

## Safeguarding Communities from Harmful Chemicals

### Tribal Communities & Chemical Exposures

Tribal communities are particularly vulnerable to environmental exposures because their livelihoods are heavily reliant on the natural environment. Traditional land use is linked to hunting, fishing, and gathering food - all critical aspects of cultural activities.

Throughout history, there have been concerns of environmental hazards on tribal lands or surrounding areas. Past military operations on tribal lands have had potential to adversely impact environmental health in tribal lands through the extraction, use, and storage of hazardous materials.

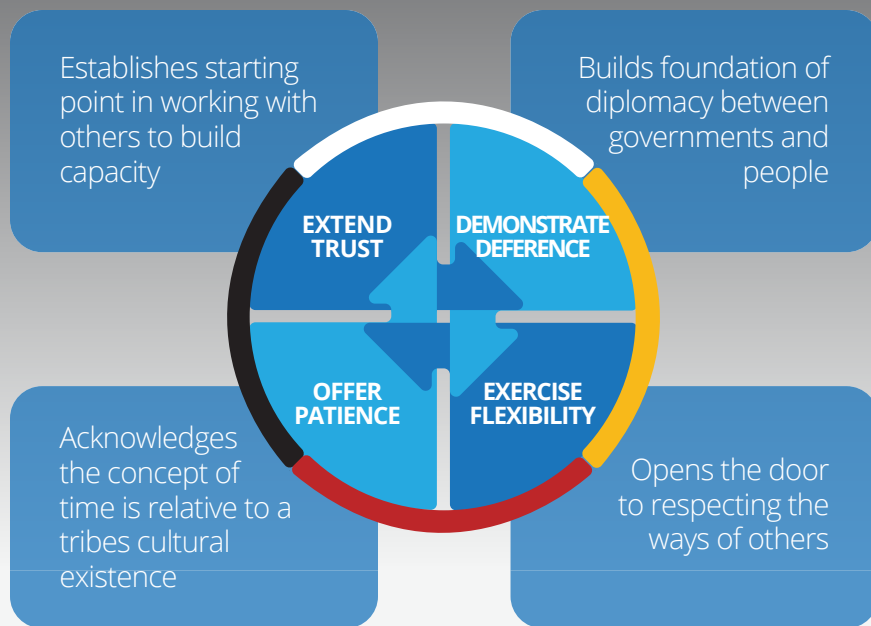
Uranium and coal mining and mining-related activities increased risk of exposure in tribal lands and watersheds. Areas surrounding tribal lands are also of concern as they were used as depositories for industrial waste.

#### Concerns Linked to Military Sites:

- ☠️ Exposure to dioxins including polychlorinated biphenyls (PCBs)
- ☠️ Asbestos exposure
- ☠️ Storage of toxins
  - Gasoline and diesel fuel storage
  - Barrel dumps holding toxic and radioactive waste
  - Debris dumps containing materials associated with chemical weapons, testing, and equipment
  - Leaching of heavy metals into groundwater
  - Vapor intrusion

The **Agency for Toxic Substances and Disease Registry** (ATSDR) works in partnership with tribal governments to ensure community concerns and impacts are considered before the Agency takes action or makes decisions affecting tribal communities. Operating under Federal laws and treaties serving tribal populations, ATSDR supports American Indian (AI) and Alaska Native (AN) governments. Our tribal mission is to affirm the government-to-government relationship by advancing connections, providing expertise, and increasing resources to improve tribal communities' public health. ATSDR responds to tribal requests for help with tribal-specific environmental health needs related to hazardous waste sites and contamination concerns.

