



US Army Corps  
of Engineers®  
Walla Walla District

# HOW MILL CREEK PROJECT OPERATES

## MILL CREEK • WALLA WALLA, WASHINGTON

The Mill Creek Project consists of a diversion dam, a storage reservoir (Bennington Lake) and a division works structure that routes minimal flows to Yellowhawk and Garrison Creeks. The Corps also operates and maintains about 1-mile of the associated Mill Creek Levee System, from the diversion dam to the Project Office parking lot. Walla Walla County's Mill Creek Flood Control Zone District manages the levee and channel system downstream, from the Mill Creek Project boundary to the Gose Street Bridge.

During flood season, Mill Creek Project operates with the intent to optimize the flood-storage space in Bennington Lake during major flood events. This operation can lead to increased risk of minor flooding during small flow events in the natural channel downstream of the City of Walla Walla past the Gose Street Bridge, while decreasing flood risk during larger flow events to both the City of Walla Walla and the natural channel.

**How Mill Creek Project Works** -- Bennington Lake is drained during the late-fall to perform inspections and maintenance activities on the storage dam, outlet works and reservoir. These maintenance activities prepare the reservoir for use during flood season.

Mill Creek is prone to flash-flooding conditions; water quantity can very rapidly increase. To prepare for those fast-changing conditions, Corps staff carefully monitor weather forecasts (temperature and precipitation), snowpack volume, and changing flow conditions in Mill Creek. When flood flows are diverted to Bennington Lake is dependent upon forecasts and real-time flow conditions. That said, the following action plan, helps project staff to react to rapid increases in flows in order to provide the greatest overall flood protection to Walla Walla and adjacent downstream areas.

**Flood Operations** -- At 400 cubic feet per second (cfs) water flows over diversion dam's spillway. The Corps notifies County and other emergency management officials and begins preparing for higher flow conditions: staging gate-operating equipment for future action points, removing and storing fish screens, adjusting flows through the fish ladder, and more.

The Corps continually monitors Mill Creek and keeps local officials informed of flow fluctuations. Additional diversion-preparation actions around the project occur at 1,000, and 1,400 cfs.

At about 1,400 cfs, operations staff begin slowly raising the four flood gates to the diversion channel leading to Bennington Lake. A testing protocol is performed to be sure the gates are ready to be used. Gates are adjusted incrementally to gradually divert water from Mill Creek to manage flows through town.

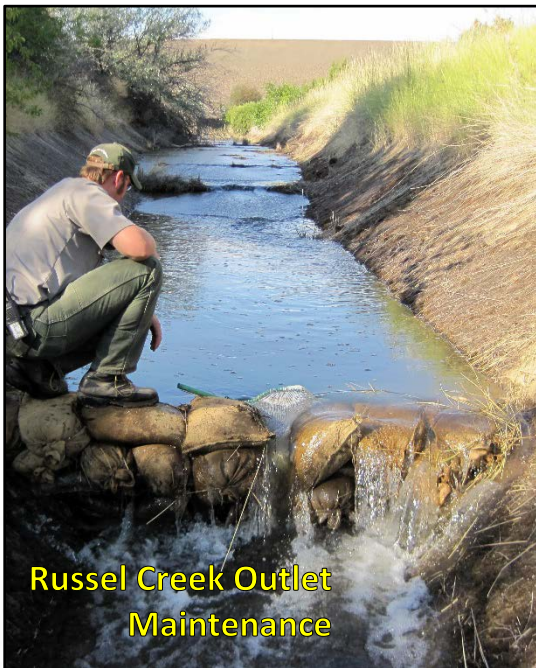




Between 1,400 cfs and 3,500 cfs, diversions into the reservoir and flows down Mill Creek will be managed according to the Corps' water control manual for the Mill Creek Project, with the diversion objective slowly increasing to 3,500 c.f.s.

Flows in excess of 3,500 cfs are diverted to Bennington Lake to maintain safe flow in the channel running through town. In 1982, it was determined that flows over 3,500 cfs, for an extended period of time, have the potential to damage the Mill Creek channel stabilizers and levee embankments. Diverted water is held in Bennington Lake until flood flows subside, then the water is released back to Mill Creek by way of a return channel running on the west side of the lake. Water from Bennington Lake can also be released through an outlet channel into Russell Creek on the south side of the storage dam.

At full pool during flood operations, lake elevation is about 1,265 feet, with a maximum 8,300 acre-feet capacity and a surface area of 225 acres. After the threat of seasonal flooding has past, water is held in Bennington Lake at around 10-percent of full for recreational use -- about 1,200 feet in elevation.



The Corps discourages in-water recreation during flood season because of the risk to public safety caused by cold water temperatures, higher flow velocities, floating debris and brush along the river banks. Please, always be safe around rivers and streams! Visitors with children and dogs should be very cautious about allowing them to approach the creek.

**Current streamflow information for Mill Creek** can be found on the U.S. Geological Survey's website <http://waterwatch.usgs.gov/?m=real&r=wa>.

Gage Number 14013000

[https://waterdata.usgs.gov/nwis/uv/?site\\_no=14013000](https://waterdata.usgs.gov/nwis/uv/?site_no=14013000) is located at the base of the Blue Mountains near Kooskooskie. This gage indicates the amount of flows headed downstream toward the Mill Creek Dam.

Gage Number 14015000

[https://waterdata.usgs.gov/nwis/uv/?site\\_no=14015000](https://waterdata.usgs.gov/nwis/uv/?site_no=14015000) is located just downstream of the Mill Creek Office parking lot. This gage indicates the amount of flows that remain in the channel passing through the City of Walla Walla.

Gage number 14013800

[https://waterdata.usgs.gov/nwis/uv?site\\_no=14013800](https://waterdata.usgs.gov/nwis/uv?site_no=14013800) is located at Bennington Lake. This gage indicates the reservoir's water surface elevation.

Residents experiencing high water concerns along smaller creeks not operated by the Corps should contact the Washington State Department of Ecology Water Master Eric Hartwig at [eric.hartwig@ecy.wa.gov](mailto:eric.hartwig@ecy.wa.gov) or 509-540-7680.

