

THE HUDSON BAY SUMMIT

Montréal 2018 -



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Overview

Background

The inaugural Hudson Bay Summit was held in Montreal from February 27 to March 1, 2018. After many years of planning and efforts by the communities and indigenous organizations of James Bay and Hudson Bay, 27 communities along with representatives from indigenous organizations, governments, academics and non-profits came together to officially launch the Hudson Bay Consortium and hold workshops on coordinating research in the region, planning for protected areas and coastal restoration, as well as to forge ahead on the next steps for the consortium. The Hudson Bay Summit is intended to be an ongoing forum to discuss local priorities and foster regional partnerships. This represents an important milestone towards working together for the long-term stewardship of the region.

The history of this effort goes back most noticeably to Voices from the Bay, a groundbreaking initiative in the 1990s for collaboration across the region, and for mobilizing Inuit and Cree knowledge of the ecosystem. The current effort will help facilitate continued regional efforts for stewardship and planning (ex. Through the Eastern Hudson Bay/James Bay Regional Roundtable, and coordinating with the Western Hudson Bay Neighbours Roundtable).

In the lead-up to the Summit, feedback and consultation from communities and organizations across the bays informed a Vision Statement and Guiding Principles that is being used to formally create the Hudson Bay Consortium, and provides an important declaration of our desire to work together and make sure Hudson and James bays remain healthy for the benefit of future generations.

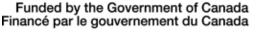
While a lot has been accomplished, the work is just beginning. Through the summit workshops, important outcomes and next steps were identified to drive the work forward. This will start with a renewal of the steering committee and formation of working groups that will begin to work on priorities for protected areas, restoration, environmental monitoring and communications. The collaborative process put community voices first, and resulted in both tangible maps, and thoughtful discussion on research priorities for Inuit and Cree communities. Another major outcome of the summit was dialogue facilitation both amongst and between communities, regions, and various levels of government. The interest and support of the Federal government in supporting the Summit and its workshops demonstrates the benefits of coordinating and working together, and it was encouraging to have many representatives coming to listen to the priorities and concerns of the communities around the bays. We hope this report can help document this historic event, as well as guide readers through stewardship and research coordination for the region. The Summit and the efforts following are focused on facilitating self-determination in environmental stewardship and its interconnectedness with Indigenous stewardship.

Sponsors & Funders















Demographics

- More than 200 individuals registered.
- More than 160 attended.
- 27 Hudson & James Bay communities.
- 97 Organizations (including communities, indigenous organizations, governments, academics, non-profits).
- Diverse demographics included elders and youth, Inuit, Cree and non-indigenous Canadians.
- Languages spoken: English, French, Inuktitut, and Cree.

Sponsors & Funders

- The Arctic Eider Society
- Government of Canada (Polar Knowledge, Fisheries and Oceans, Indigenous and Northern Affairs)
- Tides Canada
- Government of Nunavut
- · Air Inuit

Joining the Consortium

Communities or organizations wishing to formally participate in the Hudson Bay Consortium can provide a letter of support referencing the Vision Statement and Guiding Principles, and may appoint a representative to the Steering Committee.

Please send letters to:

Hudson Bay Consortium
52 Bonaventure Ave
St. John's NL
A1C 3Z6
info@hudsonbayconsortium.com

Highlights and Keynotes

Keynote addresses at the Summit were made by Inuit Tapiriit Kanatami president Natan Obed (topright), Nunavut Member of Parliament Hunter Tootoo (top left), Mushkegowuk Grand Chief Jonathan Solomon (middle left) and Assistant Deputy Minister for Fisheries and Oceans Canada Philippe Morel (bottom left).











Vision Statement for the Hudson Bay Consortium

Encouraging and facilitating cross-jurisdictional and cross-cultural communication, cooperation and collaboration in the pursuit of knowledge and the means to protect, improve and steward the greater Hudson Bay/James Bay ecosystem for the primary benefit of the people, flora and fauna that live there.

Guiding Principles for the Hudson Bay Consortium

As the communities, organizations, bodies of indigenous, local and regional governance and other interested partners of the greater Hudson Bay and James Bay coast, we are indicating our commitment to work together as a network through the Hudson Bay Consortium for benefit of present and future generations towards a shared vision and common goals for the environmental stewardship and sustainable development of the greater Hudson Bay/James Bay ecosystem. In this spirit, participants will conduct themselves ethically and fairly, with community wellbeing and environmental stewardship as our priorities. In particular, we will:

- 1. Respect different cultures, values, and the natural environment;
- 2. Work holistically to ensure the Hudson Bay and James Bay ecosystem are managed as a common entity from both physical and human perspectives;
- 3. Recognize Indigenous rights, self-determination and knowledge;
- 4. Communicate and share information towards the pursuit of knowledge and coordination, without impacting the neutrality or decision-making abilities of existing governance and land claim structures;
- 5. Allow all interested groups the opportunity to discuss mutual interests, goals, and responsibilities;
- 6. Build strong linkages between Indigenous knowledge and scientific knowledge towards increased understanding and stewardship of the Hudson Bay/James Bay ecosystem.



1. The Hudson Bay Consortium is officially formed.

Community-Driven Research and Monitoring / Coordinating Research

- Current knowledge and priorities for each community were synthesized through discussion and common priority areas identified. In particular, more work is needed to monitor changes in marine areas, animal habitats and sea ice conditions.
- Participants generally agreed that collaboration between communities and jurisdictions is needed to bring awareness to changing conditions, to coordinate comparable approaches and catalyze networked monitoring programs.
- Participants agreed that research projects require community-driven approaches and improvements in community follow-up procedures once research has concluded.
- Participants heard about opportunities through INAC's new Indigenous Community-Based Climate Monitoring Program (ICBCM). The program encourages Indigenous groups to define their own priorities for and approach to research.
- While many unique challenges and changes were discussed, many themes were common across the region. These items not only have implications for ecosystem health, they intersect with human health and community well being, food security, economics, infrastructure, transportation.

3. Coastal Restoration

- Participants shared priorities for coastal restoration near their communities, towards a coordinated approach for restoration.
- Priorities included addressing debris removal, pollution, shipping, hydroelectric impacts, fish and wildlife habitat restoration including eelgrass and fish passage.
- Through mapping and roundtable discussions, a preliminary synthesis map was generated as a basis for a future coastal restoration planning for the region.

 Participants heard about future possible opportunities for funding and support through DFO's Coastal Restoration Plan.

4. Protected Areas / Stewardship

- Participants learned about the various tools available for creating protected areas and discussed the concept of Indigenous Protected Areas
- Communities shared their priorities and approaches for stewardship towards a coordinated approach across jurisdictions for the greater Hudson Bay region.

5. Beluga Workshop

 Participants discussed beluga management and shared community-driven approaches

6. The Road Ahead

- Participants agreed the Hudson Bay
 Consortium will have the following
 structure: Participants, Steering committee,
 Working groups, Secretariat
- Participants agreed the following working groups will be established: Coordinating Research; Protected Areas; Coastal Restoration; Communications
- An informal youth committee was established
- Potential areas of focus were identified

7. Elders and Youth

- Elders and youth shared perspectives with the group
- Ideas were generated for areas that the Consortium can help engage elders and youth such as turning data collected from projects into educational resources, helping ensure youth have access to proper resources such as winter clothing so they can go out on the land; connect youth with land skills and build research relationships
- Develop opportunities for elder-youth exchange







Indigenous Community-Driven Environmental & Climate Change Monitoring Workshop

Workshop description and goals

Environmental change driven by climate change and human impacts is a key concern for northern communities. Monitoring and understanding the effects of climate change is important for community adaptation, decision-making, co-management and planning. Sponsored by Indigenous and Northern Affairs Canada (INAC), the goal of the workshop was to hear and understand community priorities and key indicators for monitoring and community-driven research. An emphasis was placed on coordinating research and monitoring efforts across the greater Hudson Bay/James Bay region to better understand large-scale changes. This was a unique opportunity to raise community priorities for environmental monitoring with the federal government with possibilities for financial support in future years as a part of INAC's new Climate Change and Clean Energy program.

Format

- 1. Presentation by Marlene Doyle (INAC).
- 2. Roundtable discussion of community priority areas for monitoring.
- 3. Synthesis map created and common themes identified.

Outcomes

- 1. Participants heard about opportunities through INAC's new Indigenous Community-Based Climate Monitoring Program (ICBCM). The program is committing \$31+ million over the next 5 year to help communities gather information and have that information to inform decisions through regional coordination to better understand climate changes. Participants heard that the fund is open to Inuit, First Nations and Metis organizations and individuals; collaborations with academics or other communities is welcomed and encouraged. The program encourages Indigenous groups to define their own priorities for and approach to research.
- 2. While many unique challenges and changes were discussed, many themes were common across the region. These items not only have implications for ecosystem health, they intersect with human health and community well being, food security, economics, infrastructure, and transportation.

Changes in the physical environment

- Document ice thickness and seasonality including Indigenous terminology for ice to better understand changes including thinner and more dangerous ice, and a shorter ice season.
- Document cumulative impacts of hydroelectric developments including oceanographic, sea ice, ecological and biochemical indicators. Document changing ocean currents.
- Document changes in rivers and watersheds, such as flooding, in relation to important fish species (e.g. char).
- Document snow depth and rainfall to understand changing precipitation patterns (e.g. more frequent rain, and decreased snowpack).
- Plan ecosystem-wide studies to understand disappearing habitats (e.g. eelgrass).
- Monitor melting permafrost (and impacts on infrastructure e.g. Winter roads).
- Monitor changing weather patterns (e.g. Unpredictable, increased wind).
- Create baselines for the wetlands and ocean ecosystems.

Changes to plants and animals

 invasive species, and changes to animal ranges.

- o fewer marine mammals (seals, beluga)
- fewer sea birds (murres)
- changing animal diets (e.g. seals, Polar bear eating more eider, economic impacts for down)
- o more polar bears coming into towns.
- o frog and insect declines and changes
- o berry crops changing

Impacts from development / desire to plan carefully for future development

- transportation / shipping routes
- o impacts of proposed oil & gas, and mining.
- o impacts of hydroelectric developments
- study economic development in context of sustainable ecosystems
- impacts of changing climate on buildings/ infrastructure (e.g. More rain brings more mold)
- contaminants monitoring (e.g. Pesticides from southern farms)
- discuss and document the impact of shipping routes in Nunavut and make recommendations to mining companies.
- 3. A synthesis map was created to show major monitoring priorities and indicators brought forward by communities.

Proposed Next Steps (identified from discussion)

- Collaborate with neighbouring communities/ regions who share priorities.
- Develop ideas and draft applications for monitoring projects to Indigenous Community-Based Climate Monitoring program. More information is available at: https://www.aadnc-aandc.gc.ca/eng/150972837
 0447/1509728402247.
- 3. Engage elders and community members further to understand the observed changes and identify additional priority indicators.
- Some communities want to increase indigenous involvement / partnership in development projects to define a holistic approach to studying impacts and improve environmental protection.
- 5. Increase training for young hunters so they can learn both traditional knowledge and to adapt to changes (e.g. understanding new animals that weren't traditionally hunted).
- 6. Continue to coordinate on research and monitoring through Hudson Bay Consortium working group on Research and Monitoring







Community Priorities for Research (comments organized alphabetically by community)

★ Akulivik

- The weather is warming up, affecting animals food, animals and sea ice.
- Floe edge ice today is very thin
- Tuvaq (landfast ice) is not as thick as it used to be. You can see how thick it is when it piles up.
- Currents not as strong because of Hydro Quebec projects.

