

**University of Idaho**  
College of Natural Resources

**Department of Fish and Wildlife Sciences**

P.O. Box 441136  
Moscow, Idaho 83844-1136  
Phone: 208-885-6434  
Fax: 208-885-9080  
fish\_wildlife@uidaho.edu  
www.uidaho.edu/cnr/fishwild

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**To: Scott Fielding, Nathan Zorich and Sean Tackley, USACE**

**From: Chris Caudill, Ralph Budwig, Daniele Tonina, Channing Syms, and Bob Basham, UI**

**Re: ADDENDUM: Request for access to BON for DIDSON/ADCP measurements at BON PH2 Fishway N. Downstream Entrance (NDE) and ADV measurements at BON Bradford Is. Fishway serpentine section.**

Since our request dated 26 September, we have further investigated potential approaches to obtaining ADCP measurements at BON NDE. The approach proposed in our original request is not optimal because of instrument limitations. Specifically, the ADCP beam configuration and data processing software are optimized for downward-looking deployments and the side-looking measurements originally proposed may not work.

Thus, we request to deploy the ADCP from a small trimaran (48"x32", ~20 lbs with instruments) from the BON fishway deck at NDE (Figure 1). The boat would be tethered from above with ropes to orient the instrument along longitudinal transects shown in Figure 2. The boat and instruments extend <6" into the water column. Deployments would take less than two hours, and as little as thirty minutes at each tailrace elevation. Preliminary discussions of this plan with Ida Royer did not raise concerns since personnel will be on the fishway deck, the boat is light and designed for this type of deployment, including in fast currents (up to 16 fps), the deployments are short-term, and because instruments will remain on/near the surface.

Additional details on the trimaran are available at:

<http://www.oceanscience.com/pdf/Riverboat%20ST%20Spec%20Sheet%20with%20Video.pdf>

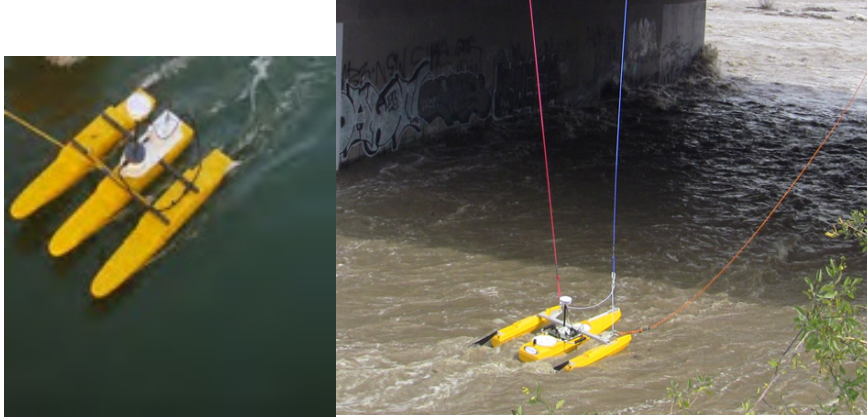


Figure 1: example deployments of the ADCP trimaran. The trimaran would be restrained by a control line upstream of the measurement locations; this will also provide upstream and downstream positioning. Lateral positioning would be from control lines to either side, operated from the deck adjacent to the measurement locations.

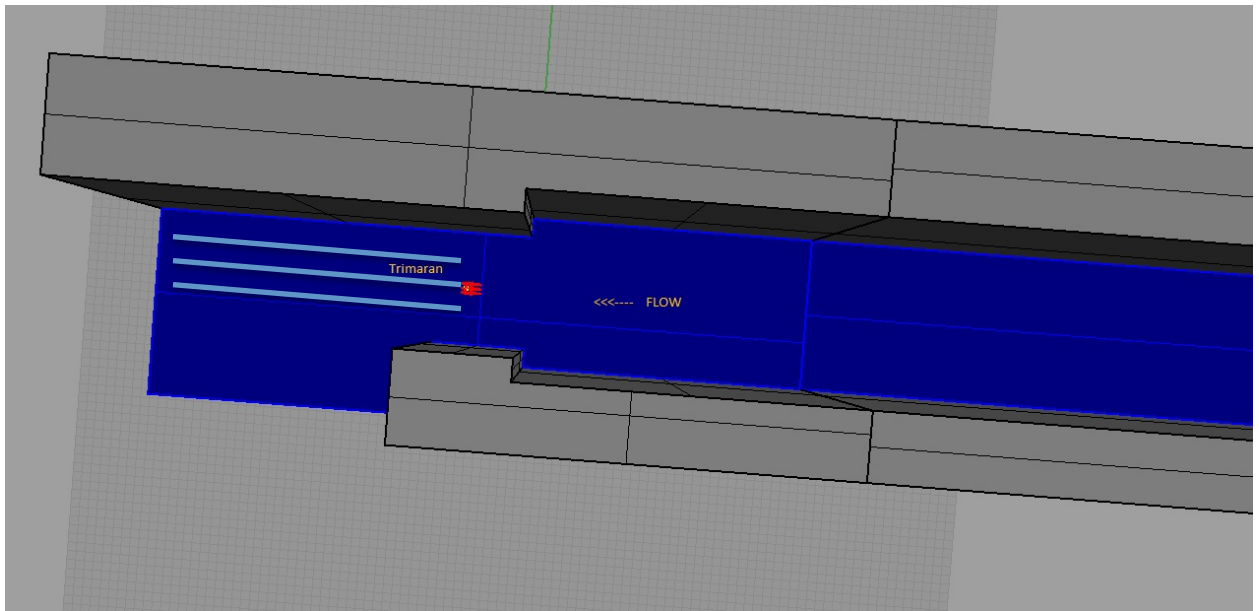


Figure 2: BON NDE and approximate location of proposed ADCP transects (light blue lines). Trimaran shown in red.