

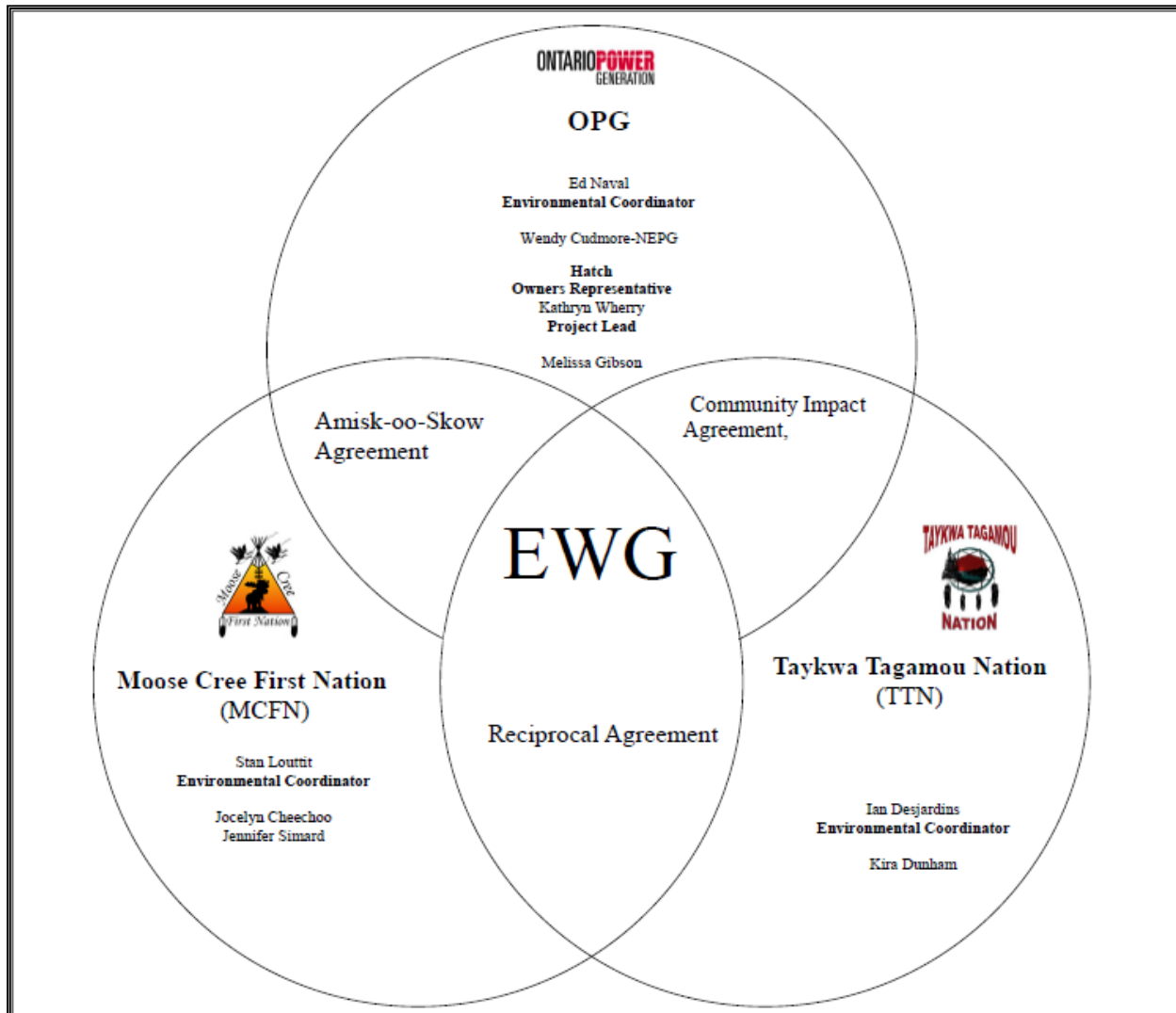
Environmental Working Group

Monthly Report

January 2013



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 also held its first Face to Face meeting of 2013. Topics that were discussed during the meeting included the incorporation of Traditional Ecological Knowledge within environmental aspects of the LMRP, milestones that the EWG achieved to date, review of the TEK/Baseline Workshop Report, and a presentation by Hatch on the Terrestrial Habitat Report intended to fulfill EA Term and Condition 5b.
- Inclusion of a First Nation perspective on the Cost Benefit Analysis of Mitigating and Reducing Spill in Adam Creek. TTN and MCFN have completed their interviews and continue to look at ways to incorporate the First Nation perspective within the report. MCFN presented summary of the Cost Benefits TEK study to the MECC in October.
- MCFN and TTN members of the EWG hold weekly Traditional Ecological Knowledge (TEK) meetings to develop TEK monitoring plan as component of Environmental Effects Monitoring Plan and to address term and condition 13 - Aboriginal Knowledge.
- Members of the EWG continued their work on the "Peoples of the Moose River Basin" historical text (EA Term and Condition 2c). Several members of the EWG have begun writing portions of the text.
- The EWG has started work on collecting additional baseline information and implementing the recommendations to incorporate TEK within the Baseline/monitoring EA Terms and Conditions.

ACTIONS TO BE COMPLETED in 2013

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
EWG Environmental Due Diligence Audit #3												
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.												TBD
EWG present to the MECC "Environmental Effects Monitoring Plan, Lower Mattagami Development" (EA T&C 3, 4b, 5b, 6, 7 and 14).												
EWG present to the MECC the "Erosion Monitoring Plan" (EA T&C 6).												TBD
EWG present to the MECC the results and recommendations of periodic re-evaluations (Condition 10 of EA T&Cs).												TBD
TEK Workshop												
Completed:  Pending:  *Additional work still required to fulfill EA Term and Condition												

Construction

Little Long

- Several very small concrete pours were completed this month totaling approximately 19 m³.
- Upon return from the Christmas break, Canam cleared snow and other items from the powerhouse roof. They also completed installing the inner cladding, polyurethane foam insulation, and outer cladding on the Unit 3 Mezzanine East wall and South-East wall.
- Andritz workers continued to assemble the G3 runner in the Service Bay (Figure 1).
- The stator core loop test was successfully completed in the evening of January 29, with Andritz, KAP, OPG, and Hatch representatives present.
