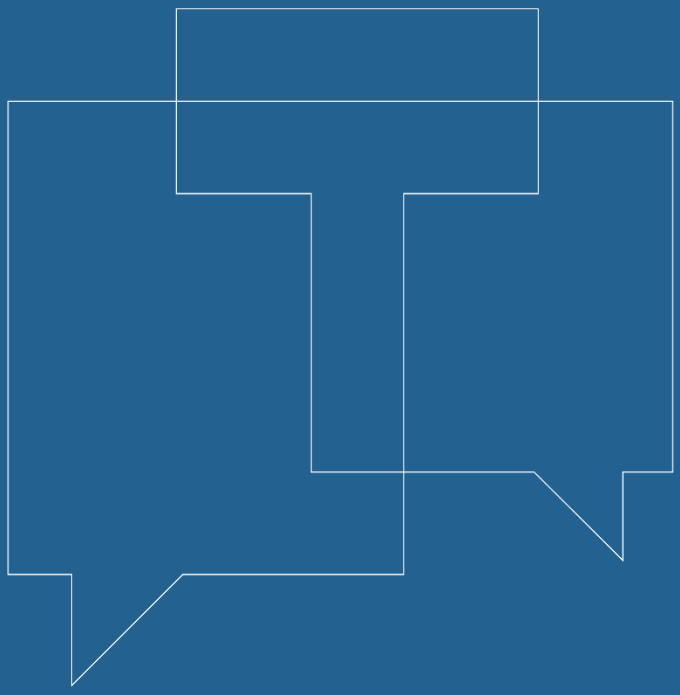
MEETING MINUTES

Thematic workshop #2

River Flow and Mitigation Measures

June 9, 2025



Prepared for:

ONI MIKI

TRANSFERT
ENVIRONNEMENT ET SOCIÉTÉ

SETTING THE SCENE

Transfert Environnement et Société (hereafter Transfert) was mandated by Onimiki Renewable Energy to assist in the facilitation, reporting and planning, of a series of public information and public consultation meetings concerning the Onimiki Hydroelectric Project.

In spring 2025, a thematic workshop was held on the Onimiki Project in Temiskaming. The public could also participate online. A total of 31 people took part in the event (25 in-person and 6 online).

This document reports on the topics raised at the participatory workshop held on June 9, 2025 in Témiscaming. This activity report is not a verbatim, it is intended to be as faithful as possible to the questions, comments and concerns raised at these meetings.

The content of this report cannot be considered as a verbatim of the words of Onimiki Renewable Energy, CIMA+, Transfert Environnement et Société or any other person who participated in the meeting. Summarized information, transparency, and rigor are the principles that have guided the completion of this document.

In some places, additional information has been added when drafting the report, notably when the answers provided during the activity were incomplete, or in response to questions or concerns raised by the feedback questionnaire.

INTRODUCTION

The population of Témiscaming were invited to attend (online or in person) a presentation aimed at sharing the information gathered to date by CIMA+ on the anticipated effects on the flow of the Kipawa River and fish habitat (Laniel sector), as well as some anticipated mitigation measures. The presentation was followed by a question-and-answer period and a participatory workshop. Resource people were available after the workshop to provide information and answer individual questions about the project.

The presentation is available in the appendix.

June 9, 2025

6:30 p.m. to 9 p.m.

Le Centre
(20 Humphrey Street, Témiscaming)

31 people took part
in person and online

WORKSHOP OBJECTIVES

- Deepen project understanding to help participants contribute in a more informed matter.
- Examine potential challenges regarding the project, as well as opportunities that could be used to improve its implementation and community outcomes.
- Develop creative solutions to solve identified problems and improve certain aspects of the project.

For this workshop, the specific objectives are:

- To give participants a concrete understanding of concepts related to fish flow and habitat.
- Identify project feasibility criteria based on their knowledge of the area.
- Identify collective priorities and local issues related to the establishment of different types of flow.

MEANS OF COMMUNICATION USED

The following communication methods were used to promote the event:

- Onimiki Renewable Energy social media (posts and advertisements)
- Onimiki Renewable Energy website
- Onimiki Renewable Energy newsletter
- Posters
- Social media of municipalities and RCMs
- Media invitations
- Targeted invitations

Here are the people who were on site during the workshop

Onimiki Renewable Energy	Nicole Rochon, Administrator, Onimiki Renewable Energy L.P.
	Marc Morin, Vice-President, General Manager, Développement PEK
	Daniel Migneault, Communications and Community Relations Advisor, Développement PEK
	Luc Tardif, ing. Construction Manager (online)
CIMA+	Anne-Marie Wagner, biol., responsible for environmental impact assessment
	Michelle Lavictoire, Biologist, ichthyofauna specialist (online)
Environment and Society Transfer	Isaac Gauthier, facilitation
	Stéphanie Fortin, online facilitation
	Laurence Moreau, online facilitation and note-taking

Meeting Highlights

- Several questions were raised about the minimum flow required for the Kipawa River.
- Discussions on ongoing studies and the environmental impact assessment process.
- Concerns about the risk of drying up wetlands and water bodies in relation to lake levels.
- Concerns about possible changes in water temperature and their effects on fishing.
- Concerns about changes in the flow of the Grande chute, given its importance as a major tourist attraction for the region.
- Interest expressed in learning more about the models and methods used to identify fish species.

Follow-up Actions

- Share the name of the flow calculation method and more information about it, as presented in the graph on slide 32.
- Provide a list of fish species present in the Kipawa River.
- Correct the date of submission of the impact study on the Onimiki website (done).

PRESENTATION & QUESTION PERIOD

Onimiki Renewable Energy briefly presents the project and introduces the team from CIMA+, an independent firm responsible of the project's impact study. CIMA+'s presentation includes the regional and Laniel sector study areas, definitions of flows, current management of Lake Kipawa and the Kipawa River, the various flows and flow patterns, fish and their habitat, and a preliminary impact analysis (methodology, preliminary anticipated impacts on flow and fish habitat, preliminary mitigation measures).

The presentation is followed by a question period. For more details, the complete presentation is appended to this document.

The following section summarizes the discussions that took place during the question period.

QUESTION OR COMMENT	RESPONSE
 Financing	
Can we say that the dotted line in the graph on slide 32 is based on the project's profitability requirements?	Onimiki Renewable Energy: No, the values presented are based on the assumption of a fixed flow rate of 15 m^3/s, in accordance with the Ministry of the Environment, Climate Change, Wildlife and Parks' (MELCCFP) wish to maintain this threshold. Onimiki must respect this minimum commitment, and we consider this initial assumption to be realistic for the purposes of the impact study. Studies are underway to confirm this assumption.

QUESTION OR COMMENT	RESPONSE
Will the developer have a minimum supply guarantee to produce under its production contract with Hydro-Québec?	Onimiki Renewable Energy: No, the contract with Hydro-Québec would be open, meaning that they would purchase the available production, with no minimum obligation in terms of energy produced or installed capacity. This is the same type of contract seen in other cases. Hydro-Québec is aware that the current management of Lake Kipawa offers interesting production potential in winter, when demand is high. This hydroelectric project therefore stands out compared to other options that only produce about one-third of their capacity in winter.
Wetlands and hydric environments	
When I look at your presentation, it's the same as between 2005 and 2007. There is no mention of maintaining the level of Lake Témiscaming and the project's impact on the lake. There will be as much impact on Lake Témiscaming as on Lake Kipawa.	Onimiki Renewable Energy: The objective of the workshop is to focus initially on the Kipawa River, at the request of the community. The impacts on the entire study area and all other impacts will be examined as the information and consultation process continues. It is true that the information presented represents only a portion of the work—the focus has been on the Kipawa River and analyses of aesthetic and anthropogenic instream flows. These factors will potentially affect the installed capacity and other details of the project. At this stage of the analysis, no hydraulic simulations have yet been carried out to assess the impact at the outlet of the power plant, as the flow rate to be used has yet to be determined.
You mentioned that there will be no drying up of the river, but how many wetlands (area and types) would be dried up/affected by the lowering of the water level?	Cima+: We do not yet have data on wetland habitat loss, as the ecological instream flow have

QUESTION OR COMMENT	RESPONSE
	yet to be determined. These two elements are interrelated. By selecting the ecological instream flow, we will be able to assess wetland habitat loss. All wetlands have been inventoried through photo interpretation and field surveys.
Do the developers currently hold water rights in the Lake Kipawa watershed? If so, can the document be made publicly available? Assuming that water rights are possibly held by a public entity (RMC) and granted by another public entity (MELCCFP)?	Hydropower and power plant development rights are among the authorizations that will need to be obtained if the Onimiki project obtains the necessary approvals following the regulatory process, including the project assessment required by Quebec's Environment Quality Act.
 Flows	
What is the flow rate in m^3/s of the ecological instream flow?	Cima+: We are still analyzing this issue, particularly the needs of fish in certain tributaries. The project's area of influence must be approved by Fisheries and Oceans Canada. Once the area of influence has been established and we are able to understand how fish use the river, it will be possible to decide on an ecological instream flow. To date, we have been using a hypothetical flow of $15m^3/s$, as this is the MELCCFP's target and representative of the current situation, but this flow is not final. It will undergo a federal and provincial review process.
Does water flow into the tributary rivers or, conversely, do the tributary rivers flow into the river? You indicated that there are 45 tributary rivers. Do you know how many of these will be affected or dried up by the project?	Cima+: These are watercourses that flow into the Kipawa River and are therefore part of the Kipawa River watershed. It is not possible to dry them up. We are trying to understand the current use of all the watercourses that flow into the river

