



Photo: Martin Neptune

Pəskehtək^wok

Joining of the Branches

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Wecowsin means "Air."

By Bill Thompson

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This month's episode of Wecowsin will focus on our tribe's air quality program. Grab a cup of your favorite beverage and have a seat. We'll start with the most basic element of this outreach effort: the logo above. Wecowsin is an anglicized version of a Penobscot word that indeed refers to wind, or air. The manner in which this word is inscribed above should be pretty evident; swirls of air. But note the double curve design. That, of course, is our own tribe's design, trademark, motif, logo, what have you. It has appeared in our artwork for millennia, because it is an homage to the fiddlehead.

Now, "Why is he going off on fiddleheads when he should be talking about air quality?" you may be asking yourself. Well, hold on a second and I'll get to that. Trust me, I can tie this all up with bows and streamers for you.

The fiddlehead, as I'm certain you are well aware, is celebrated by our people because it was one of the first edible things to poke its head up out of the ground after the harsh winter. Like it was a gift from Gluskabe for having made it through the hard times. Boy aren't they delicious.

Well, it was in 1997 that the folks in your tribe's Department of Natural Resources were wondering about the impact of pollution upon the fiddlehead. Sure, water quality was being tested, and everyone was quite aware of the effluence of the many paper mills upstream of our rez, but what effect was the air pollution having on our food supply? You see, when it rains, the rain drops wash the pollution out of the sky and drop it in condensed form onto the land, into our water supply, on everything that doesn't have a roof over its head.



Art: James Francis

It was also at this time that there was leadership in the White House who didn't absolutely despise the environment, who didn't see nature as simply something to clear cut, dig up, drill down or otherwise transform into money for an elite few to get their hands on. Requests For Proposals were being

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handed out, and tribes were encouraged to add air quality monitoring to their Natural Resources Department. Talk about serendipity. A scoping study ensued, and wouldn't you know it, since there was a dearth of information to be discovered, this indicated a need for further study.

Our tribe's Air Quality Program was created out of our tribe's Water Quality Program's musings about the fiddlehead. There. All tied up. How'd I do?



Fiddleheads don't have fat cells, so they can't store dioxins.

Photo: Joe "Hugga" Dana



Next stop along this little history tour is the evolution of our tribe's Air Quality Program monitoring components. If that sounds dry, let me put it another way before I lose you to the Community Announcements. "What do we test for, and why?"

Our Air Quality Program exists simply to protect you, dear Penobscot tribal member. Each monitoring device was acquired with your well-being in mind. The following is a list of components and their purpose.

1. Ozone Monitoring Station This is a real-time monitor for a pollutant that can damage otherwise healthy lungs, and cause folks with diminished lung capacity to have a day long episode of trying to catch their breath. When levels are expected to be elevated, I send out a warning over the tribal Gov email system to ask folks to pass the word along: "avoid outside exertion this afternoon." That is when levels get the highest. This month, our tribe will be the sixth in the nation to join the TREX network, the National Tribal Air and Water Quality Monitoring network. On the website, when viewing a map of the whole country, you can hover with your mouse over our tribe and our tribe's insignia will pop up, along with air temp, barometric, humidity, wind, and ozone levels. Pretty sweet. We have been on EPA's online AIRNOW two summers ago, but the Native thing is cooler because it's a Native Thing.

2. Radon Test Kit This is a passive sampling kit that collects radon, an invisible, radio-active gas that emanates from ledge and granite, and can enter a home through cracks in the basement floor. At high enough levels, and over a period of time, radon can cause lung cancer. Houses above the new neighborhood were tested due to concerns about possible cracks in the basement due to the blasting up there. All tested were found to be safe. A second batch is ready to be dispersed, and all twenty are spoken for. A third batch will follow, as we near the months when we button up our homes, and spend more time inside. Let me know if you are interested.

3. Mold Test Kit This is a metered pump that draws air over a Petri dish in an impactor. The dish is sent off to a lab where they incubate and then count and identify the mold. Now when dealing with mold, if you can see it, then it's there. No need to test for it. What you want to do is find out where the moisture is coming from, and stop it. Then bleach the area and cover it up with enamel paint. Removing the material and replacing it is ideal, but sterilizing and encapsulating it works well too.

4. Portable Particulate Matter Filtration These two things are glorified pumps. They suck air through a Teflon filter at a measured

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rate for a period of time. The filter, weighed before and after the test, will reveal if there is a dust problem. Success story: our tribe's Air Quality Program was notified of a situation in March of this year by our tribe's Fitness Room Coordinator. A test was performed using these devices (called Minivols) and levels were indeed found to be elevated. Due to the expeditious response of our tribe's Health Department, utilizing our tribe's Maintenance Department, the matter was resolved with the installation of a high quality flooring made from recycled material. You see, we benefit us all when we work together as one.

5. Meteorological (weather) Station This is what you see atop the tower out in front of the Nicholas Sappiel Building. Guess who climbed up and put it all up there? These devices collect data for Wind Speed, Wind Direction, Barometric Pressure, Solar Radiation, Relative Humidity, and Air Temperature. These data are used in connection with the ozone to produce forecasting capability, so our folks with asthma and emphysema and such can be warned to stay inside to avoid an episode of distress.

6. IMPROVE Shed This is the little sugar shack down by the boat landing. And what a boat landing, huh? Wow. The little building down there contains more glorified pumps that suck air through different types of filters, to check for quite a few different pollutants. While the main reason for its construction was to keep an eye on visibility (get it? sweet pun) it also tracks long term trends as well as *short term episodes of cross-state transport*, which is a fancy way of saying that we can tell the difference between Ohio and Pennsylvania when it comes to a couple of days of nasty out of state air.

7. Acid Rain This site was set up 6 years ago, in Carrabassett Valley. That place is relatively clean, air wise, so this station monitors pollutants that travel from as far away as Texas. After I perform field chemistry on the rain water sample, I ship it off to a place that uses a plasma ray gun on it. Now that is wicked. They can locate a single molecule out of the sample. That's like finding a red golf ball in a football stadium filled with blue ones! This helps us fingerprint the pollution and track it back to the smokestack it came out of. It can stand up in court, if need be.

8. Mercury Collector This past summer was quite the effort up in Carrabassett Valley. Constructing a 500 lb. wooden stand for the new electronic rain gage, sinking a steel post and concrete in one of those cardboard tubes for the robotic device, and trenching lines all over the place for electric, well, let me tell you, it was a labor of love. For every foot you dug down, you had to dig two feet across, to remove the rocks and boulders. Now we are collecting mercury from the air, when it rains. We will be using that data in conjunction with data from water and soil testing for mercury that can be done in cahoots with the University of Maine at Orono.



Well, thank you for joining me on this little tour of our tribe's Department of Natural Resources Air Quality Program. Maybe some other time We'll take a look at the impact and influence the Penobscot Nation has in the environmental field at the National level. You'd be surprised how far our reach is.

Questions and comments may be sent to John Banks, DNR Director, and Bill Thompson, Air Quality Program Manager.

