

**COASTAL HABITAT RESEARCH PROGRAM
STEERING COMMITTEE
MINUTES OF THE 33RD MEETING
HELD BY VIDEOCONFERENCE ON NOVEMBER 4, 2020**

PRESENT:	Réal Courcelles	Hydro-Québec
	Marc Dunn	Niskamoon Corporation
	Carine Durocher	Hydro-Québec
	Jean-Philippe Gilbert	Hydro-Québec (in part)
	Louie Kanatewat	Cree Nation of Chisasibi
	John Lameboy	Cree Nation of Chisasibi
	Geraldine Mark	Cree Nation of Wemindji
	Ernest Moses	Waskaganish First Nation
	Josée Lefèbvre	Canadian Wildlife Service
	Roderick Pachano	Cree Nation of Chisasibi
	Ernie Rabbitskin	Niskamoon Corporation
	Emily Sinave	Cree Nation Government
	Robbie Tapiatic	Cree Nation of Chisasibi
Alain Tremblay	Hydro-Québec	
ABSENT:	James Bobbish	Cree Nation of Chisasibi
	Mhaly Bois-Charlebois	Hydro-Québec
	Félix Boulanger	EMRWB representative
	Norman Cheezo	Cree Nation of Eastmain
GUESTS:	Jens Ehn	University of Manitoba
	Julian Idrobo	University of British Columbia
	Mélanie Leblanc	McGill University
	Brigitte Leblon	University of New Brunswick
	Fanny Noisette	Université du Québec à Rimouski
	Mary O'Connor	University of British Columbia
	Zou Kuzyk	University of Manitoba

PROPOSED AGENDA

9:30 a.m. – 10:00 a.m. Cree internal meeting

10:00 a.m. – 11:00 a.m.

1. Approval of the agenda
2. Approval of the minutes of the 32nd meeting held on October 1, 2020

3. Update – Field logistics (M. Dunn and E. Rabbitskin)
 - a. Cree field team
 - b. Julian Idrobo

11:00 a.m. – 12:00 p.m.

4. Presentation from the Manitoba team

12:00 p.m. – 1:30 p.m. Lunch

1:00 p.m. – 2:30 p.m.

5. Communications
 - a. Newsletter
 - b. Update on Web portal
 - c. Proposed logo

2:30 p.m. – 3:30 p.m.

6. Presentation from the eelgrass team

3:30 p.m. – 4:30 p.m.

7. Discussion on research synthesis
8. Next meeting

CHAIR AND SECRETARY

Mr. Dunn chaired the meeting

Réal Courcelles acted as Secretary.

The meeting began at 10:07 a.m. on Wednesday, November 4, 2020.

1. APPROVAL OF THE AGENDA

The Chair reviewed the agenda and the following modifications were made:

- New item 8. entitled “Miscellaneous” was added
- Under “Miscellaneous” the following items were added:
 - Blue-green algae
 - Mélanie Leblanc
 - University of New Hampshire
 - Surplus – Fuel barrels
 - Arctic Change Conference
- “Next meeting” becomes item 9.
- Items 4 and 6 were interchanged: item 6, the presentation from the eelgrass team will be given at 11:00 a.m. as the new item 4, and the presentation from the Manitoba team will be given at 2:30 p.m. as the new item 6.

1. APPROVAL OF THE MINUTES OF THE 32ND MEETING HELD ON OCTOBER 1, 2020

Mr. Courcelles explained that the minutes of the 32nd meeting were not ready to be approved. It was decided to postpone the approval of these minutes to the next meeting.

2. UPDATE – FIELD LOGISTICS

a. Cree field team

Mr. Rabbitskin said that, so far, four moorings have been deployed and three other moorings will be deployed in the winter: one on Mr. Kanatewat's trapline, one on Mr. Sam's trapline and a third at a site to be determined.

Mr. Dunn asked Mr. Kanatewat when the ice in the bay will be safe enough for someone to install the moorings.

Mr. Kanatewat answered: in mid-January 2021.

Mr. Dunn informed the participants that Niskamoon has retained the services of Laura Lee for this winter, and she will therefore be available to participate in field research.

A discussion took place about the pandemic situation and its impact on the continuation of field research in 2021.

Mr. Dunn said that the committee needs to start planning with the assumption that COVID-19 will still be an issue next year. He said that the researchers need to be in the field to complete their research. He added that he sees three options for the researchers:

- i) to observe a 14-day quarantine;
- ii) to self-isolate one week outside the Cree community concerned and one week within the Cree community concerned.
- iii) to be accommodated outside of Cree communities, at LG-1, for example, and to have no contact with Cree communities and just focus on their field research.

Ms. Lefèbvre said that, by next year, there may be new tests that provide quicker results and could eliminate the need for a 14-day quarantine.

b. Julian Idrobo

Mr. Rabbitskin said that Julian Idrobo's campaign went well. He said that Mr. Idrobo spent two days at John Sam's camp, and then drove to Waskaganish and met with Victor Diamond at his camp for a few days.

While waiting for the Manitoba team to join them online, the participants decided to start on item 8., "Miscellaneous."