QUESTION OR COMMENT	RESPONSE
	(for example, are they connected to the Kipawa River? At what time of year are they connected? Do they allow fish to pass freely? etc.). By understanding how these tributaries are used by wildlife (fish and other species), we will be able to understand the flows and identify what ecological instream flow should be maintained to preserve their connectivity. If a tributary is not connected to the river at certain times of the year, it will likely be considered as functioning as it currently does. Therefore, it is likely that the current situation will remain unchanged.
What flow does the Sépaq consider acceptable?	Cima+: The Sépaq maintains a neutral stance on the project. Discussions with the organization take place regularly (e.g., requests to visit the area, data sharing, etc.). For the time being, the Sépaq is not commenting on the project. However, they will be consulted by the MELCCFP as part of the environmental assessment process and may take a more public stance after the impact study is submitted.
What is the name of the flow calculation method shown in the graph on slide 32? Is the dotted line based on profitability requirements?	Cima+: The graph directly shows the flow data from the MELCCFP hydrometric station 042610 located downstream of the Laniel dam. This station has been continuously recording the daily flows of the Kipawa River since 1987. However, in our analyses, we only use data from 2011 to 2023 due to a change in the management of Lake Kipawa in 2011, when responsibility for the lake was transferred to the provincial government. The graph shows the current median flow for each month recorded by the hydrometric station during the period 2011-2023. The projected flows (dotted line) are these same flows,

QUESTION OR COMMENT	RESPONSE
	from which the monthly flow diverted to the Onimiki Nord power plant has been removed. The amount of water diverted to the Onimiki Nord power plant depends on the plant's projected installed capacity. Onimiki Renewable Energy: The graph shows the current and projected variation in median flow per month, from January to December. The solid blue line represents the median monthly values. This means that approximately half of the time, the values are above the line and half of the time, they are below it. The dotted line shows the remaining flow in the Kipawa River once the project is operational, assuming a hypothetical ecological instream flow of 15 m^3/s. *Post-meeting correction: by mistake, the table showing the projected river flow after project implementation (available on slide 32) used data from 1983 to 2023 instead of data from 2011 to 2023. The corrected version of the table has been added to the presentation. The projected median, minimum, and maximum values are therefore higher than what was shared during the workshop.
This means that 77% to 85% of the river water will be diverted to the power plant. Do you have a safety factor to ensure a minimum requirement?	Cima+: The ecological instream flow will be determined using recognized calculation methods. It could be negotiated or adjusted according to anthropogenic needs. The flow rate used for the analysis is 15 m^3/s, and this will be presented to the ministry to validate the impact assessment and mitigation measures. By using drone imagery and modifying the outflow from the dams on Lake Kipawa, we were able to observe what a flow rate of 15

QUESTION OR COMMENT	RESPONSE
	m^3 /s actually looks like in different sections of the river. Onimiki Renewable Energy: We are not necessarily aiming for a safety factor, but rather a preliminary ecological instream flow that allows us to have a high degree of certainty in assessing impacts. For the impact study, we chose a flow rate with a sufficient degree of certainty to allow professionals to be comfortable with their conclusions on the impacts. All of these conclusions will be validated through environmental monitoring carried out during the project's operational phase over a period of three to five years. The ecological instream flow rate may need to be adjusted based on the monitoring results.
You said at the first workshop that you were in the third year of field inventories. Considering that the proponent plans to submit the impact study in the fall of 2025, how do you explain that you have not yet modeled flow variations? These are scenarios worth discussing.	Cima+: We are in the second version of the project. Two project notices have been filed as part of the project. In 2022, an initial project notice was submitted. The project notice for the current project was submitted a year ago. There have been several significant changes to the project since the second notice was submitted. As for modeling, Cima+ is in the process of selecting models to study the impacts on the Kipawa River and other environments. Facilitator: The projected timeline for the submission of the impact study is late 2025 or early 2026, not fall 2025. There is indeed a typo on the project website, which states that the impact study will be submitted in fall 2025. It will be corrected.

QUESTION OR COMMENT	RESPONSE
What we see on the graph is that in June, the flow rate drops to 15 m^3 /s. Since the beginning of the project, we have always been told that the Grande chute would remain a big waterfall. In June, the river is at about 85 m^3 /s, so it would drop to 15 m^3 /s. This is a significant drop. The Grande chute is a major tourist attraction for the region.	Cima+: Today's topic is to talk about flow rates and important factors for everyone. These factors will be part of the discussions during the workshop. Your point of view is relevant. It should also be noted that there is an agreement with dam Management officials to allow more flow during the Kipawa River Festival. This agreement will be respected by the Onimiki project. Onimiki Renewable Energy: Parc national d'Opémican has also shared with us a concern about possible daily fluctuations in flow, with a view to preserving the quality of wildlife habitats. Demonstrations will be carried out with protocols put in place to preserve existing ecosystems.
In May, there is water availability, and there is a drop in August. On the graph, the two lines are superimposed to maintain the minimum flow of 15m^3/s. What do we do between August and October? What is the priority?	Onimiki Renewable Energy: The graph shows the hypothetical proportion that would be used by the power plant. On average, the plant will be shut down in August. If the river flow exceeds the minimum flow, the excess will be turbinated. Generally, the August-September period will be used for planned shutdowns for annual equipment maintenance and repairs.
In a graph presented in March 2024, the projected flows were between 15 and 92 m^3/s, approximately. Today, you are presenting another graph of approximately 15 to 45 m^3/s. Why this change, which suggests that the graphs presented over the past several years do not represent the developers' actual projections?	Onimiki Renewable Energy: In the first version of the project, average values were used, whereas now median values are used. The median was chosen because it is statistically more representative than the average. This explains the change.

QUESTION OR COMMENT	RESPONSE
Fauna and flora	
Have you caught any cyprinids in the Kipawa River?	Cima+: No, we have not caught any cyprinids in the Kipawa River during the field surveys. Only larger fish were caught. Although not a cyprinid, the five-spined stickleback, a forage species, was caught in one of the tributaries of the Kipawa River. *Note*: Cyprinids are small fish, similar to minnows.
How much flow will there be during walleye spawning? The data indicates that a minimum of 50 m^3/s is required in the spring for walleye to reproduce well.	Cima+: Median flows from April to June range from 15 to 44 m^3/s. Flow is not the most important factor to consider for spawning. Water depth and flow velocity are more important. Flow also varies with river width, so each river must be considered on a case-by-case basis. The ecological flow rate that will be determined will, among other things, allow walleye to spawn in the spring. The modeling that will be carried out for the Kipawa River will make it possible to determine the depths and flow velocity based on a selected flow rate. We are analyzing different models to see if reducing the flow will allow spawning.
Was species identification carried out solely through capture, or was environmental DNA (eDNA) used to complete the picture?	Cima+: Environmental DNA was not used to identify fish species; only capture was used. Other methods were used to identify eggs and larvae. Published scientific methods were used to identify eggs and larvae.

QUESTION OR COMMENT	RESPONSE
Why wasn't environmental DNA used for fish inventories? What is it used for?	Cima+: Environmental DNA involves taking a water sample and analyzing traces of DNA to identify potential species present. This method is mainly used for turtles and fish larvae. In the first phase of the project in 2021, we carried out the exercise for turtles, as it was an interesting protocol. However, the results were inconclusive. For fish, there is much debate in scientific literature due to the high number of false positives. Water circulates rapidly between the Laniel Dam and the Ottawa River. Environmental DNA does not allow for the exact location of fish species identified by environmental DNA analysis to be identified and does not allow for the presence or absence of spawning grounds to be determined. There are also many more fish in Lake Kipawa than in the Kipawa River. It should also be noted that the ministry has accepted the standardized protocols used during inventories.
What will be the impact of lower flow rates on water temperature and the species that live there?	Cima+: The river's water temperature depends on how the Laniel dam is managed. The project will not change how water flows below or above the dam. The water passing through the dam moves quickly and should maintain its temperature. Further modeling is needed to validate this assumption. Normally, for a hydroelectric power plant like this one, when dam management does not change, the effect on water temperature is limited, especially in an environment where there are fish species that tolerate warm water. No trees will be removed from the banks, so the shade should not change either. The

