



# Skitkomiq Nutacomit

*Earth Speaker*

## *Record Rains in June*

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The old saying goes April showers bring May flowers - but what do these heavy rains in June bring? While parts of the country are dealing with hurricanes, tropical storms and stifling heat, here in northern Maine it's been raining, a lot. According to the National Weather Service, Houlton, Maine has broken at least 3 rainfall records in one week's time and is predicted to receive even more.

We have become accustomed to high river levels and wet basements every spring, but nothing quite like what we've been experiencing this week. Some roads around town and elsewhere in the state have been closed due to water on the roadway or wash outs.

As shown in the picture above, you would have to duck to get under the Lowery Bridge in a canoe, whereas just mid June, you could easily wade out into the river just downstream from the bridge and enjoy some nice fishing. In nearby Cary's Mills, whitewater rapids were easily spotted from Route 2A. Similar conditions were also found on Moose Brook near Tate and Lyle Starch Factory (formerly known as Staley's) as shown here.

Once the rains began letting up, many of the brooks, streams and river started returning to normal levels.



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# High Tunnel Greenhouse by Matthew Edberg, Natural Resources Specialist



Our high tunnel greenhouse, located at the Elder Center site, has just been completed. This Spring the polyethylene cover and roll up sides were installed.

Four sixty-foot long rows of raspberry (*Rubus sp.*) plants have been planted: 2 “\*floricane” (“Killarny” & “Encore”) and 2 “\*primicane” (“Polana” & “Caroline”) varieties. “Floricane” raspberries fruit on the prior year’s growth while primicane raspberries fruit on new growth.

A cover crop of red clover (*Trifolium*

*pratense*) has been planted between the rows to help provide nitrogen to the plants and help keep weeds down. An automated drip-irrigation system has also been installed to water the plants.

The plants are slowly growing and will take approximately 2 to 3 years to become established and begin producing a significant raspberry crop ready for harvest.

We’ll keep you posted as the crop progresses.



Freshly planted raspberries

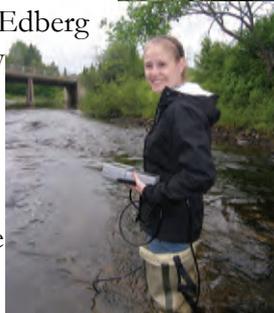
## Welcome Summer Techs!

Summer’s here and that means one thing - Summer Techs!

Sacha Turnbull has joined Cara O’Donnell and Rhonda Smart in the Water Resources Program. This year they will have their hands full with the record rains we’ve been receiving creating the record setting water levels we are experiencing.



Jeremy Young is working with Matthew Edberg this summer. They are working on many projects including invasive plants, the high tunnel greenhouse and more.



This year the department is also joined by Karen Lewis as part of the Workforce Investment Act Program administered through HBMI’s Education Department. Karen is working both in the office and the field wherever she’s needed.

Summer Techs:  
Jeremy Young (above)  
Sacha Turnbull (left)  
WIA worker  
Karen Lewis (below)



## It’s Official!



The McCarthy, Rollerama and Drew properties are now “in trust” bringing the total tribal trust acreage up to 891 acres.

We hope to have the Wilderness Pines parcel in trust soon.

Trust applications for the Tribe’s other (1 acre) Drew parcel and the 100-acre Fullerton parcel, both located in Monticello have been submitted.

## Great Works Dam Removal

History was in the making on June 11, 2012 with the start of the demolition of the Great Works Dam on the Penobscot River in Old Town. The dam was breached 12 days later on June 23, 2012.

Removal of the Great Works Dam is the culmination of a 13 year effort by the Penobscot River Restoration Trust, which includes the Penobscot Nation, and their partners. Their goal is to open nearly 1,000 miles of river habitat to 11 species of sea-run fish that have not been able to reach sections of the Penobscot for nearly 200 hundred years.

This dam removal, and the subsequent restoring of the lower river to a more natural state, is the first step in the largest fishery restoration project undertaken in the US and is shaping up to be a model for restoration projects worldwide. In 2013



*Hammering away at the dam - June 11, 2012*

and 2014, the Penobscot River Restoration Trust is also planning to remove the Veazie Dam, a fish bypass will be built at the Howland Dam and a fish lift will be installed at the Milford Dam. These projects will give the sea-run fishery a good chance of recovery.

Prior to people installing dams and altering the river, between 75,000 and 100,000 Atlantic Salmon swam up the Penobscot on their annual spawning runs. Today, only about 1,300 fish make it that far. Same goes for the river herring, approx 14 million to 20 million herring made it up river in the past while today, their numbers have dwindled to less than 1,000.

According to the Penobscot River Restoration Trust, removal of the dams on the Penobscot will not reduce energy production on the river. Black Bear Bangor HydroPartners, LLC., owners of the dam, received approval in 2011 to upgrade capacity at their dams in Stillwater and Orono.

