

# Colorado Basin nears drought tipping point

By Brodie Farquhar

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CASPER - The audience at the Wyoming Forum received a grim report about an impending water crisis in the West from Patricia Mulroy, general manager of the Las Vegas Water District, speaking about the Colorado River Compact.

She sounded a clarion call for the seven states in the compact, to look at worst-case scenarios now, because those worst case scenarios could be right around the corner.

Mulroy refuses to be drawn into the debate as to whether climate change is caused by people burning fossil fuels, but climate change is real, she said, and is drying up the West.

Much of the problem facing the seven Colorado River Compact states is that the 1922 compact was based on 50 years of the highest precipitation in 1,200 years, according to tree ring studies.

As of August, she said, the water level in Lake Mead was 1,092 feet above sea level - the lowest since 1965 when water was diverted from Lake Mead to fill up the new Lake Powell reservoir upstream.

In the last decade, the surface of the reservoir - source of 90 percent of southern Nevada's water for two million people - has dropped 120 feet, thanks to a multi-year drought.

By April 2010, Mulroy and other water officials in the seven states will know how much trouble they're in, when spring runoff hits Lake Mead. If water level rises, there will be a big sigh of relief in water engineer offices in the seven states.

But what if the water level continues to go down?

## Trouble at 1075 feet

According to a 2007 accord signed by the Colorado River Compact states, trouble begins when the water level hits 1,075 feet - that's when the Secretary of Interior can start enacting tough provisions of the 2007 accord, limiting water use in the upper basin to avoid catastrophic shortages in lower basin states.

Bigger trouble begins, said Mulroy, if Lake Mead water level hits 1,050. "Hoover Dam would stop generating electricity. The shock waves would be severe," she said. Las Vegas would have to start weaning itself off of Lake Mead water and start using groundwater from northern Nevada, via a \$3.5 billion pipeline.

"I can't afford not having enough water to put out fires," said Mulroy. Should Lake Mead drop down to 1,000 feet, Mulroy has an \$800 million insurance policy - a third outtake pipe to tap Lake Mead water at a point where the two existing outtakes would be left high and dry. She also has agreements with Arizona and California to create groundwater "banks" by pumping extra water into aquifers.

"Nevada will be fine for the first three rounds of cuts," said Mulroy, but beyond that?

## Conservation works

Las Vegas has gotten deadly serious about water conservation, paying customers \$110 million to rip out front yard grass turf and limiting backyard turf to 50 percent of the square footage. At a time when the city grew by 400,000 residents, water usage dropped by 22 billion gallons.

Home owners are encouraged to xeriscape their yards with drought-tolerant flowers, shrubs and trees. Wastewater is systematically reused to water parks and golf courses, or pumped underground to be

tapped and cleaned for drinking water again.

As for those spectacular fountains along the Las Vegas Strip? Not to worry. Mulroy said water use by the hotels and casinos along the famed Strip constitute only three percent of water use in Las Vegas.

### **More worries**

However, Mulroy has a long and daunting list of worries, she confided to her Casper audience.

For one thing, she's rejected the age-old practice of city water managers, who whenever they foresee future shortages, just go out and buy agricultural water rights. That doesn't work anymore for Mulroy, who noted there will be nine billion people in the world by 2050, and not enough food to feed them.

"We can't continue to take agricultural lands out of production," she declared, noting that California's Imperial Valley grows 10 percent of the nation's vegetables.

Mulroy also testified before the House Energy and Commerce committee about the implications of climate change on water supplies, and that energy and water issues are tightly bound together. She suggested that cap and trade legislation include language establishing a "blue bank" for funding climate-change driven water infrastructure projects, just as it have a "green bank" for alternative energy programs and projects.

Mulroy also told her Casper audience that the nation should start considering inter-basin water transfers from east to west, after a century of doing it the other way. If the Midwest and East are going to experience flooding from climate change, why not ship the extra water to an increasingly arid West, she suggested.

She wryly noted that Great Lakes residents aren't too enthusiastic about the idea.

Still, she believes that priority water rights don't make sense during a time of drought or water scarcity. Better to spread a little pain broadly, rather than have catastrophe strike some and not others.

If Lake Mead hits 1,080 in April, Compact officials need to start talking "before we hit the wall (at 1,050 or 1,000)," said Mulroy. "Then it'll be too late to talk."

### **Million idea**

Entrepreneur Aaron Million spoke briefly after Mulroy. He wants to tap Green River water at the Flaming Gorge Reservoir and pump 250,000 acre feet of high-quality water to Front Range customers. The proposed 560-mile pipeline could cost \$4 billion, which Million wants to raise from private investors.

He asked Mulroy what she had meant in an earlier conversation, that lower basin states were a threat to his project. Mulroy denied that lower basin states were a "threat," but said they needed to be considered, and that Wyoming needed to determine what its 14 percent share of Colorado River water really means.

Million responded that if "upper basin water rights are not developed, then by default, the lower states will get upper basin water."

Mulroy countered by emphasizing the need for all the states to cooperate in augmenting water supplies in the basin. "We need to avoid a zero-sum controversy, otherwise our friends in D.C. will help us," she warned.