


Coastal Habitat Comprehensive Research Project

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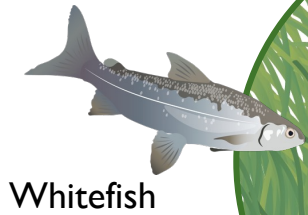
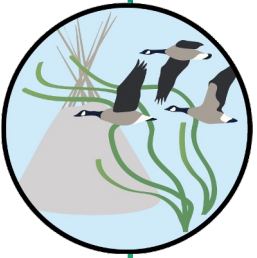
December 2022

Hudson Bay Summit 2022

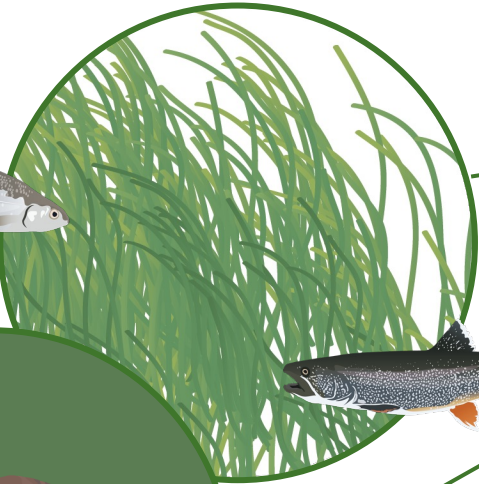


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Introduction



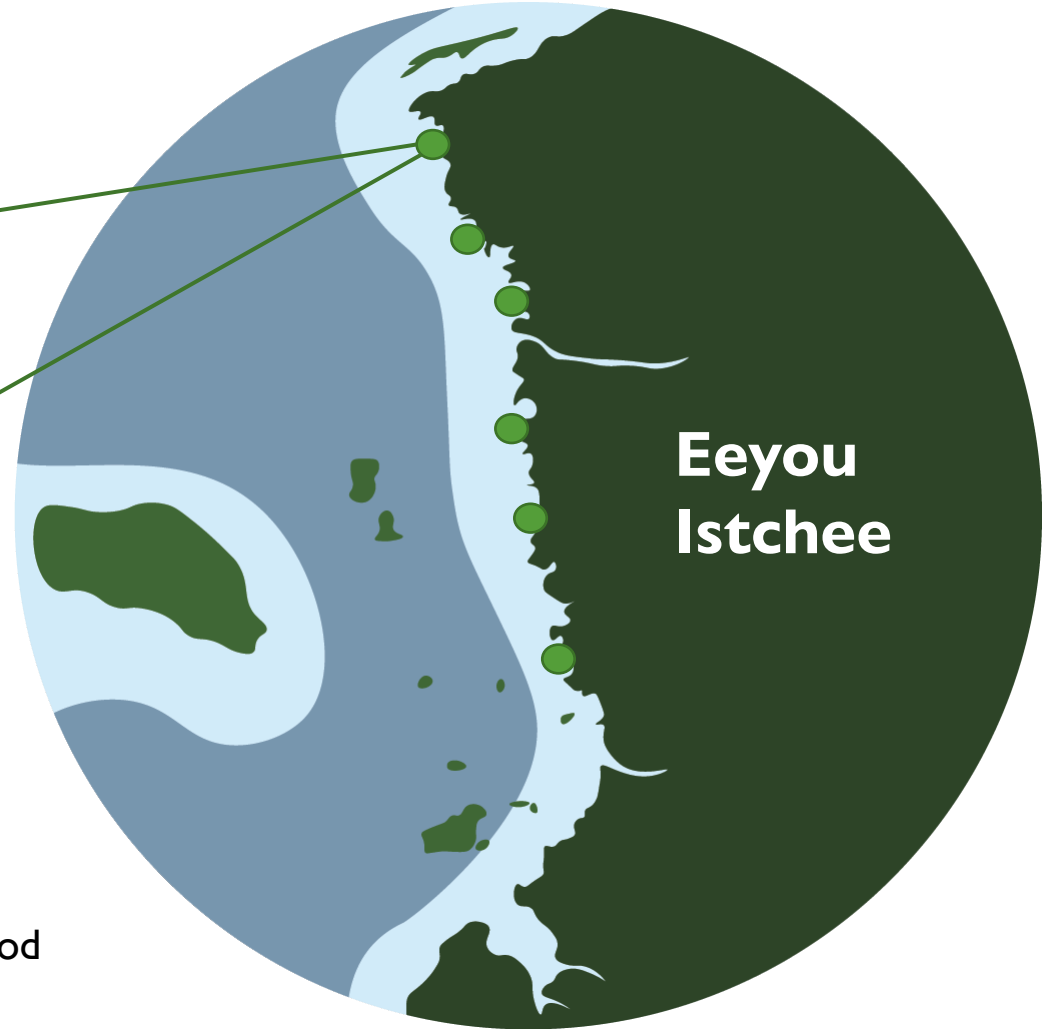
Whitefish



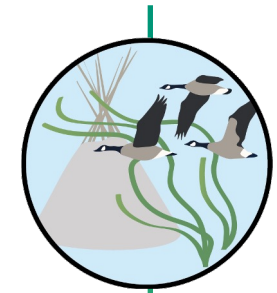
Lake Trout



Canada Geese

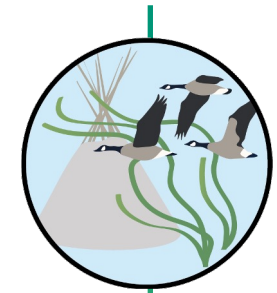


Eelgrass (*Zostera marina*) important habitat for fish and food for migratory waterfowl



