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## **Environmental Working Group**

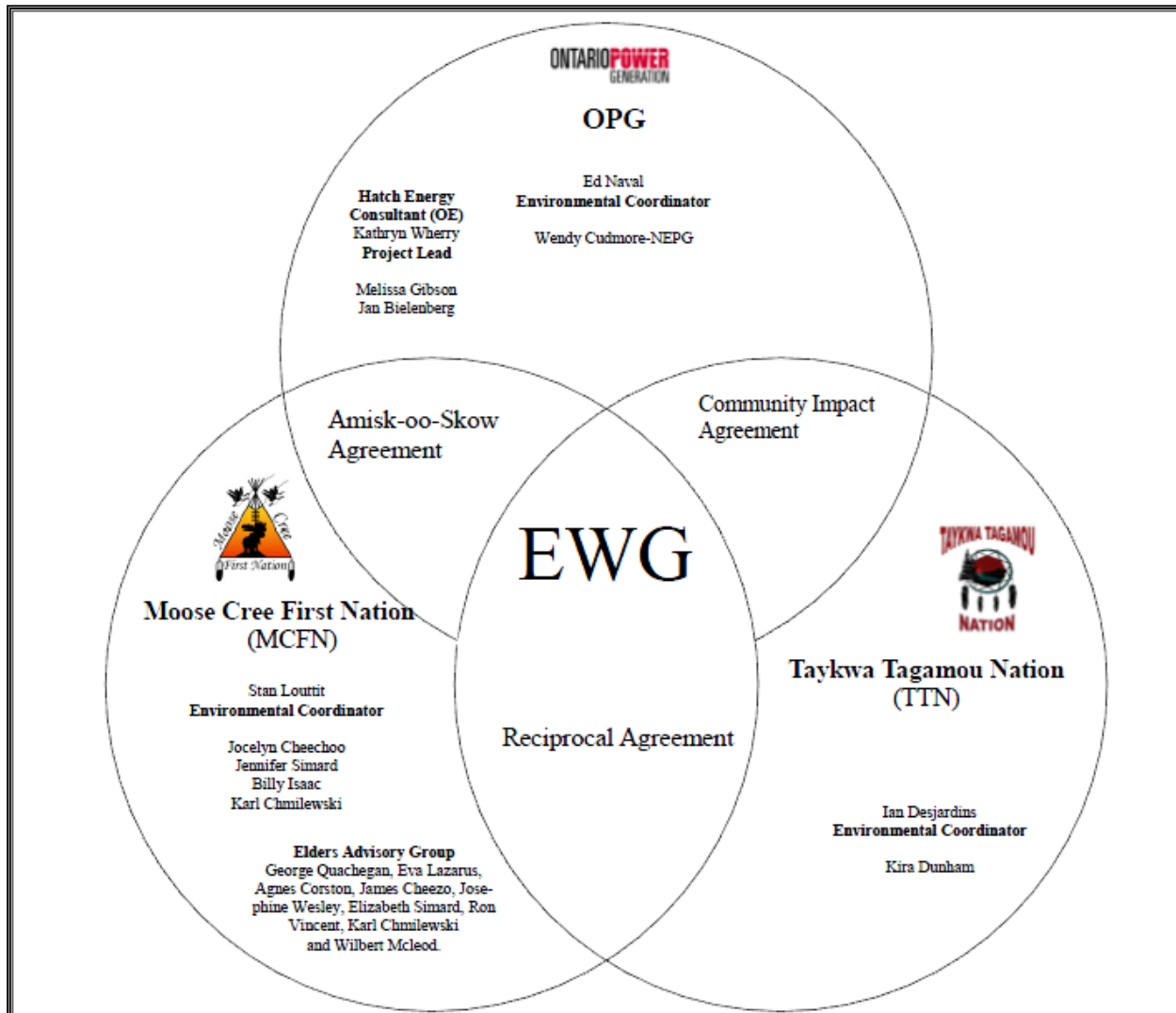
### **Monthly Report**

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**May 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.
- On May 7, 2014, the EWG had its second Face to Face meeting of the year in Timmins. Items that were discussed in the meeting included the presentation of Hatch's Benthic Invertebrate Baseline Report (required for post-construction water quality monitoring), an update on the progress of the Traditional Ecological Knowledge (TEK) portion of the Environmental Effects Monitoring Plan (EEMP), a presentation of the most recent draft of the EEMP, and discussions on how the EEMP Program will be developed with Hatch in-house expertise.
- On May 12 and 13, members of the EWG attended Face to Face meetings with TEK experts in Kapuskasing to discuss the proposed Cultural Text (EA T&C 2c). The meeting also included an LMRP site visit to tour the designated cultural areas.
- The EWG have also continued to track the work related to the watering up of Smoky Falls, specifically the work on the tailrace and its potential impacts to seasonal fish spawning.
- TTN members of the EWG continued to work on developing their own Elders Advisory Group as well as the Custodial Body.
- TTN members of the EWG worked on incorporating TEK into the SENES Erosion and Aquatic Reports for Adam Creek (commissioned by the MECC).
- 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 and TTN are now working independently to develop their own community's perspectives for the report. MCFN have completed their draft, TTN continues to conduct additional Elder interviews.
- 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.
- The OPG and Hatch members of the EWG continue to work on collecting additional baseline information.
- In an effort to improve the understanding of TEK, members of the EWG will watched the movie entitled "Bury My Heart at Wounded Knee".

**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	EWG present to the MECC "Environmental Effects Monitoring Plan, Lower Mattagami Development"												
EA T&C 4b: Hydrology, Fish and Aquatic Habitat													
EA T&C 5b: Terrestrial Ecology	EWG present to the MECC "TEK - Environmental Effects Monitoring Plan, Lower Mattagami Development"												
EA T&C 6: Erosion and Sedimentology													