### An Approach to Working With Tribes



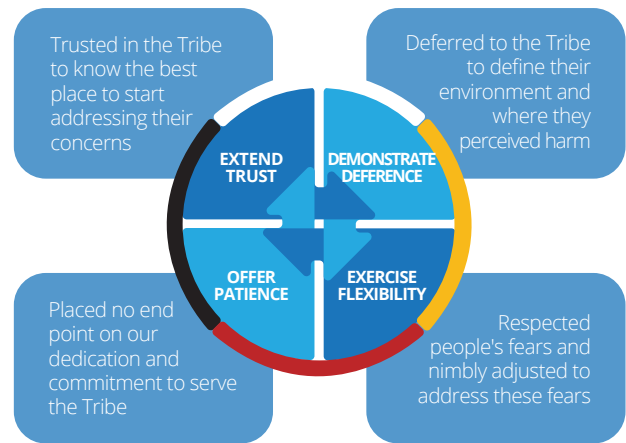
ATSDR takes a proactive approach in establishing effective communication and collaboration with tribal communities at the beginning of our public health activities. This includes, gaining an understanding of the tribal members' concerns through multiple forums, providing technical and educational support to identify environmental health threats, and consulting with tribal governments throughout the process to empower the tribe to transform information into action. Acknowledging the tribal partners' perspective is critical to understanding issues of concern, including those that affect subsistence lifestyles, threaten cultural practices, and endanger lands and waterways.



# CASE STUDIES

## Yakutat Tlingit Tribe in Alaska

Of the 566 Federally-recognized tribes, 229 are in Alaska. The Yakutat Tlingit Tribe was concerned about potential environmental contamination in the Ankau Saltchucks and possible adverse health impacts. This was especially important because over 40 percent of the tribe's subsistence living is dependent on the food harvested in the Ankau Saltchucks. In addition, there are many cultural ties between food gathering, family activities, and the environment. ATSDR was petitioned by the Yakutat Tribe to validate data and review site investigations performed in 2010 by the Tribe, and identify additional data needs.



ATSDR Approach to working with the Yakutat Tlingit Tribe

### HIGHLIGHTS

- ▶ Yakutat residents rely on the Ankau Saltchucks estuary as part of their subsistence and cultural activities.
- ▶ Former military facilities and dumping sites are scattered throughout the Phipps peninsula that include the Saltchucks and other areas occupied by the Yakutat tribe.
- ▶ The Formerly Used Defense Sites (FUDS) program under the U.S. Department of Defense as well as the EPA's Tribal response program conducted prior assessments to determine that dioxin levels were high in shellfish from the Ankau Saltchucks.
- ▶ ATSDR worked with the Yakutat tribe to determine areas that were safe and unsafe for harvesting shellfish in relation to dioxin contamination.

## Cleaning up Abandoned Uranium Mines on Navajo Nation Lands

The unique geology of the Navajo lands is rich in uranium, a radioactive ore in high demand after the development of atomic power and weapons at the close of World War II in the 1940s. Many Navajo people worked in and near the mines, often living and raising families in close proximity to the mines and mills. Uranium mining and milling activities no longer occur on Navajo lands, but the legacy of these activities remains, including more than 500 abandoned uranium mine claims with thousands of mine features such as pits, trenches, holes, etc., and some homes that were built from mine and mill site materials. Health outcomes linked with non-occupational uranium exposure include lung cancer and impaired kidney function. Community outreach around the health impacts of uranium exposure was facilitated through community education activities.

### Communicating Health Hazards Associated with Uranium on Tribal Lands:

- ▶ **Public Education** - Through public stakeholder comments ATSDR was able to understand community concerns and needs regarding abandoned uranium mines. A series of 10 educational posters and 4 fact sheets were designed and adapted to respective locations.
- ▶ **Community Outreach** - Dissemination of materials and communicating information was done in partnership with the Navajo Department of Public Health and respective Community Health Representatives (CHRs) and Outreach programs.
- ▶ **Trainings** - Building the capacity of CHRs to provide education and health screenings increases effectiveness of communications regarding the health impacts of uranium exposure.

### A List of Resources

ATSDR Office of Tribal Affairs: <http://www.atsdr.cdc.gov/news/displaynews.asp?PRid=2211>

ATSDR Office of Tribal Affairs Addressing Environmental Health: <http://1.usa.gov/1RIY2Ra>

CDC's Tribal Support Unit: <http://www.cdc.gov/tribal/>

Alaska Department of Health and Social Services - Using cancer data to address Alaska community concerns about health risks: <http://content.govdelivery.com/accounts/AKDHSS/bulletins/1118279>

ATSDR Navajo Birth Cohort Study: [http://www.atsdr.cdc.gov/sites/navajo\\_birth\\_cohort\\_study/index.html](http://www.atsdr.cdc.gov/sites/navajo_birth_cohort_study/index.html)