Officials gush at success of Grand Canyon flood

☐ Initial indications show that a huge release of water is helping restore habitats and shorelines.

By Shaun McKinnon
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After years of trying to tame the Colorado River, the government let it run wild for a few days last month.

Officials said Thursday the results were as spectacular as the experiment itself.

"From all indications, this test has worked brilliantly," Interior Secretary Bruce Babbitt said. "The beaches and species habitat through the Grand Canyon appear to have been significantly restored. What we have found is really quite extraordinary."

For seven days in March, the Bureau of Reclamation increased the flow of water from Glen Canyon Dam in Page, Ariz., in an attempt to mimic the early stages of spring flooding in the Grand Canyon.

Scientists will be studying the effects of the flood for months and even years, but preliminary data show the higher and wider river succeeded in rebuilding some of its own shorelines and repairing damaged wildlife habitats.

"We were successful," an elated project manager, Dave Wegner, said during a Thursday briefing in Washington. "It did exactly what we wanted it to do."

What Wegner and other scientists wanted the river to do was what it did before the construction more than 30 years ago of Glen Canyon Dam. When

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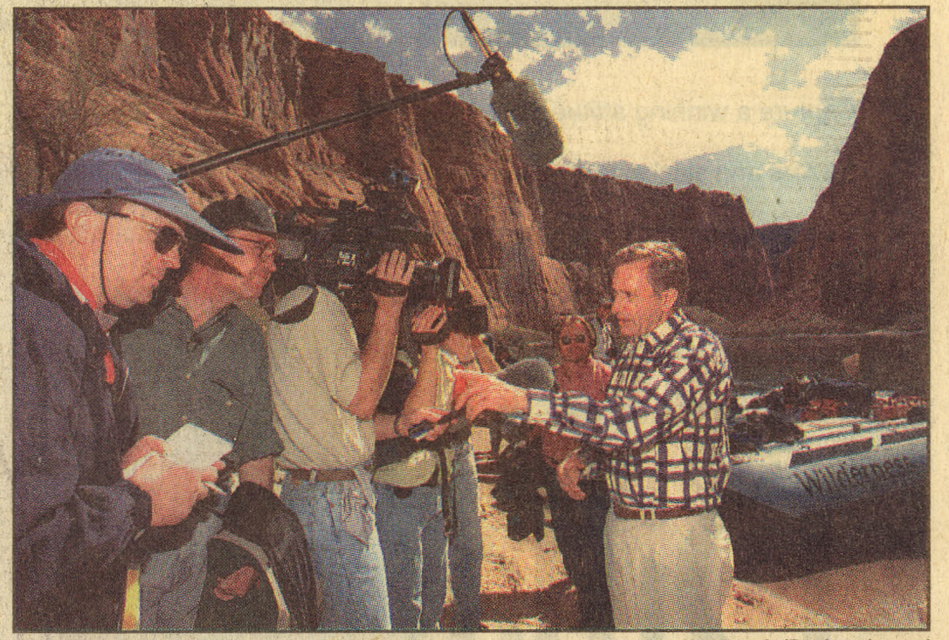

Jim Laurie/Review-Journal
Interior Secretary Bruce Babbitt stands on a Colorado River beach last month, surrounded by reporters during a raft tour in advance of a controlled flood of the river. Babbitt announced Thursday the flood experiment had succeeded beyond all expectations, rebuilding beaches and restoring wildlife habitats.

Flood

From 1A

the river ran freely, it continually replenished its beaches and wildlife habitats using sand and other sediment washed downstream.

The dam turned the Colorado cold and clear, trapping more than 90 percent of the sediment and leaving the river's shorelines to erode and the spawning grounds for fish to deteriorate.

To correct the problem, scientists proposed a flood. On March 26, with Babbitt in attendance, the Bureau of Reclamation opened four giant jet tubes at the base of the dam, increasing the flow of water to 45,000 cubic feet per second, nearly triple the average release though still well below historic flood levels.

The river rose by as much as 13 feet in some areas, dropped sprawling Lake Powell by 3.5 feet and raised the level of Lake Mead by nearly that much.

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Researchers predicted the more powerful river would scoop up sediment from areas near the Pariah and Little Colorado rivers and move it downriver, depositing it along the way and leaving new beaches and backwater fish habitats.

And that, Wegner said Thursday, is what happened.

"We have more beaches in the Grand Canyon," he said, maybe 30 percent more. "The challenge before us now is how long this will last."

As more than 150 scientists from around the world watched up and down the Grand Canyon at various points along the river, the controlled flood performed much as computer models said it would.

But there were surprises as well.

Most significantly, Wegner said, nearly all the heavy work was completed within the first 20 to 48 hours, meaning any future floods probably won't have to continue through seven days as this one did. At one beach, scientists measured 3 meters worth of erosion followed by more than 4 meters of deposits.

The flood also created backwater habitats for fish. Such shallow, isolated pools of water are important, Wegner said, because the Colorado runs cooler than it used to before the dam was built, and native fish, such as the endangered humpback chub, need warmer waters. In recent years, the habitats have been filled in.

How well fish and other wildlife adapt to the changes in the river may not be known for six months because of migration habits, but scientists were able to glean some tidbits from the flood.

About 10 humpback chub were fitted with transmitters, allowing researchers to track their movement.

"These fish were every smart," Wegner said. "They moved to the bottom, to the side, they got out of the way, and when the water got back to normal, they moved back."

They're now in the Little Colorado spawning, but when the larval fish come out, "they will find new habitats," he said.

The endangered ambersnail may not have fared so well. Scientists moved a small population of the snail to higher ground before the flood, then returned to find the creatures had become prey for some small deer mice in the area.

Although numbers fail to capture the scope of the canyon experiment, one offers some perspective: In all, over seven days, 360,000 acre-feet of water flowed through the dam — more than Nevada's entire yearly Colorado River allotment.