FORMULAIRE

Renseignements préliminaires

PRÉAMBULE

La Convention de la Baie-James et du Nord québécois (CBJNQ), par ses chapitres 22 et 23, établit un régime de protection de l'environnement et du milieu social dans le Québec nordique. Certains aspects de ces chapitres relèvent du gouvernement du Canada, du gouvernement du Québec ou des deux ordres de gouvernement. Ceux qui relèvent du Québec ont été inscrits au chapitre II de la Loi sur la qualité de l'environnement (LQE) (chapitre Q-2). Ce chapitre de la LQE présente les procédures d'évaluation et d'examen des impacts sur l'environnement et le milieu social qui s'appliquent dans la région de la Baie-James (art. 133 de la LQE) ou au Nunavik (art. 168 de la LQE) (www.mddelcc.gouv.qc.ca/evaluations/mil-nordique/index.htm).

Les projets mentionnés à l'annexe A de la LQE sont obligatoirement soumis à l'une ou l'autre des procédures applicables en milieu nordique, contrairement à ceux qui sont mentionnés à l'annexe B, qui n'y sont pas assujettis. Ceux qui ne sont pas visés par ces annexes sont considérés comme des projets de « zone grise ». Ils doivent donc être soumis au ministère du Développement durable, de l'Environnement et de la Lutte contre les changements climatiques, qui déterminera leur assujettissement à l'une ou l'autre des procédures applicables en milieu nordique.

Le formulaire « Renseignements préliminaires » sert à décrire les caractéristiques générales du projet. Il doit être rempli de façon claire et concise et se limiter aux éléments pertinents pour la bonne compréhension du projet, de ses impacts et des enjeux appréhendés. Les renseignements préliminaires seront publiés dans le Registre des évaluations environnementales prévu à l'article 118.5.0.1 de la LQE.

Tout promoteur désirant réaliser un projet visé par l'annexe A de la LQE ou un projet de « zone grise » sur ces territoires doit d'abord demander un certificat d'autorisation ou une attestation de non-assujettissement, et ce, conformément aux articles 154 et 189 de la LQE. Le promoteur doit donc soumettre au Ministère les renseignements préliminaires concernant le projet visé.

Conformément aux articles 115.5 à 115.12 de la LQE, le demandeur de toute autorisation accordée en vertu de cette loi doit, comme condition de délivrance, produire la déclaration du demandeur ou du titulaire d'une autorisation délivrée en vertu de la Loi sur la qualité de l'environnement (chapitre Q-2) accompagnée des autres documents exigés par le ministre. Cette exigence ne s'applique pas aux projets jugés non assujettis pour lesquels une attestation de non-assujettissement est délivrée. Vous trouverez un guide explicatif et les formulaires requis à l'adresse électronique suivante : www.mddelcc.gouv.qc.ca/lqe/index.htm.

Le formulaire « Renseignements préliminaires » doit être accompagné du paiement prévu dans le cadre du système de tarification des demandes d'autorisations environnementales. Ce paiement doit être fait à l'ordre du ministre des Finances. Le détail des tarifs applicables est disponible à l'adresse électronique suivante : www.mddelcc.gouv.qc.ca/ministere/tarification/ministere.htm (en cliquant sur le lien « Procédure d'évaluation environnementale - Québec nordique). Il est à noter que le Ministère ne traitera pas la demande tant que ce paiement n'aura pas été reçu. Les renseignements préliminaires doivent être transmis en dix (10) copies papier françaises, quatre (4) copies papier anglaises et une copie électronique à l'adresse suivante :

Administrateur provincial de la Convention de la Baie-James et du Nord québécois
Sous-ministre du Développement durable, de l'Environnement
et de la Lutte contre les changements climatiques
Édifice Marie-Guyart, 30e étage
675, boul. René-Lévesque Est, boîte 02
Québec (Québec) G1R 5V7
Téléphone : 418 521-3933
Télécopieur : 418 646-0266

Par ailleurs, conformément à la LQE, le formulaire de renseignements préliminaires est transmis au Comité d'évaluation, si le projet concerne la région de la Baie-James, ou à la Commission de la qualité de l'environnement Kativik, si le projet vise le territoire du Nunavik. Ces deux comités examinent les renseignements préliminaires et, dans le cas des projets visés par l'annexe A de la LQE, ils produisent respectivement une recommandation ou un avis sur la directive indiquant la nature, la portée et l'étendue de l'étude d'impact que l'initiateur doit préparer. Pour les projets de « zone grise », les comités produisent respectivement une recommandation ou une décision sur l'assujettissement du projet à la procédure et, s'il y a lieu, sur la directive du projet. Ces recommandations, avis et décisions sont ensuite acheminés au Ministère, qui fait part de sa décision au promoteur. Cela peut se traduire par la délivrance d'une attestation de non-assujettissement dans le cas des projets non assujettis à la procédure ou par la délivrance d'une directive dans celui des projets qui y sont assujettis.

Le Comité d'évaluation est un comité tripartite formé de représentants nommés par le gouvernement de la Nation crie et de représentants du gouvernement du Canada et du gouvernement du Québec. La Commission de la qualité de l'environnement Kativik est un comité bipartite formé de représentants inuits ou naskapis nommés par l'Administration régionale Kativik et de représentants du gouvernement du Québec. Dans l'exercice de leurs fonctions, ces deux comités accordent une attention particulière aux principes suivants, lesquels sont énoncés aux articles 152 et 186 de la LQE :

a) la protection des droits de chasse, de pêche et de piégeage des Autochtones;

b) la protection de l'environnement et du milieu social;

c) la protection des Autochtones, de leurs sociétés, de leurs communautés et de leur économie;

d) la protection de la faune, des milieux physique et biologique et des écosystèmes du territoire;

e) les droits et garanties des Autochtones dans les terres de catégories II;

f) la participation des Cris, Inuits et Naskapis à l'application du régime de protection de l'environnement et du milieu social;

g) les droits et intérêts, quels qu'ils soient, des non-autochtones; et

h) le droit de réaliser des projets, que possèdent les personnes agissant légalement dans le territoire.

1. IDENTIFICATION ET COORDONNÉES DU DEMANDEUR

1.1 Identification du promoteur	
Nom : **Niskamoon Corporation**	
Adresse municipale : **2 Lakeshore Road, Nemaska (Quebec) J0Y 3B0**	
Adresse postale (si elle diffère de l'adresse municipale) :	
Nom et fonction du ou des signataires autorisés à présenter la demande : **Marc Dunn, Environmental Manager**	
Numéro de téléphone : **819-673-2600**	Numéro de téléphone (autre) : 514 702-8656
Courrier électronique : **mdunn@niskamoon.org**	
1.2 Numéro de l'entreprise	
Numéro d'entreprise du Québec (NEQ) : **1162442280**	
1.3 Résolution du conseil municipal	
Si le demandeur est une municipalité, les renseignements préliminaires sont assortis de la résolution du conseil municipal dûment certifiée autorisant le ou les signataires de la demande à la présenter au ministre. Ajoutez une copie de la résolution municipale à l'annexe I.	
1.4 Identification du consultant mandaté par le promoteur (s'il y a lieu)	
Nom : **WSP Canada Inc.**	
Adresse municipale : **1135 Lebourgneuf Blvd., Québec, QC, G2K 0M5**	
Adresse postale (si elle diffère de l'adresse municipale) :	
Numéro de téléphone : **418-623-2254**	Numéro de téléphone (autre) : -
Courrier électronique : **jean-simon.roy@wsp.com**	
Description du mandat : **Spawning ground design, production of plans and specifications, application for a certificate of authorization, site supervision during construction and monitoring of the spawning ground after construction**	

