



YUKON CONSERVATION SOCIETY ANNUAL REPORT 2021

PREPARED BY Coral Voss

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Yukon Conservation Society

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Cover Photo: Kwanlin/Miles Canyon, DA Donnelly, 2021

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President's Report 2021

The major work of the Board in 2021 was the preparation of new bylaws to bring YCS in line with the new YG Societies Act. This has taken many hours of work. The board appreciates the volunteer time put in by current and former board members, as well as Lenore Morris's contribution as legal counsel.

We began the year with the election of a number of new directors and the challenge of adapting to conducting our meetings remotely. Along with the bylaw work, ongoing projects from the previous board included final approval of the 2021-2025 Strategic Plan in May and finalizing and approving a Reconciliation Statement for the organization to underline our commitment to reconciliation with Indigenous Peoples throughout our operations. We understand this as a first step on a long journey.

We have spent time on developing board capacity. So far this has included a session on board governance with TREC (Training Resources for the Environmental Community) and an educational workshop on reconciliation is in the works for spring - while this will mainly focus on staff, the board is looking forward to participating and receiving resource materials. This capacity development has also seen work on internal structuring, forming standing committees and revising/approving policies to ensure better continuity between boards and clarity of processes relating to human resources. We have been working with remote technologies to improve our ability to work together in COVID-times and have found a positive by-product to be the ability to be more inclusive of Yukoners outside of Whitehorse.

In addition to the governance committees formed, a fourth program committee (advisory groups open to all YCS members) was added to the existing Mining, Wildlife and Energy Committees: the Climate Crisis Committee. We welcome interested members to make themselves known to participate in this most critical of efforts. A large part of our analysts' work is contributing to processes like YESAB and Land Use Planning. In addition, they develop position papers to clarify where YCS stands on different issues. Sebastian Jones, staff wildlife and land use planning Analyst, wrote a Caribou Habitat position paper for YCS this year that the Board heartily endorsed.

In February of 2022 Mary stepped down as president and Kim stepped into the position, having held the role of Vice President since the resignation, with much appreciation for time served, of board member Jim Boyd in late fall. Thank you, Jim for your years of effort and insight. Kim, on behalf of the board, would also like to thank Mary for her hard work and leadership this year.

Thanks as well to staff and all the volunteers and members who continue to contribute to YCS, and develop and maintain their own personal and community connections to the Land.

Ka Ma

Mary Amerongen and Kim Melton 2021 Presidents, Yukon Conservation Society Board

Executive Director's Report 2021

2021 was also a year of change and challenge for many of us, and we at the Yukon Conservation Society were not immune to these trying times but despite these challenges YCS has flourished with the remarkable hard work and support of staff, the Board and volunteers.

Since joining YCS almost 1½ years ago I have continued to be in awe of the resiliency of my colleagues, YCS as a whole, and Yukon at large. I am privileged to have this opportunity to speak to the incredible work accomplished by my colleagues and YCS as a whole in 2021. I have chosen some selected highlights of these achievements below.

In 2021, YCS finalized and released a new 5-year Strategic plan. We are delighted with the document and the work that is outlined for YCS moving forward. Financially YCS remained stable and is in a good position moving forward into 2022. Although, like many others there were some financial losses and redirections. We continue to be strengthened by the constant support of our funders and members.

We were delighted to welcome new staff this year. Scott Pressnail joined YCS in February 2021 as the new Energy Analyst bringing his education and experience in sustainable energy engineering. In October 2021, Kirsten Reid stepped into the new position of Conservation Biologist to lead the *Assessing the Current Research and Condition of Caribou Herds in the Yukon* project. We were also delighted to host our inaugural Helmut Grunberg Conservation Intern, Toshibaa Govindaraj, who brought her education, experience and determination to numerous files and projects. In particular, she was crucial to the successful completion of the recent report, *Cumulative effects of disturbances in the range of the Clear Creek Caribou Herd Range, Yukon*.

We had another successful gardening season thanks to the hard work of YCS staff and volunteers. The garden was harvested and shared at the End of Summer BBQ. Although our offices were often closed, we still managed the maintenance and any necessary upgrades to our offices.

YCS celebrated the 10th anniversary of "Created at the Canyon", with 10 artists, which was successfully created again despite COVID. Unfortunately, the exhibition opening was cancelled due to COVID restrictions, but the exhibit still took place and was well viewed. The Trail Guide program had another busy and successful season with numerous themed hikes ranging from Wild Edibles to the Geology of the Canyon, and French language hikes. YCS was often in the news including numerous print articles and radio interviews with a remarkable social media presence throughout the year.

Furthermore, YCS took part in three Yukon Water Board (YWB) processes and twenty-nine Yukon Environmental and Socio-economic Assessment Board (YESAB) applications, almost all to do with either quartz exploration projects or hard-rock mine operations. YCS has continued to act as a watchdog of the mining industry in the Yukon, continuing to publicize the various violations and contaminated liquid spillages. Additionally, YCS has persisted in being involved in the process and reviews the proposed reclamation and remediation of abandoned mine sites. In particular, in 2021 the

Faro Mine and Wolverine Mine were actively watch-dogged and YCS provided reviews of process documents.

YCS continued to contribute to the ongoing development of the Yukon Wetlands Policy by submitting comments on the 6th and 7th draft of the policy. In addition, YCS contributed to the Yukon Water Board's efforts to address wetlands disturbance in water licence applications. Furthermore, YCS has been very active in contributing to the Dawson Regional Land Use Plan in 2021 including providing extensive comments regarding the Draft Dawson Regional Land Use Plan and co-leading two community engagement sessions.

YCS submitted comments on the Chance Oil and Gas, Eagle Plains Well Maintenance and Exploration. The proponent has replied to some of the information requests and YCS will continue to monitor and provide input on this project. As the Yukon Government was seeking comments regarding the proposed Clean Energy Act. In an effort to ensure a broad range of opinions from within YCS for this submission, YCS sent out a survey with our newsletter. After compiling the comments, they were submitted with YCS' comments. YCS will continue to be involved in the development and process for the Clean Energy Act.