QUESTION OR COMMENT	RESPONSE
	depth of the water will also need to be analyzed to validate these hypotheses. Facilitation: The project is still in the impact assessment phase. The anticipated potential impacts identified will be analyzed and detailed. Much data remains to be confirmed. Please do not be surprised if many questions remain unanswered.
Will you be assessing fish habitat directly located at the outlet of the Onimiki Nord power plant in Lake Témiscamingue (commonly referred to as *the volcano fish habitat*)?	Cima+: For Lake Témiscamingue, we will analyze the potential impact of changes in flow rate and water depths at the outlet of the tailrace channel from the Onimiki Nord power plant. The tailrace channel discharges the water that has passed through the turbines into the Ottawa River. Since little excavation is planned, the main anticipated impact relates to changes in flow at the tailrace outlet. The impact of the outflow at the plant's discharge point will be analyzed. We will then be able to assess the potential effects on the environment based on the expected changes in the hydraulic regime.
We are concerned about the erosion impacts created by the water outlet, particularly on fish habitat, wildlife, and the value of neighbouring properties. We also have concerns about the impacts of the Onimiki Nord site construction, particularly tree cutting and access to McMartin Point. Will you be assessing these impacts?	Cima+: Thank you for your comments. The issues you raise will indeed be assessed. The McMartin Point and Onimiki Nord power plant areas are part of the impact study area.
If the project goes forward, will there be environmental monitoring to ensure that theory aligns with practice? If so, over what period and who would be responsible for this?	Cima+: Absolutely. At the impact assessment stage, an environmental and social management plan will be developed either when the impact assessment is submitted or after the impact assessment process. This plan will bring together all mitigation measures,

QUESTION OR COMMENT	RESPONSE
If there is a difference between theory and practice, will the reserved flow be adjusted to address the impacts?	environmental monitoring during construction, and environmental follow-up. It will even include those proposed by the BAPE. For other more complex components, follow-up will be carried out. The MELCCFP will oversee the protocols and results of the follow-up, which will be conducted by the proponent and experts hired by the latter. Onimiki Renewable Energy: In other projects, citizen committees have also been organized to manage the monitoring process. These committees can also receive questions or comments from the community and liaise with the proponent. This interface exists, for example, to ensure that the proponent's commitments are respected.
 Excavation	
Does the impact study cover the mounds of rock resulting from excavation? Will the minerals be analyzed? Will there be space for wildlife to access the river?	Cima+: Excavations are regulated by the MELCCFP. The soil will be analyzed, and the appropriate management method will be suggested in the impact study. More detailed information will be provided during the authorization process. During natural environment inventories, we target certain areas that could be used as disposal sites. These are not located near rivers or homes, but in more isolated areas. If the materials can be recycled and used for other purposes, this will be explored. The sites will also be revegetated. Onimiki Renewable Energy: No drilling has been carried out yet, but it is planned to characterize the existing soil and assess any potential issues. In addition to the impact assessment and evaluation by

QUESTION OR COMMENT	RESPONSE
	the BAPE, the project will be subject to ministerial authorization and environmental permits for certain work, including drilling and mineral deposit sites. The final details will be established at this stage.

PRELIMINARY RESULTS OF THE PARTICIPATORY WORKSHOP

The objectives of the participatory workshop were to:

- Enable participants to **gain a concrete understanding of concepts related to flows** and fish habitat.
- Identify project **feasibility criteria** based on their knowledge of the territory.
- **Identify collective priorities and local issues** related to the establishment of different types of flow.

Participants were first asked to discuss the feasibility criteria for the project in relation to the three flow rates. Local issues or concerns to be considered, sensitive periods, and possible mitigation measures were discussed in groups.

The workshop took place in person and online (using Miro). The raw results of the online workshop are shown below. The full results can be found on pages 17 and 18.

DETAILED RESULTS OF THE PARTICIPATORY ACTIVITY

	Instream flow	Ecological instream flow	Anthropogenic instream flow
CRITERIA		• Preservation of adequate habitats for a majority of aquatic species. • Preservation of heterogeneity in aquatic habitats and ecosystem integrity. • Monthly variation in flow like current levels. • Always ensure connectivity between tributaries.	• Anthropogenic flow as minimum flow. • Recreational activities (fishing, canoeing, kayaking) can continue during open water periods in the Kipawa River in most of the river • Mitigation measures for the construction of tunnels and power plants (Onimiki Nord and Sud). • Always ensure public safety at power plant outfalls.
Local issues or concerns to consider		• The Kipawa River is a biological refuge 12 months a year. No project should threaten the inhabitants (fish, reptiles, amphibians, insects). The river's complex food chain must be thoroughly analyzed using the best possible methods.	• An anthropogenic flow of 15 m^3/s is insufficient. • The Parc national d'Opémican Conservation Plan must be respected at all times. • The river must be studied at all flow rates, in all segments and tributaries, throughout the year. There should be only one flow rate. • Concerns about sudden water rises at the outlet of the Kipawa River in Lake Témiscamingue.

	Instream flow	Ecological instream flow	Anthropogenic instream flow
Sensitive periods	• All year round, as this is a national park. • March and April—concern if a tunnel is visible due to flow rates.	• Developers must ensure that they choose methods spread out over the entire year for the impact study. • Amphibian and fish breeding season.	• After the spring thaw, the waterfall is particularly. impressive and enjoyable to visit. • High season in Parc national d'Opémican (summer).
Possible mitigation measures for each		• If a mitigation measure represents a degradation of the natural environment, the project must be reconsidered, as Parc national d'Opémican must be maintained as is. • Studies on water quality in the Laniel sector. • Sedimentation management measures. • Committee to monitor the flow of the Kipawa River during the operational phase of the project.	• Several anticipated impacts and concerns have remained unaddressed since 1998 (Tabaret). We eagerly await responses from the proponents. • Suggestion to reduce the flow used by the Onimiki Nord power plant by half to allow for a higher flow in the Kipawa River at Laniel.

Other comments or concerns noted:

- Project feasibility criteria: Environmental monitoring committee (during construction and operation), committee to maximize local benefits, and possibility of reselling the electricity produced in Ontario
- Project safety criteria during construction and in the event of natural disasters (e.g., flash floods and forest fires)
- Suggestion that the developer quantify local benefits during the various phases of the project (construction, operations, and closure)
- Sharing of the link to the hydrological monitoring of the various MELCCFP hydrometric stations, in particular station 042610, which has been providing flow data for the Kipawa station for the past 37 years
    - Post-meeting addition: here is the link - https://www.cehq.gouv.qc.ca/hydrometrie/historique_donnees/fiche_station.asp?NoStation=042610
- Difficulty in determining flow rates before understanding the calculation methods
- Questions about minimum flow rates
- The list of fish species in the Kipawa River is quite short... To my knowledge, there are also trout in the Kipawa River and certainly some cyprinids.
- The developers must comply with the Parc national d'Opémican master plan, the conservation plan, and ecological integrity.
- It would be interesting to see what is happening elsewhere, case studies and examples
- If the ecological integrity of the Parc national d'Opémican is threatened by the project, it should be abandoned, and projects that respect the national park should be considered. The citizens who worked for years to create the national park wanted to protect the Kipawa River, not exploit its water through diversion.
- The workshop should recommend alternative projects (Laniel dams, Lake Tee dam) to the developers so that the possibilities can be compared with the citizens. The developers have not yet explained the justification for the project at this location (Onimiki Nord).

CONCLUSION

The facilitator presents the next steps in the information and consultation process and thanks everyone for their participation.

The process will continue and other activities will be held. Participants are invited to take part in the next participatory workshop, which will be held in the fall of 2025. Additional public and targeted meetings will also be planned between now and the end of 2025. A meeting to review the information and consultation process is expected to take place toward the end of 2025.

The meeting ended at 9 p.m.

VISUAL SUPPORT FOR COMMUNICATION MEDIA

VISUAL AIDS — POSTERS AND SOCIAL MEDIA


ONI MIKI
Atelier thématique participatif #2
Débits, usages et évaluations environnementales de la rivière Kipawa
Lundi 9 juin 2025
18 h 30
Le Centre, Salon Desjardins
20 rue Humphrey, Témiscaming
*Participation en ligne possible
Ouvert à tous !
Inscription obligatoire
Inscription : onimiki.ca/inscription
Détails : onimiki.ca/assemblees

Projet de centrales hydroélectriques communautaires Onimiki

Atelier thématique #2

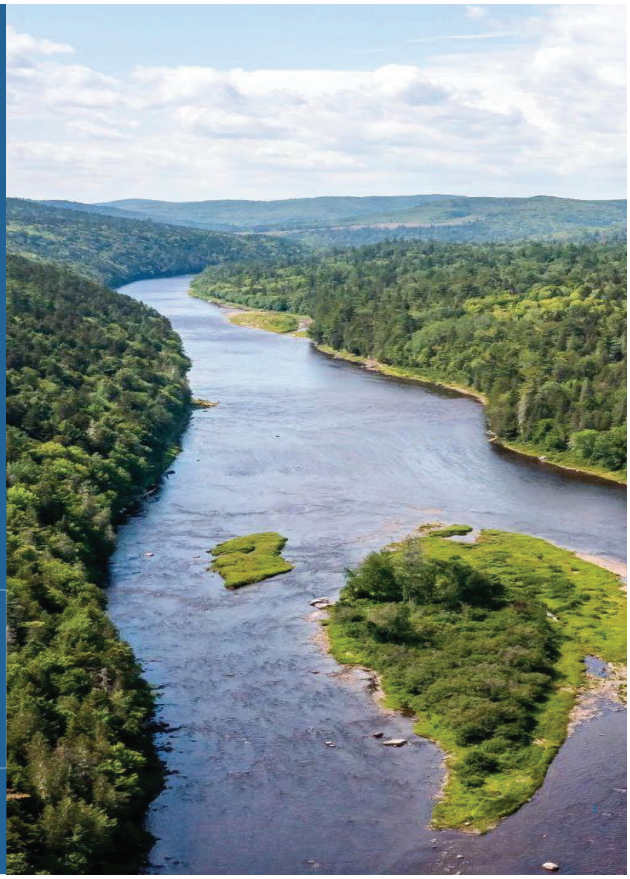
9 juin 2025

ORDRE DU JOUR PROPOSÉ

18 h 30	Mot de bienvenue et présentation des porte-paroles
18 h 35	Présentation d'Énergie Renouvelable Onimiki et Cima +
19 h 20	Période d'échanges
20 h 00	Pause
20 h 10	Atelier participatif
20 h 45	Prochaines étapes
21 h 00	Fin de la rencontre

