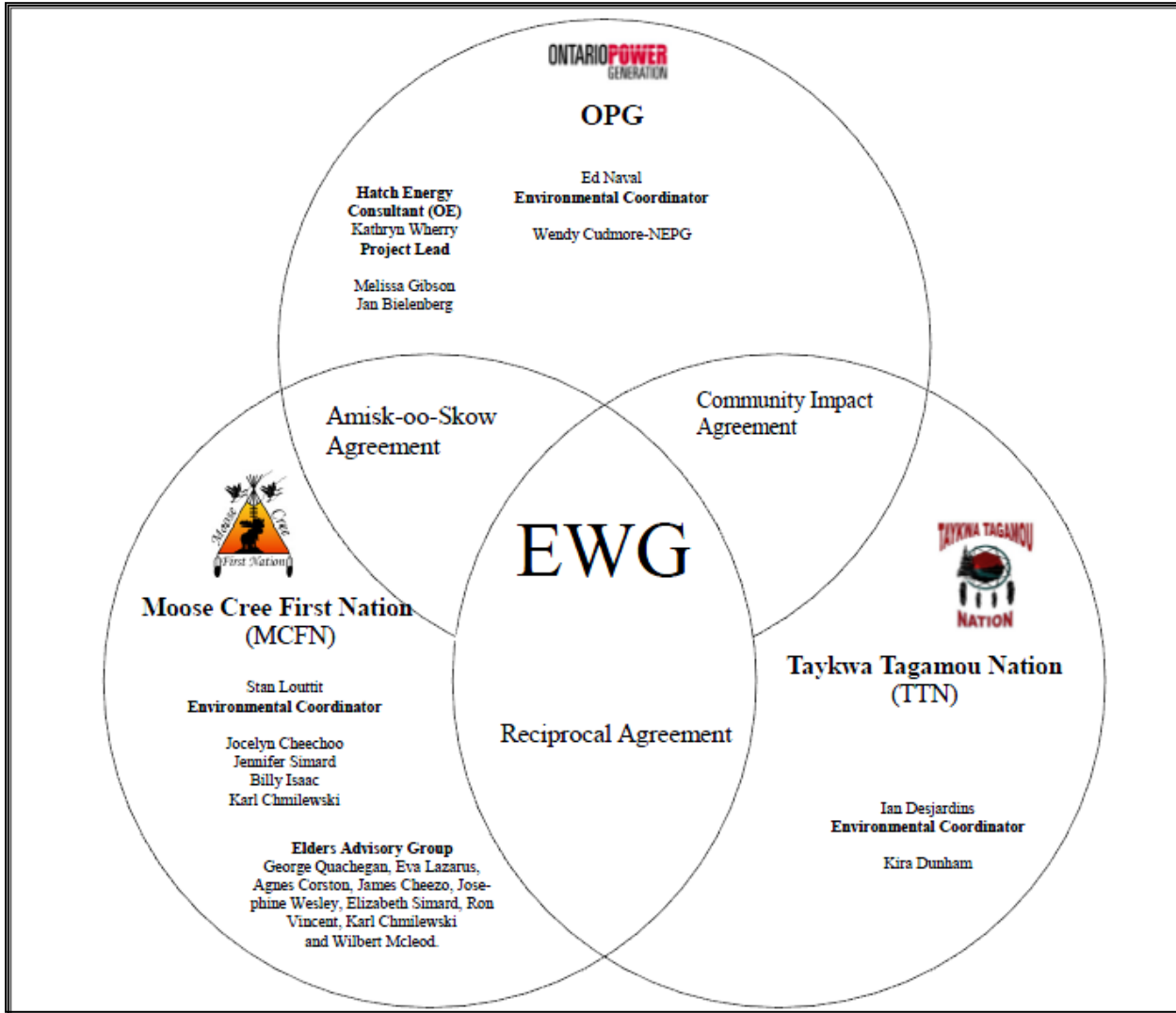


Environmental Working Group

Monthly Report

November 2014

ENVIRONMENTAL WORKING GROUP Relationship Organizational Chart





- Weekly Environmental Working Group (EWG) and EWG/Kiewit – Alarie, a Partnership (KAP) meetings.
 - The EWG review its Action Items that include priority permit reviews, and deliverables to the Mattagami Extensions Coordinating Committee (MECC).
 - KAP gives EWG a construction up date every week and discusses any upcoming issues and/or urgent permit reviews.
 - Specific items that were discussed are below.
- The EWG members attended and participated in the MECC workshop in November. MCFN members of the EWG did a presentation on a proposed TEK monitoring plan.
- The EWG held its last face to face meeting of the year on November 26, items that were discussed included a recap of the MECC workshop, as well as finalizing the Traditional Ecological Knowledge (TEK) component of the Cost Benefit Analysis Report for Adam Creek, and continued working on the TEK component of the Environmental Effects Monitoring Program. The MCFN team also presented its Terrestrial Wildlife Survey below Kipling during the face-face meeting as part of their baseline collection for term and condition 5b.
- The EWG reviewed and commented on KAPs proposed access road for the construction of the fish habitat shoals downstream of Smoky Falls.
- TTN members of the EWG continued to work on developing their own Elders Advisory Group as well as the Custodial Body.
- MCFN and TTN members of the EWG worked on incorporating TEK into the SENES Erosion and Aquatic Reports for Adam Creek (commissioned by the MECC). The MCFN Elders Advisory Group held a number of workshops in 2013 on fisheries, erosion, and isostatic rebound to understand the issues at Adam Creek and further downstream. The EAG held a meeting on Dec 1, 2013 and finalized its recommendations to SENES. The EAG recommendations will be included in the final SENES Reports.
- Inclusion of a First Nation perspective on the Cost Benefit Analysis of Mitigating and Reducing Spill in Adam Creek. MCFN have completed their draft, and TTN continues to work on their draft.
- MCFN and TTN of the EWG members continue to work on the development of a TEK Monitoring Program. The TEK Monitoring Program is intended to work with the OPG Environmental Effects Monitoring Plan to address term and condition 13 - Aboriginal Knowledge.
- In an effort to improve the understanding of TEK, members of the EWG have started reading articles that relate to TEK and/or hydroelectric development.

ACTIONS TO BE COMPLETED in 2014

		Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
EWG Environmental Due Diligence Audit #4													
EWG Face to Face Meetings													
EWG present to the MECC the result of its review of the draft “Cost Benefit Analysis of Mitigating and Reducing Adam Creek Spill” (Condition 4(c) and (e) of EA T&Cs) by Hatch.													
EWG present to the MECC the results and recommendations of periodic re-evaluations (Condition 10 of EA T&Cs).													