2. LOCALISATION ET CALENDRIER DE RÉALISATION DU PROJET

2.1 Identification et localisation du projet et de ses activités
Nom de la municipalité, du village ou de la communauté où est réalisé le projet (indiquez si plusieurs municipalités, villages ou communautés sont touchés par le projet) : **Eeyou Istchee James Bay**
Catégories des terres (I, II ou III) : **Category III**
Coordonnées géographiques en degrés décimaux du point central du projet (pour les projets linéaires, fournir les coordonnées du point de début et de fin du projet) : Point central ou début du projet : Latitude: **52°19' 18"** Longitude: **77° 05' 06" O** Point de fin du projet (si applicable) : Latitude: Longitude:

2.2 Description du site visé par le projet
Décrivez les principales composantes des milieux physique, biologique et humain susceptibles d'être affectées par le projet en axant la description sur les éléments considérés comme ayant une importance scientifique, sociale, culturelle, économique, historique, archéologique ou esthétique (composantes valorisées de l'environnement). Indiquez, s'il y a lieu, le statut de propriété des terrains où la réalisation du projet est prévue, ainsi que les principales particularités du site : zonage, espace disponible, milieux sensibles, humides ou hydriques, compatibilité avec les usages actuels, disponibilité des services, topographie, présence de bâtiments, etc.

The work site is located at kilometre point (KP) 113 of the Eastmain River, i.e. approximately 600 m upstream of James Bay Road bridge, and 50 km downstream of the river's diversion point towards La Grande hydroelectric complex (see location plans in appendix III). The Cree Nation of Eastmain (CNE), which is the nearest community, is located about 100 km (straight line distance) from the site. Roadstop KP 381 is the closest settlement (approx. 13 km south along the road). James Bay Road intersects La Sarcelle Road about 1 km north of the Eastmain River Road bridge. The work site is located on category III lands and is included within the RE02 trapline.

Thanks to two survey campaigns conducted in the fall of 2014 and 2017, information required for the characterization of the proposed spawning ground (bathymetry, topography, water velocity and flow measurements, description of riparian vegetation) and of areas where land activities are expected (restoration of an existing road, construction of a 700 m long winter road, development of a contractor area and granular material storage area) was collected. In addition, photointerpretation characterization was carried out from Bing satellite pictures (presented as the topographic base of plans) by Mr. Jean-Simon Roy (biologist, WSP) and Mr. Jean Deshaye (WSP's expert botanist in northern environment).

The spawning ground development site is located on the left bank of the Eastmain River at the foot of the former gorges of the conglomerate (see maps in Appendix III). The river bed is composed of very coarse substrate at this location, mainly boulders and source rocks (outcrops) with some pebbles. This coarseness can be explained by the fact that the site is located where extremely violent rapids were found before the diversion (gorges of the conglomerate). Flow velocities at the site are currently low (< 20 cm/s), close to the banks, to high (more than 2 m/s) at the centre of the river. Water depth during the spawning season of sturgeon ranges from 0.25 to 1.75 m.

There is a long lentic section downstream of the project site starting at KP 75 (where a weir was built after closure of the river as to maintain the water level and allow navigation) and extending down to the foot of the former gorges of the conglomerate. This section is about 38 km long. Flow is slow, depth relatively high and rather fine substrate is present (sand, gravel) which represents a suitable feeding habitat for sturgeon.

To our knowledge, there has been no scientific fishing activities in the lentic section. However, the Cree have reported the presence of lake sturgeon, northern pike and yellow walleye. They have mentioned during meetings that the frequency of sturgeon has greatly decreased since the diversion of the river. A few years ago, affected households (i.e. whose trapline is located along this section of the river) agreed to minimize fishing of sturgeon as to prevent collapse of its population.

Scientific fishing activities conducted downstream and upstream of the lentic section as part of the La Grande complex Environmental Monitoring Network (EMN) and the Eastmain-1 Project Impact Assessment seem to strongly indicate that the section presents a community of species which is typical of James Bay southern rivers, mainly lake sturgeon (*Acipenser fulvescens*), northern pike (*Esox lucius*), walleye (*Sander vitreus*), longnose sucker (*Catostomus catostomus),* white sucker (*Catostomus commersoni*), lake whitefish (Coregonus clupeaformis), yellow perch (*Perca flavescens*), burbot (*Lota lota*), as well as Cyprinid species (e.g. lake chub, emerald shiner).

Work on land (restoration of an existing road, construction of a 700 m long winter road, development of a contractor area and a granular material storage area) will take place in a sector affected by a major forest fire in the summer of 2013. As a result, very few mature trees survived. The main species observed in the area are: black spruce (*Picea mariana*), tamarack (*Larix laricina*), jack pine (*Pinus banksiana*), white birch (*Betula papyrifera*), trembling aspen (*Populus tremuloides*), lowbush blueberry (*Vaccinium angustifolium*), prairie willow (*Salix humilis*) and a few ericaceae species. The riparian ecotone is very scattered given the rocky nature of the former watercourse bed and does not form a continuous band along the river. The key plant species are: sweet gale (*Myrica gale*), Canada reed grass (*Calamagrostis canadensis*), black-girdled bulrush (*Scirpus atrocinctus*) and green alder (*Alnus viridis*).

The field characterization campaigns, as well as the photointerpretation, helped determine that no wetland is found across the various areas where work is expected. The slope of the winter road alignment is moderate to steep, which is not favourable to the formation of wetlands. Regarding the river banks, the substrate is essentially composed of outcrops from the former watercourse bed. Furthermore, no permanent or intermittent watercourse was identified within the study area.

There are a few depressions along the Eastmain River former rocky bed where run-off water collects and few carex plants grow. These areas will not be affected by the contractor's area since its boundaries were established as to avoid them.

Another wetland (shrub swamp) is located north of the granular material storage area in a depression on the side of the James Bay Road, an area which will remain untouched during work.

Proposed spawning ground site is not used for a specific purpose by the Cree Nation. However, hunting and fishing activities are conducted in the lentic section between the weir at KP 75 on the river and Route du Nord bridge.

Proposed spawning ground site was subject to 2D hydrodynamic modelling in order to precisely determine the limits of the spawning site and to design it in a way to obtain optimum flow, depth and substrate conditions for lake sturgeon breeding.

2.3 Calendrier de réalisation

Fournissez le calendrier de réalisation (période prévue et durée estimée de chacune des étapes du projet) en tenant compte du temps requis pour la préparation de l'étude d'impact et le déroulement de la procédure.

Here is the timetable of activities:

Preliminary Stages	Deforestation of the granular material storage area (located near the James Bay Road bridge), of the existing road (if required), of the 700 m long winter road alignment to be developed (between the existing road and the spawning ground) and of the contractor area	Upon obtainment of permits and certificates
	Transportation of granular material from the borrow source (KP 28 on Eastmain Road) to the storage area using heavy vehicles	Upon obtainment of permits and certificates
	Development of the 700 m long winter road between the existing road and the spawning ground. The road shall be composed of compacted snow and ice, and of granular material as required taken from small depressions on site	January - February 2019
	Transportation of spawning substrate from the storage area to the contractor area	January - February 2019
Spawning Ground Construction	Development of work platform connecting the contractor area to the spawning area using compacted snow and ice, as well as spawning substrate as required. The platform will allow work in dry conditions	February 2019
	Partial excavation of bedrock directly upstream of spawning ground	February 2019
	Relocation of large boulders found in the spawning area (and which prevent free flow of water). These boulders shall be placed around the spawning ground and act as a riprap blanket	February - March 2019
	Placement of granular material (pebbles, cobbles and small boulders) in the spawning area	February - March 2019
Final Work and Follow-Up	Dismantling of work platform and contractor area once work over	March 2019
	Site restoration (reforestation if necessary, removal of residual excavation material)	Spring 2019
	Post-work site characterization (as-built)	June - July 2019
	Monitoring of spawning ground integrity and use	June 2020, 2022, 2024

2.4 Plan de localisation

Ajoutez à l'annexe III une carte topographique ou cadastrale de localisation du projet et, s'il y a lieu, un plan de localisation des travaux ou des activités à une échelle adéquate, en indiquant notamment les infrastructures en place par rapport au site des travaux.

