

PENOBSCOT NATION

Daniel Kusnierz
Water Resources Program

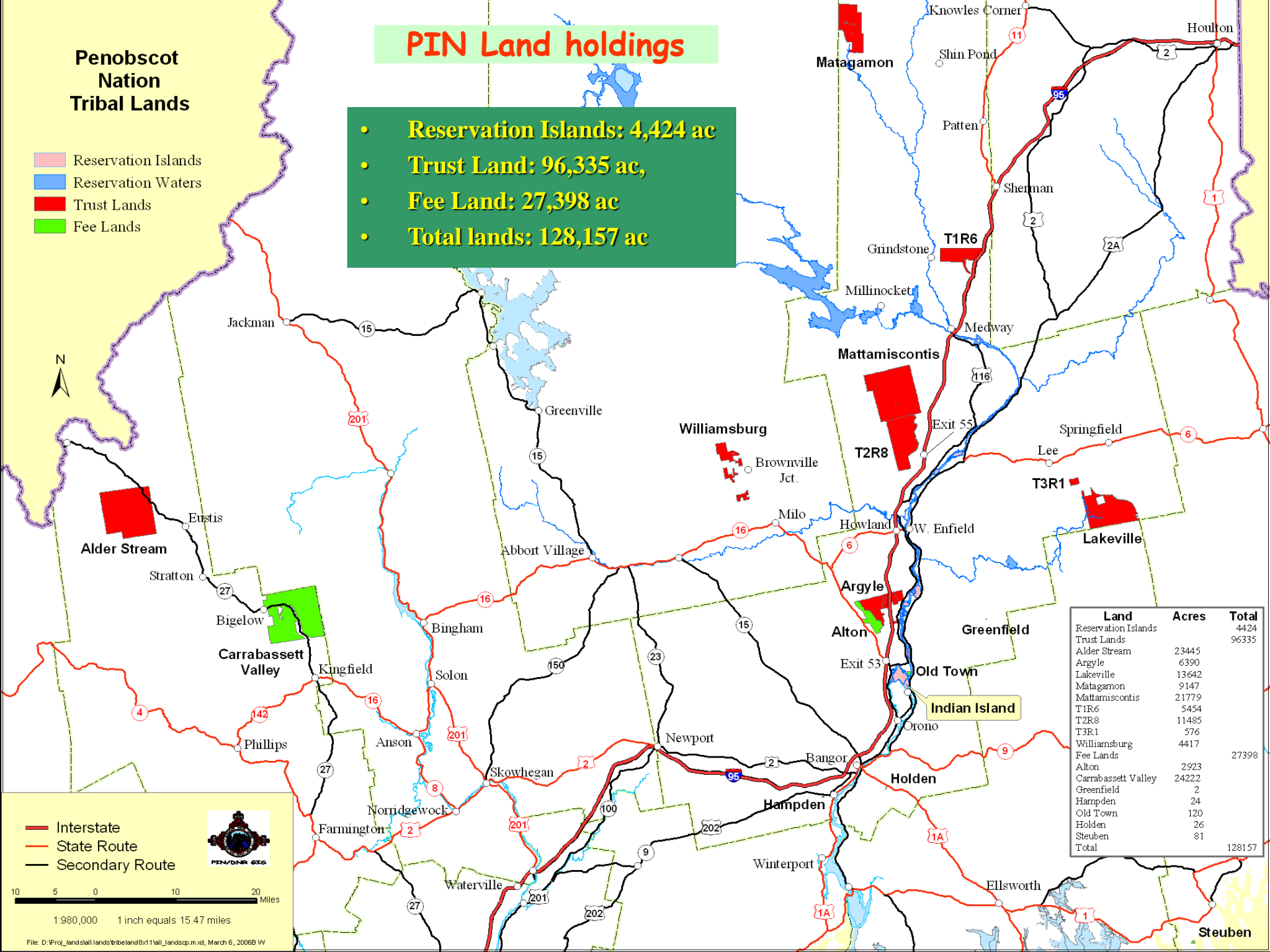
PINWRP Experience with EPA
Environmental Justice Small
Grants Program
EPA EJ Webinar
– January 26, 2021

Penobscot Nation Tribal Lands

PIN Land holdings


- Reservation Islands: 4,424 ac
- Trust Land: 96,335 ac,
- Fee Land: 27,398 ac
- Total lands: 128,157 ac