EA T&C 3a: Visual and Aesthetic Impacts EA T&C 4b: Hydrology, Fish and Aquatic Habitat EA T&C 5b: Terrestrial Ecology EA T&C 6: Erosion and Sedimentology EA T&C 7: Mercury EA T&C 14: Permit Review and Compliance Monitoring Protocol	EWG present to the MECC “Environmental Effects Monitoring Plan, Lower Mattagami Development”												
	EWG present to the MECC “TEK - Environmental Effects Monitoring Plan, Lower Mattagami Development”												TBD
EA T&C 3a: Visual and Aesthetic Impacts EA T&C 5d: Terrestrial Ecology	EWG present to the MECC the results and recommendations of Little Long Rehabilitation Plan												
	EWG present to the MECC the results and recommendations of Harmon Rehabilitation Plan												
	EWG present to the MECC the results and recommendations of Kipling Rehabilitation Plan												
	EWG present to the MECC the results and recommendations of Smoky Falls Rehabilitation Plan												
EWG presents to the MECC a draft of the ‘Peoples of the Moose River Basin’, the cultural text outlined in EA T&C 2c.													TBD
EWG read TEK book ‘The Inconvenient Indian, A Curious Account of Native People in North America’.													
EWG watch TEK related films or documentaries or articles (Doc: The Reel Injun, Cree Hunters of the Mistassini and Watermark).													

Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
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Completed:  Pending:  *Additional work still required to fulfill EA Term and Condition

Construction

Little Long

- KAP continued to work on closing out punch list items, such as:
 - KAP prepared the foundation for the concrete curb (oil barrier) to be installed around the HPU.
 - KAP electricians troubleshot the heat trace on the generator cooling water system, the heater at the intake doghouse.
 - KAP electricians repaired inverter contacts, modified wiring on the tailrace crane, and connected power to the new air conditioning unit in the teleprotection room.
 - Andritz installed a solenoid valve and associated wiring on the shaft seal panel, modified exciter wiring based on lessons learned at Kipling, and installed thermocouples on surface air coolers for the heat run test.
- Little Long Unit was 3 (Figure 1) was declared in service on January 19, 2014.



Figure 1: Little Long Unit 3 June 2014

Harmon (Figure 2)

- Preparations were completed for vibration testing, and vibration testing at various power output levels was completed. One issue was identified – when the Unit was set to run at 30 MW, it tripped on vibration at 21 MW while ramping up from the previous (18.5 MW) setting.
- Adjustments were made to the disconnect switch in the switchyard
- KAP continued to work on closing out punch list items, such as:
 - KAP prepared the foundation for the concrete curb (oil barrier) to be installed around the HPU.
 - Water seepage remediation continued in the penstock wall under the mezzanine.
 - Water seepage was identified on the lower bracket level – KAP and Andritz were investigating the source.

- Harmon (Figure 2) was declared in-service on June 3rd, 2014, three months ahead of the target in-service date.