History & Agreement

- Following a Special Assembly of the GCC (2015) and the 2016 AGA where the eelgrass issue was discussed in detail, it was decided to put together a research team to further investigate.
- Due to the strong potential connection to hydroelectric development, a collaborative relationship was defined to involve Hydro-Québec in the project.
- An agreement was signed between the GCC, Hydro-Québec and Niskamoon Corporation on Aug. 4, 2016.
- Research was overseen by a Steering Committee made up of representatives from each of the four eastern James Bay coastal communities, Niskamoon Corporation and Hydro-Quebec (with special representation from the Cree Nation of Chisasibi)

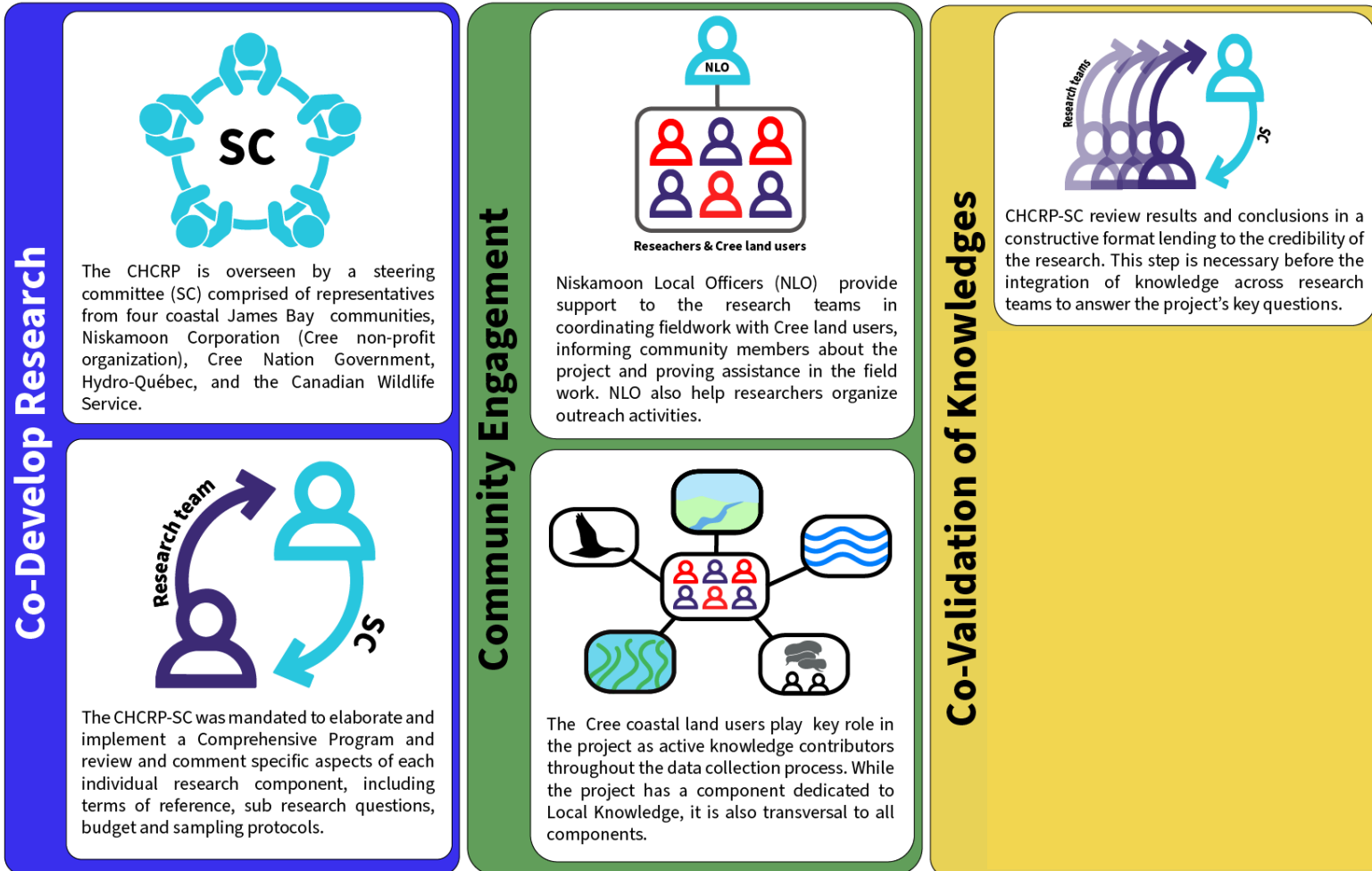


Steering Committee

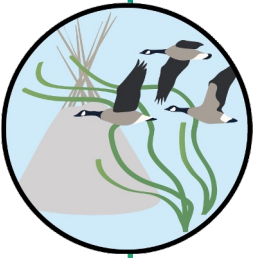




Working with land users




Working with land users






Respecting Traditional Authority

Co-Develop Research



The CHCRP is overseen by a steering committee (SC) comprised of representatives from four coastal James Bay communities, Niskamoon Corporation (Cree non-profit organization), Cree Nation Government, Hydro-Québec, and the Canadian Wildlife Service.

