

Walk Softly

Newsletter of the
Yukon Conservation Society
Winter 2015



photo: Julia Duchesne

Inside: • Hydro Alternatives Workshop • Pipe Dreams • Balancing resources



YCS has a basement office space for rent!

We prefer to rent to a small environmentally-friendly NGO, or small business. The office can be furnished or unfurnished and is good for single, trustworthy individuals - \$275/month. This price includes 1 parking space, electricity, heat, high-speed cable internet, shared kitchen, boardroom and bathroom. Phone, fax, copier, and printer are available for additional fees. Available January 1st.

For more information call Judith at 668-5678 or email inquiries to ycsoffice@ycs.yk.ca.



The goal of the Yukon Environmental Training Fund (YETF) is to support training, retraining, upgrading and improving of occupational skills of those employed by Yukon's environmental groups or individuals working on environmental issues and activities in the Yukon.

In past years, YETF has funded training opportunities offered to assist Yukoners with securing immediate employment or keeping Yukoners up to speed in the Yukon non-profit conservation sector. Individuals can be successful in obtaining funding if the training makes them immediately employable in the Yukon non-profit conservation sector or if they're currently working in the Yukon non-profit conservation sector and would like to benefit from training to stay current in their field.

The Yukon Environmental Training Fund is available for you! Annual deadlines: January 31, May 30 & September 30.

Check our website www.yukonconservation.org/funds for more information about this Fund and whether your training project is eligible for funding, or contact Judith at ycsoffice@ycs.yk.ca, or 668-5678.

Yukon Bird Club's annual Christmas Bird Count

If you're looking for a fun and definitely eco-friendly Christmas activity, take part in the Yukon Bird Club's annual Christmas Bird Count.

The Whitehorse Bird Count will take place on December 26 – email yukonbirdclub@gmail.com or keep an eye on our weekly email to find out more details about this event and the counts in the communities.



Yukon
Education
Advanced Education

Mining for Metals We Don't Need

"FURTHER, WHEN THE ORES ARE WASHED, THE WATER WHICH HAS BEEN USED POISONS THE BROOKS AND STREAMS, AND EITHER DESTROYS THE FISH OR DRIVES THEM AWAY...THUS IT IS SAID, IT IS CLEAR TO ALL THAT THERE IS GREATER DETRIMENT FROM MINING THAN THE VALUES OF THE METALS WHICH MINING PRODUCES."

– GEORGIUS AGRICOLA, DE RE METALLICA, 1556 AD.

As the mining promoters never seem to tire of reminding us, resource extraction is a mainstay of the Yukon economy. It actually isn't (let's give that accolade to government and tourism), but that's not the point of this article.

Why do we mine when one considers the negative environmental impacts?

In our society, we mine either because the metal is considered a form of wealth in and of itself, such as gold and silver and diamonds, or because the metal is considered useful, such as copper and zinc and lead.

The wealthy metals, such as gold, are actually the most useless. Worldwide, over three-quarters of the gold produced is used for jewellery.

It is worth noting that in some cultures jewellery can be a form of financial savings. There are regions of the planet where individuals might not have access to banks, or perhaps there is no government fiscal security in the form of pensions or unemployment insurance. In these societies people might not have a pension plan but instead they might have gold rings.

But mainly, gold is useless. There are limited industrial applications for gold, such as in electronics, and for some odd reason it is still used in dentistry. Banks have less than twenty percent of the world's gold in their vaults, where it allegedly supports the world's economy.

To quote a Dilbert cartoon, humans were stupid to base their financial system on a rock. But what was extremely stupid about this was to base it on a rock that's hard to find.

I hate to break it to the precious metal advocates but it's all a scam anyway. Currencies are no longer backed by gold, but rather by the faith citizens of a country have in their particular medium of fiscal exchange.

Even the useful metals can end up in items that are not really needed, but thanks to the magic of consumerism we're convinced we cannot go without. Go to any big box store and see the crap that is being flogged, and you'll get an idea.

So, to really get a handle on reducing mining and its associated environmental impacts, the entire planet would have to commit to living lives of Gandhian simplicity. This way we would use less metal, a lot less metal, which would reduce the amount of mining that is currently being done and therefore reduce the amount of environmental degradation caused by mining.

As the reader might be aware, this will not happen. Most of the world dreams of living the way North Americans live, and the only way that is going to happen is if a lot of metal is dug up and then used to build all the infrastructure and consumer items we take for granted.

But there are things we can all do in our everyday lives to reduce demands for metals. From recycling aluminum cans to becoming responsible consumers, we can lessen the demand for more raw metals.

But it will not be nearly enough. Mining will continue as long as there is demand for the minerals it extracts.

The key to minimizing mining impacts is to demand state-of-the-art mining practices and associated closure and reclamation plans. But even before this is done land use planning is a must. By deciding when and where mining can occur within a landscape, environmental and socio-economic values can be protected before letting loose the miners.

Mining is not a blessing nor is it a curse. It is part of being human in an industrialized technological society. Here's hoping we have the will and the skills to manage it better in the future than we have done in the past.

Lewis Rifkind



Walk Softly

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Editorial

by Lewis Rifkind

SUNNY WINTRY DAYS INDEED

Last month brought a decisive change in Canada's federal government.

It's certainly a ray of sunshine compared with the previous regime, and we here in the environmental non-governmental organizational (ENGO) sector are looking to the future with cautious optimism.

But what is making the ENGOs, particularly the Yukon ENGOs, happy about the new government's plans?

First off is the planned repeal of the four contentious clauses of Bill S-6. This was the bill that amended the Yukon Socio-Economic and Environmental Assessment Act (YESAA). Some of the changes were not too bad, but four clauses were rammed through the Senate and Parliament without any consultation.

These were (very briefly): the power for the Federal Government to issue binding policy directives; the power for the Feds to then delegate this power to the Yukon Government; changes to timelines; and getting rid of project renewals having to undergo assessment.

The next bit of happy news is the unmuzzling of Federal Government scientists. Having them speak out about the work they are doing will allow information to flow to the general public without it being suppressed or slanted by media spin-doctors in the Prime Minister's Office.

It will be so refreshing to hear about the impacts of climate change on the north, the spread of pollution in the high Arctic, and the latest research on salmon from those doing the research, rather than an unknowledgeable spokeshingy.

The term "spokeshingy" is a derogatory term for those poor individuals who have to talk to the media on behalf of government departments, non-governmental organizations or private businesses. In the spirit of full disclosure, I am often the Yukon Conservation Society spokeshingy.

To use some of the words of the current Yukon Government, 'moving forwards' there are some very positive things on the horizon.

Federal Government changes that are anticipated will be changes to the *Navigable Waters Act* and the *Fisheries Act*.



Prior to the previous Federal Government changing the *Navigable Waters Act*, the vast majority of Yukon rivers and lakes were encompassed by it. After the changes, only the main stem of the Yukon River downstream of the Whitehorse Dam was covered.

I don't know about you, but I'm sure everyone on the southern lakes, from the Marsh Lake Marina to the Atlin Boat Dock, was pretty surprised to discover the lakes were no longer considered navigable waters.

