Pəskehtəkʷok

Joining of the Branches

Photo: Martin Neptune

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Penobscot Indian Nation
Department of Natural Resources
www.penobscotnation.org/DNR/DNR1.htm

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PIN Water Resources Goes Digital!

There wasn't much time to write articles this summer because the Water Resources staff were so busy working on our new all-digital data entry process. From start to finish we have eliminated the use of paper forms and notebooks. This process will make the analysis of data and report creation happen much sooner. And with more timely reports we will be able to better assess problems on the river when they happen - instead of years later.

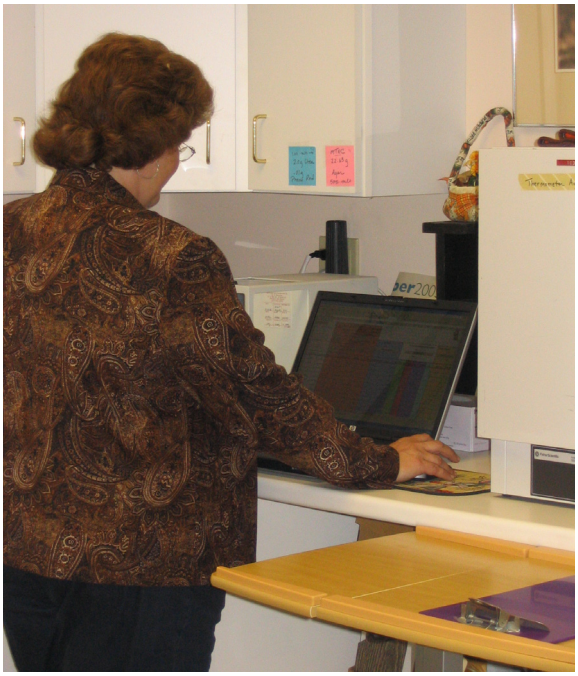
Jan enters data from the field into a form on the mobile digital assistant (MDA). Each MDA has its own waterproof hard case to keep it dry and prevent breakage if it gets wet or dropped.

The data entry process starts in the field with a mobile digital assistant (MDA). Field staff download onto their personal MDA a form for the day and run they are doing. When in the field they open this file and enter all of the information they collect at each site including various conditions of the river and direct measurements of different water quality indicators. Every once in a while field staff email a copy of this information back to the office from the MDA so that we have a backup copy in case something happens

When asked about how she feels about the new process, Jan Paul says "I love it. It makes my a job a lot easier - ten times quicker." And her favorite part about entering data this way is that it combines her phone/clock/data entry and backup mechanism into one unit. She appreciates that the data she collects cannot get lost as easily as pieces of paper can.

Jan uploads the days data to the workstation. After filtering bacteria samples she comes back to enter the relevant information about them.

Once Jan gets back to the office after a run she can upload to a computer workstation the data she collected that



Rhonda Daigle works at the laboratory laptop to enter data about weights of filters that assess the total suspended solids

day. Other information is added after she gets done filtering her bacteria samples. After entering all of the necessary data from the field the file is then ready for the laboratory!

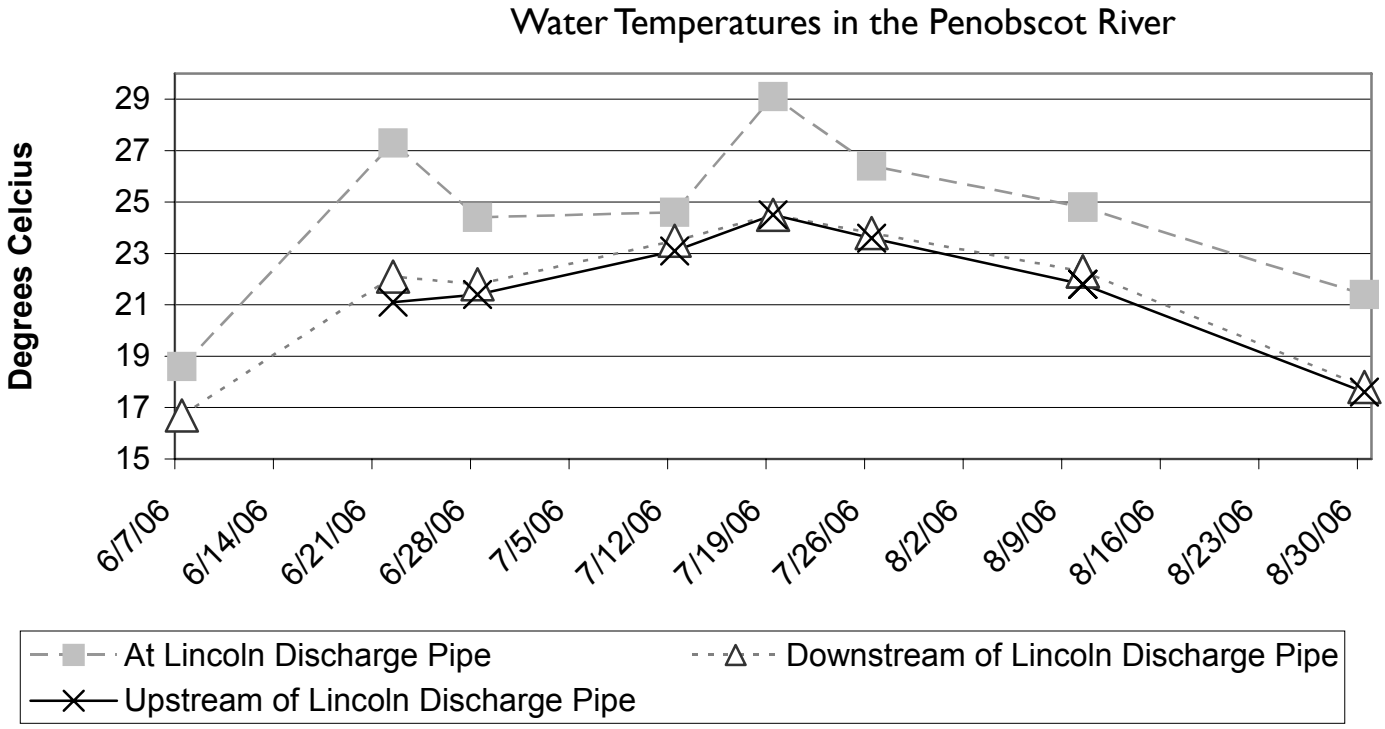
All of the field data files are linked directly to the laboratory data files - but separated so that each staff can work on their respective parts at the same time. Rhonda Daigle brings the laboratory laptop around to the different analytical equipment as she works. She can have multiple files open so that she can work on lakes, rivers or tributaries at the same time. And the files can be focused on any one of the many different parameters that are measured.

