



Unama'ki Institute of Natural Resources

UINR
martin

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Comments and questions are welcomed. Email us at info@uinr.ca

Super Oysters!

What do you get when you cross a healthy oyster with a diseased oyster? Super Oyster! Well that's in theory anyway and if UINR has any say in the matter, it might not be long before the native oyster fishery in Crane Cove returns.

The problem is MSX. No that's not the latest instant messaging software, it's a pesky parasite (*Haplosporidium nelsoni*) that has found its way into oyster beds in the Bras d'Or, presumably from the ballast of a ship. First discovered here in 2002, MSX poses no threat to humans, but is devastating to oyster flesh. When the parasite strikes it multiplies and spreads rapidly often resulting in the oyster's death by the end of summer. The lucky oysters that survive are weakened and usually die the next spring. While not spread from oyster to oyster, it is believed that MSX uses an as of yet unknown host to spread the infection.

Aquaculture biologist Allison McIsaac to the rescue! Take an MSX oyster and spawn it with a healthy oyster...not so fast...the MSX oyster is so weak it can't spawn naturally. Here's where Allison comes in. She manually scrapes spawn and sperm and combines it under laboratory conditions. Allison's little babies are settled in their tanks, eating algae and growing. It could take up to 10 years to develop these super oysters, but in an industry worth over one million dollars to Eskasoni First nation, it's not long to wait.

UINR has partnered with Eskasoni Fish and Wildlife Commission, Fisheries and Oceans and the Nova Scotia Department of Agriculture and Fisheries to make this important study possible. If this disaster happened in the Bras d'Or it could happen anywhere. The work on this project will benefit other communities where an outbreak is not just possible, it's likely. Continued research is needed to determine the actual cause and to develop a solution.



Charlie Dennis Pjila'si



Pjila'si—Welcome to our first issue of the UINR MARTIN. Our newsletter will be published four times a year, with every season to bring you news on all of the projects we are working on, the partnerships we are making and other news of First Nation's involvement in protecting our natural resources.

UINR is growing fast and this is our way to keep everyone informed about our activities. If you know anyone who would like to get a copy, send us an email or drop by our offices to get a copy. We welcome your comments or story suggestions.

While we're talking about communication, take a look at our new website at www.uinr.ca. It's brand new and we're adding information all the time. We intend to keep our site current and up-to-date with news on our projects and partnerships. Look there for job postings and other opportunities!

It has been a busy time for us at UINR. New staff, new projects and we continue our mission of First Nation's management of our natural resources. You'll learn about our project with Pitu'paq and the Nova Scotia Youth Conservation Corps that employed two Eskasoni students to research and put together a brochure on clean boating practices. We tell you about some of our partnerships with the Bras d'Or Lakes Collaborative Initiative (CEPI). Find out more about First Nation management of the moose herd, our workshops for youth on moose hunting, our scholarships in partnership with Georgia Pacific, and on a more personal note, meet some of UINR's new babies and spend some time figuring out our crossword. This issue we have some storytelling by yours truly and a humorous look at office politics by Annie Johnson.

Until next time....

Unama'ki Institute of Natural Resources

Clean Boating



In the near future the Bras d'Or Lakes will be a cleaner place due to the Canada Shipping Act designation making the lakes a non-discharge zone for boating sewage. This summer two students from Eskasoni, NS have been working on getting the news out to boaters on the Bras d'Or. Alyssia Jeddore and Norman Sylliboy have been researching clean boating practices and resources for boaters. They have put together a useful, fact-filled brochure called "Clean Boating on the Bras d'Or" that shows boaters how to contribute to the good health of the Bras d'Or's environment. The brochure informs the boating fraternity about the new designation and promotes the use of sewage pump-out facilities.

This project is a partnership between Unama'ki Institute of Natural Resources (UINR), Pitu'paq and the Nova Scotia Youth Conservation Corps (NSYCC). UINR's board is made up of the chiefs of five First Nation communities in Cape Breton working collaboratively on issues regarding natural resources and their sustainability. Whereas Pitu'paq's membership is made up of the same chiefs, they are joined by representatives from the five Cape Breton municipalities. NSYCC gives youth the opportunity to work in their communities on projects concerning the environment. Each year they hire students from across the province to work on environmental issues like watershed, solid waste, pollution prevention, environmental education, interpretation and climate change. This is done along with the experience of team building, leadership and knowledge of the environment and its current state.

