

Environmental Health News

<http://www.ehn.org/military-site-polluting-yupik-people-2513528278.html>



Elder Harriet Penayah and intern Abigail Nelson dissecting a stickleback fish. (Credit: Samarys Seguinot Medina, Alaska Community Action on Toxics (ACAT))

[Brian Bienkowski](#) | Dec 04, 2017 Originals

Cold War-era military site continues to pollute fish and Yupik people

Three years after the Army Corps declared it sufficiently cleaned up, a former Air Force station continues to contaminate wildlife on remote St. Lawrence Island

Despite decades of cleanup, a former Cold War-era military station on St. Lawrence Island continues to pollute fish, and researchers say the indigenous Yupik people near the site are likely being harmed as well.

According to a [new study](#), fish near the Northeast Cape Air Force Station — located on St. Lawrence Island, which is in the Bering Sea between Alaska and Siberia — remain highly contaminated with polychlorinated biphenyls (PCBs), which were dumped and left behind in water and soil after the station closed in 1972.

The findings are the latest point of contention between federal officials and the community.

There are approximately 600 abandoned defense sites in Alaska that operated from World War II to the Cold War—Northeast Cape is one of the more infamous due to its extensive pollution.

However, in 2014 the U.S. Army Corp of Engineers determined that the cleanup was sufficient.

"We think they left prematurely," said Pamela Miller, a co-author of the new study and the executive director of Alaska Community Action on Toxics.

Miller and other researchers who tested the fish say the findings should prompt a re-thinking that all is well near Northeast Cape.

"The fish in the river are still contaminated with PCBs—coming from the defense site not the atmosphere—and the widespread health disruption in the fish is consistent with health problems that people report on the island," said Frank von Hippel, a professor and researcher at Northern Arizona University and lead author of the study published in the journal *Environmental Pollution*.

PCBs are highly toxic—linked to cancers, hormone disruption, developmental and immune system problems, low birth weights, brain impairment and thyroid impacts. The new study suggests that the Yupik—and other indigenous people—are living with a toxic war legacy through no fault of their own.

"Given that thousands of such Cold War remnants exist throughout the Arctic in Alaska, Canada, Greenland, Scandinavia and Russia and often in close proximity to indigenous villages, such health disruption may be widespread and contribute to the health disparities experienced by Arctic Indigenous Peoples," the author wrote.

Von Hippel and colleagues found that two fish species—Alaska blackfish and ninespine stickleback—living both upstream and downstream of the Northeast Cape Air Force Station in the Suqitughneq River remain highly contaminated with PCBs that came from the station.

While the fish aren't species commonly eaten on the island, Hippel and colleagues found evidence in the fish of altered DNA methylation and gene expression, as well as hypothyroid conditions—all of which is concerning for local residents as "endocrine disruption and altered gene expression in Suqitughneq River fish indicate potential health risks for [St. Lawrence Island] residents associated with Northeast Cape," the authors wrote.

Many on the island complain of families ravaged by cancers and other illnesses. Researchers can't specifically pin the health woes on widespread contamination but the tainted fish are just the latest bad news for the 1,800 square mile St. Lawrence Island, where roughly 1,500 people live.

"For many of us on the island, it's not a matter of if you'll get cancer but when," said Vi Waghiyi, a Yupik grandmother who was born in Savoonga on St. Lawrence Island.

Savoonga residents who lived, worked or camped at Northeast Cape are now displaced due to the military contamination and high rates of cancer in their families. Waghiyi's father worked at Northeast Cape and her family lived there every summer for five years.

Both of her parents had cancer—her dad died of cancer and her mother died due to complications from it.

Mixed signals



Credit: John Postlethwait

Waghiyi, who battled cancer herself along with her brother in 2015, said about 70 to 80 percent of the homes on the island eat only traditional food—such as bowhead whale, walrus and seals.

The Yupik people, however, have come to learn that such creatures — which have sustained their people for many generations — are now loaded with PCBs.

Fears of the pollution spread, especially after researchers reported that PCB levels in the blood of St. Lawrence Island Yupik people are about six to ten times higher than people in other U.S. states. Those families who used to live, work and camp in the Cape area have higher levels of PCBs than residents elsewhere on the island.

While PCBs are persistent chemicals that linger in the environment, the new study results are somewhat surprising as there has been extensive cleanup near the station.

The 4,800-acre station was used by the Air Force from the early 1950s to the early 1970s for radar coverage to prevent bomber attacks, according to the U.S. Army.

Between 1985 and 2014, around \$120 million was spent on site cleanup including removing old storage containers and contaminated soil. In 2014 the Army Corps, which spearheaded cleanup, pulled out.

In an emailed response John Budnik, an Army Corps spokesman, said the Corps continues to monitor groundwater every five years and conduct "periodic reviews" to ensure the health of people and the environment are still being protected.

He said in 2016, due to community concerns, the Corps did additional sampling of the sediment and surface water in the Suqitughneq River. "The sampling results showed that PCBs were not detected in the Suqitughneq River sediment," he said.

The people of St. Lawrence have been receiving mixed signals on the safety of Northeast Cape. In July of this year, the U.S. Department of Health and Human Services [came out with a health report](#) for people near Northeast Cape.

The agency found that eating Northeast Cape fish in the summer months, eating greens and berries year round, "accidentally ingesting soil for half the year" or drinking Suqitughneq River surface water year-round are all not expected to harm people's health.

"Tribal members should continue to eat fish and marine mammals from traditional seasonal fishing grounds at Northeast Cape and other fishing and hunting areas because of the health and cultural benefits," the report added.

The tribe was unequivocal in its denouncement of the report. "We do not accept the ... health consultations because they are so poorly done, scientifically unacceptable, and because the agency has disrespected and left out our knowledge," wrote Delbert Pungowiyi, tribal president of the Native Village of Savoonga, and Eddie Ungott, tribal president of the Native Village of Gambell, in a letter to the feds.

Miller called the report "irresponsible, almost criminal."

"You can walk in the river and see oil plumes," she added. "The fish have never recovered."

Von Hippel shared his findings with the federal agency when they were drafting the health consultation report and he said they wouldn't use it because people don't eat the fish that von Hippel and colleagues tested.

"We studied a low trophic level fish, any fish people are eating are going to have higher concentrations than these have," von Hippel said.

The Department of Health and Human Services would not comment on von Hippel's findings.

“Environmental violence”



Credit Samarys Seguinot Medina, ACAT

Von Hippel said the problem of federal neglect is much broader than just this one report, adding that the Army Corps and other agencies should take into account the biological impacts on species such as fish into consideration when deciding whether or not to continue cleanup, instead of relying solely of the chemical levels in dirt and water.

Budnik said the Corps' next scheduled groundwater monitoring effort will be in 2018 and the department will invite a member of the local tribal government or a community representative to observe.

It's not easy to clean up chemicals such as PCBs. Sometimes digging them up to clean can in itself spur worse pollution.

However, Miller and others are pushing for renewed federal cleanup efforts such as identifying potential ongoing PCB sources and possibly advanced technology using microbes to more quickly degrade the chemicals where they sit.

But for now, the site remains neglected.

"The damage has been detrimental to not only our lands and waters but to our health and well-being," Waghiyi said. "We are being contaminated without our consent. It's environmental violence."

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