With this new reporting mechanism we can report the following for the 2006 sampling season as of mid-September:

- 2,982 measurements were taken on river, tributary and lake sites (these include air temperature, water temperature, dissolved oxygen and secchi disk depth)
- More than 2,100 waters samples were collected in bottles to be analyzed by us or the Environmental Chemistry Laboratory at the University of Maine, and
- 2,730 laboratory measurements were made on samples brought in from the field.

The graph below shows some of the measurements made in the field. Here you can see the difference in water temperature between the site located at the Lincoln Paper and Tissue discharge pipe and sites up and down river of it. Ask any of the 8th grade class who visited there recently - they can tell you how warm or cold a sample of each feels. Thankfully the temperatures seem to be recovering from the addition of Lincoln's discharge of water that is warmer than what it would be naturally.

The Water Resources Program looks forward to collecting all of our future data this way and providing the Penobscot community with information on the health of the river and other water bodies on tribal land. If you ever have any questions about this work please feel free to call or visit us at the office.



Chronic Wasting Disease Testing at Penobscot Nation Tagging Stations

Kristin Dilworth, Big Game Biologist

Hunting season is underway, and the moose are starting to roll in!

As part of our wildlife program here at the Department of Natural Resources, we would like to opportunistically sample both moose and white-tailed deer again this year for Chronic Wasting Disease. We had an excellent sampling season last year, obtaining 18 samples (roughly 20% of the animals harvested). All samples tested negative for the disease, which is excellent! Hunter cooperation is crucial to the success of this study. We were extremely thankful for their cooperation last year, and are hoping for the same this season.

Chronic wasting disease is a TSE (transmissible spongiform encephalophy) of deer, elk and most recently, moose. TSE's are a number of diseases grouped together because of how they act and the symptoms they produce. Several other well known TSE's are mad-cow disease, scrapie (domestic sheep), transmissible mink encephalopathy (farmed mink) and in humans, Creutzfeldt-Jakob disease. All of these diseases are believed to be caused by "prions" which are infectious proteins that affect the brain and nervous system.

Chronic wasting disease (CWD) has been known to be a syndrome of mule deer for more than 30 years. To date, it has been found to naturally affect mule deer, white-tailed deer, Rocky Mountain elk and moose, though it is likely that other animals are susceptible to CWD. The origin of CWD is not known, and it may never be possible to determine how or when CWD arose. Scrapie has been recognized in the United States since 1947, and it is possible that CWD was derived from scrapie. However, this is only one of several hypotheses and arguments can be made for either side.
Clinical signs of CWD include the following symptoms:

- listlessness
- droopy ears
- lowered head
- excessive salivation
- teeth grinding and increased thirst
- extreme weight loss

CWD affected deer show loss of body condition and changes in behavior. Once the outward symptoms are obvious, the animal may have several days to several months to live.

Until recently, CWD has been a problem of the "western states." On April 27, 2005, the state of New York received a positive result for CWD in a wild deer sampled in Oneida County. This was a huge shock as the disease has not been found east of the Mississippi. The first moose to test positive was shot in Colorado last year as well, therefore we are choosing to test moose along with white-tailed deer. The state of Maine has been sampling deer since 2001, but until last year the Penobscot Nation territories have not had a sampling program of their own.

I would like to thank the hunters in advance for their continued cooperation! I look forward to seeing you this fall. If there are any questions or concerns please don't hesitate to email or call me at 817-7363, or kdilworth@penobscotnation.org.

Information taken from the CWD Alliance