★ Arviat

- Sea ice is thinner with more dangerous areas
- Sea ice monitoring around the community is a priority for safety purpose; there was a casualty from a snowmobile that sank.

Baker Lake

- Monitor the watersheds upstream from Baker Lake.
- Monitor marine shipping, there is high traffic between Baker Lake and Chesterfield Inlet due to mining.
- Caribou monitoring for food security reasons.
- Witnessing arrival of foreign species, different insects and birds.

* Chesterfield Inlet

- · Marine shipping route monitoring.
- Fewer seals and belugas over the past 5-10 years.
- · Changes in sea ice thickness.

式 Chisasibi

- Call for a moratorium on Hydro Quebec damming projects; need to look at long-term effects (50-100 years).
- River ice is being greatly affected.
- Eelgrass bed decline, the animals and the birds are affected; the migration patterns have changed.
- Habitat disappearance, ecological systems are changing.

- · Shore birds, in particular, have disappeared
- · Shore bird diets have changed
- Moose are arriving in the area, as are garden snakes because of the warming climate
- Economic development needs to be balanced with environmental protection

式 Coral Harbour

- Canyon River: a rock slide causing less fish in the lake (needs restoration); priority for it to be monitored
- Cruise and transportation ships between Coats Island and Walrus Island are causing walrus movement
- Safety of hunters on sea ice; sea ice monitoring

計 Fort Albany

- Albany River, formerly Kashechewan River, north of Fort Albany: 2006 evacuated due to extreme flooding
- · Fast-melting snow
- The winter road / ice bridge built to cross the river creates a dam in the river, stops the flow of the ice
- Concerns around waters coming in from the bay into the river; would like monitoring

inukjuak

- Melting permafrost is a concern, impacts houses (cracks and poor conditions)
- Historically, we used to know about the weather, but today it is unpredictable
- More rain and climate is more damp (also causes mold in houses, safety concern)
- Used to freeze in the fall, ice would form and snow would come after. Today snow arrives before the freeze-up
- Eelgrass is now growing in the area; fish cannot swim upstream because of it
- Flooding and evacuation caused by a high tide; needs monitoring and research
- Food chain affected by pesticide use in Western Canada entering the rivers that flow into Hudson Bay

- Hydro dam is affecting the environment; want it monitored
- Seal diets, body condition and disease as well as sea ice monitoring is a priority

★ Ivujivik

- Sea ice used to be thicker, today it is thin and dangerous
- · Lake ice is also thinner
- It has been constantly windy
- New insects and reptiles are being found in the community
- Need research and monitoring in Kovik River volcano ashes
- Seabird (murre) population declining
- · Ringed seal population declining
- Polar bear population is increasing; they are eating the eider ducks and damaging the eider down; should be monitored

式 Kashechewan

- Winter is getting shorter every year and affects the winter road season
- The winter road is very important to be able to bring in construction materials and fuel for the communities
- Dragonflies and butterflies used to be plentiful and now they are scarce
- The frog population is disappearing as the land gets drier
- Engage the elders and use their wisdom in monitoring all of the above

Kangiqsujuaq

- Proposed offshore drilling in Hudson Bay could affect walrus and other mammals
- Traditional food monitoring for continued food security
- A mining or other industrial accident would threaten food security for generations
- The winter is warmer, summer is cooler than it used to be historically
- The cooler summers affect the ability to pick berries

• The floe edge is dangerous in the springtime because it's warming up from the bottom

Kuujjuaraapik

- Detailed impacts of hydro are needed.
- Country food is scarce; summer is longer; lakes and rivers are drying up.
- Conduct a study into where the beluga have gone; there used to be plenty from early spring to late fall.







★ Moose Cree

- Shorebird decline in southern James Bay; loss of habitat and winter grounds.
- The hydro dam is infringing on treaty rights (supposed to have protection against flooding).
- Communities should be partners in these development projects to set a holistic approach and new thresholds in order to protect the environment (the rivers are drying up currently).

* Naujaat

- The ice forming in the ocean and lakes is thinner
- "When I used to fish in the wintertime, I would use an ice chisel and I'd have to use a ladder to get through the ice"
- Hunters have noticed there are different animals in the area
- Implement training for younger hunters about when and where these new types of animals should be hunted

🚼 Puvirnituq

- Polar bears are frequently coming into or around the community
- Animals have been ill and around the houses
- Mansel Island used to have lots of eider duck eggs and down but now the polar bear are eating the eggs and impacting the down.
- Ice is thinner, except this year.
- Thawing permafrost is affecting infrastructure, social housing as foundations shift.
- Animal (e.g. Robins) ranges are expanding northward
- Islands are moving north (maybe erosion patterns from currents?)

Rankin Inlet

- Polar bear management is a main concern / priority including public safety (bears coming into communities).
- Caribou health is an important priority.

- Several mining and mineral exploration projects are taking place near critical habitat by both Baker Lake and Rankin Inlet. A mine monitoring program is a priority; KIA has a monitoring program for waterways.
- Increase in traffic associated with development: shipping, road traffic, dust, helicopters and flight paths could impact caribou and marine wildlife.
- · An oil spill protection plan is needed
- Rise of social media sales for meat. Unknown impact. Need to determine how to track it and what to do about it.

* Sanikiluag

- Elders have observed climate changes for over 60 years
- Ringed seals now sink in the summer when they are hunted
- Walrus used to be abundant, but have now disappeared from the islands
- Harp seals have disappeared
- Sea ice is becoming more dangerous; We would like to know the causes

Umiujaq

- New animals have arrived in the area (more polar bears, more black bears, fewer geese);
- Animal behaviors are changing; Meat tastes different
- · Dogs have changed
- Snow conditions, sea ice and winter temperatures have changed
- Permafrost is melting
- Changes are impacting transportation can no longer travel by skidoo between communities because of the ice conditions.
- Seas are less salty; currents are weakening
- Sunburns in summer
- Moon and sun shifting
- Sea lift has dumped garbage and pollutants.
- Dams have caused streams to dry up

Waskaganish

- Many other observations and priorities were stated by others.
- Moose are moving further north.
- Canada Goose migration patterns changing.
- Bald eagles invading coastal areas.
- Emphasized the importance of having elders present.

Wemindji

- Many other observations and priorities were stated by others.
- Quality and taste of animals is not the same (wonders if its linked to changing salinity).
- · Animal birth defects observed.
- Used to see icebergs.
- Community environmental initiatives: recycling centre, e-waste program, incinerator to expand life of the dump.

式 Whale Cove

- Animal range expansions (moose, martens, insects, reptiles).
- Discussed natural animal 60-70 years cycles (e.g. muskox and walrus coming back).
- Delayed winter freeze-up and dangerous ice conditions: sea ice is getting thinner and currents are changing. Ice should be monitored.

* Whapmagoostui.

- Shared a dream about 7 skinny animals coming in from the sea. When you dream about 7 animals that are fat – that will be 7 years of good seasons.
- Try our best to look after what we're given.

York Factory

- The town was relocated from the Hudson Bay coast on the Hayes River ~60 years ago inland to the Nelson River, which has major hydroelectric development.
- Now a project partner trying to have some control over the project
- Community based monitoring program just starting up to protect York River. Want to expand – could include monitoring in the river estuaries and the broader territory.
- Very interested in partnering with other communities and researcher
- Top priorities: monitoring and protecting the Hayes and Nelson; ice safety (Split Lake)
- Caribou monitoring:
- Community has started monitoring harvests, reaching out and sharing mapping approach.
- Interest in looking at weather and climate info along side on-the-land observations.
- How development, transition lines, etc. are affecting the herds





Coastal Restoration Workshop

Workshop Description and Goals

Fisheries and Oceans Canada recently announced substantial funding for Coastal Restoration, towards identifying key changes in coastal environments, sources of impacts on fish, molluscs and marine mammals, and developing and implementing coastal restoration plans to mitigate impacts, as well as follow-up monitoring and maintenance. The goal of this workshop was to provide consultation on key community priorities for coastal issues and restoration across the greater James Bay and Hudson Bay region. Workshop outcomes will help develop next steps for local coastal restoration planning, developing proposals for coastal restoration funding, and coordinating among communities and jurisdictions on coastal issues. Linkages from coastal restoration to long term stewardship through establishing protected areas at restoration sites will also be explored.

Format

- 1. Presentation by Anu Rao on ecological restoration definition, methods and examples
- 2. Mapping exercise where Participants provided direct input onto large maps of Hudson Bay subregions
- 3. Roundtable discussion of community priority areas for coastal restoration
- 4. Synthesis map created from mapping exercise and roundtable discussion
- Common themes identified

Outcomes

- 1. Participants were introduced to concepts and methods for ecological restoration in coastal areas, and had the opportunity to identify areas in Hudson Bay where they felt restoration is needed, and what actions may be required for those areas to recover.
- 2. Participants received background information on ecological restoration, in particular the following:
 - Ecological restoration is when people assist an ecosystem that has been damaged, to help it recover.

- Some areas can be restored more easily than others. Some can be restored through physical methods, for example by reintroducing important species or habitats, or removing debris or invasive species.
 Other areas can be restored by changing the way people use it or manage it.
- Examples of restoration projects from other coastal regions in Canada.
- 3. Participants identified potential restoration sites on at least one of five large maps of Hudson Bay sub-regions (northwest, southwest, southeast, northeast and James Bay) that were posted on the walls. Participants shared their ideas by posting notes or writing on the maps, or orally to a resource person stationed at each map. Participants were asked to consider the following questions when providing their input:
 - Please mark any coastal areas that have experienced impacts or damage. What is the damage?
 - Write down / tell us what people could do to help these areas recover.
- 4. Input provided on the maps was simultaneously recorded on a computer using Google's My Maps software. A compiled map of potential areas was created (see Map on page 29).
- 5. Through a Roundtable discussion, a representative from each community shared with all participants their community's priorities for coastal restoration. Additional information was added to the map based on this discussion.

- 6. Clarification on restoration priorities and locations was obtained through individual discussions with some community members following the workshop.
- Clarification that this workshop is an opportunity for community members to share their priorities for restoration with each other and the regional boards, and does not replace any existing jurisdiction or work of the boards.
- 8. Several common themes emerged from the restoration priorities identified by each community, some of which are related or associated. These themes are listed below, along with some of the particular issues within each one.