The Electrical Thermal Storage (ETS) project has presently 43 signed participants and 32 installations to date. Data has begun transferring from both the installed ETS units and extra sensors installed in participants' homes, the early data has been quite promising regarding the many benefits ETS could have for the Yukon. The ETS Project has already demonstrated that electric thermal storage can reliably shift on-peak electrical heating to off-peak times while providing dispatchable load and storage.

On a personal note, I was honoured to have been named to the Yukon Climate Leadership Council. It has been an extraordinary honour to be involved with this opportunity in the critical dialogue regarding the Climate Crisis and supporting the Yukon's progress towards *Our Clean Future*. Finally, I want to take a quick moment to welcome my new pup, who has become our office dog, Neha, she brings a smile to our faces.

I want to again extend my gratitude to the staff, Board, volunteers, members and supporters for another extraordinary year.

Coral Voss, Executive Director

Outreach & Communications Report

Prepared by: Debborah Donnelly

Introduction

The Director, Outreach and Communications (DOC) is Debborah Donnelly. She has been employed with the Yukon Conservation Society (YCS) since April 6, 2020.

A part-time Membership Coordinator (MC), Tera Swanson, was hired effective March 15, 2021, to take on the administrative work related to membership, including coordinating volunteers. She resigned in September to return to Banff. We are currently in the process of hiring a replacement.

Available Light Film Festival

YCS once again sponsored a film at the <u>Available Light Film Festival (ALFF)</u> this year in February. It was a documentary titled "**The Magnitude of All Things**" created by Jennifer Abbott. You can check out their website: <u>https://www.themagnitudeofallthings.com/</u> for more information on the film.

The documentary has gone on to win the following awards:

- Best Nature & People Film Award Asian Film Festival, Korea
- Audience Choice Award Doclands, California
- Special Mention Documentary Riviera International Film Festival, Italy

TOYA ORV Press Conference

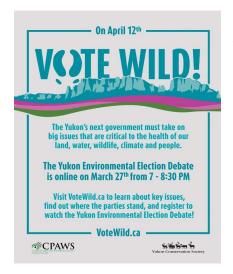
After the release of the new Yukon <u>Off-Road Vehicle Management Area Regulations</u> in late January, 2021, Trails Only Yukon Association (TOYA), YCS and various other NGOs held a press conference at the Kwanlin Dun Cultural Centre on February 4, 2021.

Elections

There were three major elections that impacted the territory this year: territorial, federal and Whitehorse municipal elections.

Territorial Election

YCS worked with CPAWS Yukon during the run-up to the 2021 Territorial Election. We collaborated on preparing questions for and running a multi-party debate, designing a 'door hanger' which was



distributed throughout the territory, developing a 'Vote Wild' website which compared the parties' platforms, and in running a survey on environmental concerns of Yukoners.

Federal Election

The DOC sat in on the Climate Action Network's (CAN-Rac) Election Working Group to prepare for the Federal Election. We supported actions taken by Nature Canada and the CAN-Rac on communicating environmental priorities to the Federal Government.



YCS and CPAWS Yukon also hosted an online Federal Environmental Forum on September 15th which was attended by more than 60 people. Candidates from the Green Party, Independent, Liberal Party and NDP were in attendance. Thanks to Angela Code who facilitated the event. The event was held on Zoom and Facebook Live, and then posted to our <u>YouTube</u> account to provide engagement with the public.

Municipal Election

Whitehorse had their municipal election on October 21. Together with CPAWS Yukon we posed several environmentally focused questions to both Mayoral and Councillor candidates. We then posted all answers on the VoteWild.ca website and placed a one-page ad in *Yukon News* with the Mayoral candidates' responses.

Law Day Fun Run

The Canadian Bar Association – Yukon Branch (**CBAY**) elected the Yukon Conservation Society to be this recipient for proceeds from their Annual Fun Run or Walk. To work in association with COVID guidelines they held a Virtual Run this year which took place from April 17 to May 17.

We were honoured to be this year's recipient and wish to thank CBAY for selecting us.

We would also very much like to thank the following donors who made significant contributions:

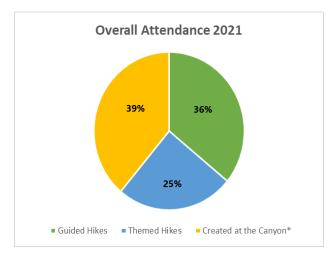
- Daniel S. Shier Law Office
- Vincent Larochelle Barrister & Solicitor
- Lamarche, Lang & Barrett LLB Law Group
- Woodward & Company Lawyers LLP

Trail Guide Program

This was the 41st year that the Yukon Conservation Society has provided free interpretive programming in Kwanlin/Miles Canyon, and the 10th Anniversary of 'Created at the Canyon'.

It was a successful season, with many visitors and locals alike joining us to explore Kwanlin and Canyon City in a variety of valuable and engaging ways. We are determined to maintain the foundation of quality interpretation for which we are well known, while also expanding our programming in diversity and scope. **Over 780 people took part in our programming this summer**. This was an increase from 568 participants in 2020.

The Trail Guides created three educational videos posted on our <u>YouTube</u> Channel: 'Wild Edible Salad', 'Created at the Canyon – 10th Anniversary' and 'Watercolouring in the Canyon'.

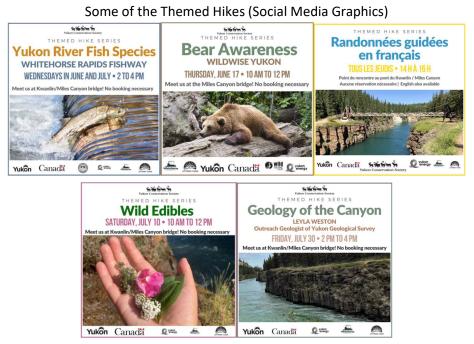


New this year, the Trail Guides also produced 'Stories' on Instagram where they shared their day-to-day activities at the Canyon. They also worked on a few short videos called 'Reels' on <u>Instagram</u>. The 'Reels' included 'Dandelion Mug Cake', 'Invasive Plants of the Canyon', 'Welcome to Chasán Chúa/McIntyre Creek' and the 'Created at the Canyon Exhibit'. They also made 10 Reels introducing the 10 artists of Created at the Canyon for our 'art in nature' program.

