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Watching Fontenelle Dam: Anxiety Rising With Water

June 22, 1986 | BILL CURRY | Times Staff Writer

GREEN RIVER, Wyo. — Wayne and Pearl Deck have moved their cedar chest filled with irreplaceable family memorabilia to higher ground.

They've packed suitcases that they keep in the car.

And now they are worrying and waiting--waiting for the call to evacuate in the event of the failure of the dam on the Green River 62 miles upstream of their trim little house here. They live only a block from the river, and some neighbors have already begun removing furniture from their houses.

"There's real fear," says Pearl Deck. "If it goes, I'm just going to shut my eyes and hope the house doesn't get washed away."

Ten years after the catastrophic rupture of the Teton Dam in eastern Idaho, federal inspectors have declared the condition of Fontenelle Dam unsafe, and now, with an extraordinary snowmelt--170% of normal--flowing down from the Wind River Mountains, Fontenelle's reservoir is filling up faster than at any time in its history.

For many, that is an ominous development at a reservoir that was emptied as a precaution only a year ago. The water level today is 50 feet higher than it was then, and at one point rising nearly five feet a day.

"Russian roulette," is how one resident described the situation in a call to a radio talk show, "that's what it boils down to."

"They have told us it was unsafe, and if it was unsafe a year ago, then it's unsafe now," said Wayne Deck, who is 68.

"We're anxious, but we're not panicked," said Wayne Cook, regional superintendent for water and land in the Upper Colorado Region of the U.S. Bureau of Reclamation, which built and operates the dam.

"We've been very careful to take precautions. We've done everything up to evacuating the flood plain. Had we been able to keep it drained, we would have.

"This is probably the bureau's No. 1 problem right now."

The bureau is preparing a \$52-million repair proposal and says, in a draft environmental assessment, that the only alternative is to breach Fontenelle by removing a large center section of the dam and allowing the Green River to flow untamed. It is an unspeakable notion in the arid West, where reclamation projects provide the cheap water and cheap power that can turn sagebrush lands into cities.

Would Affect 1,200 Jobs

"Breaching would sure put Sweetwater County on its ear," said Paul Schwieger, Wyoming's water development administrator. He added that 1,200 jobs are dependent on a power plant that is cooled by water from Fontenelle.

Moreover, the Fontenelle Dam is critical to Wyoming getting its full and jealously guarded share of water from the Colorado River. Without it, millions of gallons of water belonging to Wyoming, the headwaters of the Colorado, would flow away to the thirsty farms and cities of the desert Southwest.

Already, the state has set aside \$5 million as its share of the Fontenelle repair costs, but it is not at all certain the Reagan Administration will agree to \$52 million worth of repairs in an age of budget-cutting and \$200-billion federal deficits.

"I know it's hard, the way the federal deficit is," said Wayne Deck.

Circulating Petition

"But there have to be priorities other than defense," added his wife. Pearl Deck, 65, is circulating a petition calling for repair or breaching of the dam as soon as possible.

The current condition of Fontenelle is but another sad chapter in its 22-year history. It was conceived, in the spirit of reclamation and pork-barrel politics, as part of the Colorado River Storage Project: The idea was to supply water for agricultural irrigation. After construction began in June, 1961, it was discovered that the soil would not sustain crops, but the dam was completed, nonetheless, for municipal and industrial uses.

Most of that municipal and industrial demand has yet to materialize, and today, the state of Wyoming sells only a third of its Fontenelle water allotment.

Seepage Problem Grows

Fontenelle Dam was finished in 1964--and nearly failed the following year, when seepage carried away parts of its earthen face on the downstream side. The reservoir was drained and repairs were made, but the seepage soon returned, and it grows worse with time.

By 1982, structural problems were evident. The level of the reservoir was gradually lowered until, in May of 1985, it was emptied.

It has since risen within 10 feet of capacity, and the water is seeping under the dam's foundation.

There is, Cook says, no evidence of erosion, no sign of "a growing hole in the bottom of Fontenelle." But he added: "We don't have anything inside the dam telling us what's going on." It was erosion from seepage along one side that caused the Teton Dam to give way on June 5, 1976, a failure that resulted in the deaths of 11 people.