See Appendix III (A and B)

3. PRÉSENTATION GÉNÉRALE DU PROJET

3.1 Titre du projet

Projet de … (construction/agrandissement/aménagement/etc.) de… (installation/équipement/usine/etc.) sur le territoire de… (municipalité/village/communauté)

Development of a Lake sturgeon spawning ground at KP 113 on the Eastmain River – Eeyou Itschee James Bay territory.

It is a project of Niskamoon Corporation, in partnership with Critical Elements Corporation (CEC) and the Cree Nation of Eastmain.

3.2 Assujettissement

Dans le but de vérifier l'assujettissement de votre projet, indiquez à quel paragraphe de l'annexe A de la Loi sur la qualité de l'environnement votre projet est assujetti, selon vous, et pourquoi (atteinte du seuil, par exemple). Indiquez si votre projet se situe « en zone grise », le cas échéant.

Yes, the project is in a grey area.

An application for a certificate of authorization under section 22 of EQA has been filed with the MDDELCC (Abitibi-Témiscamingue and Nord-du-Québec regions). However, according to section 1-4c, chapter Q-2, r.3 (Section 1), our project is exempt from the application of section 22 since it constitutes wildlife management work (laying out of spawning grounds where such laying does not involve modifying the area of the bed of a watercourse or lake).

For deforestation and winter road construction activities, an application for other permits was filed with the MFFP.

Application for permit for other purposes was submitted to the MFFP (Ministère des Forêts, de la Faune et des Parcs) for the construction of the 700 m winter road.

Regarding section 128.7 of the Act Respecting the Conservation and Development of Wildlife, the MFFP was provided with the duly completed form.

Application for a public land use permit was submitted to the ministère de l'Énergie et des Ressources naturelles (MERN).

3.3 Description sommaire du projet et des variantes de réalisation

Décrivez sommairement votre projet (longueur, largeur, quantité, voltage, superficie, etc.) et, pour chacune de ses phases (aménagement, construction et exploitation et, le cas échéant, fermeture et restauration), décrivez sommairement les principales caractéristiques associées à chacune des variantes du projet, y compris les activités, aménagements et travaux prévus (déboisement, expropriation, dynamitage, remblayage, etc.).

The project consists in spreading a substrate suitable for lake sturgeon breeding over a surface area of about 1,400 m^2 on the left bank of the river (at KP 113, see map in Appendix III). The substrate shall consist in a heterogeneous mix of pebbles, cobbles and small boulders free of sand and other fine particles with a diameter of 40 to 250 mm. The required volume of granular materials is estimated at approximately 1,200 m^3. The granular borrow site (for the spawning ground bed) is located about 40 km west of the project site, which represents KP 28 on the road leading to the Eastmain village (the site is located on Category I lands).

A few larger boulders in the way of water flow across the project site shall be removed before construction of the spawning ground. This very coarse material shall be placed around the spawning ground and act as a protection against erosion. A few boulders shall be put in the spawning area as to create shelters against current. The rocky outcrop located directly upstream of the spawning area will be partly excavated. This excavation work is necessary so that water flow towards the spawning ground is increased and optimum depth and velocity conditions for sturgeon breeding are obtained. Excavation will be conducted using tramac and rock splitter equipment (no explosives shall be used). The excavated area shall cover 250 m^2 to a depth of about 50 cm. The excavated volume to be removed is estimated at 125 m^3. Excavation work shall be conducted in dry conditions and with low water level since work is to be conducted during winter.

The construction of the spawning ground shall require the creation of a contractor area on the left bank of the river as to allow movement and parking of machinery near the project site and temporary storage of granular material. This area shall have a surface area of approximately 4,250 m^2 and be located outside the littoral zone meaning that it will be above the 2-year return flood level (indicated on plan 141-23936-00-H-1002 in Appendix II). Since the area is located over the former bed of the river, which is mainly composed of relatively flat source rocks, and that work will be conducted during winter, movement of vehicles shall be possible without having to spread a granular material layer across the entire surface of the area. Such material shall only be placed in small cavities and depressions if necessary.

A temporary platform (15 m x 15 m) will be built between the contractor area and the proposed spawning site. The substrate at this location is mainly composed of relatively flat source rocks and could allow traffic of vehicles. However, the plan is to place granular material (pebbles, cobbles, small boulders) in small cavities and depressions as to improve conditions for the traffic of machinery and labour. The substrate shall be the same as the one used for the spawning ground. It will be removed at the end of work (shall last a maximum of 2 months and a half) and mostly placed in the spawning ground. The remainder will be kept in the contractor area as surplus substrate. The work platform

shall be dismantled at the end of work and the site restored (contractor area, granular material storage area).

The following is a summary of the projected work sequence for the construction of the spawning ground:

- **Autumn of 2018: Following the issue of the permit for other purposes (deforestation and construction of a winter road), deforest the granular material storage area (near James Bay Road), the existing road (if required), the 700 m long winter road alignment (between the existing road and the spawning ground) and the contractor area (refer to plan 141-23939-H-1001 in Appendix III for location of these areas);**
- **October-November: Transport spawning substrate (granular material) from the borrow source (KP 28 on Eastmain Road) to the storage area using heavy vehicles;**
- **January-February 2019: Develop the 700 m long winter road between the existing road and the spawning ground. The road shall be made of compacted snow and ice, and if needed, some granular material taken from small depressions on site;**
- **January-February 2019: Transport spawning substrate from the storage area to the contractor area;**
- **January-February 2019: Build a work platform connecting the contractor area and the spawning site using compacted snow and ice, as well as spawning substrate where required. This platform will allow for work in dry conditions;**
- **February 2019: Conduct partial excavation of bedrock directly upstream of the spawning ground using rock splitter and tramac equipment. Excavated material shall be sorted and recycled as riprap blanket. Excavation work is necessary so that water can freely flow towards the spawning ground. The excavated surface area was minimized;**
- **February-March 2019: Remove from the spawning area large boulders which hinder water flow. Place the boulders around the spawning site so they can act as a riprap blanket. Few boulders shall also be placed in the spawning ground and be used as shelter against current by fish;**
- **February-March 2019: Place granular material (pebbles, cobbles and small boulders) in the spawning ground;**
- **March 2019: Once work completed, dismantle the work platform and contractor area. Relocate the substrate making up the platform over the spawning ground as to reach required elevation;**
- **Spring of 2019: Restore site.**

Si cela est pertinent, ajoutez à l'annexe II tous les documents permettant de mieux cerner les caractéristiques du projet (plan, croquis, vue en coupe, etc.).

Refer to Appendix II for the location of sites where various work activities will be performed as part of the spawning ground development work (granular material storage area, contractor area, existing road, 700 m long winter road to be developed, projected spawning ground).

3.4 Objectifs et justification du projet

Mentionnez les principaux objectifs poursuivis et faites ressortir les raisons qui motivent la réalisation du projet.

In the years following the Eastmain River diversion in 1980 at KP 162, there has been a sharp decline in lake sturgeon population downstream of the diversion point, mainly caused by the degradation of breeding grounds. The Cree have noticed that fishing has been declining over the past few years, a fact which worries them. They have therefore willingly stopped lake sturgeon fishing in the Eastmain River as to protect its population.

