

From Runways to Waterways

Chapters call a halt to glycol pollution.

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We had a harsh winter this year. Lots of snow. Record-breaking blizzards devastated many regions of the country, shutting down schools, roads—and airports.

This meant plenty of extra work for airline ground crews. It also meant a lot of glycol, a toxic fluid that's sprayed on aircraft to de-ice them. "We've gone through 28,000 gallons so far," says John Wheeler, an environmental manager at Des Moines International Airport. "By the year's close, we should be well over our 40,000 gallon average."

Left unchecked, glycol can seep from runways into streams, poisoning the water. That's what happened in the 1990s to Yeader Creek, a four-mile tributary that begins at Des Moines International airport.

"It killed everything for a quarter of a mile," says Joe Hansen, a member of the League's Des Moines Chapter. "The creek had a terrible smell and turned an orange-yellow color." The chemical consumed large amounts of oxygen in the water, suffocating fish and other aquatic life.

The chapter's Save Our Streams program began monitoring the creek. Volunteers took water samples and brought them to the Iowa Hygienic Laboratory for analysis. Confirming the worst suspicions, the League shared the results with the Iowa Department of Natural Resources (IDNR), which then notified the airport of the problem. "The creek water was so contaminated it had turned septic," recalls Jim Stricker, an IDNR official. "It was time to decide on a course of action."

In 1997, the airport initiated a vacuum recovery project aimed at picking up residual glycol from the airport grounds. Airport officials, the IDNR, and League members began meeting to discuss the construction of a more permanent glycol containment facility. "We went to all the airport board meetings," says chapter member Dale Lindquist. "We wanted to make sure the airport engineers were taking the responsible approach."

Two years later, a \$6-million, 28.6-acre terminal apron designed for glycol containment was put into effect. "The airport got rid of all the storm drains," explains John Wheeler. "After the planes de-ice on the apron, the glycol is collected and sent to a sewage plant for treatment." Wastewater management specialists then release bacteria into the fluid, reducing the glycol's ability to drain oxygen from water.

Today, the Des Moines Chapter, the IDNR, and the airport commission jointly monitor the creek's recovery through spot-checks and testing. "It's reassuring that our

test results match theirs,” says Lindquist. “The water quality has consistently improved.”

Nevertheless, according to Jim Stricker, the creek still has a long way to go. “Pollutants are still getting into the creek,” he says. “It’s hard to say exactly why that’s happening, but we intend to meet again with the airport officials and determine what further steps are needed to minimize contamination.”

Glycol pollution has been a concern at other airports in the United States as well. In the early 1990s, League members from the Central New York Chapter helped rescue Beartrap Creek—once a healthy trout stream—from glycol runoff caused at Syracuse Hancock International Airport. Les Monostory, an environmental planner and the chapter’s vice president, says the League became aware of the pollution in 1991 when a concerned citizen phoned the chapter and complained about the creek’s appearance. “That was some of the worst pollution I’d ever seen,” he recalls. “The tributary coming from the airport was extremely septic.”

The League informed the New York State Department of Environmental Conservation (DEC) and began gathering data from water samples. A year later, the chapter included its data in an Environmental Impact Statement required from the airport for a new runway.

As a result, airport officials began working with the DEC on a State Pollutant Discharge Elimination System permit. Instead of building a runway, they made plans to construct a \$10 million glycol collection and treatment system. “We worked for nearly two years with the airport on the language of the permit,” recalls Steve Eidt, a DEC water engineer. “They were concerned about the cost of the system and didn’t want to disrupt their flight schedule.”

By 1996, the collection and treatment system became operational. It has been running smoothly ever since. “Planes de-ice on three paved pads that use gravity and pumps to drain internally,” explains Bob Radway, an operations official at the airport. “The glycol is then collected and transferred to waste-water lagoons for treatment.” Since the system went into effect, Beartrap Creek has seen vast improvements. Caddis flies and sickleback minnows have returned, and the chapter is optimistic about restocking the stream with trout.

Adds Steve Eidt, “The Izaak Walton League has had such a positive effect on the environmental front. We truly appreciate all they’ve done through the years.”