Said Cook: "In these kinds of situations, where the reservoir is going to fill temporarily--and we can't do anything about it--the best we can do is make a judgment whether the dam can safely contain the reservoir. We've decided it's safe; it'll handle the existing storage temporarily, but the structure is not safe . . . to hold water on a long-term basis."

Known for Reputation

Still, the dam's problems have prompted fears and concerns among many here in Green River (population 15,000, better known for the Green River Ordinance, which placed sharp restrictions on traveling salesmen.) When Bureau of Reclamation officials visited here June 10 to answer questions on KUGR radio, one anxious woman told them:

"I'm calling as a concerned parent. On Thursday of this week, the Boy Scouts are having a three-day day camp . . . just right below Fontenelle. Do you think it would be feasible, with the condition of the dam right now, to go ahead with the three-day day camp, or have it held someplace else for the safety of the boys?"

"I'm a Scout leader," replied the bureau's regional operations director, Ron Johnston, "and I wouldn't hesitate to take a troop of Scouts up there myself. We have no indication the dam is in imminent danger of failing."

But some residents are openly wary of the Bureau of Reclamation's assurances. Many of the bureau's predictions and "worst-case" scenarios have turned out to be optimistic. The bureau at one time announced that the reservoir level, as a "worst case," would rise no higher than 6,470 feet above sea level. At week's end, it was at 6,494 feet, and water was entering the reservoir nearly 17% faster than it could flow out of the dam.

'Best Laid Plans'

Plans to release large amounts of the excess water were hampered by debris, washed downstream by the record runoff, that clogged Fontenelle's drains.

"The best laid plans of mice and men . . ." says Cook with a sigh.

"This year, all of the worst-case scenarios took place at the same time," said Jack Zimmerman, Sweetwater County coordinator for emergency management.

"All of the worst-case scenarios all folded together, but I think the dam's OK. I don't think it's going to fail."

With emergency notification and evacuation plans already developed, Zimmerman said he believes that a dam failure would cause property damage but no loss of life. Perhaps 2,000 people would have to be moved, and some of them live on ranches without telephones and would have to be notified in person.

The Bureau of Reclamation says that any sign of the dam giving way would be visible at least a day before the actual failure, and that flood waters from a break in Fontenelle would take 10 to 12 hours to reach Green River--ample time in which to warn residents downstream. Still, the bureau's draft environmental assessment says of the warning system: "Some loss of life could probably not be avoided" in the event of a failure of the dam.

It added: "In view of safety considerations, Fontenelle Dam must be either repaired or breached."

Breaching Put at \$3 Million

The Bureau of Reclamation estimates the cost of breaching at \$3 million.

The bureau's repair plan calls for the slitting the dam open along its 5,421-foot-long crest and pouring a concrete wall into the earth-filled dam that reaches deep into the foundation rock. Two test sections, completed at a cost of \$5 million, have proved successful.

The bureau says that repairing Fontenelle would preserve \$139 million in economic benefits.

The repair proposal must be approved by the Office of Management and Budget, and a spokesman for that agency said it has often viewed spending on dam safety with a critical eye. If OMB approves the repair project, Congress will have 60 days in which to block release of the funds.

Even if the repairs are approved, however, they could not be completed before 1990.

"I'm definitely concerned," said Dave Roderick, a 33-year-old building contractor who lives just upstream from the town of Green River. "We've got things we'll have to get out, but I sleep good at night." Roderick lives at the river's edge and fears that without the dam, his property would be under water by now. He does not want to see the dam breached: "I'd just like to see 'em repair it."

Insurance Problems

But to the Decks, who have lived a block from the river since 1943, breaching is acceptable. They are paying \$300 a year for flood insurance because of the

dam's condition, and say they never had flooding problems before the dam was built.

"We had a plan: If the dam broke, we'd move the TV and put things up high," Wayne Deck recalled.

"We're not concerned for our lives--we'd have time to get out. Volunteers are all set to come in and help people move out. I've said all along I don't think it's going to break. But I'm no prophet.

"We hope it holds, but if they don't do something, it won't hold.

"It can't go on."