



Photo: Martin Neptune

Pəskehtək^wok

Joining of the Branches

Summer 2009 ~ Issue 1

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

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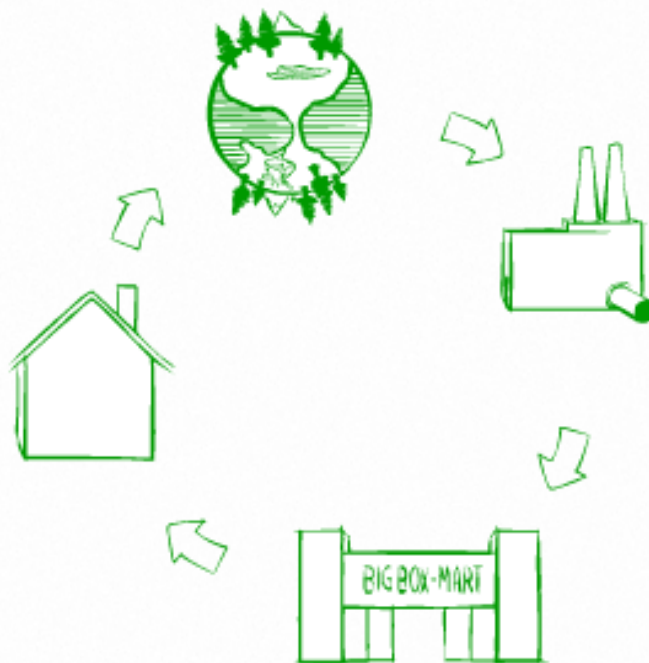
The Story of Stuff - Another Way



Have HOPE - there are MANY ways to change the course of the craziness you have been hearing about in the past few newsletters. Anything that people create they can also change. Every single day you can make a difference by CHOOSING what you buy or use. Our economy is based on supply and demand. So if you choose not to buy it and create a demand there will be no supply for the toxic stuff we don't need! Annie supports this perspective in her description of the other way we can live

We can reclaim and transform this linear system into something new, a system that doesn't waste resources or people.

"What we really need to chuck is this old-school throw-away mindset. There's a new school of thinking on this stuff and it's based on sustainability and equity:



- Clean Production
- Green Chemistry
- Zero Waste
- Closed Loop Production
- Renewable Energy
- Local living Economies.

It's already happening.

Some people say it's unrealistic, idealistic, that it can't happen. But I say the ones who are unrealistic are those that want to continue on the old path. That's dreaming.

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“Clean Production is rooted in the Precautionary Principle, which will become even more important as emerging technologies such as nanotechnology bring us new products. Because our supply chains are so global, we are all tied together as producers and consumers. To achieve clean processes and clean products we need full public access to information about emissions from manufacturing plants and product contents. To help us reach sustainable consumption we need closed loop systems for all the products we use in our daily life. If we’re smart global citizens we will learn from nature as we move to a bio-based society.”

From Clean Production Action
www.cleanproduction.org/Steps.Introduction.php

Remember that old way didn’t just happen by itself. It’s not like gravity that we just gotta live with.

Green chemistry protects the environment, not by cleaning up after a polluting process, but by inventing new chemistry and new chemical processes that do not pollute in the first place.

Green Chemistry info is available at
www.epa.gov/greenchemistry/

Excellent Green Chemistry Fact sheets available from Clean Production Action at:
www.cleanproduction.org/Green.php

People created it. And we’re people too. So let’s create something new.”

“Zero Waste is a goal that is both pragmatic and visionary, to guide people to emulate sustainable natural cycles, where all discarded materials are resources for others to use. Zero Waste means designing and managing products and processes to reduce the volume and toxicity of waste and materials, conserve and recover all resources, and not burn or bury them. Implementing Zero Waste will eliminate all discharges to land, water or air that may be a threat to planetary, human, animal or plant health.”