The changes to the *Fisheries Act* were disgusting. Basically, the updated Act valued fish only for their harvesting potential. The Act moved from protection of fish habitat to ensuring that no serious harm would be done to fish "that are part of a commercial, recreational or aboriginal fisheries, or to fish that support such a fishery."

Restoring the definition to protecting fish habitat will certainly be better for the environment. When the new Federal Government will do it is the question on most ENGO minds.

It might not have been apparent, but the previous government's machinations included more than legislative changes and civil servant muzzling.

Cutbacks to the financial resources of Environment Canada and the Department of Fisheries and Oceans have meant that they have largely withdrawn from the Yukon. There used to be a time when comments from those departments were detailed and thoughtful and useful, and were submitted to a wide variety of projects under assessment by YESAA and the Yukon Water Board.

Nowadays one gets the sense that these departments are doing triage, picking and choosing which projects they examine as they do not have the resources to partake in all of them. This means that some projects do not get examined by these departments, or if they do it is just a cursory review.

One hopes that the new Federal Government will restore the capacity of these departments to fully participate in the various Yukon environmental assessment processes.

The climate talks in Paris will be happening at about the time this newsletter comes out, and the Prime Minister is taking all the Premiers. To our Yukon Premier's credit, he has invited the leaders of the other two Legislative parties and the Grand Chief of the Council of Yukon First Nations to accompany him. We look forward to our leaders working with the global community to tackle the cause of climate change. Might we even hope for a realization that Yukon fossil fuels should stay in the ground and never get extracted and burned?

While the Trudeaumania and political honeymoon period endures (some say it's already over) environmentalists have high hopes. Over time the harsh realities of government, be they budgetary constraints or political machinations, will no doubt temper those hopes.

It has been noted that for the new government to maintain its popularity, at least among ENGOs, it doesn't actually have to do anything new. If they manage to repeal the legislation and budget cutbacks of the previous regime, they will be thanked profusely.

If they then go on to enact progressive policies such as effectively addressing climate change issues, dealing with abandoned mines in Canada's north (such as the continuing disaster that is the Faro mine), and implementing nationwide sustainable initiatives (such as a waste-packaging protocol, energy efficiency for buildings programs, or a green energy fund for small and smart hydro), this new government will be treated as environmental rock stars.

Here's looking forwards to a sunnier (and greener) future.

The Road to So Much More

We cannot be blamed for forgetting that the Dempster Highway was built as part of Canada's 'Roads to Resources' – the non-renewable kind like oil and gas. We cannot be faulted because for us it has become the road to so much more.


When we think of the Dempster Highway we think of the incredible scenery, the Tombstone Mountains, the Blackstone and Ogilvie Rivers flowing to the Peel, all the birds who come to breed in the spring, the autumn colours on the tundra, the Arctic Circle, the Porcupine Caribou and Northern Lights in the winter, Beringia and the mammals who roamed there and the people who followed and hunted them, the First Nation Communities of Fort McPherson and Tsiigehtchic and Inuvik.

When friends and relatives tell us they are going to visit the Yukon we begin planning to take them up the Dempster. Why? Because it is a road like no other in North America. A road that takes us from the boreal forest to the sub-arctic tundra and where the wilderness begins at the edge of the road.

We have been enjoying all that the Dempster Highway offers us for so long now that we begin to feel it will always be there for us.

But that might all change in just a few short weeks. If Northern Cross Yukon (NCY) gets the recommendation it is asking for from the Yukon Environmental and Socio-economic Assessment Board (YESAB), the Yukon Government will likely give them the Dempster Highway for their haul road. And we will have lost what we had – the road to so much more.

Julie Frisch

more on this, next page 

Northern Cross Yukon Multi Well Exploration: A Pipe Dream

By the time you read this, YESAB will have been working with Northern Cross Yukon (NCY) for over a year to assess the company's proposal to explore for oil at Eagle Plain. The plans include up to 20 oil wells and associated infrastructure, including a new 80-km all-season access road.

YCS thinks this is a bad project. We are submitting comments to YESAB detailing the project's flaws and unacceptable impacts. Our comments will be available on the YCS website. But really, YCS's big issue is that Yukon should not be exploring for and developing fossil fuels at all.



Yes, Yukon society is utterly dependent on a steady supply of fossil fuels. Yes, we currently import 100% of these fuels. And yes, we should be developing local energy sources instead. But no, we should not pursue this vision of self-reliance and sustainability by drilling Eagle Plain.

The science journal *Nature* has stated that if we are to avoid the worst impacts of global warming, most fossil fuels must remain in the ground – and while we are moving away from fossil fuels, we should concentrate on lower-impact sources and shelve extreme petroleum. *Nature* specifically calls for Arctic and remote sources to be left alone. Eagle Plain definitely falls into this category.

Some say Eagle Plain could be developed to supply Yukon's needs and reduce our dependence on imported oil. The thinking here is that we could develop a small field and a micro refinery and trickle the oil out for decades.

This claim does not withstand scrutiny. If a viable oil field is discovered (thus far a grand total of four barrels of oil has been discovered in Yukon), it will take at least a decade of development before any oil reaches the market.

The cost to develop an oil field is fixed but the cost per barrel is reduced the more oil that is produced. The fixed cost for an oil field would be high enough that the revenue per barrel consumed in Yukon if the production was only for local use would never pay back the investment. So, to recoup development costs, oil production would have to be maximized with most of the oil being exported. Thus the oil field would be more quickly exhausted, and Yukon needs would only be met over the short term.

Oil from remote fields like Eagle Plain, lacking any infrastructure, needs high prices to be economic – closer to \$150/barrel than \$50, the price for most of the past year. Unfortunately, \$150 oil is unaffordable for most applications. At those costs, people cut back on fuel consumption or switch to alternatives, demand falters and the price of oil falls again. Once it falls, places like Eagle Plain are no longer viable.

Much bigger and more accessible fuel sources than Eagle Plain are being mothballed right now. A good local example is the huge gas reserves, fully identified and drilled, in the Mackenzie delta. Gas and oil are similar in that they are both energy sources. All it would take to use this gas is to hook it up to nearby Inuvik, which was purpose-built to use natural gas. Yet it's cheaper to pipe gas from Alberta to southern B.C., turn it into LNG and then truck it all the way to Inuvik than to run a few kilometres of pipeline to town.

Clearly, Eagle Plain oil will never make economic sense.

Northern Cross Yukon should leave Eagle Plain to the eagles – and the caribou. It's increasingly obvious that intact ecosystems are far more valuable than the fossil fuels we can wring from them. Let's speed up the transition to local renewable energy sources, using initiatives like the Independent Power Production policy instead.

Sebastian Jones

Your Comments Needed!

Northern Cross Yukon proposes to drill up to 20 wells, build 80km of roads and a large landfill at Eagle Plain.

The project is currently open for public comments at YESAB. The project can be found by going to: <http://www.yesabregistry.ca>.