TRANSFERT
ENVIRONNEMENT ET SOCIÉTÉ

RÔLE DE TRANSFERT ENVIRONNEMENT ET SOCIÉTÉ



LE RÔLE DE FACILITATEUR DE TRANSFERT

- Être une personne-ressource neutre
- Animer les rencontres et s'assurer d'un droit de parole équitable
- Bien documenter les questions et les préoccupations citoyennes
- Produire des comptes rendus des échanges et veiller au suivi des questions en suspens

PRINCIPES POUR LE BON DÉROULEMENT DE LA RENCONTRE

- Transparence
- Respect
- Collaboration
- Partage

INTENTIONS DES ATELIERS DE TRAVAIL

- Approfondir la compréhension du projet pour permettre aux participant.e.s de contribuer de manière plus informée.
- Examiner les défis potentiels auxquels le projet pourrait être confronté, ainsi que les opportunités qui pourraient être exploitées pour améliorer sa mise en œuvre et ses résultats pour la communauté.
- Développer des solutions créatives pour résoudre les problèmes identifiés et pour bonifier certains aspects du projet.

À propos du projet Onimiki

Les partenaires

Le projet d'Énergie Renouvelable Onimiki S.E.C. est développé sur une base 100 % communautaire. L'objectif des partenaires est de développer un véritable projet porteur qui profitera aux Premières Nations ainsi qu'à l'ensemble des citoyens et citoyennes de la MRC de Témiscamingue.

Kebaowek First Nation (20 %)

Wolf Lake First Nation (20 %)

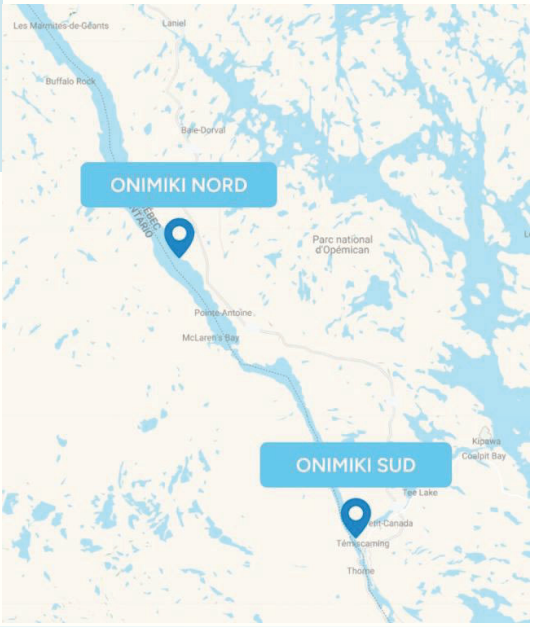
MRC de Témiscamingue (40 %)

Première nation des Pekuakamiulnuatsh (20 %)

Le projet Onimiki

Le projet proposé par Énergie Renouvelable Onimiki a été développé en tenant compte des commentaires reçus lors des consultations avec la communauté.

- Onimiki Sud : une centrale de 7 MW à Témiscaming
- Onimiki Nord : une centrale de 60 MW
  (située à 30 km au nord de Témiscaming et 15 kilomètres au Sud de Laniel – près de la Pointe McMartin)
- Évaluation des coûts : 475 M$
  (estimation préliminaire en fonction de projets comparables)



CIMA+ L'humain au centre de l'ingénierie

Projet de construction des centrales Onimiki Nord et Sud par Énergie Renouvelable Onimiki S.E.C

2025-06-09 - Atelier thématique n°2 : Débits, usages et évaluation environnementale de la rivière Kipawa

Sommaire

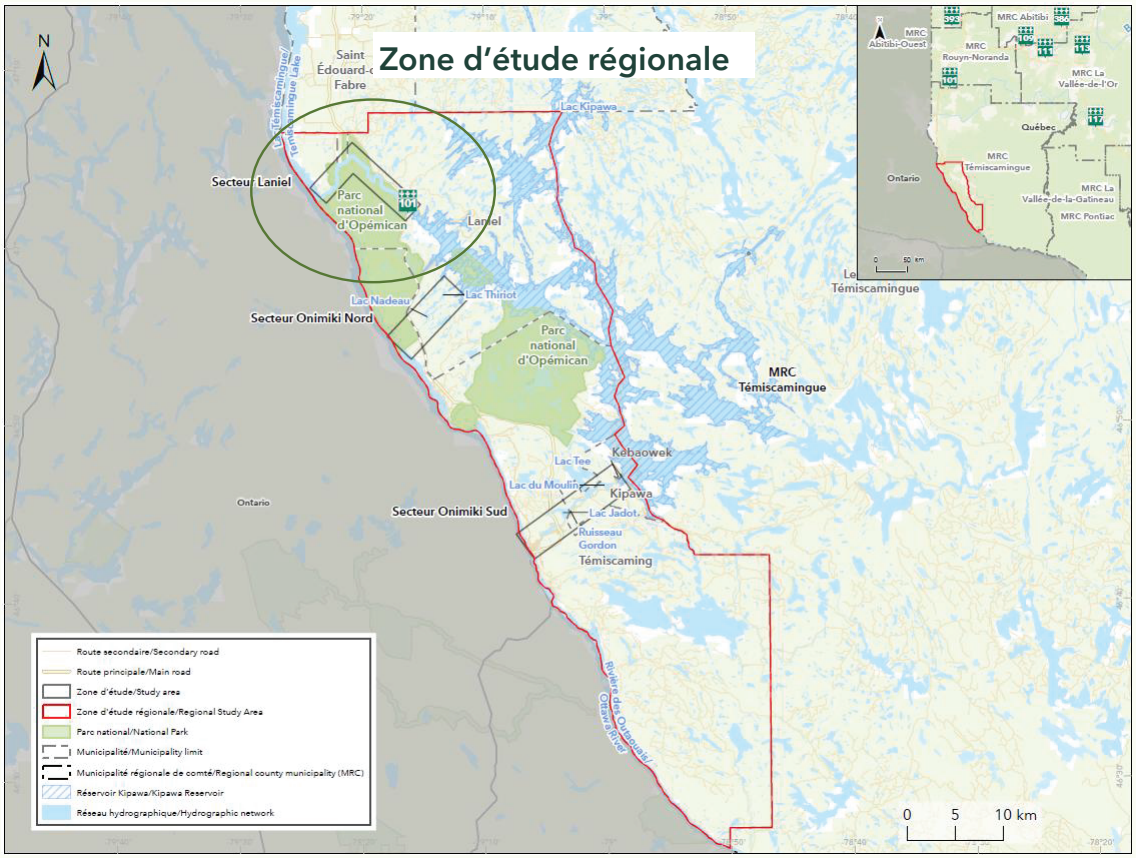
<u>Objectif</u> :

Partagez de l'information préliminaire sur les effets appréhendés du projet sur le débit de la rivière Kipawa et l'habitat du poisson (secteur Laniel), ainsi que certaines mesures de mitigation anticipées