Zero Waste Definition prepared by the Zero Waste International Alliance,
www.zwia.org/standards.html

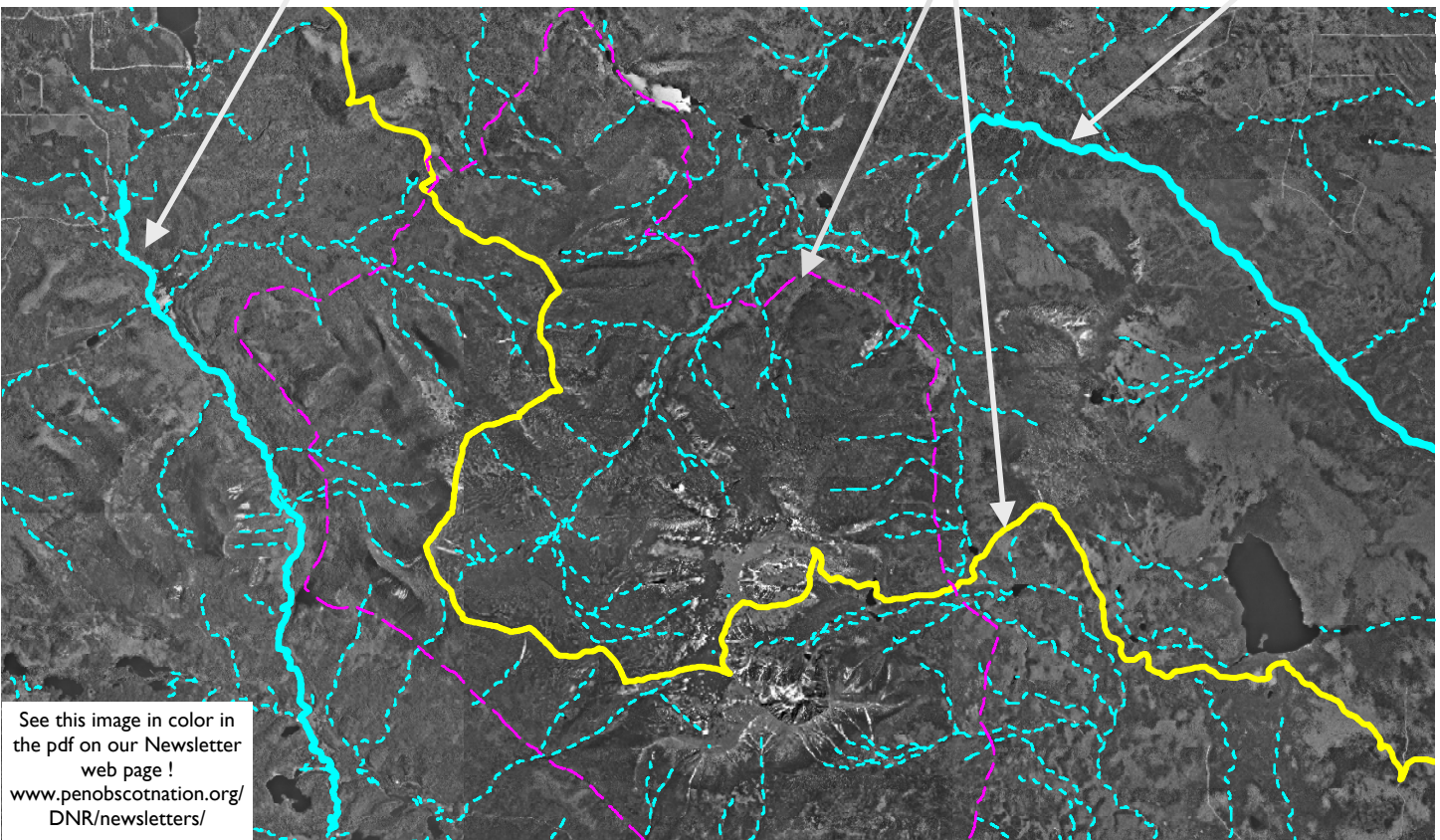
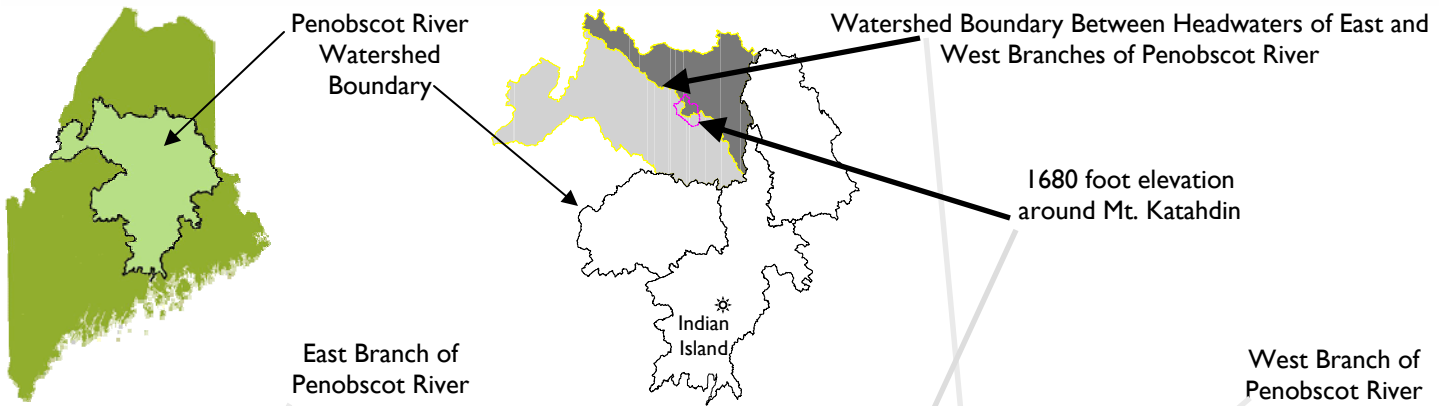
To watch the entire video that goes along with this information go online to www.storyofstuff.com!

