

Norman Wells 2024 ʔełets'éhkwę Godı
Public Listening Session (PLS)
February 20 – 22, 2024
Responses to Round 1 Information
Requests



Norman Wells
Public Listening
Climate Change
& Forest Fire



Délıne ʔehdzo Got'ıne (Renewable Resources Council)

Information Request (IR) ʔełets'éhkwę Godı (*Caribou Conservation, Climate Change and Wildfires*)

A. Observations of Caribou and Climate Change in General

SRRB IRs to all Sahtú Communities:

1. Has your community observed changes in:
 - Weather systems and patterns?
 - Freeze up and/or thaw dates?
 - Permafrost?
 - Watercourses and sediment?
 - Ice build up on snow?
 - Wind speeds and/or direction?
 - Rain in winter events?
 - Other changes to weather and climate?

Our community wants to do more to monitor what is happening on our land and to research the impacts of climate change on the wildlife and resources. But we need more funding to pay for this work. We do not have the resources now to do enough monitoring and research on the impacts of climate change. We would like to be able to pay for harvesters and trappers to go out and make observations related to climate change while they are out on the land and then come back to Délıne after their trips and report to the DRRC on what they are seeing. We could then record that information so we have a written record of our observations. If we had that written record, we could answer the SRRB's questions well. Without that funding to do proper monitoring and research, we are just answering these questions based on what we remember. We wish we had more information to share with the SRRB on this important issue. And hope that in the future with more funding to pay for a robust climate change monitoring and research program in Délıne we will be able to give the SRRB and the GNWT lots of information on what we are seeing as the impacts of climate change.

We are seeing more zhahtsélé (freezing rain) than before. This impacts the ʔekwé. It also makes it harder for ʔekwé to find food. For example, this fall the ground was frozen and hard. Then it snowed and the ground was covered in snow. Then we had a freezing rain, which made the snow wet and icy. Then it froze again so all of that rain and snow turned to a hard layer of ice. That hard layer of ice is still there between the ground and the snow. We are worried about how the ʔekwé will be able to find food this winter under this hard layer of ice. It will be hard for the ʔekwé to find food under this hard layer. It will mean they have to work harder to eat, which will tire them out. Also, if ʔekwé have to travel long ways on icy ground, their legs will be impacted. They will get tired and be less healthy.

We are seeing more rain in the winter. We do remember seeing rain during the winter in the past. About 30 years ago it rained one year in late December for one day and then got cold again, but that was rare. It seems to be more common now to get rain in the winter.

We have noticed that the wind is faster now. It impacts the snow and food that the ʔekwé must find in the winter. We see that patterns of the snow are changing. We are seeing more snow.

The water temperatures are also changing. Even a little change in temperature has big impacts. The fish nets need to be checked more often because the flesh gets mushy faster, often can happen overnight in warmer water.

To us it looks like the permafrost is coming up faster. Permafrost is coming up and draining down. When it melts it does not sit on the land, it drains away.

We have seen that the water level on Great Bear Lake is low. The flow on the Bear River is the same though.

The typical pattern we have seen over our lives is that once the lake freezes to normal it gets nice and cold here in Délįnę and stays cold. There is about a one-month difference to how it used to be. At the beginning of December, the lake and river should be fully frozen and the trappers should be able to cross the lake. But now, at the beginning of December 2023, the river is not even frozen over yet and we cannot cross.

The weather is warmer now. About 73 years ago, it was the coldest we remember on New Years Day it was minus 72. Now it feels like spring in December.

The change in weather will impact the ʔekwé. The ʔekwé near Colville Lake usually come over to us, but do not think they will with the warmer weather.

One ʔqhda in Déljñę put it this way: From the time I was young to today, there is a one month difference. The lake freezes up one month later and the lake thaws one month earlier than before.