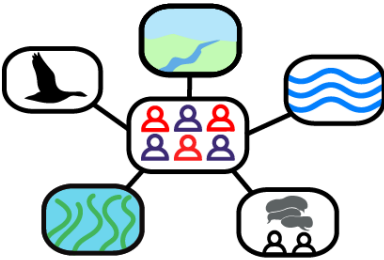


The CHCRP-SC was mandated to elaborate and implement a Comprehensive Program and review and comment specific aspects of each individual research component, including terms of reference, sub research questions, budget and sampling protocols.

Community Engagement




Niskamoon Local Officers (NLO) provide support to the research teams in coordinating fieldwork with Cree land users, informing community members about the project and providing assistance in the field work. NLO also help researchers organize outreach activities.




The Cree coastal land users play key role in the project as active knowledge contributors throughout the data collection process. While the project has a component dedicated to Local Knowledge, it is also transversal to all components.


Co-Validation of Knowledges



CHCRP-SC review results and conclusions in a constructive format lending to the credibility of the research. This step is necessary before the integration of knowledge across research teams to answer the project's key questions.

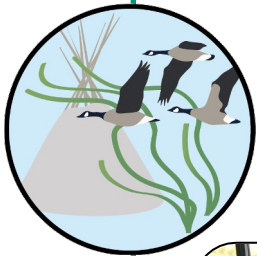


Meetings and consultations with community members so that they can provide their input and expertise related to framing, interpretation and the research, particularly, but not necessarily limited to, the inclusion, presentation, and protection of local knowledge in the integration process and outputs of research.



Once co-validation is completed, researchers can publish in peer reviewed journals. Research findings are also shared on social media, posters and pamphlets in an accessible format to community members.





Respecting Traditional Authority



Wemindji, 2019



Chisasibi, 2022



Wemindji, 2021



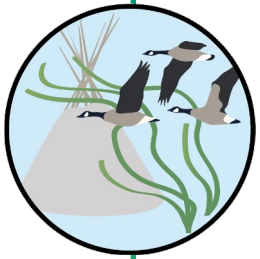
Wemindji, 2022



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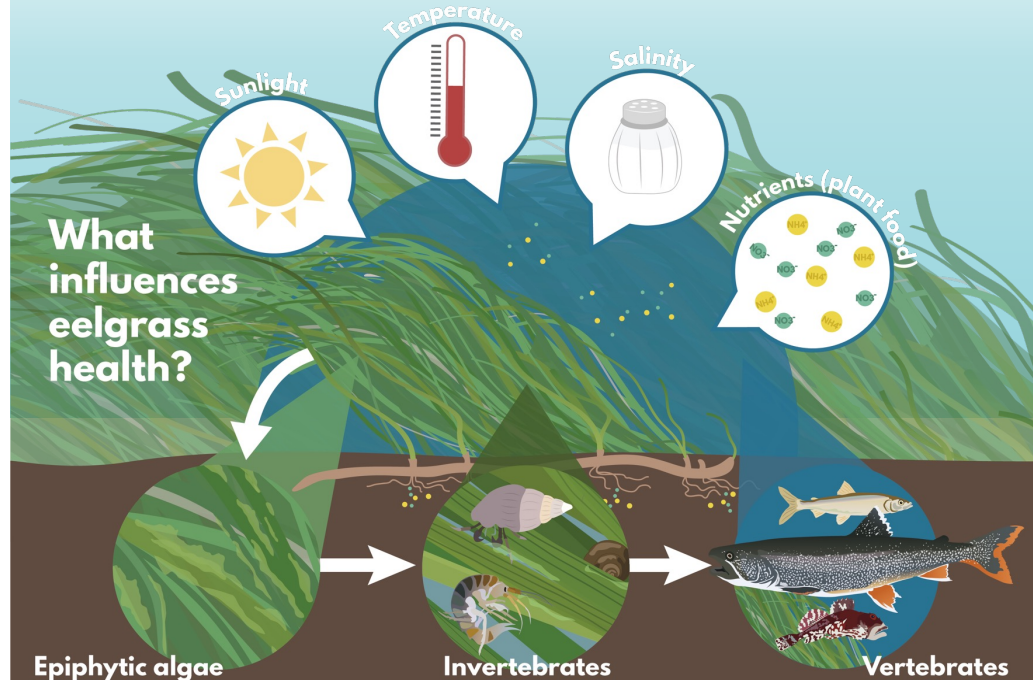