- Reservation Islands
- Reservation Waters
- Trust Lands
- Fee Lands



Land	Acres	Total
Reservation Islands		4424
Trust Lands		96335
Alder Stream	23445	
Argyle	6390	
Lakeville	13642	
Matagamon	9147	
Mattamiscontis	21779	
T1R6	5454	
T2R8	11485	
T3R1	576	
Williamsburg	4417	
Fee Lands		27398
Alton	2923	
Carrabasset Valley	24222	
Greenfield	2	
Hampden	24	
Old Town	120	
Holden	26	
Steuben	81	
Total		128157

— Interstate
— State Route
— Secondary Route



10 5 0 10 20 Miles
 1:980,000 1 inch equals 15.47 miles

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FY2020 EJSG Project

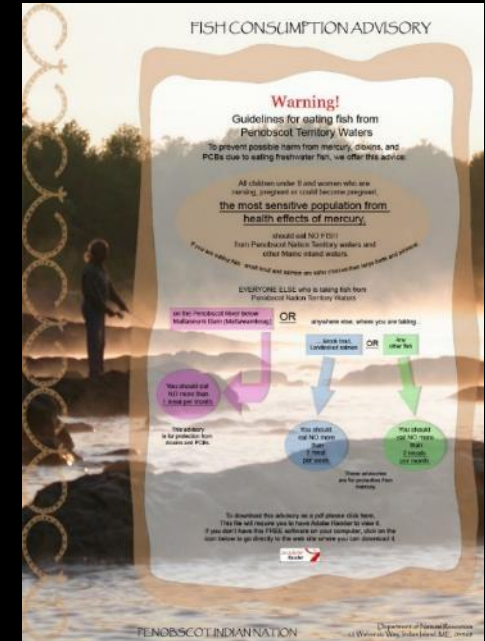
Mercury Contamination of Fish and
Crayfish, Key Components of the
Traditional
Diet of Penobscot Indian Nation, Maine

Lead: Penobscot Nation DNR Water Resources
Program

Partners: UMaine (Mitchell Center for Sustainability
Solutions and Sawyer Environmental Research Lab)

Issue/Problem:

- The culture, traditions, and health of PIN tribal members are inextricably tied to the environment of their Reservation and Trust Lands.
- Health advisories limit consumption of fish and some wildlife from Reservation waters (Penobscot River) due to dioxins, furans, PCBs, mercury largely from industrial discharges.
- Are tribal members turning to Trust Land lakes and ponds for their fish consumption?
- Data on mercury levels in fish from Trust Lands waters very limited and outdated
- Mercury data needed to advise about fish consumption



Project Approach

- Create Tribal Mercury Advisory Committee to guide project (sampling locations and species, assistance with collections, assistance with communicating project results to target community audience)
- Collect fish in fall ('19), winter and spring ('20)
 - ~ Up to 8 lakes/ponds
 - ~ 2-8 fish species/waterbody
 - ~ 8 fish/species/waterbody/period
 - ~ 1 crayfish species/waterbody
 - ~ Target ~ 500 samples
- Process and collect data/measurements from samples

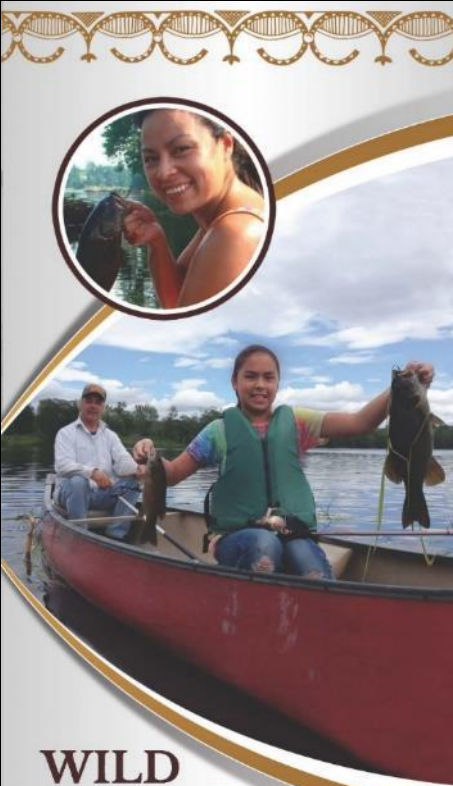


Project Approach (continued...)