Debris removal

 Derelict vessels, shipwrecks, old structures and waste materials such as old oil barrels and buried tanks are causing contamination, blockages to navigation or fish passage, or aesthetic effects in several areas

Polluted sites

- Several sites require cleanup due to historical and ongoing chemical or oil contamination, or lack of sewage treatment
- Light pollution was identified in one area
- Oil spills
- A need for spill/pollution prevention and emergency response plans
- Water quality issues, for example lack of access to drinking water in areas where drinking water used to be abundant, and loss of lake productivity





• Effects of using explosives during construction

Hydrology

- Many of the restoration priorities in this category related to addressing various impacts of hydroelectric developments
- Deepening, enhancing and restoring waterways for travel and fish passage
- Changing water management to restore flows
- Effects of increased flow rate on turbidity, salinity and freezing
- Clearing blocked channels
- Less water quantity in areas where drinking water used to be abundant

Shipping effects

- Pollution, noise and disturbance affect marine mammals that are hunted and important for food security
- Requests to find alternative means of transporting supplies
- Changes due to dredging of shipping channels

Erosion

• Stopping erosion

- Clearing rock slides and landslides that have blocked access and fish passage, and affect stream flows
- Increased siltation that affects navigation and transportation

Fish and wildlife habitat

- Many of the restoration priorities identified in this category are also related to changes in hydrology, often as a result of hydroelectric developments
- Restoration of fish habitat by restoring stream flow or unblocking fish passage
- Changes in eelgrass beds
- Removal of invasive species
- Decreased abundance of berries near communities
- Habitat degradation by Lesser Snow Geese in one area of the coast.
- Effects on intertidal species such as mussels

Changes in ice and snow conditions

- Changes in freeze-up due to changes in hydrology resulting from hydroelectric developments or climate change
- Glacial melting
- Changes in snow cover and permafrost; mild winters

Next Steps

The information from this workshop will be compiled into a report to be submitted to all communities, used to identify potential candidate areas for restoration, and draft restoration plans.

There was interest among participants in developing a coastal restoration working group

Communities should follow up with federal government representatives directly to apply for funding for their restoration priorities. The following funding opportunities were identified by government representatives in attendance:

• Fisheries and Oceans Canada (DFO, Ron Lyen): The Coastal Restoration Fund was launched last May, offering \$75 million over next 5 years. There was a call for proposals last year. The intent is to have a second and final call for proposals later in 2018 (late summer). Check the website for key priority areas and activities, and regional contacts' details: http://dfo-mpo.gc.ca/oceans/crf-frc/index-eng.html







- Environment and Climate Change Canada (Olaf Jensen): Budget announcements included: \$500 million to create a billion dollar nature fund, to also be supported by private foundations; and \$150 million to create Indigenous stewardship areas (no set program or application process yet, but the goal is for it to be driven by local Indigenous communities) - look for April report release from Indigenous Circle of Experts and summer proposal deadline for communities. Communities shouldn't wait for government, but think now about what you need and want, a community stewardship structure that includes youth and elders, management and monitoring, important areas, threats, needs. Contact Olaf first and he'll put you in contact with other people to present a proposal for something that would work for your community.
- Indigenous and Northern Affairs Canada: Just had a call for proposals for community-based climate monitoring in 2018. After the first year they will evaluate to see if it enabled communities with lower capacity to participate and meet their needs. Reach out to them if interested in community-based climate monitoring. They want to hear communities' ideas and needs regarding tools, capacity resources, and mentoring.

Detailed Discussion

Community Priorities for Restoration (comments organized alphabetically by community)

Akulivik

- Need to clean up all oil spills properly, even small ones. Saw a young beluga without a mother near Kuujuaraapik
- When you harvest animals, their abundance is better. When we harvested mussels they were very skinny; now when they harvest them they are tender and fatter again
- Dead lake where there used to be Arctic char
- Some cases where seafood has worms in them.







- Damage to coastal species from hydro impacts: River enhancements made them almost stop flowing. Some areas where arctic char need to go upstream are still too shallow. In mainland rivers we go fishing in the winter. We set up nets further inland so the Arctic Char can go upstream - they are very keen and aware and sometimes do not want to go back if it's been affected. The fish come from all around the coast. Rivers have to be flowing. Fish are coming from long distances, e.g. Long Island, Mansel Island, Belchers. You can tell from the skin. There is a dead lake where there used to be lots of char, maybe due to drainage from minerals; nothing has been done. Consider fixing the lake bed. Are there any examples from other communities where this has been fixed? Now the community has to go far away and spend more money in transportation to find arctic char.
- There is a big lake but it is dead it is where Akulivik used to fish; the river was flowing from the hills.
- The water is not good for drinking near Akulivik because of:
 - Dump sites from mining companies
 - Empty barrels/oil drums along the coast
 - Unfinished cleaning it must be done for sure
- We need to identify areas for food security, to go fishing. Fish go upstream but need to go a very long way. We have been really impacted by river dams. They have even affected the mussels. Logs and trees are just put in the river. Debris from mining company was just buried and is affecting fish.
- Concern about whether Hydro wants to develop underwater power lines
- Ships are char fishing at Mansel Island (not sure which community identified this)

★ Arviat

- Want monitoring of Arctic Char
- Want sunken Bombardier to be retrieved/ salvaged
- At Bibby island where the Bombardier sank in 2017, younger hunters are starting to hunt where Mugoose River flows into to the sea.

- Where the river divides there are 20-30 empty barrels that may affect areas where many Inuit go for greyling, char, trout, whitefish; should do a cleanup.
- 20+ drums of diesel/gasoline dumped west of Austin Island are no longer there. Not sure if they drifted or were cleaned up. They used to be there, but they're not there anymore so they may have drifted out when the water levels rose. The water gets very deep there when the snow melts. They possibly drifted out southeast, along the Hudson Bay coastline.
- Address dump sites closer to the coast. The hamlet council is responsible for this.

★ Attawapiskat

• Contaminants at radar site north of community

Baker Lake

- Three major heritage rivers flow into Baker lake, but the water level is dropping
- There is a glacier on the north side of Schultz Lake that is diminishing
- Other lakes are drying up
- Seeing changes in species numbers
- Concern about possible contaminants from Meadowbank Mine

★ Chesterfield Inlet

- Not seeing seals, due to tankers supplying Meadowbank. Ships are throwing garbage into the ocean. A guide is supposed to be with the ship; if it's too rough it does not happen and the ship goes without a guide
- Tanker stop in the area
- · Contaminants southeast of Ellis Island
- Concern with shipping and possible spill; grey water ballast
- Tankers moored up to 8-10 at a time

★ Chisasibi

- The waste from an old outfitting camp at Roggan River is still there. Seems like it's really slow in what's been done to clean up. There's a generator there and it's almost in the river. We put our nets not far from the generator. I'd like it to get fixed as soon as possible. There was a lot of waste of oil back then, because they were using generators for the outfitter camps in the 70s. We need to dispose of it responsibly and restore the area. The river is very powerful, and because of the diversion it does not freeze during the winter. There is increased turbidity because the river is so powerful. At the Rupert River diversion the river seems to flow faster than it used to when we had the reservoir. It has affected the freshwater in northern communities. It does not freeze, and I don't taste the saltwater out in the bay (change in salinity). Ice in the bay is thin. There have been changes in fishing/hunting issues, and travel routes are getting shallower (due to channeling of waterways). Put the river back to how it was. We're seeing decreased wildlife and fish spawning habitats, dried-up ponds, and encroachment of predatory fish (new arrivals).
- Shallow river mouth: sandbars and shallow waters are causing boat transport issues
- Eelgrass transplants, plants, seeds
- Change in Canada goose migration routes and eelgrass availability?

式 Coral Harbour

- Slumping into Canyon River: At the North end of the island at the Canyon River (as it's known in English), when I was younger I traveled there by dog team with no problems. In this day and age it is much different. Where we go fishing there are three lakes along the river. Landslides (rock slides) from a hill went into the river. Rock slides last spring 2017 are causing a noticeable decline in fish. Closer to the ocean it's not so bad. The permafrost slumped in two areas where fish (char) now have a problem going upstream to spawn. We need river enhancement so it can flow, and so there will be fish spawning in the lakes again. This is urgent to us because there was spawning in the past. We used to go there in the fall, but because of the landslides we cannon if there is not enough snow. We go now in April when there is more snow and we hunt seals, beluga and narwhal in the inlet.
- Lake channel broken/gone: In southeast area
 of island, due to erosion, channel is blocked;
 belugas and seals used to be able to go inside
 and come out. Waves created a dam from rocks.
 Want to clear the channel again. On windy days
 community boats used the lake for shelter. In
 another location in the same area, the lake is
 blocked at high tide.



- In channel between Southampton Island and Coats Island: Walrus Island. Ships associated with mining coming from Baker Lake disturb animals and make animals move elsewhere. 12 ships will be bringing material up to Baker Lake through this channel. Suggest that instead of going through this channel, they go on south side of Coats Island so at least the animals will be drawn back towards Coral Harbour. This is one of the community's big worries right now; should correct it early. They want to get compensation for all the ships going through the area, because all the animals are driven out and children and grandchildren won't have anything to hunt. Mining company in Baker Lake (Agnico-Eagle) said they have an agreement with Coral Harbour, but the community hasn't seen it.
- In channel between Southampton Island and Coats Island: Russian cruise (?) ships come to take pictures of walruses at Walrus Island. Ships arrive without notifying the Coral Harbour community. In one case, small boats had gone to the island to hunt walruses, but the ship was already there with zodiacs going around island. The community members thought the people on the ship were animal rights activists so they didn't want to shoot the walruses.

煮 Eastmain

• At Cape Hope Islands: Not much growing in this area. Lots of sediment on the bottom, no plants.



★ Fort Albany

- In the region, along the west coast of James Bay we rely heavily on a barge service to bring supplies and resources to the community. Fort Albany can no longer be reached by barge because the mouth of the river is too shallow due to hydro dams. There are 2-3 hydro dams and the diversion of the water from the Albany River into the great lakes. The great lakes were getting shallow so they diverted the water. There are many reasons why rivers are going dry. The diversion creates sand bars. This year we really noticed it because fishermen could not go up the river. The moose hunt did not start until later. I commute between Albany and Kashechewan. The easier way is to go out to the bay or around the islands at high water. I tried different boats and canoes and it takes longer. I eventually gave up and walk over or take a 4-wheeler.
- We can't rely on the winter road; it's being downgraded because the Victor Diamond mine used to fund it. Would dredging the river be something that could be a restoration project?
- I used to travel with my dad along the Albany River into the Bay. He would have a cup in the canoe and if he wanted to drink water he would scoop water from the river. Now we cannot. Now we get our water from a lake beside an airport, but there are lots of fumes affecting the lake water that we drink from. We need a secure water source. Now we have to carry at least 20 gallons of drinking water when we go hunting. Before, every 20 miles along coast there was a water hole and we could get water there; we did not worry about water drying up. Water has been drained from a previous water source.
- My grandfather used to say we should create a
 path where the canoe can travel we share one
 hospital and we need to visit. It's hard to visit
 in summer. The negotiation and conversation
 should be with First Nations and we should
 have compensation for the lack of water from
 Hydro. No one asked us when they decided
 to divert water into the Great Lakes. First
 Nations need to be empowered to negotiate
 compensation for damages to boats and
 propellers because of shallow water.

- People gather berries, and now sometimes have to go 30 miles south to get cranberries and blueberries; now there are no blueberries and in dry season hardly any cranberries.
- We get our medicine by picking herbal plants, but it is hard to find sage and sweet grass.
- There are old radar sites at Fort Albany and further north. There still needs to be more research on the contaminants that were buried (5-gallon drums) and tanks that need to be dismantled. When barrels and waste are buried, contaminants go into the water system. After the residential school burned down in 1992, INAC came in with explosives and blew up the whole school. Lots of people were watching were affected by inhaling the smoke and asbestos. People that lived in that residential school are dying of disease.
- We need restoration and beautification for mental health reasons; we need to clean up our communities.
- The sewage lagoons are overflowing and going into the water. The tide water comes in and brings waste back in.
- There are also dump sites containing garbage.
- Telephone tower between Kashechewan and Attawapiskat keeps its lights on, which scares away birds.
- Mercury concerns regarding food security and safety, particularly for pregnant women: decrease in consumption, deformed fish.

