

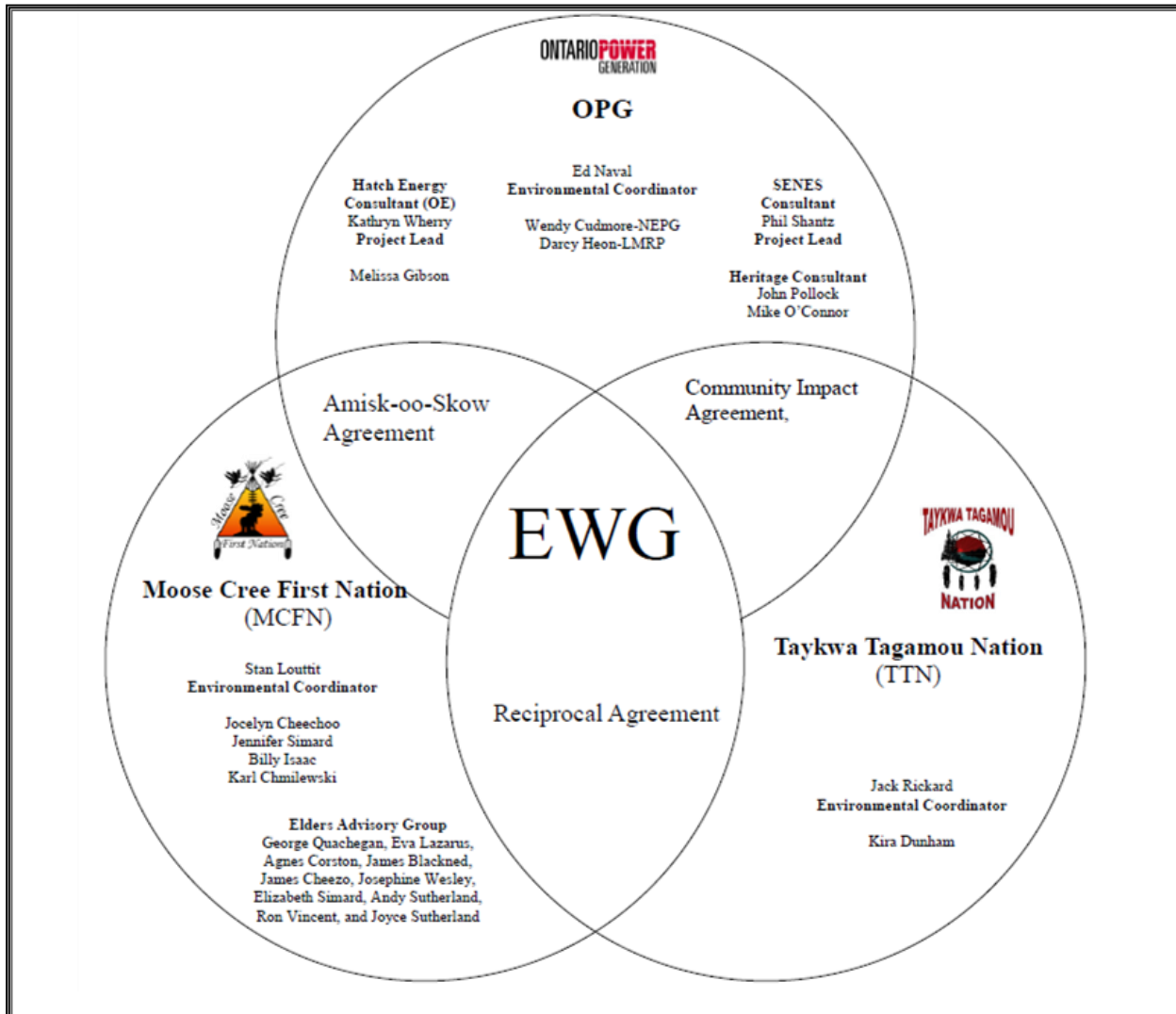
Environmental Working Group

Monthly Report

January 2012

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.
- Ongoing review and compilation of Traditional Ecological Knowledge (TEK) for the Lower Mattagami River Project.
- Revision of Cost Benefit Analysis of Mitigating and Reducing Spill in Adam Creek based on further EWG comments. MCFN and TTN to provide traditional ecological knowledge input to the report. Report to become OPG report.
- Operation Overview Report was revised with EWG comments and discussed. MCFN and TTN to provide information to incorporate TEK.

