

SOME OF THE MANY RESOURCES

Penobscot Nation Water Resources Program is continuing to put information on our web site at www.penobscotnation.org

Penobscot County Soil & Water Conservation District - www.penobscotswcd.org

The Buffer Handbook - developed by the Maine Department of Environmental Protection - can be found online at www.state.me.us/dep/blwq/doclake/publake.htm

Camp Road Maintenance Manual - developed by the Kennebec County Soil and Water Conservation District (kcsxcd.org) - Please contact the DNR office to get a copy

Lake A Syst: Learn how to maintain your lakefront home to protect & preserve lake water quality - developed by the University of Maine Cooperative Extension office - can be found online at www.umaine.edu/waterquality/lake_a_syst.htm

Information on phosphorous-free fertilizers and where to buy it can be found online at www.state.me.us/dep/blwq/doclake/fert/hospage.htm

WOULD YOU LIKE SOME HELP
INSTALLING A NON-POINT SOURCE
POLLUTION PREVENTION MEASURE ON
YOUR PROPERTY?
OR SOME MORE INFORMATION?

CALL OR COME IN FOR SOME HELP!

Jason Mitchell
Water Resources Field Coordinator
827-7776, extension 7381
Dan Kusnierz
Water Resources Program Manager
827-7776, extension 7361

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KEEPING

NON-POINT SOURCE POLLUTION

NON-POINT SOURCE (NPS) POLLUTION:

Everything that water collects with it when it is either seeping into or running off the land.

The every day actions of each of us can seriously contaminate rivers, streams, lakes and wetlands with non-point source pollution.

YOU CAN HELP MAKE THIS BETTER!

UNDERSTAND THE SOURCES:

- SEPTIC AND GREYWATER SYSTEMS, OUTHOUSES
- CONSTRUCTION SITES
- ERODING STREAMBANKS AND LAKESHORES
- IMPROPER FORESTRY PRACTICES
- LOGGING ROADS
- ATV TRAILS
- PLOWED FIELDS AND CROPS
- HOUSE AND GARAGE ROOFS
- HIGHWAYS, ROADS AND PARKING LOTS
- MANURE FROM COWS AND OTHER DOMESTIC ANIMALS
- HOUSEHOLD PRACTICES AND WASTE DISPOSAL

- LAWNS
- LANDFILLS AND DUMP SITES
- TRASH BURNING
- ATMOSPHERIC DEPOSITION

REMEMBER HOW IT ALL ADDS UP:

Because watersheds are like bowls they collect all of the water that comes into them. This means that ALL sources of pollution will eventually reach the rivers, streams, lakes and wetlands that are formed in watersheds.

When added to the impacts of point sources of pollution, like paper mills or sewage treatment plants, water can become seriously unhealthy.

PIN DNR is doing a lot of work to help clean up the Penobscot River Watershed and to protect Trust land waters to keep them healthy for the future. But because non-point source pollution comes from all of us **WE NEED YOUR HELP!**



OF PENOBSCOT WATERS

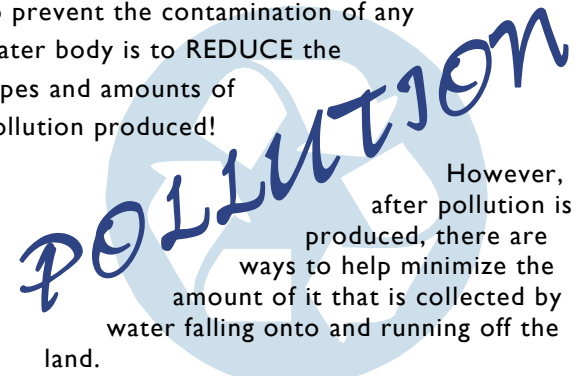
PENOBSCOT NATION
DEPT. OF NATURAL RESOURCES

Continued



What YOU Can Do to Help!

The biggest way that people can help to prevent the contamination of any water body is to **REDUCE** the types and amounts of pollution produced!



However, after pollution is produced, there are ways to help minimize the amount of it that is collected by water falling onto and running off the land.

VEGETATED BUFFER STRIPS

Vegetated buffer strips are areas of natural vegetation which have been left undisturbed or are replanted with native species. **The plants in these areas help to provide a filter and percolation area in many ways, including** (see Figs. 1 & 2):

- Decreasing the speed and volume of rainfall hitting the ground by first coming into contact with the leaves on the trees, bushes, and the ground (called canopy and litter interception)
- Further reducing the amount of rainfall entering the soil by evaporation from the vegetation surfaces.

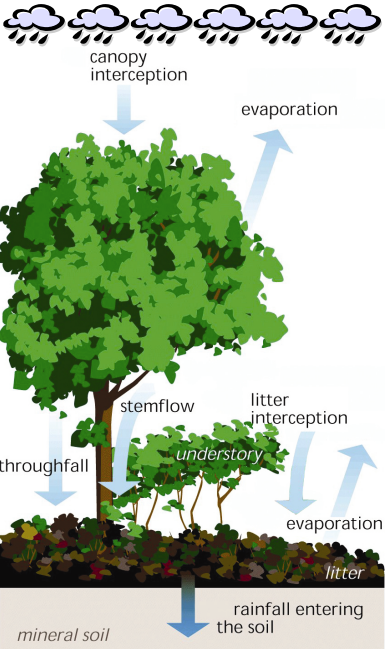


Fig. 1: Ways in which plants reduce the impacts of rainfall on NPS pollution

Vegetated buffer strips are important everywhere - including highly developed areas! Lots of pavement greatly increases the speed and volume of water runoff and decreases the amount that soaks into the ground. Vegetation next to rivers, streams, wetlands and lakes is called a "riparian" buffer and is especially important to the health of these water bodies.