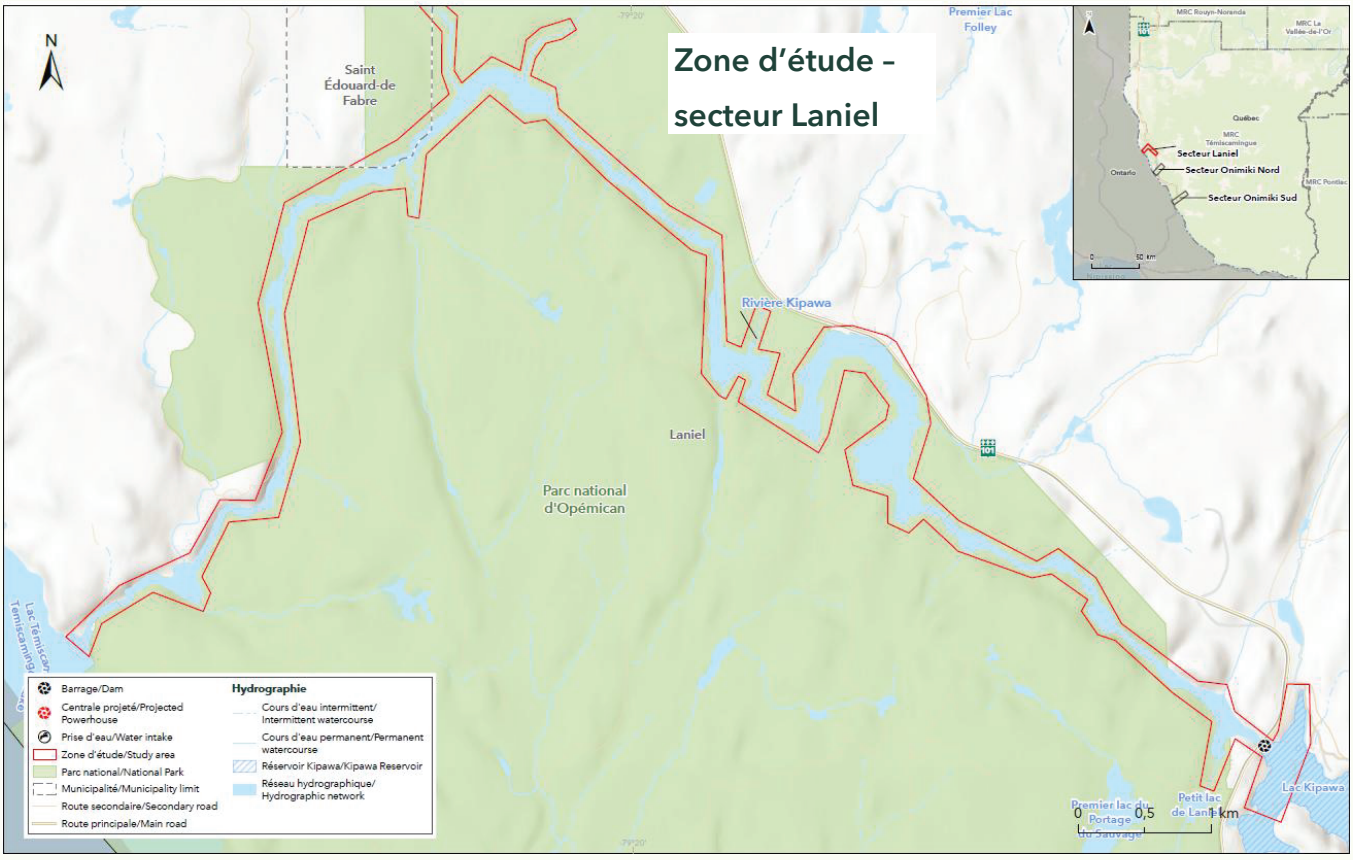
1. Mise en contexte :
   - Zones d'étude régionale et du secteur Laniel
   - Définitions : débit réservé, débit réservé écologique et débit réservé anthropique
   - Présentation de la gestion actuelle du lac et de la rivière Kipawa
2. Présentation des différents débits et faciès d'écoulement
3. Poisson et son habitat
   - Localisation des frayères
   - Espèces identifiées
4. Analyse préliminaire des impacts
   - Méthodologie
   - Impacts préliminaires anticipés sur le débit et l'habitat du poisson
   - Mesures d'atténuation préliminaires

01

Mise en contexte


Zone d'étude régionale
N
Saint Édouard-de Fabre
Lac Kipawa
Secteur Laniel
Parc national d'Opémican
Laniel
Lac Nadeau
Lac Thiriot
Secteur Onimiki Nord
Parc national d'Opémican
MRC Témiscamingue
Kebaowek
Lac Tee
Lac du Moulin
Kipawa
Ontario
Secteur Onimiki Sud
Lac Jadot
Ruisseau Gordon
Témiscaming
Rivière des Outaouais/ Ottawa River
Route secondaire/Secondary road
Route principale/Main road
Zone d'étude/Study area
Zone d'étude régionale/Regional Study Area
Parc national/National Park
Municipalité/Municipality limit
Municipalité régionale de comté/Regional county municipality (MRC)
Réservoir Kipawa/Kipawa Reservoir
Réseau hydrographique/Hydrographic network
0 5 10 km
MRC Abitibi
MRC Abitibi-Ouest
MRC Rouyn-Noranda
MRC La Vallée-de-l'Or
Québec
MRC Témiscamingue
Ontario
MRC La Vallée-de-la-Gatineau
MRC Pontiac

13


Zone d'étude – secteur Laniel
N
Saint Édouard-de Fabre
Premier Lac Folley
Rivière Kipawa
Laniel
Parc national d'Opémican
Lac Kipawa
Premier lac du Portage du Sauvage
Petit lac de Laniel
0 0,5 1 km
Secteur Laniel
Secteur Onimiki Nord
Secteur Onimiki Sud
Barrage/Dam
Centrale projeté/Projected Powerhouse
Prise d'eau/Water intake
Zone d'étude/Study area
Parc national/National Park
Municipalité/Municipality limit
Route secondaire/Secondary road
Route principale/Main road
Hydrographie
Cours d'eau intermittent/ Intermittent watercourse
Cours d'eau permanent/Permanent watercourse
Réservoir Kipawa/Kipawa Reservoir
Réseau hydrographique/ Hydrographic network

14

Mise en contexte

Définitions : débit réservé, débit réservé écologique et débit réservé anthropique

- **Débit réservé** : débit minimal en aval des ouvrages de dérivation et de contrôle en rivière (Belzile et al., 1997)

- **Débit réservé écologique** : est défini comme étant le débit minimum requis pour maintenir, à un niveau jugé acceptable, les habitats du poisson (MFP, 1999).
  - Le degré d'acceptabilité correspond à une quantité et à une qualité suffisante d'habitats pouvant assurer le déroulement normal des activités biologiques des espèces de poisson qui accomplissent, en tout ou en partie, leur cycle vital dans le ou les tronçons perturbés.

- **Débit réservé anthropique** : il prend en considération les usages anthropiques du cours d'eau dont la navigabilité, les activités récréotouristiques, l'esthétisme, les activités traditionnelles autochtones et l'alimentation en eau potable (Vigeant, 2015)

Mise en contexte

Gestion actuelle du lac et de la rivière Kipawa

Gestion du lac Kipawa

- Niveaux d'eau établis dans le plan de gestion concertée du lac Kipawa géré par Direction de la gestion des barrages (MELCCFP)
- Tous les débits excédentaires sont évacués au barrage Laniel, dans la rivière Kipawa
- Débit médian annuel évacué au barrage Laniel est de 81 m^3/s

Gestion de la rivière Kipawa

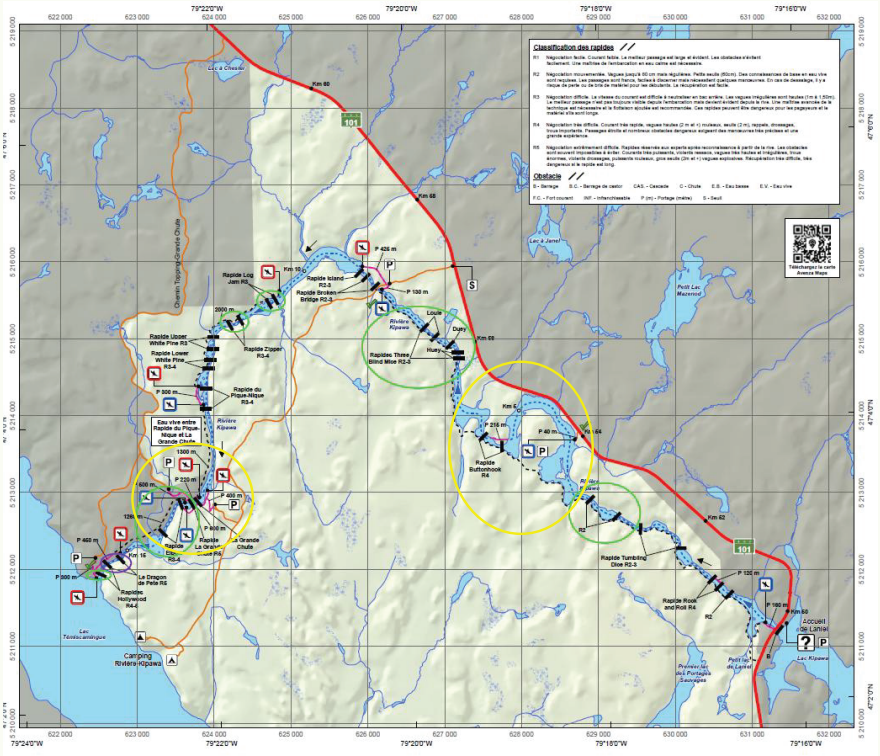
- Ouvrage de retenue : barrage Laniel

02

Présentation des différents débits et faciès d'écoulement

Présentation des différents débits

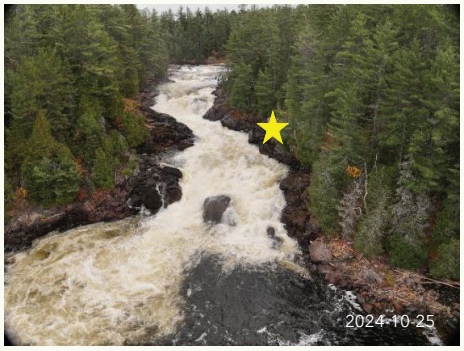
Deux secteurs ont été sélectionnés pour présenter les différents débits et l'habitat du poisson