ACTIONS TO BE COMPLETED in 2012

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
EA Terms and Conditions Environmental Compliance Plan – EWG Review and Submission to MECC.												
EWG Environmental Due Diligence Audit #2												
EWG present to the MECC the result of its review of the LMRP “Operations Report” (Condition 4(a) of EA T&Cs).												
EWG present to the MECC the result of its review of the “Fish Habitat Assessment Report”, and “Baseline Fish Methyl Mercury Report” (Condition 4b. of EA T&Cs) by Hatch.												
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 “Waste Management Plan” (EA T&C 19).												
EWG present to the MECC “The Noise Protocol Plan” (Condition 18 of EA T&Cs).												
EWG present to the MECC “Environmental Monitoring Plan, Lower Mattagami Development” (EA T&C 14).												
EWG present to the MECC the “Erosion Monitoring Plan” (EA T&C 6).												
EWG present to the MECC the “Evaluation of the Need to Conduct Terrestrial Habitat Restoration Downstream of Kipling” (EA T&C 5).												
Draft of Traditional Ecological Knowledge in relation to the Lower Mattagami River Project.												
EWG present to the MECC the results and recommendations of periodic re-evaluations (Condition 10 of EA T&Cs).												

Construction

General

- Site start-up after the Christmas break started on January 3rd, and was staged. Most staff returned to site between January 3rd and 5th, and all were required to undergo a re-orientation briefing.
- Hatch staff returned to site in two groups, on January 3rd and on January 9th.

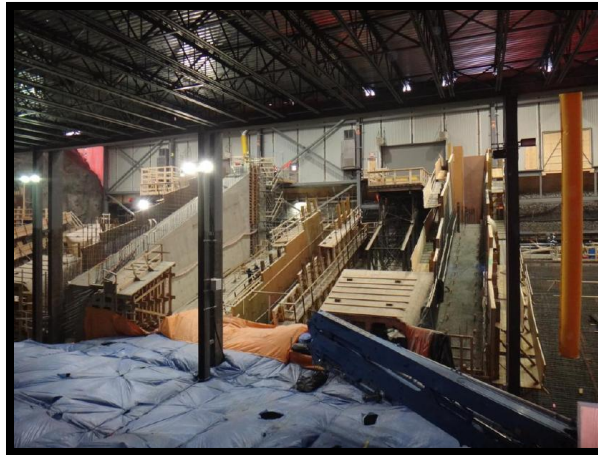


Figure 1: Smoky Falls Concrete Work Inside the Winter Shelter

Smoky Falls

- Over the Christmas period, the heaters were kept on to maintain a constant temperature inside the shelter.
- Concrete pours in the service bay, powerhouse, and intake areas resumed, with a total of 1,831 m³ of concrete poured in January (January 3rd to February 3rd).
- There are sixteen pours in total with work under way (rebar and form work) at the end of the month.
- Work continues under localized hoarding on the reconstruction of the Smoky Falls Unit 2 / Unit 3 bullnose. Installation of form work and rebar installations are progressing.
- Inside the winter shelter, foundations for all of the four concrete placing booms are complete, except for one (the grout is curing on the last foundation). All but one of the placing booms are installed and in-service (Figure 1).