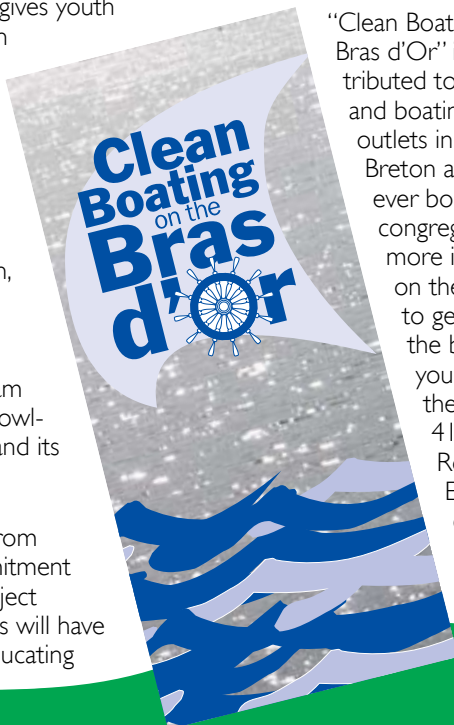
The two crew members from Eskasoni show their commitment and willingness on this project knowing that their activities will have an influential impact on educating



the public on the Bras d'Or non-discharge zone designation. They have been working from an office at UINR and have dedicated their summer to make this project a success.

Norman explains, "Working on this project has brought my sister and I a better understanding of the non-discharge zone. We have been working to promote the designation for three weeks now and being Mi'kmaq we've always had a sense of knowing and understanding of how important the environment is to our people. With the information we gathered we will inform others of this essential concern. We would like to help people to treat the Bras d'Or Lakes with dignity and respect and hope we get positive responses out of the project."

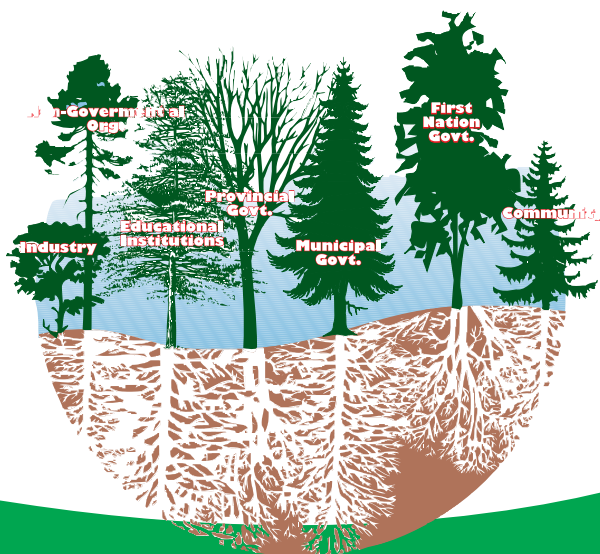
"Clean Boating on the Bras d'Or" is being distributed to all marinas and boating supply outlets in Cape Breton and where ever boaters congregate! For more information on the project or to get a copy of the brochure, you can visit the office at 4102 Shore Road in Eskasoni or call 902 379 2163.



Forestry Division

In January 2002, an agreement between Stora Enso and the Unama'ki Institute of Natural Resources (UINR) was signed in which outlined provisions for forestry management services to be carried out by UINR on the Cape Breton crown lands. This management includes forest planning, harvesting and silviculture. The two parties also agreed to establish a joint UINR/Stora Enso forest planning committee made up of two individuals from each party. This committee will review and make recommendations to Stora Enso on the long-term forest management plan. This contract gave UINR access to act as a contractor and harvest up to 10% of the annual allowable cut (AAC) on Cape Breton with an added clause for a potential increase in the harvest volume.

The UINR Forestry division is involved in the Species at Risk program. For the last two years we have aided in the "live trapping" of Lynx in an attempt to radio collar several individuals in an attempt to better understand their movements and habitat requirements. The Lynx is an endangered species in Nova Scotia with one of the last remaining populations inhabiting the Boisdale Hills area. With such close proximity to our communities it was an ideal opportunity for UINR to become involved with the development of a protection plan for one of Cape Breton's predator species. Another project the forestry division is currently working on is the re-establishment of the Black Ash, a very important tree in Mi'kmaq culture and history. The population of Black Ash in Cape Breton is very small and to UINR's knowledge limited to less than fifty known and mapped individual trees. Over the last two years there has been several thousand Black Ash seeds collected from known seed sources throughout Nova Scotia. These seeds were then germinated and several hundred distributed to First Nation communities.



