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HBMI Natural Resources Department



Fluvial Geomorphology Workshop and Field Trip By Scott Krzanik

Scott Krzanik, Dave Joseph, Sharri Venno, Luke Joseph, and Julie Ivey attended portions of a workshop in June relating to stream processes and changes to water courses over time. The first part of the workshop was held in Augusta, with a follow-up field trip to the Meduxnekeag River, Moose Brook, and Jimmy Brook in Houlton.



Workshop participants at Jimmy Brook

The sessions consisted of learning about how water flows enter and flow through a watershed and the different processes that affect it on its journey to the ocean. In particular, there was a great deal of discussion regarding water flow, stream channel formation and alteration, sedimentation and deposition, erosion, and water course evolution.

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TELEPHONE LISTING

(207) 532-4273

1-800-564-8524 (ME)

1-800-545-8524

ENVIRONMENTAL PLANNING

Sharri Venno - ext. 215

FORESTRY

David Lombard - ext 220

REAL ESTATE

Tony Tomah - ext 221

WATER RESOURCES

Dave Joseph - ext 216

Scott Krzanik - ext 212

ADMIN. ASST.

Sue Young - ext 202



Samaqan

Mesq petapasultihtit pomawsuwinuwok, Kisiyulinaq 'kisi pcitakala newu pomawsuwinu weci pecihptuhtit woli pomawsuwakon. Wapeyultihtit elakumeq, nekomaw tepinomuhtit pisunuwey Sqot, Wisaweyultihtit elakumeq, nekomaw tepinomuhtit elatomuhtiyeq naka wocawson, Mokoseweyultihtit elakumeq olu tepinomuhtit pisunuwey samaqan, Mehqeyihtit elakumeq tepinuwahtit Kci Kikuwossonol. Samaqan komac kcitpot, kat op 'kisawsultihton skat samaqan. Neket eyyan swonusonuk, sipki mehtolan, ma tama sipuhsisol, psiw ote keq mace mehcinewiw, ma tepiyew samaqan. Psiw ote mawsuwinuwok naskatahasultuwok. Ehtahsikiskahk ote imiyahtuwok weci peciyewik samaqan



Water Saving Tips

Even though it seems that we've had a really wet Spring, we still need to think about conserving water. While we are near normal rainfall for April and May, we still have not made up the deficit from last summer, fall and winter. Everything we do to reduce our water consumption will help our groundwater supply last a little longer.

Here are some tips for conserving water both inside and out:

Laundry

- ♦ Run clothes washers only when full.
- ♦ Consider replacing older washers and dryers with more energy efficient models (some utility companies even offer rebates on certain models).



Bathrooms

- ♦ Take shorter showers
- ♦ Opt for showers instead of baths and save about 30 gallons of water.
- ♦ Test your showerhead. Turn on the shower, hold a bucket under the water flow for 20 seconds. If more than a gallon of water accumulates, you would benefit from a water efficient showerhead.



- ♦ Turn the water faucet off while shaving or brushing your teeth.
- ♦ Fix leaking faucets and toilets. Leaking toilets account for about 8% of all home water use. Test your toilet by lifting the lid off the back and putting a few drops of food coloring in the tank. Wait a few minutes and if the color appears in the bowl you have a leak.
- ♦ Install low flow toilets. Some newer models require only 1.6 gallons per flush.
- ♦ Avoid using the toilet as a trashcan. Every flush you can eliminate will save water.

Kitchens

- ♦ Defrost food by using the microwave or overnight in the refrigerator instead of under running water.



- ♦ Run dishwashers only when full. Scrape plates with a spatula instead of rinsing. Soak pots and pans to speed washing and reduce water use.

- ♦ Avoid using your garbage disposal. Compost fruits and vegetables instead.
- ♦ Install an aerator on your faucet.

Lawn & gardens



- ♦ Water lawns early in the day to avoid excess evaporation. Water only your lawn and garden, not the sidewalk, driveway, or road.
- ♦ Capture and re-use rain water. Mesh fabric or a couple of drops of baby oil will prevent mosquitoes from breeding.
- ♦ Keep mower blades sharp to prevent tearing of grass and raise your blade to 2.5 inches to help reduce water loss.
- ♦ Test your lawn before watering. If you can walk across your lawn and the grass springs back up, you do not need to water. Frequent light watering can actually do more harm than good by allowing shallow roots that are less tolerant to dryer conditions.
- ♦ Mulch plants to keep roots cool and moist. Mulching also reduces the growth of weeds.

Remember

every drop of water you save counts!

Word Search

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

ALGAE
BLACK FLY
DAWN
DRAGONFLY
FIDDLEHEADS

FISHING
FROGS
MEDUXNEKEAG
MOON
MOSQUITO

RIVER
SOLSTICE
STONES
SUNSHINE
WOLIWON



Pesticides and Their Alternatives

Now that Summer is here, the black flies and mosquitoes have awakened and we find ourselves reaching for the bug spray. Or you find yourself in the garden and there are weeds popping up everywhere, so you grab the weed killer and start spraying. Did you know that using or disposing of these pesticides incorrectly can harm pets, people, plants and can pollute the air, soil and water?