8 MISCELLANEOUS

a. Blue-green algae

Ms. Sinave said that she contacted different Cree groups, such as the Cree Board of Health, and asked the opinion of representatives from the eelgrass team and ISMER to get additional information about the issue of blue-green algae.

Ms. Sinave said that, based on her understanding, the presence of blue-green algae is not a concern right now because of its low concentration.

b. Mélanie Leblanc

Mr. Dunn said that Mélanie Leblanc applied for a post-doctoral fellowship. He said that she wants to study the links between eelgrass beds and geese. He explained that she made a presentation to the Eeyou Marine Wildlife Board, not to ask for financing, but to obtain their approval to carry out her research project. He said that the Board approved her project.

c. University of New Hampshire (UNH)

Mr. Dunn said that UNH sent a letter to Stantec asking them to transfer the data. He added that he doesn't think Stantec will comply, and that Niskamoon will likely have to send another letter to get the data.

Mr. Pachano suggested that the letter specify that Niskamoon will withhold payments.

Mr. Dunn said that this is a good idea.

d. Surplus – Fuel barrels

Mr. Rabbitskin said that all barrels have been picked up and removed from the territory.

e. Arctic Change Conference

Mr. Dunn said that the conference will be held between December 7 and 10, and that, due to the pandemic, it will be online. He said that the fees are \$50 and that Niskamoon will cover that cost for anyone wishing to attend. He said that committee members wishing to attend must contact Linda Corston at the Niskamoon Corporation.

Given that there was still time before the Manitoba team joined the meeting, the participants decided to address item 9., "Next meeting."

9. NEXT MEETING

After discussion, it was decided that the next meeting will be held on November 10, 2020, by videoconference and that the main subject will be a progress report from Zou Kuzyk in connection with the Synthesis Report.

It was also decided that the following meeting will be held on Tuesday, January 13, 2021.

The meeting paused at 10:55 a.m. to allow the eelgrass team to join the meeting. The meeting resumed at 11:05 a.m.

4. PRESENTATION BY THE EELGRASS TEAM

Fanny Noisette and Brigitte Leblond gave a PowerPoint presentation entitled "Eelgrass Team Progress Presentation," dated November 4, 2020. A copy is appended to the minutes.

Julian Idrobo, Mélanie Leblanc, Mary O'Connor and Jean-Philippe Gilbert also joined the meeting.

Ms. Durocher asked about Hydro-Québec's satellite images and whether the researchers could specify which year's images were used.

Ms. Leblond answered that they used the images from 2019.

Mr. Dunn asked how many points were used.

Ms. Leblond answered that 147 points were used for ground truthing. She said that water turbidity was taken into consideration.

Ms. Durocher asked Ms. Leblanc when her manuscript will be ready.

Ms. Leblanc said that it is currently being reviewed by the co-authors and that she will send it to the SC for comment sometime in December.

Mr. Tapiatic asked what the difference is between the satellite images from Hydro-Québec and those obtained by the researchers.

Mr. Gilbert said that the images are not of the same sites.

Mr. Dunn said, for Hydro-Québec's images, they are of the same sites that have been monitored for several years.

Ms. Noisette said that the eelgrass team has chosen a mix of sites, which includes sites that the team chose independently.

Mr. Kanatewat said that he personally follows up on eelgrass sites. He said that, in summer 2020, he found an eelgrass site on his trapline where eelgrass grows very well. He said that he will go back next summer to check whether the eelgrass is still there and in good health.

Ms. Noisette said that the study will compare results from 2019, 2020 and 2021, so there will be three years of data to compare.

Mr. Kanatewat invited the members of the eelgrass team to join him next summer to check on the eelgrass site. He said that he noticed that the water was clearer this year than in previous years.

Mr. Dunn asked what the proportion of sexual reproduction is compared to reproduction by rhizome.

Ms. Leblanc said that most of the reproduction is done by rhizome. She added that, with the increase in temperature, there should be more sexual reproduction.

Mr. Dunn asked what the level of recruitment from seedlings from outside of the territory is.

Ms. Noisette answered that she doesn't know.

Mr. Dunn said that the eelgrass population along the eastern James Bay coast is at the northern limit of its distribution. He said that the population is geographically isolated, which makes it vulnerable.

Ms. Leblanc said that the seeds are dormant and can be carried away by the current.

Ms. Sinave asked when information about invertebrates found in eelgrass beds will be available.

Ms. Noisette said that Mary O'Connor is currently analyzing this and that we should have results sometime in spring 2021.

Mr. Pachano said that, according to the people from Waskaganish, there is no eelgrass in the Rupert and Boatswain bays. He asked why the researchers' map shows eelgrass in those areas and whether ground truthing had revealed eelgrass presence there.

Ms. Leblond said that this can't be properly verified due to the water turbidity. She added that water turbidity is caused by forest fires and forestry operations in the south.

Mr. Dunn said that, in the Waskaganish area, there is a lot of erosion and that the drainage basin drained many bogs.

Mr. Gilbert said that the table on validation sites is not a comparison between the Hydro-Québec sites and the sites sampled by the eelgrass team, because the sites are different.

