



Photo: Martin Neptune

# Pəskehtək<sup>w</sup>ok

## Joining of the Branches

Summer 2010 ~ Issue 1

Penobscot Indian Nation  
 Department of Natural Resources  
[www.penobscotnation.org/DNR/DNR1.htm](http://www.penobscotnation.org/DNR/DNR1.htm)

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| Ron Bear, <i>Forest Technician</i>                                 | 7335 |
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| Rhonda Daigle, <i>Water Quality Monitoring Program Coordinator</i> | 7326 |
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| Tim Gould, <i>Game Warden Supervisor</i>                           | 7395 |
| Dan Kusnierz, <i>Water Resources Program Manager</i>               | 7361 |
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| Kristin Peet, <i>Big Game Biologist</i>                            | 7363 |
| Angie Reed, <i>Water Resources Planner</i>                         | 7360 |
| Russ Roy, <i>Forest Manager</i>                                    | 7339 |
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| Bill Thompson, <i>Air Quality Program</i>                          | 7340 |
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# PIN installs real-time monitoring station to help prevent harmful algal blooms

We are really excited to share that we have our first real-time monitoring station in place near Dolby Dam in Millinocket. This is another important step in the process of understanding what conditions in the Dolby Pond impoundment create too much growth of blue-green algae (a bloom) in the Penobscot River. Dolby Pond seems to be the place where all of the major blooms in the past 10 years have started. We hope that our monitoring station will be able to pick up the signs of a potential problem. This would allow us a chance to work with others to fix it before the impacts are seen more than 50 miles downriver at Indian Island.

*We are trying to see the signs before there is a problem.*

To avoid jurisdiction issues we bought a floating pontoon platform. This allows us to install any equipment the platform can handle and locate it anywhere we want.

(Photo: Jan, Jason and Dan launching the platform into the water from the trailer)



(Continued on next page)

The picture on the next page shows the solar panel that charges the marine battery which in turn provides power to the equipment that analyses the water (Turner and YSI) and that which stores the data and sends it through a cell modem to the computer in the DNR building (SDL500C). This data also gets sent to a web site that allows staff and others to view it online.

If you check out the Water Resources home page you will see the latest readings - which are updated every 30 minutes.

<http://www.penobscotnation.org/DNR/Water/wrhome.html>

**WATER RESOURCES PROGRAM**  
Protecting the Penobscot given to the Nation by the Creator for living, sustenance and spirit

- The Watershed
- Who We Are
- What We Do
- Dischargers
- Dams
- Water Classification
- Partnerships
- Resources
- DNR Newsletter

*\* NEW \**  
Real-time data from Dolby Pond

|                    |                    |
|--------------------|--------------------|
| <b>DP3</b>         |                    |
| at 09/28/10 4:00PM |                    |
| Temp               | <b>16.06</b> C     |
| Sp Cond            | <b>0.026</b> mS/cm |
| Cond               | <b>0.021</b> mS/cm |
| pH                 | <b>6.85</b>        |
| pH mV              | <b>-3.5</b>        |
| Turb+              | <b>3.30</b> NTU+   |
| ODOSat             | <b>84.8</b> %      |
| ODO                | <b>8.36</b> mg/L   |