Overall attendance of our summer programming is indicated in the chart provided above.

Themed Hikes

We continued to offer Specialty Themed Hikes this summer which included several Yukon River Fish Species hikes, two Bear Awareness hikes; A Walk Through History; two Wild Edibles hikes; Geology of the Canyon; a Kid-Friendly hike, and two hikes at McIntyre Creek. We also offered French language hikes on Thursday afternoons.



The DOC would like to acknowledge the great work done by our Trail Guide Coordinator, Lorijane Émond-Quéméré, and our Trail Guides, Vincent Boisclair, Anna Tölgyesi and Annie Li.



Photo: L to R – YOLO (You Only Live Once) Trail Guides - Vincent Boisclair, Annie Li and Anna Tölgyesi.

Fireweed Community Market

We were fortunate that COVID regulations changed in July to accommodate non-profit informational booths at the <u>Fireweed Community Market</u> this summer. YCS set up a table for six weeks on Thursdays, from July 8 to August 12, which was primarily manned by the Trail Guide Coordinator, the Membership and Communications Coordinator, and with the addition of the ETS Project Assistant. It is an important component of outreach for YCS, so we happily participated in this community event again this year.

'Fishing Day' at Hidden Lakes

The DOC and Trail Guide Coordinator conducted outreach and outdoor education at this event which was hosted by the Whitehorse Rapids Fishway and the Yukon Fish and Game Association. More than 75 people attended this event, which was the first time it was held there. Two of the Trail Guides came by to go on a hike of the area and to help promote the work YCS is doing.

2021 BioBlitz and Guided Hikes at Chasan Chua (McIntyre Creek)

The Trail Guide team and the Conservation Intern provided guided hikes and support to the CPAWS Yukon 'Backyard Biodiversity' day at Chasàn Chùa on July 24th. YCS joined the Yukon Salmon Subcommittee, Yukon Environment, WildWise Yukon and Friends of McIntyre Creek to bring a great day of exploration, research and hiking to the area.



More than 1800 observations and 500 species were recorded during the project and uploaded to <u>iNaturalist</u>.

Photo: various flora and fauna at Chasàn Chùa

Created at the Canyon – 10th Anniversary

We had 22 applicants for the 'Created at the Canyon' art in nature program this year. This year's featured artists included a ceramicist, a polymer clay craftsperson, a dancer, a soundscape artist, two watercolour painters, a multimedia artist, a photographer, a food art performer, and a landscape painter. Special thanks to Horst Berlow, Amna Bhatti, Tom Connor, Brent Liddle, Claire Lockett, Annie Maheux and Pierre Fournier (and their horses Mickey and Yukon), Janet Patterson, Sadie Segriff, and Jane Fergusson Storey for sharing their time and their art with us.

We held an opening ceremony on Friday, July 2nd, which included short speeches by MP Larry



Bagnell, Kwanlin Dün Chief Doris Bill, and Whitehorse Mayor Dan Curtis.

The finished artworks were displayed at the <u>Yukon Arts</u> <u>Centre</u> from July 16th through August 27th.

Photo: 2021 Artists and MP Larry Bagnell

Photo Contest

YCS held a photo contest during the 2-day outdoor event of Created at the Canyon with two categories: Artist(s) in Action, and Nature in the Canyon. There were five prizes from sponsored donations offered for the winner and runner-up in each category, and an overall prize which was displayed at the Yukon Arts Centre, along with the works created by the participants of 'Created at the Canyon', the photo was also featured on the front cover of the 2021 Fall edition of the YCS quarterly journal *Walk Softly*.



Overall Prize: Photo of Annie Maheux by Taya Fraser

Category Prizes:



Artist(s) in Action - Winner (L): Jerry Lum Runner-up (R): Josh Lauer



<u>Nature in the</u> <u>Canyon</u> - Winner (L): Cat Taylor

Runner-up (R): Josh Lauer

Prize Sponsors:



Thank you to our sponsors (shown above) who gave prizes for the contest.

Annual Summer BBQ

At the Summer BBQ this year we also launched our collaboration with local entrepreneur Anthony Gallo of <u>Hook & Antler Apparel Co</u>. We will continue to bring further items in the 'Made in Canada' clothing line over the coming months.

We were very pleased to have Created at the Canyon artist Tom Connor and his musical partner Anne Turner play for us at the BBQ.



City of Whitehorse 'Street Eats & Beats' Cultural Festival

YCS participated in the Whitehorse Street Eats & Beats Festival this year, which ran from September 9 to 11 along the waterfront. We were stationed at Shipyards Park.

Whitehorse Public Library



We prepared a display for the Whitehorse Public Library in September, which was well received by the public. We hope to utilize this opportunity again next summer to further promote our Summer Interpretive Program.

Yukon South Beringia Priority Place Initiative

Communications Plan - The DOC presented the Communications Plan to the project partners working group for input and approval in August.



Yukon South Beringia Priority Place Initiative

Logo Design - There was significant collaboration with project partners to come up with an overall concept, and the design was created by local graphic artist Tanya Handley. It represents the caring hands of conservation holding a species at risk *Podistera yukonensis*.

Website - We are currently working on the YSB PPI website with a local contractor. We intend to launch it at the end of March 2022.

Fairs - The ability to hold the fair in the fall was undercut by both COVID-19 restrictions and the interest in partners to attend a fair in December in Dawson City. It was collaboratively decided to hold both the Dawson City and Whitehorse fairs in April 2022.

Media – The 2021 BioBlitz was promoted by two articles in *What's Up Yukon* written by Sebastian Jones and Toshibaa Govindaraj.

Northern Energy Institute - Peak Energy Notification Program

Communications collaborated with and supported this important initiative with NEI providing promotional content and collaborating on the notification of Peak Times through our eNewsletter and social media accounts. We also ran an article on the 'Beat the Peak' program in the Winter 2021 edition of *Walk Softly*.

Annual Holiday Open House

Due to restrictions on events to accommodate COVID-19 requirements, the Annual Open House was unfortunately cancelled this year. Presentation of the Gerry Couture Stewardship Award was made on December 10 at Parnell House.

