

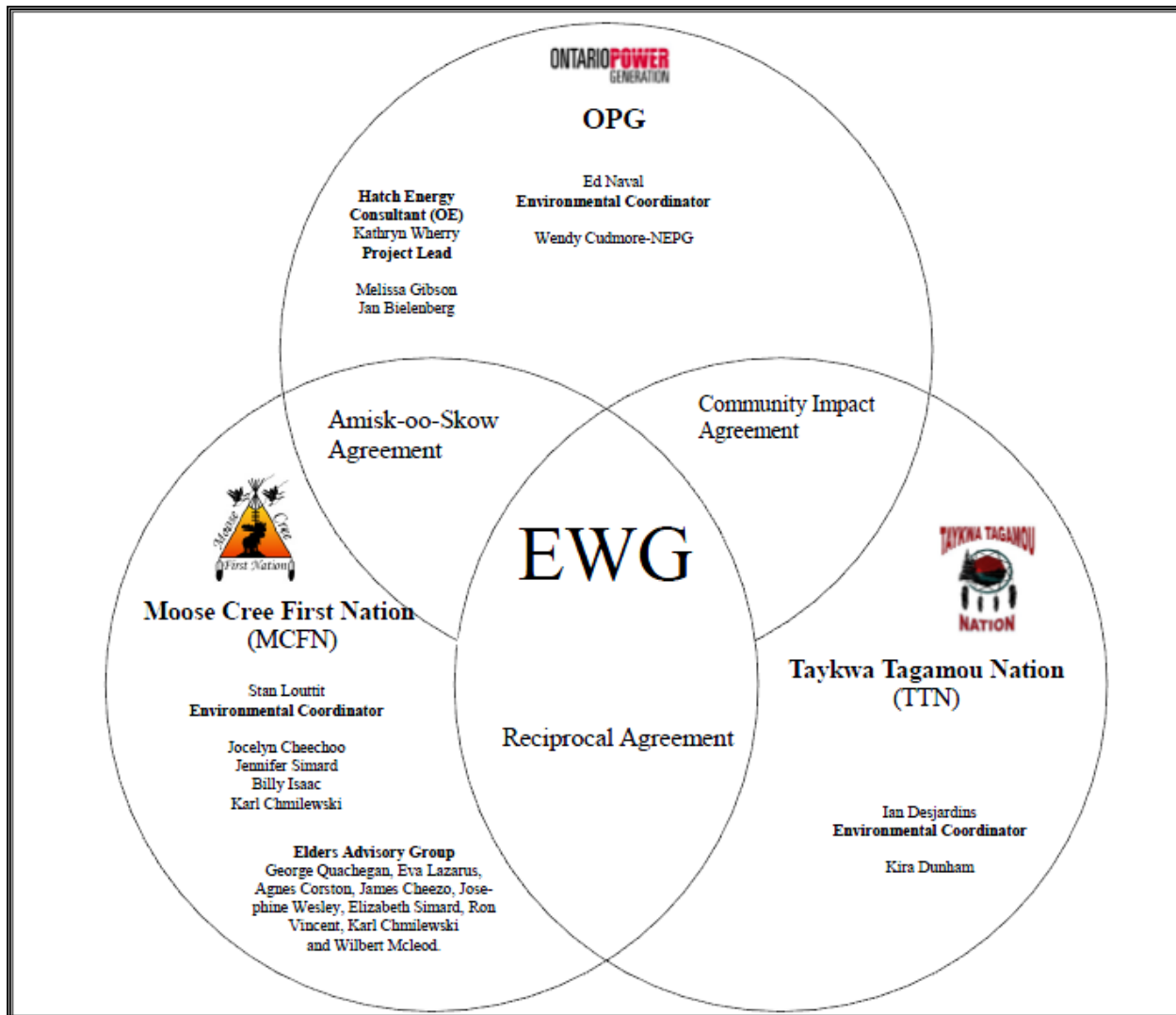
Environmental Working Group

Monthly Report

March 2015



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 March 19, the EWG held its Face to Face meeting in Toronto (OPG Kipling Office), which was mainly focussed on the integration of TEK into the EEMP.
- On March 25, EWG members attended the MECC held in Cochrane. Items that were discussed included the MECC budget, the Rock Aggregate Management Plan, and the Environmental Effects Monitoring Plan. Earlier in the month, Fred Hunter, MECC Chair, resigned from his position. His last meeting was March meeting. The MECC members are currently considering options for a new Chair.
- During the month of March EWG worked collaboratively to integrate Traditional Ecological Knowledge (TEK) into the Environmental Effects Monitoring Plan (EEMP).
- Members of the EWG continued to worked on the Cree Place Names Map (as per EA Term and Condition 2c and d) to pull out Official Place Names.
- 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.
- 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.
- The FN members of the EWG are also making arrangements with John Pollock, SENES, to go to Manitoulin Island in the summer to assess the state of the organization of the collection of Cree artifacts (as per EA Term and Condition 2e).

ACTIONS TO BE COMPLETED in 2015

		Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
EWG Environmental Due Diligence Audit #5													
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"												TBD
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 to look into having a list prepared of Cree artifacts within the Moose River Basin as per EA Term and Condition 2e.													
Completed:  Pending:  *Additional work still required to fulfill EA Term and Condition													

Construction

General

- There were approximately 233 people in the camp this month (this number includes staff and craft assigned to site but on turn around – actual number on site at any one time is approximately 155). KAP continued to reduce the staff and craft numbers, reflecting the continuing wind-down in construction activities

Little Long

- KAP and their subcontractors worked on finalizing all redline drawings as part of the Unit's final completion.
- KAP and Andritz continued to work on closing out punch list items.
