

'Eternal drought' likely if trans basin project goes through

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The news of Aaron Million's proposed pipeline to take water from the Green River and Flaming Gorge Reservoir, has raised residents' concerns across Southwest Wyoming and also has garnered national attention.

One area which could see a direct correlation to lower water levels are fisheries in the Green River.

The combination of the proposed water diversion and drought conditions, could have dire consequences on the fisheries.

"If the Million pipeline is built, the river below the point of diversion and Flaming Gorge Reservoir will suffer eternal drought," Wyoming Game and Fish Department Fisheries Biologist Craig Amadio said.

The proposed pipeline, would divert water from the Green River, just below Seedskadee, and at the Flaming Gorge Reservoir. The project would provide 250,000 acre-feet of water to the Front Range of Colorado and possibly Southeastern Wyoming.

Million said two weeks ago that he has studied the issue the past three years with some of the best water teams in the United States.

In a recent interview, Wyoming NOAA Hydrologist Jim Fahey said the predicted April runoff for the Green River below Fontanelle was at 83 percent of the 30-year average, with some of the lower basins as low as 75 percent. The upper basins had predictions as high as 95 percent. Fahey did say last year was the first good year since 2000 and 2001.

Amadio said there are a variety of issues, such as water quality, when discussing the impacts of low stream flows and reservoir levels, but the department has basic fisheries concerns.

"Fish face many problems during prolonged periods of low river flows. As stream flows and reservoir levels decline, environmental conditions become less than optimal and fish have to compete harder for limited resources," Amadio said.

"Poor habitat conditions due to low flows include: less suitable physical habitat to occupy, reduced refuge areas for small fish to hide and avoid predators, warmer summer water temperatures, decreased reproductive success, and less food," he added.

Amadio discussed four major issues as being a major concern of the fisheries.

The first is that the Green River lacks diverse, abundant habitat.

"Good trout habitat, particularly winter habitat, is very limited and depends on good flows. Side channel and backwater habitats are important, especially to juveniles, because these areas provide low-velocity refuges and protection from large predators that are confined to the main channel," Amadio said. "Low flows reduce side channel and backwater habitat availability and cause increased mortality, especially for juvenile fish."

The second issue pointed out by Amadio is that lower summer flows result in warmer water temperatures.

"Most Wyoming fishes are cold water fishes, meaning they prefer and perform better in cold water," Amadio said. "When water temperatures warm, fish become stressed and susceptible to diseases."

Substantial sediment deposition in the river is another concern of the department. He said silt accumulates over much of the stream bottom, covering rocky substrates and spawning gravels, and this negatively affects the reproduction of wild trout populations.

"If provided adequate flows and spawning substrate most trout are capable of maintaining strong numbers through natural reproduction," Amadio said. "When silt blankets spawning gravels, eggs suffocate before they hatch and trout don't reproduce successfully."

The final point discussed is silt accumulation filling the spaces between rocks and gravel, which decreases the available surface area for macro-invertebrates and leading to an overall decline in bug production.

Amadio added all of these factors contribute to natural mortality rates and population declines.