Passamaquoddy Tribe of Pleasant Point Tribal Water Programs Overview

Passamaquoddy Tribe of Pleasant Point

Sipayik Environmental Department

St. Croix River Watershed: Why?

- The St. Croix Watershed that is currently monitored from Grand Falls dam to the estuary of the St. Croix river by the Sipayik Environmental Department.
- The St. Croix Watershed is monitored due to that is the traditional river of the Passamaquoddy.
- The St. Croix watershed also contains an abundance of current Passamaquoddy reservation, trust and fee lands within the watershed.
- Alewife restoration efforts and studies are currently underway by the Sipayik Environmental Department in the watershed.



Lower St. Croix River: Water Quality

- The Sipayik Environmental Department is currently monitoring water quality data from the Grand Falls Dam to the estuary of the St. Croix River.
- Remote monitoring for DO and Temperature are planned for future monitoring sites.
- Other water quality sites will be added as needed.

St. Croix River Water Quality Data Parameters

- Temperature
- Dissolved oxygen
- Conductivity
- Salinity
- PH
- Turbidity
- Total Nitrates
- Phosphorus



CWA 319: Pleasant Point Reservation Why?



Figure 1: Pleasant Point Reservation and Wetlands

CWA 319: Pleasant Point Reservation

- Virtually all of the wetlands and watershed areas on the Pleasant Point reservation are affected by nonpoint-source pollution.
- The Pleasant Point Reservation is apart of the Boyden's river watershed that also has NPS pollution.
- Little River receives run-off from the reservation and surrounding municipalities. Which has the potential to affect wildlife species that depends on the rivers ecosystems. For example "Closing Beaches to harvesting"

EPA CWA 106

- Protecting America's Waters: Protect and restore our waters to ensure that drinking water is safe, and that aquatic ecosystems sustain fish, plants and wildlife, and economic, recreational, and subsistence activities.
- Protect Passamaquoddy drinking water source.
- Watershed based plan in protecting traditional and tribally owned lands and waters from all sources of impairment or degradation.
- Work with other programs, departments, tribal community and partners to accomplish similar goals.

CWA 106: Why?

- It is a necessity for cultural survival to provide safe, clean water for Tribal members.
- Improve Passamaquoddy access to environmental data and information.
- Get the public aware and to participate in Tribal environmental issues.

<u>CWA 106:</u> Boyden's Lake Watershed

- The Boyden's Lake Watershed is currently where the Passamaquoddy tribe of Pleasant Point gets its drinking water.
- Currently the Boyden's lake watershed has active water quality monitoring on the Penknife Lakes, Boyden's Lake, Boyden's Stream, and Little River.



Boyden's Lake Watershed Monitoring Spots



Ground Water

- Measure Water quality Parameters that will have data continuously monitored and logged
- Continue monitoring well that will take Well Depth Measurements and temperature readings.
- Continue monitoring on the impacts irrigation on surface and ground waters.
- Ensure Passamaquoddy Tribe is a responsible user of Ground Water Resources.

TWP-19: Passamaquoddy Blueberry Fields



EPA Environmental Justice Small Grant?

- "The EJSG program awards grants that support community-driven projects designed to engage, educate, and empower communities to better understand local environmental and public health issues and develop strategies for addressing those issues, building consensus in the community, and setting community priorities." (Environmental Justice Small Grants Program | US EPA, 2022)
- The EJ Small grant "Project will monitor drinking water for on reservation homes and government buildings. The project will include public education. There will also be a water filtration system installed at a Passamaquoddy Tribal building. Community members will be involved in all phases of the project." (Passamaquoddy Tribe of Pleasant Point: Sipayik Environmental Department, 2019)

EJ Small Grant: Objectives

- The project will <u>testing drinking water for contaminates</u> that may be in violation of EPA safe drinking water standards.
- The project has goal of getting <u>community involvement</u> in getting community members to volunteer their homes to be used in a drinking water study and to be take part in multiple meetings.
- The Project also has money set aside to install a <u>water filtration system</u> <u>at a Tribal building</u> that is accessible for community members to get further filtered water from.

Develop a <u>Community Drinking Water Action Plan.</u>

Sipayik's Drinking Water Issues

- Reports in the Past has shown Trihalomethane (TTHM) levels have exceeded Maximum Contaminate level (MCL) of 80 Parts per Billion (PPB).
- Reports and photos from multiple Sipayik community members who use the Public drinking water of Brown or Yellow colored water coming out of their tap Water Faucets.
- Well Water is currently not studied by the Sipayik Environmental Department.
- There is plans to test individual tribal members private drinking water wells on and around the Pleasant Point Reservation.

What is Total Trihalomethanes?

• TTHM are a group of 4 chemicals, chloroform, bromodichloromethane, dibromochloromethane, and bromoform. These are formed as a byproduct of the chlorine being added in public drinking water sources reacting with other naturally occurring chemicals.

• TTHM are a concerned due to Long term exposure of TTHM above the MCL can potentially lead to cancer.

• People are exposed to TTHM by either drinking the water it is in or eating food prepared for with the contaminated water.

• Other exposure routes include bathing or showering in contaminated water.

TTHM and Color Testing

- Sipayik environmental Department has tested for TTHM and color at multiple Tribal Government buildings and peoples homes through the Sipayik Community.
- The Data collected from these tests are shared with homeowners for their home when they request the data.
- The data is kept secure at the Sipayik Environmental Department.
- The EPA EJ small Grant will expand this testing to include more testing parameters.
- Data set will help better understand the Tap drinking water chemistry in Sipayik.

Boyden's Stream Reservoir





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Samaqannihkuk

- A community drinking water source has been developed as a Tribal Government Project.
- The community drinking water well is Separate from the EJ Small Grant.
- Sipayik Environmental Department is involved with this project with other Partners
- Samaqannihkuk drinking water well site is ready for use. Awaiting Tribal Government to authorize use.







Questions?

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