Awards

This year's awards were provided to the following individuals:

Ted Parnell Scholarship – Iliana Stehelin (Vancouver Island University – Resource Management Officer Technology).

Gerry Couture Stewardship Award – Joy Snyder

Information on the recipients were reported in *Tread Lightly* and *Walk Softly*. The Gerry Couture Stewardship Award was also picked up and shared by CKRW.

Photo: Coral Voss presenting award to Joy Snyder



Partner collaborations

Outreach and Communications partnered with various other NGOs and organisations in the following areas:

- CPAWS Yukon One Health; Territorial Election; Thomas Berger remembrance event; Dawson Region Land Use Plan; Backyard Biodiversity at Chasàn Chùa (McIntyre Creek) projects (which also included Friends of McIntyre Creek, WildWise Yukon, Yukon Environment, and the Yukon Salmon Sub-Committee); 2021 Federal Election; Whitehorse Municipal Election
- Government of Canada, Yukon Government and various Yukon organisations and First Nations
 Yukon South Beringia Priority Place Initiative (YSB PPI) including participation in the Tr'ondëk Hwëch'in BioBlitz
- Liard First Nation Indigenous Protected and Conserved Area (IPCA)
- Nature Canada Engagement Organizing; Women-in-Nature Mentorship Program
- Whitehorse Rapids Fishway, Yukon Fish & Game Association (YFGA), Yukon Wildlife Preserve -'Under the Midnight Sun' Photo Contest; Hidden Lakes Fishing Day
- WildWise Yukon Created at the Canyon
- Yukon Arts Centre Created at the Canyon exhibit

• Yukon Environment – Climate Risk Assessment

Media and Social Media

YCS has been highlighted in 87 radio interviews and articles (print and online) over the past year. The breakdown by outlet is listed in the graph below. CBC provided the most coverage followed closely by the *Yukon News*. We also had coverage in French as well as national and Alaskan media.

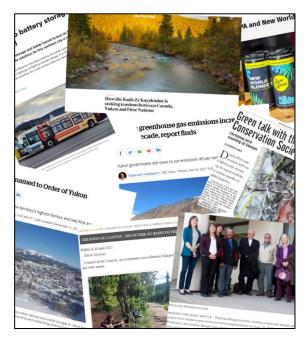
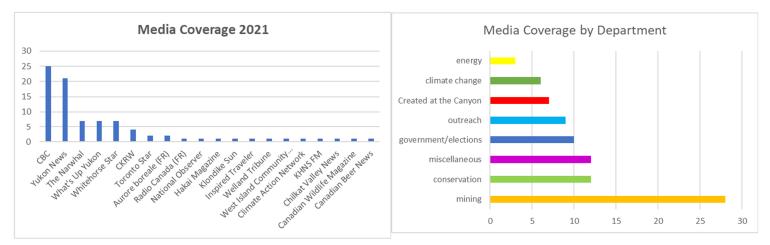


Photo: Example of some of the published articles highlighting YCS work over the past year.

Social media platforms used are <u>Twitter</u>, <u>Facebook</u>, <u>LinkedIn</u>, <u>Instagram</u> and <u>YouTube</u>.

YCS continued to show an increase in social media followers over all platforms in 2021, with a marked increase on our Instagram account.



Publications

Tread Lightly is our bi-weekly e-newsletter.

We have received a lot of positive feedback this year on the newsletter, and more organisations have been sending us requests to include their content in the community sections.

"I started receiving your newsletter a few months ago and I just wanted to let you know that I really appreciate all of the content you pull together. I live in Ontario but have worked in the North a bit (and I dream of living there some day) and your newsletter helps keep me in the loop. Thanks so much for your work!" ~ Jocelyn

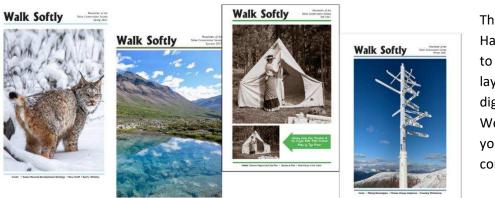
We currently have 988 people subscribed to *Tread Lightly*.

Walk Softly is the quarterly publication by YCS (both digital and print versions).

Four editions of *Walk Softly* were published over the past year, and covered such topics as:

- Yukon Mineral Development Strategy
- The Time the Caribou Won
- Arctic National Wildlife Reserve
- Geological Evidence of Climate Change
- Remembering Thomas Berger
- Antarctic MPAs and Yukon Salmon
- Created at the Canyon 2021 10th Anniversary
- Species at Risk: The Buzz about Bumblebees
- The Role of Caribou in Climate Change
- The Dawson Region Land Use Plan
- Unleash the Kraken...

We have continued to encourage members to shift from paper to digital editions, and the success of that has meant our carbon footprint for printing and mailing has reduced significantly. Recent digital versions of *Walk Softly* can be found on the YCS website.



Thank you to Tanya Handley who continues to voluntarily do the layout (both print and digital) for *Walk Softly*. We are so grateful for your generous contribution.

Membership & Volunteers

As of December 31, 2021, YCS has 123 active members.

This year we welcomed **nine new Volunteers**, who have helped out in a variety of ways, either by contributing articles to *Walk Softly*, helping out with the Trail Guide program, supporting the caribou project, or sitting on various committees.

Due to COVID-19 we were still not encouraging volunteers to come into the office, but events held outside were considered safe. The number of volunteer hours recorded was **453 hours**, which included Board of Directors meetings, committee work, Instagram posting, training, garden watering, writing articles, and helping with the End of Summer BBQ.

In 2021, the total funding received through donations and memberships came to \$43,889.

Funders

We would not be able to operate and protect Yukon ecosystems without the generous support of our members, donors, volunteers and funders. The DOC wishes to acknowledge the contributions of the following major funders:



Yukon Brewing provided a generous donation to YCS which was a ten cent/can donation for their solar series New World Blonde ale.

Hook & Antler Apparel Co. collaborated with YCS in the development of a new line of clothing featuring wildlife designs and the YCS logo.