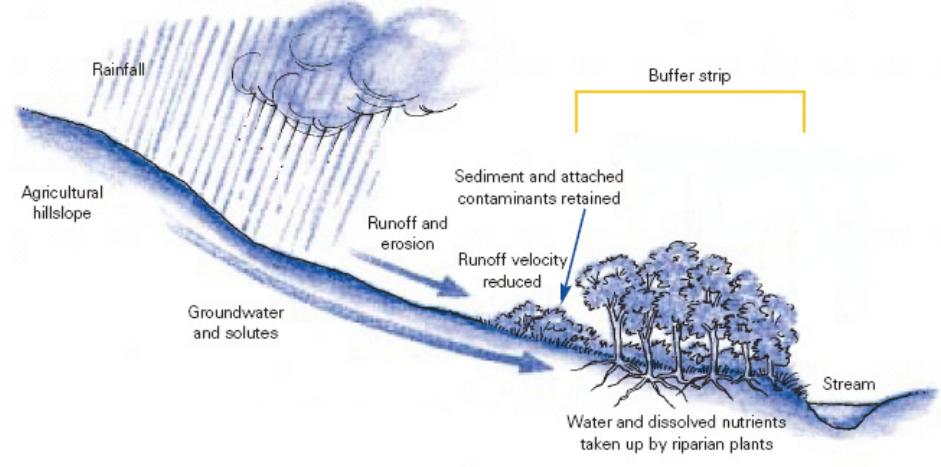


Fig. 2: Ways in which plants act as a sponge to absorb rainfall running downhill off the land and as a filter by using nutrients in the water as a food source - all reducing the stress on adjacent water bodies.

Rather than all of the water that is running off the land carrying pollution directly to our water bodies, **riparian buffers allow runoff to** (see Fig. 2):

- slow down,
- settle,
- soak into the ground, and
- have the nutrients it is carrying be available as a food source to the plants on the land rather than in the water.

Because the way we live tends to over-nourish and pollute our environment, riparian buffers are sometimes the last chance our water bodies have to protect themselves.

DO'S AND DON'TS OF POLLUTION PREVENTION

- **DO** install greywater treatment systems.
- **DON'T** mow lawns or cut trees right to the edge of water. If you are going to cut any trees near a water body on Trust lands please follow the regulations in the Comprehensive Plan. See DTR for reservation land regulations.
- **DO** filter roof, driveway and road runoff through any flat wet spots on your property.
- **DON'T** grade areas to drain directly to a water body - landscape using naturally existing contours.
- **DO** minimize the amount of roof, road and parking areas.
- **DO** keep paths narrow and winding and stabilize heavy traffic areas.
- **DO** use native species whenever (re-)planting vegetation.

Based on what you have learned in this brochure can you tell which house in Fig 3 has a better buffer and why?

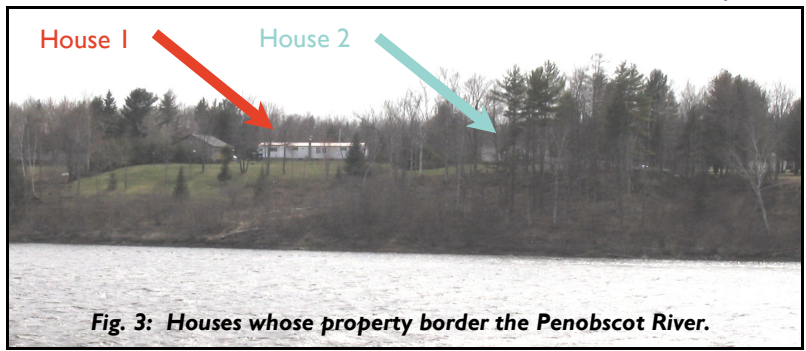


Fig. 3: Houses whose property border the Penobscot River.

DNR POLLUTION PREVENTION WORK

In addition to planting riparian buffers and improving drainage on Trust Land logging roads we have been working on improving stream crossings on ATV trails. The pictures below show trail work done near Round Mountain.

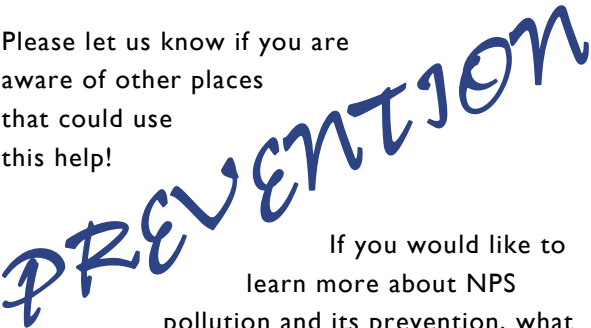


BEFORE: An inadequate bridge over the stream encouraged ATVs to go through it instead.



AFTER: An improved bridge prevents soil from entering the stream and reduces habitat destruction.

Please let us know if you are aware of other places that could use this help!



If you would like to learn more about NPS pollution and its prevention, what DNR is doing and how we might be able to help you install preventative measures on your property please see the back of this brochure. There you will find a list of resources that will get you started and the contact information for the appropriate DNR staff. **Thanks for your help!!**