- Little Long Unit was 3 (Figure 1) was declared in service on January 19, 2014.



Figure 1: Little Long Unit 3 June 2014

Harmon

- The final Owner's walkdown was completed and a small number of punch list items were generated.
- KAP and Andritz continued to work on closing out punch list items.
- Harmon (Figure 2) was declared in-service on June 3rd, 2014.



Figure 2: Harmon overview, January 2015

Kipling

- Remedial grout injections in the generator floor were completed;
- Subcontractor Clara completed painting the generator floor;
- The two temporary sections of the intake gate were removed and replaced with new permanent gate sections;
- Testing and commissioning of the permanent intake gate sections was successfully completed; and
- KAP and Andritz continued to work on closing out punch list items..
- Kipling was declared in-service on December 17, 2014 (Figure 3).



Figure 3: Kipling overview January 2015

Smoky Falls

- BOP Mechanical and Electrical installation (in particular the back-up diesel generator) throughout the powerhouse continued to progress.
- Architectural work continued to advance throughout the powerhouse, including:
 - Starting HVAC commissioning;
 - Fire proofing various structures throughout the plant;
 - Remedial grout injection in various areas in the plant;
 - Light fixtures, cable trays, cables, wall heaters, outlets, and grounding in a number of locations throughout the powerhouse;
- KAP and Alstom continued to work on closing out punch list items.
- Hauling approximately 27,000 tonnes of crusher feed to the New Post Creek project.
- The down river Fish Habitat Shoal (200m²) was completed.
- Construction on all the generating units are complete (Figure 4):
 - Unit 1: declared in-service on September 30, 2014.
 - Unit 2: declared in-service on October 9, 2014.
 - Unit 3: declared in-service on December 2, 2014.



Figure 4: Kipling Unit 3

Figure 4: Smoky Falls overview January 2015

Demobilization

- The Demobilization crew demobilized the following temporary structures or equipment:
 - Batch Plant #1 building sections were loaded onto a truck for removal from site;
 - Shipping containers were removed from the Smoky Falls power plant;
 - Batch Plant #2 demobilization was completed (Figure 5);
 - Maintenance shop dismantling started and was progressing well at month end;
 - KAP hub office trailer dismantling started; and
 - Rock crusher disassembly started.