Figure 2: Harmon overview, July 2014

Kipling

- KAP electricians installed the tie-in for station service from Unit 3 to the existing station service.
- Vipond pipefitters installed a drainage pipe for the valve at the fire hose cabinet on the powerhouse north wall.
- KAP millwrights performed final alignment checks for the intake gate hoist with load on the gears.
- The Unit was watered up on November 1. Following that, the first rotation, a bearing heat run, and a windage losses heat run were completed.
- KAP continued to work on closing out punch list items, such as:
 - Water seepage remediation continued in a number of locations in the powerhouse (Figure 3).
 - KAP cleaned out the construction joint between Units 2 and 3.
 - Andritz repaired an oil leak on the generator bearing housing access port weld.
- It is forecasted that Kipling Unit 3 will be declared in service in December 2014.



Figure 3: KAP grouting crew working on concrete at west of Kipling unit 3.

Smoky Falls

- With construction on all the generating units complete, Alstom worked with KAP and OPG to commission them. They have completed the following tasks:
 - Unit 1: No activity. (Unit 1 was declared in-service on September 30.)
 - Unit 2: No activity. (Unit 2 was declared in-service on October 9.)
 - Unit 3: No activity. Unit 3 completed its trial run mid-month and was declared in-service just before month-end, on December 2.
- HPPE completed installing their performance testing equipment at Unit 1 and completed the performance testing activities during the month. They were demobilized by month-end.
- BOP Mechanical and Electrical installation throughout the powerhouse continued to progress.
- Rock retaining work was completed at Zone 5. The last two anchors were drilled, installed, and grouted successfully.
- Architectural work continues to advance throughout the powerhouse, including:
 - HVAC ductwork and electrical cabling in various locations;
 - The plant elevator installation;
 - Installation of studs and drywall in various locations;
 - Priming and painting various rooms and structures throughout the plant;
 - Insulation and sealing of the joint between the precast concrete panels and the tailrace deck;
 - Light fixtures in a number of locations throughout the powerhouse;
 - Steel doors and handrails in various locations;
- Contaminated soil was removed from the sediment pond and taken to the Kapuskasing landfill site (Figure 4 and 5).
- Repairs to the compressed air pipes for the tailwater depression system were completed.
- Backfill of Zone 1 on top of the septic holding tanks was completed.



Figure 4: Smoky Falls sediment stockpile



Figure 5: Smoky Falls Removal of Sediment Completed

Monthly Summary – November 2014

SPILLS			
No. of Spills:		4; Spill Reports 473-476 (see Figure 6 for LMRP spills breakdown).	
Classification of Spills:		<u>KAP Project Classification</u> Minor – 4 Moderate – 0 Major – 0 To Water - 0 <u>MOE Classification</u> Non-reportable - 4 Reportable to MOE <ul style="list-style-type: none"> - Class C – 0 - Class B – 0 - Class A – 0 	
Reportable Spills			
No.	Quantity /Product Spilled	Spill Site	Reason for being Reportable
n/a			
KAP Project Classification Minor: ≤ 10L Moderate: Between 10L and 100L Major: ≥100L To Water: Any amount is reportable to the MOE (See Figure 7: KAP Spills Response Flowchart)		MOE Classification (see Reportable and Non-reportable Spills definition below) Non-reportable: < 100L Reportable to MOE <ul style="list-style-type: none"> • Class C - Less Serious • Class B – Serious • Class A – Very Serious 	
Sediment Pond Exceedance of Effluent Objective			
No. of Exceedance days recorded	Location	Mitigation Measures used	
n/a			

Spills Response

When **any spill** occurs on site, KAPs spill response process is to be followed (Figure 7). This includes notification of the Supervisor and KAPs Environmental Department, and an assessment of the severity of the spill. Regardless of the quantity, clean-up measures are implemented for **every spill** using spill kits that are available throughout the site (materials used for clean-up and any contaminated soil are removed from the site). A spill report is then prepared for **each spill that occurs** which outlines the location, type, severity and quantity of the spill, in addition to details on how the spill occurred, how it was cleaned up and measures implemented on how the spill could be avoided for the future. This report is sent out to several OPG and Hatch representatives as well as all EWG members.

Reportable and Non-reportable Spills:

Section 92 of the *Environmental Protection Act* (EPA) requires that a **spill** be reported forthwith to the Ministry of the Environment. The definition of a spill in the EPA (subsection 91.1) is: a discharge,

- (a) into the natural environment,
- (b) from or out of a structure, vehicle or other container, and
- (c) that is abnormal in quality (e.g. the product spilled) or quantity (e.g. the amount spilled) in light of all the circumstances of the discharge.

Spills that are exempt from reporting to the Ministry of the Environment (ie. non-reportable) are discharges that don't fall within the 'spill' definition or, are exempted under EPA Regulation 675/98, *Classification and Exemptions of Spills and Reporting of Discharges*. This includes (not limited to) Class VI – Motor Vehicle exemptions, which exempts reporting of spills that are less than 100 L of fluid from a motor vehicle.

Subsection 30 .2 of the *Ontario Water Resources Act*, requires that the discharge of any material of any kind into water that is not in the normal course of events (e.g. regardless of quantity or quality) be reported to the Ministry of the Environment.