Inukjuak

- This area could be a source for donor eelgrass beds for eelgrass restoration projects in other areas; eelgrass in this area is blocking fish passage upstream.
- Human debris goes into river. RCMP used to throw garbage into river. Now char doesn't go up the river due to debris.
- There are tanks and tankers in the middle of the community. Oil has spilled. Tanks were removed, but drainage from the previous tanks hasn't been cleaned yet.

- The river is getting shallower due to debris and ice is flowing up the river. When ice breaks up it doesn't overflow anymore, mainly because the river breaks on top of the ice and flows down.
 Deepen the estuary.
- Old drums at Hotchkiss Island (Kangirsukalak?)
- Waste at point near Tupirviturlik (north of Frazier Island).
- Old camp site east of Captain Island (Kangirkusalak).
- Nauligavik: old camp site





* Kangiqsujuak

- Prevent ships from releasing water from other places into Deception Bay.
- Noise pollution from mineral ships: Mineral (ore) ships and icebreakers are loaded at Deception Bay and travel to Kangisujuak. This disturbs ringed seals and other animals. People fear the animals will go away from there. When ships came, the seals came inland and I could use a hook. After the ships came they are not scared of people, just ships. When they start to transport minerals, seals do not like the noise of the ships and the damaging of the ice (from ice breakers). The engines make noise underwater and the seals are impacted; they are very sensitive to noise. Can there be other ways to transport the minerals?
- Want to go back to old habitats where ancestors used to live. Affects community's ability to have country foods. We used to live inland and we were relocated to coast – we would like to prepare a plan for such projects. We get store bought food but need to go make misirak and fermented foods.
- Fish habitat has been impacted; when we go to the lake where we drill, there used to be an odour from this lake.
- We see lots of snow. We like to see more frost in winter but it has been mild.
- My father said the sun sets in a different area.
 There was an earthquake has the Earth moved? Now have snowfalls early and looking at the sun it seems like the earth has changed.
 Climate change and global warming.
- We have upgraded the rivers where fish spawn; used to pull out boulders and deepen the river.
- The river has a strong current but these days fish are not coming.

Kativik Regional Government

• Full shoreline mapping being done: Nunavik region: Mapping the risks in 2017-18. The full shoreline has been filmed in high resolution and the 'risks' (e.g. shoreline erosion) have been identified on maps. Report in 2018 for 9 villages, and 5 other villages in 2018-19. Work done by the CEN/Ministry of Public Security.

 Shoreline in front of Salluit village needs restoration for protection of houses and infrastructure.

Kuujjuaraapik

- The oil spill needs to be cleaned up between Chisasibi and Kuujjuaraapik. We would like some support from James Bay.
- There is fresh water 4-6 m above salt water, so the seaweed is not healthy anymore.
- There is a sunken barge at Long Island. Barge tipped over/sank and spilled vehicles into the ocean. Vehicles are making noise on the bottom (whole of Long Island?) and potentially scaring beluga whales. Walrus also used the area. Looking for support to clean up site to restore habitat for beluga. Important beluga hunting site for the community. We can't hunt belugas near our communities anymore. We can't go to Long Island because of DFO government regulation. There needs to be a cleanup because we're not able to hunt belugas in the area. We need to go to Long Island to hunt beluga.
- In the 1950's the army came and affected our coast with airplanes and ships. They impacted wildlife and cleaning needs to be done. Even James bay where we go hunting has been impacted by the army.
- At the mouth of the Great Whale River, when it is low tide we have to be careful for our hunters' safety; we can only use area at high tide. We lost an outboard motor; we need markers in water that will not interfere with mussels and urchins. We are concerned about our hunters and their expensive equipment; we cannot get insurance. The estuary is too shallow even for canoes; river flow is weaker. Seeing sand erosion. In 1970s the ice would be 3-4 feet thick, now only 2 feet. Caused by dams at La Grande.
- There is a strong current and we cannot drink water because of E. coli bacteria from Nunavik down.
- Youth do not have proper training from their fathers to learn; we need mapping and work with Hunter support programs.

- At western point (south of Long Island): Giant tower has fallen and old building with large fuel tanks, left by army in the 1950s and 60s. Old army buildings, barrels and garbage, tank farm from army. Abandoned camp made from buildings and tanks. Military camp inland still has oil barrels and other debris, as well as radar stations.
- On mainland coast south of northeast end of Long Island: Garbage and about 150 barrels left by the army; pipeline from coast to top of hill – degraded.
- Southwest of Whapmagoostui: buildings that have fallen down, big fuel tanks and about 200 empty barrels stacked up that were left by the army in the 1950s and 1960s.
- Shallow areas along coast (broader area): add markings to help prevent boating accidents.
- Northeast of community: new gulf created by meteor; seen by community watching baseball game – a few days later they discovered a new bay. Should be studied because it prevents travel along the coast in the fall and prevents getting to hunting grounds.

★ Moose Cree

- Need coastal and shoreline restoration in Moose River estuary about 10 kms upstream from Moose Factory
- There are concerns with siltation in the Moose River drainage basin. We need dredging for transportation needs; tug boats are having trouble getting in and can now only get in at high tide.
- They may have to relocate to the Quebec side.
- Fish do not have travel routes anymore.
- Isostatic rebound is causing land to rise and our waterways are drying up.
- Need an eelgrass inventory: assessment of decline and possible restoration.
- Moose River estuary around Moose Factory all the way to North French is a priority for travel.
- Erosion concerns; need shoreline stabilization to give productivity and traditional medicine, restoration of coastal shoreline for shorebirds and food security

- Fish movement in the river has changed
- · Contamination issues
- Dredging to restore travel routes, for tug boats and barges could affect supply lines

Naujaat

- During the summer sometimes motors and canoes can hit bottom because the nearshore areas are shallower.
- Need measures for emergencies related to the oil tanker that delivers oil and gas. Need to protect for future wildlife and food security
- Need sewage treatment

★ Peawanuck

 Contaminants at radar site along north coast of Polar Bear Provincial Park (not sure which community identified this site)

Puvirnitug

- Oil tankers have to know more and be alert within communities when they deliver oil or fuel; in the past there has been an oil spill.
- Ships go through beluga harvesting areas and could interfere with belugas and other mammals (bearded seal?). Is there another way to bring in supplies?
- A river on the island that flows down to the sea is drying up; want some boulders removed from that river.
- Concern about use of explosives in the community during construction, and their impacts on fish.

Rankin Inlet

- Possible spills or contamination southwest of community: Concern about possible spills or contamination from Meliadine Mine and exploration projects (fuel caches)
- Gas spill east of community from refuelling last year
- Need a spill prevention plan and emergency response plan related to tanker traffic going into Rankin Inlet.

Sanikiluaq

- Sometimes belugas get caught in freeze up in fall
- Shipping may have impacts
- Protect birds and berry picking areas if there will be any mining, oil drilling or developments.
- Mussels have been damaged
- Garbage at Weigand Island and Sleeper Islands

Umiujaq

- Old barge rusting up to shoreline is a hazard do navigation and wildlife
- Inland lake: 50 old rusted barrels, some with jet fuel

* Waskaganish

- Hardly any snow geese. Used to be a fall hunt, but can hardly hunt anymore. Fewer Canada geese.
- Rupert River diverted due to development

式 Wemindji

- Disappearance of eelgrass is our main issue. Eelgrass decline and restoration required in Moar Bay and Old Factory Bay and Blackstone Bay and north of Wemindji, Pointe au Heron and Paint Hills Bay.
- Isostatic rebound; the land is growing (elders say), some of the changes caused by isostatic rebound (natural cycle) or is it other causes (getting shallower)? Seeing broken boat motors and propellers
- Rabbits Ridge: bank erosion in community (mini-dam) downstream of it there is a lot of erosion, lots of debris on the islands
- Trout spawning beds have been affected; trout are hardly coming up creeks anymore. Not sure why; perhaps due to water level?

★ Whapmagoostui

- For the first time in 3 years, ships can't come into the river because there's a lot of difference in the outflow of the water.
- Also in the mouth of the river, it's not as good as it used to be. When we set our nets the fish were good; now we can't even do that because there are a lot of pollutants coming from the sea, e.g. from oil cans, oil barrels, shipwrecks. Those things need to be cleaned up. Need areas where geese can be hunted, maybe could do this as a project – a pond.
- Some 8 km from where we are, there were some channels along the coast. Those channels are no longer there. They've been taken into the mainland; there's no channel there anymore because of the growth on the land.



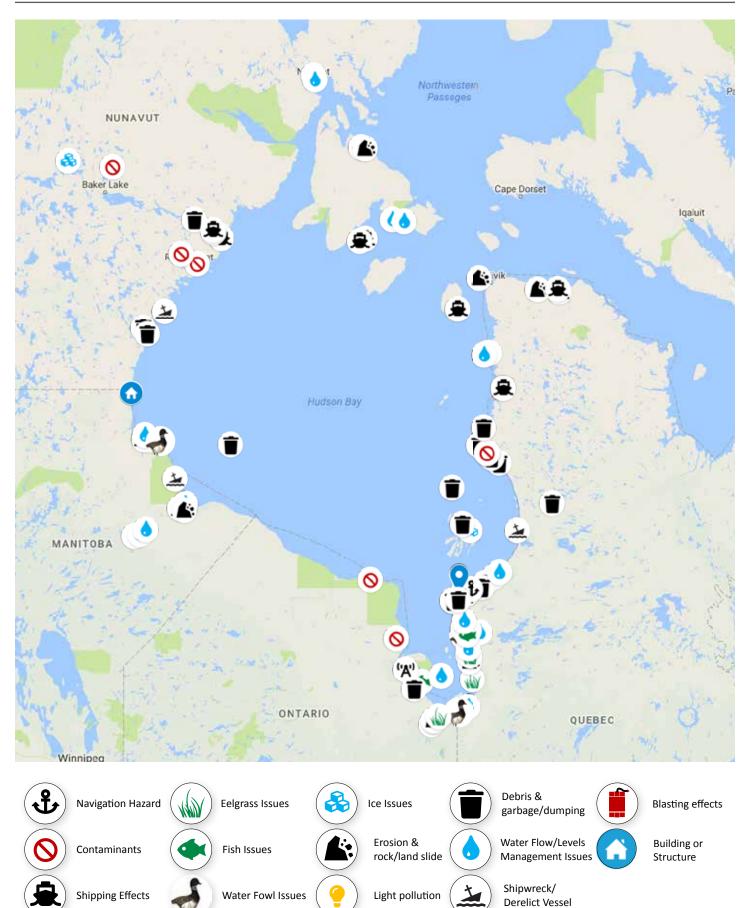


★ York Factory

- At the estuaries of the Nelson and Churchill Rivers, there have been profound effects of hydroelectric developments. There has been up to 80% diversion from the Churchill River. Area of reduced flow at Churchill River estuary, consider ecosystem in water management. Consider management of Churchill River Diversion water control structures. Consider system management on Nelson River; incorporate environmental concerns in operating water management.
- Port of Churchill: Dredged channel for shipping in river and Hudson Bay
- Shipwreck Ithaca in Bird Cove

- Damaged abandoned boat along coast of Wapusk National Park
- Shipwreck and debris (bridge) at Port Nelson
- Old dams obstructing fish passage: Consider site specific restoration at sites of Hydro dams built before current environmental assessment standards; upgrade construction and local habitats, fish passage, etc. at historic dams
- Erosion at York Factory historical community site; possible natural changes in riverbed.
- Habitat degradation from Lesser Snow Geese (in bay at north of Wapusk National Park, and extending further down the coast).







