

Water wise: Students learn about the impact of water issues at Fishing Lake



Natural resource analyst Lindsay Patterson, right, discusses freshwater biodiversity Friday with seventh-grade Sage Valley students from left, Chyanne Fifer, Dustin Gray and Matthew Mills. A western painted turtle takes its first steps toward its home in the waters of Fishing Lake after being released by Mike Wachtendonk on Friday. - News-Record photos by Alton Strupp

By **STEVE MCMANAMEN**, News-Record Writer smcmanamen@gilletteNewsRecord.net

Published: Monday, October 19, 2009 12:19 PM MDT

The Gulf of Mexico is a "dead zone."

A map of the United States illustrated Levi Jensen's point as he spoke to a class of seventh-graders Friday afternoon.

With the Fishing Lake as his backdrop, Jensen explained that the Gulf of Mexico is where the runoff from most of the United States ends up, along with all of the pollutants that water picks up along the way.

Those pollutants include the fertilizer, oil and other harmful pollutants from yards, streets and construction sites in the 27,000-acre watershed surrounding Gillette. All that water collects into the Fishing Lake before flowing down Donkey Creek to the Belle Fouché River and, eventually, into the Gulf of Mexico.

"So you can see how much of an impact we can have in this watershed on the Gulf of Mexico," Johnson said.

Jensen, a civil engineer for the City of Gillette, has been testing the lake in preparation to dredge it and rebuild the wetlands at the inlet next year.

Like the Gulf of Mexico, the Fishing Lake has some serious problems. It has been on the Wyoming Impaired Waterbodies list since 1996 and was shifted to a "high priority" in 1998. Now the lake is getting cleaned up with an effort by the Campbell County Conservation District, the City of Gillette and the Wyoming Department of Environmental Quality.

About 70 seventh-grade science students learned from Jensen, members of the Conservation District and the DEQ how to tell if a water body is polluted as part of World Water Monitoring Day. The students came in three different sessions and were split up into groups to learn from the experts at different stations.

The students learned how to test the water's pH, turbidity and temperature. Quade Schmelzle with Campbell County Weed and Pest Department explained the plant life that can help and hurt water quality. And analysts with the DEQ explained how much you can learn about water quality from the kind of insects and fish that live in the water.

Lindsay Patterson, natural resource analyst with the DEQ, spends her summers collecting invertebrates from water around the state to test water quality.

"We use invertebrates and fish as indicators of water quality," Patterson. "We compare what we find (at sample sites) to what we would expect to find."

Patterson explained to the kids that when water temperature, pH and turbidity changes from pollution, so do the kinds of fish and insects that can survive in that water. A fish tank with samples of insects from the Fishing Lake and another tank with samples from the Tongue River near Sheridan helped show the difference.

Before the field trip, the students learned about “non-point source pollution,” said Christy Gerrits, the student’s science teacher at Sage Valley Junior High. She hopes they learn how important it is to protect water resources.

“With non-point water pollution, there are so many little things that we all do to contribute to it,” Gerrits said.

She hopes the students learn to pick up dog waste, make sure no one puts things down the storm drains and how important it is to read directions for fertilizer.

One of the main sources polluting the creeks and lake is non-point source pollution. Pet waste and fertilizer in people’s yards along with everything on the roads, driveways and parking lots in Gillette ends up in the lake.

Seventh-grader Dustin Gray said he already “kind of knew the lake was polluted.” He said favorite part of the day was learning about the invertebrates and fish — “the biological stuff.”

Michelle Cook, Campbell County Conservation District manager, organized the water monitoring day. Teaching people how to keep the water clean is part of the Conservation District’s efforts to clean up Gillette’s Donkey and Stonepile Creeks as well as the Fishing Lake.

Next up for the Conservation District is a meeting Tuesday on the city’s storm water master plan. The city is updating its outdated storm water drainage system before the city’s population grows to the point that it will require a major fix by the Department of Environmental Quality.

The improved storm water system, which will included erosion and sediment control systems, will help keep the Fishing Lake clean in the future.

The design for dredging the Fishing Lake and rebuilding the wetlands should be finished in the next few months and construction should start next fall, Jensen said.