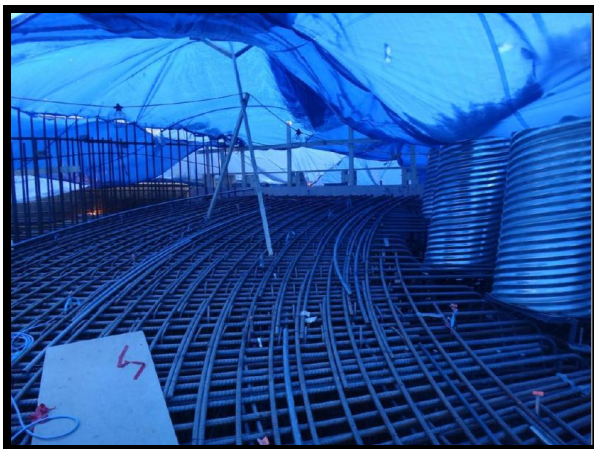


Figure 2: Corrugated metal pipes and rebar inside Little Long Hoarding

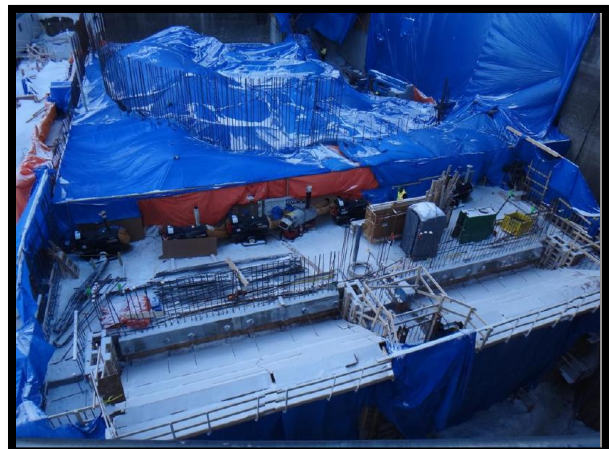


Figure 3: Little Long Powerhouse Area Overview as seen From the Cofferdam

Little Long

- Upon their return from the Christmas break, KAP crews cleared snow and ice around the site.
- Divers were scheduled to seal the Unit 3 stop logs but were unable to work due to forebay ice conditions.
- Steel frames and corrugated metal pipes used for anchor box-outs have been installed for the base of the stay ring (Figure 2).
- Concrete work is progressing well, with 531 m³ of concrete poured in the powerhouse area (Figure 3). Work continues to advance at an accelerated pace despite occasional extremely cold weather. KAP is reporting that Little Long is now 351 m³ of concrete ahead of plan as of January 25th.
- The crane inspection contractor inspected the Little Long overhead crane prior to KAP accepting it for their use. An inspection report was received by KAP on January 25th, and there were no major concerns or issues. Three items of concern were noted in the report and repairs are under way for all of them.



Figure 4: Harmon Powerhouse Work Area seen from the top of the Winter Shelter



Figure 5: Kipling – Installing Cell #2 Sheet Piles

Harmon

- Upon their return from the Christmas break, KAP made adjustments to the winter shelter tarps and installed additional heating equipment inside the shelter (Figure 4).
- Ice removal under the winter shelter was required and completed.
- Preparations for the concrete pour for the base of the draft tube (658 m³) have been advancing well, and the pour is currently planned for two days ahead of the baseline schedule.
- 51 m³ of concrete was poured in the intake in January.

Kipling

- The bubbler system in put place over the Christmas break was successful in minimizing the ice build-up in the cofferdam area.
- KECO (designer) worked through the Christmas break to determine the best re-designed configuration for post-tensioned anchors and the best way to seal Cell #2.
- Cofferdam Cell #2's position was slightly altered due to a spud pile bearing on uneven bedrock. Cell #2's spud piles have been installed and sheet pile installation is under way (Figure 5).
- Additional bracing has been added to Cell #2 (to Cells #1 and #3) in lieu of an anchor on the north spud pile, which is located in the fault zone.

Monthly Summary – January 2011

SPILLS			
No. of Spills:		7; Spill Reports 182-188 (see Figure 6 for LMRP spills breakdown).	
Classification of Spills:		<u>Project Classification</u> Minor – 3 Moderate – 3 Major – 1 To Water - 0 <u>MOE Classification</u> Non-reportable - 5 Reportable to MOE <div>- Class C – 2 - Class B – 0 - Class A – 0</div>	
<u>Reportable Spills</u>			
No.	Quantity /Product Spilled	Spill Site	Reason for being Reportable
1	535 L/ Glycol (exact amount of material spilled cannot be determined as the volume of glycol in the ground heater before the spill was not known. The tank and hose capacity of the heater is approximately 535 L and this would be the maximum amount of glycol released. This volume was reported to the MOE Spills Action Center.	Harmon - Dewatered Area	Reportable (on-land due to quantity)
2	12 L/ Engine Oil	Adam Creek Parking Lot	Reportable (on-land from a non-motor-vehicle)
Project Classification (KAP) 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 Non-reportable: < 100L Reportable to MOE <div>• Class C - Less Serious • Class B – Serious • Class A – Very Serious</div>
Sediment Pond Exceedance of Effluent Objective (>15mg/L)			
No. of Exceedance days recorded	Location	Mitigation Measures used	
0	n/a	n/a	