- Unit components continue to arrive at the site. Delivered items include: the Revenue Meter Panel, the MCC 13 cabinet, and 600V switchgear.
- AFI workers have installed the Overhead Lifting Device on the draft tube gate hoist superstructure (on the station tailrace deck).
- KAP electricians continue the installation of the superimposed cable trays required for the 600 V / 208 V / 125 V DC distribution cables on the south side of the powerhouse.
- The installation of fire protection and intrusion alarm systems in Unit 3 has started.
- HVAC system installation is advancing above the Mezzanine floor.
- Removal of the downstream temporary water retaining structure (cofferdam) has been put on hold, following the template having been installed in Cell 1 prior to Christmas. Staff working on this was reassigned to assist with the recovery efforts at Kipling GS and removal work at Little Long will resume in the spring.



Figure 1: Little Long overview of G3 Powerhouse

Harmon

- 42m³ of concrete was poured this month, bringing the total poured to date to 10,794 m³ of 12,251 m³ total, against a plan of 9,321 m³.
- KAP has started removing the shoring towers and formwork from the scroll case soffit pour.
- Supermétal has started erecting the superstructure over Unit 3 (Figure 2).
- KAP has opened the spillway as they did last winter to eliminate ice build-up during cold weather. However, during a two week cold snap, the spillway was locked to prevent further ice build-up which would have occurred had the spillway been opened.

- Andritz completed machining the upper stay ring flange and the milling machine has been removed from the area.



Figure 2: Harmon Superstructure Progress

Kipling

- Unit 1 is running in “Speed No Load” mode while KAP finalizes solutions to stabilize Cell 3 of the temporary water retaining structure and build the water retaining berm that will allow the work area to be dewatered so that concrete work can resume.
- KAP is controlling ice buildup in the lagoon using a bubbler system.
- KAP has mobilized a Mammoeth 600 Ton crane to site (and is assembling it) as it will be required to stabilize the Cell 3 concrete cap (Figure 3).
- Steam heating is being applied to Cells 1 and 2 of the temporary water retaining structure to thaw the backfill material. This will allow H-piles to be driven into the cells (that will be used as part of the structure needed to stabilize the concrete cap from Cell 3).
- OPG and Hatch are awaiting KAP/KECO calculations for the existing station pier in order to assess the integrity of the pier as it will be required to support the loads imposed by the concrete cap from Cell 3.
- The steel support frame that will support the load beams for the concrete cap is being fabricated in the erection bay at Kipling GS.