Thank you

The DOC would like to thank the following organisations and individuals not already mentioned in this report, for their support, coverage of events and issues, and willingness to collaborate:

Trail Guide Trainers

Bruce Bennett	Syd Cannings	Clare Daitch	Preet Dhillon
Michael Dougherty	Maegan Elliott	Ty Heffner	Madison Hurst
Lance Leenders	Brent Liddle	Ross McBee	Dave Mossop
Corin Noble	Graeme Poile	Lawrence Vano	Leyla Weston

Kwanlin Dün Cultural CentreMacBride MuseumSS KlondikeWildWise YukonYukon Beringia Interpretive CentreYukon Transportation MuseumYukon Wildlife Preserve

<u>Other</u>

Integraphics for their wonderful printing services.

All our local and national media outlets who covered issues that are important to both YCS and Yukoners.

And last, but definitely not least, are the numerous **volunteers** who generously offer their time to support our work, including our Board of Directors and members of the various committees (mining, wildlife and energy).

Mining Report

Prepared by: Lewis Rifkind

The Yukon Conservation Society is not opposed to mining, as long as it is done in appropriate areas, uses best environmental practices, and has comprehensive and adequately funded closure plans.

YCS's Mining Analyst, Lewis Rifkind, focuses mainly on hard-rock (quartz) mining issues, occasionally addressing the impacts of placer mining. Placer mining (especially its impacts on wetlands) is covered by the YCS Wildlife Analyst (Sebastian Jones). As can be imagined, there is much overlap between the two positions when it comes to addressing mining issues.

The following activities occurred during 2021 in regards to mining in the Yukon, and YCS's involvement with them.

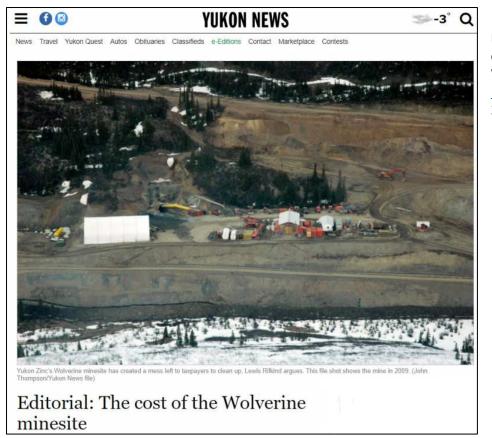
Environmental Assessments

The YCS Mining Analyst participated in **29 Yukon Environmental and Socio-economic Assessment Board (YESAB) assessments** and three Yukon Water Board (YWB) processes, almost all to do either with quartz exploration projects or hard-rock mine operations.

Abandoned Mines

The Yukon is cursed with the legacy of abandoned mines that either the Yukon or Federal government are cleaning up, funded with taxpayers' dollars. 2021 saw some significant movement in regards to the ongoing reclamation and remediation of these sites. YCS was involved either in participating in the environmental assessment of these projects (through YESAB) or through monitoring the ongoing site activities in a 'watch-dog' role.

- **The Faro Mine** is finally being remediated. An environmental assessment of what is proposed by the Federal Government is currently being undertaken by YESAB. YCS is involved in the review of the documents provided for this process.
- Wolverine Mine: YCS continued to watchdog this site as various legal aspects were played out in court. Towards the end of the year, it was determined that the site could not be sold and that the Yukon Government was entirely on the hook for ongoing care, maintenance, and eventual closure and remediation.



Lewis published an editorial on the Wolverine Mine in the <u>Yukon News</u> - May 9, 2021.

New Mines

- Despite the legacy of abandoned mines, new mines are proposed for the Yukon. YCS was involved in a variety of reviews in regards to these initiatives.
- **Coffee Mine:** YCS has been a participant in the YESAB environmental assessment of this proposed mine. One of the major concerns is the access route. Other considerations include how it affects the ongoing Dawson Regional Land Use Plan.
- Kudz Ze Kayah: this proposed mine is stuck in environmental assessment limbo as a decision is required by the Federal Government as to whether it should proceed or not.

Legislative Renewal

Legislation in regards to mining in the Yukon has always been somewhat of an environmental blot on the landscape. It is outdated and does little to nothing to protect the environment. In 2021 the Yukon Government established the New Mining Legislation roundtables as a follow up to the report of the Yukon Mineral Development Strategy. These roundtables are discussing and providing ideas on what future resource extraction legislation could look like. YCS has been an eager participant at the ENGO roundtable on this issue.

Regulations and Guidelines

While Legislation is critical to controlling mining within the Yukon, regulations and guidelines are what govern the day-to-day operations of mines. Having strong regulations and guidelines ensures environmental impacts of current and future mining operations can be reduced. YCS provided comments on the following (note that not all are to do with mining):

- the Yukon Government's plan on single-use plastic bag bans
- Draft Mackenzie River Basin (Peel and Mackenzie) Bilateral Water Management Agreement; and Draft Mackenzie River Basin (Liard) Bilateral Water Management Agreement.
- YESAB Pre-Submission Engagement For Executive Committee Screenings
- Mineral Resources Branch of the Government of Yukon's Department of Energy, Mines and Resources review of their External Communications

Watch Dogging

YCS continues to monitor operating mines within the Yukon and publicize their various environmental infractions. Of particular note are the various contaminated liquid spills that seem to occur with depressing regularity.

Thank You

The YCS Mining Analyst is assisted by a volunteer Mining Committee. It consists of YCS members who have an interest and knowledge of Yukon mining issues. Without their feedback and input YCS would not be able to do the work that it does.

Fish, Wildlife and Habitat Report

Prepared by: Sebastian Jones

Sebastian Jones, the YCS Wildlife Analyst is tasked with staying abreast of all matters relating to Fish, Wildlife and Habitat in the Yukon, and with providing the YCS perspective in environmental assessment and permitting processes. The Wildlife Analyst also has the duty of providing public education, through various media and public engagements. If this list seems broad, it is. The Wildlife Analyst assists the Mining Analyst in most of their YESAB and Yukon Water Board (YWB) submissions, typically focusing on impacts to fish, wildlife and land use. Assistance is similarly provided to the Energy Analyst, particularly on high impact projects such as hydro dams.

