

Port Heiden, Alaska

Summary of ATSDR's Public Health Consultation

December 2018

World War II Troop Landing and Beach Storage Area, Port Heiden, Alaska¹



The Port Heiden Tribal Council asked the Agency for Toxic Substances and Disease Registry (ATSDR) to assess possible health effects from pollution at the former military sites and landfills at Port Heiden. The Council expressed specific concern about exposure to contaminants in subsistence foods, drinking water, beach erosion and physical hazards, and chemical vapors entering homes and buildings. Port Heiden is on the northern side of the Alaskan Peninsula, on the coast of Bristol Bay. Access to Port Heiden is generally unrestricted. The military is investigating over 900 potential waste areas within the 21-square mile area.

Key Findings:

- People could be injured by contact with items such as old scrap metal, wood, batteries, drums, munitions, medical waste, and asbestos-containing material at the beach and areas used in the past by the military.
- Children and adults are not likely to be harmed by drinking water at the Meshik School. The school water meets drinking water quality standards.
- We don't have enough information to decide whether drinking water from area private wells, eating customary and traditional foods, or contacting soil could harm people's health.
- We also don't know if chemical vapors are moving indoors from contaminated groundwater detected in residential wells.

What did ATSDR do?

We worked with the Port Heiden Tribal Council, the Alaska Department of Environmental Conservation, and the Department of Defense to respond to tribal concerns. In 2014, ATSDR found that polychlorinated biphenyl (PCB)-contaminated soils and asbestos-contaminated clams were not likely to harm people's health. Since then, ATSDR has looked at reports to gather information about other chemical and physical hazards at the site.

¹ Army Geospatial Center. Sep 2010. Port Heiden/Fort Morrow, AK. Examination of Historical Aerial Photography. Final Report.

What did ATSDR find?



People may experience injuries from contacting surface debris at the beach and historical use areas across the site.

While many physical hazards have been removed, others such as scrap metal, wood, drums, asbestos-containing materials, medical waste, and old munitions remain and may continue to surface at beaches, landfills and historical use areas.

ATSDR recommends the owners of landfills and hazardous areas:

- Restrict current and future land use near areas with known landfills and debris.
- Place caution signs in areas with known physical hazards.
- Regularly inspect and maintain the landfills.

ATSDR recommends the Tribal Environmental Office:

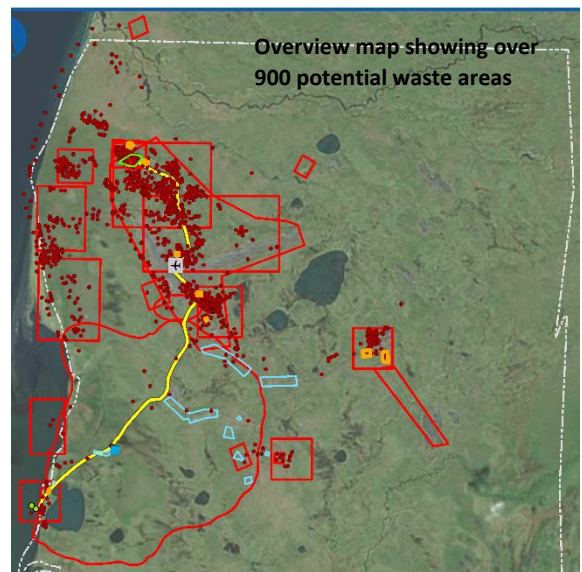
- Provide health education to residents and visitors about potential hazards.
- Work with stakeholders to remove physical hazards.

ATSDR recommends residents and visitors:

- Avoid debris and banks made unstable from erosion.
- Report physical hazards to the Tribal Environmental Office.²

ATSDR will:

- Provide mapping files that can be used by the villagers, visitors, and tribal environmental office to locate over 900 historical use areas throughout Port Heiden.



Children and adults are currently not likely to be harmed by drinking the water at the Meshik School, as long as treatment is maintained.

Treatment of the Meshik School drinking water is critical to maintaining acceptable levels of arsenic, copper, and lead. Recent drinking water testing results at the Meshik School were less than the U.S. Environmental Protection Agency's (EPA) maximum contaminant level for arsenic and EPA's lead action level. Copper was recently greater than ATSDR's comparison values but below levels that caused upset stomach, liver, and kidney problems in toxicity studies. Past levels of arsenic, copper, and lead were greater than EPA's and ATSDR's acceptable levels.

ATSDR recommends the Lake and Peninsula Borough School District:

- Continue routine monitoring for federal and state drinking water criteria and other water quality parameters as appropriate.
- Maintain and adapt water treatment systems to minimize arsenic, copper, and lead levels, as well as other contaminants.

² To find more information on contacting the Tribal Environmental Office, visit <http://www.nativevillageofportheiden.com/local-environmental-observer-program.html>



We don't have enough recent information to conclude whether chemicals in residential and community drinking water wells could harm people's health.