We need to be more careful out on the ice now. Now the ice freezes just at the top. Until the lake fully freezes, the trappers have to just go out on the land and cannot cross the lake. We are also noticing that the winter road period is shorter because of the warmer weather.

We are also noticing that it is drier than usual. There was not as much rain this past summer.

The sky is changing too, the colour of the sky in winter is different.

These changes have been happening over the last several years. Maybe 4-5 years for these more severe changes we are seeing. And water level has been dropping for 3-4 years.

2. What has your community noticed about how these changes affect caribou?

We are not harvesting many ʔekwé right now because of our Belare Wíle Gots'é ʔekwé – Caribou for All Time – A Déljñę Got'jñę Plan of Action (our Caribou Conservation Plan). Many of us wish that we could be harvesting ʔekwé, but we are respecting our Caribou Conservation Plan. Because we are not harvesting many ʔekwé, it is not possible for us to answer this question.

We do not see ʔekwé anymore, but we see Tqdzı around from time to time. Lots of mosse. We rely on ENR to tell us what they know about what is happening with ʔekwé.

We would like others who are observing ʔekwé to report to us what they are noticing about changes to ʔekwé.

3. In what ways is how you harvest caribou been affected by these changes?

Again, because of our Caribou Conservation Plan we are not harvesting as many ʔekwé as we would like. So, we cannot comment on how changes in the weather would impact how we would harvest.

4. How has the quality of the caribou affected by these changes, if any?

We have heard stories about other people observing bugs in ʔekwé, but since we are not harvesting ʔekwé, we have not been able to make our own observations.

We would like others, especially the GNWT, to share any information that they have about ticks and other bugs or illnesses impacting ʔekwé.

5. What, if any, new dangers or safety concerns are showing up on the land with the changes observed?

As mentioned above, we are noticing that the ice is taking longer to form and can be thinner. This makes it riskier for us to go out on the ice and we need to be careful to check the ice thickness.

6. What does your community look for to know if it is safe to go on the land or if there is any danger due to these changes?

We look at the ice thickness to decide if it is safe to cross. We continue to use this method to decide if it is safe.

7. Do the above dangers or concerns affect how your community accesses land and water?

We continue to go out on the land. But our time being able to cross the lake and river is shorter each year. This limits where we can go and how long it takes to get places.

8. What stories does your community have about climate change from the ancestors, grandfathers or grandmothers, or other knowledge holders?

We have been taught by our parents and grandparents that it starts to get warm in the winter because the bear that is hibernating rolls over in xai tani (the middle of the winter). And when he rolls over, it starts to get warmer.

A long time ago an Elder told us that big change is coming in the future. The change will either be in the summer or the winter. It will be summer the whole year or winter the whole year. One summer, it may be winter and one winter it may be summer. June and July are important months for life growing on the land and if the weather changes that will have a big impact on the food for the animals.

Our grandparents have told us that one day in the future things will start happening and what we should watch for and once it starts happening, it will continue to get worse.

Our stories are all true. We are seeing these stories come true now.