Figure 3: Mammoeth Crane Assembly

Smoky Falls

- 2,387 m³ of concrete was poured this month in the service bay, powerhouse, and intake areas, bringing the total poured to date to 83,894 m³ of 155,084 m³ total, against a plan of 85,357 m³.
- At the end of the month, nine (9) concrete pours are in various stages of work (formwork started and/or rebar being installed) and progressing in the intake, powerhouse, East gravity dam, and at the permanent bridge. Fifteen (15) pours were completed during the month.
- Alstom continues to prepare Turbine/Generator components in the West Service Bay. They have also completed the following tasks:
 - Assembly of the Unit 1 lower pit liner and stay ring is complete and Alstom has placed the assembly in the Unit 1 scroll case;
 - Assembly of the Unit 2 lower pit liner and stay ring is under way in the West Service Bay;
 - Assembly of the Unit 3 lower pit liner and stay ring assembly is completed and Mammoeth has transported the assembly to the tailrace pad in preparation for placement in the Unit 3 scroll case; and
 - Alstom are installing anchors on the Unit 3 draft tube cone.
- Superm tal workers completed the erection of structural steel over Unit 2. Bolting and torquing of the superstructure over Unit 2 was completed and tarpaulins have been installed over Unit 2 to provide a winter enclosure (Figure 4).
- Sluiceway Gate 5 – AFI completed installing epoxy anchors for both gate guides. They aligned the sill and gate guides and roller path guides. Sill beam concrete was poured.
- Work continued to enhance the stability of the rock under the Service Bay East, with progress being made on drilling for rock anchors as well as anchor installation.



Figure 4: Smoky Falls Overview including Superstructure

Monthly Summary – January 2013

SPILLS			
No. of Spills:		6; Spill Reports 315-321(see Figure 6 for LMRP spills breakdown).	
Classification of Spills:		<u>Project Classification</u> Minor – 5 Moderate – 1 Major –0 To Water - 0 <u>MOE Classification</u> Non-reportable - 1 Reportable to MOE <div>- Class C – 5 - Class B – 0 - Class A – 0</div>	
Reportable Spills			
No.	Quantity /Product Spilled	Spill Site	Reason for being Reportable
1	10 L / Antifreeze	Smoky Falls – Maintenance Shop	A compressor was parked (not running) across from the Electrical Department Office. A worker passing by observed coolant under the machine. Reportable because it was 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			
No. of Exceedance days recorded	Location	Mitigation Measures used	
0	n/a	n/a	