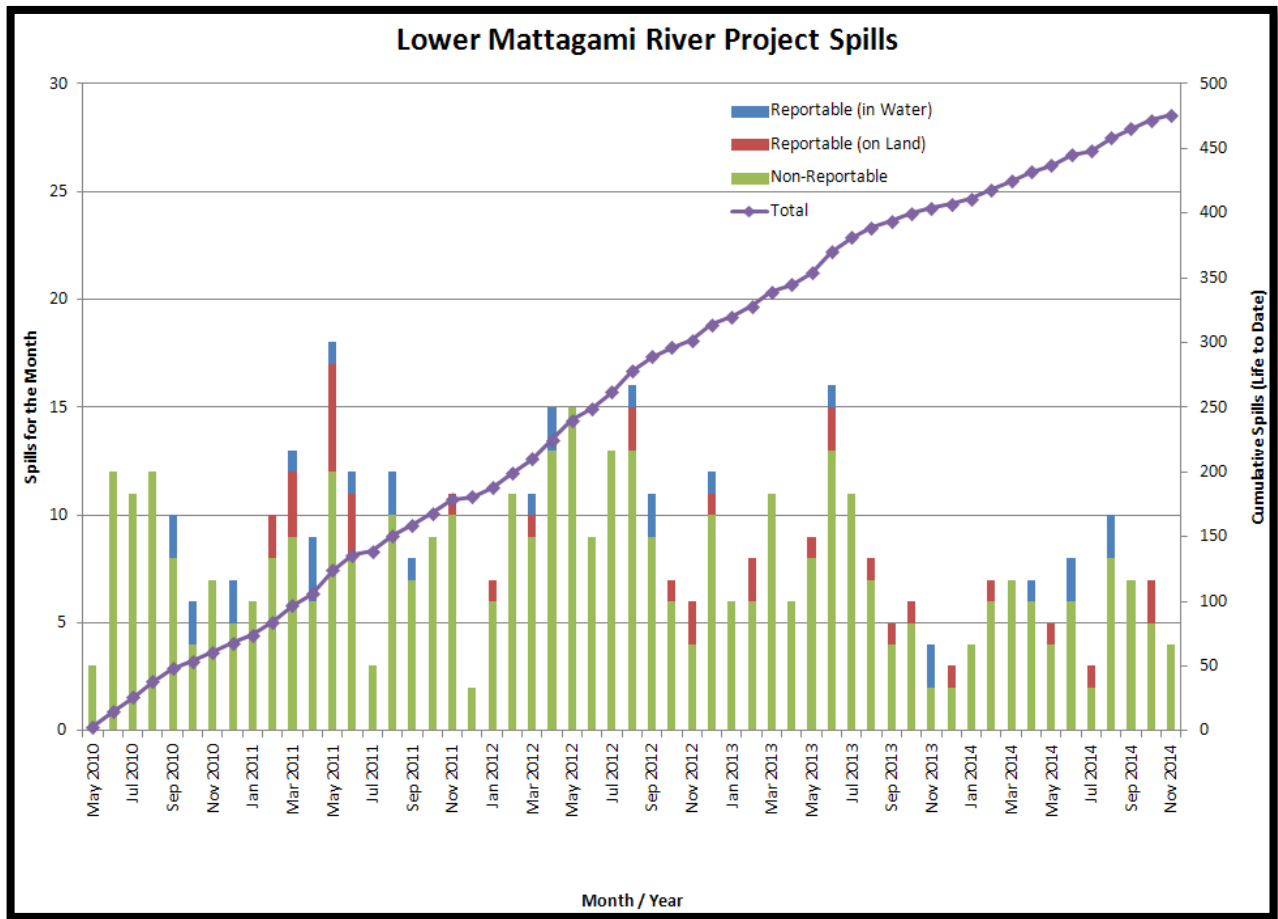


Figure 6: Lower Mattagami River Project spills

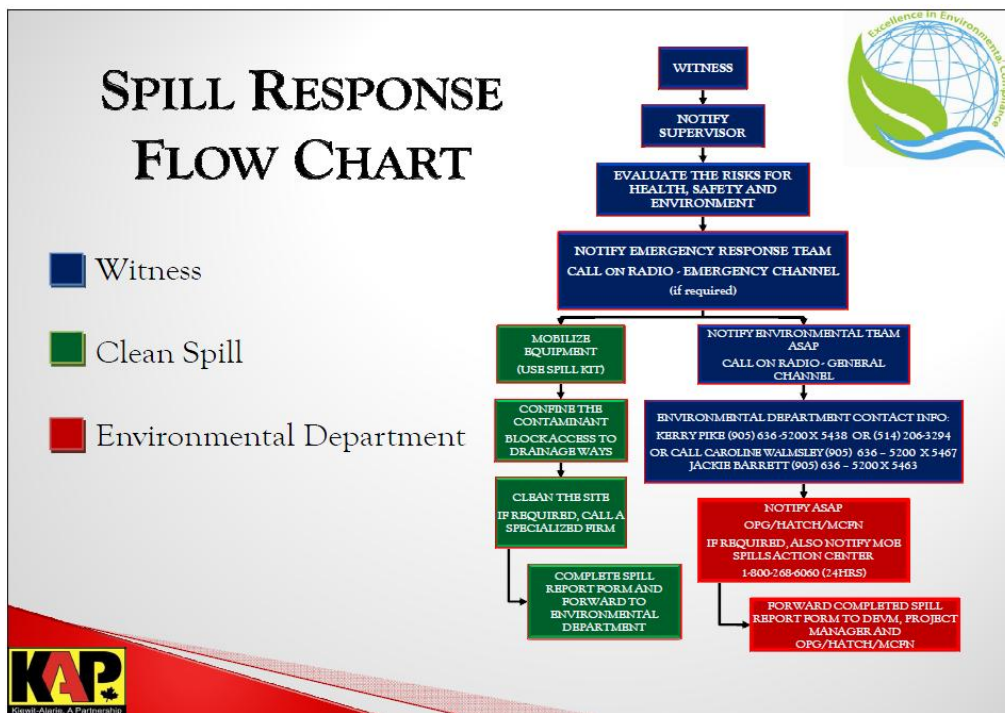


Figure 7: KAP Spills Response Flowchart

Monthly Permit and Approval Review Table

No.	PERMIT AND/OR APPROVAL REVIEW	Reviewed by EWG	Submitted to KAP
-	0	0	0

**Provincial Environmental Assessment Term and Condition (EA T&C)
Reports Review and Environmental Audits Table**

No.	Report or Audit	Applicable EA T&C	Reviewed or Under Review by EWG	Submitted to KAP	Submitted to MECC
14	KAP Kipling Site Rehabilitation Plan.	3a and 5			-
13	KAP Harmon Site Rehabilitation Plan.	3a and 5			-
12	Cost Benefit Analysis of Mitigating and Reducing Spill in Adam Creek	4c		n/a	-
11	Mercury in Fish Flesh Summary Report	4b and 7a		n/a	
10	Fish Habitat Assessment Report	4b		n/a	
9	Terrestrial Habitat Restoration Downstream of Kipling GS	5b		n/a	-
8	Draft Environmental Effects Monitoring Plan	3a, 4b, 5b, 6, 7 and 14		n/a	
7	KAP Little Long Site Rehabilitation Plan.	3a and 5			
6	Operation Overview Report	4a		n/a	
5	Waste Management Plan	19			
4	Noise Control Plan	18			
3	The Interim Measures Agreement as it relates to EA Term and Condition 14c (Permit Review and Compliance Monitoring Protocol)	14c			
2	2013 Environmental Audit	14			
1	2012 Environmental Audit	14			



