

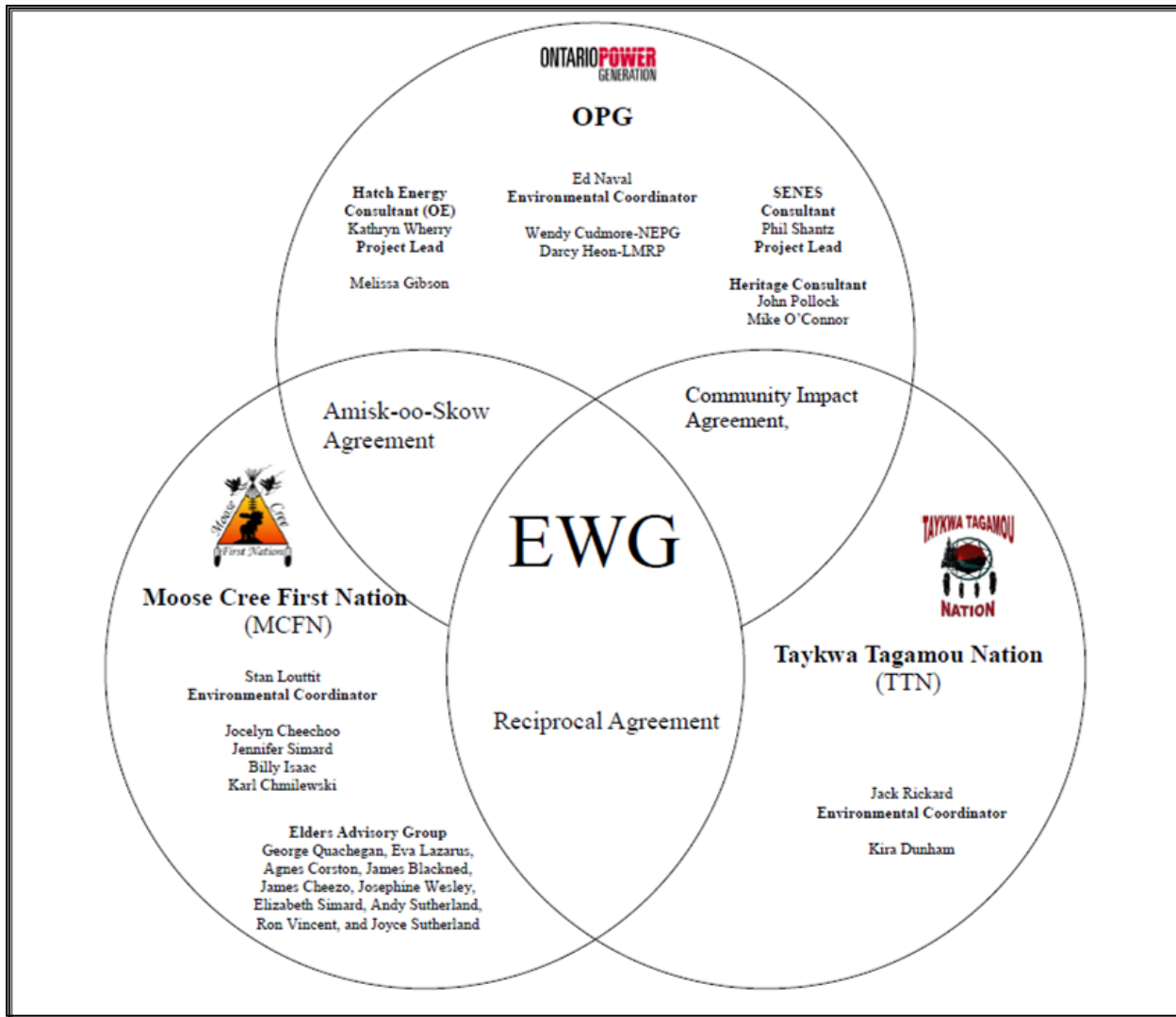
Environmental Working Group

Monthly Report

March 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.
- Revision of Cost Benefit Analysis of Mitigating and Reducing Spill in Adam Creek based on further EWG comments. MCFN has completed a questionnaire and is currently conducting community interviews. TTN has prepared its questionnaire and will be conducting community interviews.
- Review and revisions of Environmental Effects Monitoring Workshop Report by ESSA, Hatch and OPG.
- Review of the Fish Habitat Assessment Report and Mercury in Fish Flesh Summary Report intended to fulfill EA Term and Condition 4b.
- Review of KAPs Waste Management Plan and the LMRP domestic waste disposal documentation intended to fulfill EA Term and Condition 19.
- Ongoing coordination of historical text and map required for condition 2c.
- Communication and preparation for KAP's construction activities for the start of the fish window (April 1, 2012).