Pests appear in our yards, homes and gardens in a variety of forms, from insects, to weeds, molds and fungus. If you must use pesticides, choosing the appropriate pesticide and handling it according to its specific instructions, can greatly reduce the impact on the environment. Many times pest problems are misidentified and don't require chemical intervention at all. Sometimes brown and curled leaves are a sign of insufficient water or fertilizer not an insect infestation. What's important to remember is that not all bugs are pests and certain insects are important to the health of the ecosystem. Without bees and other insects to help with pollination, we wouldn't have flowers, fruits or vegetables.

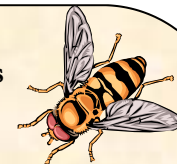
There are a number of ways to prevent pest problems to reduce the need for pesticides. Here are a few suggestions to reduce and/or eliminate pesticide usage in your little corner of the world.

- Mulch your garden to eliminate weeds and help control water levels in the soil
- Mow your lawn no shorter than 2.5 inches to shade competing weeds and discourage pests.
- Hand pick insects from plant leaves
- Inspect plants from the store to avoid bringing insect pests into your home or garden
- Rotate plants to reduce the spread of disease
- Don't allow water to collect in pots or other containers, these conditions often encourage mosquitoes
- Don't allow food stuffs to sit out uncovered to attract insects

If you must use pesticides be sure you are using the right one for the job. Pesticides are usually broken down into three categories

- **Fungicides** - control some plant diseases and molds
- **Herbicides** - control vegetation/weeds like dandelions etc.
- **Insecticides** - control insects including grubs, ants, mosquitoes, wasps etc.

Using and Handling Pesticides Safely and Effectively



- Before using any pesticide make sure there are no pets, children, or other persons in the area and remove all tools, toys and other equipment from the area.
- Never leave the pesticide unattended while using.
- Choose the correct pesticide for the job.
- Check the label to be sure that the pesticide is approved for use on the pest being treated.
- Check weather conditions before starting and do not use in windy conditions.
- Don't eat, drink or smoke while handling pesticides. Wash your face, hands and any other exposed skin thoroughly after using the pesticide and before you eat, drink, smoke or use the toilet.
- Clean up spills immediately.
- Purchase only the amount of pesticide required to avoid storage problems.
- Read and follow label directions carefully, paying special attention to application and disposal directions.
- Watch for warning words on the label **Caution - Warning - Danger** and pay attention!
- Keep the Poison Control Center numbers for your area nearby be sure to have the label handy when you call. These numbers are usually found in the front of your local telephone directory.

The National Pesticide Communications Network is a 24 hour hotline providing emergency assistance, and information about safety, health and environmental effects, spill clean up, disposal procedures and referrals.

1-800-858-PEST (7378)

Additional information available upon request.

Samaqan

Nomihtun eci mahcuwinakuk ska eyik samaqan. Neqt kisi pasqek, memqote kekesk kisolan. Kcicihtuwinut eci wolitahasit, psiw ote wenil 'tolkimal weci naci wolasuweltomulit kucomok. Kehsihtit nutiyapasihit, psiw ote wen toli wolasuweltom. Komac wolitahasultuwok. Nil olu ntassokitahas, opocil nil wetapeksi, mecimolan. Woli ote wolasuweltom 'ciw samaqan, kisitahatomon tuciw neket weci skat tuci pekositahatom samaqan. Tokec komiwok, komac nulasuweltom....

Nulasuweltom 'ciw Wolastoq, nit wetapeksi
 Nulasuweltom 'ciw Mehtaksonihkuk, nit eyihtit ntulnapemok
 Nulasuweltom 'ciw Gaihuhadadi
 Nulasuweltom 'ciw psiw sipiyil, sipuhsol, qospemol naka supekiyil
 Nulasuweltom 'ciw psiw putepiyik naka samaqanikewiyik
 Nulasuweltom 'ciw coqolsok, nekomaw nikt nucintuhtit weci komiwok
 Nulasuweltom tanci komiwok
 Nulasuweltom tanci wen nemiyuk 'sasotemin, opocil 'pisunuwiw nit
 Nulasuweltom weci kisi skicinuwiwiyay
 Nulasuweltom 'ciw kehkituwakonol, nil oc tokec tokekimak nqenossok weci namkomihptuhtit wolasuweltomuwa-
 kon 'ciw samaqan naka psiw keq eyit Kci Kikuwosson.