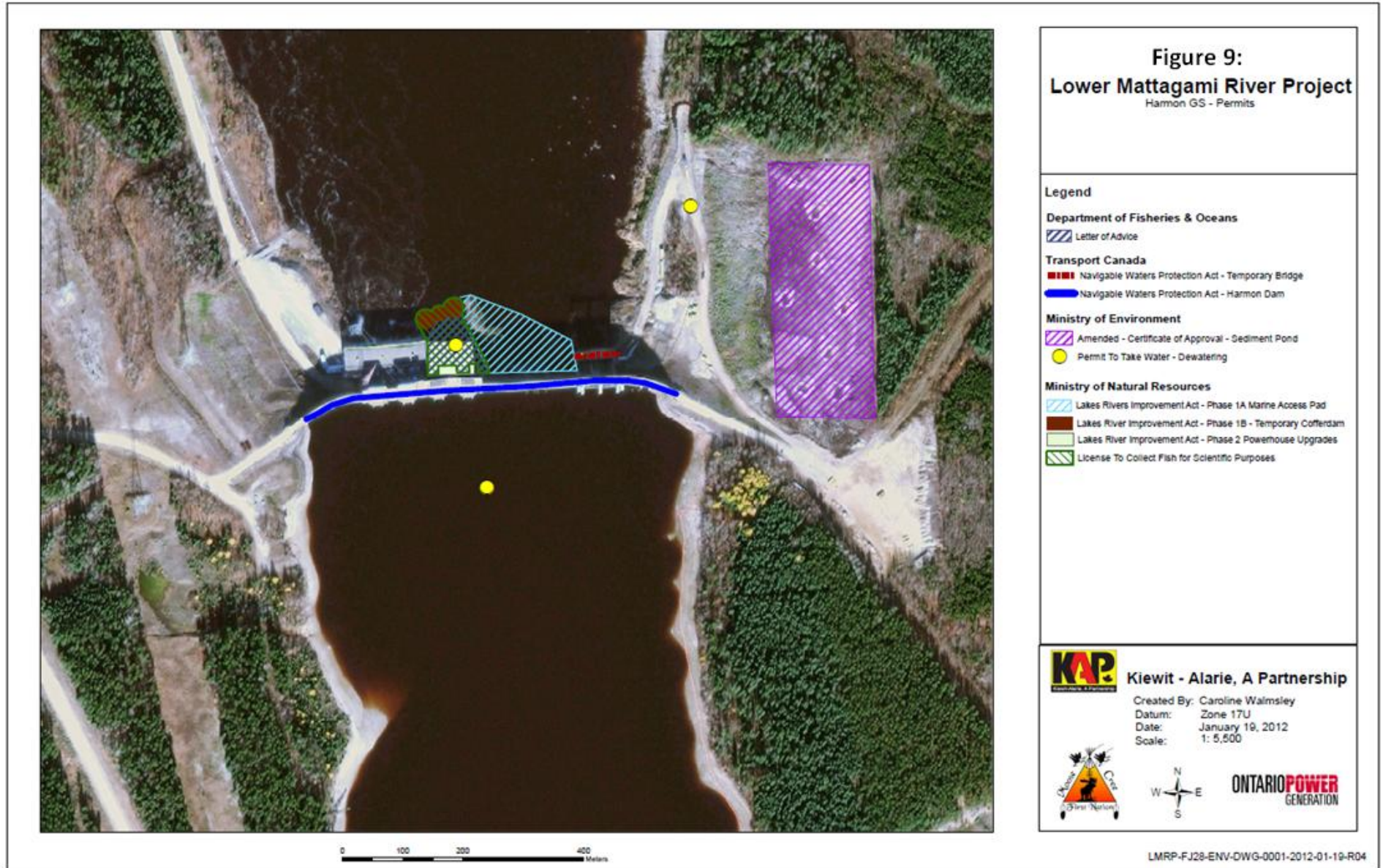




Figure 10:
Lower Mattagami River Project
Kipling GS - Permits

Legend

Department of Fisheries & Oceans

Letter of Advice

Transport Canada

Approval - Navigable Waters Protection Act - Kipling Dam

Ministry of Environmental

Amended Certificate of Approval - Sediment Pond

Permit To Take Water - Dewatering

Ministry of Natural Resources

Lakes River Improvement Act - Phase 1A - Marine Access Pad

Lakes Rivers Improvement Act - Phase 1A - 1 Deflector Wall

Lakes Rivers Improvement Act - Phase 1A - 2 Spillway Location Revised