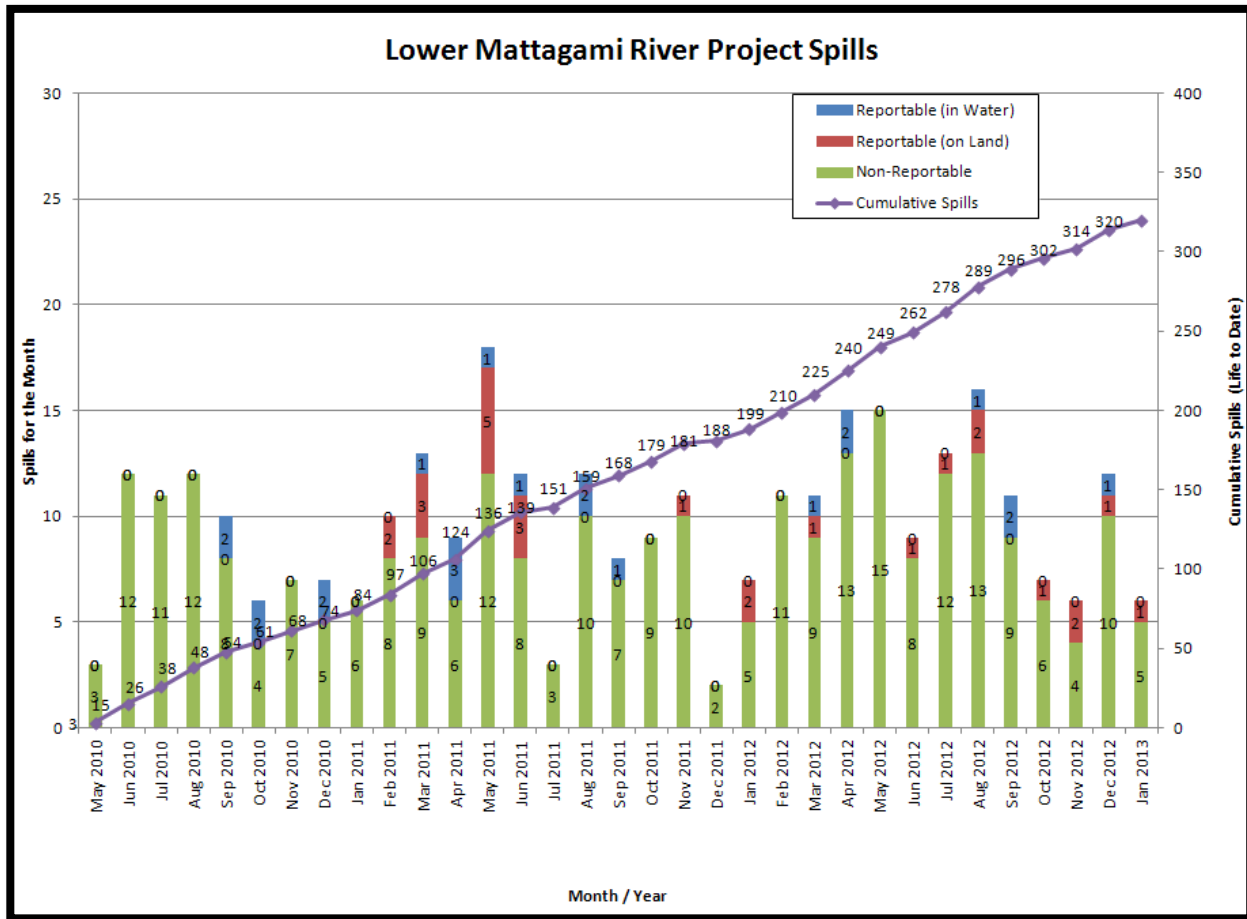


Figure 6: Lower Mattagami River Project spills

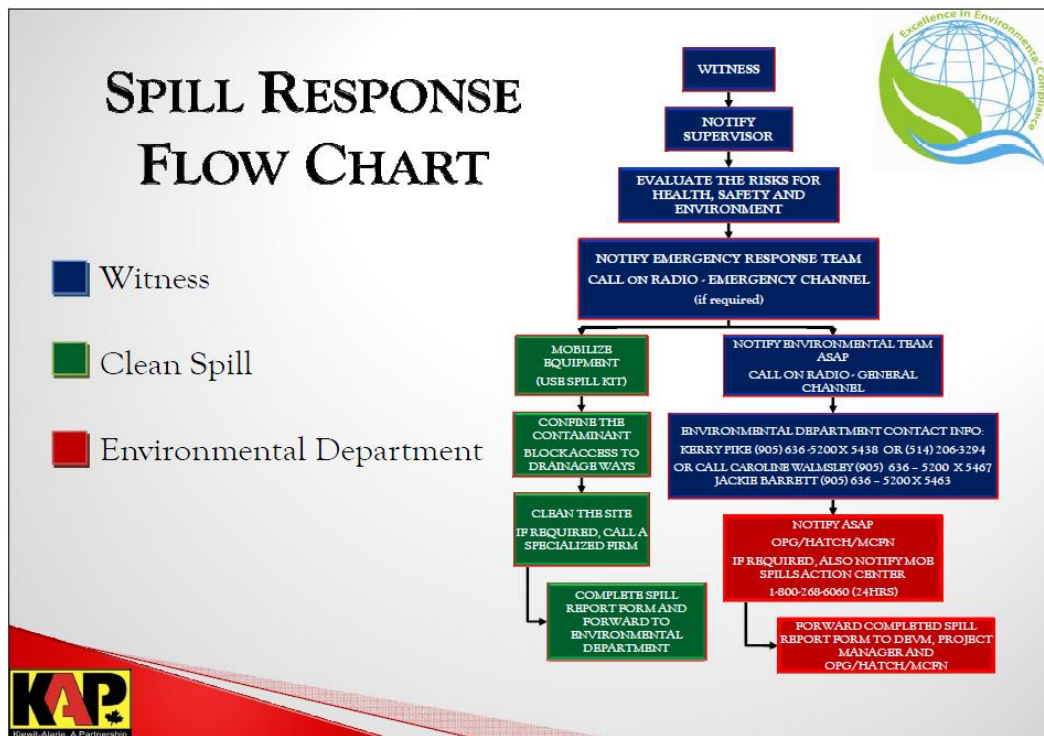


Figure 7: KAP Spills Response Flowchart

PERMIT AND APPROVAL REVIEW			
No. Reviewed:	0	List:	<ul style="list-style-type: none"> Kipling Cofferdam LRIA Approval
No. Sent to KAP:	0	List:	<ul style="list-style-type: none"> Kipling Cofferdam LRIA Approval
Reports Review			
No. Reviewed for KAP	0	List:	
No. Sent to KAP	0	List:	
No. Reviewed for MECC	5	List:	On-going: <ul style="list-style-type: none"> Cost Benefit Analysis of Mitigating and Reducing Spill in Adam Creek. Mercury in Fish Flesh Summary Report. Fish Habitat Assessment Report Terrestrial Habitat Restoration Downstream of Kipling GS Draft Environmental Effects Monitoring Plan
No. Review Completed	4	List:	<ul style="list-style-type: none"> Operation Overview Report. Waste Management Plan Noise Control Plan The Interim Measures Agreement as it relates to EA Term and Condition 14c (Permit Review and Compliance Monitoring Protocol)
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

