Baker River Hydroelectric Project

Puget Sound Energy (PSE) owns and operates the Baker River Hydroelectric Project situated in Skagit and Whatcom counties of northwestern Washington state. The project boundary encompasses more than 8,400 acres, including the reservoirs of Lake Shannon and Baker Lake. The reservoir water levels are controlled by three structures: Lower Baker Dam, Upper Baker Dam, and West Pass Dike.



Lower Baker Dam is a concrete thick-arch dam located within the town of Concrete. The dam is 285 feet high, 550 feet long and regulates the 7-mile long Lake Shannon reservoir. Construction of Lower Baker Dam was completed in 1925.



Upper Baker Dam is a concrete gravity dam located at the north end of Lake Shannon in Whatcom County. The dam is 312 feet high and 1,200 feet long. Construction of Upper Baker Dam was completed in 1959.



West Pass Dike is located northwest of

Upper Baker Dam on the opposite side of Glover Mountain. It is a rock-fill embankment dike that is 115 feet high and 1,200 feet long. Together, Upper Baker Dam and West Pass Dike impound the 9-mile long Baker Lake reservoir.

The Baker Hydroelectric Project creates more than 7,250 acres of water surface that provides recreational, flood control, fisheries and hydropower benefits to the communities in the Pacific Northwest.

Puget Sound Energy P.O. Box 97034 Bellevue, WA 98009-9734 pse.com/bakerriver

PUGET SOUND ENERGY



Public safety around dams



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Baker River Hydroelectric Project



Dam safety program

Public safety is of the highest priority for PSE. To ensure public safety in the operation of project facilities, PSE complies with strict federal regulations. The Baker River Hydroelectric Project is regulated by the Federal Energy Regulatory Commission (FERC). In compliance with FERC regulations, PSE has developed a comprehensive Dam Safety Program.

Dam Safety Program includes:

- Onsite PSE employees operate the project facilities and perform daily safety inspections.
- Instrumentation provides data that is used by engineers to closely monitor the performance of the dams.
- PSE professionals regularly inspect the dams.
- Engineers perform on-going design analysis of the dams that includes earthquake and flood loading factors.
- FERC engineers conduct annual onsite inspections to ensure the project is operated and maintained safely, and in conformance with all federal regulations.



Emergency action plan

Another aspect of the Dam Safety Program is an Emergency Action Plan (EAP) for a dam failure. PSE has developed and maintains an EAP that contains an up-todate notification list to be used by PSE employees in the event of an emergency. The EAP is shared with emergency management agencies responsible for developing community emergency response plans. Included in the EAP are inundation maps identifying high water areas in the unlikely event of a total dam failure. The maps assist local officials in developing public notifications, evacuation routes, and post incident recovery plans.



Early detection and warning system

PSE's Dam Safety Program includes an early detection and warning system to warn residents in the unlikely event of a dam failure. The warning system includes monitoring instruments at the site, surveillance cameras, and eight sirens in the town of Concrete and surrounding communities. The warning system is automated and monitored by operators 24 hours a day, 7 days a week.

Early-warning sirens

The early-warning sirens will be activated in the unlikely event that a dam failure is developing or has occurred. The sirens are located in the town of Concrete and in the communities of Van Horn, Grasmere, Cape Horn, and Birdsview.

Siren testing

The sirens are regularly tested on the 2nd Monday of every month at 6 p.m. The test includes a tone and verbal message. During the test, sirens will sound for less than one minute.

In addition to monthly testing, PSE periodically schedules operational tests on the system. Communities in the surrounding area will be notified in advance of sound testing.

For a map of the siren locations and to hear the siren tone and verbal messages, visit **pse.com/bakerriver**.

For information about the EAP or the early-warning sirens, please contact:

Emergency Action Plan Coordinator Puget Sound Energy Phone: **1-888-404-8773** Email: **damsafety@pse.com**

Public notification enrollment

To stay informed, sign up to receive public notifications from Skagit and Whatcom Counties via text message or email.

For Skagit County public notifications via CodeRed, visit: www.skagit911.us/contact.html

For Whatcom County public notifications via Alertsense, visit: www.whatcomready.org/public-alerts

Evacuation of the community

In the unlikely event of a dam failure, PSE will activate the EAP and sound the early-warning sirens. The sirens will produce a tone and a verbal message calling for evacuations. If the sirens sound outside of a scheduled test or without prior notice from the local media then they are signaling a needed evacuation. Residents are to evacuate and head for higher ground, keeping north or south of the Skagit River.

For evacuation route information, please contact:

Skagit County Department of Emergency Management Phone: 360-416-1850 Email: dem@co.skagit.wa.us Website: skagitcounty.net/departments/ emergencymanagement/main.htm

Partners in safety

PSE works with Skagit and Whatcom Counties, and the town of Concrete, to ensure the effectiveness of public communication and preparation of the Emergency Action Plan for the Baker Hydroelectric River Project.