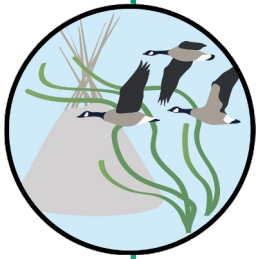
Chisasibi, 2022



CHCRP Key Research Questions

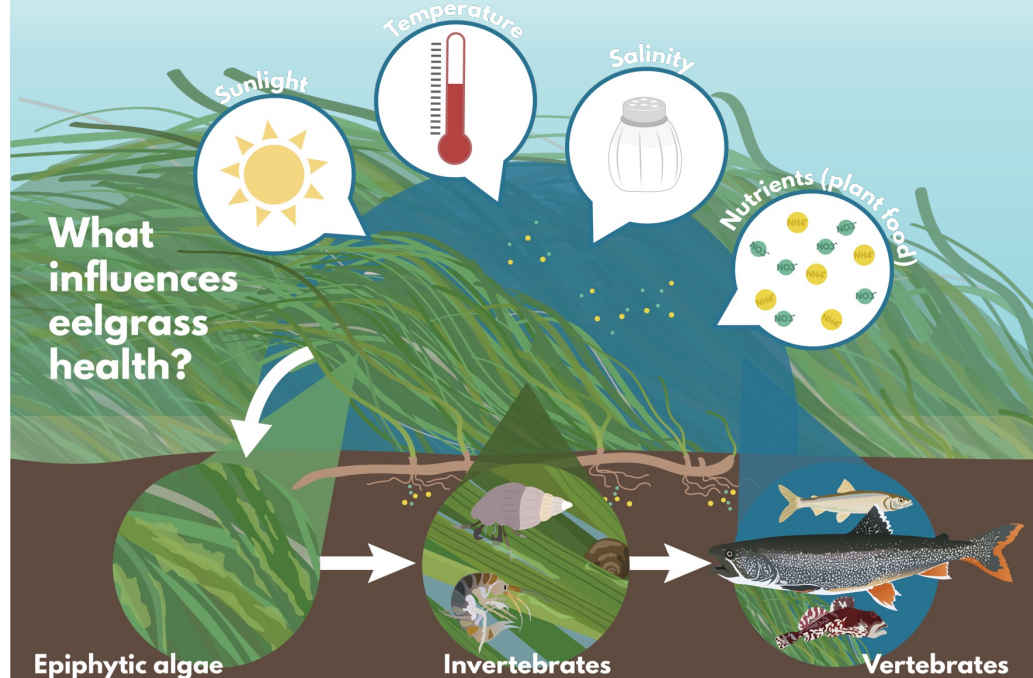
1. What are the main factors affecting the current state of eelgrass along the eastern coast of James Bay





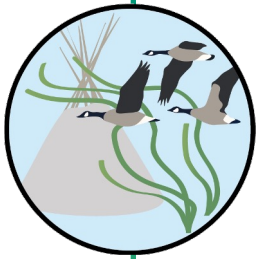
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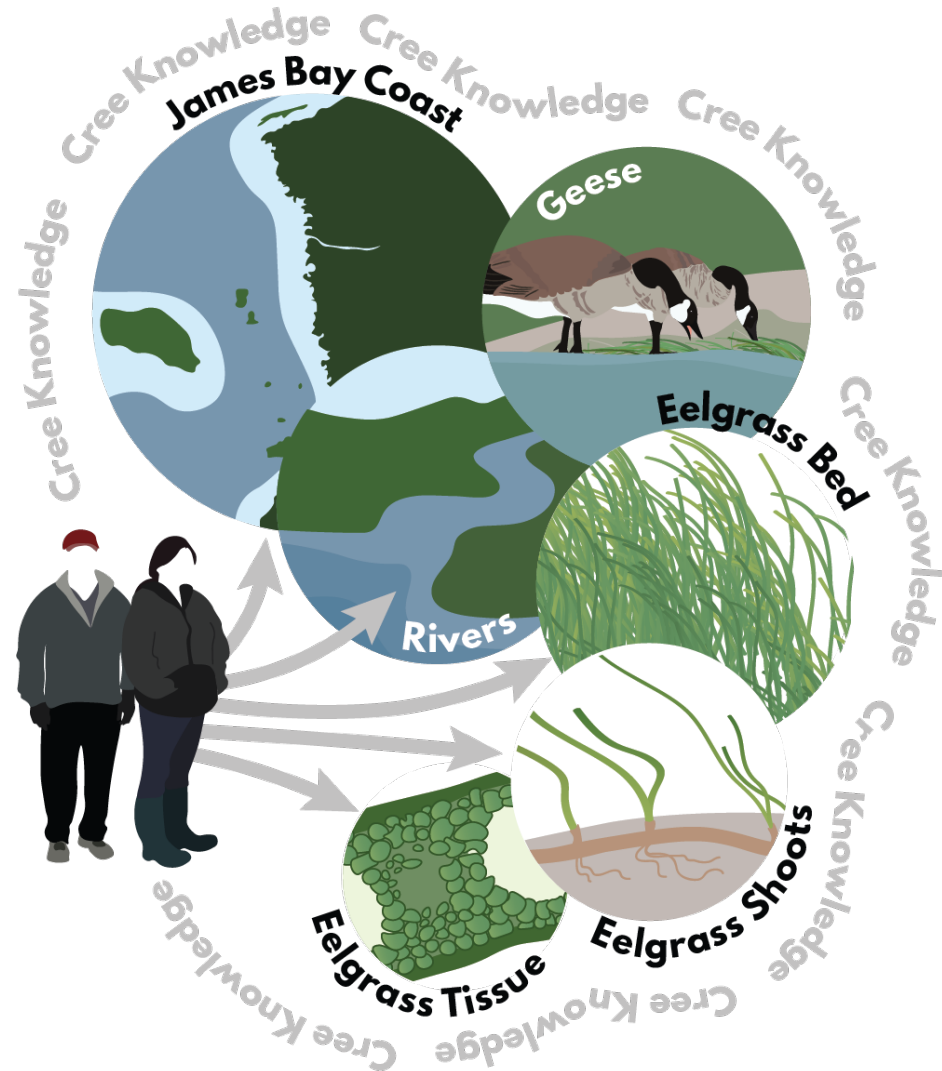
2. *what is the impact of the current state of eelgrass of waterfowl presence and consequently on Cree hunting activities?*