Indigenous Stewardship & Protected Areas Workshop

Workshop Sponsors Polar Knowledge Canada and Fisheries and Oceans Canada Moderator: Stephanie Meakin

Workshop Description and Goals

The objective of this workshop was to bring communities from around Hudson and James Bay together to listen and share their visons for the future stewardship of the region towards a coordinated approach. Additionally, federal agencies participated in order to listen to community and regional priorities and answer questions on what instruments may be available to support community's visions. The role of the Hudson Bay Consortium is simply to facilitate opportunities for discussion across the broad geographies and jurisdictions of the greater Hudson Bay region, so that the appropriate governance structures (under land claims, treaty, provincial, territorial and federal responsibilities) can better coordinate with and understand the priorities of their neighbours, towards implementing stewardship plans for the benefit of the region as a whole. A Stewardship/Protected Areas Working Group for the Hudson Bay Consortium was established at the Summit, and all interested participants are encouraged to join as a forum for continued communications and coordination on stewardship for the region.

Conservation, protection and stewardship are all terms being used to discuss the future of culturally and ecologically unique regions of Canada and the Arctic. It is recognized in the modern process to preserve these regions that indigenous peoples have for millennia conserved, protected and were the stewards of these regions and will remain so into the future. It is also recognized that indigenous governance institutions and mechanisms that exist are the appropriate authorities to undertake the planning and future development of any protection in the Hudson-James Bay complex.

Format

- 1. A mapping exercise allowed communities to share what areas were important to them and why.
- 2. A series of presentations were made on the federal instruments available for protected areas in the terrestrial and marine regions by the Department of Fisheries and Oceans (DFO) Parks Canada (PC), and Environment and Climate Change Canada (ECCC).
- 3. A roundtable discussion
- 4. An extension workshop on the concept of Indigenous Protected Areas (IPAs) and participants ideas related to this concept

- Participants were introduced to various federal mechanisms to protect and conserve territory, including:
 - Indigenous Protected Areas (IPA), which are currently not enshrined in any legislation.
 - Marine Protected Areas (MPA) under the Department of Fisheries and Oceans (DFO)
 - National Marine Conservation Areas (NMCA) under Parks Canada
 - National Wildlife Areas under Environment and Climate Change Canada (ECCC)
- 2. Participants indicated on a map the key areas that are currently protected and that they believe should be protected in the future based on factors including key areas for wildlife, hunting and fishing as well as sites of cultural and historical significance. The purpose of the mapping exercise was to facilitate discussion among participants at the Summit towards guiding coordination of ongoing and future efforts; as such, the maps are not provided in this report.

- 3. Many participants indicated that they would prefer to protect and conserve all of their territory. This is especially important as climate change is changing migratory routes of key species that communities depend on for food security, which may cause important hunting and fishing grounds to change with time.
- 4. This workshop was an opportunity for community members to share their priorities for stewardship areas and approaches with neighbouring communities and does not replace any existing jurisdiction or work of various regional boards and local governance.
- 5. Land-based conservation initiatives in the Arctic such as the establishment of parks, biodiversity reserves and sanctuaries, and land use planning, have resulted in significant land conservation outcomes.
- 6. Future initiatives should look for ways to work in partnership with Indigenous regions to better fund, implement and recognize areas already identified in land use plans. They should also emphasize species such as caribou, and habitats and cultural areas of vital importance to Indigenous community's food security and wellbeing.



- 7. Discussion on the concept of Indigenous Protected Areas provided an opportunity for Indigenous communities and organizations to share what they believed the concept could mean for them. A common theme was related to the word "Protected" being frequently misunderstood or considered inappropriate and that alternatives such as "Stewardship Areas" may better reflect Indigenous perspectives and avoid confusion about the intended concept moving forward.
- 8. Several overlap areas were identified as shared priorities for protection, such as Long Island, Sleeper Islands, King George, Salikuit and Ottawa Islands. Inter-jurisdictional coordination will be key to moving forward with stewardship planning in these areas and requires support.
- 9. Several common themes emerged from the stewardship priorities identified by each community. These themes are outlined below.

Common Themes

Prioritizing areas for conservation is hard

- Different people in communities move over and live on the land differently
- Development in one area affects the other area as the effects flow downstream or affect fish and animals that may move from unprotected to protected areas. For Example the LG2 reservoirs led to changes in water levels that are inconsistent. Contaminants go from plants to animals, who may travel, to then be eaten by humans
- Consider protecting entire regions with varying degrees of protection e.g.: level 1 would have total protection to level 4 which would allow some development
- Our food web doesn't apply in just one area.

Development and Conservation

- Several participants shared that recent conservation efforts, in particular Provincial Park developments, have failed to consult with their communities.
- Need for sharing of benefits with communities
- Conservation efforts to clear waterways and bring back Arctic Char are working
- Communities want new tools for stewardship and conservation, ones that resonate with their culture and tradition

Hunting and fishing locations are high priority

 Most participants referred to areas where people in their communities hunt, fish or gather as the priority areas for conservation and stewardship

- Fixing or opening up waterways that lead to hunting grounds is also high priority
- Disposing of oil barrels and other pollutants that affect hunting and fishing is also important
- Spawning grounds are also important for conservation

Burial sites or sites that have archaeological significance are a high priority

- Numerous participants named locations for protection that are central to their people's history; stories are told about that place; people are buried in that place
- One participant expressed that their community did not want a burial site to be named as a provincial park, but be named as a burial site. This was after a Provincial Park was established without consultation. Other tools for protection may have been more appropriate.

Tourism and Transportation

 Several participants reported tourists and other boats disturbing animals, possibly driving their numbers down

- There is little to no benefit to local communities from tourism, and several participants indicated they felt that, in some cases, protected areas were being created to bring tourists but other mechanisms besides parks may be more appropriate as the priorities of many communities were not for tourists but rather to facilitate long term stewardship of resources for future generations of location communities.
- Need for rerouting for ships to respect animals and hunting areas
- Transportation of oil and other hazardous material pose threats

Climate change and development is affecting ecosystems and food security

- Waterways are changing more silt, drying up, higher water levels, lower water levels – and this is affecting animals, fish and food security
- These changes are affecting livelihoods
- o Different fish and animals are appearing

Access to Information

 One participant identified that they do not have access to land-use research that was done in the 1970s

Next Steps

- The first step toward any new stewardship or conservation goal in the Hudson Bay complex is to take stock of what already exists. For example, in the north various land, marine, and species-specific planning processes exist. A map of all existing initiatives and all scales would help plan community-driven stewardship visions.
- Future initiatives should look for ways to work in partnership with neighboring communities and Indigenous regions to better fund, implement and recognize areas already identified in land use plans. They should also emphasize community identified priorities such as caribou stock changes and habitat loss and important cultural areas for Indigenous communities.
- Communities should be provided further information on the various tools and options available for stewardship/protected areas, as in some cases local authorities have pushed ahead with a single approach when other approaches may have better represented community priorities. The concept of Indigenous Stewardship [Protected] Areas may provide ways to combine the various available tools and approaches to best suit the needs of each region in a more customized approach.

Summary of Presentations

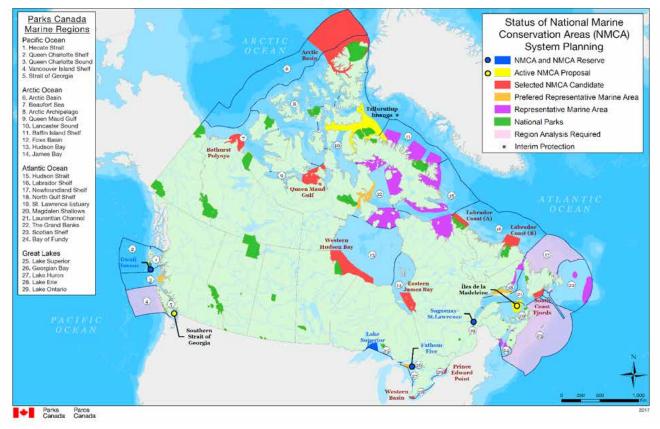
Marine Protected Areas (MPAs) under the Department of Fisheries and Oceans (DFO)

- Geographically defined areas of Canadian oceans dedicated to the protection of animals and their habitats, including the seabed and water column, but not the land and shore.
- Key features: To identify, develop, regulate, and manage MPAs, communities, indigenous organizations, Inuit Qaujimajatuqangit (IQ), and traditional knowledge (TK) are consulted and worked with closely.

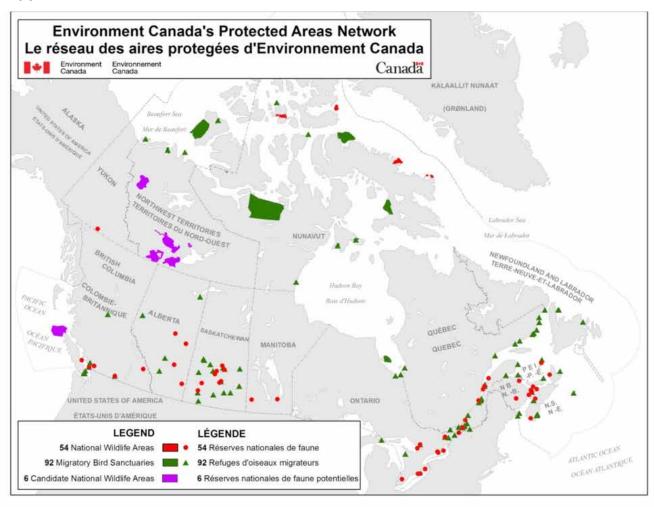
 Some of the benefits include, land protection, community involvement in MPA protection, research, and harvesting and cultural support.

National Wildlife Areas (NWA) under Environment and Climate Change Canada (ECCC)

- Created and managed for the conservation of wildlife and associated cultural values, research, and interpretation
- Indigenous rights in NWAs are protected under the Canada Wildlife Act Section 2(3).
- NWAs can only be established on federally owned lands and the area must meet at least one of 5 biological criteria.



Status of National Marine Conservation Areas



III Environment Canada's Protected Areas Network

National Marine Conservation Areas (NMCAs) under Parks Canada

- Goal is to protect and conserve areas that represent Canada's 29 marine regions
- Key features: ecological sustainability, zoning of protected areas, prohibition of oil and gas mining and disposal, respect for indigenous harvesting rights, renewable resource activities, and managed in cooperation with DFO, Transport Canada, and local communities.
- In Hudson Bay and James Bay regions there are two national parks with marine components and two unrepresented marine regions (Hudson Bay and James Bay)
- Funding has been acquired to assess two new NMCAs in the region

Indigenous Protected Areas (IPAs)

O This term is not used in any federal legislation unlike other conservation area categories, but is promoted by Mary Simon, in the 2017 Shared Arctic Leadership Model report, and others (New Zealand, Australia, Brazil and Equador) as way to create convergence between indigenous peoples and conservation, through a rights-based custodian driven approach that would decolonize conservation and make a significant contribution towards reconciliation.