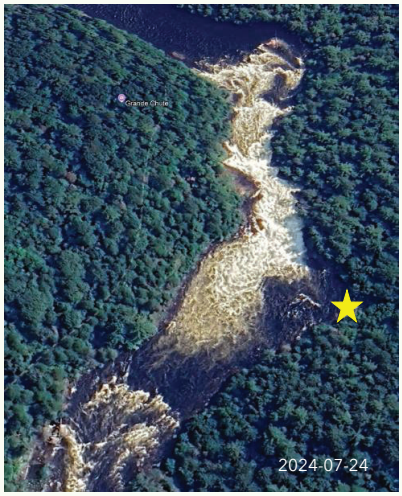
Présentation des différents débits

Grande Chute - faciès d'écoulement chute

15,8 m^3/s



50,9 m^3/s



114,9 m^3/s

(Source : Google Earth)

Présentation des différents débits

R2 – aval du rapide Tumbling Dice (R2-3)

Faciès d'écoulement : bassin

15,8 m^3/s

50,9 m^3/s

303,4 m^3/s

(Source : Google Earth)

Présentation des différents débits

Rapides Three Blind Mice (R2-3) Faciès d'écoulement : rapide

15,8 m^3/s

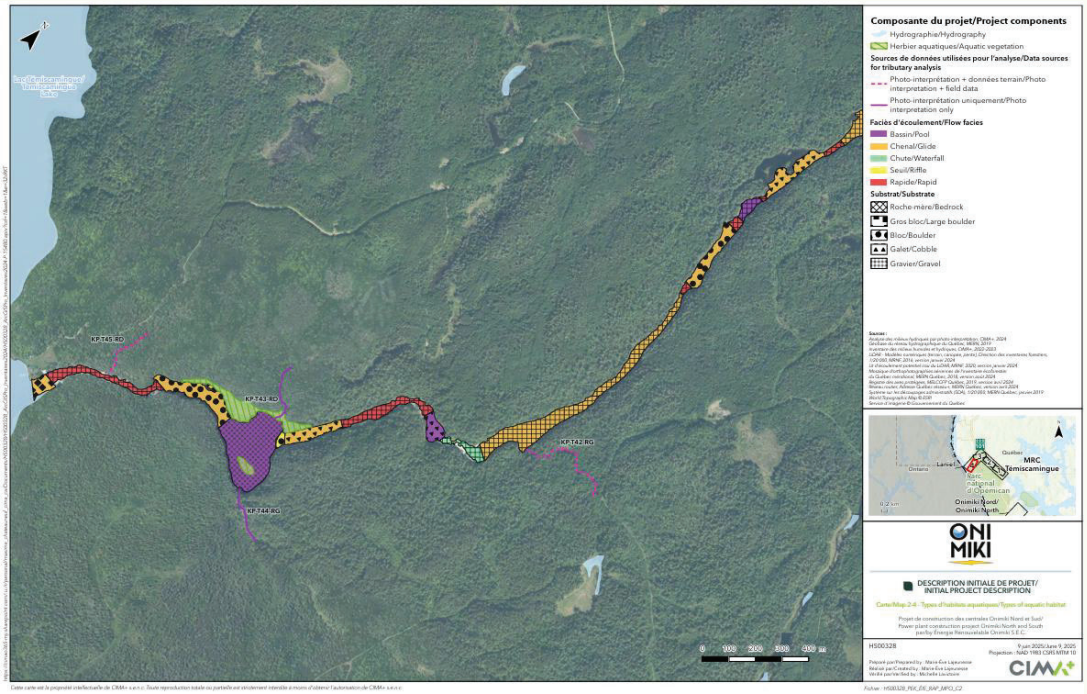
50,9 m^3/s

303,4 m^3/s
(Source : Google Earth)

Présentation des faciès d'écoulement (1)

Faciès d'écoulement (Grande Chute)

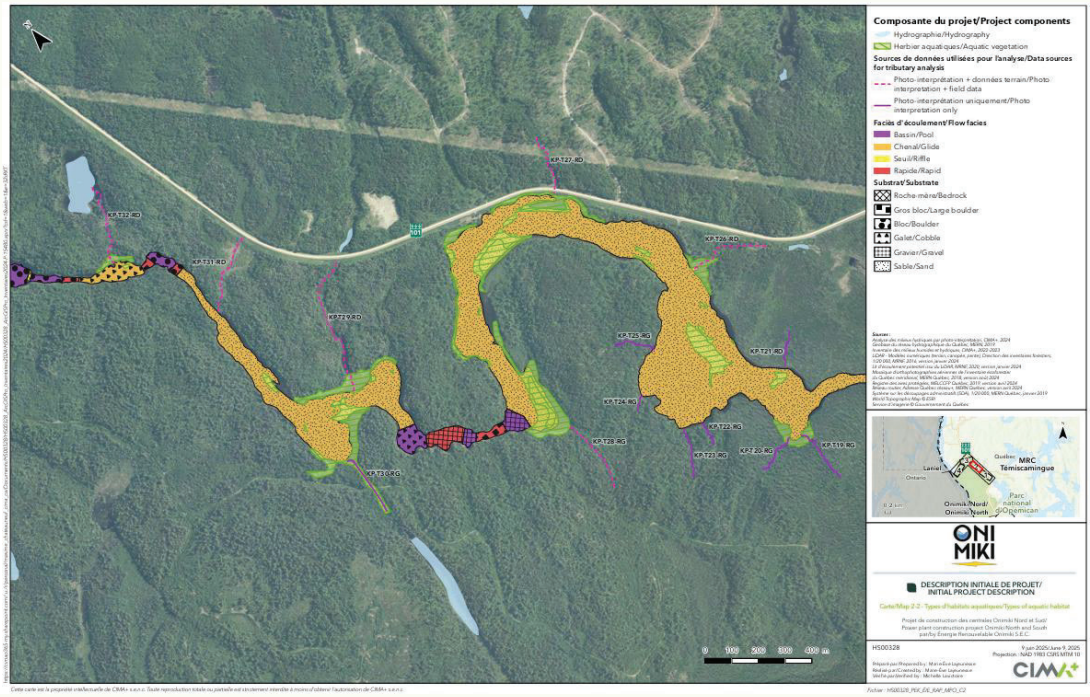
Chute / Waterfall	Courant rapide; Avec dénivelé brusque (Haut. > 1,0 m)
Rapide / Rapid	Courant rapide; Classe de substrat dominant (V, C, G, B); Sans dénivelé et ruptures de pente prononcées (Haut. < 0,5 m)
Seuil / Riffle	Courant rapide entravé par des blocs (B); Classe de substrat dominant (V, C, G, B)
Chenal / Glide	Courant faible; Classe de substrat dominant (L, S); Uniformité du lit du cours d'eau
Bassin	Courant faible; Classe de substrat dominant (L, S); Profondeur supérieure aux segments environnants



Présentation des faciès d'écoulement (2)

Faciès d'écoulement (2e)

Chute / Waterfall	Courant rapide; Avec dénivelé brusque (Haut. > 1,0 m)
Rapide / Rapid	Courant rapide; Classe de substrat dominant (V, C, G, B); Sans dénivelé et ruptures de pente prononcées (Haut. < 0,5 m)
Seuil / Riffle	Courant rapide entravé par des blocs (B); Classe de substrat dominant (V, C, G, B)
Chenal / Glide	Courant faible; Classe de substrat dominant (L, S); Uniformité du lit du cours d'eau
Bassin	Courant faible; Classe de substrat dominant (L, S); Profondeur supérieure aux segments environnants

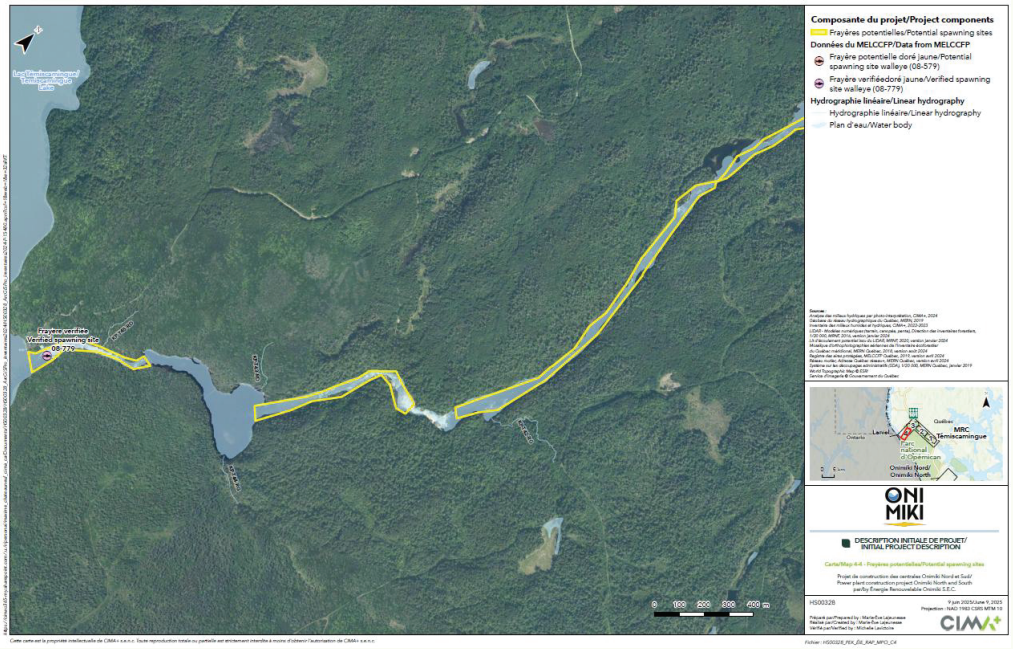


03

Poisson et son habitat

Poisson et son habitat

Localisation des frayères – 1er secteur (Grande Chute)