A study conducted in 2010 and 2011 (Environnement Ilimité, 2012) demonstrated the presence of a natural spawning ground at KP 113 on the Eastmain River, at the foot of the former Conglomerate Gorges (see appendix III). Study indicates that the spawning ground is of poor quality and being used by the lake sturgeon in a limited and sporadic manner. The spawning ground shows depth and flow velocity conditions which are relatively good for lake sturgeon reproduction, but its potential is largely limited by the rarity of suitable spawning substrate. The addition of suitable substrate would enhance the quality of the spawning ground, increase its attraction and the use of the site by spawners, and thus, could improve the success of reproduction and recruitment of the lake sturgeon population.

Within this context, the objectives of the project are:

- **Develop a 1,420 m^2 spawning ground at KP 113 on the Eastmain River;**

- **Increase the success rate of reproduction and recruitment of lake sturgeon population downstream of the diversion point;**
- **Slow population decline;**
- **Support Cree recreational and traditional fishing activities.**

The sturgeon spawning ground project in the Eastmain River has been desired for several years by the Cree Nation of Eastmain (CNE) and the Niskamoon Corporation. More recently, Critical Elements Corporation (CEC) has been involved in the project. WSP has been mandated by this partnership to design the spawning ground, as well as plans and specifications. Funding for the project comes from Critical Elements Corporation, as well as grants from Fisheries and Oceans Canada (DFO), through the Recreational Fisheries Conservation Partnership Program (RFCPP).

The projected spawning site is attractive:

- **It is located at the foot of large rapids (lake sturgeon spawning grounds are often located at the foot of impassable, or hard to cross, obstacles);**
- **It is located upstream of a long lentic section which represents a large feeding area for sturgeon;**
- **It is located near James Bay Road which makes the site relatively easy to access and thus reduces cost of work (see plan 141-23939-H-1000, Appendix II).**

3.5 Activités connexes

Résumez, s'il y a lieu, les activités connexes projetées (exemples : aménagement de chemins d'accès, concassage, mise en place de batardeaux ou détournement de cours d'eau) et tout autre projet susceptible d'influencer la conception du projet proposé.

The construction of the spawning ground will require the rehabilitation of an existing road on a length of 1.2 km and the construction of a 700 m winter road section between the existing road and the river (see plans 141-23939-H-1000 in appendix III). The application for permit for other purposes (deforestation and construction of the road) has already been submitted to the MFFP.

Rehabilitation work to the existing road shall be minor since it will only be used during winter. Work shall consist in deforestation of roadside where vegetation grew back and filling in of small depressions with granular material (sand, gravel, pebbles).

Work for the new road shall consist in deforestation of the right-of-way, filling in of small depressions with in situ granular material, and compacting of snow and ice as to provide a road surface for vehicles.

4. ACTIVITÉS D'INFORMATION ET DE CONSULTATION DU PUBLIC

4.1 Activités d'information et de consultation réalisées

Le cas échéant, mentionnez les modalités relatives aux activités d'information et de consultation du public réalisées dans le cadre de la conception du projet (méthodes utilisées, nombre de participants et milieux représentés), dont les activités réalisées auprès des populations locales, notamment les Cris, les Inuits et les Naskapis, et précisez, s'il y a lieu, les préoccupations soulevées et leur prise en compte dans la conception du projet.

The Cree Nation of Eastmain and the Niskamoon Corporation have been wanting the development of a lake sturgeon spawning ground at KP 113 on the Eastmain River for years.

Three meetings were held to inform the various stakeholders, namely the tallymen and their families.

The first meeting with the Cree Nation of Eastmain was arranged in September 2016 to present the preliminary design. The project was very well received by the community, including the tallymen concerned by the project.

The second meeting in January 2018 in Val-d'Or was organized with the tallymen in order to present a more advanced version of the project as well as the projected work schedule.

The third meeting, with the Cree Nation of Eastmain in June 2018 in Montreal, was held to discuss the project funding and the involvement of the community in the project.

Stakeholders met with at all meetings expressed a keen interest in the execution of the project.

5. DESCRIPTION DES PRINCIPAUX ENJEUX ET IMPACTS APPRÉHENDÉS DU PROJET SUR LE MILIEU RÉCEPTEUR

5.1 Description des principaux enjeux du projet

Pour les phases d'aménagement, de construction et d'exploitation et, le cas échéant, de fermeture et restauration du projet, décrivez sommairement les principaux enjeux du projet, c'est-à-dire les préoccupations majeures pour le gouvernement, la communauté scientifique ou la population, y compris les communautés autochtones concernées, et dont l'analyse pourrait influencer la décision du gouvernement quant à l'autorisation ou non du projet.

Key issues of this project are:

- **Lake sturgeon population in the Eastmain River has been experiencing a sharp decline since the complete interruption of flow in 1981;**
- **Cree recreational and traditional fishing activities have also experienced a decline, which is something the Cree Nation of Eastmain wants to restore to some extent.**

It is worth mentioning that the project was put forward by the Cree Nation of Eastmain and that the key stakeholders of the community were updated throughout the development and design of the project.

Regarding the biological aspects, the project consists in the improvement of an existing spawning ground following a major modification to the river flow. Impacts of related work (existing road restoration, winter road development, contractor and storage area development) are considered minor (insignificant even) as the right-of-way is mainly within a disturbed area as a result of a forest fire.

5.2 Description des principaux impacts appréhendés du projet sur le milieu récepteur

Pour les phases d'aménagement, de construction et d'exploitation et, le cas échéant, de fermeture et restauration du projet, décrivez sommairement les impacts appréhendés du projet sur le milieu récepteur (physique, biologique et humain).

As this is a wildlife management project, impacts on the environment will not be significant and are only associated with the construction phase. Indeed, this is a project which aims at enhancing the quality of the reproduction habitat of lake sturgeon population which is in decline and highly valued by the local Cree community.

Biologically speaking, no major negative impacts are expected. The spawning ground will not modify the size of the body of water (meaning no loss of habitat). The coarse substrate which is currently on site shall be replaced with substrate which is more suitable to lake sturgeon breeding. The spawning ground will have a positive biological impact since it will help maintain and develop the sturgeon population.

Minor impacts will only occur during construction of the spawning ground. The temporary platform will lead to the temporary modification of the habitat (225 m^2). The impact of this modification can be considered as minor, insignificant even. Since work will be conducted during winter, a large section of the project area will probably already be dewatered.

Furthermore, the removal of large boulders found in the project site, placement of new granular substrate, and the partial excavation of the rocky outcrop (upstream of the spawning ground) could lead to an increase in fine particles found in the water. The following measures shall be taken as to minimize this impact:

- **Work shall be carried during winter, a period where river discharge is low and when a significant section of the spawning ground projected site will be dewatered or in shallow water. Carrying out work during this period will help limit the impact on sensitive fish life stages (breeding, migration, egg incubation, hatching);**
- **Granular material used for construction of the spawning ground shall be free of fine particles;**
- **Install a turbidity curtain around the work areas as required to prevent dispersal of suspended particles found in the water;**
- **Conduct partial excavation of the rocky outcrop in dry conditions (this work shall be conducted in winter when flow is very low). If necessary, surround the excavation area with a small wall made of sand bags meant to prevent the possible intrusion of runoff water.**

Little impact is expected regarding the restoration of the old road (length of 1.2 km) leading to the development site. The restoration work solely consists in the deforestation of places where vegetation hinders the traffic of vehicles.

The new road (on a section of 700 m) shall consist in a winter road, where ground is predominantly composed of rocks, and which does not cross wetlands. Deforestation work shall be required, but the amount of wood to be cut is small since the forest is sparse and was subjected to a forest fire almost a decade ago. The road shall mostly be composed of compacted snow and ice. Granular material

(gravel and pebbles available from the projected right-of-way) shall be placed in cavities and depressions. The road will not be permanent.