The project will appear in the drop-down menu at the bottom of the page: **Project # 2014-0112 Eagle Plain Multi-Well Oil Drilling Program**

In the Green Midwinter

As the snow starts to fall and the holiday season approaches, we have a challenge for you: to have a green Christmas, Hanukkah, Solstice, New Year's, or celebration of your choice! Here are some tips:

Trees and trimmings:

Glowing lights on homes and trees is a sure sign of Christmas, but they can use a lot of energy. Buy LED lights to get that twinkle as efficiently as possible! If you're in search of a Christmas tree, buy or harvest a local one – over the full lifecycle, a natural tree is better than plastic for avoiding climate change and resource depletion (if you already have a plastic tree, take good care of it and it should last you decades). Note: Yukoners are allowed to harvest a maximum of two trees each on Yukon public land. Please respect private property and don't cut within municipal boundaries. Check out the Yukon Forestry website in December for more information.



Food:

Buy local – nothing beats the taste of a Yukon-grown turkey. If you're planning to serve seafood, give our hardworking oceans a break by searching out sustainably-harvested seafood. Look for ways to use fresh, jarred, or frozen veggies and cranberries for side dishes, rather than canned (most can linings contain BPA, a hormone-disrupting chemical).



photo: Alexie Merk

Giving:

What to give? Visit one of the many local craft fairs to find one-of-a-kind, Yukon-made presents. If you're feeling hands-on, make your own presents by baking, knitting, or another craft – and join our local makerspace, YuKonstruct, if your plans require a laser cutter, industrial sewing machine, or 3D printer! For the person who already has it all, give the gift of a charitable contribution (perhaps to YCS!), your time (babysitting, shovelling, or other services), or a special experience. If you do head to the store for presents, buy 'battery-free' to avoid both the hassle and waste disposal of batteries.

- **Simplifying:** Do you have a dizzying number of people on your list? In my large family, we put the names of all the adults into a hat and each person draws out one name – so we can focus on finding a great present for just one person, not a dozen. Try this to avoid a stressful gift-giving frenzy.
- **Wrapping:** Pop your present inside a re-usable box or container, or bundle it up in a new tea towel or other 'giftwrap'. Repurpose old newspaper, magazines, calendars or maps as wrapping paper. For fastenings, try using raffia or other biodegradable, non-plastic material – or choose a ribbon that can be re-used again and again.

Travel:

Try a 'stay-cation' this December. So many people venture to the Yukon in wintertime to catch a glimpse of the Northern Lights or enjoy a crisp winter holiday – join them and explore the beauty in your own backyard!

Most of all, remember to look after yourself and take the time to enjoy the Yukon winter – whether by curling up in front of the efficient woodstove with a book and a hot cuppa, strapping on the skis or snowshoes and hitting the trails, or just playing in the snow!

Julia Duchesne

Telling Stories to Protect Special Places: the Case of Being Caribou

For my PhD research, I studied the Being Caribou project. The project is part of a long-term effort to protect the calving grounds of the Porcupine caribou in the Arctic Refuge.

Gwich'in people have taken a key leadership role in this work. YCS has also been involved for many years, along with CPAWS, Inuvialuit and Gwich'in organizations in Alaska, Yukon and NWT, the Canadian government, and Yukon First Nations. Today, the calving grounds still lack permanent protection, and the winter range of the Porcupine caribou, in the Peel watershed, is also threatened. The findings from my research apply not just to the Arctic Refuge, but to efforts to protect the Peel.

What was the Being Caribou project?

In 2003, Karsten Heuer and Leanne Allison followed the migration of the Porcupine caribou on foot, on skis, and by canoe. By sharing the story of the caribou's journey to their calving grounds in the Arctic Refuge, the expedition hoped to support efforts to protect these lands, which were under imminent threat of development. The *Being Caribou* project included a website, documentary film, a hardcover and a trade paperback, a children's book, and public speaking tours and other education initiatives.

The expedition consulted with northern communities and worked with the Alaska Coalition, which organized thousands of screenings of the *Being Caribou* film in 2005, in support of three Arctic Action Days before crucial Congressional votes. These screenings were part of a campaign in which Gwich'in leadership, the Canadian government, and the 700+ member groups of the Alaska Coalition (including YCS!) successfully prevented a number of legislative efforts to allow oil and gas development in the Arctic Refuge. What follows are some key learnings from my research with all these parties.

Bring First Nations Stories to the Forefront

Long before the Being Caribou project, Gwich'in, Inuvialuit, and other First Nations were working to protect the calving grounds. Stories about the Porcupine caribou, told for thousands of years, contributed to the land claims process, which created the Porcupine Caribou Management Board and protected important parts of the herd's range including Ivvavik and Vuntut national parks.

While the Being Caribou film mostly told the story of the caribou, it also acknowledged the importance of the caribou to Gwich'in people. During the Arctic Action Days campaign in 2005, the film was often presented alongside Gwich'in stories. These stories were very important in building solidarity to protect the Arctic Refuge. As Indigenous scholar Dwayne Donald describes, when non-Indigenous people encounter stories which describe a familiar subject such as caribou, but in a way outside their own experience, they become curious. This sparks a decolonizing process as people question their assumptions. In doing the work of understanding a different reality, people also become vested in it. They become more likely to include indigenous perspectives as they build a shared understanding of the common subject. For example, through listening to Gwich'in speakers, many came to understand the northern landscape of the Arctic Refuge not as an empty, cold place but as a landscape filled with life and therefore worthy of protection.



March 2005 – A demonstration outside the Yukon legislature following community screenings of Being Caribou held in Whitehorse that spring. Photo by Erica Heuer.

Share Stories in Many Ways, Over a Long Time

Since the 1990s, hundreds if not thousands of people have organized speaking tours, slideshows, film screenings, art shows, musical performances and other activities to raise awareness about the Arctic Refuge. One individual, Lenny Kohm, estimated that his slideshow tours, which almost always included Gwich'in speakers, reached over 200,000 people!

Over the years, these activities have had powerful cumulative effects. The Arctic Refuge went from an area few Americans had heard of in the 1980s, to one of America's most recognized places. Creative projects helped inspire a place for the Refuge in the public's imagination. As one project ended, another would start up, giving tired activists a rest and sparking creative renewal.

In recent years, social media has helped share stories more widely. More accessible and affordable technologies allow the same story to be shared in more ways. Each version of the Being Caribou story—website, book, children's book, speaking tour, etc.—increased overall public familiarity and interest in protecting the Arctic Refuge.



Share Stories Together to Build Community and Leadership

One of the most interesting findings of my research was that it mattered how stories were shared. People who saw Being Caribou on TV were far less likely to take action to protect the Arctic Refuge than people who saw the film at a community screening. Community screenings empowered and supported people to become more involved. Their design addressed important barriers to taking action, ranging from lack of human connection and apathy, to lack of confidence in one's skills, to not believing that one's personal actions could amount to a significant difference. Community screening attendees were encouraged by their peers to step up immediately and take an action; they could take action in community and get support in the moment to develop skills like letter writing; and actions from across North America were focused together to produce measurable results that participants could see made a difference.

Through community screenings, many people moved up what Hahrie Han refers to as the 'activist ladder.' Some took a first step of joining a group; others took a collective action with a group, such as meeting with their local Congressperson; still others, supported by a 'snowflake' model in which more experienced mentors advised newer activists, took on bigger projects like organizing their own Being Caribou screenings.