Figure 5: Batch Plant demobilization

Monthly Summary – March 2015

SPILLS			
No. of Spills:		9; Spill Reports 497-506 * Note there was a numbering mistake by KAP. Report 506 should be 505 (see Figure 6 for LMRP spills breakdown).	
Classification of Spills:		<u>KAP Project Classification</u> Minor – 8 Moderate – 1 Major – 0 To Water - 0 <u>MOE Classification</u> Non-reportable - 9 Reportable to MOE <div>- Class C – 0 - Class B – 0 - Class A – 1</div>	
Reportable Spills			
No.	Quantity /Product Spilled	Spill Site	Reason for being Reportable
n/a	n/a	n/a	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 <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			

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.

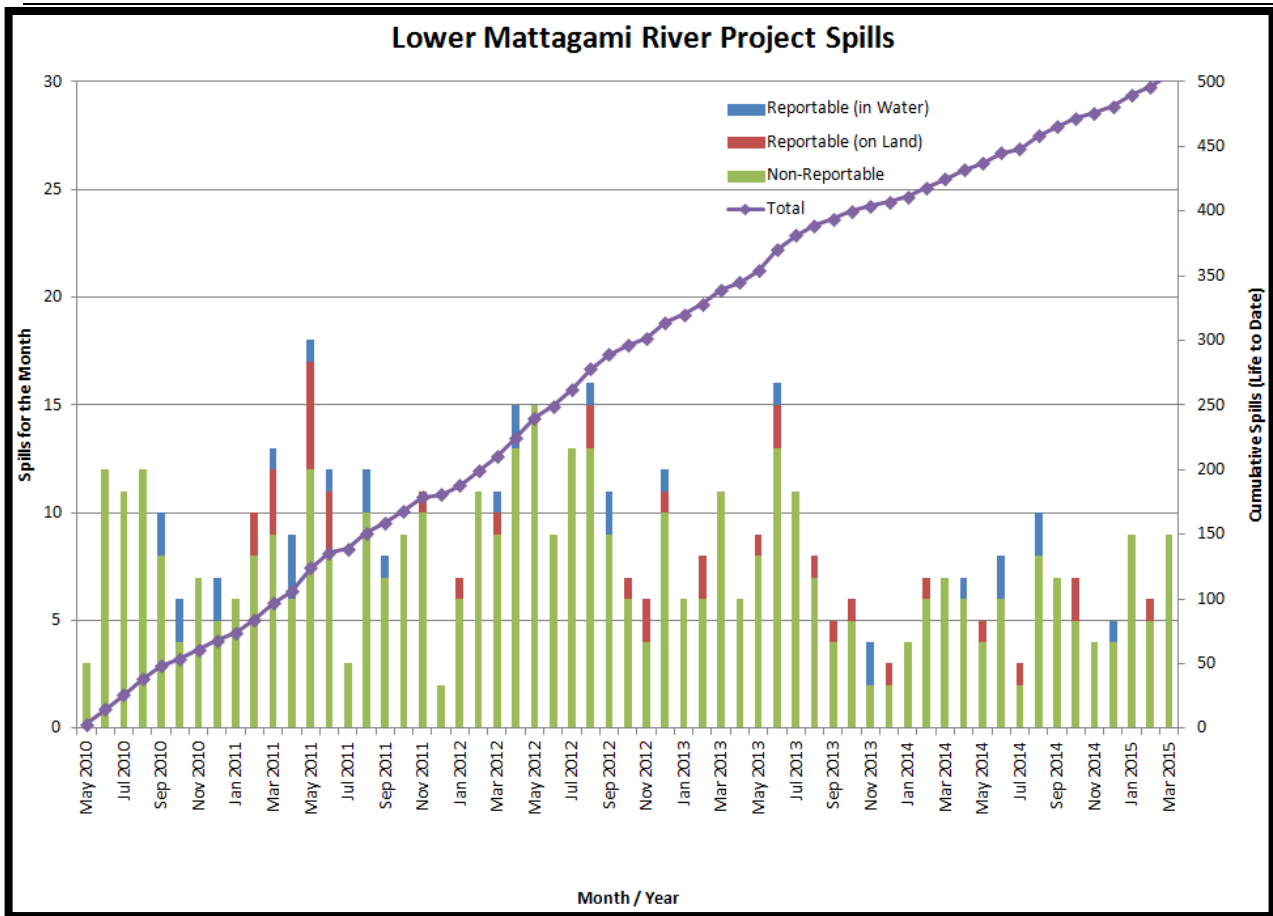


Figure 6: Lower Mattagami River Project spills

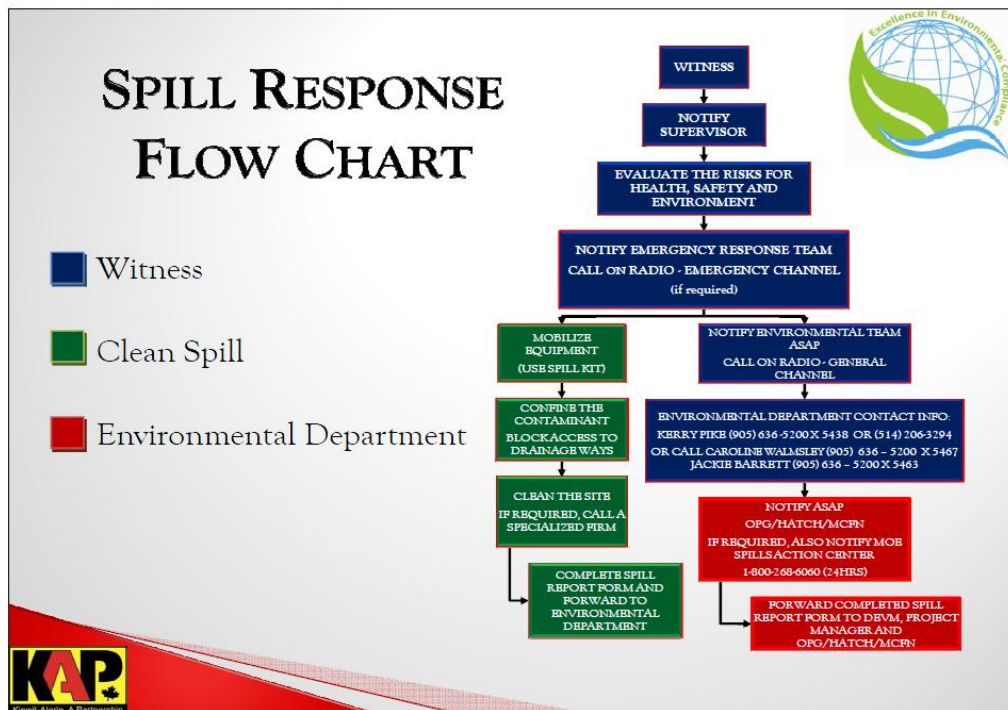

















































Figure 7: KAP Spills Response Flowchart

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	Passed by the MECC
16	Rock Aggregate Management Plan	24				-
15	SF Decommissioning Plan	11				-
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				

