

Columbia River Mainstem Off-Channel Storage Study



Crab Creek



Sand Hollow



Foster Coulee



Hawk Creek

WHAT IS THIS STUDY?

The U.S. Bureau of Reclamation (Reclamation) and the Washington State Department of Ecology (Ecology) are investigating where new off-channel storage might be suitable along the Columbia River. The agencies recently conducted a preliminary appraisal of tributary sites that might merit further study. This work was based on an earlier report which provided an initial review of more than 20 potential sites on the Columbia.

Four sites along the Columbia River at Crab Creek, Hawk Creek, Foster Creek and Sand Hollow were considered in this appraisal.

The goal of the study was to evaluate sites where water could be stored to augment irrigation supplies during dry years as well as secure water for future irrigation, improve flows for fish and set aside water for future municipal, domestic and industrial uses.

Two-thirds of new storage water would be available for agricultural, domestic, commercial and industrial uses, while one-third of the stored water would be set aside to support in-stream values.

Download the report at:

http://www.ecy.wa.gov/programs/wr/cwp/cr_mainstem_storage.html

WHY WAS THE STUDY CONDUCTED?

The appraisal was conducted as part of an agreement between the state, Reclamation and Columbia Basin project irrigation districts to promote improved water management on the Columbia River and to explore new storage opportunities. The agreement does not commit the parties to pursue development of any specific site.

In December of 2005, the agencies identified 11 potential storage sites along the entire Columbia River corridor. Based on a number of criteria -- including potential storage capacity, location, known geologic integrity and other environmental and social issues -- the field was narrowed to the four upper basin sites for more in-depth study.

Columbia Basin Water Needs

- Sustain agriculture
- Support flows for fisheries
- Support future domestic, commercial, municipal and industrial uses
- Respond to climate change and resulting water needs

The study was bolstered in 2006, when the Legislature authorized funding to pursue the development of new water from the Columbia to benefit both in-stream and out-of-stream uses, including the exploration of new long-term storage.

If you need this publication in an alternate format, please call the Columbia River Water Resources Management Program at (509) 575-2490. Persons with hearing loss can call 711 for Washington Relay Service. Persons with a speech disability can call 877-833-6341.

HOW WAS THE STUDY DONE?

The four potential storage sites were evaluated based on:

- **Water availability:** How much water is available and when?
- **Site visits:** Are the sites generally suitable for storage?
- **Sizing:** What might the final structures look like?
- **Cost estimate:** How much does it cost to build and operate?
- **Impact/benefit assessment:** What are the socioeconomic, cultural and environmental factors at the site?

The study also looked at whether any of the four sites appear capable of safely providing a minimum of 1 million acre-feet of active storage, and whether any could potentially store up to 3 million acre-feet.

WHAT DID THE STUDY TELL US?

According to the study, construction and operational costs would be significantly less at the Crab Creek site than at Sand Hollow or Hawk Creek. The site also posed the lowest risk and the best geology for construction of a dam and reservoir. However, cultural and environmental resource issues also may need to be addressed at the Crab Creek site. Early on, Foster Creek was found to have geotechnical flaws and was eliminated from consideration.

The evaluation was preliminary in nature. A more thorough investigation will be required if the process is taken to the next step.

A complete review of the environmental, socio-economic and cultural impacts of any storage construction project would be thoroughly evaluated in an Environmental Impact Statement (EIS).

WHAT ARE THE NEXT STEPS?

Currently, Ecology, Reclamation, and Columbia Basin project irrigation districts are reviewing the assessment and consulting with stakeholders regarding study results. In addition, the preliminary storage study will be fully analyzed by the Columbia River Basin Policy Advisory Group.

The Policy Advisory Group is a panel made up farmers, local government officials, tribes, business and environmental groups, water, fish and power managers and watershed planners who have been tapped to advise the state on implementing the Columbia River Basin Water Management Program.

Comments may be directed to:

Derek Sandison
Dept. of Ecology
15 W. Yakima Ave. Suite 200
Yakima, WA 98902

Gerald Kelso
Bureau of Reclamation
1917 Marsh Road
Yakima, WA 98901

Information gathered will be taken into consideration before the agencies decide whether to continue exploring storage options on the Columbia River. Further study of any sites will require congressional authorization and funding for a feasibility study and Environmental Impact Statement (EIS). A decision is expected by the end of the year.