Sharing stories was also key to keeping the Alaska Coalition strong. With a huge difference between First Nations and Inuvialuit realities and those of other North Americans, especially outside the north, it is easy for misunderstandings to develop. Sharing stories, especially face-to-face, is an important way to cultivate empathy. Equally importantly, coalition members spent time in the north and with northerners in order to develop shared stories; when people not only worked together but shared experiences, it strengthened relationships and commitment to calving grounds protection.

Where are we today?

While the Obama administration has recommended permanent protection for the coastal plain of the Arctic Refuge, the recommendation has yet to pass through Congress. You can support this process by visiting http://act.alaskawild.org/sign/ccp_thanks/. Please take action, and help the calving grounds story grow more powerful!

Stories from the calving grounds also feed into awareness about the wintering grounds of the Porcupine caribou in the Peel watershed. Please visit protectpeel.ca, and lend your voice and story in support of protecting the Peel!

Thank you to the Vuntut Gwich'in First Nation Heritage Department, the Gwich'in Social and Cultural Institute, the Inuvialuit Regional Corporation, the Inuvik Hunters and Trappers Committee, the North Yukon Renewable Resources Council, and the Alaska Wilderness League for their guidance and participation in the research. Thank you to the Northern Scientific Training Program, the W. Garfield Weston Foundation, the Social Sciences and Humanities Research Council of Canada, the Luc Beauregard Fellowship Program, and Concordia University for financial support of this project.

- Shirley Roburn (former ED of YCS)

Chadburn Lake Regional Park: Planning for Future Trail Creation and Maintenance

The City of Whitehorse is embarking on a process to develop a management plan for Chadburn Lake Regional Park, home of several beautiful lakes, Miles Canyon, and the YCS summer interpretive program. This may bring changes to the way trails are managed in the park. The following article by Keith Lay of Active Trails Whitehorse Association is adapted and modified from ATWA's submission to the Planning & Building Services Department, concerning the development of a management plan for the park. Trail debates often focus on motorized vs. non-motorized use, but ATWA draws attention here to the different preferences among non-motorized users.

Park management planning should consider the fact that "trail maintenance" has a different meaning for different users, even within the non-motorized category. For example, mountain bikers often prefer wider trails than do walkers. Hiking/walking trails do not usually have to have as many trees cut in the building process, as efforts are made to go around such vegetation whenever possible. As well, the nature of the activity does not necessitate wide trails, as the trail only needs to be as wide as the walker. As a result, walking/hiking trails are minimally invasive to forest areas, as users want to feel part of their environment. Existing walking/hiking trails require less maintenance.

Mountain bikers are more likely to focus on the trail in front of them as they ride downhill. In order to ensure a fast, relatively smooth, and safer non-stop route downhill, branches, rocks, and other "debris" are often removed. Walkers/hikers do not necessarily need such "clearing" done on trails that they use, and may see such "maintenance" to be detrimental to their trail experience.

Ski trails illustrate another example of differing maintenance needs. They may also need to be cleared of debris and, in some cases, be made wider than a walking or hiking trail.

It would seem obvious that a trail built from scratch by a particular user group, would be constructed in a manner that best facilitates the type of activity enjoyed by that group. Trail maintenance would also reflect the standards required for that particular use.

However, if that user group is allowed to "maintain" trails not originally built by the group, then the question arises as to whether or not the maintenance done would reflect what other user groups might desire for their particular activity. Failure to consider this possibility could lead to user conflict, and as such, the concern should be addressed in the new Park management plan.

Some existing trails in the Park may not meet typical environmental protection criteria as they have been built down steep descent routes on sage and grass hills, or on southern slopes which are important habitat for some plants and animals, or through or on existing game trails. In some areas, in order to prevent negative impacts to vegetation and animals, even walking trails may not be advisable.



The City of Whitehorse hosted two interpretive walks as a way to introduce the management plan process. This photo shows hikers on the way to Canyon City in Chadburn Lake Park. Keith Lay photo

New trail creation in the Park should be carefully controlled as it has a major impact on both flora and fauna, and can detract from the overall enjoyment of the area by users. Protection of plants and animals must be of the highest priority as this is what the majority of users seek to enjoy when visiting the area.

Rogue trail creation and “maintenance” are already problems within the Park. The management plan must develop a process to better deal with these issues. This should include a more effective method of handling complaints made by citizens who report such activities.

Chadburn Lake Regional Park is nineteen times the size of Stanley Park in Vancouver. It is used by citizens from all areas of the city and has the potential to become a major tourist attraction. ATWA encourages all of you to become actively involved in the process that will lead to the development of the first management plan for the Park. Send a note to the following email address and ask that you are kept informed about upcoming events related to the management plan process. regionalparks@whitehorse.ca

*Keith Lay,
Active Trails Whitehorse
Association*

*You can view ATWA's full submission by visiting http://www.activetwa.org/uploads/2/2/7/6/22767404/chadburn_lake_regional_park_issues_small.pdf.
www.activetwa.org
activetwa@gmail.com*

YCS is throwing our Year End Party on Friday, December 11 starting at 5pm.



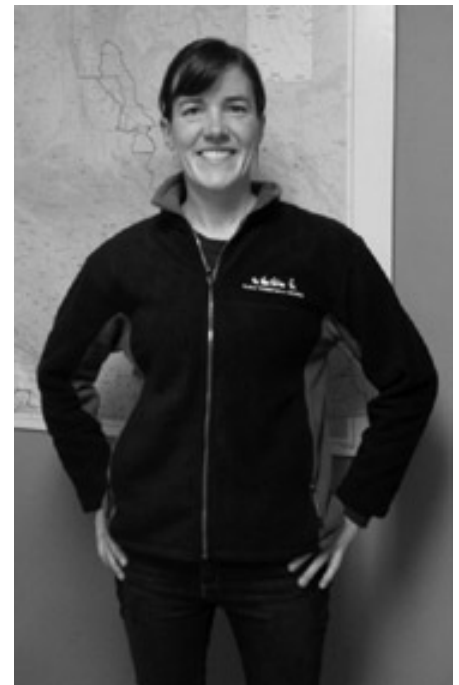
Come celebrate 2015 with YCS staff, Board members, volunteers, and well-wishers!

The recipient of the Gerry Couture award will be announced.

*All are welcome.
Refreshments are
provided.*



Don't forget to stop by YCS to outfit your nearest and dearest in snazzy YCS tees, fleeces, and more. Pick up Hikes and Bikes for the intrepid Yukoners on your list, and other beautiful books to show the non-Yukoners what they're missing.



Yukon Court of Appeal ruling for the Peel Watershed – What does it mean?



On November 4, 2015 Chief Justice Bauman, Madam Justice Smith and Justice Goepel of the Yukon Court of Appeal released their ruling on the Peel Watershed.

This ruling re-iterated the finding of the Yukon Supreme Court: Yukon Government failed to honour its treaty obligations with respect to the Peel Watershed Land Use Plan.

