



Bureau of Indian Affairs

Western Nevada Agency

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Weber Dam Response

Key Messages June 29, 2023

Status of Walker River Indian Irrigation District

Erosion of the Walker River riverbanks is occurring downriver from Weber Dam. Western Nevada Agency Irrigation System Operators are working around the clock to ensure the two canal channels of the Walker River Indian Irrigation Project and the 49 miles of lateral irrigation lines are functioning properly.



- On June 29, downstream from the community of Schurz at the end of Canal 2, water came out of Canal 2's banks, causing some erosion to Ghost Dance Road. Walker River Irrigation System Operators quickly responded to backfill the area, which was repaired in about an hour (photo above).
 - One field was impacted, losing approximately 90 minutes of water. Another water user experienced a delay in water delivery but received it the same day.
- Wednesday the 28th, Western Nevada Agency purchased five loads of 24inch rock to reinforce the entrance structure at Little Dam where Canal 1 and Canal 2 receive water from the Walker River.
 - Four loads were placed in the main Canal 1 to enforce the slowly eroding riverbanks.
 - One additional load was staged at Canal 1 to use if it becomes necessary.
- Three additional loads of smaller rock will arrive at Canal 2 next week to use if necessary.
- BIA mobilized an additional Irrigation System Operator to assist local specialists working around the clock to ensure canal banks remain stable and to continue the safe operation of the irrigation project. This operator will complete their fourth week of work and be released next week.
 - The Western Regional Irrigation Engineer will arrive at the Agency July 10 to look at the land parcels proposed for irrigation re-designation. He will also be developing a report to document how the system is managed.
- The safety of the downstream communities is BIA's priority. BIA remains focused on safely managing the response activities at the Weber Dam spillway. It is too early to determine whether it will be necessary to fully, or partially, drain the reservoir to address safety concerns at Weber Dam. After this flood event, BIA will evaluate the spillway conditions and determine what measures, if any, may need to be implemented to best assure safety of the downstream community.
 - It is a high priority to ensure irrigation use and agricultural needs are met to the best of BIA's ability. As the response activities continue, BIA will remain vigilant in minimizing impacts to the irrigation water supply.

Status of Walker River Flood Stage

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

- The reservoir is 64% full.
- Walker River remains above Flood Stage. Hydrologists predict the reservoir elevation to remain ***below*** the emergency spillway crest with maximum reservoir levels estimated to range between 4,204.0' and 4,205.2' through July 28.
 - This is approximately .six inches lower than last week's (June 20) previous high water mark, and 1.4 feet lower than the June 14 estimate.
 - Estimated releases from Weber Dam is expected to range from 2,900 to 3,479 cubic feet per second. This includes ~400 cfs released from the outlet works (tunnel that feeds irrigation canals).
- Given current conditions, hydrologist modeling the peak period of high flood stage forecast the July 1-11 time period to be the peak period for high flood stage.

Status of Weber Dam

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 spillway is functioning normally.
- Weber Dam remains at a Response Level 1
- **Weber Reservoir and the roads leading to it are CLOSED.**
- Out of an abundance of caution, engineers and scientists from [BIA's Safety of Dam's Program](#) are taking proactive measures to provide for public safety and to protect the structural integrity of the Weber Dam facility and the Walker River Indian Irrigation Canals that provide irrigation water to the Walker River Paiute Tribe.

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.
- A BIA Civil Engineer (Construction Specialist) with the Division of Water and Power - Safety of Dams Branch oversaw the removal of the fuse plug (outlined in red). This work was complete June 26.
 - 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%.
- Downstream from the fuse plug, salvaged riprap from the fuse plug was used to construct two erosion cut off trenches (shown in yellow and green). This feature is a trench that is filled with riprap and gravel and then covered over to help slow erosion.
- Installed a two foot berm (purple line) to assist in keeping flow out of the fishway channel.



Equipment and Supplies Staged at the Reservoir

- 600 tons of riprap and gravel are staged at the service spillway.
- A crane is staged at the service spillway.
- 50 super sandbags, are staged near the emergency spillway (pink rectangle)
- 50 of the super sacks are staged at the service spillway.

Future Actions Planned:

- June 30, dump trucks will begin to deliver 2,000 tons (80-90 truckloads) of riprap that will be used to construct a third erosion cut off trench (green line)
- This work will take approximately 4-5 days to complete.

What Level 1 Response Means

| Response Level | Activity at Dam to Trigger Response Level Activation | BIA Response Activities | Community Action |
|---|--|--|--|
| <p>Level 1 (Ready)</p> <p>Indicates an unusual situation that triggers increased levels of monitoring.</p> | <p>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.</p> | <ul style="list-style-type: none"> • Conduct 24/7 monitoring services of the facility. • Mobilize rock riprap, gravel, and construction equipment to the Dam. • Proactively remove Weber Dam’s fuse plug. | <ul style="list-style-type: none"> • Know your flood risk. • Take a household inventory of valuables. • Store important documents. • Pay attention to authorities and safety officials and where to find official information. |