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.	Date to be determined											
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).												

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
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**Little Long**

- Concrete work is progressing well, with 1,438 m³ of concrete poured in the powerhouse and intake areas. Work continues to advance at an accelerated pace despite occasional cold weather.
- Rebar and form work continues to progress at a good pace.
- The Unit 3 stay ring was installed.
- Electrical systems (light, heat and alarms) were removed from the east wall of the existing powerhouse.
- Work on the pit liner (to be installed on top of the stay ring) is progressing (Figure 1).



Figure 1: Formwork and stay ring at install at Little Long Powerhouse

Harmon

- Prefabricated curved forms for the draft tube are now assembled.
- 1,257 m³ of concrete was poured this month, 148 m³ in the intake and 1,109 m³ in the powerhouse (Figure 2).
- Rebar and form work for the next intake and powerhouse pours are advancing.



Figure 2: Pouring at Harmon

Kipling

- Cell #2 grout curtain drilling has started now that backfill operations are complete.
- The installation and grouting of post-tensioned anchors in Cofferdam Cell #3 is complete.
- Shore tie-in work continues, frames, sheet piles, rockfill, sand and tremie concrete have all been placed.
- Issues around freshet appear to have passed and construction operations were not affected, though KAP continues to monitor the situation.
- Work on the cofferdam arc cells is progressing, the downstream template for arc cell between Cells 1 and 2 is in place and sheet pile installation will start shortly (Figure 3).



Figure 3: Sand Backfill at the Kipling cofferdam

Smoky Falls

- Concrete pours in the service bay, powerhouse, and intake areas continued, with a total of 2,644 m³ of concrete poured in March (Figure 4).
- There are twenty four other pours in total with work under way (rebar and form work) at the end of the month, and more being planned for on a daily basis.
- Work continues on the reconstruction of the Smoky Falls Unit 2 / Unit 3 bullnose. Installation of form work and rebar installations are progressing. Hoarding was removed in the intake area at the end of the month.
- Work to connect the existing dam to the new West gravity dam has started, as has foundation clearing for the East gravity dam.
- Prefabricated curved draft tube form sections for Unit 2 have been installed and the forms for Unit 1 are more than half complete at month-end.



Figure 4: Draft tube pour at Smoky falls

Monthly Summary – March 2012

SPILLS			
No. of Spills:		11; Spill Reports 200-210 (see Figure 6 for LMRP spills breakdown).	
Classification of Spills:		<u>Project Classification</u> Minor – 9 Moderate – 0 Major – 1 To Water - 1 <u>MOE Classification</u> Non-reportable - 9 Reportable to MOE <ul style="list-style-type: none">- Class C – 2- Class B – 0- Class A – 0	
<u>Reportable Spills</u>			
No.	Quantity /Product Spilled	Spill Site	Reason for being Reportable
1	450 L/Diesel Fuel	Road from Harmon to Smoky Falls wash out area, to the Batch Plant.	Quantity of spill on land
2	Unknown/Sediment Laden Water	Kipling Crane Pad	The Smoky Falls sediment pond was above the effluent objective of 30NTU and effluent limit of 25mg/L TSS. The increase in the NTU and TSS levels was due to site prep washing that took place in Group 3 of the Intake, as well warmer temperatures and heavy rain that occurred.
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 <ul style="list-style-type: none">• Class C - Less Serious• Class B – Serious• Class A – Very Serious
Sediment Pond Exceedance of Effluent Objective (>15mg/L)			
No. of Exceedance days recorded	Location	Mitigation Measures used	
3 (March 9-11)	Smoky Falls	With the warmer temperatures there is an increased flow into the pond and the bubblers are working against the settling effect. To correct this, the bubblers are only being turned on during the night when temperatures drop and are shut off during the day.	