Mr. Dunn said that, next summer, due to the COVID-19 situation, the researchers will need to isolate for 14 days before going on the field. He added that it is important to start thinking about whether this is feasible or not. He said there may be new tests with quicker results, which would limit the number of days researchers need to quarantine.

Ms. O'Connor said that it is feasible to combine self-isolation and field research.

Ms. Noisette said that she thinks it is feasible.

Mr. Dunn said that Ms. O'Connor had mentioned a possible collaboration for a video.

Ms. O'Connor said that she was contacted by Ocean X, which is a non-profit organization that produces digital documentary series or short films, to participate in a documentary on "changes in northern regions" with a focus on ocean-coastal interactions. She said that Ocean X would like to document the concern of the Cree communities over the eelgrass issue. She explained that this section of the documentary would be approximately 8 minutes, and she asked whether the SC would agree to participate in developing a script for the film.

Mr. Dunn said that he will send Ms. O'Connor's email to the participants and discuss the proposal after lunch.

The meeting paused for lunch at 12:15 p.m. and resumed at 2:05 p.m.

Before going to the next item on the agenda, Mr. Dunn asked whether the participants are in favor of the request made by Ms. O'Connor to participate in the development of a script for the Ocean X documentary. After discussion, the participants rejected Ms. O'Connor's request and asked Mr. Dunn to advise her of this decision.

5. COMMUNICATIONS

a. Newsletter

Mr. Dunn said that there are three topics: Cree team, COVID restrictions and the website. He said that, as far as the website is concerned, it is going very slowly and he recommended replacing that section in the Newsletter by something else.

b. Update on the Web Portal

Mr. Dunn said that, since there is still a lot of work to do before the website is operational, he suggested replacing the section in the Newsletter that was going to discuss the website with a section about the video produced by J.-F. Giroux on the movement of migrating geese. He said that the video satellite tracking of geese is already on YouTube, so the Newsletter entry could simply be a description of the video with a link.

The participants agreed with Mr. Dunn's suggestion

c. Logo

Mr. Dunn showed the logo proposed by the eelgrass team.

Ms. Durocher asked if the proposed logo is for the eelgrass team only.

Mr. Dunn said no, it is for the whole Coastal Habitat Research Program.

After discussion, it was decided to address this subject later.

6. PRESENTATION BY THE MANITOBA TEAM

Jens Ehn gave a PowerPoint presentation entitled "Coastal Oceanography Update – Zou Zou Kuzyk, Chris Peck, Alessia Guzzi, Madelyn Stocking, and Jens Ehn" (undated). A copy is appended to the minutes.

Mr. Idrobo, Ms. Leblanc and Ms. Kuzyk joined the meeting.

Mr. Tapiatic, referring to the slide entitled "Schematic views of a river plume and estuarine circulation" asked what the impacts of the shear mixing were and whether more shifting caused more damage.

Mr. Ehn said yes, the shear mixing does cause more damage at the river mouth but not where the eelgrass beds are located because they are far away from the estuary.

Mr. Dunn asked whether there is a link between the shear mixing phenomenon at the edge of the plume and the eelgrass beds that are located there.

Mr. Ehn said that the freshwater exiting the river mixes with the salt water from James Bay and continues along; it does not return to the river. He said that, under the ice cover, the plume moves further into James Bay.

Mr. Lameboy said that, before the construction of the La Grande complex, the salinity in Bay of Many Islands was likely higher.

Mr. Ehn said that, yes, we can assume it was.

Mr. Ehn said that, at Bay of Many Islands, the proportions are 1/3 freshwater and 2/3 sea water. He said that this location is the boundary of the plume, where the freshwater isn't totally mixed with the salt water from James Bay.

Mr. Dunn asked whether the presence of freshwater south of Rivière La Grande is correlated with the river's flow.

Mr. Ehn said that this is not an easy question to answer and that many factors have to be taken into account. He said that there is a whole freshwater environment, and La Grande is one of the factors.

Mr. Pachano said that in the "Conclusion" slide, at the first bullet, he doesn't agree with the term "lessen," as it removes the direct impact.

Mr. Ehn answered that this could be made clearer.

Mr. Dunn said that we have lot of data north of La Grande but not that much south of La Grande. He said that the committee needs to better understand the relationship between salinity and eelgrass south of La Grande.

Mr. Ehn said that it will be necessary to involve the eelgrass team in the discussion.

Ms. Durocher said that, at some point, the committee needs to know to what extent salinity impacts eelgrass growth.

Ms. Leblanc answered that, yes, salinity plays a role in eelgrass growth, but it is only one of the factors that play a role.

Ms. Durocher asked up to where along the coast can the effect of La Grande be seen.

Mr. Ehn answered that all of James Bay is a plume. He said that it depends how one defines the plume: if it is defined as a salinity of 5 ppm, then it goes up to Bay of Many Islands; if it is 28 ppm, it goes to Cape Jones.

Ms. Leblanc asked Mr. Ehn to create an isohaline map.

Mr. Ehn said that he will.

The meeting adjourned at 4:45 p.m.



Marc Dunn