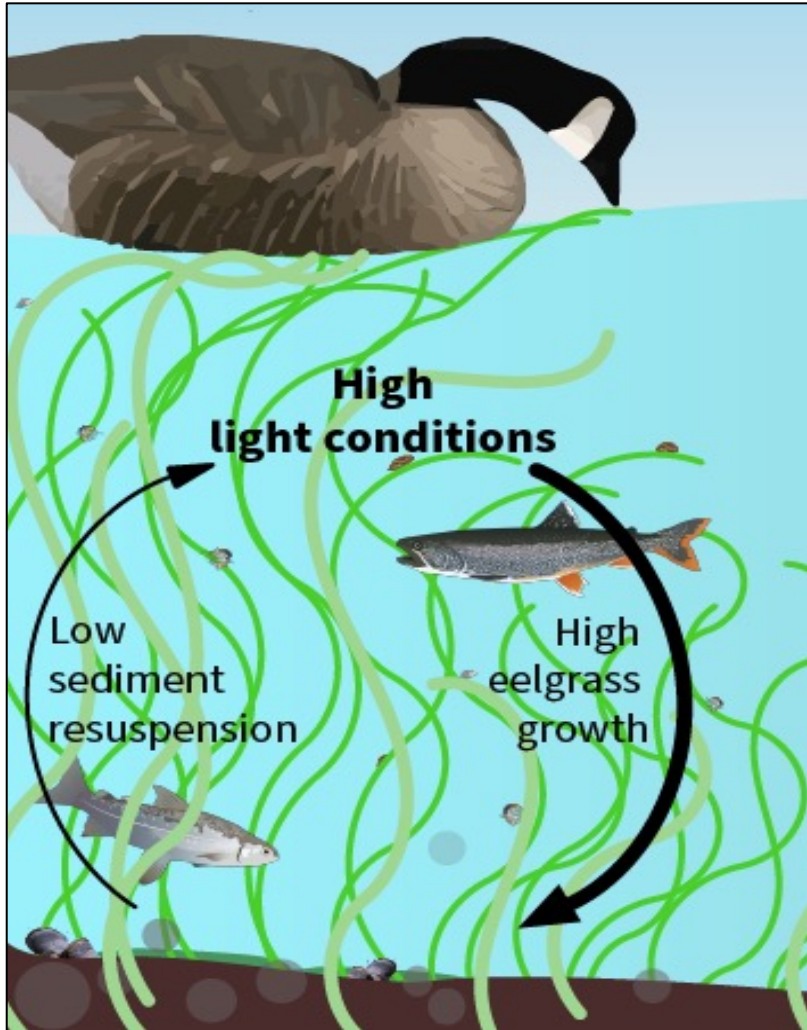


Five Research Components

1. Traditional Ecological Knowledge
2. Oceanographic
3. Eastern Rivers
4. Eelgrass health and distribution
5. Waterfowl (Canada Geese)