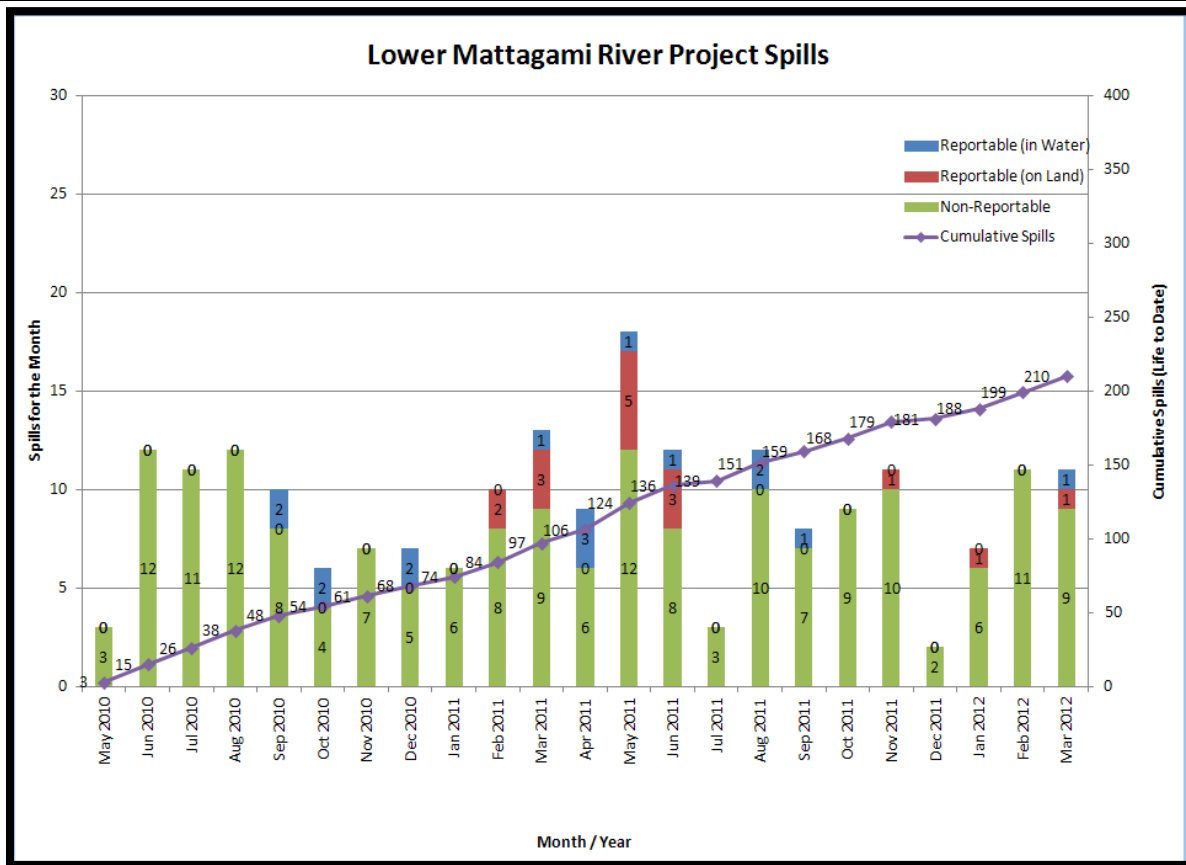


Figure 6: Lower Mattagami River Project spills

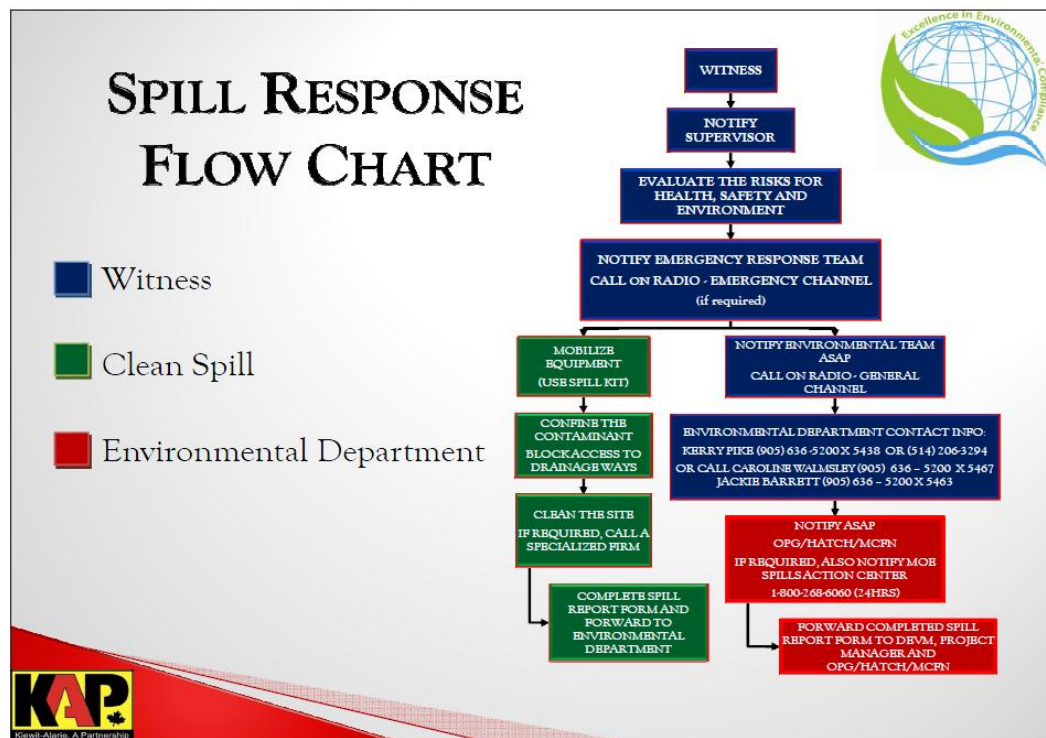


Figure 7: KAP Spills Response Flowchart

PERMIT AND APPROVAL REVIEW			
No. Reviewed:	0	List:	
No. Sent to KAP:	0	List:	
Reports Review			
No. Reviewed for KAP	0	List:	
No. Sent to KAP	0	List:	