EA T&C 7: Mercury													
EA T&C 14: Permit Review and Compliance Monitoring Protocol													
EA T&C 3a: Visual and Aesthetic Impacts	EWG present to the MECC the results and recommendations of Little Long Rehabilitation Plan												
EA T&C 5d: Terrestrial Ecology	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.													
EWG read TEK book 'The Inconvenient Indian, A Curious Account of Native People in North America'.													
EWG watch TEK related films or documentaries (The Reel Injun, and Cree Hunters of the Mistassini).													
Completed:  Pending:  *Additional work still required to fulfill EA Term and Condition													

**Construction****General**

- There were approximately 700 people in the camp this month. KAP continues to reduce the staff and craft numbers, reflecting the continued wind-down in construction activities.

**Little Long**

- KAP closed out 9 punch list items this month. OPG confirmed one as complete and is reviewing the others.
- Confirmation of substantial completion was provided to KAP by OPG on May 28th.
- Little Long Unit was 3 (Figure 1) was declared in service on January 19, 2014.



Figure 1: Little Long Unit 3

**Harmon (Figure 2)**

- Issues were noticed with the intake gate hoist gears during commissioning. An investigation was completed and a design deficiency was identified as the root cause. RSW is preparing an updated design to correct the issue.
- KAP used the gears intended for Kipling to replace the damaged gears at Harmon and ordered new gears for Kipling.
- Miscellaneous metals installation, painting, cleaning and other non-critical activities continued throughout the month.
- Harmon was declared in-service on June 3rd, 2014, three months ahead of the target in-service date.



Figure 2: Harmon overview

### Kipling (Figure 3)

- KAP started dismantling shoring towers in the intake.
- Andritz installed the turbine shaft, servomotors, the lower guide bearing, the lower bracket, the generator shaft, the turbine thrust bearing, and generator enclosure base plates.
- Stator winding and the hi-pot test were completed. No issues were identified.
- Installation of BOP electrical components, panels and instrumentation continued.
- KAP has started preparations to re-route cables on the top of the dam to allow the erection of the draft tube stop log hoist structure.
- It is forecasted that Kipling Unit 3 will be declared in service in December 2014.