Little impact is expected regarding the manoeuvring area located near the spawning ground. Boundaries of this area were established as to limit encroachment on backswamps and minimize deforestation. The greater portion of the area is located over the rocky outcrops of the former Eastmain River bed which is now dewatered.

Socially speaking, no negative impacts are expected. As previously mentioned, the project is desired by the community, including households whose traplines are located near the project site. Since the objective of the project is to slow the decline of the lake sturgeon population and to foster its recovery, it should encourage medium and long-term Cree traditional and recreative fishing activities. The project therefore has a positive social impact.

The spawning ground construction project shall yield economic benefits for the Cree community, namely:

- **a portion of workers will be from the Cree Nation of Eastmain;**
- **workers from out of the region will stay in the Eastmain community during construction work.**

Dans le cas d'un projet de « zone grise », fournissez suffisamment de renseignements pour permettre d'évaluer ses impacts sur l'environnement et sur le milieu social, et ce, afin de déterminer s'il y a lieu de l'assujettir à la procédure d'évaluation et d'examen des impacts sur l'environnement et le milieu social. Présentez les mesures d'atténuation ou de restauration prévues, s'il y a lieu.

6. ÉMISSION DE GAZ À EFFET DE SERRE

6.1 Émission de gaz à effet de serre

Mentionnez si le projet est susceptible d'entraîner l'émission de gaz à effet de serre et, si oui, lesquels. Décrivez sommairement les principales sources d'émissions projetées aux différentes phases de réalisation du projet.

- **Transportation of granular materials via trucks;**
- **Use of heavy machinery for deforestation and construction of the access road and manoeuvring area;**
- **Use of heavy machinery for construction of the spawning ground.**

7. AUTRES RENSEIGNEMENTS PERTINENTS

7.1 Autres renseignements pertinents

Inscrivez tout autre renseignement jugé nécessaire à une meilleure compréhension du projet.

Proposed Monitoring Program

PRELIMINARY STAGES

- **Inventory and characterization (conditions before work) of structures and existing conditions (pictures/report) as well as the verification/acceptance of axes, alignments, positions, elevations and dimensions of structures will be conducted by the supervisor.**

COMPLIANCE WITH CONDITIONS LAID DOWN IN PERMITS

- **Site supervisor to make sure boundaries and standards laid down in the various permits issued for the present project are complied with.**

MAINTENANCE, CLEANING AND REFUELLING OF MACHINERY

- **Contractor to conduct maintenance, cleaning and refuelling of machinery in accordance with item "Maintenance, Cleaning, Refuelling and Storage of Machinery" of section "Site Organization, Site Office, Traffic and Signage Management and Environmental Protection" in the specifications;**
- **Contractor to install spill containment measures so above-mentioned activities can be conducted without causing hydrocarbon (or other contaminants) spills. Contractor to notify supervisor of location of work and projected containment measures beforehand;**
- **Contractor to conduct maintenance and cleaning of machinery at least 60 m from lake, watercourse or wetland;**

- **Contractor to supply machinery, including concrete mixers, with fuel and lubricant, at least 30 m from any lake, watercourse or wetland. This distance supersedes the one indicated in section "Lake, Watercourses and Wetland Protection" of the specifications;**
- **Contractor to use biodegradable hydraulic fluid for machinery even if work is carried out in dry conditions. The hydraulic fluid must have an ultimate degree of biodegradability of more than 60% for 28 days;**
- **No small hydrocarbon-fuelled device (generator, pump, etc.), as well as no tank or container filled with hydrocarbons or other hazardous materials, may be left less than 30 m from any lake, watercourse or wetland unless installed on an impervious structure (spill control trays or confined enclosures equipped with a tarpaulin as to contain leaks and spills) with a sufficient capacity to collect potential spill. In such cases, rainfall must be removed from structures after every precipitation event;**
- **Contractor installing above-ground hydrocarbon storage tank(s) of a total capacity of 5,000 L or more must ensure such tanks are double-walled or surrounded by an impervious dyke forming a containment basin;**
- **Containment basin(s) to have sufficient capacity to collect potential spill.**

SPILL OF PETROLEUM PRODUCT OR OTHER LIQUID HAZARDOUS MATERIAL

Following any leak or spill of petroleum products, hydraulic fluids (including synthetic or vegetable biodegradable oils) or other liquid hazardous materials, whatever the quantity spilled, contractor must take the following measures without delay:

- **Secure premises;**
- **Turn off/put out any ignition source (cigarette, engine, etc.);**
- **Stop spill or leak at the source;**
- **Notify site supervisor;**
- **Contain spilled substance using appropriate material (granular absorbent, sheets or rolls, etc.);**
- **Seal drains and manholes in the vicinity as to protect sewer systems;**
- **Notify Urgence-Environnement. Contact number to be displayed in the site office. Make sure all field staff have entered the number in their mobile phone contacts;**
- **Notify Environment Canada at once. Contact number to be displayed in the site office. Make sure all field staff have entered the number in their mobile phone contacts.**

EMERGENCY RESPONSE KIT FOR PETROLEUM PRODUCT AND OTHER LIQUID HAZARDOUS MATERIAL

Contractor to comply with provisions of item "Emergency Response Kit for Petroleum Product and Other Liquid Hazardous Material" of specifications. Location of the emergency response kit(s) to be indicated in the construction site trailer.

RESIDUAL AND EXCAVATED MATERIALS

Contractor to regularly clean work areas so they are free of waste at all times. Do not dispose of residual material into the environment. Demolition material, or other residual material, must be transported 60 m from any watercourse at end of each shift.

Residual materials to be transported to site authorized by MDDELCC for management (treatment, storage, valorization or disposal). Every truck leaving worksite with residual materials must receive duly completed transportation manifest from supervisor.

Contractor to submit documents which certify take over of materials by operator of authorized site (duly completed transportation manifest or electronic scale tickets indicating the nature and quantity of materials) to supervisor as soon as residual material is delivered to targeted site.

RESTORATION

- **Contractor to remove equipment, materials, temporary structures, waste, rubbish, and excavated materials from site (contractor area, tributary, banks and temporary accesses);**
- **Stockpile surplus materials left on site at the contractor area.**

Proposed Monitoring Program

OBJECTIVE

The monitoring of the spawning ground at KP 113 on the Eastmain River is meant to assess the physical integrity of the site and its use by the lake sturgeon.

METHODOLOGY

Monitoring of spawning ground use shall consist in the assessment of the presence of spawners and eggs throughout the breeding period (early June). The presence of eggs shall be validated using egg catchers (twenty-five concrete blocks and ten 30-diameter drift nets). These devices shall be placed in the water for 10 to 12 days during the spawning period. They will be distributed across the created spawning ground as to assess the surface area used and be surveyed every other day.

Furthermore, the presence of spawners shall be validated thanks to visual observations and, if needed, the installation of gillnets (4, 5 or 6 inches).

The integrity monitoring shall deal with the physical characteristics of the spawning ground created, including the surface area (built-up and usable, based on location data gathered with a DGPS). Flow velocity and substrate grain size will be measured at the location of each egg catcher. The general on-site conditions (stability, erosion, silting) shall be established from visual observations or using an underwater camera.

SCHEDULE

Follow-up of the spawning ground will be conducted in 2020, 2022 and 2014, meaning years 2, 4 and 6 following construction.

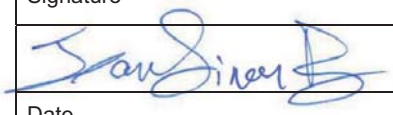
LOGISTIC ASPECT

Fieldwork will be conducted by a four-person team: two WSP technicians and two Cree Nation of Eastmain workers.