In common with the other analysts, the Wildlife file was affected by the COVID Pandemic, however it was affected differently. Sebastian works from his home in West Dawson, so the office closures and restriction increased his engagement with his co-workers as more collaboration went on-line. Similarly, many fish, wildlife and land use meetings and events that would typically have meant travel to attend, became more accessible through various platforms such as Zoom, Jitsi, WebEx, GoToMeeting, etc. However, public outreach in the form of community visits and presentations were mostly cancelled.

The Wildlife Analyst position is a permanent but part-time (20 hours/week) position, although increased workload in fall 2021 required an interim increase to 25 hrs/week.

YESAB and YWB comments

The Wildlife Analyst contributed to or wrote twenty-eight of the comments submitted to YESAB by the Mining Analyst.

Wetlands

The Yukon is developing a Wetlands Policy and the Yukon Water Board is working out how to address wetlands disturbance in water licence applications. The Wildlife Analyst put in considerable time on both these files, leading the YCS response and contribution to both processes. YCS submitted comments to the 6th and 7th draft of the Wetlands Policy in 2021.

Land Use Planning

The major land use planning effort underway in the Yukon, is the **Dawson Regional Land Use Plan**. The Wildlife Analyst is leading the YCS contribution to both these initiatives, including making presentations, attending meetings and encouraging public participation. To that end, YCS provided very extensive comments to the Draft Dawson Regional Land Use Plan and co-led two community engagement sessions. The Recommended Plan is due in June 2022.

Conservation Plans

Another major planning initiative is the development of an Integrated Conservation Action Plan (ICAP) in a portion of the Dawson planning region called Yukon South Beringia. This federally initiated Priority Place plan is led by the Canadian Wildlife Service, and YCS is playing a significant role in the plan which is expected to produce a draft in fall 2022. YCS has attended several planning and training sessions and was successful in securing funding for a significant project to publicize and 'Tell the Story' of the development of the plan, and the projects taking place as part of it.



Photo: Sylvie Binette (hat in foreground), Syd Cannings, Sebastian Jones and Micah Taggart-Cox - during the 2021 Tr'ondëk Hwëch'in BioBlitz.

Caribou

YCS began a major project to identify Yukon Woodland Caribou as indicators of excessive levels of disturbance. Within the range of various herds, disturbances were calculated and their effects on caribou analyzed. Final reports will be released in 2022. The Conservation Intern and the Conservation Biologist played key roles in this work.

Off Road Vehicles regulations

Easily the most significant multipliers of anthropogenic impacts on fish, wildlife and their habitat are the increase in roads, trails and motorized access to the backcountry. ORV regulations were completed in January 2021, unfortunately they are very weak and it has been made very difficult to protect more land from the ravages of ORVs.

Conservation Intern

YCS hired a Conservation Intern in 2021 who primarily worked with the Wildlife Analyst. We were fortunate to have found an active, enthusiastic and competent biology student. The Pandemic meant that it was easier to find someone to devote time to YCS. The Intern primarily worked on the YSB BioBlitz and the Caribou Project and was very valuable to the organization.

Media

The Wildlife Analyst leverages the work of YCS through the YCS website and social media accounts



- with the Director of Outreach and Communications - and through articles published in local newspapers, YCS publications, and through interviews with journalists. In 2021, Sebastian contributed 8 articles to the YCS outlets Walk Softly and Tread Lightly, had 3 pieces published in Yukon Newspapers and local and national media sought out his take on various topics a total of 16 times. In addition, Sebastian supplied the Wildlife perspective on several other articles written by the Mining Analyst and the Conservation Intern.

<u>CBC article</u> 'Yukon: Flooding unlikely to harm Chinook salmon'

Working with others

YCS is a small organization that typically wields an outsized influence. Its influence is enhanced through collaboration with First Nations, other ENGOs, Umbrella Final Agreement mandated bodies and even government departments. While it is difficult to point to tangible markers of success in this category, a very important part of the Wildlife Analyst's work is to establish and foster good relations with these groups. This happens through being perceived as an ally, as being helpful when co-engaging. Reaching out to offer assistance and to include others in YCS initiatives is also a key strategy. In 2021, the Wildlife Analyst was approached for help by CPAWS Yukon (YESAB, YWB, DRLUP, Wetlands), by the Klondike Active Trails and Transport Society (DRLUP), and Friends of Dempster Country (YESAB, DRLUP).

Energy Report

Prepared by: Scott Pressnail

YCS's energy vision is of a sustainable energy future for the Yukon. In realizing this peak electricity demand and energy use must be drastically reduced through conservation, improving efficiency and adopting smart technologies. Imported fossil-fuels must be displaced by local, low-impact renewable energy projects. YCS strives to these goals through advocacy, outreach and collaboration as noted below

Energy Conservation Rebates

The Greener homes grant was released in 2021 and this program includes specific rebates for Canadians living in the North. This, in conjunction with the Good Energy rebates offered at the territorial level, provide an opportunity for energy conservation within the household through energy retrofits and upgrades. The precursor to this program is that prospective participants must have a pre and post retrofit energy assessment and the rebate in some cases is determined based on the improvement. Since an energy assessment was a requirement for the ETS applicants, individuals who did not proceed with ETS installations still had a valuable resource from their home energy assessment to allow them to qualify for the Canada Greener Homes Grants. YCS will continue to advocate for individuals to apply for these available retrofit rebates and to liaise them with the appropriate personnel.

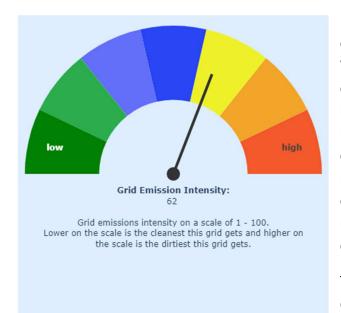
YESAB and Yukon Water Board

Chance Oil and Gas issued a proposal to YESAB titled, Eagle Plains Well Maintenance and Exploration. YCS firmly believes that no fossil fuel development should take place within the territory and expressed these opinions in submissions to YESAB. The proponent has since replied to some of the information requests and YCS will be continually monitoring this project and providing input in the coming year.