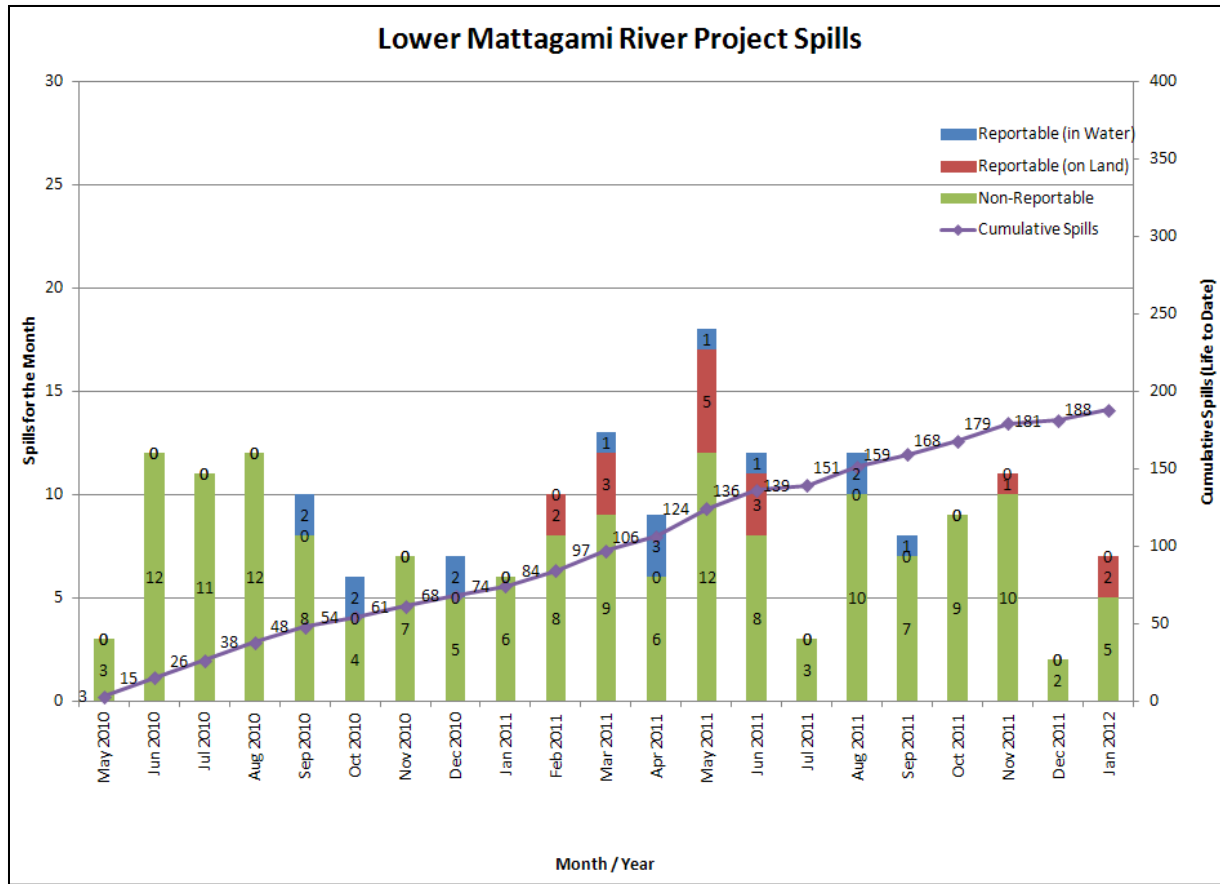


Figure 6: Lower Mattagami River Project spills

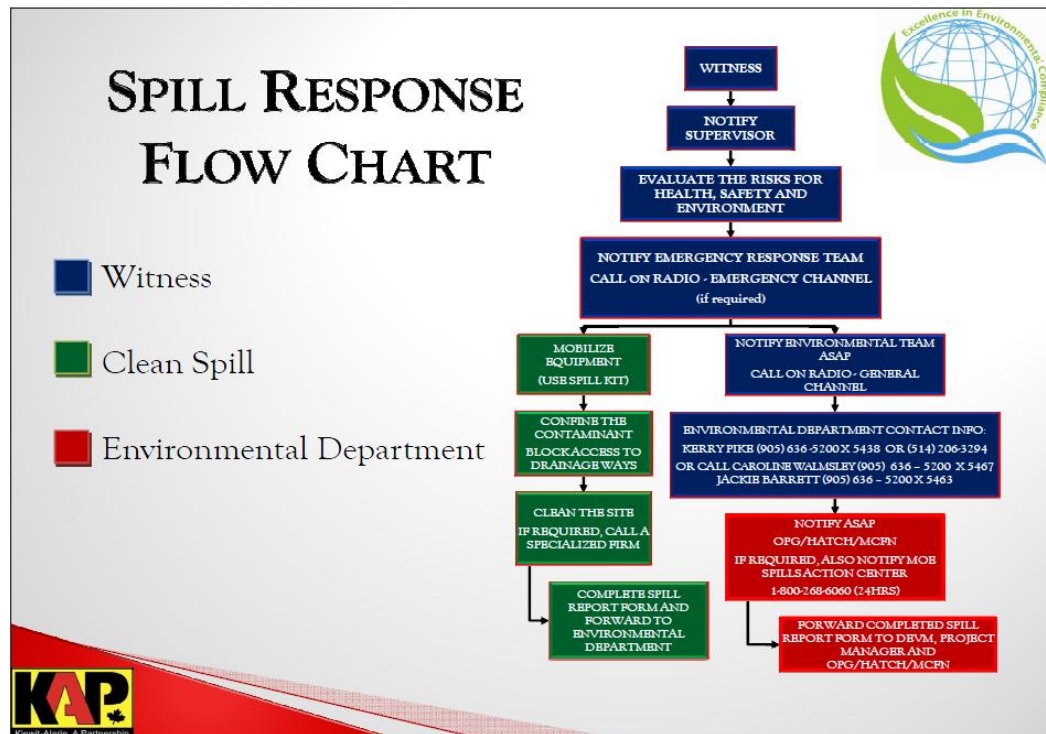


Figure 7: KAP Spills Response Flowchart

PERMIT AND APPROVAL REVIEW			
No. Reviewed:	1	List:	<ul style="list-style-type: none"> • C of A Amendment – Smoky Falls Fuel Farm
No. Sent to KAP:	1	List:	<ul style="list-style-type: none"> • C of A Amendment – Smoky Falls Fuel Farm
Reports Review			
No. Reviewed for KAP	0	List	n/a
No. Sent to KAP	0	List	n/a
No. Reviewed for MECC	3	List	On-going: <ul style="list-style-type: none"> • Cost Benefit Analysis of Mitigating and Reducing Spill in Adam Creek. • Operation Overview Report. • Baseline Methyl Mercury Reports and Mercury in Fish Flesh Summary Report.
No. Review Completed	0		n/a
REQUESTS FOR INFORMATION (RFIs)			
No. Reviewed:	0	List:	n/a
No. Sent to KAP:	0	List:	n/a
See figures 8 to 13 below for site location of the permits that have been or are pending approval.			