DATA TRANSMISSION AND REPORTING

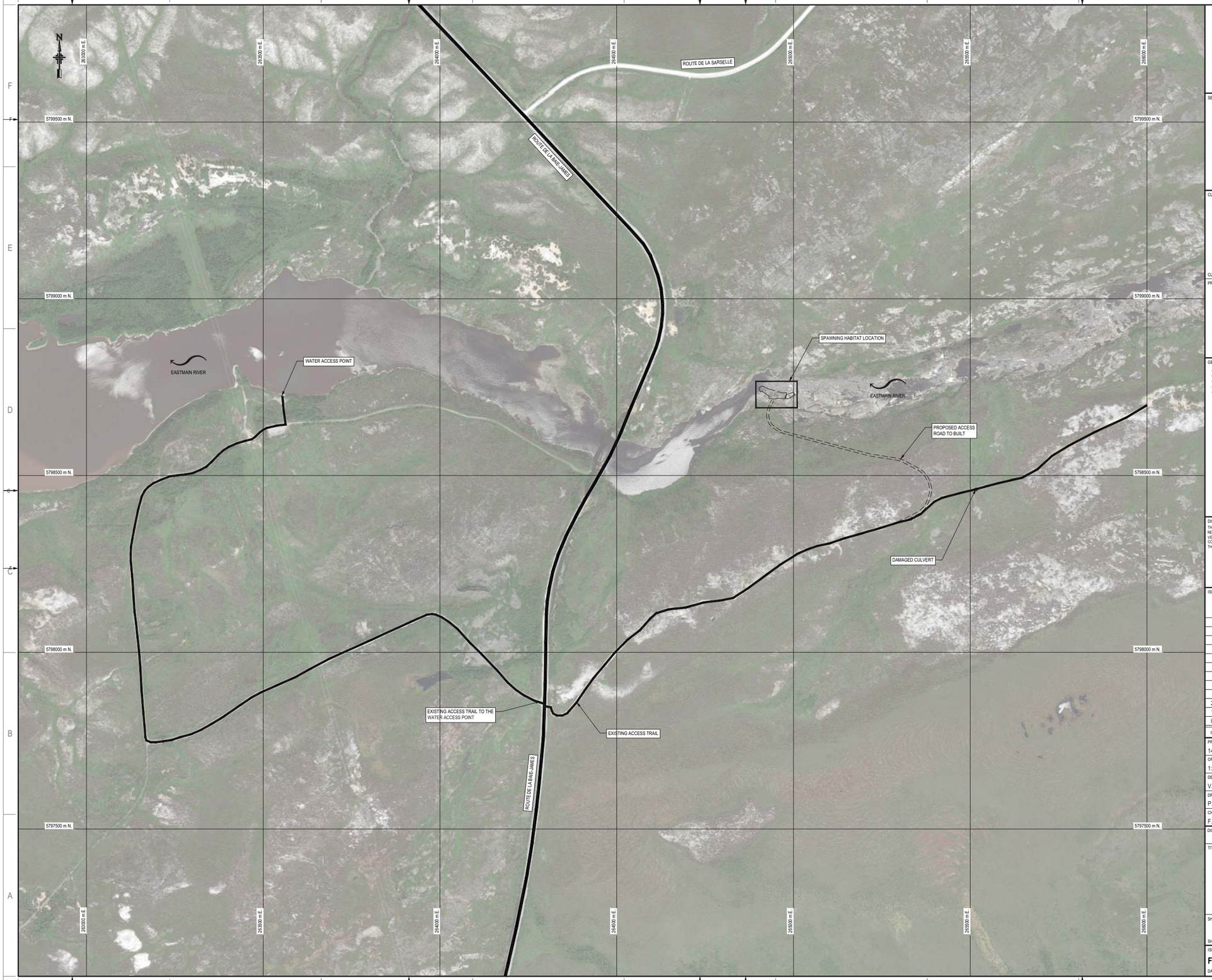
The monitoring reports on the integrity and use of the spawning area will be sent to the various government authorities involved in the project, namely, the provincial Administrator of the James Bay and Northern Quebec Agreement (the deputy minister of the MDDELCC), the MFFP and Fisheries and Oceans Canada.

8. DÉCLARATION ET SIGNATURE

8.1 Déclaration et signature
Je déclare que les documents et renseignements fournis dans ce formulaire de renseignements préliminaires sont exacts au meilleur de ma connaissance. ***Toute fausse déclaration peut entraîner des sanctions en vertu de la LQE. Tous les renseignements fournis feront partie intégrante de la demande et seront publiés sur le site Web du Comité d'évaluation (COMEV) ou de la Commission de la qualité de l'environnement Kativik (CQEK) ainsi qu'au Registre des évaluations environnementales.***
Prénom et nom
Jean-Simon Roy
Signature

Date
October 11th, 2018

Annexe II
Caractéristiques du projet

Si cela est pertinent, insérez ci-dessous les documents permettant de mieux cerner les caractéristiques du projet (plan, croquis, vue en coupe, etc.).



wsp

1135 LEBOURGNEUF BOULEVARD
QUÉBEC QUÉBEC CANADA G2K 0M5
TEL.: 418-623-2254 | FAX: 418-624-1857 | WWW.WSPGROUP.COM

SEAL:

CLIENT:

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CLIENT REF. #:--

PROJECT:

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GENERAL NOTES:

- INTERNATIONAL SYSTEM OF UNITS IS USED UNLESS SPECIFIED OTHERWISE
- ELEVATION VALUES ARE IN METERS.
- HORIZONTAL DATUM : NAD 83
- PROJECTION : MTM ZONE 9
- VERTICAL DATUM : CGVD28 (NIMI)

ISSUED FOR - REVISION:

IS.	RV.	DATE	DESCRIPTION
2		2018-08-15	FOR PERMIT
1		2018-08-03	PRELIMINARY
0		2018-03-30	PRELIMINARY

PROJECT NO: 141-23936-00

DATE: 2018-08-15

ORIGINAL SCALE: 1: 5 000

IF THIS BAR IS NOT 25 mm LONG, ADJUST YOUR PLOTTING SCALE.

25 mm

DESIGNED BY: V. CORMIER, ENG.

DRAWN BY: P. AUDET, TECH.

CHECKED BY: F. GROUX, ENG.

DISCIPLINE: **GENERAL**

TITLE:

LAKE STURGEON SPAWNING GROUNDS AT KP 113 OF EASTMAIN RIVER

SITE LOCALISATION

SHEET NUMBER: **141-23939-H-1000**

SHEET #: 01 OF 03

ISSUE: **FOR PERMIT**

DATE OF: **2018-08-1**

RV. #: **0**

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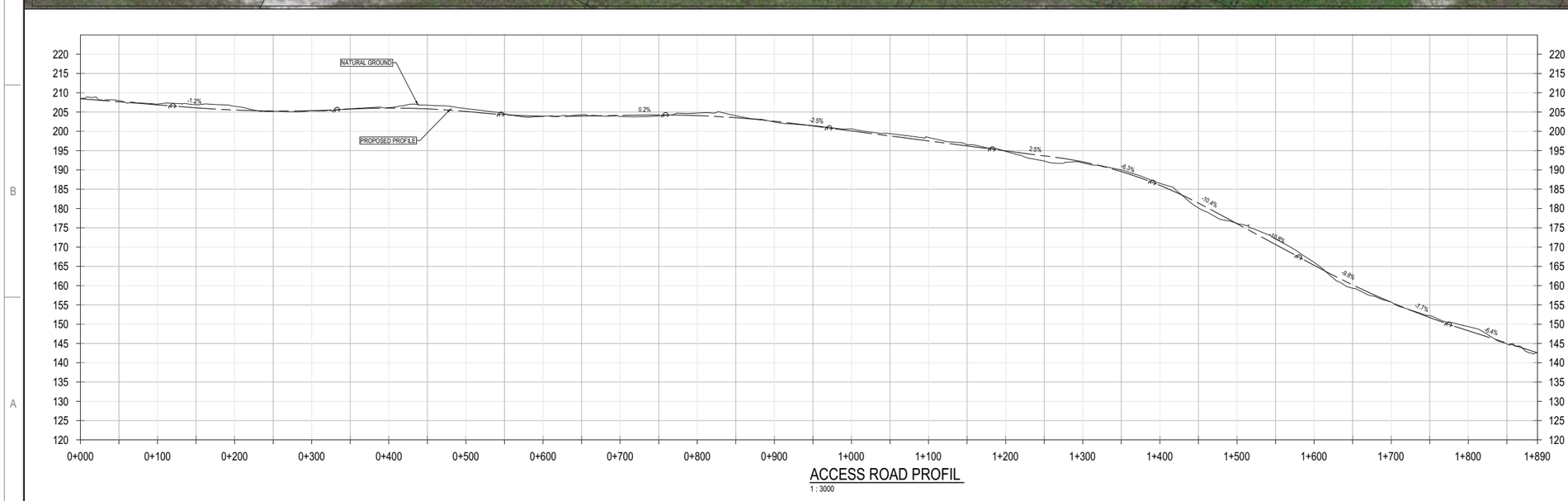
ACCES ROAD PLAN VIEW
1:2000



ACCESS ROAD PROFIL
1 : 3000

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SEAL:

CLIENT:

CLIENT REF. #:

PROJECT:

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GENERAL NOTES:

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- ELEVATION VALUES ARE IN METERS.
- HORIZONTAL DATUM : NAD 83
- PROJECTION : MTM ZONE 9
- VERTICAL DATUM : CGVD28 (NMM)

ISSUED FOR - REVISION:

IS.	RV.	DATE	DESCRIPTION
1		2018-08-23	FOR PERMIT
0		2018-03-30	PRELIMINARY

PROJECT NO: 141-23936-00
DATE: 2018-08-16
ORIGINAL SCALE: AS SHOWN
IF THIS BAR IS NOT 25 mm LONG, ADJUST YOUR PLOTTING SCALE. 25 mm
DESIGNED BY: V. CORMIER, ENG.
DRAWN BY: P. AUDET, TECH. AND A. SAULNIER, TECH
CHECKED BY: F. GROUX, ENG.

DISCIPLINE: **GENERAL**

TITLE:

LAKE STURGEON SPAWNING GROUNDS AT KP 113 OF EASTMAIN RIVER

PLAN VIEW

SHEET NUMBER: **141-23939-H-1001**
SHEET #: 02 OF 03

ISSUE: **FOR PERMIT**
DATE OF: **2018-08-23**
RV. #: **0**

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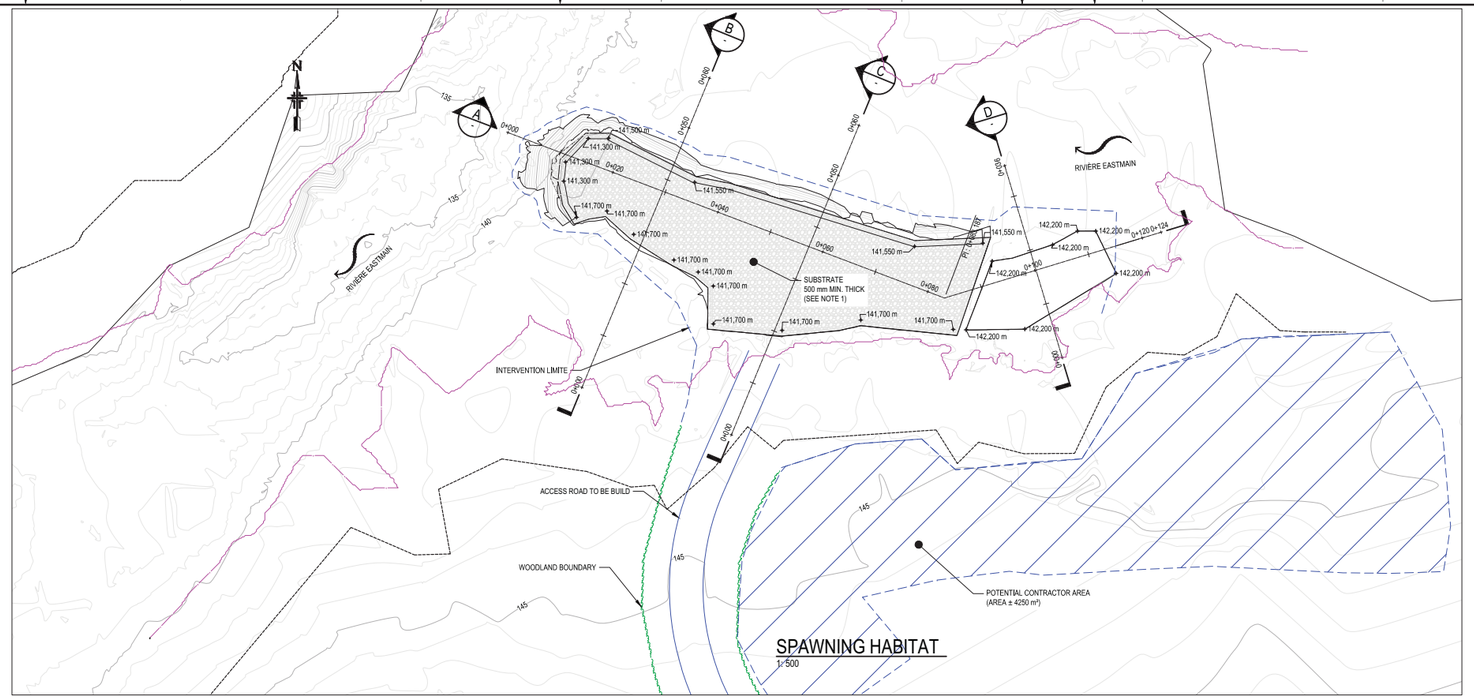


SPAWNING HABITAT
1: 500

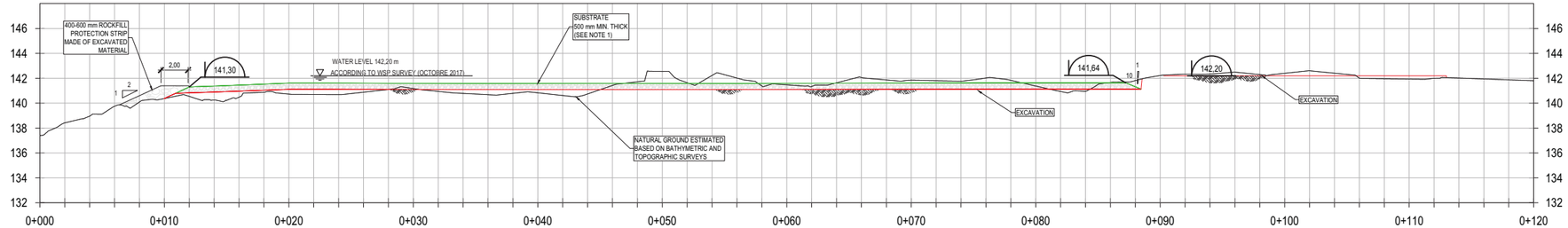
LEGEND:

- WOODLAND BOUNDARY
- LIMIT OF INTERVENTION
- HIGH WATER MARK (2-YEAR FLOOD)
- SHORE LIMIT (HWM + 15m)