A section from the Court of Appeal ruling summarizes Yukon Government's failing:

[177] Yukon undermined reconciliation by failing to honour the letter and spirit of its treaty obligations. As I have said, it did so in three ways. First, during Consultation at the s.11.6.2 stage of the process, Yukon failed to reveal its extensive plan modifications. This undermined the dialogue central to the plan for reconciliation in Chapter 11. Second, Yukon's Development and Access Modifications were not accompanied by the requisite details or reasons when forwarded to the Commission. This left the Commission ill-equipped to advance the dialogue with a *Final Recommended Plan* that considered Yukon's position. Third, at the s.11.6.3.2 stage, Yukon proposed a new plan disconnected from its earlier s.11.6.2 proposals. This effectively denied the Commission performance of its ultimate role under the treaty: to "develop" a final recommendation for a regional land use plan for the Peel Watershed.

Further, the Court of Appeal upholds the Yukon Supreme Court finding that the Yukon Government's plan for the Peel Watershed, which would open over 70% of the area to development, is quashed.

This ruling vindicates arguments advanced by the First Nation of Na-cho Nyäk Dun, Tr'ondëk Hwëch'in, Vuntut Gwitchin First Nation, Canadian Parks and Wilderness Society Yukon Chapter (CPAWS Yukon) and the Yukon Conservation Society (YCS) that land-planning provisions of the Umbrella Final Agreement (UFA) are binding on the Yukon Government.

The Yukon Court of Appeal ruling then sets out a remedy for Yukon Government's failure to honour the treaty process: return the parties to the point at which the failure began. The Appeal judges found that this point of failure is s.11.6.2.

This aspect of the Court of Appeal ruling is of concern to the respondents (the affected First Nations, CPAWS and YCS). What ruling did we want? During the Appeal hearing this past summer, we asked the court to uphold the ruling from the Yukon Supreme Court. The Yukon Supreme Court ruling found that the point of failure was at s.11.6.2.3 (the *second* and final round of consultations on the *Final Recommended Plan*), not at s.11.6.2 (the *first* round of consultations on the *Recommended Plan*).

Further, the Yukon Supreme Court ruling held that during the final round of consultations Yukon Government was not permitted to propose modifications regarding access and the amount of land protected. We are concerned that the Yukon Court of Appeal's ruling to send the matter back to the earlier stage in the process may allow Yukon Government to ram through extensive modifications to the plan allowing for increased access and development (essentially their illegitimate plan).

The respondents (the First Nation of Na-cho Nyäk Dun, Tr'ondëk Hwëch'in, Vuntut Gwitchin First Nation, CPAWS Yukon and YCS) and our legal team are carefully considering the Yukon Court of Appeal's ruling and whether further steps should be taken.

Thank you for your support and patience as we determine what course of action will bring us to our objective: implementation of the Peel Planning Commission's Final Recommended Plan and large-scale protection of the Peel Watershed. Please stay tuned for upcoming announcements and information sessions.

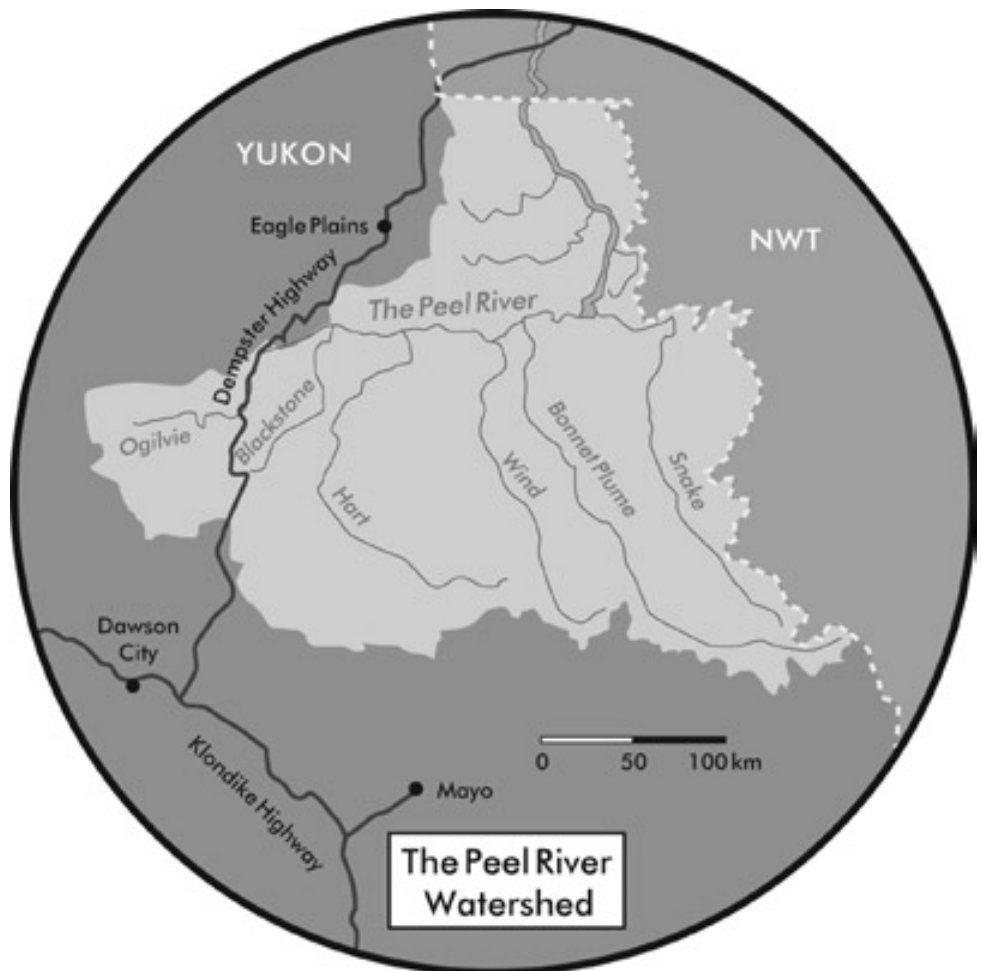
Christina Macdonald

Wondering about legal references to s.11.6.2 and s.11.6.3.2?

The Yukon Supreme Court and Yukon Court of Appeal rulings make reference to several key sections in the affected First Nation Final Agreements: s.11.6.2 and s.11.6.3.2. These two sections refer to distinct stages in the approval process for land use plans (under Chapter 11 of the Final Agreements). The specific wording from the Final Agreements is included below. However, in non-legal terms the important thing to understand is that stage 11.6.2 is the first round of consultations when Government shall approve, reject or propose modifications on the Recommended Plan, and stage 11.6.2.3 is the second round of consultations when Government shall approve, reject or propose modifications on the Final Recommended Plan.

s.11.6.2 - Government, after Consultation with any affected Yukon First Nation and any affected Yukon community, shall approve, reject or propose modifications to that part of the recommended regional land use plan applying on Non-Settlement Land.

s.11.6.3.2 - Government shall then approve, reject or modify that part of the plan recommended under 11.6.3.1 applying on Non-Settlement Land, after Consultation with any affected Yukon First Nation and any affected Yukon community.



YCS's Hydro Alternatives for the Yukon Workshop

YCS held our second major energy event of 2015 (the first was the Yukon's Energy Solutions YES Showcase in May) at the end of September.