Lakes Rivers Improvement Act - Phase 1B Temporary Cofferdam

Lakes Rivers Improvement Act - Phase 2 Powerhouse Upgrades

Licence to Collect Fish for Scientific Purposes



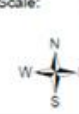
Kiewit - Alarie, A Partnership

Created By: Caroline Walmsley

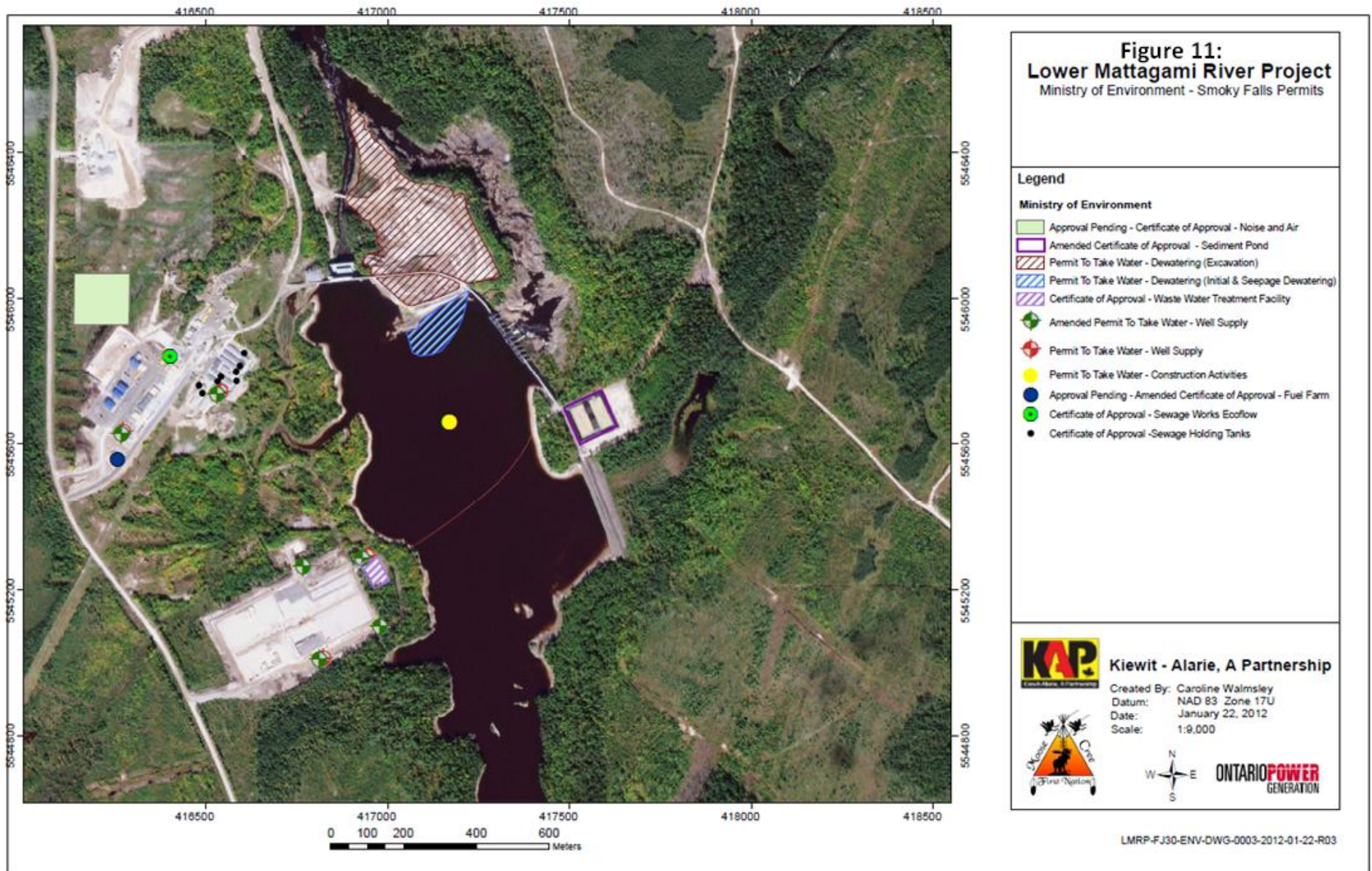
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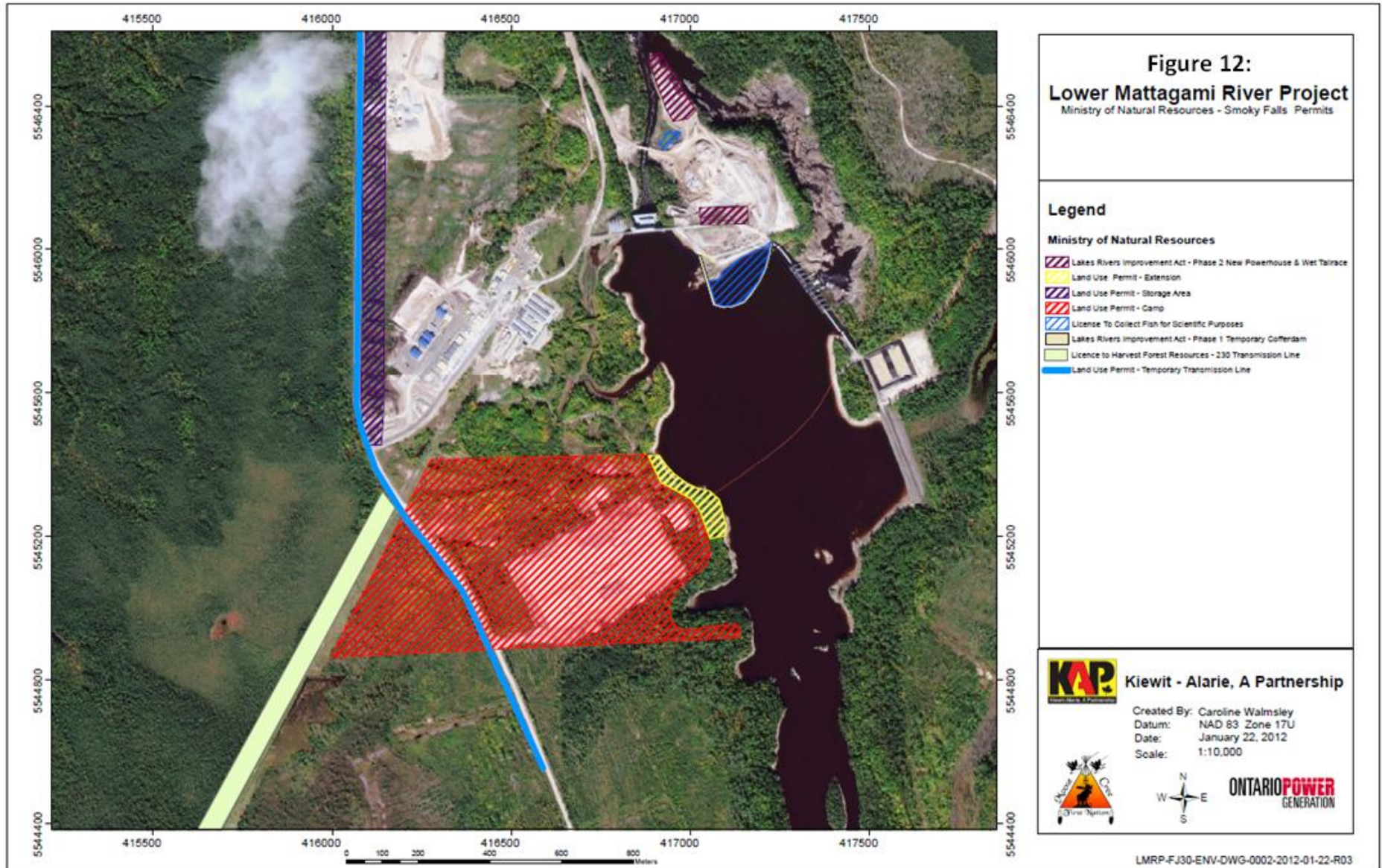
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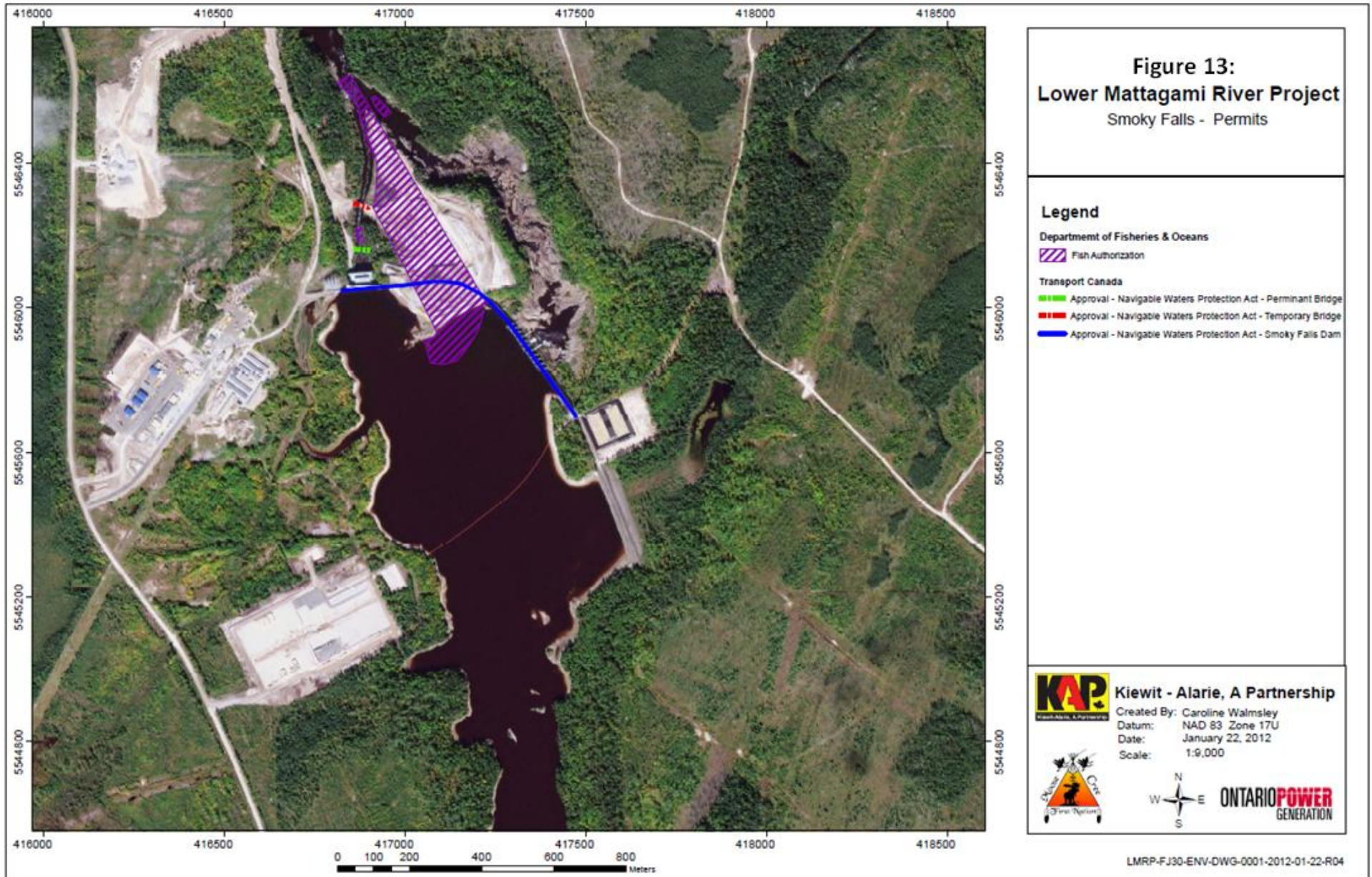
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Issues and Concerns

- Members of the EWG were concerned over KAPs proposed access road for the fish habitat shoals downstream of Kipling. The proposed access would require additional in water work, which may impact fisheries.

Action required: KAP will consider other options over the winter.

- MCFN members of the EWG were concerned with family of beavers crossing road and feeding of foxes by project personnel.

Action required: KAP to make project personnel aware of beaver family, reduce speeds. KAP to make project personnel aware that feeding of wildlife and foxes not acceptable behaviour.