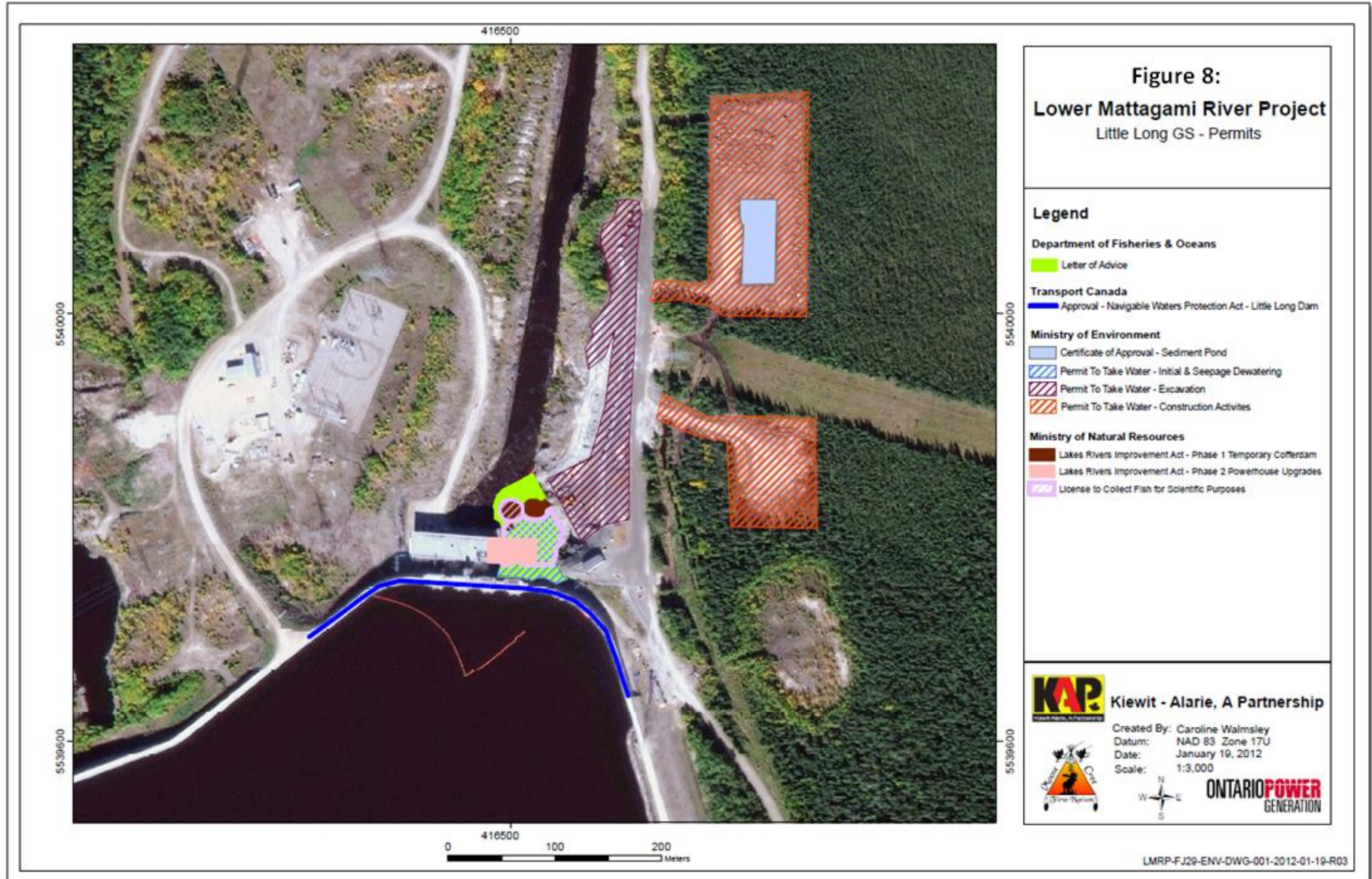


Figure 9:
Lower Mattagami River Project
Harmon GS - Permits

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



Kiewit - Alarie, A Partnership

Created By: Caroline Walmsley

Datum: Zone 17U

Date: January 19, 2012

Scale: 1: 5,500



ONTARIO POWER
GENERATION

0 100 200 400
Meters

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 River Improvement Act - Phase 1A - 1 Deflector Wall