Our workshop **Hydro Alternatives for the Yukon** brought out 85 participants who stayed for the full day to learn from a diverse and impressive program of presenters and to discuss the role of hydroelectricity in the Yukon's energy future.

YCS is confident that our objectives for the workshop were met:

- showcase existing hydro projects in our region that provide local economic development opportunities and meet energy needs while respecting ecological limits.
- share information about the potential for a new-to-the-Yukon hydro project – pumped storage – that can support other renewables on the Yukon's independent electricity grid.
- learn more about the environmental impacts of the Yukon's legacy hydro dams and the potential harms of proposed Next Generation Hydro-type large dams.

Darren Belisle and Stan Selmer, two representatives from Alaska Power and Telephone, spoke about several small-scale hydro projects in the Skagway area, most notably the profitable 4.1 MW Low-Impact Hydro Institute certified Goat Lake hydro project that powers both Skagway and Haines.

A question arose about whether connecting the Yukon's electricity grid to Skagway is a good idea. Yukon Government released a study earlier this year about the viability of this connection, as well as the potential for a fibre optic connection (for internet) along the same route.

This was estimated to cost between \$108M and \$146M depending on the right of way selected and whether or not the fibre optic connection component was included.

Although YCS does not support connecting Yukon's independent (sometimes referred to as 'isolated') grid to the North American grid, we do recognize that there could be benefits from connecting our grid with Skagway's to help both jurisdictions meet our inversely proportional seasonal energy needs. Our highest demand occurs during cold and dark Yukon winters, while Skagway is seeking to cleanly power energy-intensive cruise ships docked at the Skagway port in the summer.

Yukon Energy Corporation Resource Planner Goran Sreckovic gave a presentation called **Pumped Storage – Why and when do we need it**. This new-to-the-Yukon type of hydro project is common in Europe but not in North America. A pumped storage project typically consists of two water reservoirs – one located at a higher elevation than the other. When electricity demand on the grid is low, excess electricity is used to pump water through a pipe from the low reservoir to the high reservoir where it is stored behind a dam. When electricity is needed on the grid, the stored water is released from the upper reservoir and generates electricity as it flows down the pipe and through a turbine. On an independent grid such as the Yukon's, summer hydropower can be (and is often) wasted because of a lack of grid storage or a market for this energy generated in times of low demand. With a pumped storage project, the surplus (usually summer) energy could be used to pump water up to a storage reservoir for use in the winter at 80% efficiency!

YCS has high hopes for pumped storage hydro projects in the Yukon. Not only would pumped storage projects provide firm winter energy and capacity, they can optimize our grid by fully utilizing intermittent renewable energy sources like wind and solar. This means that if the wind is blowing or the sun is shining and we don't have an end use for the electricity generated at the time, we can use that electricity to pump water to a higher altitude storage reservoir, which would effectively act as a battery to store energy for times when we need it. We are happy that Yukon Energy has pumped storage on its radar, and has since put out a *Request For Proposals* to investigate potential locations for pumped storage and small hydro projects within 125 km of its transmission lines.

Following Goran's presentation, John Maissan gave his presentation **Seasonal and Pumped Storage Hydro for Yukon** that highlighted findings from a desktop study he conducted for YCS earlier this year. The purpose of his study was to demonstrate that a fresh look at the Yukon's geography can identify potential pumped hydro sites not previously considered, because most past hydro reconnaissance looked for conventional and larger hydro sites based on drainage size. John studied the transmission corridor along the Robert Campbell highway between Carmacks and Faro. Through close investigation of topographic maps, John identified a number of potential sites where a pumped storage or a seasonal storage project could be developed. YCS has not endorsed or passed judgment on any of these identified potential project sites, as further work to identify social, environmental and economic evaluation and assessment still needs to be done.

After lunch, we convened a **Legacy Hydro Impacts Panel** to speak to the environmental and community impacts of the Yukon's hydro dams at Mayo, Whitehorse Rapids and Aishihik. The dominant narrative about these dams is that all Yukon people benefit from the wisdom and action of our forefathers, as today we enjoy relatively low electricity costs and greenhouse gas emissions related to electricity generation. The intent of this panel was to support a fuller understanding of the legacy of these dams, to inform our decisions when contemplating the development of another large hydro project through government's *Next Generation Hydro* process.

Jimmy Johnny of Mayo, Patrick James of Carcross and Luke Williams of Aishihik shared their experience of how the construction and operation of the dams negatively affected fish, animals, subsistence harvesting, trapping, and indigenous and non-indigenous relations.

It was a powerful and moving component to the day, and enlightening for many to learn how few to no benefits flowed to the affected First Nations that bore the brunt of the negative impacts. Yukon Energy President Andrew Hall responded to the panel and admitted to the errors of the past. He expressed Yukon Energy's commitment to fully engaging First Nations in future energy projects.

Several members of the audience also shared their stories of past hydro development in the Yukon. Duane Gastant' Aucoin, Yanyèdí Executive Councilor of the Teslin Tlingit Council, stated that the Teslin Tlingit Council (TTC) government recently passed a resolution that the *Next Generation Hydro* project contemplated on the Teslin River does not align with Tlingit values, or Ha Kusteyea "Our Tlingit Way".

Because the 55MW 'NWPI' Next Generation Hydro project (first identified in 1968) would flood Category A TTC lands, Yukon Government would require TTC consent to directly impact those lands. TTC has decided that it will not give consent for this project.

Al Von Finster and Don Reid were up next with their presentation: **Impacts and Risks to Fish and Fish Habitats of Proposed Next Generation Hydro Dams in Yukon** based on a study done for the Wildlife Conservation Society. The presentation spoke to the effects of the dam, the created reservoir, and the upstream and downstream changes to the river. These include blocked fish passage, habitat destruction, reduction in nutrient flow, changes in water temperature, seasonal flow pattern change, erosion, and bio-accumulation of mercury. Al and Don elaborated on some of the fish and wildlife impacts discussed by the panel, reinforcing traditional knowledge with science.

To end the day, Peter Kirby, CEO of Atlin Tlingit Economic Limited Partnership, and Mark Connor of the Taku River Tlingit First Nation (TRTFN) presented on the **Xeitl Hydro Project** in Atlin, BC. Peter's inspiring presentation spoke to how the construction of the hydro project empowered the community and First Nation, and displaced 100% of diesel electricity generation in Atlin.

YCS has long held up the TRTFN's Atlin Hydro project on Pine Creek/ Surprise Lake as a model for responsible energy development – a project designed to respect ecological limits and community values, embodying the best of indigenomics. Peter's engaging story of business development and Mark's description of the thorough environmental data collection and monitoring left workshop participants inspired by the potential for similar win-win hydro projects in the Yukon.

Peter also shared information about potential new hydroelectric development plans. The business arm of the Taku River Tlingit First Nation is in talks with Yukon Energy and exploring the possibility of constructing a new hydro project that would sell electrons to the Yukon's grid. However, the economic feasibility of the project is still unclear. Further, the community and First Nation may decide that the environmental impacts are not worth the potential revenue stream. YCS looks forward to learning more about this project and understanding the tradeoffs.

