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of Engineers** ®

Walla Walla District
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News Release

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Corps' removable spillway weir named 'best engineering achievement'

Walla Walla, Wash., - The Removable Spillway Weir at Lower Granite Lock and Dam on the lower Snake River in southeastern Washington, has been named the nation's best engineering achievement by the American Council of Engineering Companies.

Kevin Crum, project manager, accepted the award on behalf of the Walla Walla District, U.S. Army Corps of Engineers, at a ceremony held March 18 in Washington, D.C.

Called an "engineering marvel" the RSW was submitted for the award by the contracting firm that designed it for the Corps -- Jacobs Civil Inc., Bellevue, Wash. The project was chosen best engineering achievement over such projects as Seattle's new Seahawks Stadium, Boston's Downtown "Bunker Hill" Bridge and the Milwaukee Art Museum.

The removable spillway weir is a prototype designed to test passing juvenile fish over a spillway. At Corps dams on the lower Snake River, juvenile fish can pass three ways: over the spillway, in juvenile fish bypass system and through the turbines. Juvenile fish tend to be surface oriented and surface flow is a more effective method to pass fish. The purpose of the RSW is to pass juvenile salmon and steelhead over a "raised" spillway crest, similar to a waterfall. Fish using the original spillways passed through gates that are 50 feet below the surface in a pressurized and high velocity environment at the dam.

"The RSW offers an opportunity for juvenile fish to pass more quickly and efficiently at the dam. The flow required to pass juvenile fish may be significantly reduced, resulting in better passage conditions and lower dissolved gas levels in the river system," said Crum.

The RSW was developed in coordination with NOAA Fisheries and regional fisheries agencies.

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It was constructed at Vancouver, Wash., and shipped from Portland, Oregon, up the Columbia

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SPILLWAY WEIR / 2-2-2

River and installed at Lower Granite Dam in 2001. The structure weighs approximately 2 million pounds, and is 115 feet tall, 83 feet wide, and 61 feet deep in the upstream to downstream dimension. The hinged structure is designed to be "removable" using water ballast systems to rotate it upstream and out of the spillway to the bottom of the reservoir. This allows the capability to return the spillway to original flow capacity during major flood events. The RSW can then be returned to operating position using air delivery systems after a major flood event.

Biological tests for the structure began in 2002 and continue through this year. Based on the first year's biological data, the RSW was much more efficient than conventional spillways, passing more fish while using less water, and reduced juvenile fish migration delays by offering a more attractive passage route past the dam.

More information is available on the District's Web site at www.nww.usace.army.mil/rsw.

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