In future newsletters we will be providing the suggestions they have for the 10 little and big things you can do to make a difference.

Watershed Boundary Cryptogram - SOLUTION

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

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



See this image in color in the pdf on our Newsletter web page!
www.penobscotnation.org/DNR/newsletters/

Maine Dept. of Environmental Protection Proposes New Water Quality Rules

Unfortunately, back in 2007 the Water Resources Program had to suggest that you not swim in the river for a period of time because there was WAY too much growth (a bloom) of blue-green algae in it. Unfortunately those critters can produce potentially toxic products. For more than 10 years and three major blooms the Program has been making the Maine Department of Environmental Protection aware that we do NOT feel this impact to the river is acceptable. Like all states that are being pressured by EPA to develop these kinds of rules and standards for nutrients, Maine is finally doing so. We want you to know :

Go to our Resources page for links and complete documents:
www.penobscotnation.org/DNR/Water/resources/resources.html

1. what the rules are for,
2. what they say,
3. how they might help the river,
4. problems with them, and
5. the testimony we provided at the public hearing.

“Nutrients are essential to all plant and animal life, however too much nutrient inputs can have a negative impact on water quality. Whereas compounds such as mercury or dioxin are directly toxic to plant and animal life, nutrients such as phosphorus and nitrogen are required by plants and animals for growth through production of proteins and other essential organic compounds. Plants and animals can not survive without them. People commonly add fertilizers containing phosphorus and nitrogen to gardens to increase plant growth. In a similar way, increasing the amount of phosphorus in a stream or lake can increase the growth of plants and algae. More plants and algae may usually mean more food for some animals that eat plants and algae. Also, it may mean more food for the fish and other predators that eat the plant and algae grazers.

Some nutrients in a lake, stream, or river can be a good thing, however too much nutrients can be a bad thing. Too much nutrients can cause negative environmental impacts. For example, excess nutrients can cause algal blooms in lakes, impoundments, and streams and rivers. Algal blooms, in turn, can cause large swings in the supply of oxygen available to fish and many other aquatic organisms. These large swings in oxygen supply can be accompanied by large swings in how acidic the water is. In addition, algal blooms can cause fish kills by removing oxygen from the water, thereby suffocating the fish. Severe algal blooms dominated by cyanobacteria (blue-green algae) sometimes produce toxic chemicals called cyanotoxins that damage livers and nervous systems of many animals, including people.” (Taken directly from the background information developed by DEP) What they didn't mention is that, in addition, these toxins can be and have been fatal to non-humans.

WHAT DO THE RULES SAY?

They set limits for the amount of phosphorus that can be found in a water body (see the box to the right).

