven

Education:

BS Zoology (1965)
Oklahoma State University

MS Zoology (1967, Fisheries/Aquatic Ecology)
Oklahoma State University

PhD Studies (Fisheries and Aquatic Ecology)
Oregon State University

Memberships and Training:

- American Fisheries Society, Life Member
- Certified Fisheries Scientist, American Fisheries Society
- American Institute of Fisheries Research Biologists
- Past District Director, Oregon-SW Washington District
- State of Oregon Fish Screen Task Force (past member of 7-member task force, and past Chairman), Fish and Wildlife Commission Appointment
- Instream Flow Incremental Methodology (IFIM) training, including field methods, computer analysis, and advanced hydraulics at Fort Collins Colorado and Seattle, Washington
- Habitat Evaluation Procedure (HEP) training by U. S. Fish and Wildlife Service
- Systematic Development of Informed Consent training by Institute for Participatory Management and Planning (FHWA required training)
- State of Oregon Fish Screen Task Force (member of 7-member task force, past Chairman), Fish and Wildlife Commission Appointment (1995 to 2001)
- State of Oregon Fish Passage Task Force (member of 9-member task force, Chairman). Appointed to Task Force January 2002 by Director Oregon Department of Fish and Wildlife.

Mr. Craven has worked on water resource development projects as an environmental consultant in Oregon for over 30 years. His specific project experience includes preparation of numerous environmental reports including environmental impact assessments and environmental impact statements. His work also includes extensive agency consultation with the Oregon Department of Fish and Wildlife, U.S. Fish and Wildlife Service, NOAA Fisheries and other local, federal and state agencies in Oregon and Washington on development of projects. His specific expertise includes NEPA documentation, instream flow incremental methodology (IFIM) for fisheries resources,

impact assessment for water development projects, biological assessments (BAs) for threatened and endangered species for Endangered Species Act compliance, permitting for Oregon Department of State Lands Removal/Fill permits, Corps of Engineers Section 404 permits and project scoping, as well as agency consultation and consensus building.

Selected Project Experience:

- Twisp River, Washington, IFIM Evaluation, Bonneville Power Administration.
- City of Salem, Oregon. North Santiam Fish Ladder Evaluation and ESA Compliance.
- Santiam Water Control District, Fish Screen and Tailrace Barrier Permits and ESA compliance.
- Skookumchuck River Hydroelectric Project, IFIM; Washington
- Prospect Hydroelectric Project (Relicense), and IFIM Studies; Rogue River Basin, Oregon
- Powerdale Hydroelectric Project, Fish Ladder Evaluation; Hood River Basin, Oregon
- Bend Hydroelectric Project, Deschutes River, Oregon, IFIM Study
- Odell Creek Hydroelectric Project, IFIM and Minimum Flow Study; Hood River Basin, Oregon
- Milltown Hill Dam Project, EIS, IFIM, and Water Temperature Study; Umpqua River Basin, Oregon
- Krumbo Creek Instream Flow Study, Donner and Blitzen Subbasin; Harney County, Oregon
- Palmer Creek Irrigation Cooperative, ESA Compliance, Fish Screening, and Environmental Assessment; Dayton, Oregon
- Greenberry Irrigation District, ESA Compliance, Environmental Assessment; Corvallis, Oregon
- Blue River Hydroelectric Project, Draft FERC Application; Oregon
- Sidney Irrigation District, ESA Compliance and Environmental Assessment; Oregon
- Lusted Road Bridge, ESA Compliance and Environmental Assessment; Sandy River, Oregon
- Jim Creek Hydroelectric Project; Environmental Assessment; Washington
- Wyeth Hydroelectric Project, Environmental Assessment; Oregon
- Dave Johnson Power Plant Project, EPA 316a Demonstration; Wyoming
- Tongue River Power Plant Project; Wyoming
- Salt Caves Hydroelectric Project; Klamath River, Oregon
- Eugene to Medford, Oregon 500 kV Transmission Line Wetlands Study; Oregon
- Prospect Hydroelectric Project (Relicense); Rogue River Basin, Oregon

Submission Contents

Docket AD04-4-000 - hydropower and dispute resolution experience for Craven Consulting Group.
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