ALL DATA Powered by NexSens Technology

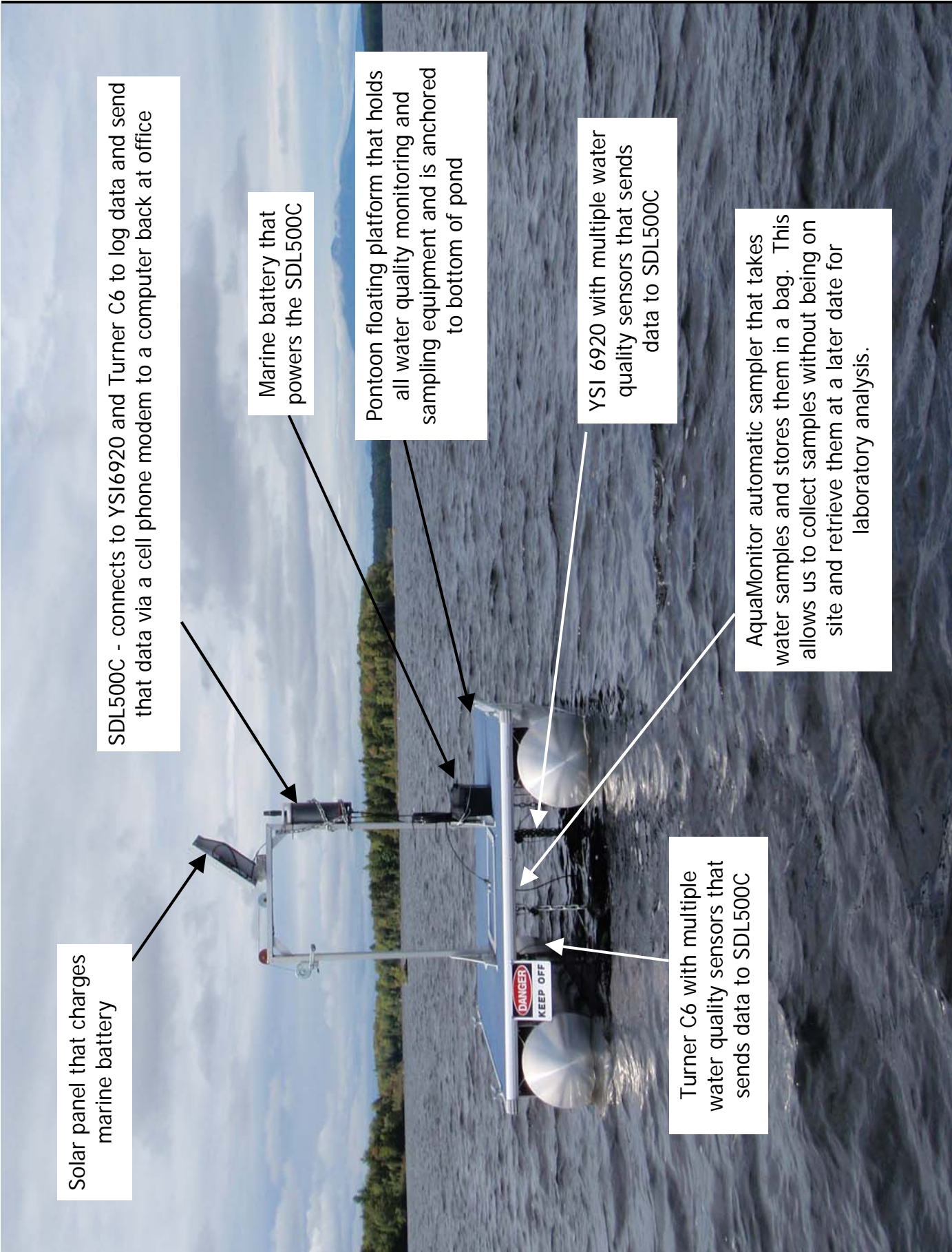
**Fish Advisory**

**PENOBSCOT INDIAN NATION** Department of Natural Resources  
12 Wabanaki Way, Indian Island, ME 04468

Back in 2007 the Water Resources Program had to suggest that you not swim in the river for a period of time because a bloom was happening (<http://www.penobscotnation.org/DNR/newsletters/newsletter2007.html> - Issue 1b). For more than 10 years and three major blooms the Program has been making the Maine Department of Environmental Protection (DEP) aware that we do NOT think this impact to the river is acceptable. Now we have the ability to discuss conditions with DEP earlier so that they can identify the cause of the problem and fix it sooner. The 2007 bloom was caused by, what was then, Katahdin Paper in Millinocket. While they have been offline for the past three years we have had the chance to apply for and receive a grant that allowed us to purchase the necessary sampling and data transfer equipment for this project. We will be adding equipment that automatically takes and stores phosphorus samples for us to retrieve at a later date. Current technology requires us to analyze phosphorus samples in a laboratory but we will be getting a lot more data than if we needed to go up every day to collect samples.

We are being trained by US Geological Survey (USGS) staff on their methods to ensure the quality of the data. We have also purchased lab equipment and have been receiving training for us to analyze water samples for chlorophyll a and phosphorous.





Solar panel that charges marine battery

SDL500C - connects to YSI6920 and Turner C6 to log data and send that data via a cell phone modem to a computer back at office

Marine battery that powers the SDL500C

Pontoon floating platform that holds all water quality monitoring and sampling equipment and is anchored to bottom of pond

YSI 6920 with multiple water quality sensors that sends data to SDL500C

Turner C6 with multiple water quality sensors that sends data to SDL500C

AquaMonitor automatic sampler that takes water samples and stores them in a bag. This allows us to collect samples without being on site and retrieve them at a later date for laboratory analysis.



**Context map for Penobscot watershed in Maine, aerial photo extent in watershed and locations of paper mill, Dolby Pond and monitoring platform.**

