

Environmental threats mar proposed Poudre River diversion project

This is the third in a three-part series exploring the proposed NISP water project in Northern Colorado



(Photo/Brian Gratwicke, Flickr)

By **Jason Kosena** 06/20/2008 | **1 Comment**

The common shiner, a species of minnow, once called the Poudre River home. It has moved away.

Averaging between 2 and 4 inches long, the not-common-anymore shiners were part of the Poudre ecosystem and indeed were found along the river in northern Colorado for many years. But then it disappeared.

Kevin Bestgen, a senior research scientist and the director of the Larval Fish Lab in the Department of Fish and Wildlife Conservation at Colorado State University, said reduced flows during spring runoff are most likely to blame for the shiner's demise.



"It's a fairly rare species of fish in Colorado, and they require clean gravel substrate in order to survive," said Bastgen, who has studied the Poudre River for nearly two decades.

In their habitat common shiners typically spawn in the spring and use gravel within the riverbed

to lay eggs. Spring runoffs act as a natural vacuum cleaner in a sense by flushing sediment and organic matter from the river, giving fish like the common shiner a place to lay eggs.

If too much silt builds up on the riverbed, though, the results can be detrimental.

"It's our contention that silt buildup by reduced flows and reduced tributary input over the years are likely the reason the (shiner) is no longer found in the Poudre system," Bastgen said.

Because other fish species require the same spring runoff for healthy reproduction, the Northern Integrated Supply Project, a controversial water storage plan that would draw water from the Poudre during spring months, has garnered criticism in northern Colorado.

The plan is being pushed by 15 Colorado municipalities that say the \$405 million effort to tap the Poudre and South Platte rivers for more drinking water is essential to maintaining the communities' expected growth.

The largest infrastructure plan proposed in northern Colorado in decades, NISP would construct miles of pipeline and a massive 170,000-acre-foot reservoir north of Fort Collins.

In some years it would also drain the Poudre of 25 to 71 percent of its annual spring runoff — a reality that could bring continued harm to the river's ecosystem. A negative impact on fish habitat is just one reason that environmentalists cite when sounding their alarm.

A healthy flow

Much of the criticism surrounding NISP has come from opponents who say the project will make "every year a dry year" on the Poudre River, wreaking havoc on the fragile ecosystem.

Because the river has been used for more than 140 years to supply northern Colorado cities like Fort Collins and Greeley with drinking water and to irrigate many farms on the Eastern Plains, the Poudre has long been dubbed a "working river."

NISP supporters, including the Northern Colorado Water Conservancy District, which proposed the project, say the river's flow will continue to be drained even if the project fails to move forward.

In fact the Poudre River is already often drained completely through Fort Collins and much of the Eastern Plains during winter months as upstream users pull water, an argument made by NISP supporters.

In addition, because the project would use junior water rights, NISP supporters say it will pull water from the Poudre only four out of every 10 years, said Brian Werner, spokesman for the conservancy district, leaving the spring runoff intact most years.

But the damage caused by reduced spring flows even on an intermittent basis could still be harmful, according to experts like Bastgen.

Some of the Poudre's nearly 30 different fish species, including trout, require deep channels and pools to survive during winter months when the river freezes over or is drained.

Without a high spring runoff, those channels and pools could fill with sedimentation and slowly begin to squeeze fish out, Bastgen said.

"It's a delicate balance," he said.

Vegetation needs water too

The environmental impact of NISP goes beyond aquatic life and spreads to the entire river system, said Gina Janett, an environmentalist in Fort Collins and spokeswoman for Save the Poudre, a citizens' group organized to stop the project.

"The wildlife is really losing in this fight," Janett said. "The fish lose, other animals lose out and the vegetation loses."

Reduced flows on the Poudre during spring runoff could create more "islands" within the river

basin and shallower channels, which would open the door to new invasive plant species, Janett said.

“In terms of the actual wildlife, you may see more invasive vegetation come in, like Russian olive trees, which would change the habitat for many of the bird species that live there,” Janett said. “We could see the entire ecosystem change as a result of this.”

Janett, a former mayor of Fort Collins, said other environmental factors resulting from NISP could be realized as well, including dangerous discharges from wastewater treatment plants that dump treated water back into the Poudre.

“If you have less water in the river, then the wastewater discharges won’t be able to dilute as well,” she said. “The state could then mandate the plants to upgrade their systems to better treat that (sewage), and that will be very costly.”

The cities of Fort Collins and Greeley and Larimer County have asked the U.S. Army Corps of Engineers, which is drafting an environmental impact statement needed for NISP to move forward, to extend the public comment period on the project, which began this month, by 90 days.

It is currently unknown what mitigating factors could be required of NISP supporters to offset damage caused by the project – both environmentally and economically.

Supporters of the project have said it would be possible to pull water from the Poudre east of Fort Collins, but that would require an expensive infrastructure investment by Fort Collins and wouldn’t solve the low flow problems farther downstream.

“We need to really stop and look at this before just jumping into it,” Janett said. “There are alternatives like conservation that would be cheaper, faster and more sustainable to the environment that we believe aren’t being looked at.”