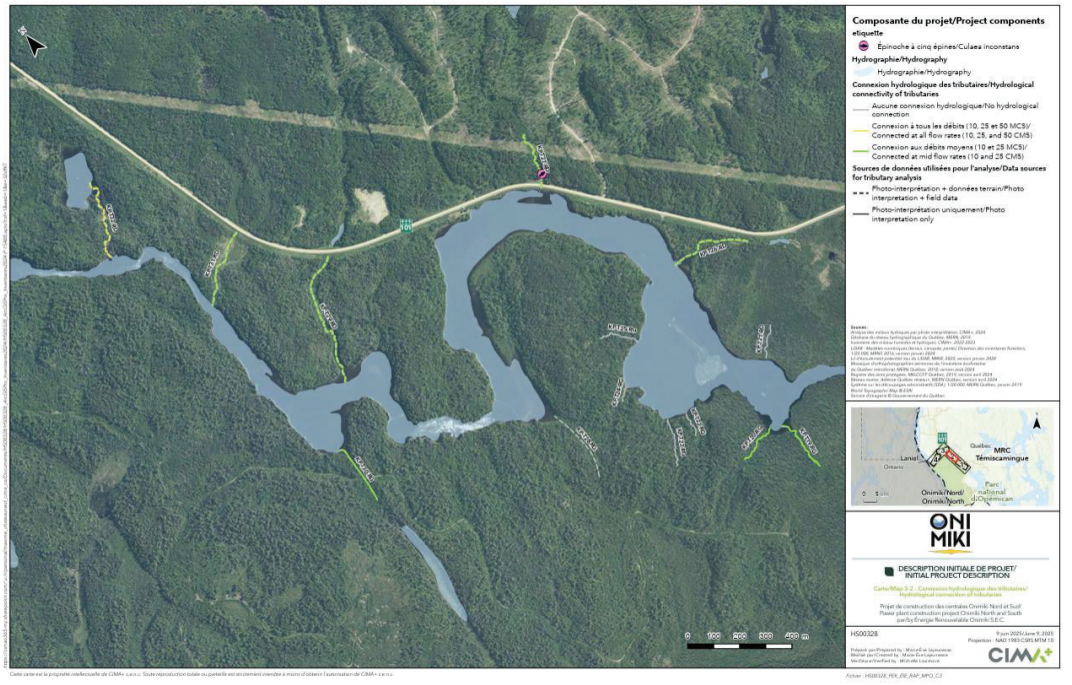


Poisson et son habitat

Localisation des frayères – 2e secteur

Poisson et son habitat

- 45 tributaires de la rivière Kipawa ont été identifiés
- Habitat potentiel du poisson qui pourrait être impacté et qui est en cours d'analyse



Poisson et son habitat

Espèces identifiées

- Aucune espèce à statut particulier au provincial et au fédéral n'est présente dans la rivière Kipawa
- 4 espèces de poissons, incluant 3 espèces d'intérêt pour la pêche sportive ont été capturées durant les inventaires de 2022-2023 dans le secteur Laniel :
  - Achigan à petite bouche
  - Doré jaune
  - Grand brochet
  - Meunier noir
- 1 espèce fourragère (épinoche à cinq épine) identifiée dans les tributaires

04

Analyse préliminaire des impacts

Analyse préliminaire des impacts

Méthodologie d'analyse des impacts de Pêches et Océans Canada sur le poisson et son habitat

Éviter → Minimiser → Compenser

Objectifs:

- Maintenir les fonctions écologiques des écosystèmes
- Ajuster les projets afin de minimiser leurs impacts

Habitat qui n'est pas important ou essentiel

Conséquences	Peu probable	Probable	Très probable
Élevé			
Moyen			
Faible			

Niveaux de risque utilisés pour informer les mesures de gestion :

- Négligeable (vert)
- Faible (jaune)
- Moyen (orange)
- Haut (rouge)

Analyse préliminaire des impacts

Diapositive modifiée depuis la présentation de l'atelier 2. Une erreur s'était glissée dans le tableau des débits projetés.

Analyse préliminaire des impacts potentiels - modification du niveau d'eau / du débit

Débits minimums, médians et maximums mensuels historiques en aval du barrage Laniel entre 2011 et 2023*

Mois de l'année	Débit minimum (m^3/s)	Débit médian (m^3/s)	Débit maximum (m^3/s)
Janvier	16	124	189
Février	37	121	189
Mars	19	77	145
Avril	18	71	285
Mai	31	188	496
Juin	16	101	371
Juillet	13	31	125
Août	11	18	79
Septembre	14	60	151
Octobre	11	32	197
Novembre	15	69	197
Décembre	15	115	176
Annuel	**11**	**81**	**496**

Débits minimums, médians et maximums mensuels projetés en aval du barrage Laniel*

Mois de l'année	Débit minimum (m^3/s)	Débit médian (m^3/s)	Débit maximum (m^3/s)
Janvier	15	33	100
Février	15	43	116
Mars	15	38	97
Avril	15	15	196
Mai	15	99	406
Juin	15	15	279
Juillet	13	15	31
Août	11	15	17
Septembre	14	15	62
Octobre	11	15	108
Novembre	15	15	107
Décembre	15	25	86
Annuel	**11**	**15**	**406**

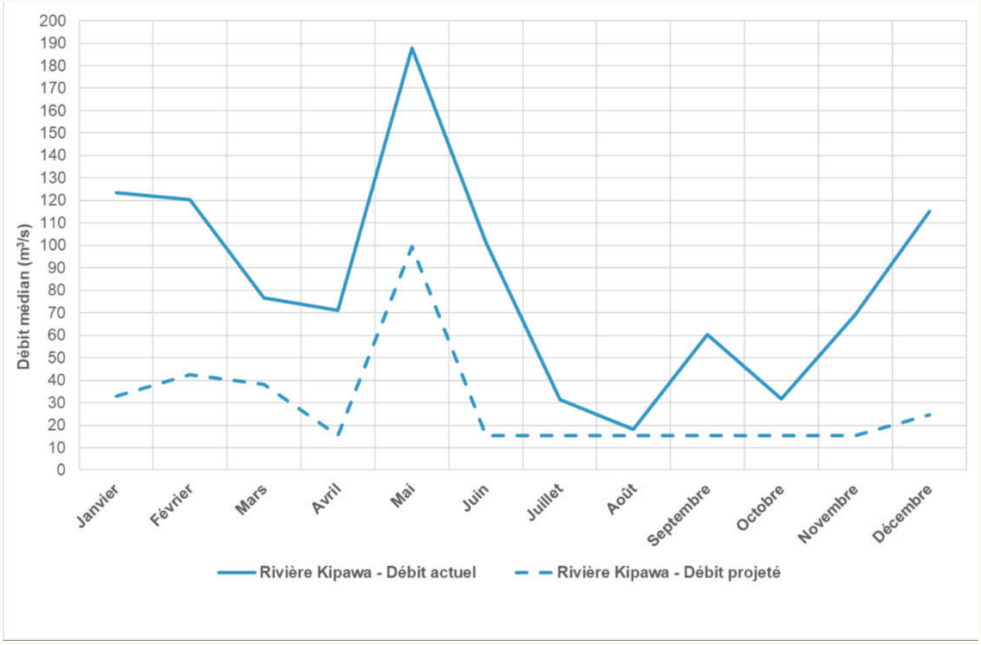
* Analyse effectuée à partir de données de débits journaliers

Analyse préliminaire des impacts

Diapositive modifiée depuis la présentation de l'atelier 2. Une erreur s'était glissée dans les valeurs des débits projetés.