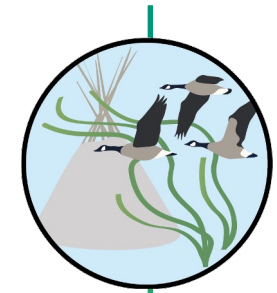


Main Results for Question 1

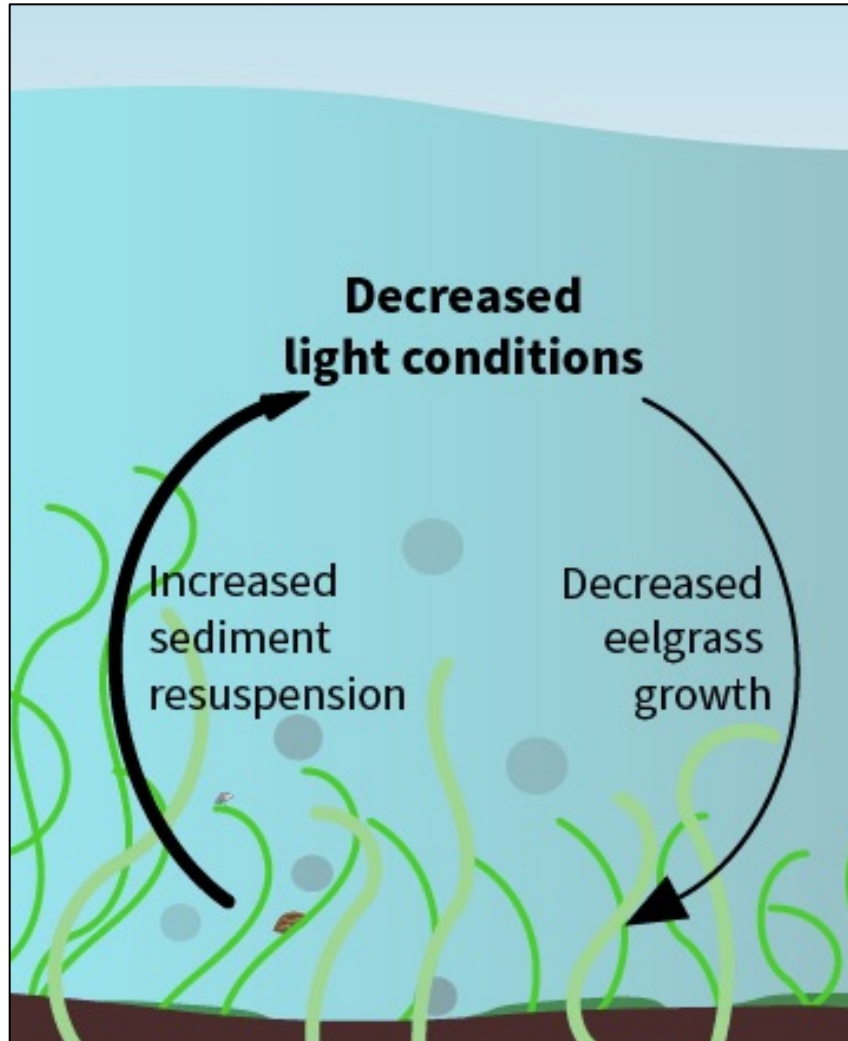


Pristine eelgrass habitats:

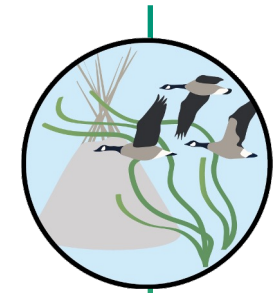
- Habitat for fish
- Food for migratory waterfowl
- Traps sediments, keeping the water clear



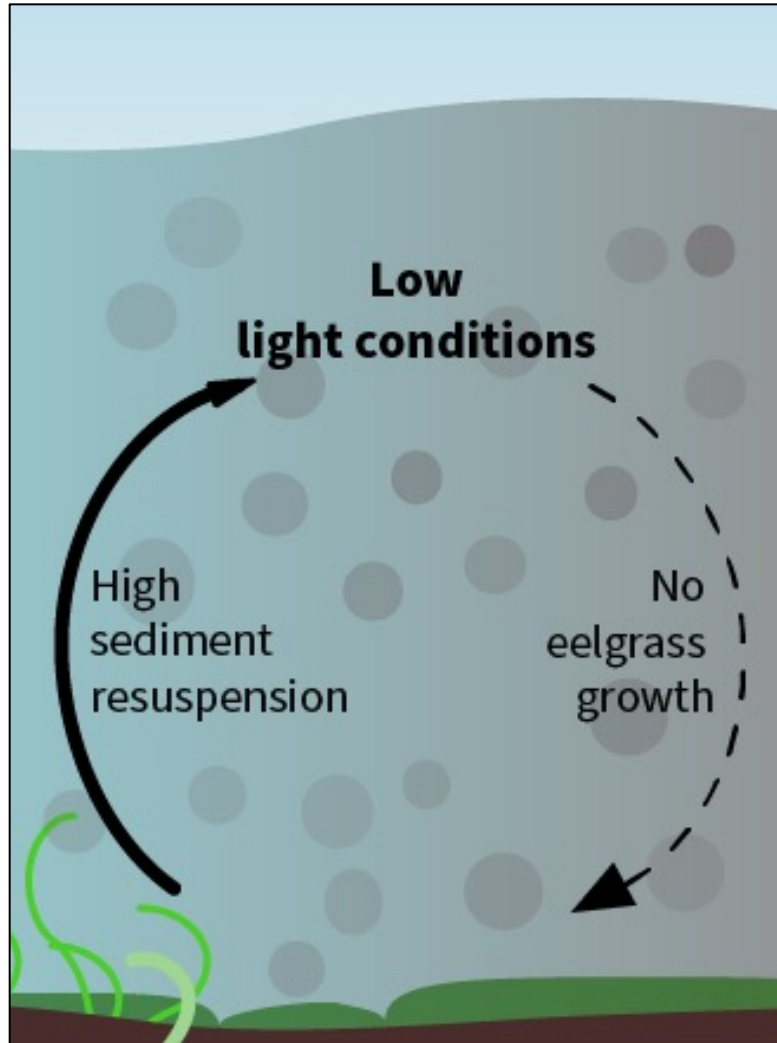
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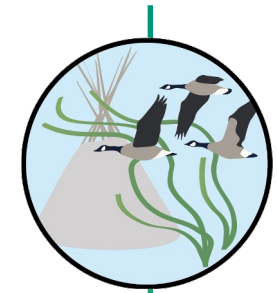
Early decline in Chisasibi in the 1980s was caused by the hydroelectric development of the La Grande River