They also set limits for characteristics of the environment that usually change when there are high nutrient levels in the water. Some of the more important ones for the Penobscot River and Dolby Dam (where the blooms have regularly started) are listed below:

Chlorophyll a - mean of 8.0 ppb and no single value greater than 10.0 ppb

Secchi disk depth - greater than or equal to (≥) 2 meters

Classification	Phosphorus limit (ppb)
<u>Rivers</u>	
AA or A	≤20
B	≤32
C	≤37
<u>Lakes</u>	
GPA	≤15

	Mean total phosphorus concentration is less than or equal to the limit of the assigned water quality classification	Mean total phosphorus concentration is greater than the limit of the assigned water quality classification
	All measured environmental response criteria meet the limits	1. Not Impaired. Phosphorus did not cause an impairment.
One or more measured environmental response criteria do not meet the limits	3. Impaired Indeterminate cause	4. Impaired Phosphorus did cause or contribute to an impairment.

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HOW MIGHT THESE HELP THE RIVER?

We strongly believe that the state has needed to adopt some form of these rules long before now. The 2001, 2004 and 2007 major blooms in the Penobscot were all the result of one direct source of phosphorus discharge 75 miles upriver from where it eventually reached. This fact makes it obvious to us that previous voluntary approach efforts by DEP to resolve this problem did not work. This is why we feel that an appropriate version of nutrient criteria **MUST** be adopted. But they must **ALSO** be monitored for and enforced! With the right rules in place we could prevent future blooms from occurring.

WHAT ARE THE PROBLEMS WITH THESE RULES?

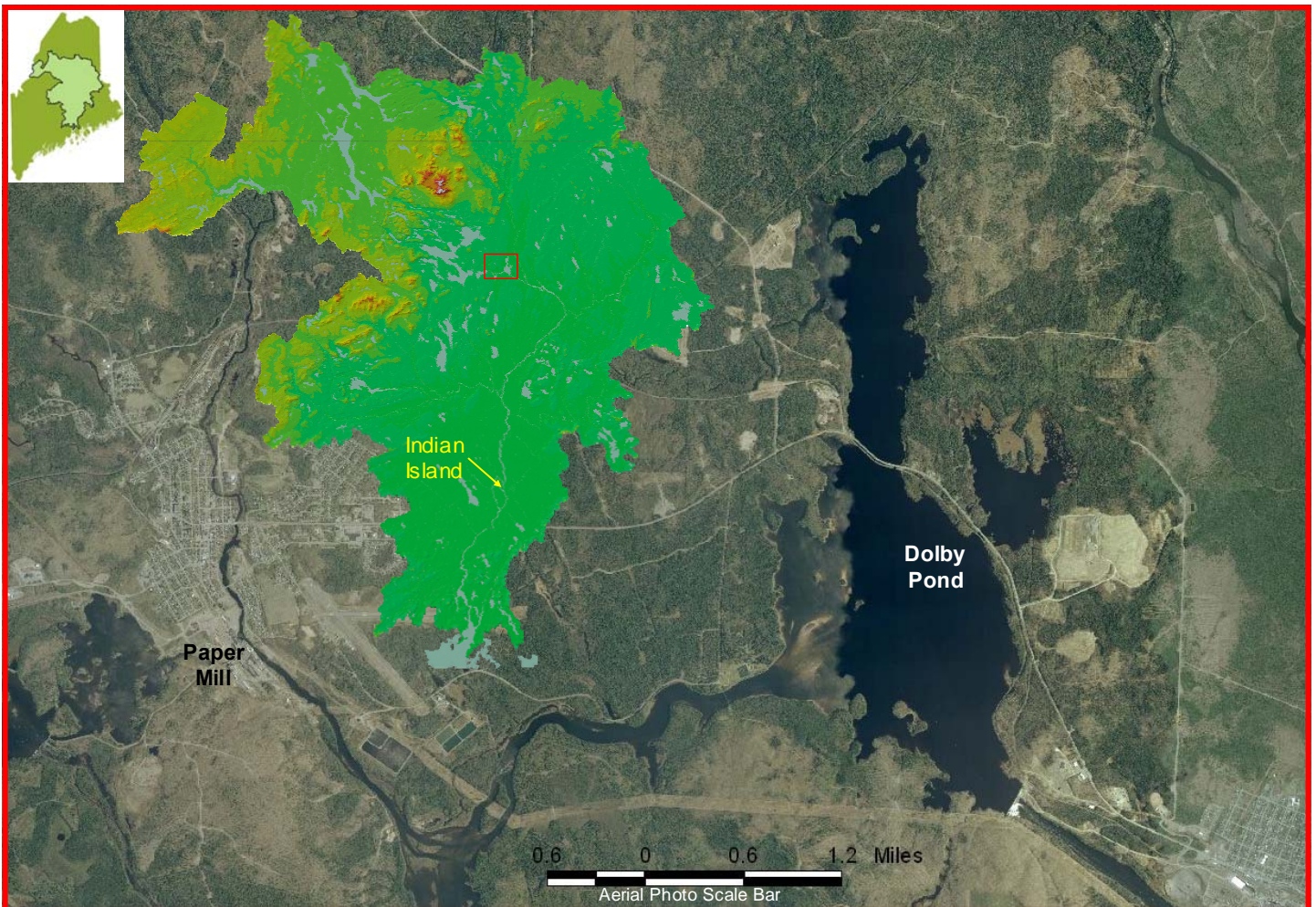
In 2007 DEP believed that an excess phosphorus discharge from Katahdin paper caused that year's bloom and issued them a notice of violation and a fine! But if, back in 2007, we had to go by the proposed phosphorus, chlorophyll a and secchi disk depth limits then the bloom in 2007 would have been considered an impairment but not necessarily due to phosphorus inputs. This does **NOT** make sense. See the image on the next page for more information and a visual representation of the problem.