- The concept is based on the idea of a protected area explicitly designed to accommodate and support an Indigenous vision of a working landscape
- The concept is based on four themes: the biological abundance of the Arctic must be protected for the benefit of future generations; Arctic conservation must be tied to building and maintaining strong and healthy communities; the pace of land conservation has far outpaced ocean protections; conservation is not sustainable if it competes with economic progress

Impact Benefit Agreements (IBAs)

• Impact benefit agreements are possible for Federal conservation area categories, where protected areas overlap with existing land claim agreements. These IBAs can provide funding for long term stewardship, research and monitoring of the area which can include opportunities for local employment. Particularly in areas where there are substantial gaps in capacity or resources for community-driven research, this component of stewardship and protected areas implementation can represent an important benefit to northern communities.

Roundtable Discussion

★ Akulivik

- We have an area for mammals, we harvest there. We go to a certain islands to hunt walrus and bearded seal.
- The area we want protected is shared with the Belcher Islands, it is the Sleeper Islands. There are large mammals or animals there. Also the Ottawa Islands.
- I have comments to make towards hydro, the power making – I'm wondering if hydro or any company has plans to develop underwater power lines.

Arviat

- Nuvuk is an important area for beluga and char.
- Tha-anne River in the late spring is important for beluga hunting and arctic char fishing. Also for seals and traditional tent sites.
- Outside of Arviat there are islands and coastal areas that are considered historic sites for archaeological purposes such as Qikiqtaaryuk, . There are inukshuk's, old habitats, and ancient stories related to these places.
- Uhugananaat / Mouth of Maguse is important for summer camps

Attawapiskat

 Community is concerned that the provincial park was put there without their consultation.
 There's burial grounds in that region that the park doesn't recognize, so the areas that need to be recognized and protected are burial grounds, but they don't want it called a provincial park.
 They want it protected as traditional burial grounds. Identifying those areas is a part of current work.

Baker Lake

- We have some sanctuaries at west and south, and 2 heritage rivers that may be protected in some ways. But there is heavy use between Baker Lake, down inlet to Chesterfield.
- We want more information about land use occupancy studies done in our region in the 1970s.
- Impossible to try to prioritize any areas or landmarks to be protected because community of Baker Lake is made up of people that moved in from different parts of the land. We go hunting and fishing down the lake by ATV, snowmobile or boat, large areas are important.
- Baker Lake has had an operating mine for the past 10 years, but today if we travel down that direction we don't see as many animals of any type – must travel further to harvest caribou.

* Chesterfield Inlet

• Inland caribou calving grounds and coastal cultural sites were identified as priorities.

🛣 Chisasibi

- Add hunting territories. Where I hunt is called Rogan River.
- The past ways: we've already fixed some of the water channels, we needed to fix these because we use them for navigating the waters to access our hunting territories.
- Beaver is central to Cree livelihood and the changing water levels due to the reservoirs is negatively affecting beavers in the area.
- The freshwater that comes to our river is from the diverted rivers down south. The river doesn't freeze in the winter, even if it's very cold. They bay is also affected and that affects our livelihood hunting on the bay.
- We are told not to pick berries from transmission lines areas, but we know that animals will eat the vegetation there, affecting their health and ours if we hunt them.
- There is a desire to protect the whole coast all the way up to long island, as this is a critical area for eelgrass, geese and other wildlife.
- We want to protect the area for the benefit of our community rather than for bringing in tourists with binoculars so they can have a look around.





式 Churchill

 Large NMCA being considered for beluga/ biodiversity hot spot. Mouth of Churchill river and Seal river important for beluga, shorebirds. Qikiqtaaryuk/Hubbard Point/Long Point is an important cultural site.

★ Coral Harbour

- We marked land and sea areas we want protected (around South Hampton and Coats Islands). Walrus, belugas, seals, fish, freshwater seals, migratory birds. A lot of cloudberries, also fish spawn and go upstream we want these things supported and protected.
- From mineral exploration or ships travelling through those islands, they go back and forth through that area going to Baker Lake.
- The mineral exploration companies' ships and the tourist ships travel through that area, to look at walrus on a certain island. We haven't seen any financial benefits from this.
- The ships are disturbing mammals. The seals numbers have decreased. It's our food security as Inuit. Can be different routing for the ships going back and forth.

🚼 Fort Albany & Kashechewan

• I'd like to think my protected area would be the whole traditional territory of Mushkegowuk.

- Want to see the endorsement of UN rights on indigenous peoples
- We need to educate youth to steward and conserve our land and protect our intellectual property.
- We use the waters out in the bay, and 200 mi inland. We have burial sites inland, we pick up berries and medicines in there.
- Wetlands, shorebirds and eelgrass particularly important.

計 Inukjuak

- There are 8 islands close to Elsie Island Polar bear, nesting for all kinds of birds, beluga, caribou in winter, also feeding area for arctic char in summertime.
- Ottawa Islands should be protected, they are important for polar bears and eiders.
- South of town area between Frazier and Drayton Island and the mainland, all kinds of brids, mostly caribou in winter and also sea urchins and mussels, seals, and close by a lot of rivers with arctic char.
- Sleeper Islands and King George Islands, eider ducks, all kinds of birds, walrus and beluga.

★ Ivujivik

• There is a proposed Kovik protected area to the south and another along the coast to Salluit.



Kangiqsujuak

- Coast and ocean north and south of community is key for beluga, fish, seal, caribou, bowhead, and all hunting and we'd like to consider expanding plans for protection.
- The fish have been impacted for about 15 years now. The rivers have been upgraded, and the fish started spawning. There is a new kind of fish that is larger and has come recently due to climate change.
- Mansel, Nottingham and Salisbury Island are all important; for walrus, beluga, fish, caribou.

Kuujjuaraapik

- The Burden Lake is our lake. That's where we do some fishing.
- Today we are aware that the summers are longer, that our fish have increased and are getting bigger in size, especially the whitefish. There used to be no arctic char for quite some time, but they did some river enhancing projects, and they're starting to come back. This is good news – to be able to eat the arctic char used to be only stories.
- The areas we want protected include Long Island and there are several other islands in this area.
- Also Manitounuk island north of town and the polynya/opening at the south end of it.
- We also want to protect Bear Island to the south and the floe edge area near it.
- These areas are important to us, that's where we hunt especially for seals.

★ Moose Cree

- We have 60,000 HA of homelands, boundary based on historical interviews with elders. It is of great significance to our people, used for many decades and generations to harvest, hunt, trap, fish, including various sacred sites. Our goal is to have it recognized as protected by the Province of Ontario. It's been a difficult process.
- North French River has great cultural significance and we'd like to protect it from development.

- Would like to consider it all as protected, with various levels of protection, different designations, e.g. level 1 total protection to level 4 allowing some resource development in areas we've identified.
- Right now, development = gold mine, other mining companies, forestry management units, IBAs with some developments and continue to work with them,
- Another area of significance: South Coast Important Bird Area – want to designate as Western Hemisphere shorebird network and deemed protected; particularly for Red Knot. Working toward that designation now.
- Use protected areas as a last resort if we must.
 Stewardship = we take care of our whole home.
 Apply our values across our homeland, not just parcels of our land.

計 Naujaat

- In the southern part of our area there's development: animals are impacted, and even we are impacted. I believe that the animals we eat go into various regions; our food chain doesn't apply in just one area.
- There's more abundance in different areas at certain times and at other times they are close to our vicinity, sometimes they move to other areas, can be long distances during migration.
- The routing of the ships, if they want to see something, sometimes they go after them. As Inuit, we are told that we should be discouraged that we shouldn't bother the wildlife that we don't hunt.
- A large area encompassing terrestrial and marine regions used by the community was identified, with priorities for protecting fish, caribou calving and cultural sites.

常 Peawanuck

 Want traditional territory all protected, as it's pristine and lifestyle depends on the land they live on.

Puvirnituq

• The north area is important and ice conditions have been changing.

Rankin Inlet

 Challenging to say one area should be protected over another, many areas are important and input from other community members indicated as a priority.

Sanikiluaq

- We had a workshop earlier this year and identified protected areas for the Belcher Islands to include a combination of Marine Protected Areas and protected areas on the land (National Wildlife Areas). Belugas and eiders are key species for protection as well as other species. We have followed up with a letter to the regional Inuit organization and are waiting for a response. We'd like to establish management and stewardship for these areas in coordination with both DFO and Environment Canada. There are challenges, but as much as we can we'll be a part of that process. We want to do this from a community up perspective instead of top down.
- There was some mining exploration and the community is now in opposition to mining, as it can interfere with hunting, scare belugas and introduce spills into the environment. We want to protect the islands from mining.
- We would like to take a similar approach for the Sleeper Islands area, which are important for eiders and walrus, as well as the King George and Salikuit Islands. This is in the overlap area with Nunavik and we would like to work with them to begin discussions on a combination of protected areas in this region.

式 Umiujaq

- Protect Minto lake, mainly for freshwater seals, different kinds of fish that live there. Also Pannielluq for char and seals.
- We would like to protect char in Niagunnuq.

🚼 Waskaganish

- · Mouth of Rupert River: protect fish spawning
- Coastal areas: feeding grounds is starting to outgrow with plants (willows, everything).

🚼 Wemindji

- We identified one large area: we want to protect everything. We feel that the land, our hunting territory needs to be protected, all of it. If you look at the land, from the water, the air, the animals, from a hunter's standpoint, everything must be protected. You cannot separate anything, one from the other.
- Our community did some work on protected areas, there's one you'll see is protected. There's some ongoing research in the coastal area, to identify more sites that need to be protected.
- There's a port in our community, some traffic coming in from the road to transport some material could be hazardous material, so there's a risk of there being a spill towards the mouth of the river or further out. We need a plan to respond if there were ever to be a spill.

Whale Cove

- Wilson Bay: there's a trail that Inuit travel by ATVs or snowmobiles to do some fishing, caribou hunting. There's always hunting done in the area, and the island.
- Apuluktuk this lake, some go there to do some fishing and Biby Island for fishing, hunting and cultural sites. We go to many different places; we identified these 3 areas as most important.

★ Whapmagoostui

- There's a lot of things that have changed, where we could go hunting and we could make our livelihood, there are a lot of reasons why we can't hunt as much as we used to.
- When the dams were built at La Grande, the people were fighting against the project. But the government had different ideas how they could make money out of the land that they were working with, and the Crees were looking at things from their own perspective. And we still have this reality that the Crees and other native people still depend on this livelihood and we must look at what is important to us.

★ York Factory

- Historically there were customary stewardship practices that protected the lands and resources, the way people behaved and acted on land. Now other government jurisdictions giving out licenses, conducting assessments and managing landscape. Community wants to look at new tools.
- Try to find another way to protect the Hayes River: culturally, environmentally significant: sturgeon, brook trout. Also used by Shamattawa First Nation. Doesn't have any hydro development and want to keep it that way via moratorium on hydro development on that river.
- Province proposing Polar Bear provincial park.
 York Factory objected because they weren't
 consulted. They're interested in protecting lands
 and finding tools for how (not necessarily a
 provincial park), but the First Nation must be
 involved in the process.