Figure 3: Kipling Overview

### Smoky Falls

- Water-up (Phase 1) was completed between May 4<sup>th</sup> and May 7<sup>th</sup> (Figure 4). Minor issues were identified. KAP dewatered the forebay in order to correct them.
- Water-up (Phase 2) was completed between May 16<sup>th</sup> and May 23<sup>rd</sup>.
- The forebay was partially dewatered to allow toe berm excavation on the upstream cofferdam.
- Excavation and clean-up continued in the tailrace channel (Figure 5). Tailrace channel depressions were backfilled, and rock bolts were grouted.
- Final preparations for tailrace water-up started near month-end.
- Alstom continued to prepare Turbine/Generator components in the West Service Bay (WSB) and work inside the Units. They have completed the following tasks:
  - At Unit 1, Alstom continued to install instrumentation, piping, shaft seals, and the brush gear supports. Unit construction is nearly complete.
  - At Unit 2, the rotor, upper generator shaft, upper bracket, and turbine guide bearing were installed in the Unit.
  - At Unit 3, stator winding was completed. Rotor assembly continued.
- KAP and Canmec took leakage measurements for the intake and bulkhead gates and assessed the necessary repairs required.
- BOP Mechanical and Electrical installation work throughout the powerhouse continued to progress.
- It is forecasted that the in service date for Unit 1 will be in September 2014, November 2014 for Unit 2 and February 2015 for Unit 3.



Figure 4: Smoky Falls intake water-up



Figure 5: Smoky Falls cofferdam excavations

## Monthly Summary – May 2014

SPILLS			
No. of Spills:		5; Spill Reports 433-437 (see Figure 6 for LMRP spills breakdown).	
Classification of Spills:		<u>KAP Project Classification</u> Minor – 4 Moderate – 0 Major –1 To Water - 0 <u>MOE Classification</u> Non-reportable - 4 Reportable to MOE <div>- Class C – 1 - Class B – 0 - Class A – 0</div>	
Reportable Spills			
No.	Quantity /Product Spilled	Spill Site	Reason for being Reportable
1	120L/Oily Water	Fuel Farm	On-land Spill. While going to the fuel farm to collect the quarterly sample, water was noticed to be slowly leaking under the pipe, rather than through it. It was noted that the concrete around the pipe was cracked, and caused water to leak out. An epoxy water seal was placed on the crack to repair it and seal the leak.
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 <div><div>• Class C - Less Serious</div><div>• Class B – Serious</div><div>• Class A – Very Serious</div></div>
Sediment Pond Exceedance of Effluent Objective			
No. of Exceedance days recorded	Location	Mitigation Measures used	
n/a			

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## **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.