The other major problem we have with the proposed rule is the method they want to use to understand phosphorus levels over a long time. The method they are proposing will be next to impossible to use in a large river like the Penobscot.

WHAT DID WE SAY AT THE PUBLIC HEARING?

In addition to the scientific statements we made we also reminded the Board of Environmental Protection (www.maine.gov/dep/bep/index.htm) that "after more than 10,000 years the Penobscot people continue to proudly share the name of the river that is at the center of their culture." We described how the community uses the river and the legal sustenance fishing rights that were protected through treaties with Massachusetts and Maine. We also shared the mission of the Water Resources Program to protect the health of the Penobscot River and the community members from the cumulative impacts of the many sources of pollution upstream of Indian Island.

**For a complete copy of our testimony go to our Resources page at:
www.penobscotnation.org/DNR/Water/resources/resources.html**



Sources of nutrients

[Total P] discharged from Katahdin Paper Millinocket Mill (June - August)

Average: 1900 PPB
Minimum: 1700 PPB
Maximum: 2100 PPB

Lead to
↑
Instream [Total P] at
Dolby Dam: from 3-
day DEP wasteload
study results
(7/31, 8/1 and 8/2)

Average: 23.3 PPB
Minimum: 22 PPB
Maximum: 23 PPB

Environmental Responses

Instream [chl a] at
Dolby Dam: from 3-
day DEP wasteload
study results
(7/31, 8/1 and 8/2)

Average: 24.7 PPB
Minimum: 15 PPB
Maximum: 32 PPB



Dolby Pond

Secchi depth
reading at Dolby
Dam on 8/9

2.66 m

88.8% of 105,722
cells/ml were
potentially toxigenic
cyanobacteria

Katahdin Paper was issued a
Notice of Violation from DEP
stating that "the Department
believes the primary cause of
these problems is excess
phosphorus discharges."

UNDER CURRENT PROPOSAL:
These conditions would be
considered

3. Impaired.
Indeterminate cause.



Mattawamkeag Confluence



E. & W. Branch Confluence

PIN Water Resources Program Making Sure it is Safe to Swim Near the Boat Landing at the Nick Andrew's Shore

Given the increased swimming activity now occurring at the Indian Island boat landing the PIN Water Resources program is now testing water from the dock area for total coliform and *E. coli* bacteria. Counts of *E. coli* bacteria are used as freshwater water quality criteria to determine whether the water is "swimmable". The methods that we are using are EPA approved for surface water monitoring purposes. While we do not yet have our own tribal water quality standards we are comparing our counts to EPA and Maine DEP standards.

Our plan is to sample at least once every two weeks (possibly more often depending upon changing weather, water or swimming conditions) near the boat landing at the Nick Andrew's Shore and Joe Pease areas. While the testing we are doing is not exhaustive, it is meant to tell us at least how much bacteria are present and whether other pathogens associated with these bacteria might be present.