Ehtasikiskahk Ntimi weci psiw ntulnapemok wolankeyutomuhtit samaqan 'ciw weckuwapasihit. Nit Leyic.
 Opolahsomuwehs 02

The Gift of Water

Before the People inhabited the Earth, Creator sent Four Families to bring Sacred Teachings. Our White Relations were given the Sacred gift of Fire, Our Yellow Relations were given the Sacred Gift of Air through our breath and wind, Our Black Relations were given the Sacred Gift of Water, Our Red Relations were given the Gift of Earth, our Mother. Water is very Sacred, it is medicine to all of creation, without water, there is no life.

Once when I was visiting our Southern family, there was no rain, no brooks, everything was dying due to the lack of water. All the people were praying and doing ceremony everyday for rain. Eventually, one afternoon, a sprinkle was felt. A Medicine Man invited everyone to celebrate the gift of water, everyone joined him outside to give thanks for the sprinkle of rain. There was so much happiness. As for me, I was amazed at the joy of a sprinkle and felt guilty about the times I was disappointed whenever it rained in my home land. At that moment, I understood the Sacred Gift of Water and promised myself that I would never take the Gift of Water for granted. Now when it rains, I make an offering to Creator....



I give thanks for Wolastoq, the river of which my people are named
 I give thanks for Meduxnekeag, the river of my relations
 I give thanks for my friend whose spirit name is River Running
 I give thanks for all the rivers, brooks, lakes and oceans
 I give thanks for the Whales and all the ones who live in the water
 I give thanks for the Frogs who sing for the rain
 I give thanks for seeing those who shed tears, it is good medicine for them
 and for me
 I give thanks for ceremonies in my language
 I give thanks for all the Teachings, it is now my turn to teach my grand -
 children to carry on the respect for water and all things from Mother Earth.

Each day I pray for all my Relations to take care of the Gift of Water for the ones who are not yet born....
 May that be the Truth!

Imelda Perley 02

Summer Technicians Have Arrived



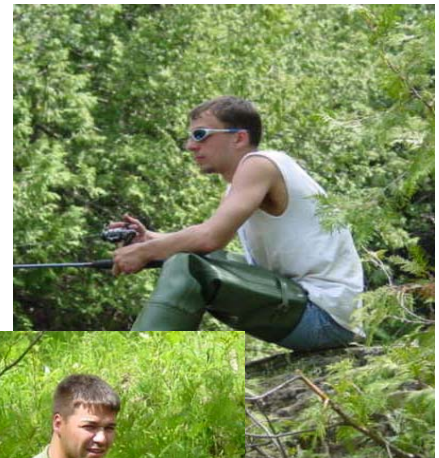
Summer is here and that means once again our department is joined by four summer techs.

This year the Water Resources Department is joined by Julie Ivey and Luke Joseph. They will be assisting Scott Krzanik and Dave Joseph with their work in the watershed.

They will be collecting water samples from the Meduxnekeag River and surrounding streams and brooks, then analyzing the samples in the lab in addition to other projects.



Meanwhile, Nick Howe and Jason Young join David Lombard as the Environmental/Forestry techs. They'll be working with David on various projects on tribal land.s.



*Summer Techs,
(clockwise)
Luke Joseph
Jason Young
Nick Howe
Julie Ivey*

Jason and Nick will also be taking part in a study to help measure mercury levels in the fish in the Meduxnekeag River and other waters in the Meduxnekeag Watershed.



Fluvial Geomorphology (continued)



Drainage ditch and erosion damage behind Millar Civic Center in Houlton

During the field trip, the class visited three different sites along the Meduxnekeag River to observe the impacts that human activities and natural events have on how a stream forms, changes, and degrades over time. We also discussed ways in which streams could be restored to improve the quality of the aquatic habitat and protect the existing riparian areas.

Since non-point source pollution is a major problem in the Meduxnekeag River watershed, we anticipate applying the knowledge gained through this workshop to several sites on the river and its tributaries in hopes of preserving and enhancing water quality and wildlife habitat.



The black bear that was spotted during the field trip



Envirothon 2002

On May 21, 2002 David Lombard, Sue Young and summer techs Nick Howe and Jason Young traveled to the A.E. Howell Wildlife Conservation Center & Spruce Acres Refuge in North Amity Maine to participate in the Northern Maine Regional Envirothon hosted by the Southern Aroostook Soil and Water Conservation District (SASWCD).

Twelve teams of students representing area high schools (Magnet School, Central Aroostook, Katahdin, Southern Aroostook, Lee Academy, Easton, Hodgdon, Fort Kent,) competed against one another to test their knowledge on a number of environmental topics. Teams were tested in the areas of Forestry, Wildlife, Soils, Aquatics and Invasive Species.

A team from Easton went on to take the District title and compete at the State Meet at the end of May. The State Envirothon was won by Bonny Eagle High School from Standish, Maine.

Calling All Radon Kits

If you still have a radon kit in your home please contact the Natural Resources Department as soon as possible to arrange for pickup.

