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WATER RESOURCES  
WESTERN REGION

**IDAHO DEPARTMENT OF FISH AND GAME**

600 S. Walnut/P.O. Box 25  
Boise, Idaho 83707

James E. Risch/Governor  
Steven M. Huffaker/Director

August 30, 2006

Mr. Charles D. Cuddy, P.L.S.  
Cuddy and Associates  
125 Johnson Ave., Suite 2  
P.O. Box 64  
Orofino, ID 83544

RE: Carl Smid--Micro Hydro Project on French Creek

Dear Mr. Cuddy:

This letter is a summary of the discussion and concerns Idaho Department of Fish and Game (IDFG) expressed to you, Mr. Carl Smid, Mr. Greg Teasdale, and Mr. John Westra of the Idaho Department of Water Resources (IDWR) at a meeting at the IDWR Western Regional Office on August 11, 2006.

At the meeting, we discussed the following specific topics:

- Formation of ice at the intake structure and in the stream
- Screening of the diversion works
- Location of the penstock within the roadway
- Surface erosion control on the road
- Construction impacts on riparian area

**Formation of ice**

Mr. Teasdale commented at the meeting that frazil ice formation may be a problem in the winter at the intake structure, although the extent of ice formation in French Creek during the winter is not documented. Mr. Smid commented that his observations have been that ice does form at the edges of the stream during the winter, but he does not believe a solid ice cover forms over the stream. IDFG is concerned that the reduction in wintertime flows due to the operation of the proposed project might increase the likelihood of the formation of frazil ice, which could lead to the formation of anchor ice around gravels and cobbles in the streambed. It is our understanding that during the process of anchor ice formation and thawing, it can break loose from the streambed and carry the attached sediment particles downstream with it. The resulting disruption of the streambed could potentially adversely impact fish spawning and incubation areas. While we are concerned about the potential impacts of ice formation, we are not familiar with any

specific research that relates quantity of flow to the likelihood of ice formation. This item requires additional literature review.

### **Screening of the diversion works**

The Declaration of Intention filed with the FERC states “The submerged inlet to the penstock will be equipped with a fish protection screen of a type approved by the National Marine Fisheries Service.” Mr. Teasdale indicated he had spoken with an IDFG employee in our Salmon Screen Shop about providing such a screen and suggested IDFG might design, construct, and install the diversion structure and screen. It appears there may have been some misunderstanding. Mr. Lynn Stratton, IDFG Screen Program Coordinator in Salmon, has informed me *IDFG does not design and install diversion structures*; rather we work with applicants to design and install an appropriate screen after diversions are constructed. Further, Lynn indicated that much of the funding IDFG receives for installing fish screens is specific to *irrigation diversions only, not other purposes such as hydropower*. While we do receive funding from the Bonneville Power Administration for screening other types of diversions, projects funded with these dollars are prioritized based on need for the entire Salmon River basin. We cannot say at this time where Mr. Smid’s project would fit in that prioritization scheme. Because you have not provided more detailed plans of the proposed diversion, Lynn was unable to suggest at this time what type of screening options might be appropriate. He did mention that the Bureau of Reclamation (BOR) also may have a screen program that might be useful for you to explore. Lynn suggested you contact Ms. Lesa Stark (378-5155) with the BOR in Boise.

### **Penstock location and road erosion control**

Because you have not provided specific plans regarding location of the penstock in the roadway, our concerns are generic. Location of the penstock should be on stable ground, where a large leak or possible blowout would not result in the delivery of significant quantities of sediment to French Creek. Similarly, measures to control surface erosion on the roadway through which the penstock is buried should be considered to avoid delivery of additional sediment to the stream. Best management practices should be applied to avoid or minimize the delivery of sediment to the stream. Extensive literature exists documenting the adverse impacts of excessive sediment on fish, aquatic invertebrates, and aquatic habitat.

### **Protection of the riparian area**

Again, because we have not had specific plans to review, we have generalized concerns about the potential impact of construction of the power plant facility on the riparian area adjacent to the stream. Healthy riparian areas provide many important benefits to streams including, but not limited to: shade to moderate stream temperature, both in the summer and winter; recruitment of large, organic material (i.e., trees) for fish habitat; a nutrient source for aquatic organisms, both indirectly from decomposing leaf litter and directly by insects falling off trees and shrubs; riparian plant typically have deep root systems to aid in stabilizing stream banks; and flood attenuation and retention of flood flows that can be delivered as groundwater that enters the stream during the low flow season.

**General Comments**

Because there are ESA-listed fish species present in French Creek (bull trout and steelhead), I also would strongly suggest, if you have not already done so, that you contact the Fish and Wildlife Service office in Boise (378-5243) and the National Marine Fisheries Service office in Boise (378-5696) to determine if they have concerns regarding Mr. Smid's proposed project.

Finally, you asked at the meeting if the water right application review process would be an appropriate venue for addressing the concerns we raised above. We would prefer you contact John Westra (IDWR) and get a determination from him which of the above issues/concerns he believes could be dealt with in the State's water right application process.

IDFG appreciates you and your client's willingness to meet and discuss our initial concerns. We look forward to continuing to work with you, Mr. Teasdale, and Mr. Smid on this project.

Sincerely,



Cindy Robertson  
Fisheries Program Coordinator

Cc: Dale Allen  
Mr. Carl Smid  
Harriet Hensley  
John Westra ✓