Unama'ki Institute of

Managing Moose

The current moose population in Inverness and Victoria Counties is estimated at a healthy 5,000 with a possible high of 7,000 moose. A project using radio collars that emit signals back to researchers allow the tracking of moose to determine their population, migration patterns and the general movement of the moose population.

Mi'kmaq Tiam (Moose) Hunters

Please Remember
to Turn in Your
Moose Jaw Bones

This research project has been ongoing for the past five years and is a cooperative project between UINR, Parks Canada (Cape Breton Highland National Park), and the Department of Natural Resources.

Although the population is healthy, some scientists predict a drop in the herd's population in the next few years. A quick look at the animal's past reveals that in Cape Breton the moose was extinct in Northern Cape Breton in the late 1800's. While there is much speculation on the reason for their extinction and theories abound, no one can be sure why this happened. This ongoing study might shed some light on understanding and recognizing patterns that could lead to the moose's demise.

The project has already collected 5 years of information and is now entering an analysis stage where researchers will process and put together the diverse pieces of data.

Next June in Baddeck the group will host the 42nd North American Moose Conference and Workshops. This annual workshop offers information about moose and their shared habitat. Biologists that are on the cutting edge of new information that benefits moose, moose habitat and other wildlife will share their knowledge and research. It is expected that findings from the UINR study will be presented at this important conference.



The Confederacy of Mainland Mi'kmaq



Moose Camp

UINR is hosting a Youth Moose Camp in which 4 youths from the 5 Unama'ki First Nations will be selected to experience a tradition that has been with our people for generations.

Participants will go through 4 days of workshops, participate in a community hunt and host a supper celebration for their community's elders.

For more information contact Anthony Pierro or Terry Bernard at 902 295 1151 or Rodney Alex at 902 379 2024.

Moose Facts

- The word "moose" comes from the Algonquin Indians— mooswa meaning "twig-eater" or "the animal that strips bark off of trees." Through the years, it eventually changed into "moose."
- For First Nations people the moose is an important animal, supplying us with food and other things for our survival. Moose meat is a source of nourishment during the long winters. The hide was used to make clothing and provide shelter; and moose bones and antlers were shaped into useful tools.
- The moose is the world's largest deer. The moose can run 35 miles per hour and can easily swim 10 miles.
- Moose eat willow, birch and aspen twigs, horsetail, sedges, roots, pond weeds and grasses. Moose eat leaves, twigs, buds and the bark of some woody plants, as well as lichens, aquatic plants and some of the taller herbaceous land plants. They can actually feed under water.
- Moose are found in northern forests in North America, Europe, and Russia. In Europe and Asia, moose are called elk.
- Hooves are the first line of defense! While a male may use its antlers to hold off a predator, a moose's sharp hooves are its first line of defense. Moose are able to kick out in all directions, but generally use their front feet.
- They're faster than they look! A moose's long legs allow it to move easily over rough terrain and through deep snow. A moose can run almost as fast as a horse, or about 30 miles per hour for a short time period.
- Moose live for a long time. Cow moose have been known to live for as long as 20 years. Bull moose may reach 15 years of age.

Information from www.moosefoundation.org



Cape Breton Mi'kmaq Respond

The Supreme Court of Canada's recent decision that Nova Scotia's Mi'kmaq do not have treaty rights to harvest and sell trees from Crown has surprised Cape Breton's First Nations communities. Charlie Dennis, executive director of the Unama'ki Institute of Natural Resources (UINR) in Eskasoni, Cape Breton was saddened by the decision but underlines the potential for further dialogue. "UINR is disappointed in the Supreme Court's decision and recognizes the need for stronger First Nation's representation in the judicial system. We will continue to support the principle of First Nation's aboriginal title on this and other issues."

UINR is a natural resource management organization representing the five Cape Breton (Unama'ki) First Nation communities. One of its main activities is to promote and contribute to the understanding and protection of the environment in the traditional territory of the Mi'kmaq people. Its board of directors is comprised of the five Cape Breton Mi'kmaq Chiefs and its board is composed of the five Chiefs of Unama'ki/Cape Breton.