Analyse préliminaire des impacts potentiels - modification du niveau d'eau / du débit

Débits médians actuels et projetés du bief de la rivière Kipawa



Analyse préliminaire des impacts

Analyse préliminaire des impacts potentiels - modification du niveau d'eau / du débit

Pressions potentielles sur l'habitat du poisson

- Changement ou perte de la zone riveraine
- Changement ou perte du passage du poisson
- Changement ou perte de la structure et du couvert de l'habitat
- Sédimentation de l'habitat du poisson
- Changement ou perte de la superficie mouillée

Pression potentielle sur le poisson

- Effets sublétaux et / ou mortalité

Analyse préliminaire des impacts

Analyse préliminaire des impacts potentiels - modification du niveau d'eau / du débit

Autres impacts préliminaire anticipés (liste non-exhaustive) :

- Qualité et quantité d'habitat du poisson et autres espèces fauniques
- Maintien de la biodiversité floristique et faunique
- Érosion des berges
- Sédimentation
- Variation de la température de l'eau
- Modification du niveau d'eau
- Modification des faciès d'écoulement
- Impacts sur l'usage anthropique de la rivière (e.g. activités récréotouristiques)
- Qualité de l'eau

EN SOMME, AUCUN ASSÈCHEMENT DE LA RIVIÈRE KIPAWA EST ANTICIPÉ

Analyse préliminaire des impacts

Exemples de mesures d'atténuation préliminaires anticipés – modification du niveau d'eau / du débit

Mesures d'évitement :

- Aucuns travaux prévus sous la limite du littoral (dans le cours d'eau)
- Aucun habitat essentiel ou résidence d'une espèce aquatique en péril sur la rivière Kipawa

Mesures de mitigation :

- Assurer un débit adéquat dans la rivière Kipawa durant les périodes sensibles pour le poisson (fraie) :
  - Les opérations des centrales seraient en second plan par rapport au maintien du débit écologique
  - Toutes les espèces qui fraient au printemps nécessitent un débit permettant de maintenir les habitats importants durant la période du 16 avril au 15 juin
    - Rapides sur un substrat rocheux (e.g. pour le doré jaune et le meunier)
    - Herbiers aquatiques (e.g. pour le grand brochet)
- Assurer un débit permettant le libre-passage du poisson (si nécessaire) :
  - Dans la rivière Kipawa et dans ses tributaires

Références

Belzile, L., Bérubé, P., Hoan, V. D. et Leclerc M. 1997. Méthode écohydrologique de détermination des débits réservés pour la protection des habitats du poisson dans les rivières du Québec. Rapport présenté par l'INRS-Eau et le Groupe-conseil Génivar inc. au ministère de l'Environnement et de la Faune et à Pêches et Océans Canada. 89 pages et annexes.

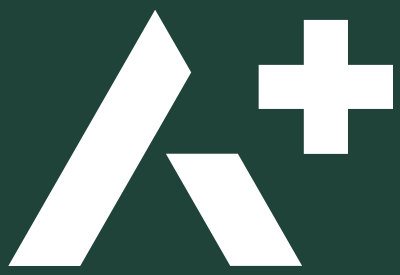
Faune et Parcs Québec (FPQ). 1999. Politique de débits réservés écologiques pour la protection du poisson et de ses habitats. Direction de la faune et des habitats. 23 pages.

Pêches et Océans Canada (MPO). 2024. Programme de protection du poisson et de son habitat. Séquences des effets. 12 pages.

Vigeant, F. 2015. Débits réservés et prise en compte des usages anthropiques pour une meilleure gestion des ouvrages hydrauliques. Essai présenté au Centre universitaire de formation en environnement et développement durable en vue de l'obtention du grade de maître en environnement. 71 pages et annexe

05

Questions



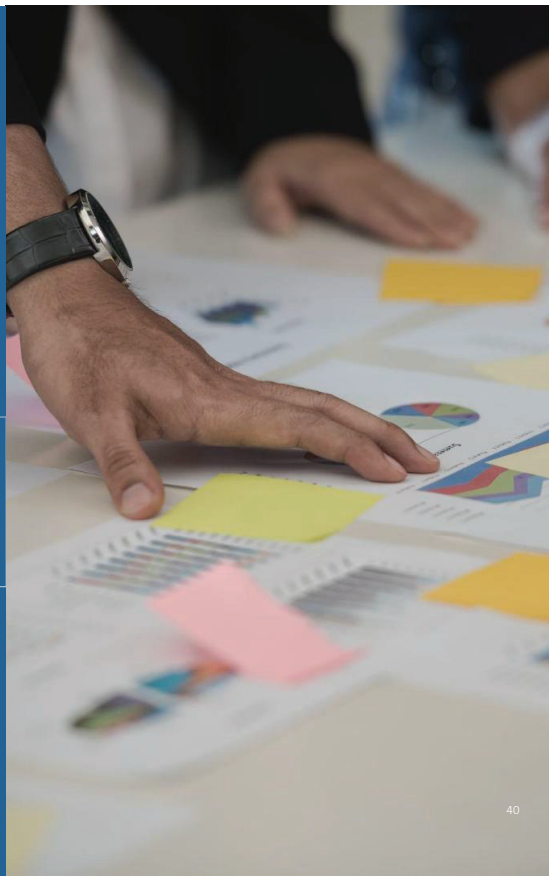
Merci

PÉRIODE D'ÉCHANGES

TRANSFERT
ENVIRONNEMENT ET SOCIÉTÉ

ATELIER PARTICIPATIF

Débit des rivières et mesures d'atténuation



OBJECTIFS DE L'ATELIER

- Permettre aux participant.es de comprendre concrètement les notions liées au débit et à l'habitat du poisson
- Identifier les critères de faisabilité du projet, selon leur connaissance du territoire.
- Identifier les priorités collectives et les enjeux locaux face à l'établissement des différents types de débit.

DÉROULEMENT

Échanges en sous-groupes

20 minutes

1 Échangez sur les critères de faisabilité du projet en lien avec le débit réservé, le débit écologique et le débit anthropique, selon vos connaissances terrains et votre utilisation du territoire.

Échangez sur les **3 thématiques** suivantes pour chacun des types de débit :

2
- **Enjeux locaux** associés à chacun des types de débit
- **Périodes sensibles** à considérer dans l'évaluation des impacts et des mesures de mitigation du projet
- **Exemples de mesures d'atténuation** pour chacun (ex : périodes prioritaires pour un débit réservé anthropique, etc.)

CONCLUSION

Démarche d'information et de consultation

D'autres activités d'information et de consultation seront planifiées au cours de l'année 2025.

Exemples :
- *Consultations des Premières Nations*
- *Rencontres publiques*
  - *Assemblées*
  - *Atelier thématique participatif*
  - *Autre formule*
- *Rencontres ciblées*
- *Partage d'information via nos moyens de communications*

Une rencontre pour dresser le bilan de la démarche d'information et de consultation devrait avoir lieu vers la fin de l'année 2025.

Le dépôt de l'étude d'impact est présentement prévu pour la fin de l'année 2025 ou le début de l'année 2026.

Site web : www.onimiki.ca

Facebook : www.facebook.com/projetOnimiki

Infolettre : www.onimiki.ca/infolettre

Courriel : contact@onimiki.ca

QUESTIONNAIRE DE RÉTROACTION

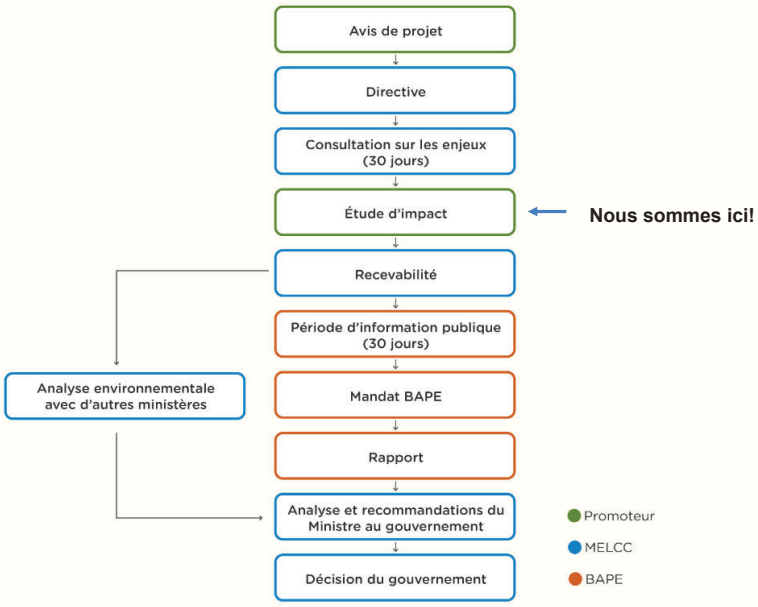
Merci de nous partager vos commentaires via ce court questionnaire de rétroaction !

ANNEXES

Prochaines étapes – *échéancier préliminaire*

2025	2026	2027-2028	2029
• Démarche d'information et de consultation • Livraison des rapports environnementaux • Relevés géotechniques • Discussions sur la maximisation des retombées économiques • Début de l'ingénierie détaillée • Dépôt de la description initiale de projet (AEIC) • Rédaction de l'étude d'impact	• Dépôt de l'étude d'impact (fin 2025 ou début 2026) • Processus d'évaluation environnementale du MELCCFP • Obtention des autorisations nécessaires • Négociations d'un contrat d'achat d'énergie avec Hydro-Québec • Appels d'offres et octroi des contrats	• Construction • Comités de suivi	• Mise en service • Raccordement au réseau d'Hydro-Québec • Comité de suivi

Processus réglementaire



Complément d'information

L'Agence d'évaluation d'impact du Canada analyse le projet Onimiki.
D'autres ministères fédéraux analysent aussi le projet (ex. : Pêches et Océans Canada).