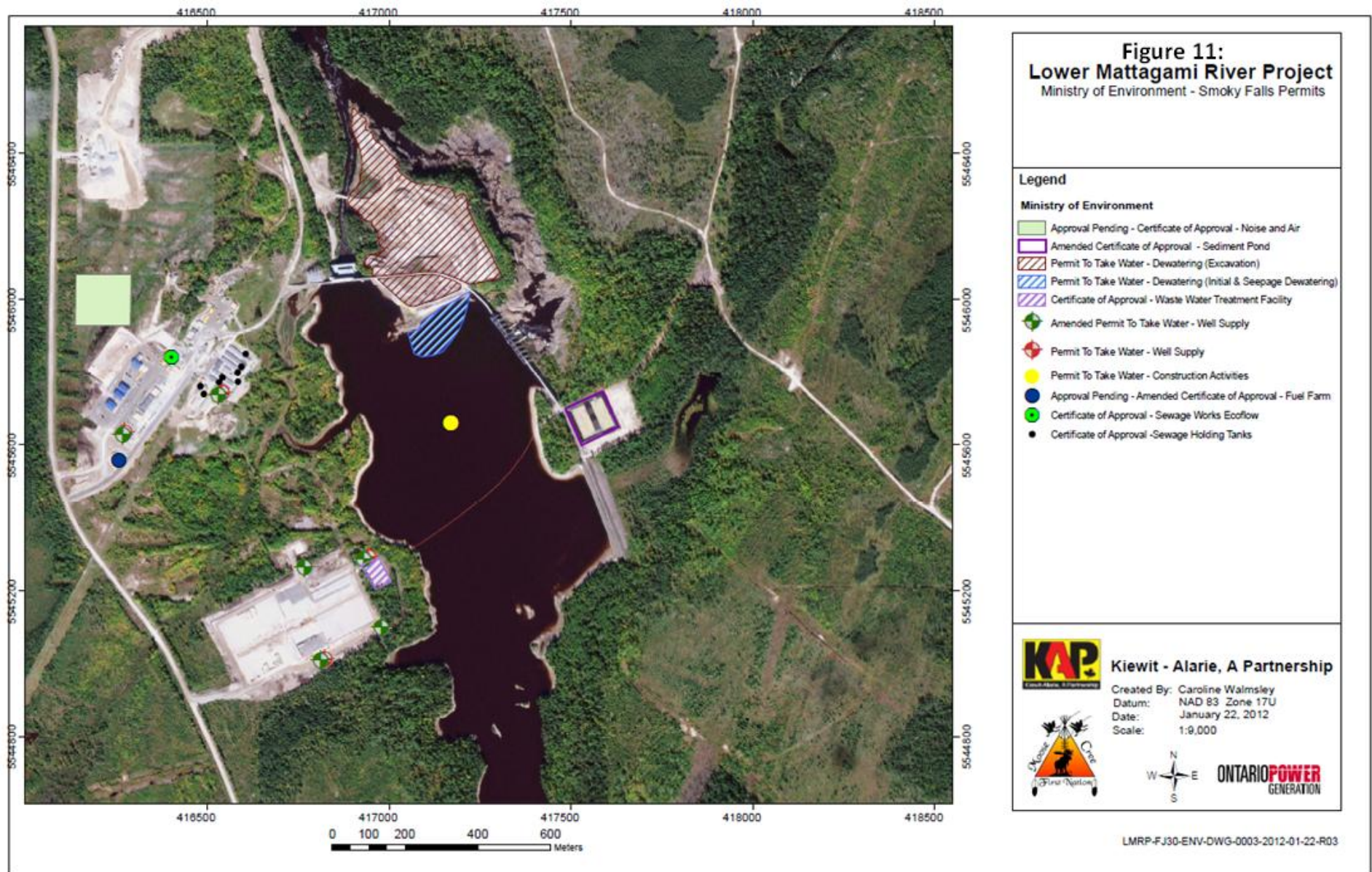
Scale: 1: 5,500

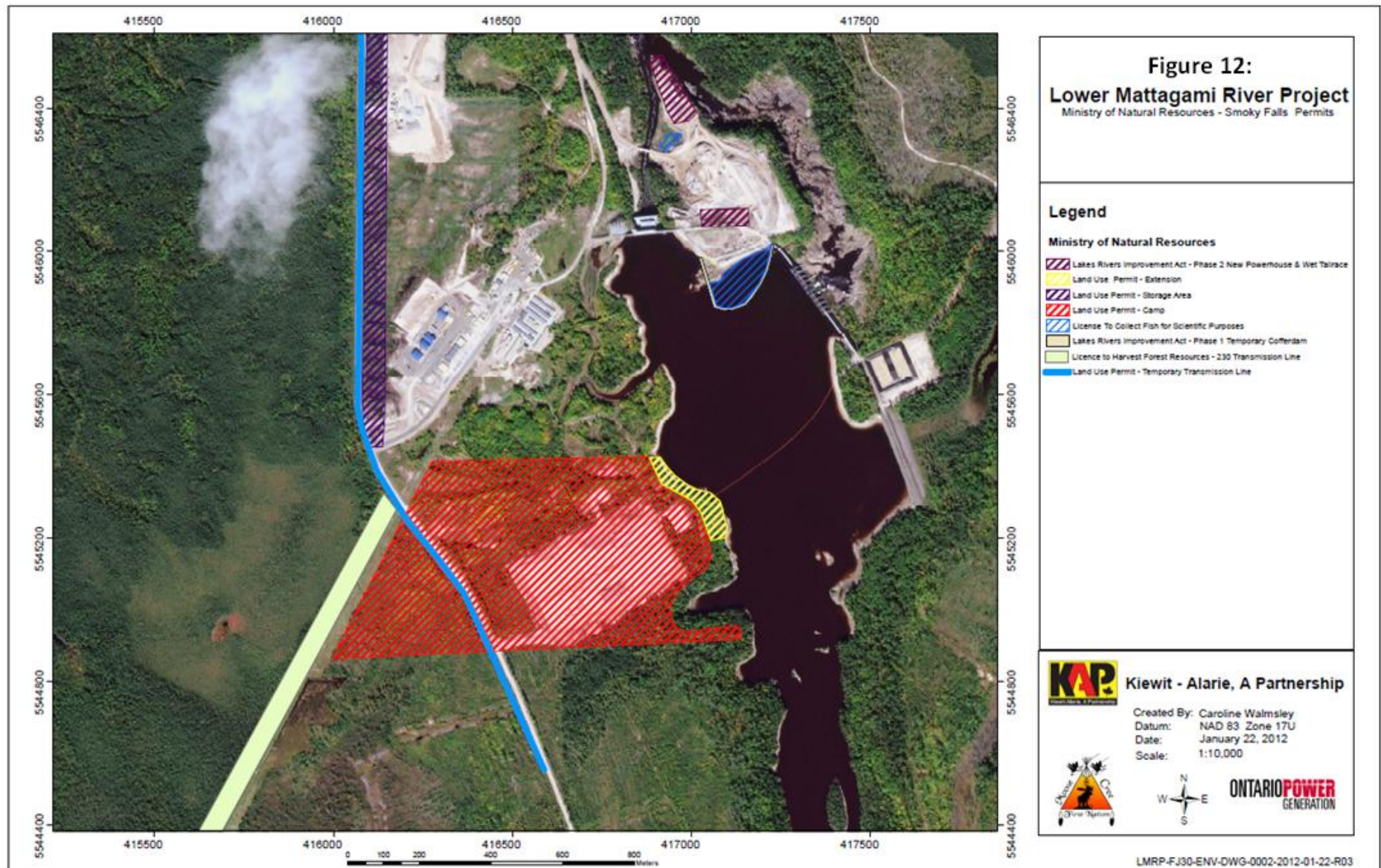


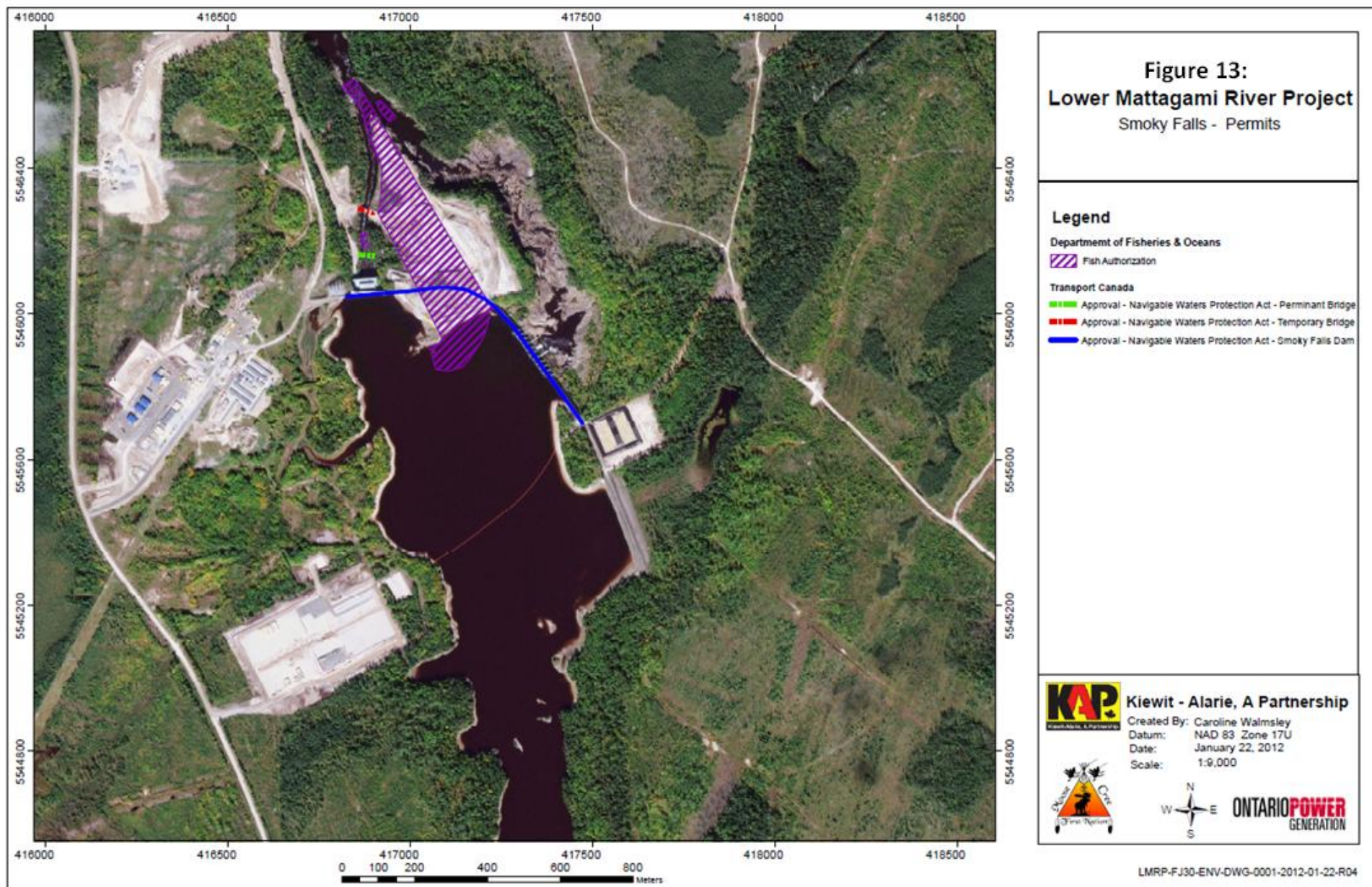
ONTARIO POWER
GENERATION

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









Issues and Concerns
<ul style="list-style-type: none">• EWG members required clarification from the MECC on whether or not there was a MECC Decision on limiting MECC meetings to EWG Coordinators. <p>Action Required: EWG to get clarification from the MECC if an official MECC Decision has been made to only invite EWG Coordinators to MECC meetings.</p>