ATSDR recommends the Army, Air Force, or other responsible party:

- Offer follow-up sampling of drinking water for residential wells where diesel range organics were found in the past and for nearby wells.
- Offer sampling of wells within 100 feet of historical use areas.

ATSDR recommends residents:

- Regularly test their own drinking water wells as recommended by the Alaska Drinking Water Program for all private wells in Alaska.



We don't have enough information to conclude whether contact with chemicals from the landfills or over 900 historical use areas could harm people's health.

ATSDR recommends the Air Force:

- Complete remediation of the Radio Relay Station area.
- Continue efforts to identify and delineate groundwater contamination that could compromise current and future potential water supplies.

ATSDR recommends the Army:

- Complete the additional soil and groundwater testing indicated from the remedial investigations and any follow-up remedial activities.

ATSDR recommends the owners of landfills and hazardous areas:

- Restrict current and future land use at known landfills.
- Regularly inspect and maintain the landfills.

ATSDR recommends the Alaska Department of Environmental Conservation:

- Work with owners of the permitted landfills to restrict access and releases from landfills.
- Continue efforts to support characterization of contamination near the airport.

ATSDR recommends the Tribal Environmental Office:

- Provide health education to residents about the potential hazards of landfills and the over 900 historical use areas.

ATSDR recommends residents and visitors:

- Stay away from areas with soil or water discoloration or visible waste and report it to the Tribal Environmental Office.
- Avoid closed landfill areas and follow posted instructions at active landfills.
- Avoid landfill areas along the coast, especially where erosion is actively occurring.
- Use caution in the suspected historical use areas.

ATSDR will:

- Provide mapping files that can be used to identify information about over 900 historical use areas. ATSDR will provide the mapping files and the Port Heiden Map User's Guide to the Tribal Environmental Office for posting on their website.



We don't have enough information to conclude whether vapor intrusion into the residence with Diesel Range Organics in 2003 or unsampled nearby residences could harm people's health. Vapor intrusion is not expected to result in health effects at the Meshik school or airport buildings.

ATSDR recommends the Air Force, Army, and responsible parties:

- Evaluate buildings for potential vapor intrusion if retesting or monitoring indicate the presence of volatile chemicals greater than vapor intrusion screening levels.
- Continue monitoring the upper aquifer wells near the school for volatile and semi-volatile contaminants potentially related to the pipeline spill.
- Include methods to detect aliphatic and aromatic fractions appropriate for comparison with provisional vapor intrusion screening levels in future analyses.



We don't have enough information to conclude whether chemicals in traditional and subsistence foods could harm people's health.

ATSDR recommends the Tribal Environmental Office:

- Consider participating in the free Alaska Fish Monitoring program to evaluate how local fish and shellfish compare to specimens in other areas of Alaska. Contact Dr. Robert Gerlach at <https://dec.alaska.gov/eh/vet/fish-monitoring-program/>
- Complete the Alaska Fish Monitoring program's 10 question survey about the fish you catch and eat and any concerns about contaminants: <https://www.surveymonkey.com/r/T3TS7X8>

ATSDR recommends residents:

- Eat subsistence foods from a variety of locations to avoid heavy consumption of foods from any one (or more) of the historical use areas.
- Report any unusually impaired wildlife (like fish kills) or stressed vegetation to the Tribal Environmental Office.
- Consult the report "Tribal Exposures to Environmental Contaminants in Plants" provided in the petition response in 2008. The report is available here: https://www.engg.ksu.edu/CHSR/outreach/tosnac/docs/NAreport_fnl032301.pdf

ATSDR recommends the Army and Air Force:

- Work with the tribe to develop a sampling plan of traditional and subsistence foods impacted along the coastline and on land near historical use areas. Measure food for polychlorinated biphenyls (see past ATSDR recommendations) and metals.

How can I learn more about the Port Heiden site?

For more details about ATSDR's findings, see the full report at <https://www.atsdr.cdc.gov/HAC/PHA/index.asp>

For additional information on ATSDR's work at Port Heiden, please see our reports from 2014:

PCB's Associated with the Former Radio Relay Station

https://www.atsdr.cdc.gov/HAC/pha/PortHeiden/Port%20Heiden%20AK%20PCBs_HC_09-18-2014_508.pdf

Asbestos in Port Heiden Clams

https://www.atsdr.cdc.gov/HAC/pha/PotentialExposuretoAsbestos/Revisions%2020_2014Public%20Health%20Consultation%20Port%20Heiden%20Clams%20FN3%205_201.pdf

If you have questions or comments, call ATSDR's regional office director, Rhonda Kaetzel, at (206) 553-0530, ATSDR's regional representative for Alaska, Joe Sarcone, at 907-271-4073, or our toll-free number at 1-800-CDC-INFO.