- Analyze tissue samples for total mercury
 - Analytical training of PIN staff by D. Kopec and SERL = reduced cost and tribal capacity building
- Evaluate findings in relation to pond/watershed characteristics
- Develop report and outreach/communication resources
 - Technical report
 - Brochure advising about reducing mercury exposure (species, waterbody info)
 - Website
 - Community forum
 - Presentations to tribal school
- Use data to design long term mercury monitoring program



Example of Brochure for Outreach



WILD FOODS SAFETY SERIES FISH

Learn how you can enjoy meals of traditional freshwater fish safely

DO

Scientists from the Penobscot Nation Department of Natural Resources have analyzed fish from tribal waters for contamination and recommend that you can:

EITHER

Eat up to 10-ounces of brook trout and landlocked salmon from Penobscot Nation waters per week. This could be one 10-ounce serving, two 5-ounce servings, or three 3-ounce servings.



A 10-ounce serving is about the size of a box of fishing line.



A 3-ounce serving is about the size of a deck of cards.

OR

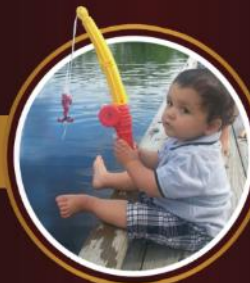
Eat up to 10 ounces of other freshwater fish species from Penobscot Nation waters up to once per month.

Some other wild foods, such as turtle and store-bought fish, also have contaminants. Be sure your total diet takes this into account. See the other Wild Foods Safety Series brochures for more information and guidance.

DON'T

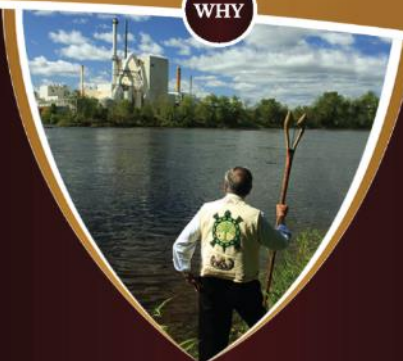


Don't eat any freshwater fish caught in the state of Maine if you are a woman who is nursing, pregnant, or planning to become pregnant.



Don't feed freshwater fish caught in the state of Maine to children 8 years of age or younger.

WHY



Fish absorb chemical pollutants into their bodies, which gets into your body when you eat fish.

Dioxins, furans, and PCBs can cause cancer, reproductive and developmental problems, hormonal problems, and can damage the immune system.



Mercury damages the brains of unborn and young children.

This causes learning disabilities and behavioral problems. In older children and adults, mercury poisoning causes vision problems.

Major Accomplishments To Date

- Completed QAPP
- 3 meetings of TMAC
- Successfully collected most of the target # of fish and species from most lakes
- Assistance from tribal members with collections at some difficult locations
- Collected ~300 fish + crayfish
- Processed 260 fish, 11 crayfish
- Analyzed 112 samples for mercury
- Trained 3 tribal staff on mercury analyses



Problems and Solutions

- Challenges with collecting targeted species, locations, and sample size
 - ~ *modified QAPP to extend sample collection to following spring/summer
- COVID 19 shutdown!
 - ~ Tribal lab and offices closed
 - Collections resumed but restrictions
 - Set up lab at home to process samples
 - ~ SERL lab closed/restrictions and analytical equipment issues (expect analyses to resume in February 2021)
- Above factors have delayed other project activities and schedule
 - ~ EJ Office granted project and budget period extension

Take home – Delays/issues will likely happen; work with project officer to request an extension if needed

Tips and Helpful Resources

- Get set up to use Grants.gov Workspace –don't wait until last minute, prepare all documents and organize for easy uploading
- Follow RFP carefully
 - Be sure to clearly address all elements of work plan – don't make reviewers look for info
 - Work plan template very useful
 - Logic model which describes resources, activities, outputs, audience, short – middle – long term outcomes required but also very helpful

Tips and Helpful Resources (continued...)

- Use resources available on EJ website (EJ Screen) or other local info to describe community
- Sampling requires QAPP (later, if awarded)
- Community participation and benefits
 - What capacity does your project help build?



For Information

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