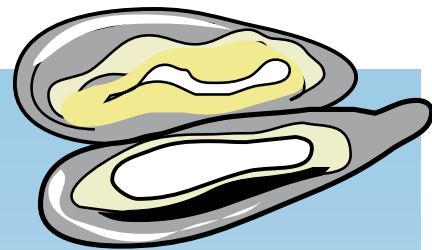
Mr Dennis recognizes the inroads that UINR has already made. "We look forward to continuing our positive work with our partners in forestry. We remain committed to continued leadership in responsible resource management." UINR is involved in a diverse range of activities including marine biology, forestry and wildlife research and management. It is a diverse organization involved in many collaborative initiatives including developing a management plan to address environmental issues facing the Bras d'Or Lakes and watershed. This includes extensive collaboration with municipal, provincial, and federal government departments, as well as partnerships with community groups and private enterprise.

While the decision is widely seen as a setback for Nova Scotia's Mi'kmaq community Mr. Dennis sees hope. "We are continuing to see productive discussions on the Kwilmuk Maw-klusuaqn Mi'kmaq Rights Initiative. Everyone will benefit from resolving the treaty issues"



The Oyster Garden

A Story by Charlie Dennis



I was a young boy when I used to go to Malagawatch with my Mom and Dad to gather maple to make baskets. There was a man there named Gabriel Sylliboy. Gabriel and his brother stayed in a meager cabin typical of the times then, an oil lantern, an old tin covered wood stove, a couple of beds and a spittoon in the corner (Some people thought it was some sort of a pot – by the way, Gabriel never missed). The cabin was west of the Denys' Basin and close by there was a pond (that would now be considered the depiction of perfect watershed management) but at the time it was a way to help his family survive.

I used to sit from a distance and watch him harvest after I had finished my oyster gathering for the day. It never ceased to amaze me that, wind or not, this man could collect two or three five-peck boxes a day of the finest looking oysters. Oyster buyers always sought Gabriel's oysters first. People use to call him the 'Puoin', which means 'someone who can just make things happen' but I don't think that this what he was. After many years of careful observation, I realized that he was not some magical being, this 'Puoin' some people said he was. Instead, the manner in which he worked was simply in complete harmony with the natural elements. He had a way of working with the natural environment that made it appear that the conditions of the day would 'change' to suit his needs. As each scoop of oysters from the silted bottom was brought aboard his boat they were swished clean and then graded into piles. Then depending on their size, they were placed back into a designated area of Gabriel's pond.

He had it all mapped out, only it was in his head, hidden from anyone else. It wasn't that Gabriel was so unwilling to share his techniques or keep his secrets hoarded away only for himself, it was just that he had a different way of learning. He allowed me to observe, but I had to do the thinking for myself. I often think back of Gabriel, who was always clad head to toe in his Sunday best unlike other fishermen and he always taught from a 'figure-it-out-yourself' perspective.

The tools of the trade were simple as life itself was very simple then. One time when he knew I would be nearing an area where he knew I could pick up some railroad spikes, he asked me to bring him back some. He wouldn't tell me what they were for, but he was willing to let me observe why he wanted them. The iron hammer 'spike' was used to chip the crooked edges of an oyster shell away when he pulled up a jagged one. The trimmed oysters were then put back into a certain area of this pond to heal. The only map he had was etched in the memory of his mind but with consistent intent he placed each oyster according to where it would foster good growth. The scoop he used was loose netting inside a bent bicycle rim, which was outlined by homemade copper wiring and fastened securely to an old wooden broom handle. He also had a rake, which was used to remove the algae and seaweed from the bottom of the pond. The blanket of scum that covered the bottom was easily removed by just touching a part of it with the rake and like magic the buoyancy lifted the 'blanket' to the shore. There was another tool, perhaps the most important. It wasn't just Gabriel that used it, all the oyster fishermen did as well. At one point I was sent on an errand to pick up this special tool for a group of oyster fishermen and I brought back all sorts of samples...

