

Ash spilled in train derailment could harm fish in Banff creek

REID SOUTHWICK, CALGARY HERALD

Last Updated: December 30, 2014 7:02 AM MST

Authorities are concerned about the long-term health of fish in a Banff creek after a freight train derailed last week, spilling several hundred tonnes of potentially toxic cargo into the water and surrounding area.

A Parks Canada official said Monday much of the spilled fly ash — a byproduct of coal production that can disrupt the local ecosystem — has settled to the bottom of 40 Mile Creek.

As water quality returns to normal, the ash is not expected to hurt fish that frequent the area for now, unless something stirs up the creek bed, said Bill Hunt, resource conservation manager with Parks Canada.

Officials plan to leave the ash in the creek until the ice melts ahead of the spring. But when crews remove it, they will attempt to avoid mixing the harmful material with the waterway, frequented by four species of fish.

“We know that much of any sort of sediment going into the water is not a good thing for fish,” Hunt said.

“We know that in the immediate area, if there were eggs or anything laying on the bottom, they will be severely impacted (killed). In areas further downstream, we don’t know yet.”

Fifteen rail cars on a Canadian Pacific train fell off the tracks while crossing a bridge over 40 Mile Creek early Friday, eight of them falling into the water below with some of them spilling their contents.

Authorities responding to the crash were concerned that the spill site lies just 200 metres upstream from the Bow River.

Initial reports indicated that seven cars had fallen into the creek, spilling lentils and fly ash. On Monday, however, Hunt confirmed eight cars had fallen, one of them loaded with soybeans and the remaining seven with ash.

A background report on the ash, disclosed by Parks Canada, says it came from a coal-fired plant in Saskatchewan, and that it may contain trace amounts of arsenic, lead, nickel, mercury and uranium, among other materials.

“(It) may cause long-term adverse effects in the aquatic environment,” states the report, formally called a Material Safety Data Sheet.

Canadian Pacific declined to disclose the report to the Herald because it contains “customers’ proprietary information.” But spokesman Jeremy Berry said local authorities received it immediately after the crash.

Hunt said the railway company acted quickly and adequately to control the spill and mitigate any impact on the environment.

An Alberta conservationist said the spill was concerning, especially because it occurred in such a sensitive habitat.

“This is really, really unfortunate, especially because it’s in the context of a national park,” said Anne-Marie Syslak, executive director of the southern Alberta chapter of the Canadian Parks and Wilderness Society.

Canadian Pacific resumed train service through the affected area early Sunday, but authorities continued to clean up spilled cargo along the banks of the creek.

Although Canadian Pacific removed most derailed cars and quickly installed a new bridge to continue moving its cargo across the main line, two cars remained partially submerged in the water.

One of them contains ash, which will be pumped out to avoid adverse effects on humans — it can cause respiratory problems when airborne — and wildlife.

The other car, loaded with soybeans, has served as a makeshift dam to block spilled cargo from flowing to the Bow River, the source of Calgary’s drinking water. Crews installed a second dam with rock and filter fabric farther downstream from the spill site to further protect the river.

“When you have this volume of material that is in a spawning stream that has been the subject of restoration and it’s within metres of the main stem of the Bow River, this is a crisis,” said Wild Canada Conservation Alliance director Jim Pissot.

According to Parks Canada, the spill would have initially been toxic for fish because it caused the creek to become murky, which would have made it difficult for the swimmers to breathe.

Now that the ash has settled to the bottom, and water quality is “approaching very close to normal,” there are not expected to be major short-term effects.

Parks Canada officials are now trying to determine how they can extract the coal ash from the bottom of the creek ahead of the spring without further disturbing the ecosystem.

Four species of fish are known to travel through 40 Mile Creek. Westslope cutthroat trout, a species at risk, is known to frequent the creek's headwaters, but they don't often reach the area around the spill site, Hunt said.

The creek is also home to white sucker, whitefish and bull trout.

"The good news is that the primary fish that's in that area is bull trout and they are a fall spawner, so we fully intend to have this dam removed before fall," Hunt said.

"The bad news is that because they are fall spawners any eggs and stuff would have been impacted by the spill."

Officials with Parks Canada and Canadian Pacific are now trying to figure out whether they should remove the train car that's serving as a temporary dam. And, in the months ahead, they will plan the next phase of cleanup.

Authorities have still not identified the size of the landscape they will have to scour for remaining ash, given that some of it may have surpassed the temporary dams.

Parks Canada has tested water quality downstream of the spill site to understand how far the material flowed, but the results are not yet available.

"That'll inform us on how big of a cleanup area we have — is it 40 metres long or 100 metres long or 600 metres long? We don't know yet," Hunt said.