Figure 9:
Lower Mattagami River Project
Harmon GS - Permits

Legend

Department of Fisheries & Oceans


 Letter of Advice

Transport Canada

 Navigable Waters Protection Act - Temporary Bridge


 Navigable Waters Protection Act - Harmon Dam


Ministry of Environment


 Amended - Certificate of Approval - Sediment Pond

 Permit To Take Water - Dewatering

Ministry of Natural Resources

 Lakes Rivers Improvement Act - Phase 1A Marine Access Pad

 Lakes River Improvement Act - Phase 1B - Temporary Cofferdam

 Lakes River Improvement Act - Phase 2 Powerhouse Upgrades

 License To Collect Fish for Scientific Purposes



0 100 200 400
Meters



Kiewit - Alarie, A Partnership

Created By: Caroline Walmsley

Datum: Zone 17U

Date: January 19, 2012

Scale: 1: 5,500



ONTARIO POWER
GENERATION

LMRP-FJ28-ENV-DWG-0001-2012-01-19-R04



0 100 200 400
Meters

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

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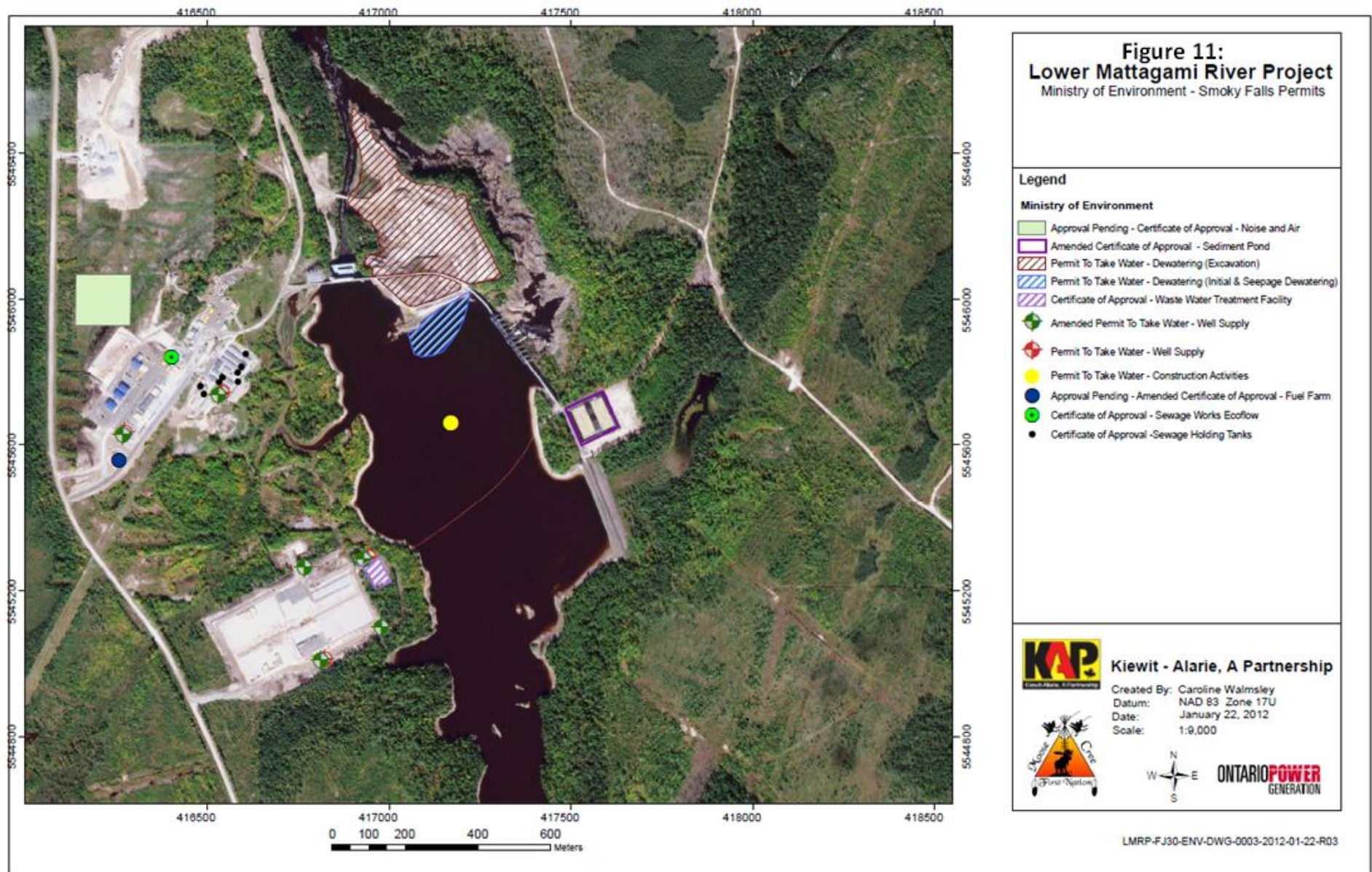
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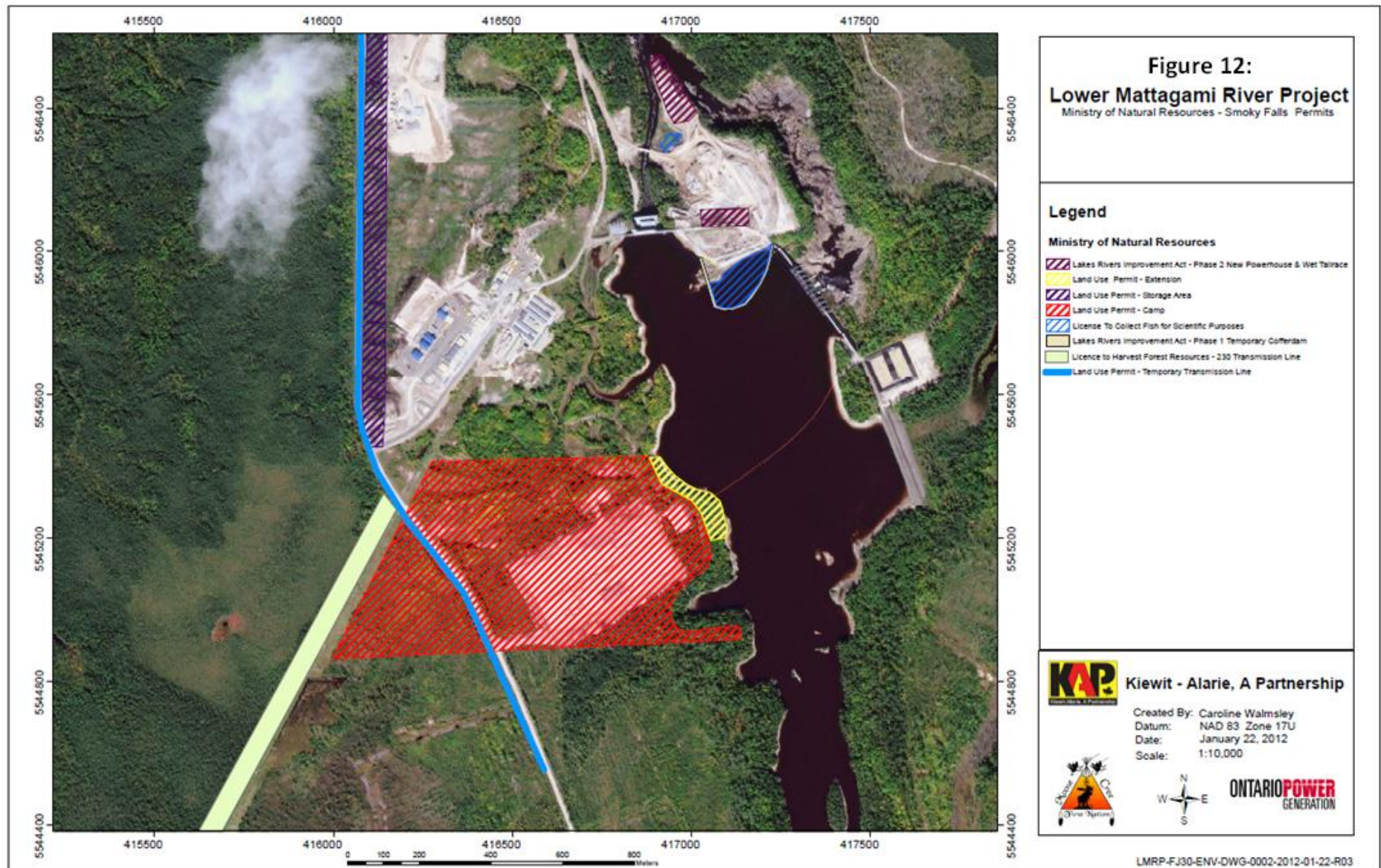
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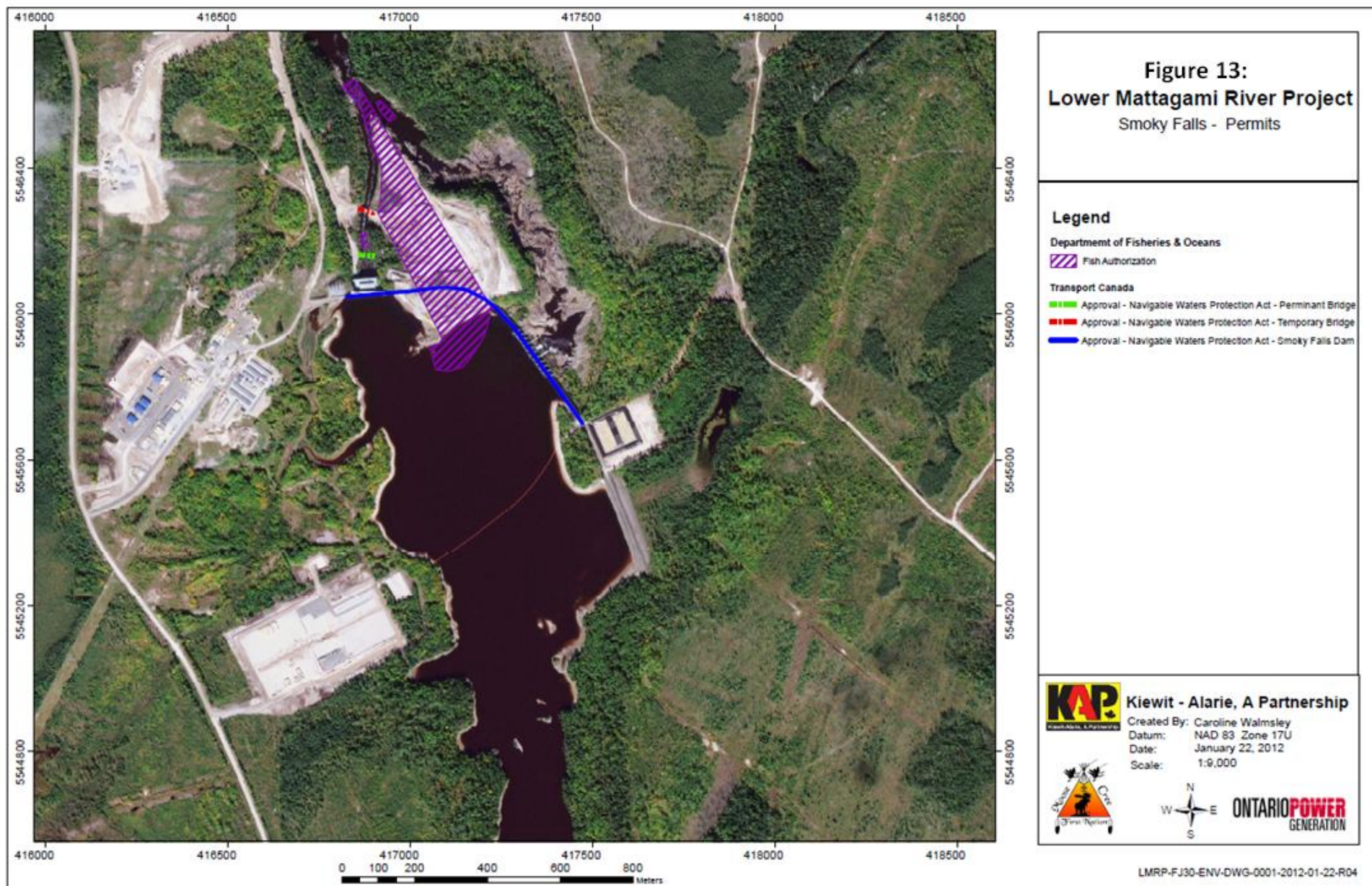


ONTARIO POWER
GENERATION

LMRP-FJ27-ENV-DWG-0001-22012-01-19-R04







Issues and Concerns

- MCFN members of the EWG were concerned about the spilling down Adam Creek during the months of December 2011 and January 2012.

Action Required: OPG provided the EWG with a letter to DFO that explained that the spilling was required to ensure a safe working environment for the installation of the cofferdam at Kipling GS, and that due to the small amount being spilt, and the history of survivability of fish within Adam Creek, there were no anticipated impacts with regard to fish entrainment.