*Can you guess what this other thing was that was so essential to oyster fishing?
E-mail your guesses to info@uinr.ca*

Lisa's New Administrative Duties

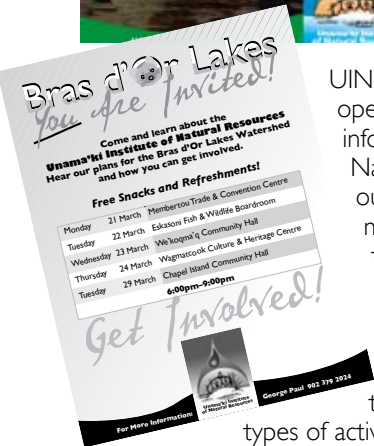
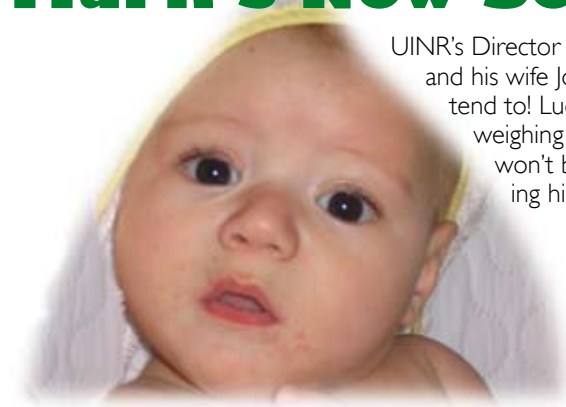
Congratulation to Lisa Young, UINR's Director of Administration and her husband Buddy on the birth of their first child Kahlen Marie.

Lisa is taking some time from her duties at UINR to do some administration of her own!



Mark's New Seedling

UINR's Director of Forestry Mark MacPhail and his wife Joan have a new sapling to tend to! Lucas sprouted on April 28 weighing in at 7 and a half pounds. It won't be long before Lucas is joining his dad out in the woods!



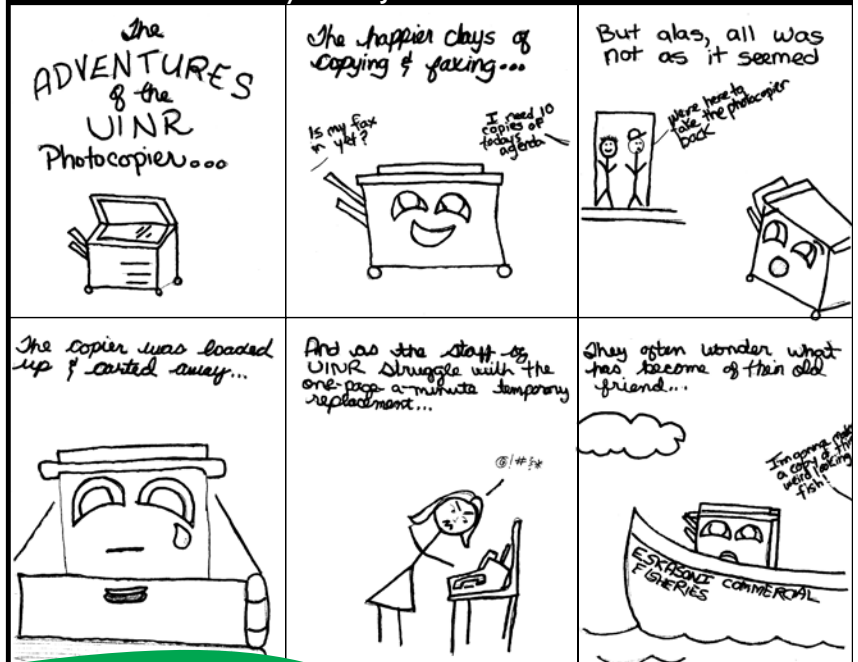
UINR organized a series of open houses in March to inform the 5 Unama'ki First Nations communities of our plans to develop a management plan for the Bras d'Or Lakes watershed. George Paul facilitated the community meetings and his presentation determined what

types of activities that UINR should be focusing on. Issues such as science research, enforcement and environmental management plans were discussed with the goal to have people become more actively involved in protecting the Bras d'Or.

Issues that UINR should be addressing include climate change, declining fish stocks, sewage, contaminated shellfish areas, destruction of wildlife habitat and invasive species.

Large format posters were prepared using photographs from George Paul's portfolio. These provided background information on UINR, CEPI and the state of the Bras d'Or in general.