Yukon Utilities Board

YCS was a registered intervenor for the Battery Energy Storage System (BESS) before the Yukon Utilities Board and submitted comments to the utilities board regarding this project. This project is proposed to reduce the reliance on imported fossil fuels, namely rented diesel generators for the Yukon Integrated System. YCS was also involved in the General Rate Application 2021 (GRA), before the Yukon Utilities Board. Tlingit Homeland Energy Electricity Purchase Agreement is currently before the YUB and YCS will be staying abreast with the proceeding.

Beat the Peak



Reducing peak demand has been a critical point of YCS's energy mandate for a number of years. With population increasing and the electrification of industries that have historically relied upon fossil fuels, namely heating and transportation, the urgency compounds. The opportunity for demand side management technology to enter the forefront of this conversation has now been widely recognized, and YCS is proud to work on these endeavours.

The grid watch tool, shown to the left, is still in development, but the goal is that individuals who have become interested in the 'Beat the

Peak' campaign, might like to have further information on when the grid is mainly hydro, compared to when LNG and Diesel are being utilized. This tool will have further iterations to provide users with information on when the thermal usage intensity is expected to decrease, typically later in the evening.

Input Clean Energy Act



The Yukon Government (YG) sought comments regarding the proposed Clean Energy Act. In an effort to garner as many opinions from within YCS for this submission, we sent out a survey with our newsletter. These comments were then compiled and submitted with YCS's input. YG sought input on a statement of clean energy, reporting requirements, greenhouse gas (GHG) emissions reduction targets, renewable electricity generation requirements, zero emission vehicle sales

targets, renewable heating, and energy efficient criteria. The comments received through the survey were helpful to ensure that various viewpoints were considered from within YCS. Further engagement regarding the clean energy act is anticipated in the coming months and YCS will maintain involvement throughout this process.

Outreach

The Energy Analyst attended the weekly summer community market to share information and have discussions with individuals regarding energy programs at YCS and providing information regarding energy conservation.

In Development

Small Modular Reactors have gained more and more notoriety from some environmental circles because of its low greenhouse gas (GHG) intensity. As it has been more publicly discussed as an option for smaller grid applications it is important that YCS have a position. In development for the coming year is a position paper from YCS on this technology as it currently stands, and concerning the lifecycle environmental effects. Another term that is frequently discussed within the energy realm is net-zero. Canada has pledged net-zero emissions by 2050 and the International Energy Agency (IEA) released a road map for net-zero 2050 this year. YCS is developing a position paper on net-zero for the coming year.

YCS continued a year of energy advocacy, literacy, and capacity building. We completed an Electric Thermal Storage (ETS) literacy video (available on our YouTube channel) and held a contractor training session for ETS units. Building on this capacity development, next year will see YCS host contractor training for Air-Source Heat Pumps (ASHP) and ETS units. The ETS project has now completed registration and is collecting data at various homes and institutions throughout the Yukon. The ETS project has expanded to include an ASHP and ETS combination project. Community outreach saw the energy team discussing ETS technologies and promoting energy efficiency rebates at the Fireweed market. Storage is fundamental to further integration of renewable energy and the ETS project will lay a foundation for further proliferation of renewables like wind, solar and hydro throughout the Yukon. We will continue to advocate for renewables in seeing that they displace the fossil fuel reliance in the Yukon. We are continually advocating for less development of fossil fuel projects through the opposition to Chance Oil's proposed maintenance and exploration program in Eagle Plains. Reducing peak demand has been a continued priority for YCS as demonstrated in the ETS project and will continue to be in the coming year. In collaboration with Northern Energy Innovation (NEI) we will be promoting a peak notification system to inform participants of peak events occurring on the Yukon grid. We will continue to engage with the Yukon government as the new Clean Energy Act is developed and offer our perspective input.

Yukon Electric Thermal Storage Project

Prepared by: Eric Labrecque

Introduction

This past year may go down as the most consequential year for the Yukon Electric Thermal Storage Demonstration Project ("the ETS Project"), which is primarily funded by Natural Resources Canada's Clean Energy for Rural and Remote Communities (CERRC). This year saw the confirmation of most of our participants and the completion of most of our installations. The project's scope was also expanded in targeted and impactful ways. We established and strengthened relationships with key stakeholders in the Yukon and across the country. Crucially, we secured sufficient funding to fully fund the project through its end date of March 2023. All this and much more was accomplished in 2021 – it was quite the busy year!

Going Above & Beyond

In addition to exceeding our targeted number of participants, YCS has:

- Created a joint ETS and air-source heat pump (ASHP) program within the ETS project, with funding from the Yukon Government Energy Branch, to demonstrate the synergy between ASHP systems – which provide low-energy and low-cost heating down to around -25°C – and ETS systems – which provide primarily renewable energy generated electricity from off-peak times regardless of how cold it is outside. We have three confirmed participants in this combined program, with more potential participants working their way through the selection process.
 - The funding provided by the Yukon Government's Energy Branch for this combined program was later expanded to provide sufficient funding to fill the gap between the ETS Project's budget and the funding provided by the federal government through the CERRC program. This was a monumental step for the ETS Project, allowing us to focus on the execution of the project to maximize its benefits for the Yukon and other northern and remote jurisdictions pursuing energy independence through clean energy. We deeply appreciate our supportive partnership with the Yukon Government's Energy Branch.
- Created a case study of an institutional/commercial ETS installation at Yukon University through the Yukon Government Highways & Public Works' Strategic Initiatives Branch's <u>Green Infrastructure Program</u>. This will include the installation of a <u>Steffes ThermElect institutional/commercial ETS system</u> at Yukon University with the intention of demonstrating how these systems can be used to electrify institutional and commercial heating without severely increasing the building's demand charges. We are also taking this opportunity to study

how ETS systems could be used in institutional and commercial buildings to make the most of <u>Yukon Energy's Secondary Sales</u> program.