9. How is the weather and climate change described in your indigenous language?

Weather – yát'á	
English	Sekodó
Air	Dayi
Bad weather	Tezotsi- teetsi
Breeze	Yázjā njhts'i
Chinook wind	Njhts'iwelé
Clouds	K'oh
Clouds clearing away	Yázqréhtla
Cloudy weather	K'oh góhli
Cold	Ilígu
Cold- chilly	Gok'á
Cold (bitterly)	Yázjā gok'á
Constantly raining	chō denelezō
Cooled off	Gók'áh agorade
Crosswind	Elek'étō njhts'i
Down wind	Danjhts'i
Drizzle –light rain	záhchōné
Dull, cloudy day	Yát'a gonezōle
Fluffy snowfall	Naigá
East wind	K'áhbatsō njhts'i
Fog	zá
Fog over water	Tatséle
Foggy	zá náikwa
Getting colder	elígu agoderade
Getting warmer	Gókō agoderade
Good day	Dzene nezō
Hailstorm	Ilue hé náchjōwə
Horizon	Nelare
Lightening & thunder together	Ereyi kōné
Lightening	Nágohtene kōné
Thunder	Nágohtene
Melting snow	Zhah tarik'ō
Middle of winter	Xai tani
Misty	zá tselé
Moderating temperature	Yázia nezō agoderade
North wind	Chjk'ō njhts'i
Rain	Chōh
Raining	Chōh denele
Sleet (raining & snowing)	zhahtsélé
Snow	Zhah
Snowing	zhah denele
Snowstorm	Zhah hé náchojwə
South wind	kwá njhts'i
Stormy weather	K'énagohtene
Sun	Sa
Sunshine	Késanjdi
Sunshine (really)	Késanjdi nátse
Thermometer	Eyaa hé elígu hōts'idzá
Warm weather	Sahtúda – sahtú hehda
West wind	Dāq njhts'i
Whirlwind	Njhts'i baa- njhts'i reyelé
Whiteout (snow)	Kéoráht'íle
Windstorm	Njhts'i hé náchojwə
Windy	Njhts'i nátse

Deep snow	Zha lq
Drifting soft snow	Lóatsieréwó
Freezing up	Dáratę
Glazed snow	Guluka
Hard ice	Tę deyí
Ice floating in spring	Tę dailə
Ice with sharp points	Lughá
Shoreline high ice	T'álunedé
Icicle	Gulu táanéhte
Large chunk of ice	Tę kádarawó
Large snowflakes	zqhkáichoré
Melting snow	Zha tarík'q
Open crack in ice	Tę dlare
Overflow from land	Kírikw'ené
Overflow land& ice	Kw'ené
Overflow from land	Kw'ené
powdery snow	Naíga
Snow new falling	Zha zhólé
Rough lumpy ice	Tehzha
Snow crystals	
Snow patch off branches	Dahzhá
Snow underneath crust (dry)	Zhahzhóle
Snowdrift (hard)	Táhtsi
Snowslide	Zhah náretl'é
Soft snow	Zhah deyile
Thick ice	Tę reto
Thin ice	Tę debele - deyile
Wet snow	Zhah tselé

B. Observations Wildfire and Caribou

SRRB IRs to all Saktú Communities:

1. How does your community view/value wildfire?

Wildfires should be put out when they start, not left to burn. Our ?qhda are concerned that if a fire is left to burn it can get into the ground and spread more quickly. They want fires put out before they get into the ground.

Over the summer there was a fire near Saoyú-?ehdacho and ENR did not fight the fire. We understand this may be because it was in an area that is Parks Canada's responsibility. But we do not like this attitude. We need to all work together. We want to see more cooperation in the future on putting out fires.

When water bombers are used in the area to put out fires, they should not use chemicals if they are going to be dumping near Great Bear Lake. Only water should be used to fight fires near Great Bear Lake. Chemicals may contaminate the lake and we cannot take that risk.

We are also concerned about the impacts of ash. We want to study how ash impacts streams, fish and wildlife.

Some also feel that we should not be using aircraft to fight fires when humans can fight the fire from the ground because that seems to be a more effective fire fighting system. Aircraft use a lot of water and the downdraft can make a fire spread. We have seen over the years that humans can work together to put fires out and we want to see more of this.

2. What changes in wildfires has your community observed over time?
 - i. When did your community first notice these changes?
 - ii. Where on the land have the wildfire changes been seen?

We have noticed impacts on the wildlife from wildfires. We see that the food that furbearing animals rely on gets burned and this impacts them greatly. All animals, even mice, will struggle to find food in the winter following a wildfire. What will happen to those animals that are having a hard time?

3. What changes has your community observed in smoke and any lingering affects? In humans? In caribou?

We are lucky in Délı̄ne that we do not get impacted by the smoke so much. The winds now usually come from the East and North. If the wind shifts, we will be in trouble and greatly impacted by smoke. Right now, we can usually see the smoke but it does not smell too bad and most of us are ok breathing.

