

DOUGLAS INDIAN ASSOCIATION

Anax Yaa Andagan Ye- Sayeik

Where the Sun Rays Touch First- Spirit Helper



DOUGLAS INDIAN ASSOCIATION TRIBAL RESPONSE PROGRAM (TRP)

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DIA TRP SAMPLING PROJECTS

DIA has
sampled Sandy
Beach
recreational
area, The Taku
Inlet, Sunny
Cove & Grizzly
Bar, Peter
Naoroz
Property

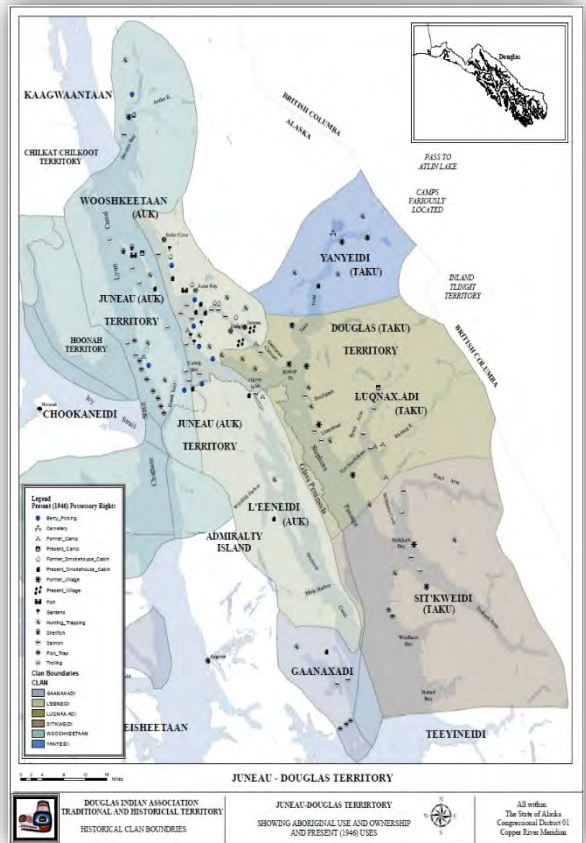
DIA | - BROWNFIELD TRP SAMPLING PROJECT BOOKLET

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DIA Territory and Lands

The Taku (Douglas) and Auk people have both historically occupied the Juneau area. The Taku people separated from the Tribe at Atlin Lake after the establishment of the Canadian border, moving down the Taku River to the coast. They had villages along the Taku River and Inlet. The Taku Indians would still travel upstream and overland to tributaries of the Yukon to trade with Interior Indians, including the Atlin Lake Tribe.



The historical Taku territory has included Taku River, Taku Inlet, Taku Harbor, Limestone Inlet, Port Snettisham, Admiralty, and Douglas. The territory was continuously used, as seasonal hunting and fishing camps moved around based on the availability of fish and game. After gold was discovered in the Juneau area, both the Taku and

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Auk Tribes moved closer to the Juneau settlement to further their tribal economies with trade and labor opportunities. The Taku village moved to the vicinity of Bishop Point, and then to Douglas.

Like many Tlingit and Haida Tribes in Southeast Alaska, the DIA only has possessory rights for a small fraction of their historic territory. Many of the Taku settlements were temporary or seasonal, and there is little evidence of lands with permanent and exclusive use that is needed for possessory rights. The DIA has possessory rights for a small inlet north of Taku Harbor, where a hooligan camp is situated, an area near Limestone Inlet, and a few cabins.

All of Steven's Passage from below Gambier Bay and Holkam Bay, including Port Snettisham, Taku Inlet, and the lesser bays and inlets, continues to be used for hunting, trapping, and fishing by Taku Natives together with non-Native residents and travelers, and other Native peoples (Goldschmidt and Haas, 1998).

The lands used by the DIA membership have physical characteristics typical of the Southeast region. Terrain consists of steep slopes, rocky coastlines, and forested mountains. The Taku lands fall within the Tongass National Rainforest. Western hemlock (*Tsuga heterophylla*) and Sitka spruce (*Picea sitchensis*) dominate the forest canopies. Soils are typically organic at higher elevations and support shrub and forested wetlands. Coastal soils are shallow with bedrock outcroppings. Valleys in this region were carved by glaciers and have broad U-shapes; other valleys are short and steep and coalesce to form these larger bowls. Valley soils are well drained due to the steep topography, allowing them to support the spruce-hemlock forests characteristic of Southeast Alaska.

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Sandy Beach Site Description

- Sandy Beach is located on Douglas Island adjacent to the historic Treadwell Mine that was Shut down in 1917.
- The beach is used by DIA tribal members for collection of traditional subsistence food resources as well as by the general public for recreational purposes.
- Public facilities at the beach include picnic shelters, public bathrooms, and an upland trail system with multiple outlets onto the beach.