Planning the Road Ahead Workshop

This was an iterative series of workshops held at the end of each day. Participants were asked to reflect on the day and start to think about the next steps for the Hudson Bay Consortium, including future meetings and summits.

Format

- · Open discussion
- · Consensus-based decision-making

Outcomes

- 1. Participants agreed the Hudson Bay Consortium will have the following structure:
 - Participants
 - $\circ \ Steering \ committee$
 - Working groups
 - Secretariat
- 2. Participants agreed the following working groups will be established:
 - \circ Coordinating Research Working Group
 - Protected Areas Working Group
 - \circ Coastal Restoration Working Group
 - Communications Working Group
- 3. A number of youth participants decided to form a youth committee in order to keep in touch and share youth-oriented opportunities.
- 4. Participants raised a number of areas where the Consortium can support community initiatives, and possible areas of attention for the steering committee, working groups and secretariat (See Discussion).

Next Steps

- Gather letters of support (participation in the Consortium is indicated through a letter of support)
- Renew the steering committee based on appointed representatives from participating communities and organizations, and plan goals and objectives to guide working groups
- 3. Identify chairs and key participants for working groups based on interest and expertise
- 4. Plan next regional meetings (e.g. Eastern Hudson Bay/James Bay Regional Round Table for 2019; coordinate with existing Western Hudson Bay Neighbours Roundtable)
- 5. Plan next summit (suggested every ~4 years)

- 6. The Consortium will primarily play a coordinating role, it is still up to communities and organizations to manage their own projects, obtain funds (e.g., funding sources available for priorities identified by participating federal and regional organizations.) and keep moving forward.
- 7. Develop strategic planning exercise for the Consortium;
- 8. Develop directory services for communities organizations around the Bays to help people better stay in touch and coordinate;
- Develop sharing system and archive for documents, reports, events and other activities through SIKU platform to facilitate sharing of knowledge and coordination.

Discussion

Participation

- Gather letters of support participation in the Hudson Bay Consortium will be indicated by a letter of support referencing the Vision Statement and Guiding Principles.
- Each participating community and organization can appoint a representative to the steering committee
- Indicating participation through the vision statement and guiding principles is, simply put, a means to indicate a desire to work together and respect for other participants, their knowledge and opinions. As such "observer status" is not an option, either participants want to work together and show respect, or they do not, in which case they will not be considered participants.
- The Consortium is not a new layer of governance, it is no more than a forum and coordinating structure for the participants. As such, the Consortium will not take any formal roles, and in particular will not affect decisionmaking by participants nor represent them collectively. It is primarily a forum to bring together participants to share knowledge, discuss issues, and stay in touch.
- Encouraging more groups to come to the table

Improving Communications in the Region

- The communications working group is not meant to speak on behalf of the Consortium's participants, rather it will play a coordinating role for participants to stay up-to-date on what work is happening in the region, to help coordinate among programs, avoid duplication of efforts, and improve opportunities for collaboration.
- Existing relationships can be strengthened
- Communication will help make us aware of the good work being done in other communities
- Learn from ongoing work in other communities; hear about what progress is being made
- Communities could start their own communication, resource and information centres
- Exchange of knowledge between the communities in the years between the summits
- Tools like the SIKU platform can be used to archive documents and reports, share news, keep an up to date directory of people and organizations, as well as document observations.

- The Consortium can provide an archival function: none of the information that is collected is destroyed
- List of organizations doing monitoring, we should be aware of each other and know what is happening
- We would like to work together and share our information with the other groups
- We would like sharing of management approaches.
- We would like to know how the results of research are used.
- We want to make sure that the results are informing the management of Hudson Bay

Respectful use of Indigenous Knowledge

- The basis of the Consortium should be Indigenous Knowledge, technology and research needs to support IK.
- Recognizing that ownership/ intellectual property rests with the knowledge holder
- Find ways to share indigenous knowledge that respects intellectual property
- Non-indigenous people & academics should learn how to include IK in their work
- Improve reciprocity by academics (take time to educate youth, report results back to communities, respect intellectual property)
- The Consortium can look into what other groups are doing to archive Indigenous Knowledge and coordinate with groups like ITK's research strategy and data management committee.

Improving navigation through regional processes, jurisdictions

 The Hudson Bay / James Bay region has complex jurisdictional challenges. There are processes and organizations in place that need to be both respected and also better understood such as Indigenous and land claim organizations. As a forum, the Hudson Bay Consortium can help participants better understand the roles of these organizations.

- For example: indigenous and land claim organizations have processes for research.
 Funding is also available. People wishing to engage research in these areas should respect these processes and engage with Indigenous and land claim organizations.
- This is an opportunity to strengthen our jurisdictions.
- Relationship building with the federal government ("I want to be connected to the Federal Government, we can work together and share with one another")

Possible agenda items for steering committee

- Come up with a set of common objectives based on community concerns
- Raise a common voice where appropriate; we have some very sensitive areas in the north the being ignored.
- "Our voices are stronger together" attract media coverage of important issues.

Agenda for Secretariat

- Coordinate with the steering committee through Coordinator to carry out goals and activities including creation of working groups, strategic planning and fundraising.
- · Facilitate and develop strategic planning
- Create a document for intellectual knowledge preservation/ownership





Elders & Youth Workshop

Workshop Description

Involving elders and youth in research, monitoring and environmental stewardship activities is a consistent priority of communities and Indigenous organizations. The goal of this workshop was to determine ways to increase engagement of elders and youth in planning and coordination activities of the Consortium, as well as on-the-ground environ-

mental stewardship activities including protected areas, community-driven research and monitoring, and coastal restoration. The importance of involving elders and youth was reinforced in all workshops and therefore discussion is not limited to this section.

Format

Open discussion

Many elders and youth took time to share their perspectives and opportunities were further ex-

tended to other individuals who had not had adequate opportunities to speak previously.

Outcomes (Discussion)

Valuable perspectives on education from both elder and youth perspectives were shared:

"The land, and the birds, and the animals tell the truth, they have no reason to lie"

"Our hope lies with the future. We have to learn and understand the teachings and the values of our elders"

"Learn from the elders, and then learn from observation, and then learn by practicing it yourself"

"Emotional, spiritual, physical, mental: nurture these four components of life, and life will not be that difficult"

- Western education should complement indigenous learning
- Maintaining Inuit and Cree languages is important for knowledge preservation

- Teach about both new technology and traditional knowledge (e.g. GPS, but also how to understand snow formations, and types of sea ice)
- Developing strong land-based and survival skills is a good foundation for education
- Learning is continuous throughout life.
- Respect for others and ability to listen are foundational skills
- Access to equipment and clothing is a barrier that prevent young people from going out on the land.
- Youth need to accept responsibility to learn and ask elders if they don't understand something.
- Collective purpose is to learn and carry on our values; knowledge belongs to the people

- Make sure we teach the youth who do not have a father or family member that can do so
- Youth can be involved with research by interviewing and recording their elders.
- Youth need to be included meaningfully in community activities
- Elder-youth exchanges could teach young students cultural values and traditions.
- Youth training opportunities through community research / resource centres
- There are a lot of changes that have happened, people were healthier in the past (60 years ago) and they ate whatever they harvested from their hunting activities

Next Steps

- The Consortium can help share knowledge among regions, and can facilitate making it available for educational programs for youth at school.
- Help share knowledge so youth are aware of opportunities for building skills and relationships
- Connect youth with land skills and build research relationships (youth already have many valuable skills to offer)
- Develop opportunities for elder-youth exchange at future regional meetings and Summits.





Beluga Workshop

Chaired by Tommy Palliser

Beluga are a key species for communities across Hudson Bay and James Bay. Although there are distinct populations, management can benefit from a coordinated approach across the region as a whole, especially for species like beluga that move large distances. This forum can provide a way to share knowledge and coordinate on co-management. This workshop was an open discussion on beluga across the region, with a particular focus on issues related to the Eastern Hudson Bay Beluga (EHB), its scarcity, the history behind its scarcity, as well as the issues related to long travel distances required for hunters in Nunavik.

The Western Hudson Bay Beluga (WHB), which summer in the Churchill Estuaries are ~60,000 in population, and are not considered endangered. The James Bay Beluga (JBB) are located year-round in the James Bay region, and estimated at 10,000. The Eastern Hudson Bay Beluga, which summer at the Nastapoka River, are ~3,500, and are listed as endangered. The 2 sub-populations, EHB & WHB migrate together in the spring from their winter areas near Labrador, to their summer estuaries.

The workshop began with a presentation by Tommy Palliser of the history of why the Eastern Hudson Bay Beluga were hunted in such large numbers in the late 1800's and early to mid 1900's by the whalers of the Hudson Bay Company. The federal government allowed for the hunting of the belugas in the region, to allow the Hudson Bay Company to sell its main resource to them, which was its fat (oil). The elders have told stories

of having to work and hunt long hours to harvest and butcher the belugas, and were not allowed to keep any of the meat or blubber. Since this time, the Inuit hunters of Nunavik have had to deal with low numbers and were forced to create a Beluga Hunting Management Plan for approval by the Department of Fisheries and Oceans. Hunters now face possible charges if they hunt over the quotas or Total Allowable Takes (TAT), set by DFO. This means some communities, especially those in Hudson Bay, are not allowed to catch many belugas since most or all of those harvested in this region are from the EHB endangered population. These hunters, delegated by their municipalities to hunt for the community, must travel long distances to either the Hudson Strait or James Bay region, to harvest beluga. It is in these other regions, Hudson Strait and James Bay, that the other populations of beluga can be harvested in larger numbers. An average of \$40,000-\$60,000 is spent on fuel, food, hunters allowance and other hunting related costs for each hunting trip, without any guarantee of catching beluga.

Many hunters expressed their opinion that because the federal government supported the Hudson Bay Company in hunting such large numbers in the past, there should therefore be funding support for community hunts, to travel the long distances required to access the other regions (Hudson Strait or James Bay) to harvest beluga. Beluga is known to be a healthy part of the Inuit diet (e.g. selenium in beluga tissues help to clean body of mercury), in addition to it's importance to food security and culture. Questions were raised about the next steps necessary to help move these issues forward.



