

Craver, Patti

From: Krieg, Rebekah <rebekah.krieg@pnnl.gov>
Sent: Monday, July 02, 2012 2:21 PM
To: Logan, Dennis
Subject: Potential reference

That \$900 was just what was left when they closed the project. But by the time Tonya had explained to me that the project was closed I'd already found what I think could be the references you were interested in - or at least it is close. But I'm having trouble finding a free and accessible copy of either of these. And the original research (which should be kicking around PNNL somewhere) is so old that it is not easy to locate on our current electronic records system. (the database that I am using doesn't recognize any of the authors ...although I know these people worked here years ago because I went to high school with one of the author's daughters).

<http://cedb.asce.org/cgi/WWWdisplay.cgi?21633>

Intake System Assessment for Central Columbia River

by **David L. Schreiber**, M.ASCE, (Hydraulic Engr., Site Analysis Branch, Licensing, U.S. Atomic Energy Commission Headquarters, Bethesda, MD; formerly, Sr. Res. Engr., Water and Land Resour. Dept., Battelle Pacific Northwest Labs., Richland, WA), **C. Dale Becker**, (Sr. Res. Sci., Ecosystems Dept., Battelle Pacific Northwest Labs, Richland, WA), **James J. Fuquay**, (Assoc. Lab. Dir., Battelle Pacific Northwest Labs, Richland, WA), and **Ronald A. Chitwood**, (Manager of Licensing, Washington Public Power Supply System, Richland, WA)

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Abstract:	Four intake systems (vertical traveling screens, infiltration beds, perforated pipes located above the stream bed in the river channel, and perforated pipes located above the bed in an off-stream channel) are selected and considered for detailed evaluation of potential environmental impact. Based on all considerations of potential impacts, the best alternative is perforated pipes located above the river channel bed. This intake system is also the most economical to construct, operate, and maintain. A pivotal issue in assessing the environmental impact is the potential for impingement and entrainment of macroscopic planktonic organisms and juvenile fish without or with little swimming ability. As this impact depends largely upon approach velocities, the infiltration beds and perforated pipes located above the river channel bed are both well suited to minimize impingement and entrainment.

Another option is Chapter 12 of this document - <http://www.sciencedirect.com/science/bookseries/01661116/39>

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