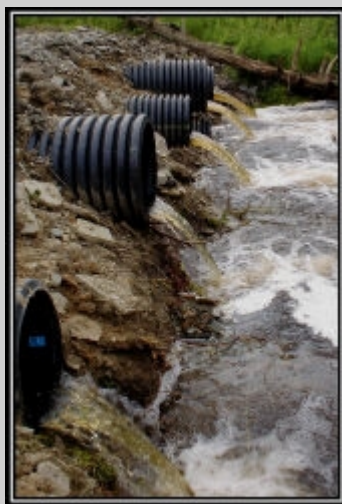


## Chemical Spill Causes 'Massive Fish Kill'

All Aquatic Life Killed On Upper Portage Creek, Driftwood Branch Loss Still Unknown



**At top: the spillway from a containment pond built by Norfolk Southern as part of its efforts to limit the flow of sodium hydroxide into Portage Creek.**

The pollution that gushed down the once-pristine waters of the Portage Sinnemahoning Creek likely killed every living organism in its path for several miles down stream.

While clean-up is progressing and water quality in the affected streams is improving by the hour, the 42,000 gallons of sodium hydroxide that leaked from three crashed train cars and found its way into some of Cameron County's most treasured waters, has already done its damage.

"Tens of thousands" of fish are dead as a result of the affects the corrosive chemical had on the water quality on Portage Creek and the stream into which it ultimately pours, the Driftwood Branch of the Sinnemahoning.

That according to PA Dept. of Environmental Protection Biologist Tom Randis who was taking water samples along the Driftwood Branch Thursday when he was asked to represent DEP at an informational meeting at the Emporium Firehall.

"We don't know exactly how many, but there was a massive fish kill on that day," Randis said of last Friday's disaster. "We all know what happened to the fish. That's a done deal."

Randis added that DEP is now monitoring the stream condition by evaluating the kinds of bottom-dwelling organisms that have survived the conditions and where the surviving organisms can be found.

Fish loss from the site of the crash, which is just outside of Cameron County on the Albert Haynes farm on Gardeau Road, is believed to be a total loss for at least three miles down stream, according to Richard Russell, assistant director of Norfolk Southern's environmental protection department.

Three tanks carrying sodium hydroxide, or lye, leaked some or all of their contents into Big Fill Run, a tiny tributary that feeds Portage Creek on the Haynes property. The tanks were among some 26 others that toppled when a Norfolk Southern train went out of control on a tricky section of track in the mountainous terrain.



**At right: the site of the crash Thursday at noon. Those are rolls of paper in the foreground. Fish loss on Portage Creek is expected to be 100 percent for several miles below the site of a train crash that took place last Friday morning, dumping some 42,000 gallons of lye into a small tributary of Portage Creek. All other aquatic life in that area is believed to be dead as well.**



**This badly-damaged tank is believed to be one of the culprits in the chemical spill that occurred here last Friday.**

The chemical, which was in liquid form, raised the pH level of the stream to 14. Lye's sterilizing characteristics then "scrubbed" the stream of algae and molds that grow naturally and help maintain a healthy balance in the stream. That dead matter then turned the water a rusty-tea color. The chemical reaction in the water caused a bubbling affect on the surface.

News of the crash and its affects on the streams drew hundreds of people to the water's edge last Friday, many of them witnessing a horrifying event in nature: dead fish floating and others trying to jump out of the stream.

At press time, officials had lifted a ban on entering the water on the Driftwood Branch of the Sinnemahoning River. The pH level there has returned to normal. Experts also agreed that the water on Portage Creek below Park Run is now safe. pH levels are still elevated and dangerous nearer to the crash site, in the upper reaches of Portage Creek.

Just below the spill site, Norfolk Southern has had a containment pool dug. The water there is still extremely brown and highly corrosive. The company has also added citric acid to the bogs and marshes below the spill in an effort to neutralize the basic affects of sodium hydroxide.

What's Next?

Thursday's meeting did little to clear up the questions that are burning in Cameron County resident's minds.

While the pH level in the Driftwood Branch of the Sinnemahoning River has returned to normal levels, between 7.5 and 9.0, DEP officials at press time did not have enough data to predict how severely the aquatic life had been affected.

According to Cameron County Watershed Specialist Jim Zoschg, there was a "surprising" amount of life being supported in Portage Creek just before where it meets the Driftwood Branch, near the Cameron County Little League Complex.

There, he found several living crayfish (several dead ones as well), three different species of invertebrates alive and clinging to the bottoms of rocks and a side pool full of minnows darting around normally.

"I was surprised to find life," Zoschg said, noting that the invertebrates were hardy and known to be found in extremely acidic streams near acid mine drainage polluted streams. "The minnows were a great sign, but I hope people don't see minnow populations like these and think that the massive fish kill is a farce."

At least four teams of DEP biologists were taking water samples along Portage Creek and the Driftwood Branch on Thursday, DEP's Tom Randis said.

"We're seeing bugs on the Driftwood Branch," he said. "But, preliminarily, on Portage Creek, it looks pretty bleak."

At the base of a stream's ecology is its benthic community, the tiny organisms that are at the bottom of the aquatic food chain. Without those organisms, fish populations will not sustain.

DEP biologists will examine the benthic community in essentially every square mile of river from the site of the crash down stream until they reach an area they are sure has not been affected by the radical change in water pH.

Meanwhile, Norfolk Southern has hired the private biological company, Center For Toxicology and Environmental Health, to take its own water samples. A representative of that firm, Dr. Paul Nony, said Thursday that sites within two miles of the crash had reached "stable" pH levels. DEP biologists had not yet completed sampling areas that close to the spill site.

Nony also said that Norfolk Southern had voluntarily tested some 70 private wells in the area and that none were affected by the spill. The Norfolk Southern representative said they would continue testing wells for those who request them.

Both biologists on hand Thursday agreed that it is highly unlikely that there will be any residual toxic affects from the pollution.

Asked what lengths Norfolk Southern would go to in order to restore the stream as closely as possible to its natural state, Russell said "anything that can practically be done to restore (the stream's natural quality) Norfolk Southern will do."