Sandy Beach Sampling

- Site sampling was conducted at Sandy Beach in 2014 and in 2016.
- In 2014, A total of 6 Dungeness crab, 12 clams, and 8 sediment samples were collected and analyzed from Sandy Beach area.
- In 2016, a total of 8 sediment samples were collected to further characterize the extent of possible contamination.

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- In both events sample analysis was performed to determine whether methylmercury, inorganic arsenic, and lead pose a potential risk to tribal members through direct contact with sediments or through consumption of local seafood.



Samples taken at Sandy Beach

Sandy Beach Sampling Analytical Results

- High levels of arsenic, inorganic arsenic, mercury and methylmercury were detected in most sediments and tissue samples at concentrations that exceeded human health screening levels and ecological screening levels.
- The collective analytical results indicate that Sandy Beach sediments, clam tissue, and crab tissue pose a potential exposure risk to humans.



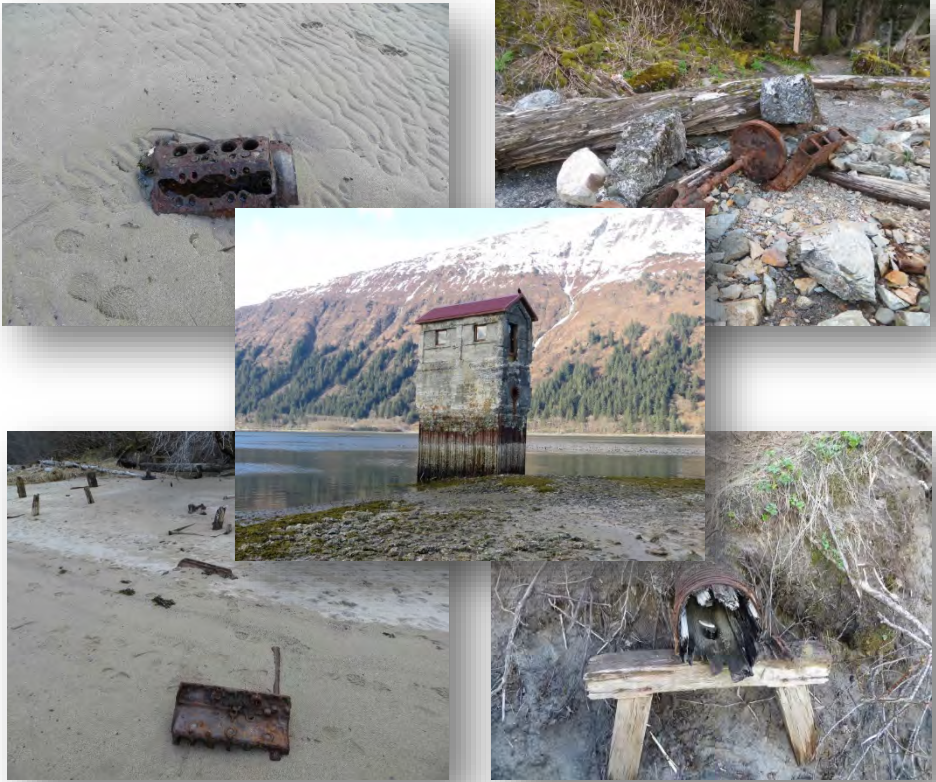
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Sandy Beach Sampling Locations



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Sandy Beach Mine Debris



Pics of old mine tailings/debris around Sandy Beach

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Glory Hole

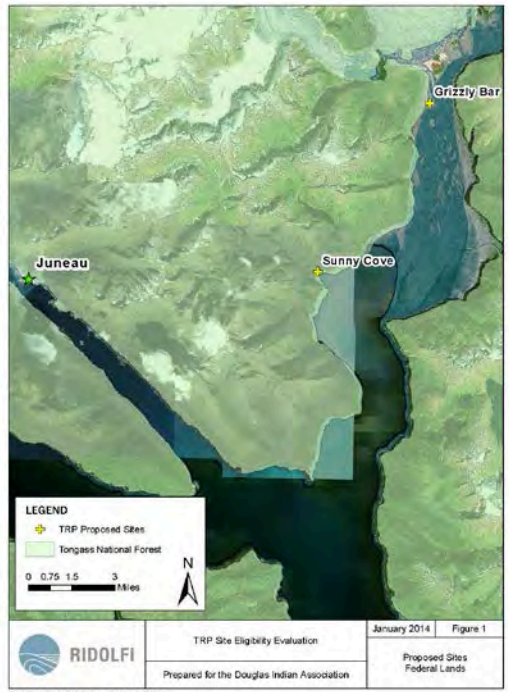


The Glory Hole was used for the mine ore disposal

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Taku Site Description and History

- Sunny Cove and Grizzly Bar are located on the intertidal shoreline of Taku Inlet.
- Historical mining operations and current discharges from the Tulsequah Chief, Big Bull, and New Polaris mines upstream are known to have discharged metals-laden mine wastes into the Tulsequah River.
- These mines include direct discharge of aluminum, arsenic, copper, lead, and zinc into the Tulsequah River and elevated concentrations of arsenic, copper, and selenium in fish tissue (Ridolfi, 2012).
- Both Sunny Cove and Grizzly Bar are located near traditional fish and shellfish resource areas used by tribal members for subsistence purposes. No previous site assessment work has been conducted at either location.