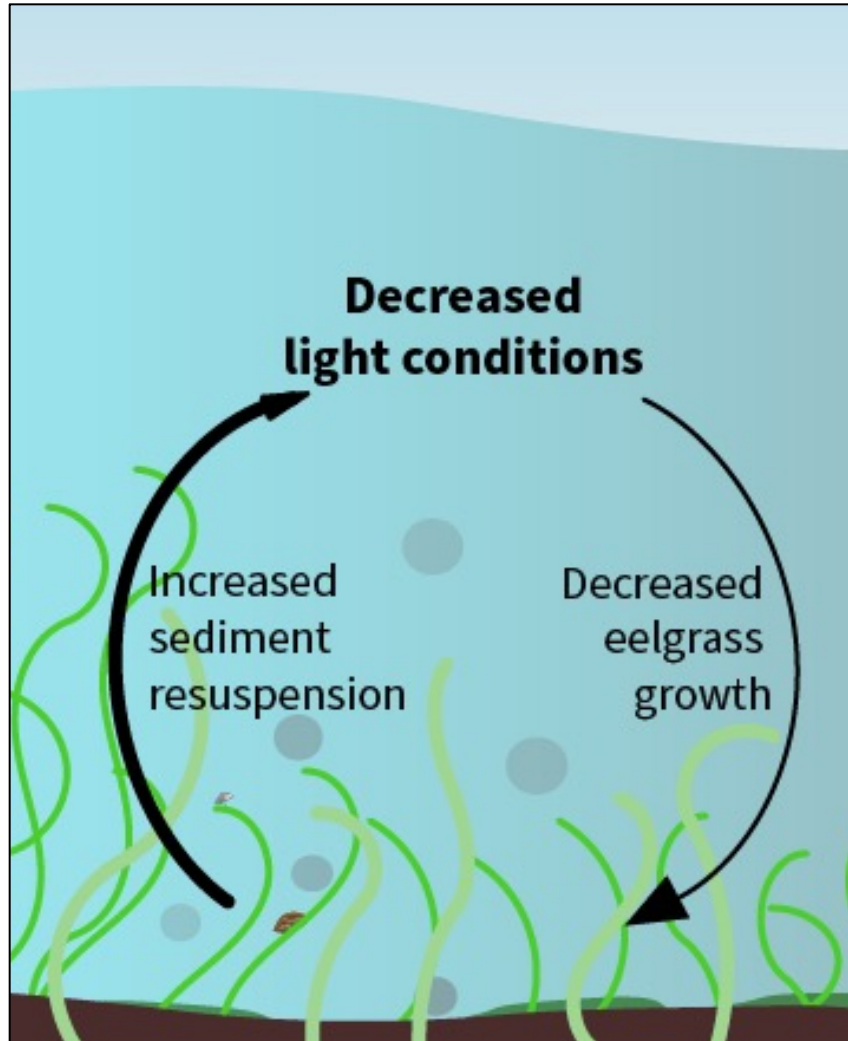
Main Results for Question 1



Onset of very early ice breakup and warm early-summer water temperatures in the 1990s accelerated the eelgrass decline in Chisasibi and extended the decline along the coast



Main Results for Question 1



Today the eelgrass is struggling to recover. The insufficient light during early summer due to water color + feedbacks are impeding recovery. Near the La Grande River, eelgrass is negatively affected by high flows and warmer springs

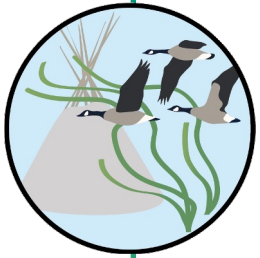


Main Results for Question 2

During the 1970s, healthy eelgrass provided very important feeding areas for migrating geese.