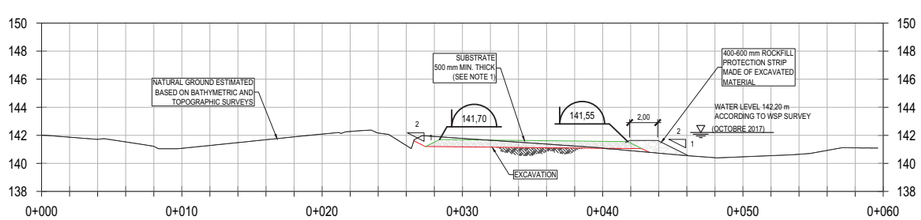
NOTES:

1) THE SUBSTRATES TO BE ADDED CONSIST OF NATURAL ROUNDED MATERIAL WITH THE FOLLOWING DIMENSION DISTRIBUTION:

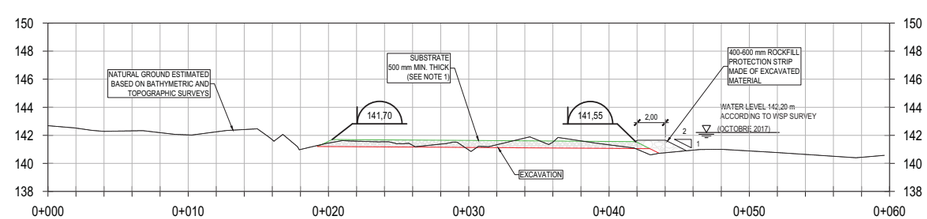
PEDDLES (40-80 mm):	10%
COBBLES (80-150 mm):	50%
BOULDERS (150-250 mm):	40%



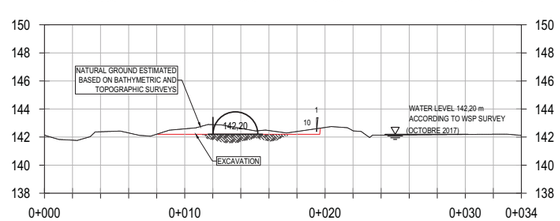
A - SECTION VIEW
1: 200



B - SECTION VIEW
1: 200



C - SECTION VIEW
1: 200



D - SECTION VIEW
1: 200

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SEAL:

CLIENT:

CLIENT REF. #:

PROJECT:

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GENERAL NOTES:

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- ELEVATION VALUES ARE IN METERS.
- HORIZONTAL DATUM : NAD 83
- PROJECTION : MTM ZONE 9
- VERTICAL DATUM : CGVD28 (NIMM)

ISSUED FOR - REVISION:

IS.	RV.	DATE	DESCRIPTION
2		2018-08-23	FOR PERMIT
1		2018-08-03	FOR INFORMATION
0		2018-03-30	PRELIMINARY

PROJECT NO: 141-23936-00	DATE: 2018-03-16
ORIGINAL SCALE: AS SHOWN	IF THIS BAR IS NOT 25 mm LONG, ADJUST YOUR PLOTTING SCALE. 25 mm
DESIGNED BY: V. CORMIER, ENG.	
DRAWN BY: P. AUDET, TECH. AND A. SAULNIER, TECH	
CHECKED BY: F. GROUX, ENG.	

DISCIPLINE: **GENERAL**

TITLE:

LAKE STURGEON SPAWNING GROUNDS AT KP 113 OF EASTMAIN RIVER

PLAN VIEW AND SECTIONS

SHEET NUMBER:

141-23939-H-1002

SHEET #: 03 OF 03

ISSUE: **FOR PERMIT**

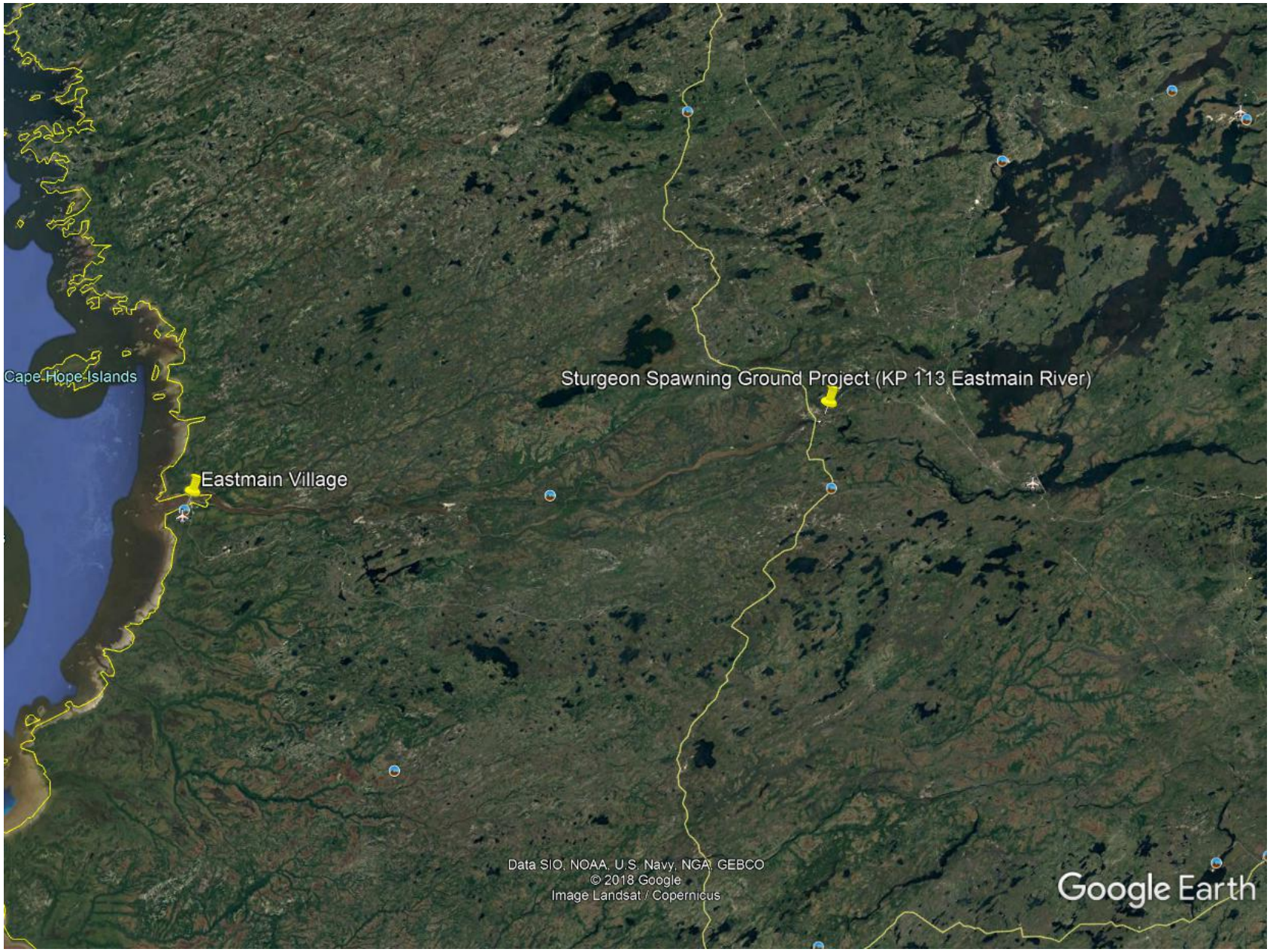
DATE OF: **2018-08-23**

RV. #: **0**

Annexe III
Plan de localisation

Insérez une carte topographique ou cadastrale de localisation du projet et, s'il y a lieu, un plan de localisation des travaux ou des activités à une échelle adéquate, en indiquant notamment les infrastructures en place par rapport au site des travaux.

Location of the Sturgeon Spawning Ground Project in Eastmain River (KP 113)



Location of the proposed sturgeon spawning site