St. Croix River: Fracking sand sediment leaks into protected waterway
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An undetermined amount of fine sand sediment from a mining operation near Grantsburg, Wis., has seeped through a protective berm into a wetland and creek and then into the federally protected St. Croix River.

The accident, which turned the creek a creamy coffee color, was discovered by a hiker April 22, three days after a new waste settling pond holding the suspended sand was put into use, Burnett County Conservationist Dave Ferris said.

Damage to wildlife, as well as to stream and river ecosystems, hasn't been determined yet.

The leak has been stopped, but the mine operator, Maple Grove-based Tiller Corp., faces potential penalties for improper discharge of storm water, according to the Wisconsin Department of Natural Resources.

Burnett County and the National Park Service, which manages the St. Croix, were still considering possible responses.

Mike Caron, Tiller's director of land-use affairs, said the company used the wrong soil to build the berm and should have inspected it more closely before using it.

"The soils that were used were very granular in nature," Caron said. "We would want something with more clay and plasticity."

The 72-acre surface mine just east of the St. Croix River is part of a booming industry in Wisconsin that is supplying special round-shaped sand to hydraulic fracturing operations elsewhere in the nation. That sand, along with water and chemicals, is pumped deep into the ground to extract natural gas and oil from rock in a process commonly known as fracking.

While the industry has bolstered local economies with new jobs, it also has raised environmental concerns, especially about dust and spills.

Tiller's rural Grantsburg operation, which started up last year, has several ponds in which water holding extremely fine sand is allowed to settle. The most recent one was built in April and was put into use April 19.

Three days later, Ferris said a hiker saw the discolored tributary nearby, took pictures and reported it the next day. Ferris said he was alerted April 25, and, along with the DNR, inspected the site April 26. At that point, he said Tiller workers were still unaware of the leak.

"By the time we got through walking the site with the foreman, he offered, and I agreed, to shut down that wash line and take pressure off the dike that was seeping," Ferris said.

The berm, he said, wasn't built properly.

"Obviously, it wasn't doing the job that it was supposed to do," said Ferris, adding the company has a much better containment system in place now.
"They also are now on a much more aggressive inspection interval than they were before," Ferris added.

"We have all agreed it's been sufficiently reconstructed to perform the way it should," said Caron, adding that only water and sand -- no chemicals -- are used or escaped the site.

In an email, Wisconsin DNR enforcement officer Deb Dix said the company may have violated two state regulations: "discharging off-site without a permit and failure to maintain physical controls to prevent the discharge of storm water."

As a National Scenic Riverway, the St. Croix River is overseen by the National Park Service.

Jill Medland, the park service's environmental coordinator for the St. Croix National Scenic Riverway, said it was unclear how much damage the river sustained. The pond is about a mile away and about 100 feet east of the protected riverway boundary.

"That is one of the things we're looking at -- to determine how much sediment discharge there was to the St. Croix and what site-specific impacts there might have been," Medland said. "We don't have any baseline information about what could have been there before the sediment discharge."

The spill comes at an inopportune time for Tiller, which is seeking approval to operate a gravel pit near Scandia, again just outside the boundary of the riverway but on the Minnesota side of the river. A draft environmental review has been prepared, and public comments were due Friday, May 18.

"We have expressed concerns about the proposal since we first heard about it," Medland said.

Caron said his company realizes it has a heightened obligation to operate carefully near such a public resource as the St. Croix River.

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