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Tulsequah Chief Mine



Acid drainage from the Tulsequah Chief Mine

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Sunny Cove and Grizzly Bar Site Sampling

- Site sampling was conducted at Sunny Cove and Grizzly Bar in August 2014.
- At Sunny Cove, a total of 4 intertidal sediment samples were collected and analyzed.
- At Grizzly Bar, a total of 14 intertidal sediment samples were collected and analyzed.
- The 18 sediment samples were analyzed for metals that included arsenic, cadmium, copper, lead, mercury, selenium, silver, and zinc.



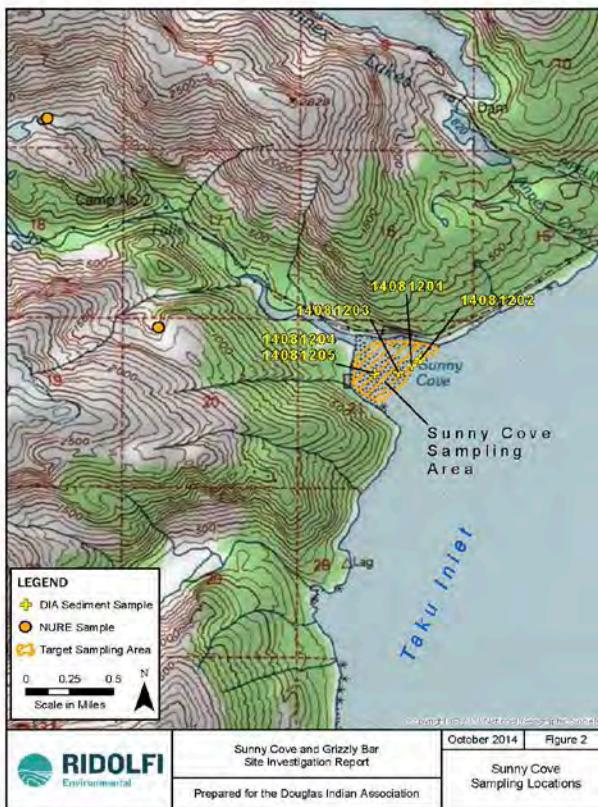
Sunny Cove and Grizzly Bar Site Analytical Results

- Analytical results for both Sunny Cove and Grizzly Bar included detected concentrations of arsenic, copper, and zinc.
- Although detected, the concentrations are in the typical range for stream sediments found in the area surrounding both sites.
- It is unlikely the observed metal concentrations are related to mining activities in the upper Taku River basin.

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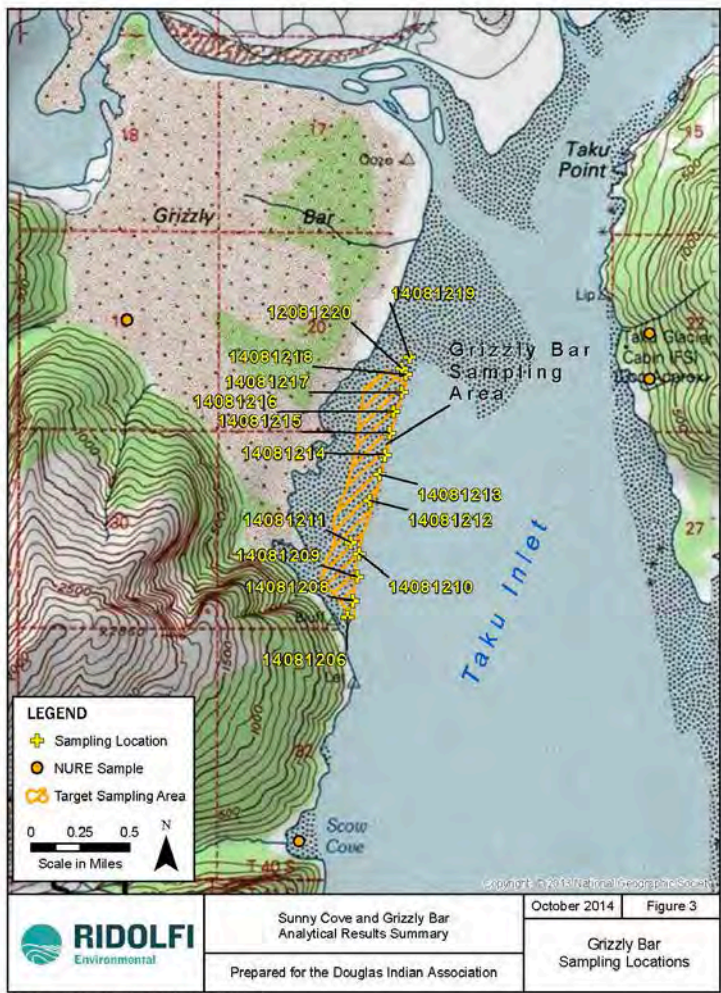
- It is also unlikely that tribal subsistence and cultural uses at these sites would result in significantly greater exposure risks than at other sites of the DIA territory.