Presentations & Posters

Presentations

- Kativik Regional Government Veronique Gilbert
- Mushkegowuk Council Vern Cheechoo

 East James Bay Eelgrass Research & Coastal Restoration

Dr. Fred Short

ArcticNet Integrated Regional Impact Study (IRIS)
 Dr. Zou Zou Kuzyk, Lauren Candlish

Posters

- My Home
 Sam Hunter, Environmental Steward,
 Mushkegowuk Council, Peawanuck
- Moose Cree First Nation Protected Areas
 Allan Cheechoo & Mike Faries, Moose Cree First
 Nation
- Mobilizing Inuit Qaujimajatuqangit in narwhal management through community empowerment: A case study in Naujaat, Nunavut Keenan, Erin, L. Tegumiar, C. Milley and L. Fanning, Dalhousie University
- The evolution of subsistence and commercial fisheries in the eastern Canadian Arctic

 Jessica Hurtubise, Mirjam Held and Lucia Fanning,

 Dalhousie University
- Valuing wild meat harvesting in Nunavut
 Duncan W. Warltier, Manuelle Landry-Cuerrier,
 Murray M. Humphries, McGill University

- The evolution of beluga management in the Nunavik Marine Region: Moving towards coproduction of knowledge
 M. Basterfield, F. Jean-Gagnon, H. Okpik, K.
 Breton-Honeyman and T. Palliser. Nunavik Marine Region Wildlife Board
- Fifty Years of Change: Inuit observations of environmental change in eastern Hudson Bay Megan Sheremata (University of Toronto, Scarborough, ON), Lucassie Arragutainaq (Hamlet of Sanikiluaq, NU), Peter Paul Cookie (Northern Village of Kuujjuaraapik, Nunavik, QC), Aali Naluktaruk, (NV of Inukjuak, Nunavik), Annie Novalinga (NV of Umiujaq, Nunavik), Perty Tookalook (NV of Umiujaq, Nunavik), Joel Heath (Arctic Eider Society), Gita Ljubicic (Carleton University, Ottawa), and William Gough (University of Toronto, Scarborough, ON).

A Harmonized Indigenous-Western Science
 Frame-work for Understanding Polar Bear Health
 in Arctic Canada

Brady W. Highway and Douglas A. Clark, School of Environment and Sustainability, University of Saskatchewan

- Environmental, Climate Change Monitoring and Adaptation Initiatives in Nunavik

 Veronique Gilbert, Kativik Regional Government
- Up North on Climate; Climate Change Impact and Adaptation Study for the North of Ontario Chantal Sarrazin-Delay and Brittany Rantala-Sykes, Climate Change Impact and Adaptation Study for the North of Ontario; Vale Living with Lake Center; Laurentian University
- The Churchill Marine Observatory Research
 Vessel: A new research vessel operating in the
 Hudson Bay complex
 Mundy, C.J. (1), A. Schimnowski (2), H. Stark (1),
 and D.G. Barber
 (1), (1) Centre for Earth Observation Science,
 University of Mani-toba, Winnipeg MB, Canada
 (2) Arctic Research Foundation, Win-nipeg MB,
 Canada
- Conservation, stewardship and governance institutions at the land-sea interface in Eeyou Istchee Véronique Bussières and Monica Mulrennan, Department of Geography, Planning and Environment, Concordia University, Montréal
- Salinity and temperature variations at James Bay sea-grass beds in relation to an under-ice river plume

Peck, Chris (1), J. Ehn (1), J. Heath (2), J. Lameboy (3), F. Short (4), M. Warbanski (2) and Z. Kuzyk(1) (1) University of Manitoba, Win-nipeg MB, Canada (2) Arctic Eider Society, St. John's NL, Canada (3) Cree Nation of Chisasibi, Chisasibi QC, Canada (4) University of New Hampshire, Durham NH, United States

- Freshwater and Nutrient Distribution in Coastal Waters of James Bay and Southeast Hudson Bay Guzzi, Alessia (1), M. Warbanski (2), J. Heath (2), M. Kamula (3), J. Ehn (3), Z.Z. Kuzyk (3)
- Nunavut Wildlife Management Board Kyle C. Ritchie, Vicki Sahanatien

- Parc national Tursujuq

 Annie Novalinga and Véronique Nadeau
- The Hudson Bay Integrated Regional Impact Study (IRIS)
 Zou Zou Kuzyk, Lauren Candlish, Michelle Kamula and David Barber
- Expedition Churchill: A Gateway to Arctic Research Lucette Barber, Project Lead, CEOS, University of Manitoba
- Genomics for Oil Spill Preparedness in Canada's Arctic Marine Environment Henry J. F. Penn, Ph.D., Maribeth S. Murray, Ph.D.
- The Churchill Marine Observatory (CMO)
 David Barber, Feiyue Wang, and CJ Mundy
- SIKU: The Indigenous Knowledge Wiki and Social Mapping Platform
 Heath, Joel P., Arragutainaq, Lucassie, Kownak, Kristen, Ljubicic, Gita













Appendix

List of Registered Organizations

Anniturvik Landholding Corporation of Umiujaq

Aqigiq Hunter's and Trapper's Organization

Arctic Eider Society

Arctic Institute of North America

Arviat Hunters and Trappers Organization Arviq Hunters & Trappers Organization

Attawapiskat First Nation

Benoit & Associates

Canadian Wildlife Service - Environment & Climate

Change Canada

CEN - Centre d'études nordiques

Centre for Earth Observation Science, University of

Manitoba

Chisasibi Eeyou Resource and Research Institute

Churchill Northern Studies Centre

Cochrane Polar Bear Habitat

Concordia University

Coral Harbour Hunters & Trappers Association

Cree Nation of Chisasibi Cree Nation of Eastmain Cree Nation of Waskaganish

Cree Nation of Wemindji

Cree Trappers' Association Crown-Indigenous Relations and Northern Affairs

Canada

Dalhousie University

Eeyou Marine Region Impact Review Board Eeyou Marine Region Planning Commission

Eeyou Marine Region Wildlife Board Environment and Climate Change Canada

Environmental Technology Program, Nunavut Arctic

College

Fisheries and Oceans Canada Government of Canada Government of Nunavut Hamlet of Chesterfield Inlet

Hamlet of Naujaat Hamlet of Sanikiluaq

Health Canada

Hishkoonikun Education Authority - Kashechewan

First Nation

HTFC Planning & Design

Hunter Support of Kuujjuaraapik Hunter Support Program, Umiujaq

Hunters and Trappers Organization, Whale Cove Hunters and Trappers Organization, Baker Lake Hunting Fishing Trapping Association, Kangiqsujuaq

Indigenous and Northern Affairs Canada

Inuit Tapirit Kanatami

Kangiqliniq Hunters and Trappers Organization

Kangiqsujuaq Culture Committee

Kashechewan First Nation

Kativik Environmental Advisory Committee

Kativik Regional Government

Kigaluk Landholding Corporation

Kiggaviit Wildlife Committee of Akulivik

Kivalliq Inuit Association

Laurentian University

LNUK, Inukjuak LNUK, Ivujivik

LNUK, Kuujjuaraapik

LNUK, Umiujaq

Makivik Corporation

Manitoba Goverment

McGill University

Ministère des Forêts, de la Faune et des Parcs, QC

Ministry of Natural Resources and Forestry, ON

Moose Cree First Nation

Mushkegowuk Council

Nishiiyuu Council of Elders

Northern Village of Akulivik

Northern Village of Inukjuak

Northern Village of Salluit

Northern Village of Umiujaq

Nunavik Marine Region Impact Review Board Nunavik Marine Region Planning Commission

Nunavik Marine Region Wildlife Board

Nunavut Impact Review Board

Nunavut Tunngavik Inc.

Nunavut Wildlife Management Board

Oceans North

Ouranos

Parks Canada

Sakkuq Landholding Corporation of Kuujjuaraapik

Sanikiluag Hunters and Trappers Association

Senate of Canada

Société du Plan Nord

Taykwa Tagamou Nation

Université de Montréal

University of British Columbia

University of Guelph

University of New Hampshire University of Saskatchewan

University of Toronto

Weminjdi Trappers Association

Whapmagoostui Cree Trappers Association

Whapmagoostui First Nation

Wildlands League

World Wildlife Fund

York Factory First Nation

List of Participants

Adam Gardner Alec Tuckapuk Alexandre Baillargeon Alexandre-Guy Cote Ali Qavavauk Allison McPhee Amy Baxendall Andrew Dunford Anna Baggio Annie Novalinga Anu Rao Arden Visitor Audrey Lapenna Barb Duffin Benoît Roberge Bert Moar **Brandon Moses** Brendan O'Donnell **Brittany Rantala-Sykes** Cal Wenghofer Catherine Hébert Charlie Kumarluk Charlie Watt **Christianne Lafferty** Christine Barnard Christopher Napash Clark Shecapio Claude Saint-Charles **Claudine Santos** Clayton Tartak Colleen George Corey Aggark Cynthia Mitton-Wilkie **Danielle Dorion** Darcy Nakoolak Diane Blanchard Donna Sinnett **Duncan Warltier** Eli Angiyou Eli Aullaluk Elijah Sandy Elijah Sheshamush Sr. Elisapi K.Tukalak Elizabeth Copland Elly Bonny **Emily Kattuk Ernest Tumic**

Evan Warner Ezra Greene Felix Boulanger Frankie Jean Gagnon Fred Short George Natawapineskum Gordon Blackned Graham Irvine **Grant Gilchrist** Gregor Gilbert **Gregory Tapatai** Henry Alayco Henry Penn Henry Wright Hugh Nateela **Hunter Tootoo** Isaac Masty Jackie Kidd **Jacob Dick** James Kawapit Sr. Jared Ottenhof Jared Pepabano Jean-Guy Beaudoin **Jennifer Simard Jens Ehn** Jimmy Krako Jobie Oweetaluktuk Joel Heath Joel Ingram Johanthan Solomon John Lameboy John Shem **Iohnnie Cookie** Johnny Kasudluak Johnny Kudluarok Johnny Mark Jonah Qittusuk Irene Rahm **Judith Quigley** Julie Simone Hébert **Karen Cummings** Kendra Tagoona Kerri Stewart Kiera Hulett Kristen Kownak Kyle Ritchie Lauren Candlish

Laurie Beaupré Lazarusie Tukai LeeAnn Fishback Lenny Emiktaut Leo Metatawabin Liane Benoit Lily Napash Lisa Bachellier Liukasie Nappaluk Lorna Visitor Lorne McNeice Lorraine Brooke Louisa Kalai Louisa Wynne Lucassie Alayco Lucassie Arragutainaq Lucia Fanning Maha Ghazal Manon Simard Marijo Cyr Marlene Doyle Martine Giangioppi Matthew Gale May Berthe Megan Sheremata Melissa Lavoie Mike Faries Misha Warbanski Mishal Naseer Moses Appagag Murray Humphries Nancy Dea Natan Obed Nicole McCrae Nicole Ymana Olaf Jensen Olivia Mussells Pallaya Ezekiel Paul Crowley Paul Irngaut Paul Malliki Paul Pudlat Pauloosie Kasudluak Paulusi Angiyou Paulusi Tarriasuk Perty Tookalook Peter Paul Cookie

Philippe Morel Piita Kattuk Pitsulaaq Pinguatuk Puasi Alec Ippak Putulik Papigatuk Raymond Menarick Reggie Bearskin Richard Aksawnee Robben Constant Robbie Matthew Roderick Pachano Ron Lyen Ryan Barry Ryan Eagleson Salamiva Weetaltuk Sam Muckpah Samuel Cox Sanford Diamond Sarah Masty Sheshamush Selma Pereira Shaomik Inukpuk Simon Sr. Enuapik Simon Tookalook Stanley Louttit Stella Masty Stéphanie Bleau Stephanie Meakin Steve Pinksen Tamara Takpannie Thiyagarajah Thayaparan Thomas Alikaswa Thomas Stevens Tommy Palliser Vern Cheechoo Véronique Bussières Veronique Gilbert Véronique Nadeau Victoria Tagornak Vincent Gautier-Doucet Vincent Tooktoo Willard Napash Zou Zou Kuzyk