This complex project began in 1999, when the Pennsylvania based PPL Corporation purchased a number of dams along the Penobscot. The corporation entered into discussions with the Penobscot Nation, State of Maine, and the US Department of Interior, as well as, several conservation groups, to address issues involving hydropower relicensing, migratory fish passage and river restoration. This effort evolved into the Penobscot River Restoration Trust and in 2004 PPL Corporation and the Penobscot River Restoration Trust signed the Lower Penobscot River Multi-Party Settlement Agreement. This agreement is one of the first where power companies and conservationists have been able to work together to find a solution that would satisfy both sides.

As a result of the 2004 agreement, in 2009, PPL sold 6 dams (Milford, Orono, Stillwater, Ellsworth, Medway and West Enfield) to Black Bear Hydro for \$81 million dollars. In 2010 restoration trust purchased the dams in Veazie, Old Town and Howland for \$24 million.



Point of View Helicopter Services - photographed May 2012  
*Bangor Daily News*



For more information on the Penobscot River Restoration Trust or the Great Works Dam Removal check out [www.penobscotriver.org](http://www.penobscotriver.org)

## Effects of Flooding on Fish

**Question:** How do flood conditions affect trout fishing in streams? Does flooding contribute to fish mortality?

**Answer:** Overall, it is important to remember that floods are natural events that will occur from time to time. Typically flood events cause some shift in the habitat on streams that were subject to flooding, so anglers should expect to see some changes in the streams they fish.

For example, some pools and runs will become shallower and fill in with gravel. Also, some trees that have been in and along the stream bank providing cover for many years may be dislodged. Conversely, flooding also tends to carve some new pools and runs where shallower areas existed prior to the flood and trees that have fallen along the shoreline may also create some new cover for trout.

The scouring of the gravel that occurs during floods may have a negative impact on the survival of young fish and macro invertebrate populations. However, this scouring action can also provide clean gravel for trout spawning and for future generations of macro invertebrates to re-colonize.

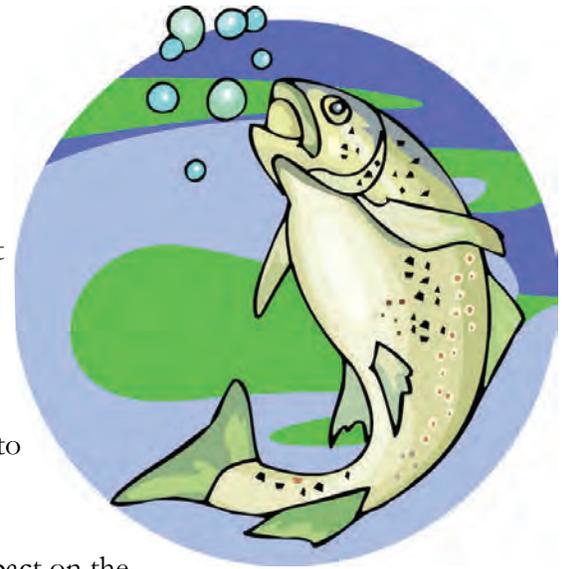
The extent that flooding contributes to fish mortality often depends upon the severity of the event, the timing of the flood, as well as the life stage of the trout at the time of the flood. Typically, adult trout would be expected to handle flooding better than younger trout, as during a flood most trout will seek refuge from the strong currents in places like backwaters, eddies and along the stream bank until the flood waters begin to recede.

During recent floods [in Pennsylvania] there was a loss of fish that became stranded in backwater pools as the flood waters receded. Conversely, flood events that occurred at a time when most of the young wild trout were still in the sac-fry stage before they emerged from the gravel of the streambed. Subsequently, during both of these years we noticed a numerically weak year class of young-of-the-year trout in many of our streams that support wild trout.

Fortunately, wild trout populations tend to be quite resilient and numerically stronger year classes in the years that followed allowed many of these populations to rebound from these events. Generally wild trout fare better in floods that occur in the fall as most have already spawned. By no means is this to suggest that floods are a welcomed event, but in nature things often seem to have a way of balancing out.

Article from:

Pennsylvania Fish and Boat Commission, [http://fishandboat.com/images/pages/qa/flood\\_effects.htm](http://fishandboat.com/images/pages/qa/flood_effects.htm)



## Return of the Turtle



On June 19, our resident snapping turtle has again chosen Bell Road as the perfect place to lay her eggs. We will be keeping an eye on the nest throughout the summer.

Depending on weather conditions we could possibly see the turtles hatch in mid-September.



# Hops Project by Matthew Edberg, Natural Resources Specialist

This June HBMI's Tribal Council, Economic Development Director, Tribal Grant Writer & I traveled to Lincolnville, Maine to tour a recently established "hopyard."

