



Penobscot Indian Nation Water Resources Program

By Dan Kusnierz
NTWC Member

As a riverine tribe, whose unique Reservation includes the Penobscot River, clean water is of utmost importance to the Penobscot Indian Nation (PIN). Tribal people rely upon the Penobscot River and waters of their Trust Lands for their legally protected sustenance rights. Unfortunately, some of these waters are threatened by toxics (dioxins, PCBs, mercury), industrial and municipal discharges, hydroelectric dams,

nonpoint source pollution, and climate change. The mission of the Department of Natural Resources (DNR) Water Resources Program (WRP) is to protect, enhance, and restore water quality and aquatic resources, and related aquatic ecosystems of the Nation's territories so that tribal members may fully carry out tribal traditional cultural practices and lifeways. The tribe faces many regulatory and jurisdictional challenges as it tries to carry out this mission.

WRP staff protect the health of Penobscot citizens and how they use their waters by conducting a variety of monitoring and studies. PIN uses data from these projects for many purposes including, 1) to determine if water quality standards and discharge permits conditions are being met, 2) to provide input into regulatory permitting, to upgrade water quality protections, 3) to provide guidance to the tribal community about use of resources, 4) to assess environmental conditions, and 5) to guide us in decision making. WRP operates its own water quality laboratory that analyzes water samples that are collected for baseline water quality monitoring program. Below is a brief description of a few projects carried out by the PIN WRP.

Baseline Water Quality Monitoring

PIN WRP monitors water quality at 113 sites within the Penobscot River and its tributaries, 21 sites on Trust Land lakes and ponds, and 5-10 sites on Trust Land streams between May and October every year. Most of these sites are monitored every two (2) weeks. Parameters monitored include dissolved oxygen, water temperature, pH, conductivity, turbidity, total phosphorous,

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Left: Dan Kusnierz, Dianne Kopec, Shantel Neptune, Jason Mitchell collecting fish from remote pond for mercury analysis.

Middle: Jan Paul, PIN WRP Field/Lab Technician conducting analysis of fish tissue for mercury.

Right: Jason Mitchell and Jake Paul sampling aquatic insects from a PIN stream

E. coli bacteria, secchi transparency, chlorophyll *a*, color, biochemical oxygen demand, and total suspended solids. WRP also samples benthic aquatic insects, as indicators of water quality, at 4-8 sites per year. Data from this monitoring is used to assess the general condition of waters and attainment of water quality standards. PIN has used these data to get 400+ miles of streams upgraded to higher protection classifications.

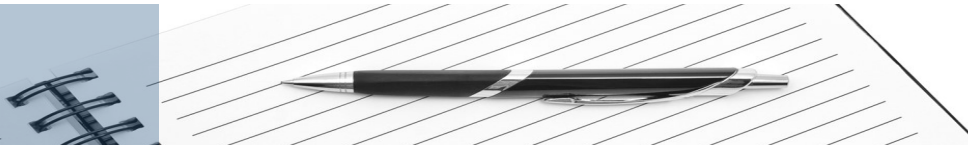
Monitoring Toxics in Anadromous Fish Returning to Penobscot Reservation

Previous projects in the Penobscot Reservation have led to issuance of fish consumption advisories due to unsafe levels of dioxins, PCBs, and mercury in resident fish. Recent dam removals and restoration projects have resulted in the successful return of several sea-run anadromous fish species. Some of these species, which the tribe historically relied upon for food, have been blocked by dams from entering Reservation waters for 100+ years. These species live most of their life in the ocean or estuary and migrate upstream into freshwater to spawn, and therefore would have different exposures to toxic pollutants than resident species. PIN WRP has been working on a collaborative study with the U.S. Environmental Protection Agency (EPA) and the Agency for Toxic Substances and Disease Registry to test levels of dioxins, PCBs, mercury, PBDEs, and PFAS in several of these fish species as they migrate upstream to the Reservation. In 2017 and 2018, PIN collected 73 composite samples of 406 individual fish (American shad-and roe, Blueback herring, Alewife, Striped bass, Sea lamprey, Rainbow smelt). Fish were analyzed for contaminants by EPA Cincinnati/Pegasus and Battelle labs. Using the contaminants results, a culturally appropriate risk assessment will be developed to determine the amount of risk Penobscot tribal members face when engaging in their legally protected right of sustenance fishing and their traditional cultural practices. Results will be used by the tribe to update wild foods consumption guidelines and educational outreach materials.

Mercury Levels in Fish from Penobscot Trust Lakes and Ponds

Mercury is a widespread issue in Maine, however, lake and fish species specific data from Penobscot Trust Lands are very limited or outdated. There is concern that tribal members may be shifting their fish consumption away from Reservation waters, where resident fish are known to be contaminated by dioxin, PCBs, and mercury, to more remote lakes and ponds that are perceived as safe because of no industrial dischargers. In 2019-2020, PIN WRP began a study with mercury expert, Dr. Dianne Kopec, to test mercury levels found in several different fish species from eight Trust Land lakes and ponds during open water and ice fishing seasons. Through collaboration with the University of Maine Sawyer Environmental Chemistry Lab, PIN WRP staff were trained to use a direct mercury analyzer at the lab to conduct tissue analysis themselves. This training builds tribal capacity and expertise. The tribe also created a Tribal Mercury Advisory Committee, comprised of cultural experts, elders, fishing guides, and staff of the tribal health and natural resources departments, to provide guidance on topics such as species used and communication of project results to the tribal community. Information from this study will be used to update wild food consumption guidelines and educational outreach materials.