YCS is finalizing the workshop report and will post it with all the workshop presentations on the YCS website in the near future.

We look forward to the final *Next Generation Hydro* technical workshop that was rescheduled for November 26 and 27. We anticipate that the information presented at our Hydro Alternatives workshop may have influenced the direction of this process, or at the very least influenced the thinking of various stakeholders and participants.

Hydropower projects can be developed in a way that distributes the benefits around the grid, maximizes local economic development opportunities and minimizes harm to the environment. Government policy and programs should be in place to ensure that there are markets for incremental additions to the grid of low-impact renewable energy sources. This all needs to happen in a coordinated manner to displace our fossil fuel use, increase our energy security and build a resilient energy system for the Yukon.

Anne Middler

Planning with climate modeling

When planning and operating projects and activities, we need to incorporate the rapidly improving technology of climate modeling. Modeling helps us understand how a changing climate will affect a given project, and how other environmental parameters may affect or be affected by the project.

Few would disagree that when planning for physical works or activities there is a need to consider the ‘natural’ environment and how it may change over a particular project’s lifespan.

This is generally the role of project proponents assisted by various planning, design and implementation professionals. Government is responsible for ensuring the “public good” is considered via various legislative, regulatory and assessment tools.

Scientists, planners, economists and engineers, as do we all, recognize that the bio-physical environment that we operate in is far from static. The variability can be easily predictable, sometimes cyclical, sometimes difficult to time and often chaotic. By applying various sources of knowledge and experience coupled with statistical tools to analyze variability experienced in the past, prudent proponents and governments have been able to mitigate risks within reasonable confidence limits, adapting plans to environmental challenges as varied as seismic events, storms, floods, droughts and natural fluctuations in wildlife populations.

While society has not got a perfect record, it has generally become better at spatially locating its endeavours or engineering infrastructure and activities to maximize human and environmental safety and the sustainable provision of critical services.

We need to use climate and related modeling technology when planning and assessing projects and activities.

The challenge that we now face is that environmental norms based on our collective memories and historical scientific data are becoming outdated as the climate varies outside of historical norms. The climate regime is being forced by the greenhouse gases (GHG) we emit trapping more solar energy in the Earth Systems.

The result: we are now experiencing unexpected environmental pressures on our activities, infrastructure and economy as well as the natural environment which provides our ecological support system.

We are leaving a legacy of what may be insurmountable challenges to the next and future generations. World leaders have recognized what science has been telling us: we need to move to a new world order over the remainder of this century which includes the elimination of further GHG emissions. Even if we meet this we will continue to face environmental challenges. Like a house that loses all heating sources in the winter it will take the Earth Systems time to come to a new point of equilibrium and cool down to even a regime similar to what we currently experience. GHG will be slowly removed from the coupled atmospheric-ocean system, again going into storage in the geologic and biologic sinks.

This means we still need to prepare ourselves for a future environment that is not adequately represented by the historic norms we used for planning in the past.

While a challenge, this is not as impossible today as it was even two decades ago. Science, engineering and technology are providing us with new and improved tools, including:

1. enhanced environmental monitoring programs to detect not only current environmental conditions but also any new and unexpected trajectories of change. These Earth System measurement systems need to operate at multiple scales including global, regional and local.
2. rapidly expanding scientific insight in all Earth System disciplines.
3. ever more powerful computer systems that help us share, store, manipulate and automatically collect data; to aid in its interpretation; and to run mathematical models of complex systems that provide insights into potential futures.
4. increasingly sophisticated computer models incorporating more aspects of Earth System Science, that statistically project the probabilities of different atmospheric and ocean climate futures under various GHG and other climatic forcers. Over the last decade these models, which were originally restricted to looking at macro Earth Scale changes, have been adapted to provide downscaled resolutions that are useful for regional- and local-scale projects and activities.
5. models of other environmental parameters such as sea level (tide modeling is one of our oldest environmental modeling enterprises), vegetation and agricultural zones, wildlife and fisheries populations, and permafrost presence. Recognizing the role climate plays in forcing these environmental parameters, scientists now run these models along with climate models to help predict the range of possible futures of these parameters under changing climate regimes.

6. emerging guidance materials such as codes and standards that are designed to incorporate the effects of future climate regimes in specific regions. These are future-oriented enhancements of the engineered codes and standards (e.g. the National Building Code), which were based on historic climate data (Normals).

We are fortunate in the Yukon. Organizations such as the City of Whitehorse, the Northern Climate Exchange, First Nations and various Yukon Government departments have sought out insight from the developers of these tools to meet specific mandate responsibilities. Collaborations have emerged between scientists and engineers from outside universities and research institutes, the Yukon Research Centre, consultancies and government.

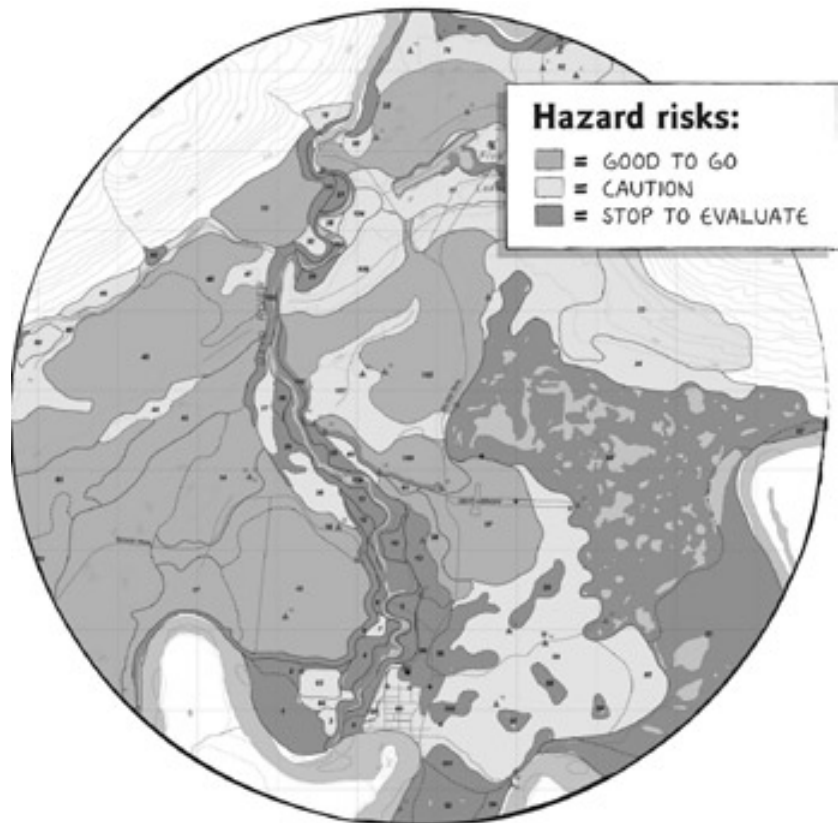
For instance, a model that predicts the probable spatial presence of permafrost at a very large scale in the north-west Cordilleran has been combined with downscaled climate models to provide insight into how permafrost occurrence may change with climate forcing. This helps planners identify current and future landscape hazards and assists with land use planning at a community or project scale. This work is hosted at Yukon College.

