

Low water levels in Lake Powell could affect Navajo Lake

By Joe Napolitan

Staff Writer

During a meeting on June 21, members of the San Juan Water Conservation District (SJWCD) board discussed local implications of historically low water levels in Lake Powell.

“The article that came out today just said that there’s a threshold that Lake Powell has to reach for the CWCB (Colorado Water Conservation Board) to enact some legal movements,” said board member Joe Tedder. “Apparently we’re going to hit that, probably by the end of June.”

The threshold Tedder referred to is outlined in the Colorado River Drought Contingency Management and Operations Plan (DCP).

The plan states that if Lake Powell reaches a surface elevation of 3,525 the upper-basin states and the U.S. Bureau of Reclamation (USBR) shall take action to send more water to Lake Powell from reservoirs upstream.

According to the USBR, the surface elevation of Lake Powell was 3,559 feet on July 4. Aside from the drought in 2005, such low water levels have not been seen since the

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1960s, when Lake Powell was still filling after the construction of the Glen Canyon Dam was completed in 1963.

Low water levels in Lake Powell have implications for the Colorado River Basin, which includes the San Juan River and Pagosa Springs.

According to a report by the Pacific Institute in 2013, roughly 70 percent of the Colorado River Basin's water is used to irrigate nearly 5.7 million acres of land for agriculture. The USBR estimates that more than 40 million people depend on the river to support their lives.

Another report prepared by Southwick Associates in 2012 estimated that 5.6 million people over the age of 18 use the Colorado River for recreational purposes each year.

The same report totals the value of all spending resulting from such recreational expenditures to be \$25.6 billion, generating \$1.6 billion in federal tax dollars.

"These expenditures then simulate jobs, tax revenues, and other benefits for the state and regional economies," the report states. "The businesses and employees who directly or indirectly benefit from Colorado River recreation earn \$10.4 billion annually in earnings, salaries and wages."

By comparison, the numbers reported in the Southwick Associates report place the economy of the Colorado River Basin marginally short of that of the entire coal industry in the entire United States, which the U.S. Census Bureau reports was worth \$28.6 billion, with \$13 billion paid in direct wages and salaries in 2016.

SJWCD board member Doug Secrist outlined provisions in the DCP, stating that in an effort to stabilize Lake Powell, water would be reallocated from reservoirs upstream, otherwise referred to as initial units. Two of these reservoirs, Blue Mesa and Navajo, lie roughly 80 and 25 miles from Pagosa Springs, respectively.

"What they have proposed is taking water from Navajo, Blue Mesa and Flaming Gorge, and then trying to get that water into Lake Powell and then also down towards Lake Mead," Secrist said. "I think if, in fact, that happens, what you'll probably see are reduced water levels in those three reservoirs. I don't know how much that would really impact upstream water use and flows [but] ... the Bureau of Reclamation would exercise its authority and have mandatory releases out of those reservoirs

to supplement water downstream."

According to a provision within the DCP, the initial units local to the San Juan Mountains are included in the plan upon the premise that conditions in Lake Powell present a shared risk within the entire Colorado River Basin.

Another provision states that while conducting drought response operations it will also "ensure timely recovery of storage water at the upstream CRSPA [Colorado River Storage Project Act] Initial Units," and that "recovery of storage at the CRSPA Initial Units is essential to any drought response operation."

"I can tell you that PAWSD is senior to all those reservoirs, so PAWSD water is pretty well protected," SJWCD Board of Directors President Al Pfister said of the Pagosa Area Water and Sanitation District. "But it is a very intricate and interwoven issue."

A provision in Article II.A.(3)(e) in the DCP clarifies that water from initial units cannot be used for drought response operations unless the unit "has recovered the cumulative volume of water that was released for implementation of drought response" or "water elevation at the CRSPA Initial Unit has reached the regular operating target elevation for that facility."

However, an emergency action provision in Article II.A.(3)(j) states that "in light of the potential uncertainty associated with modeling projections, the Parties agree that notwithstanding the principles for implementing a drought response operation set forth in this subsection 3, the Secretary retains all applicable authority to make releases from the CRSPA Initial Units and perform subsequent recovery of storage operations if actual hydrology or actual operating experience demonstrate an imminent need to protect the Target Elevation at Lake Powell."

The DCP does not state what is meant by "subsequent recovery of storage operations if actual hydrology or actual operating experience demonstrate an imminent need to protect the Target Elevation at Lake Powell," nor was The SUN able to contact the USBR, PAWSD, or the CWCB for clarification.

The National Integrated Drought Information System reports that Archuleta County is experiencing its driest year in over a century, and that the initial units from which water is planned to be supplied to Lake Powell are already low in volume and inflow.

The USBR predicts that the preliminary unregulated flow which supplies the Navajo Reservoir, which presently has a pool elevation 27 feet below the 1981-2010 average, will be 36 percent of the average for the month of July.

For Blue Mesa, which presently rests 43 feet below the 1981-2010 average, is projected to have an inflow volume 40 percent of average.

Flaming Gorge, which rests only 3 feet below its average pool elevation, is projected to have an unregulated inflow volume of 42 percent of average.

Colorado's climate is projected to continue to become increasingly warm and dry over the next three decades. As of 2018, the CWCB projects that temperatures will rise an additional 2.5 to 5 degrees Fahrenheit by the year 2050.

"This means the warmest summers from our past may become the average summers in our future," explains the CWCB website. "With increasing temperatures come shifts in snowmelt runoff, water quality concerns, stressed ecosystems and transportation infrastructure, impacts to energy demands, and extreme weather events that can impact air quality and recreational opportunities."

The PAWSD 2020 Drought Management Plan recommends reducing water use using the following measures:

- Check all faucets, pipes, and toilets periodically for leaks.
- Install water saving shower heads and faucets.
- Take shorter showers or take a bath.
- Install a 1.6 gallon low-flow toilet.
- Don't use the toilet as a wastebasket.
- Turn off the water while shaving, brushing teeth, etc.
- Water grass/landscapes early in the morning or late in the evening to prevent water lost to evaporation.
- Water deeply and less frequently to encourage healthy root growth.
- Use a broom or rake to clean hard surfaces instead of water.
- Ensure your washing machine and dishwasher are full to capacity before running the load.
- Restaurants are encouraged to serve water only at the request of customers.
- Hotels are encouraged to only change bed linens and towels during client turnover or upon client request.