UINR Humour by Annie Johnson



State of the Bras d'Or Lakes

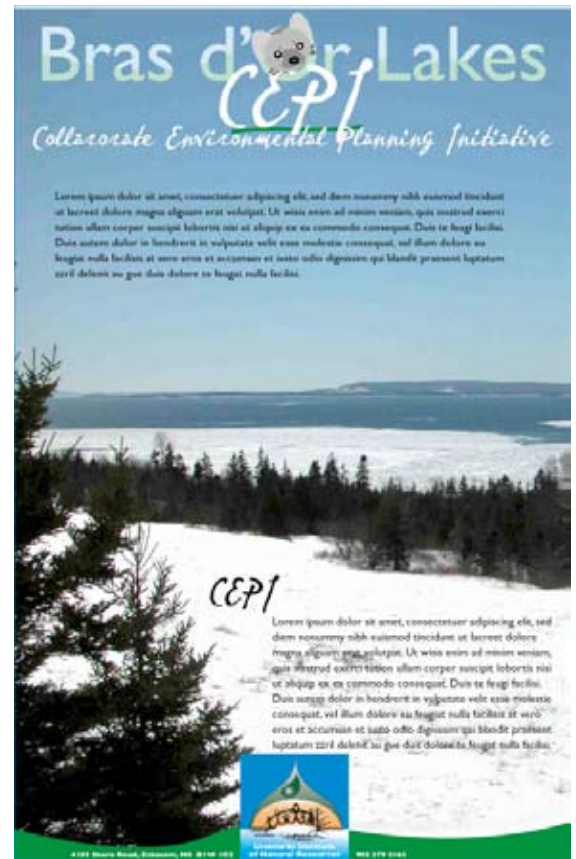


The Collaborative Environmental Planning Initiative (CEPI) is formed of First Nation, community, industry and government partners who have come together to devise a management plan for the Bras d'Or lakes. With two successful workshops under their belt, CEPI has been given clear direction from both government and community on priority issues and the means to address them. At both workshops, held in October of 2003 and October of 2004, UINR was endorsed as the Secretariat to co-ordinate the development and implementation of the management plan.

This year, CEPI has been very busy as they move from the consultative phase to the development phase of the plan. Presently, two tasks teams have been struck. One team is putting together a draft outline of the management plan which will include Terms of Reference and a Management Model. Another team is working toward sustainable support and financial management of CEPI. In addition, work has begun on forming a Youth and Elder Council, a database sharing project with Nova Scotia Department of Natural Resources, a school module for children, and an exploration of setback regulations for the Bras d'Or Lakes. These projects are consistent with the direction given to us by the Elders requesting that Traditional Ecological Knowledge be taken island wide, that we protect the Bras d'Or Lakes from impacts as much as possible to allow her to heal herself, and that we practice "two eyed seeing" in our approaches. This "two eyed seeing", a concept given to us by Elder Albert Marshall of Eskasoni First Nation, means that we view problems and solutions through the eyes of both cultures, both Western science and Mi'kmaq Traditional Knowledge. In this way, the strengths of both knowledge and wisdom will be employed. Based on direction from community, CEPI is basing the management approach on the Medicine Wheel, seeking balance, consistency and effectiveness. We are very proud of the efforts put forward by all members of CEPI, as they work toward protecting and preserving this ecosystem which is so important to all people and species of Unama'ki.

The Unama'ki Institute of Natural Resources is developing a comprehensive report describing the state of the Bras d'Or Lakes that can be used as reference for governments, managers, resource planners, academia, the tourism sector and the general public as a citable source of quality, relevant and current information on multiple aspects on the Bras d'Or Lakes and their watershed. It is anticipated that the report will contribute to the long-term sustainability and health of the Bras d'Or Lakes ecosystem by providing the users and managers of the Lakes with relevant science-based information to assist in the decision-making process and create awareness of the state of the Bras d'Or Lakes for the general public. It can also enhance curriculum in schools to educate the youth of Cape Breton.

The report will be presented in a manner that is easily comprehensible by non-scientific readers and in topic-specific modules, such as water quality, invasive species, etc. Our approach is to complete the report one module at a time and concentrate our efforts to address the environmental concern that was identified as the having the most priority –water quality in the Bras d'Or Lakes.



At this time, the background report for the water quality module is completed and we intend to develop a more useful and condensed module for the decision-makers and general public. The background report follows the state-impacts-responses-driving force-pressure format that is internationally sanctioned for use in many environmental reports in the European Union. It applies a unique approach to communicate information on the condition of the environment (state) and how it is interconnected with changes observed in the environment (impact) and human involvement, both negative (driving force and pressure) and positive (response).



The Pitu'paq Partnership is moving forward with their comprehensive plan to address sewage in the Bras d'Or Lakes. They have been working on a Green Municipal Fund application which would complete feasibility studies for sewage management in key area of the Bras d'Or. These would include Sampsonville, East Bay, Potlotek (Chapel Island), We'koqma'q, Dundee, and Orangedale/River Denys.