Main Results for Question 2

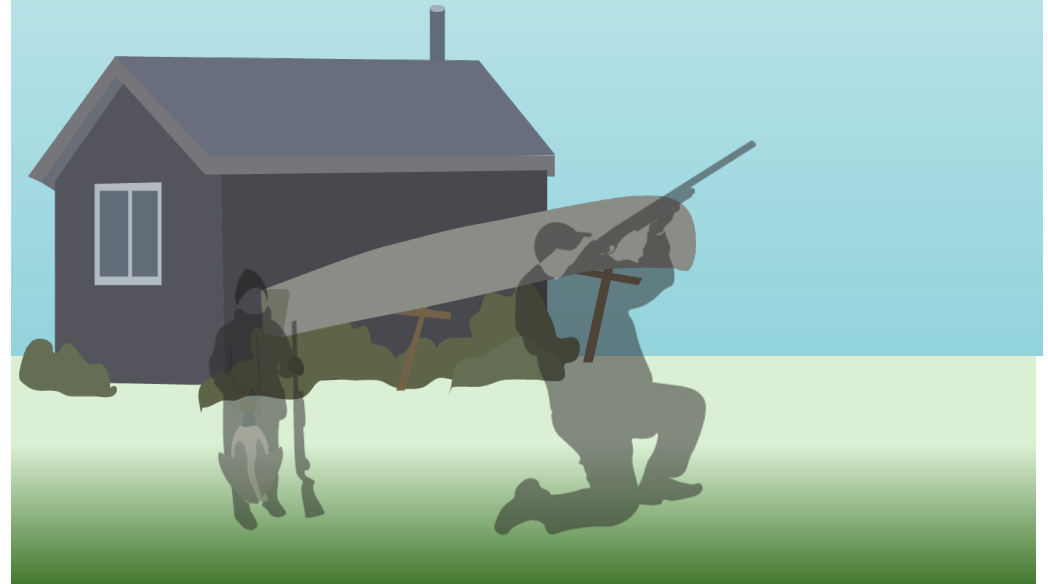


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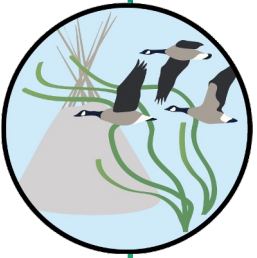


Now, passing geese do not stop long during the fall and are less predictable.

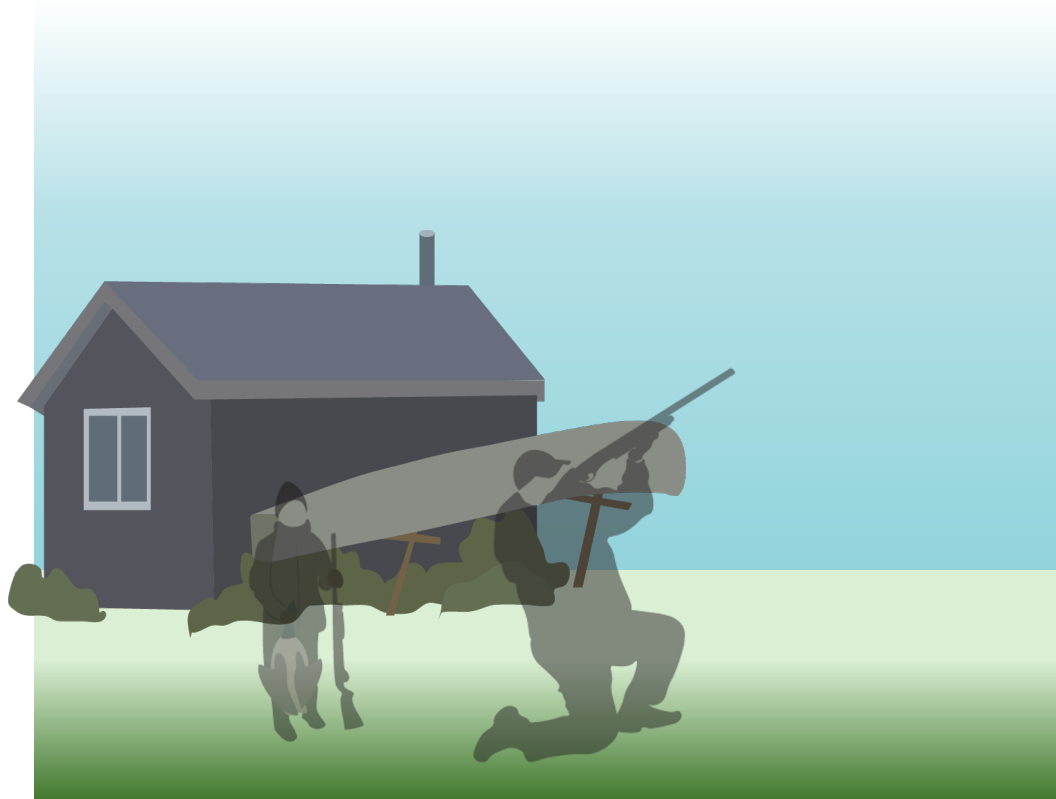
Fall hunting is thereby less successful.



Main Results for Question 2



Now, passing geese do not stop long during the fall and are less predictable.



Why?



Loss of large eelgrass meadows



Less berries along the eastern JB coast



Agriculture expansion down south

Conclusion and Next Steps