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

Lakes River Improvement Act - Phase 1B Temporary Cofferdam

Lakes River Improvement Act - Phase 2 Powerhouse Upgrades

Licence to Collect Fish for Scientific Purposes



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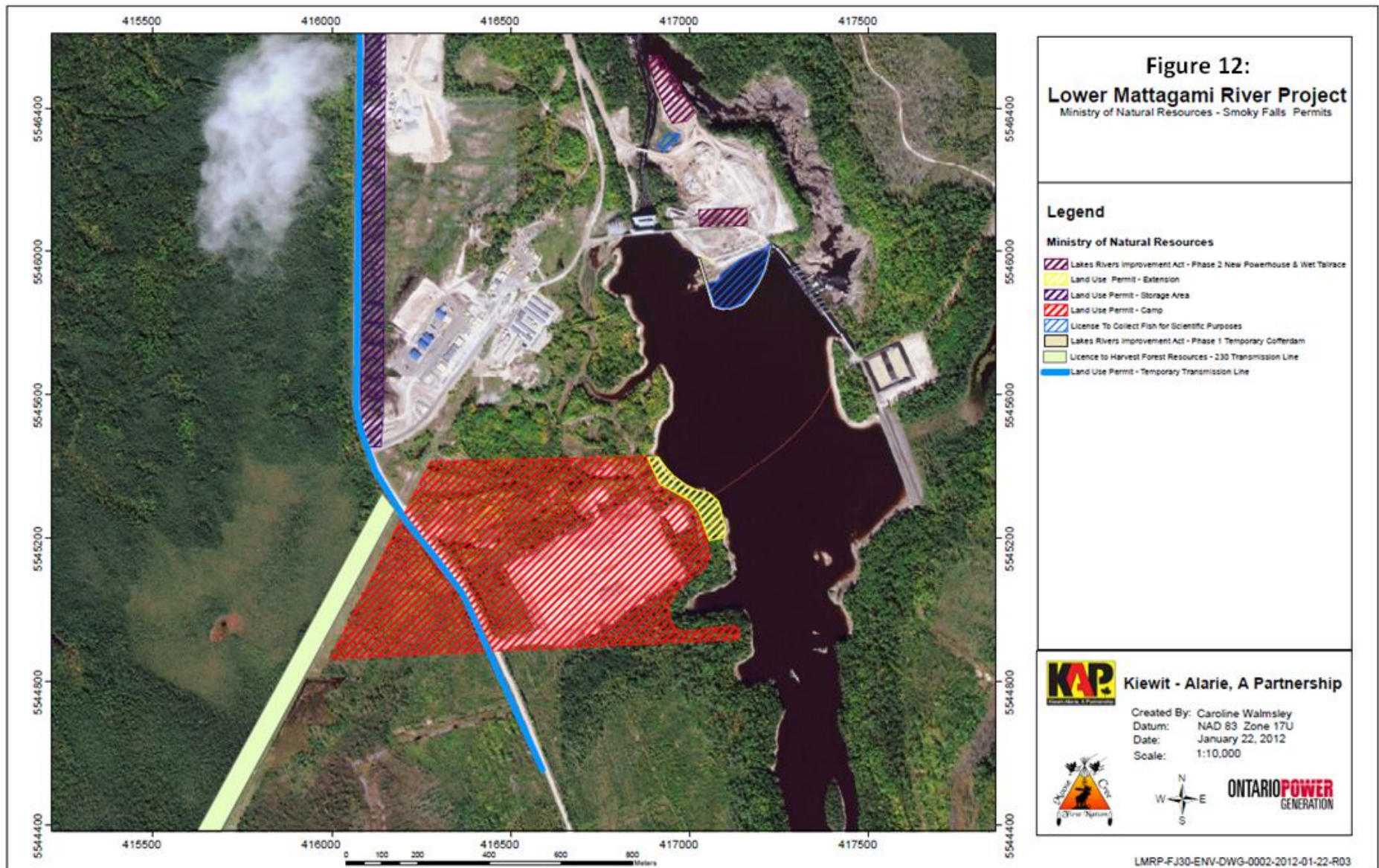
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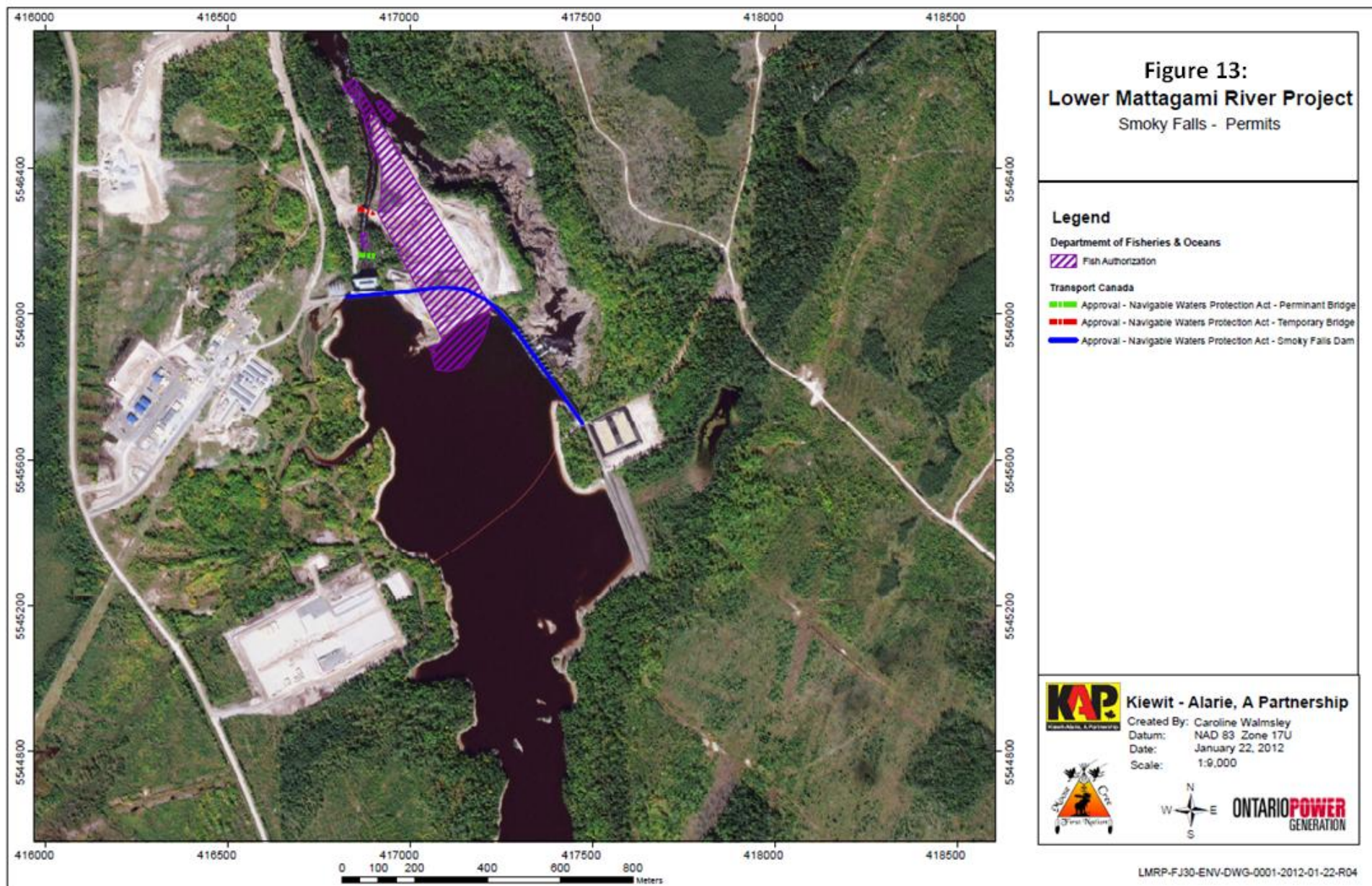


ONTARIO POWER
GENERATION

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







Issues and Concerns

- Members of the EWG were concerned that the down river fish habitat shoal (200m²) had to be moved west (towards the left shore) approximately 5 m as a result of an unexpected was large bedrock outcrop found at the original location.

Action Required: The EWG follow-up with KAP and were assured that DFO accepted the habitat being moved. Further to this, KAP indicated that DFO wanted the change to be documented in the Fish Habitat Monitoring Program.