In September, members of Pitu'paq received a presentation on innovative technologies on a de-watering truck for on-site sewage systems. This technology is from Norway, and a pilot project has already taken place in Victoria County with a good response from residents. The presentation was very informative, and holds the possibility of phasing out sewage lagoons in Unama'ki. Pitu'paq continues to periodically review and support the implementation of innovative technologies, and provide a forum for communities to examine appropriate new approaches.

The Joint Enforcement Patrols, composed of federal, municipal, First Nation and municipal enforcement officers, were successfully delivered in Bras d'Or again this summer. The annual final report is due in October. Chapel Island Mission received support from Pitu'paq this year to address sewage issues. Pitu'paq provided financial support to provide portable toilets during the Mission.

The Canada Shipping Act designation continues to successfully move through the legislative process and Pitu'paq was proud to partner on the Clean Boating Initiative through the Nova Scotia Youth Core.



Congratulations to the winners of the UINR/Georgia Pacific Scholarships. The fund is to promote and encourage education and careers in the field of Science and/or Technology within the Unama'ki Mi'kmaq Communities.

Shelly Denny—Chapel Island
Jasine Dennis—Eskasoni
Stephanie Bernard—We'koqma'q
Lindsay Marshall—Membertou

UINR Crossword

										1											2		3			4
5	6																									

Across

2 Type of mine

5 Needle-eating forest pest

8 Satellite mapping

9 Result of bad boating practices

10 Feline under endangered species act

Down

1 'Arm of Gold' (French)

3 UINR mascot

4 Oyster parasite

6 'Land of Fog' (Mik'maq)

7 Eugene '_____' Denny Boardroom (EFWC)

New Partnerships

In July Charlie Dennis and Shelley Denny travelled to Winnipeg Manitoba to meet with representatives from the Centre for Indigenous Environmental Resources (CIER) to exchange information on each other's histories and initiatives and explore the idea of working together. With CIER's record of quality work in research, training, and advisory services with First nations and UINR's strong science and traditional knowledge research focus and experience in the Bras d'Or lakes, our two organizations share many similar areas of interest, expertise and project work.

CIER is a non profit organization whose primary mission is to build the environmental capacity of First nations, and other Indigenous communities, and to work with or for these communities to come to the successful resolution of environmental problems. They engage in environmental projects that will directly or indirectly benefit First Nations communities. The services offered by CIER include education, training, research and technical services in forestry, climate change, water and sustainability.

CIER is working on a project to develop CIER into a stronger organization that can partner with regional institutes to achieve environmental goals and to make the organization more accessible to First Nations across the country. CIER is creating a Working Advisory Committee to help direct the research agenda of this "centre of excellence". UINR has been asked to join this committee and provide input on research important to east coast First Nations.

As an outcome from the meeting UINR has suggested developing a Memorandum of Understanding and are interested in the opportunity to explore it further with UINR and our Board of Directors. Merrel-Ann Phare, the Executive Director of CIER is looking forward to visiting UINR and developing a more formal partnership through an MOU. We're sure that we will have more to report on this in the next newsletter. Visit CIER on the web at www.cier.ca

News Bits

We welcome **Jackie Drinnan** as UINR's interim Director of Administration...**Rhonda Denny** has returned as UINR's Administrative Assistant...**Allison McIsaac** joins us as UINR's Project Administrator...**Annie Johnson** is dividing her time between studies at CBU and Finance Assistant at UINR. That's when she's not too busy penning cartoons...As a promo for the CASTS Conference UINR is distributing packets of seeds for the **Black Ash**, an important tree in Mi'kmaq tradition...**Peter Fritz** has left the position of Director of Administration for a job in National Defence... The tale of UINR's photocopier woes satirized in this issue has come to a happy ending. We now have a network colour printer and if you are reading a copy of this newsletter on paper, that's what printed this... **Chantel Purcell's** position as CEPI assistant came to an end but she will always have a seat at the Friday Pizza Lunch at UINR...Some exciting projects that UINR are working on include continuing the study of **Green Crab** in the Bras d'Or Lakes. 10 locations on the lake will be revisited and sampled...The final report on the Enhancement of Source Protection Measures for the Eskasoni First Nation **Drinking Watershed** Through Community Awareness and a Potential Hazards Survey has been completed and copies can be viewed at the UINR office...

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