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June 28, 2007

MEMORANDUM

TO: Council Members

FROM: John Fazio, senior power system analyst
Carol Winkel, senior writer and editor

SUBJECT: Demonstration of "The Best Dam Simulation Ever" Game

BACKGROUND

As you may know, Council staff and the Oregon Museum of Science and Industry (OMSI) produced a game to teach students and the public about the complexities of operating the hydroelectric system. The project came about through a chance meeting with Dr. Marilyn Johnson, director of museum and teacher education, while staff was promoting the Council's latest video at the National Science Teachers Association Conference last year. OMSI was preparing to launch a curriculum on the Columbia River Basin's water system--called Expedition Northwest--to provide standards-based science activities to 4th through 8th grade students. It was an opportunity to work with OMSI on a project that would be useful to both organizations.

Council staff developed a simple spreadsheet model to simulate the operation of the hydroelectric system and OMSI added a user-friendly interface to create "The Best Dam Simulation Ever" game. The spreadsheet model is based on simulations run with the GENESYS program (a tool used by the Council in the development of the Fifth Power Plan and the Fish and Wildlife Program). The spreadsheet model is limited and only simulates the operation over four seasons of the year. It is, however, an excellent tool to educate the public about various river uses and tradeoffs that must be made in order to satisfy those uses.

Blair Baldwin of OMSI will be present to talk about how the game has been used by teachers and students. If you would like to try the game prior to the Council meeting, just go to:

www.nwcouncil.org/kids

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