- Trained several local contractors on the sizing, selection, installation, and maintenance of ETS systems. The first training session, back in March, will be followed by a combined ETS and ASHP contractor training when COVID-19 case loads and restrictions allow. Together, these training sessions will improve the capacity of local contractors to install and maintain ETS systems, supporting a healthy, competitive market for ETS contractors in the Yukon. This will also help ensure our ETS participants have a choice of contractors to maintain their ETS systems beyond the ETS project, though ETS maintenance is quite minimal, and should help lower ETS installation costs in the Yukon.
- Collaborating with utilities, governments, and NGOs from coast to coast to coast to share our experiences and learn the lessons gained by other organizations with similar ambitions. This has included, but is not limited to: Hydro Quebec, Efficiency Nova Scotia, the City of Summerside, PEI, the Inuvialuit Regional Corporation, and most recently the Alaska Center for Energy and Power. Connecting the dots across the ETS and demand-side management (DSM) scene in Canada accelerates the development of ETS technologies and supportive markets and policies across the country, benefiting all Canadians. Accessing how lessons learned in ETS projects from southern Canada can be best applied in northern Canadian jurisdictions like the Yukon will benefit not only Yukoners but all northerners for years to come.
- Worked with Yukon Energy, the Yukon Government Energy Branch, ATCO Electric Yukon, and Yukon University to develop a study led by Yukon University's Northern Energy Innovation Research Team to identify which Yukon neighbourhoods are in most critical need of distribution infrastructure upgrades – that is, modernizing the transforms and power lines serving our homes – to allow for residential heating and transportation to be electrified with ETS and Level 2 EV Chargers. This study will be critical to the Yukon's ability to achieve the objectives set out in the <u>Our Clean Future</u> plan.
- Began exploring the potential for heat pump hot water tanks to take advantage of heat passively dissipated from central ETS units to basements or utility rooms, which is expected to decrease homeowners' electricity bills and carbon footprints.



Photo: Understanding (MOU), setting the stage for the installation of an institution-scale ETS system at Yukon University.

Building Connections & Future Leaders

The ETS Project Manager has consistently sought to establish new relationships with organizations who share our ambitions regarding combating energy poverty, climate change, and energy security with clean energy, while strengthening existing relationships with such organizations. We have built strong connections with the Pembina Institute and Hydro Quebec, two of the biggest players on the national clean energy scene, while maintaining our relationships with stakeholders in Canada's ETS scene including Efficiency Nova Scotia and the City of Summerside, PEI. Towards the end of the year, we took the cue from our new strategic plan to strengthen our ties with two leading Indigenous organizations whose jurisdictions cover the Yukon – the Council for Yukon First Nations and their Energy & Sustainability Analyst, Neil Hawkes, as well as the Inuvialuit Regional Corporation and their Clean Energy Coordinator, Darby Desrosiers. Prioritizing these relationships will bolster our efforts to have western and traditional knowledge considered on an equal playing field by the Yukon Government and other decision-making bodies on matters including but not limited to our pursuit of clean energy-based energy independence. We look forward to continuing efforts to strengthen these important relationships between like-minded organizations, which will have synergistic benefits for all of our organizations, and the causes we support, for years beyond the ETS Project.

The ETS Project Manager has also prioritized opportunities to empower early-career professionals and students pursuing careers in the northern and/or Indigenous clean energy sector. 2021 began with Noah Sternbergh heading over to Solvest, an exciting step in her nascent clean energy career, and Clément Richard joining us as our ETS Project Assistant. He hit the ground running, overseeing the critical initial steps of our applicant prioritizing and participant selection processes. Eric worked closely with Clément to provide him with the experience and training he sought to support his exploration of a career transition to project management, including providing access to project management training through Yukon University, thanks to the Yukon Environmental Training Fund. We wish Noah and Clément all the best in their future endeavours.

Towards the end of 2021, the Yukon Conservation Society's participation began in <u>Indigenous</u> <u>Clean Energy's Generation Power</u> program. This program is providing selected YCS staff with employer equity training through an Indigenous lens, delivered by the Seven Generations Education Institute. The program is also providing funding for us to hire a Clean Energy Intern who is an Indigenous youth exploring a career in clean energy.

ETS in the Yukon

So, how is the project itself going? Clément and Eric were busy bees all year! Following the announcement that we would cover a total of 100% of eligible costs on Christmas Day, 2020, we had a massive influx of applicants to process in the first few months of 2021. We have since reached a total of 43 signed participants, exceeding our initial target of 40, with our 33rd installation scheduled for early in the new year. One of the many installations that took place in 2021 was right here at the Yukon Conservation Society – our office is now heated with off-peak power, mostly coming from hydropower! Data has been pouring in from our installed ETS units and all the extra sensors we have installed in our participants' homes, with early data being quite promising regarding the many benefits ETS could have for the Yukon.



Photo: YCS's new ETS furnace being installed, before and after the unit's bricks were loaded in.

Despite there being more than a year left, the ETS Project has already been able to demonstrate that electric thermal storage can reliably shift on-peak electrical heating to off-peak times while providing dispatchable load and storage that facilitate the addition of more intermittent renewables to the Yukon's power grid. That is demonstrated in the figure below. The top portion shows that 23 ETS units were drawing a total of 167 kW of electricity and had about 1.5 MWh of thermal energy stored and ready to keep participants' homes. The lower portion shows that the electrical draw of the systems – the darker bars – was being kept to overnight and mid-day off-peak times, while the majority of thermal output (heat into participants' homes) – the lighter bars below – is provided during on-peak times in the morning and evening. This is particularly notable given the date of the figure – January 6, 2022. We hit -45°C that morning, with a windchill as low as -52°C, well below our design temperature of -42°C (the temperature used to size our ETS systems).

The fact that the systems, looking at them all together, were not on average stressed by this extreme cold meant that even at those temperatures, our ETS systems could be used to facilitate the addition of new intermittent renewables like wind power. This is thanks to what is indicated in the two gauges in the top right of the figure; the units have the capacity to increase or decrease their power consumption. Therefore, even at -52°C, surplus power from intermittent renewables like wind could theoretically be absorbed by the ETS systems, preventing curtailment or grid stability issues and making the most of the wind power available. And that is while the ETS units also reduce our peak demand, easing our reliance on fossil fuels – especially rented diesels.



Steffes online dashboard overview from January 6, 2022

All this and more has been accomplished in just one year, in addition to the ETS team's contributions to YCS's broader energy advocacy efforts. On behalf of everyone working on the ETS Project, the ETS Project Manager would like to thank all of our supporters, collaborators, and participants.

YCS Funders & Partners

YCS would like to thank our funders for their generous support.



YCS would like to acknowledge our partners.



