Bureau of Indian Affairs
Western Nevada Agency
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Website: https://www.bia.gov/WeberDamResponse

Weber Dam Response

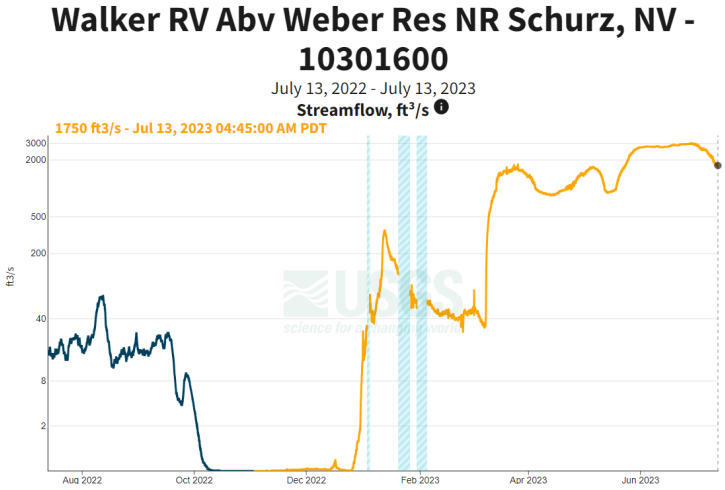
Key Messages July 13, 2023

Emergency Action Plan Response Level One

Status of Walker River Flood Stage

The BIA is closely monitoring the Walker River stream flows and conducting daily visual inspections of Weber Dam.

- The average stream flow above Weber Reservoir for the month of July (records date back to 1901) is approximately 250 cubic feet per second (cfs).
    - This rate allows the gates of the service spillway to be closed to maintain a constant water level for irrigation use.
- The streamflow into the reservoir is now 1,750 cfs. This is seven times the average streamflow into the reservoir that would occur at this time in a normal year.
    - With this current rate (1,750 cfs), the gates need to remain open.
    - Assuming the service spillway continues to function normally, BIA anticipates beginning to close the spillway gates and fill the reservoir when the streamflow into the reservoir drops to approximately 700 cfs.
    - Best estimate projections for when streamflow rates will return to normal are based on National Weather Service 30-day forecasts.
        - Streamflows into the reservoir are not anticipated to be lower than 1,800 cfs in the next 30 days.
        - At present, BIA does not anticipate beginning to close the service spillway gates before sometime in early September.
        - BIA will continue to monitor National Weather Service streamflow forecasts and adjust this timeframe as better information becomes available.
    - Once streamflows into the reservoir drop below 575 cfs, the dam operators can resume their normalized irrigation operations and control the reservoir water level using the outlet works (tunnel) and fishway with the service spillway gates closed.
- BIA anticipates performing an inspection of the spillway chute after the service spillway gates are fully closed.



Release Rates from Weber Dam

- The current release rate from Weber Dam is approximately 2,030 cfs, which is a drop of 250cfs from last week.
- The reservoir dropped about 500 acre feet from July 6 and is now approximately 53% full at 5,690 acre feet.
- Estimated releases from Weber Dam is not expected to exceed 2,150 cfs through August 10. This includes ~400 cubic feet per second released from the outlet works (tunnel that feeds irrigation canals).
- Given current conditions, hydrologist forecast the flood flows to peak around July 20.

Status of the Weber Dam Spillways

Service Spillway
An inspection of the Dam in May 2023 revealed open and offset joints between the Dam's service spillway slabs and sediment in the service spillway drains, early indications the soil under the service spillway chute may be experiencing erosion.

- The service spillway is functioning normally.
- DOWL, an engineering, planning, surveying, and Professional Services Firm with an office in Reno, Nevada is providing 24/7 monitoring services of the facility. Still photos taken every 10 minutes are available for viewing at: https://www.bia.gov/WeberDamResponse
    - DOWL contractors will remain onsite to monitor the service spillway moving forward.
- Two dam safety engineers with the BIA Safety of Dams are onsite at Weber Dam to oversee the remaining installation of the last erosion cutoff trench. They are anticipated to be onsite through Friday.

Emergency Spillway

- The Emergency spillway will be used ONLY as a last resort if the service spillway chute fails, and the gates need to be closed. BIA has taken proactive measures to improve the emergency spillway channel.

Actions taken to date:

- May 17th, the BIA Superintendent, Western Nevada Agency in Carson City, Nevada declared a Level 1 Response at Weber Dam.
- June 15, BIA awarded a contract to Chiricahua Procurement LLC, a company based in Albuquerque, NM to provide heavy equipment, rock, and gravel to Weber Dam.
- June 21, BIA proactively started moving rock riprap, gravel, and construction equipment to the site in the event action needs to be taken to slow erosion of the service spillway chute foundation.
- June 26 – Completed the removal of the Weber Dam Fuse Plug, which was overseen by a BIA Civil Engineer/ Construction Specialist (red box).
    - The fuse plug is a rock embankment feature of the emergency spillway intended to wash out in a predictable manner to lower the water elevation of the reservoir should it exceed its holding capacity.
    - Removing the fuse plug reduces the worst case downstream flood potential scenario by 50%.
- June 28 – Constructed two erosion cutoff trenches downstream from the salvaged riprap of the fuse plug (Orange and yellow boxes).
    - Cutoff trenches are an engineering featured installed to help slow and or stop erosion.
    - The salvaged riprap consisted of small rock and gravel.
- Installed and improved a two foot berm to assist in keeping flow out of the fishway channel (dark purple line).
- July 7 – Completed the construction of a 3rd erosion cutoff trench approximately 8 feet deep by 8 feet wide using imported 36" riprap. This larger riprap is intended to stop erosion (green box).
- July 10 – Started construction of last erosion cutoff trench approximately 4 feet by 4 feet using imported 36" riprap. This is expected to be complete by Friday, July 14 (pink box).

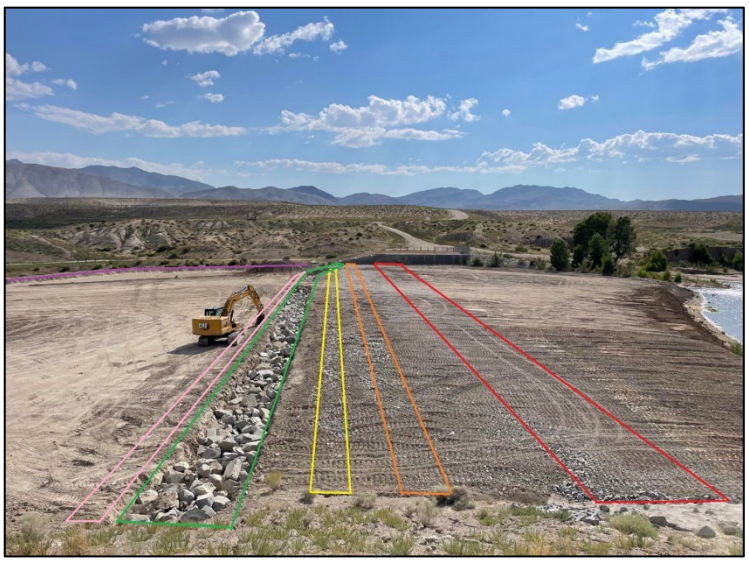


Diagram of completed work in the emergency spillway.