Results from testing on Tuesday June 30, 2009 indicate that the water near the Nick Andrew's Shore meets the swimmable standard. This is only for informational and guidance purposes and not intended to be public health advice.

This is only for informational and guidance purposes and not intended to be public health advice.

June 30, 2009 tests show:
Nick Andrew's Shore
SWIMMABLE



Here are some additional recommendations to prevent the water at the landing from becoming contaminated with bacteria or other contaminants.

- Do not feed ducks or other birds at the area. These birds will contaminate the area with bacteria as well as possibly introduce "swimmers itch"
- Do not leave food or trash laying around which may attract ducks, gulls, dogs, or other animals
- Follow good hygiene practices, especially with infants and toddlers that may be swimming! Do not let them swim with dirty diapers and dispose of diapers in a trash can.
- If bringing dogs to the landing area, please clean up after them immediately.
- Do not fuel boats or spill fuel at the launch site.

We have already gotten lots of positive feedback from community members. We thank you for taking the time to respond to our efforts. We hope that this will be yet another valuable tool for our Water Resources Program to use in protecting your use of the Penobscot River.

“I remember the days when we would break out with sores from swimming in the river and had to have "floatie" alerts. We'd climb out of the water until they passed. It wasn't long afterward that signs were put up along the river saying that the water was unsafe and swimming was banned.

It's good to see our children able to use the river again for recreation.”

- Martin Neptune

WHAT ARE THE PURPLE THINGS HANGING IN THE ASH TREES?



The purple triangles hanging in the Ash Trees are traps set-up by DNR to detect whether the Emerald Ash Borer is present in our area. The Emerald Ash Borer (EAB) found in New York State last week has so far destroyed more than 40 million Ash trees in United States and Canada. Prevention is our best opportunity not to spread EAB to Maine. For this reason **everyone is urged not to move firewood outside the local area.** Presently, the biggest threat to Maine is firewood entering the state from other states. We have not found EAB in Maine yet, but this is not to say we do not have trees already infested with pre-adult (larva) still chewing their way through the ash wood. Early July is when the EAB adults will begin emerging from the trees. It is our hope to detect the adults early with the purple traps. If found in any area of the state; we can quarantine that area in effort to contain the insect with that area.

Penobscot Nation is working with Maine Forest Service (MFS) and USDA Animal and Plant Health Inspection Service (USDA/APHIS) to cover as much of Maine as possible. EAB is a serious problem and with your help we can prevent it from spreading to Maine. Attached in part is a warning issued by MFS explaining more about the threats we face and how to prevent dangerous insects. Please take a moment to read the warning.



Adult Male Emerald Ash Borer

You can read the article in its entirety by visiting:
<http://www.maine.gov/tools/whatsnew/index.php?topic=MFS+News&id=73369#Article>

If you have any questions please contact Tami Connolly at 817-7335 or come by the DNR/Forestry office to review more materials.



Maine Forest Service Issues Firewood Warning May 18, 2009

AUGUSTA, Maine - Campers heading to their favorite Maine campsites this Memorial Day weekend - and to any Maine campsite this season - are being reminded: **Leave Your Firewood At Home!**

The Maine Forest Service warns that invasive insects that could destroy Maine forests can be carried in firewood from one location to another.

One of the most serious invasive bugs is the emerald ash borer, which has the potential to kill all ash trees in North America. Ash wood, in particular, is used to make baseball bats.

The emerald ash borer, which can kill a tree in three to five years, has killed millions of trees in the Midwest and has been found, as of 2008, in Michigan, Illinois, Indiana, Ohio, Pennsylvania, West Virginia, Virginia, Wisconsin, Missouri, Maryland and Ontario, Canada.

Donahue asks everyone to remember these four safety tips:

- Use firewood you obtain locally;
- Don't transport firewood more than 50 miles (e.g., across county lines, especially to second homes, such as summer houses, cottages, cabins and hunting shacks);
- Don't take firewood home that you got elsewhere;
- If you've already transported firewood, don't leave it or bring it home - burn it!

<http://www.maine.gov/firewood> or <http://www.dontmovefirewood.org/> http://www.twincities.com/ci_12374493