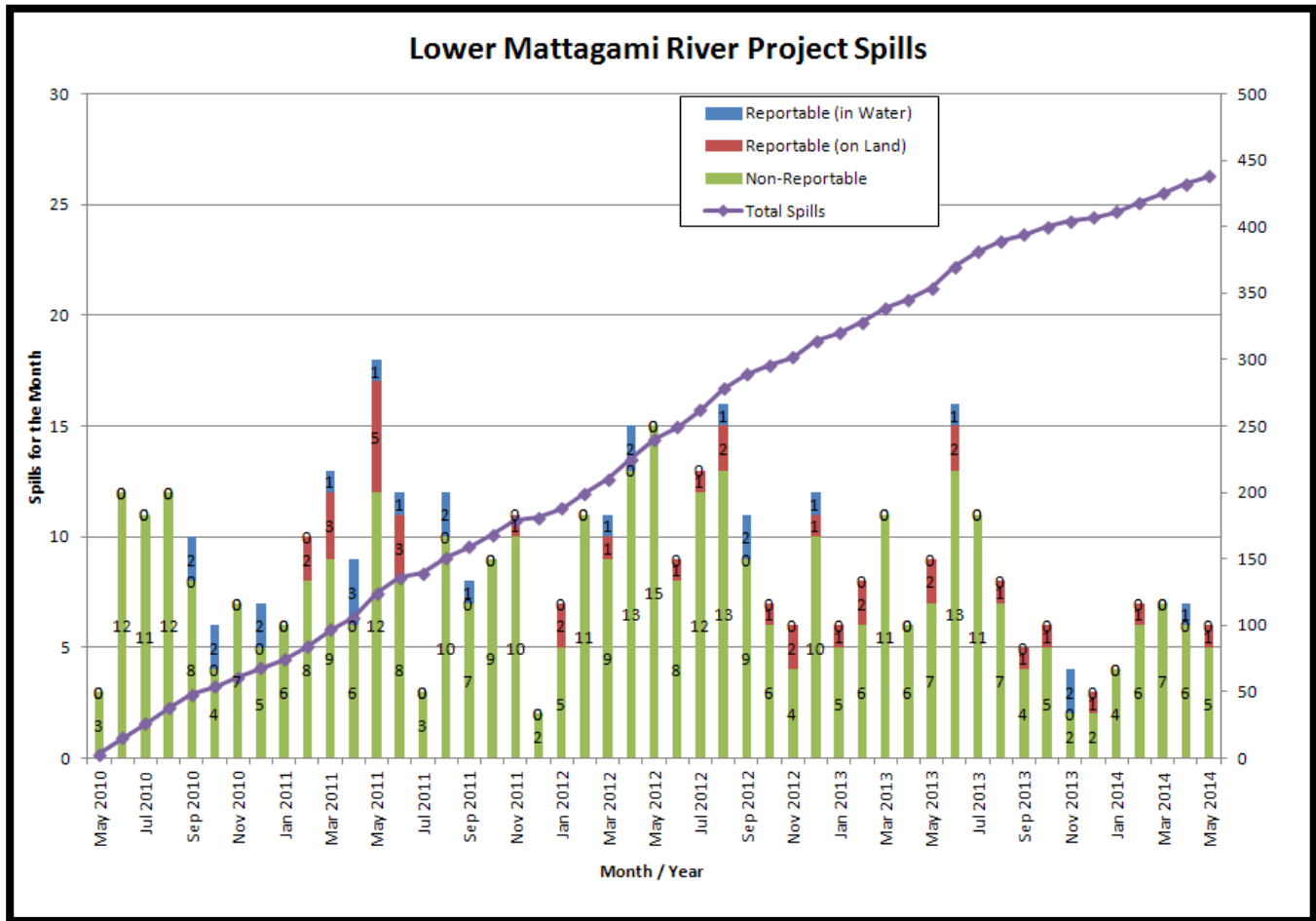


Figure 6: Lower Mattagami River Project spills

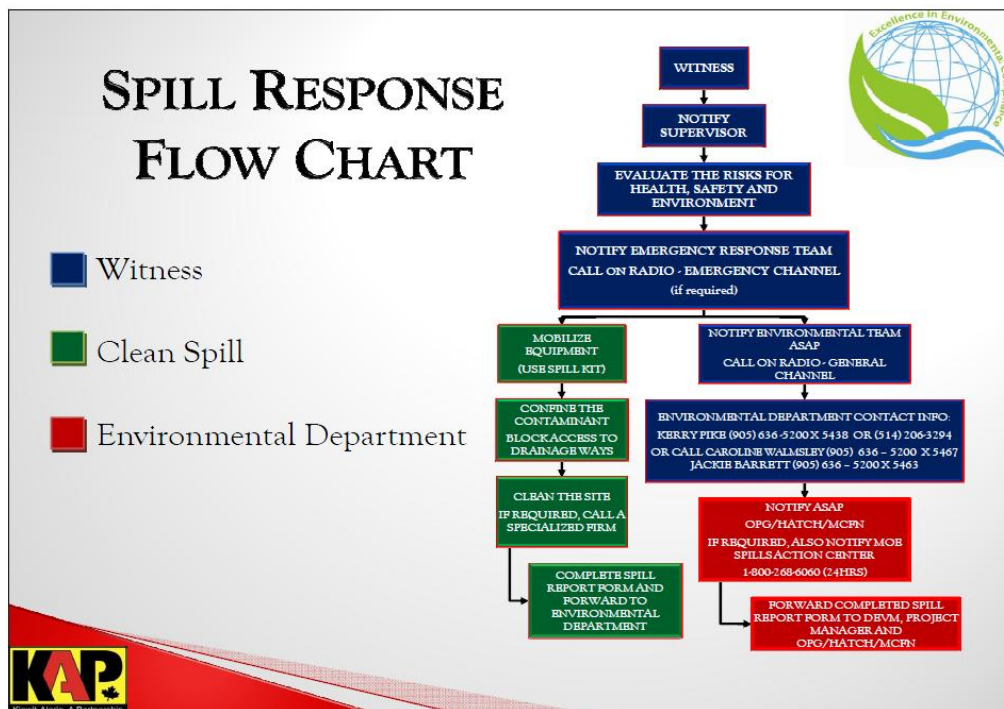






























Figure 7: KAP Spills Response Flowchart

**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 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



**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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Datum: Zone 17U