Consultation & Public Comment Opportunities



Public Comment Opportunity: 2020 National Pollutant Discharge Elimination System Multi-Sector General Permit

ENDS: May 1, 2020

The U.S. Environmental Protection Agency (EPA) will be seeking public comment on the proposed 2020 National Pollutant Discharge Elimination System (NPDES) Multi-Sector General Permit (MSGP) for stormwater discharges associated with industrial activity in areas where the EPA is the NPDES permitting authority. Key proposed changes in the permit include new requirements for permit eligibility, authorization, monitoring, and updates to the stormwater control fact sheets.

Comments can be submitted on www.regulations.gov for docket ID # EPA-HQ-OW-2019-0372. The EPA hosted two informational webcasts On March 10 and April 9, 2020 to give an overview of the proposed changes to the permit . To view a recording of the March 10 webinar, please visit: <https://www.epa.gov/npdes/stormwater-discharges-industrial-activities#webcasts>.

For more information, please visit: <https://www.epa.gov/npdes/stormwater-discharges-industrial-activities>

Public Comment Period: Proposed Decision to Regulate PFOA and PFOS in Drinking Water - Regulatory Determination 4

ENDS: May 11, 2020

The EPA has announced a 60-day public comment period for its preliminary regulatory determinations for eight contaminants on the fourth Contaminant Candidate List (CCL 4). The Safe Drinking Water Act (SDWA) directs the EPA to publish a list of contaminants (referred to as the Contaminant Candidate List, or CCL) to assist in priority-setting efforts. The EPA is making preliminary determinations to regulate perfluorooctanesulfonic acid (PFOS) and perfluorooctanoic acid (PFOA) in drinking water and to not regulate six contaminants (i.e., 1, 1-dichloroethane, acetochlor, methyl bromide (bromomethane), metolachlor, nitrobenzene, and RDX).

The EPA will seek comment on these preliminary determinations until May 11, 2020 (60 days after publication in the Federal Register). Instructions for submitting comments are included in the announcement in the Federal Register via <https://www.regulations.gov> through Docket ID No. EPA-HQ-OW-2019-0583. For more information: <https://www.epa.gov/ccl/regulatory-determination-4>.

Tribal Consultation Opportunity: Draft Guiding Principles for Consulting with Alaska Native Claims Settlement Act (ANCSA) Corporations

ENDS: July 13, 2020

In 2004, through two Consolidated Appropriations Acts, Congress directed all federal agencies to hereafter consult with corporations established under ANCSA in 1971 “on the same basis as Indian tribes under Executive Order 13175.” The EPA has a long history of engaging with ANCSA corporations and now seeks to formalize this process.

The current consultation period for the EPA's Draft Principles for Consulting with Alaska Native Claims Settlement Act Corporations has been extended 90 days until July 13, 2020. This extension is to allow more time for tribal governments and ANCSA corporations to provide input during the COVID-19 response.

For more information: <https://tcots.epa.gov>.

Funding Opportunities



Tribal Wildlife Grant

Application Deadline: July 6, 2020

The U.S. Department of Interior - Fish and Wildlife Service Tribal Wildlife Grants Program provides a competitive funding opportunity for federally recognized tribal governments to develop and implement programs for the benefit of wildlife and their habitats, including species of Native American cultural or traditional importance and species that are not hunted or fished.

Deadline for proposal submission is **Monday, July 6, 2020**. For more information, please visit: <https://www.fws.gov/nativeamerican/grants.html>



Resources

USGS Webinar: Timing is Everything – How Fish and Wildlife are Responding to Climate Change Through Shifts in the Timing of Life Events

View this webinar to learn how warming conditions are affecting the seasonal timing of recurring life history events (such as breeding, feeding, and movements) for species across the Gulf of Maine.

- May 5, 2020 (3:00 PM EST)

To register: https://www.usgs.gov/centers/climate-adaptation-science-centers/science/upcoming-webinar-timing-everything-how-fish-and?qt-science_center_objects=0#qt-science_center_objects

Tribal Climate Health Project

This is a national webinar training series on how to develop a climate change adaptation plan that addresses both environmental and human health impacts. The training provides tools, templates and other resources to help tribal environmental and health professionals.

- May 19, 2020: Vulnerability Assessments Part 2 (10:00 AM – 11:30 AM MST)
- June 16, 2020: Adaptation Plans Part 1 (10:00 AM – 11:30 AM MST)

For more information, visit <https://register.gotowebinar.com/register/8077001825854440972>

EPA Small Systems Monthly Webinar Series

- May 19, 2020: Drinking Water Microbes 101
- June 30, 2020: AWIA Risk and Resilience Check List and AWIA Lessons Learned

To register and access recorded webinars, visit <https://www.epa.gov/water-research/small-systems-monthly-webinar-series>

EPA Water Research Webinar Series

- June 24, 2020: Water Reuse for Agricultural Purposes

For more information, visit <https://www.epa.gov/water-research/water-research-webinar-series>

NTWC Members – For more information, visit [Meet the Council.](#)

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