Sunny Cove Sampling Locations



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Grizzly Bar Sampling Locations



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Peter Naoroz property site description

- The Peter Naoroz property is located 4 miles southeast of downtown Juneau on Gastineau Channel, approximately 1,000 feet southeast of the Sheep Creek estuary. The estuary is partly formed by and impacted by mine wastes and mill tailings resulting from mining and milling activities at the Gastineau Mine in the Sheep Creek watershed. Tailings associated with mining and milling in the surrounding area are suspected to be present on the Peter Naoroz property and the adjacent beach.



- Tailings from the Gastineau Mine were disposed of from 1912 to 1920 at the mouth of the Sheep Creek watershed where it empties into Gastineau Channel. The tailings disposal area encompasses about 50 acres of fine sediments.
- In 1987, Echo Bay Mines, with plans to reopen the A-J Mine, sampled the tailings and found elevated levels of arsenic and lead. The initial data collected by Echo Bay Mines prompted the USEPA to seek an additional investigation of the area. Mercury was also suspected in the

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tailings because of the past use of mercury amalgamation in the area. The additional environmental work ultimately included both a preliminary assessment and a site investigation by the consulting firm Ecology and Environment (E&E) that evaluated areas upgradient of the Gastineau Mine tailings (ADEC, 2014).

Peter Naoroz Sampling Locations



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Peter Naoroz sampling

- Sediment samples were collected from the Peter Naoroz property on April 27, 2017
- Nine primary sediment samples and one field duplicate were collected from the property.
- All samples were analyzed for total solids, total arsenic, and inorganic arsenic. A subset consisting of four samples and one field duplicate were also analyzed for total mercury and total lead.



Peter Naoroz Site Analytical Results

- Based on the analytical results, Naoroz Property sediments pose a potential exposure risk to humans from direct exposure to inorganic arsenic. Although not evaluated, the potential for additional exposure routes to inorganic arsenic exists through the consumption of organisms (shellfish and plants) harvested from the Naoroz Property. Risk to ecological receptors is also indicated for inorganic arsenic.

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Peter Naoroz Sampling Pics



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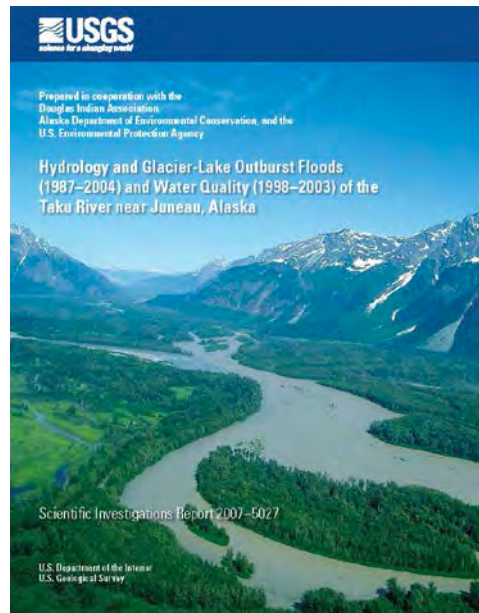
Previous Sampling on the Taku

Hydrology and Glacier-Lake Outburst Floods (1987–2004) and Water Quality (1998–2003) of the Taku River

Can get a copy of the Report at:

<https://pubs.usgs.gov/sir/2007/5027/pdf/sir20075027.pdf>

The U.S. Geological Survey in cooperation with Douglas Indian Association, Alaska Department of Environmental Conservation, and the U.S. Environmental Protection Agency conducted a water-quality and flood-hydrology study of the Taku River. Water-quality sampling of the Taku River from 1998 through 2003 established a baseline for assessing potential effects of future mining operations on water quality.



The author gratefully acknowledges the assistance of Douglas Dobyns of the DIA for his help with fieldwork and logistics throughout the duration of the study.

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*BOOKLET CREATED BY
DOUGLAS INDIAN ASSOCIATION
ENVIRONMENTAL DEPARTMENT*

PUBLISHED SEPTEMBER 2017