You might ask what is a "hopyard"? A hopyard is one of the terms used for the commercial production of "Hops" (*Humulus lupulus*).



Newly established hopyard



Hops flower or inflorescence

Hops is a perennial vine whose female flowers are used as a flavoring, stabilizing, and preservative agent in the brewing of beer. Most of the U.S. hops production is located in Washington State & Oregon. Maine's hops industry is still in its infancy, with only 50 acres planted in the state at this time. There is a huge demand for locally produced hops, especially organic hops in the Kraft micro brewing industry.

After touring the hopyard I was given 3 hops plants of the variety "Galena". Summer Tech Jeremy Young and I cut a few tamarack (*Larix laricina*) poles, set up a trellis, and planted the hops vines as a demonstration project. Currently, the Tribe is looking into growing hops as a potential economic development venture.



HBMI Demonstration plot



## Summer Word Search Puzzle

Find the Summer English and Maliseet Words in the puzzle.

- |               |                     |
|---------------|---------------------|
| ANT           | ENIQS               |
| BULL FROG     | AMTOKOLAM           |
| CAMP          | KEMP                |
| CAMPFIRE      | MOTUTUWAKON         |
| CANOE         | OQITON              |
| DANDELIONS    | POMUHSE-IMIYAMKEWEY |
| GARDEN        | KIHKAN              |
| GREEN         | KIPOQOTTE           |
| LAKE          | KUSPEM              |
| LIGHTNING BUG | POSSAQHESSOSS       |
| SUNBURN       | PQAQOSU             |
| SUNNY         | KISUHSUWIW          |
| WATERFALL     | KAPSQ               |

Q W P O S S A Q H E S S O S S E  
 C R O T C A M P Y U I O E P W L  
 A A M O T U T U W A K O N S A I  
 M D U F G D O H J K I L I M T G  
 P N H B L A K E V C S X Q Z E H  
 F Z S C A N O E X C U V S B R T  
 I K E M P D L K K I H K A N F N  
 R U I J Q E A N T H S A G F A I  
 E S M D A L M S A Q U P W E L N  
 R P I T Q I Y O U I W S O P L G  
 L E Y K O O J Q H G I Q F G D B  
 A M A F S N G I B V W A S A T U  
 T G M H U S L T B U L L F R O G  
 Q S K I P O Q O T T E Q L D M S  
 D G E F G S U N B U R N S E A F  
 B G W K J L M N I O W S U N N Y  
 G R E E N S H I Q W R D F K I X  
 P W Y R T H A I K P O R W D X Y



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*Tribally Grown Sweetgrass Adorns the  
New Health Clinic*

On March 29, 2012, the Maliseet Health & Wellness Center held its official opening ceremony marking this great new addition to the Maliseet Community. The event featured speakers from the various funding agencies that helped to make this facility a reality along with Chief Commander, and representatives for Sen. Olympia Snowe, Sen. Susan Collins and Congressman Mike Michaud. A blessing and healing song was offered by Elder Imelda Perley and a beautiful stained glass medicine wheel made by tribal member Pat Kelley was unveiled in the entry of the building.



Above right - sweetgrass panels  
 Above - Elders Danya Boyce & Imelda Perley  
 Right - Unveiling of stained glass medicine wheel



The entry to the clinic also has another cultural component that you may not have noticed. Encased in the panels on either side of the clinic entrance doors is sweetgrass that was grown on tribal lands.

*Puzzle Answers*

P	W	R	T	H	A	I	K	P	O	R	W	D	X	Y	
G	R	E	E	N	S	H	I	Q	W	R	D	F	K	X	
B	G	W	K	J	L	M	I	O	W	S	U	N	N	Y	
D	G	E	F	G	S	U	N	B	U	R	N	S	E	A	F
Q	S	K	I	P	O	O	T	E	Q	L	D	M	S		
T	G	M	H	U	S	L	T	B	U	L	L	E	F	O	
A	M	A	F	S	N	G	I	B	V	W	A	S	A	T	U
L	E	Y	K	O	J	Q	H	G	Q	F	G	D	B		
R	P	I	T	Q	I	Y	O	U	I	W	S	O	P	L	G
E	S	M	D	A	L	M	S	A	Q	U	P	W	E	L	N
R	U	I	J	Q	E	A	N	T	H	S	A	G	F	A	I
I	K	E	M	P	D	L	K	I	H	K	A	N	F	N	
F	Z	S	C	A	N	D	E	X	C	U	V	S	B	R	T
P	N	H	B	L	V	K	E	L	C	S	X	O	Z	E	H
M	D	U	F	G	D	O	H	J	K	L	I	M	T	G	
A	A	M	O	T	U	W	A	K	O	N	S	A	I		
C	R	O	T	G	A	M	P	Y	U	I	O	E	P	V	L
Q	W	P	O	S	S	A	O	H	F	S	S	O	S	S	E