In another instance, Yukoners provided expertise to national teams in the Northern Infrastructure Standards Initiative (NISI) developing appropriate engineering and planning standards for northern and climate-sensitive infrastructure.

What’s next? How can we better keep our ‘eye on the future’? Individually, how can we improve our resilience to environmental change? What might we support which would contribute to the ‘common good’?

- Improve, expand and integrate environmental monitoring to better detect change, provide a baseline for refining models, and reflect the diversity that occurs at all scales.
- Develop models which assist us to predict environmental change, and especially modeling which links multiple environmental parameters in future climate scenarios.
- Continue the technical development of engineering and operational standards by agencies such as the Canadian Standards Association, which will aid decision making to enhance safety and security.
- Alert responsible agencies and the science/engineering community when we see the need for future-oriented technical developments to improve our long term resilience.
- And most importantly, we need to accept responsibility for taking a proactive, future-oriented perspective, seeking out and applying the best knowledge available to the decisions we make. It needs to be the way of doing business, no matter whether we are a proponent of a large infrastructure project, a government regulator or a private individual.

Ian Church



Example of a Yukon College landscape hazard map to help planners identify current and future landscape hazards and assist with land use planning.

https://yukoncollege.yk.ca/research/project/hazard_mapping_in_yukon_communities

BACK TO NATURE

Whitehorse hosted the annual board meeting of the Canadian Parks Council in August. This brought Bill Kilburn here and he was able to speak to a varied group of environmentalists about the organization Back to Nature (www.back2nature.ca) based in Ontario. He is the program manager (his email is bkilburn@rbg.ca).

Why “back” to nature? A look at what is called the ‘radius of play’ illustrates this. In one family in England, the radius of a great grandfather’s playground (if you will) was 6 miles. The grandfather’s radius was 1 mile. The mother’s radius was 1/2 mile and her son’s radius is 300 yards.

What unspoken message does the son get? Having to stay so close to home says: others can’t be trusted, the world isn’t safe, you can’t be trusted far from home, you need protection, you can’t make good decisions on your own.

What kind of person does this child become?

Being in an unstructured natural setting allows curiosity to blossom. We learn how to solve problems, experiment, investigate, discover. We develop a sense of self sufficiency. We can take graduated risks at our own pace.

In one study, children spent only 14 minutes in active play after school. Most of the after school time was screen time.

What is the result of the lack of outdoor time? Myopia, ADD, mental illness, obesity, asthma, diabetes, accidents. This refers to children. A 20 minute walk in a green, natural environment reduces ADD. Exposure to sunlight enables the eyeball to maintain the correct shape to focus on distant objects.

How can children be encouraged to encounter nature? By parents, educators, peers, scout and guide leaders, even doctors. Bill Kilburn enumerated a few of the over 80 members in the Back to Nature network. The list included the pediatricians of Ontario, several universities, businesses, NGOs, and government agencies and boards. Together they are finding ways to gently encourage children, indeed all of us, to get Back to Nature.

How can we start? It is as easy as going for a walk with a child. Teachers or scout leaders can have their classes or sessions outside, such as teaching a math class or doing a craft project outside. It needn’t be an onerous task. It doesn’t need planning or special equipment or the perfect place. Any green natural space will do.

If you are interested in forming a similar ad hoc network in the Yukon, contact Julia at yescoutreach@yesc.yk.ca or 668-5678.

A First Nations elder who spoke at the start of a meeting of the network summed up the philosophy of ‘being’ in nature: “Use it. Don’t use it up.”

Mary Whitley



Children playing with a dragonfly at this summer’s BioBlitz in McIntyre Creek.

Photos by Alexandre Mischler



People looking for butterflies during the BioBlitz.



YES! I want to protect the Yukon's environment and support the Yukon Conservation Society!

I'd like to make a tax deductible gift!

\$60 \$200 \$500 \$1000 Surprise us! _____

I'd like to make a monthly pledge by visa of \$ _____ (charged on the 15th of each month)

I have made a bequest to YCS in my will

Please, sign me up as a member:

Student \$10 Individual \$25 Family \$40 (2 or more people)

I am a **new** member!

I am **renewing** my membership for 2016!

Memberships are activated on day of receipt and good for 1 year, and include a subscription to the Walk Softly newsletter. Both donations and memberships are tax-deductible.

Do not send me newsletters. Instead, **notify me by email** when they are online.

Payment Method: Total \$ _____

Cheque # _____ enclosed (payable to Yukon Conservation Society)

I am putting it on my Visa # _____ Expiry _____ Signature _____

Name(s): _____ Phone: _____

Address: _____

Email – for Tax Receipt and YCS Email List _____

Mail completed slip to: 302 Hawkins St. Whitehorse, YT Y1A 1X6 – Phone: 668-5678 – ycs@ycs.yk.ca

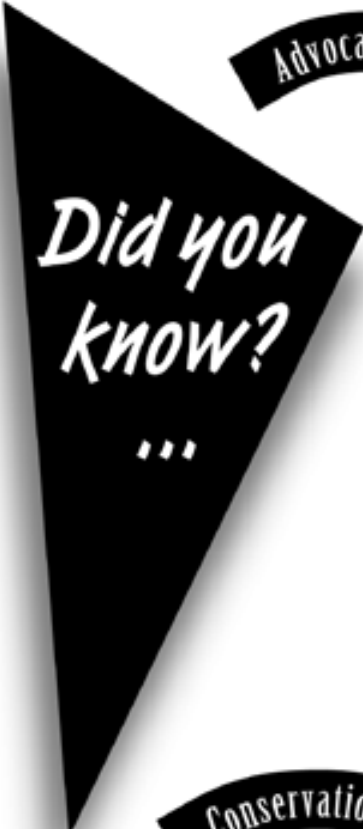
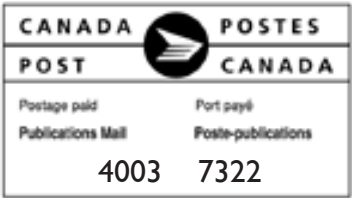
Thank You Volunteers!

Thank you to all our volunteers for the vital work you do at YCS. If you'd like to help out with any of our events, campaigns, or projects, contact Julia at ycsoutreach@ycs.yk.ca or 668-5678. We'd love to have you!

Particular thanks to:

- Cathie Archbould, Peter Mather, and the YCS Airforce with LightHawk.org for photography
- Luc Garceau for shovelling us out of the recent snowfall
- The volunteers who helped make the Hydro Workshop possible
- and all the volunteers who keep YCS rolling including those who prefer to remain anonymous – we can't think why!





YCS is throwing our Year End Party on Friday, December 11 starting at 5pm.

Come celebrate 2015 with YCS staff, Board members, volunteers, and well-wishers!

The recipient of the Gerry Couture award will be announced.

All are welcome. Refreshments are provided.



Follow the Yukon Conservation Society on Twitter: [Yukon Conservation @YukonConservati](#) and 'like' us on Facebook: [Yukon Conservation Society](#)