We know that smoke does impact ʔekwé and moose. It will impact where they go.

4. What stories does your community have about wildfires and burning from the ancestors, your grandfathers or grandmothers, or other knowledge holders?

A long time ago, before climate change, there was a lot of permafrost and that helped put fires out. Big fires are not something we hear about having happened around Délı̄ne in the past. When we are out picking berries, we do see lightning strikes hit the land, but it does not burn because of permafrost.

Some ʔqhda remembered in the past there was a fire north of Délı̨ne and the community walked over to put it out. But by the time they got there, it had put itself out.

In the past, when it rained it rained a lot and that would make water levels go up and help stop fires.

5. Does your community distinguish between good and bad wildfires? If so, what are the characteristics of each?

ʔqhda say that it is always good to fight a fire and put it out right away.

There was a fire at Whiskey Jack Point recently caused by lightening. Some of the areas were left to burn. But we are seeing that it is not growing back properly after it was burned.

We need to protect the land, wildlife and our cabins from wildfire. We are worried about wildfires. We want to see the GNWT and Parks Canada putting fire fighting equipment out on the land that we can use if we spot a fire out on the land and that can be used to protect cabins. We want to promote the community protecting our lands throughout the Délı̨ne District. This is also a way to get more youth out onto the land. Promote youth harvesting and protecting our land.

We want to see fires put out early before they grow out of control.

6. How are different types of fires described in your indigenous language?

Fire – Kó

English

sekəðə

Ashes	Łá
Blaze	Kó nátse
Coal	Kókwiré
Charcoal	Kwə dezene dék'ó
Embers	Kókwiré
Fire	Kó
Matches	Kówa
Shavings	Náarakwı̨
Smoke	łeh
Soot	Łəts'ı̨

7. What changes in wind and how wind affect wildfires have your community observed?

There are not a lot of fires around Délı̨nę so we cannot comment on how wind impacts fires.

8. What effects of wildfires on caribou or caribou habitat has you community observed?

Again, we have not had a lot of fires around Délı̨nę so we cannot comment much on habitat impacts other than our observations that it can take a long time for the vegetation to grow back and it may not grow back the same (as we are seeing at Whiskey Jack Point).

9. Where on the land and/or water have these changes been noticed?

See above

10. How long does it take for caribou food and habitat to return after burning?

We think it can take a long time. But because we do not have a lot of fires around Délı̨nę, we cannot comment more than that. We look forward to hearing the observations from other communities that have more experience with fires.

11. What can be done to protect caribou and caribou habitat from wildfires?

First thing, put the fire out. Fight it right away.

We want funding to support longer harvesting trips out onto the land. In addition to helping support harvesters and getting more youth involved in harvesting, this would put more eyes out onto the land to spot for fires.

As laid out in our Caribou Conservation Plan, we are encouraging harvesting of other species like łue and other furbearing animals. If we could get more funding for large camps to fish with nets and do some trapping this would also encourage harvesting of other species and help ʔekwé recover.

SRRB IRs to Sahtú Youth

1. How can the SRRB better support youth participation in climate change action?

With the help of the principal of ʔehtseo Ayha School (EAS), we were able to collect responses to the questions in this section from eleven youth living in Délı̨nę. Their answers are shared in the questions below.

The SRRB can better support youth participation in climate change action by:

- Giving youth a voice;
- Educating the youth about how climate change happens and what we can do to stop it;
- Doing educational awareness on climate change and behavioural change campaigns;
- Helping youth participate in local events;
- Making it fun, but also where youth can learn;
- Letting the youth have a voice to talk and have opinions;
- Letting the youth help with the land;
- Working with students who may not understand the work of the SRRB to help teach them;
and
- Paying youth a good amount of money to participate in processes.