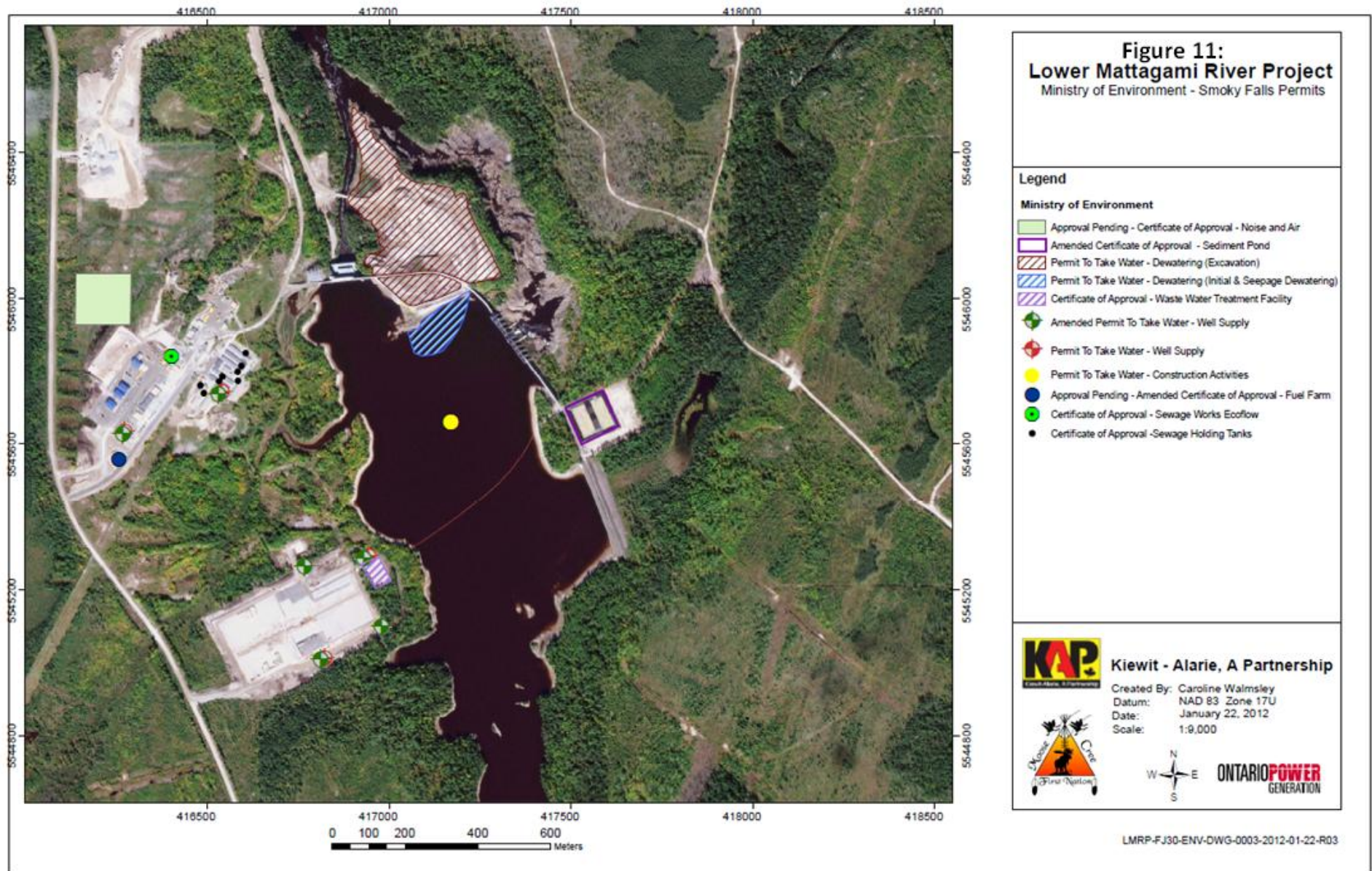
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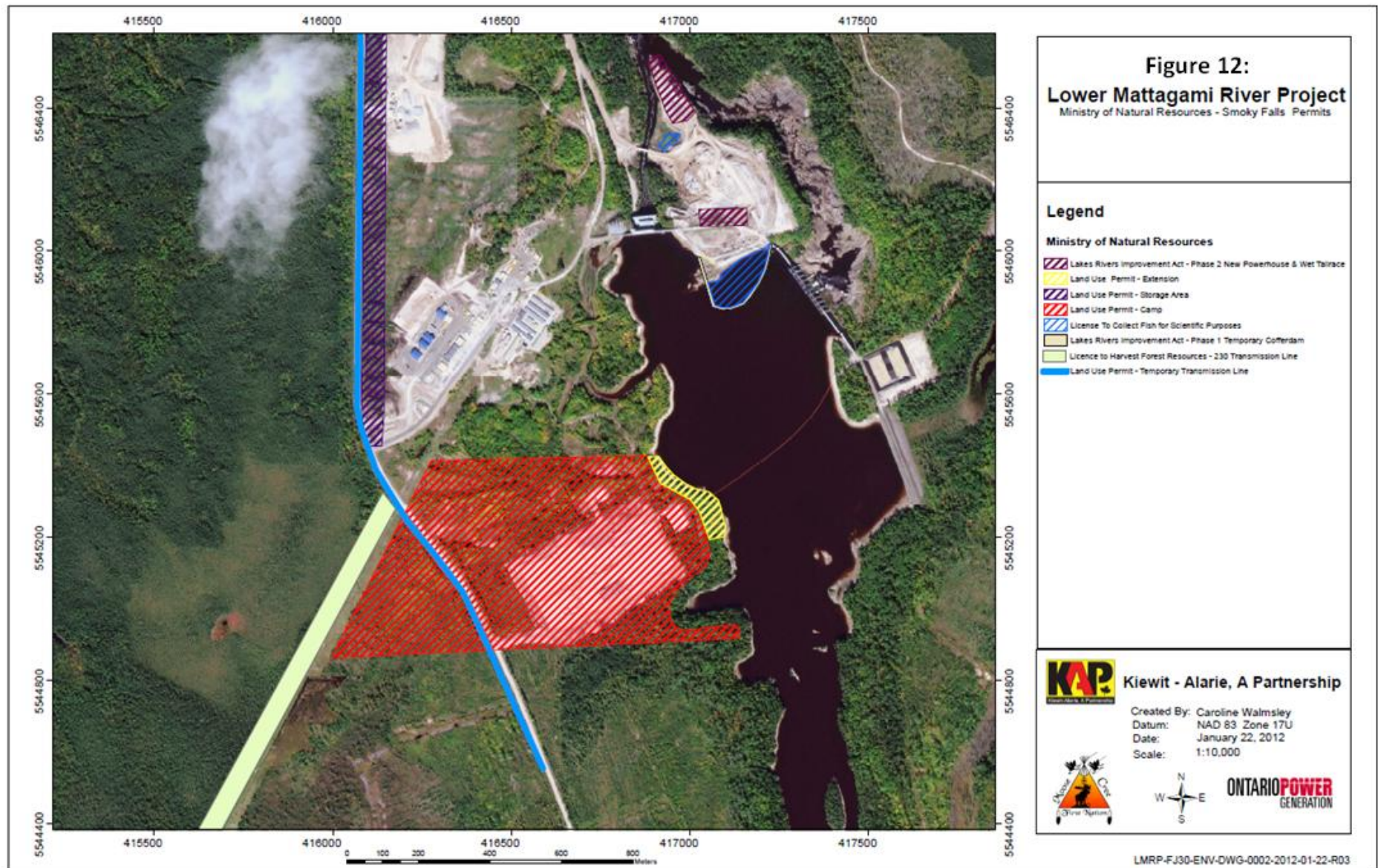
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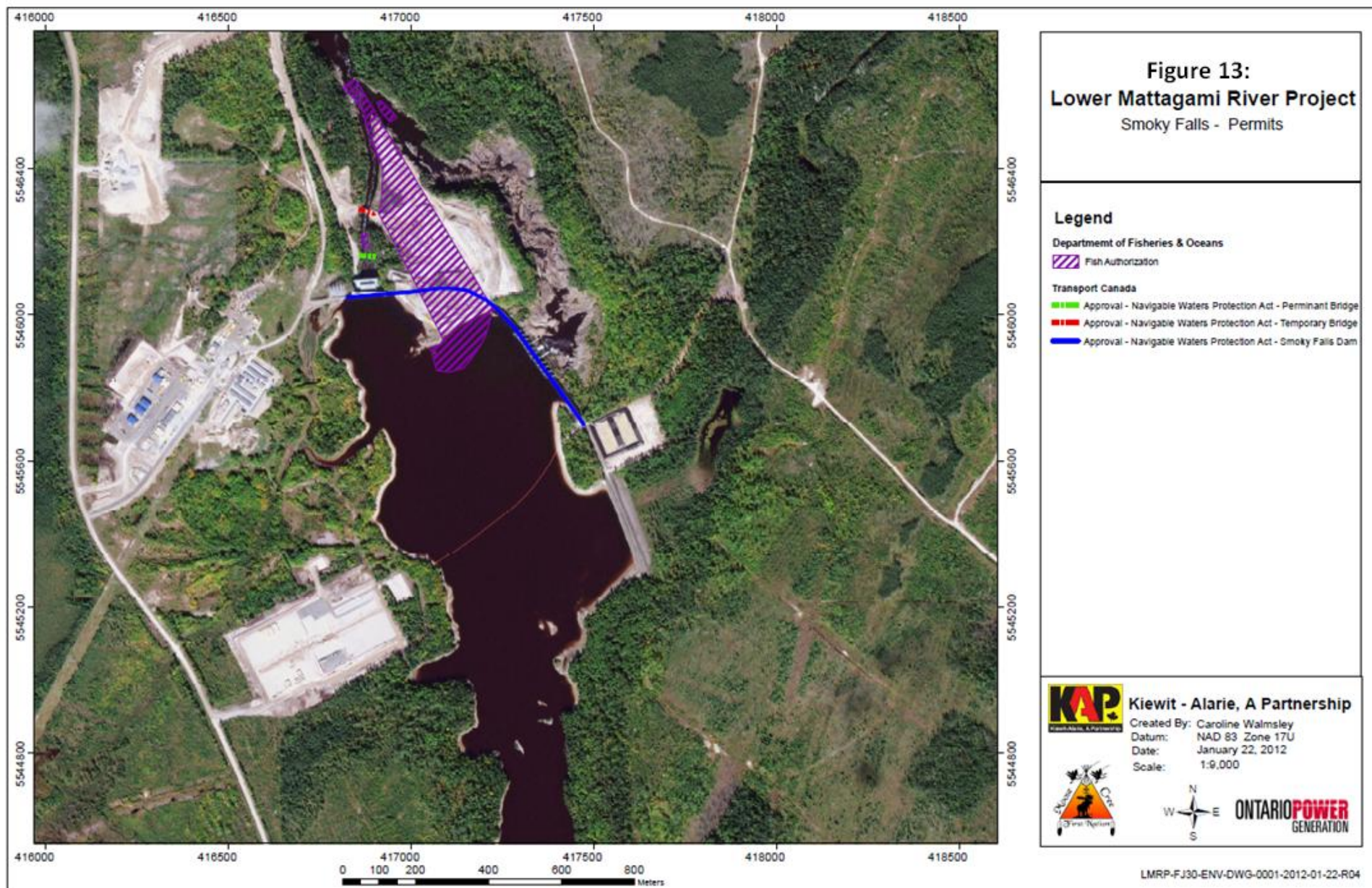


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LMRP-FJ27-ENV-DWG-0001-22012-01-19-R04







**Issues and Concerns**

- MCFN members of the EWG were concerned about tarps that have not been collected around the site and concerned about potential sedimentation in the water resulting from work being conducted at Smoky Falls. The EWG were also concerned about garbage found on the road on the way to site.

Action Required: EWG followed-up with KAP to ensure that all tarps are collected on-site, measures to avoid sediment spills in-water are implemented, and that accumulation of garbage on the road up to site is minimized and collected.

- KAP notified members of the EWG that due to recent events at a worksite in Alberta, where a woman was attacked and killed by a black bear, KAP will be discussing the use of lethal measures with the MNR in response to bears at the camp site.

Action required: Ensure all other measures are exhausted before any lethal measures are implemented (Update: Nuisance bear caught and relocated).