2. (e.g.) How does climate change affect opportunities for intergenerational knowledge transfer on the land and water?

Climate change will affect opportunities for intergenerational knowledge transfer on the land and water in the following ways:

- With climate change it will affect Great Bear Lake and wildlife that surrounds it and so younger generations will not be able to experience on the land activities.
- With unpredictable rainfall patterns, shrinking ice sheets, rising sea levels, floods and droughts the land and waters are changing which will impact how we can get out on the land and the knowledge will change.
- Climate change can impact our knowledge of the land and water. What we know now about the land and water, may no longer be true with climate change.
- Climate change affects us by changing the weather. It could be hot one day and another day could be cold and windy.
- Climate change could change water levels and cause floods that would impact us using lands and waters.
- The weather is changing and getting warmer or colder and when it does, we will have a hard time to get opportunities on the land.
- With climate change, some animals may die off and we will no longer be able to harvest them.
- When it is cold the lake freezes. With climate change, this may impact the lake freezing which will change how we use the land and water.
- Climate change may cause wildlife to leave the area and we will no longer see them.
- Climate change is impacting our knowledge already.

3. Is climate change anxiety/eco-anxiety common amongst youth in the Sahtu?

There are mixed opinions among youth in Délı̨nę about if climate change is causing anxiety.

For children, they do not see it as a problem yet but for many teens they realize it and anxiety about climate change is common among youth in Délı̨nę. Youth know it will affect Sahtú sooner or later.

In a poll of a class at EAS, 58% were very or extremely worried about climate change and 84% were at least moderately worried about climate change.

But, there are some youth that do not feel anxious about climate change.

4. What kind of educational opportunities (camps, classroom, workshops other) would you find useful to understand climate change? Wildfires?

Many of the youth in Délı̨nę who answered these questions asked for camps and workshops to learn about climate change and wildfires. Youth told us they find presentations boring, so hands on experiences that can be fun are more engaging. They would like workshops on weather and climate change so that youth can learn about climate change and how it happens. In the classroom, teachers can teach about wildfires in detail, but with camps can visually teach the youth about wildfires.

Youth also asked that a forum be created where youth can talk about all social justice issues and explore personal values through critical thinking together.

5. What opportunities do you have to voice your concerns about climate change?

Many of the youth in Délı̨nę who responded to these questions told us that they do not have any opportunities to voice their concerns about climate. One youth said that answering these questions was their first chance to voice their concerns about climate change. Some youth said that concerns can be raised with Elders. It was also suggested that these concerns about climate change could be raised during Dene cultural activities.

6. What opportunities would you like to have to voice your concerns about climate change?

The youth asked that if there are meetings about climate change, that youth be invited to so that youth can represent their concerns. The youth also want workshops, activities and meetings hosted where people will actually listen to the youth.

Youth want to talk to Elders about these issues too.

7. What opportunities would you like to have to contribute to the fight against climate change?

The youth in Délı̄ne who answered these questions have many ideas for how they want to contribute to the fight against climate change:

- Study what causes climate change and try to stop it.
- Make our voices heard by people in power.
- Fundraise to help youth participate in climate change fight.
- Reduce or eliminate fuels from our homes by swapping the furnace for a heatpump.
- Work together with others who are also worried about climate change.

SRRB IRs to all interested parties

1. Do you have questions for other parties?

Questions for the GNWT:

1. Please answer each of the following questions:

- section A, questions 1, 4 & 5 and
- section B, questions 2, 3, 7, 8 & 9

For each of the above questions, we want to know:

- What has the GNWT measured and observed?
 - Please share any data you have collected relevant to these questions and explain your methodology used to collect that data.
2. What is the GNWT doing to monitoring for climate change and the impacts of climate change in the Sahtú?
3. What is the GNWT doing to monitor for and fight wildfires in the Délı̄ne District?

4. What effects does government forestry management have on wildfires?