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. • Mercury in Fish Flesh Summary Report. • Fish Habitat Assessment Report
No. Review Completed	1	List:	<ul style="list-style-type: none"> • Operation Overview Report.
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.			

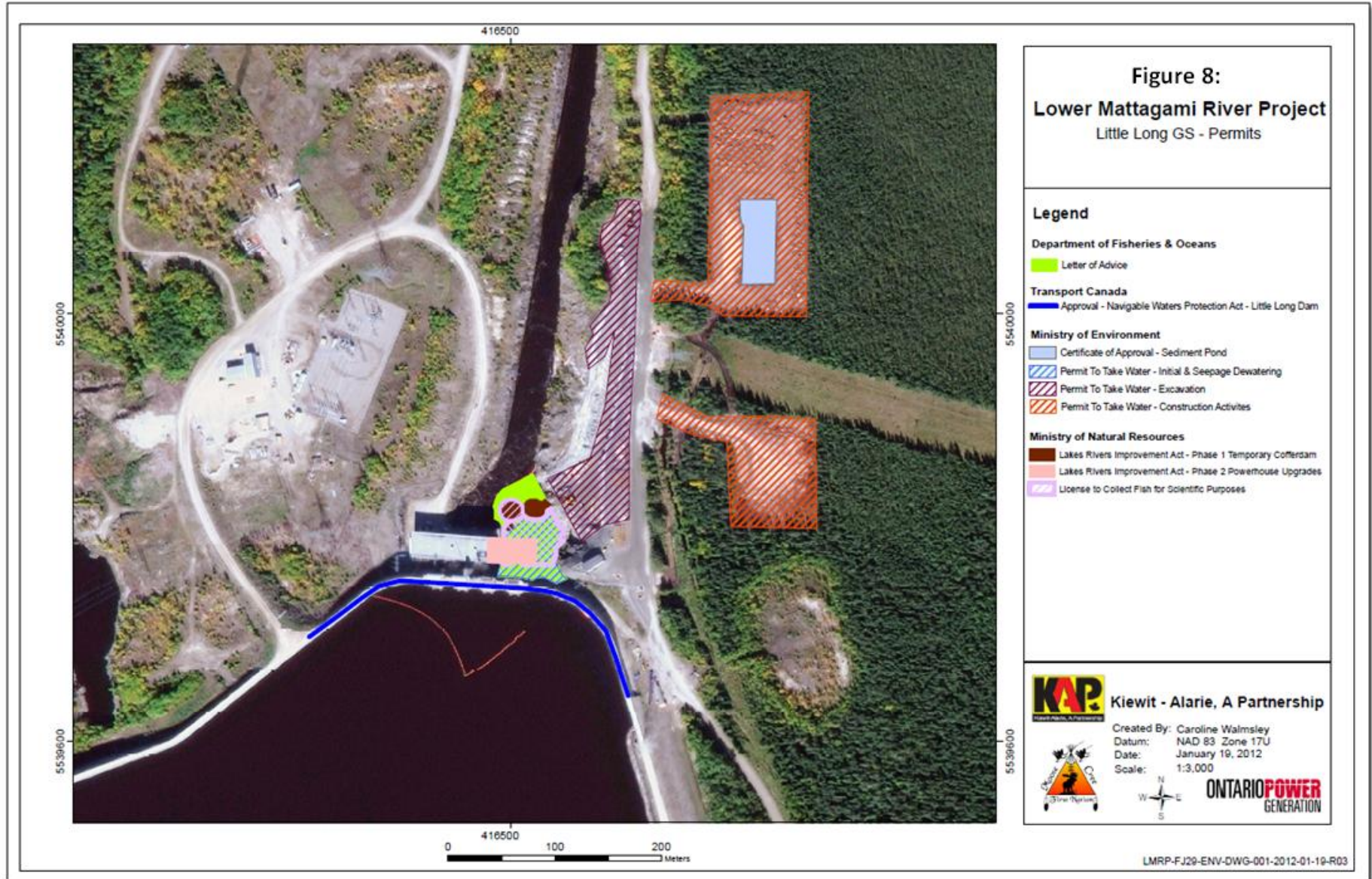


Figure 9:
Lower Mattagami River Project
Harmon GS - Permits

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

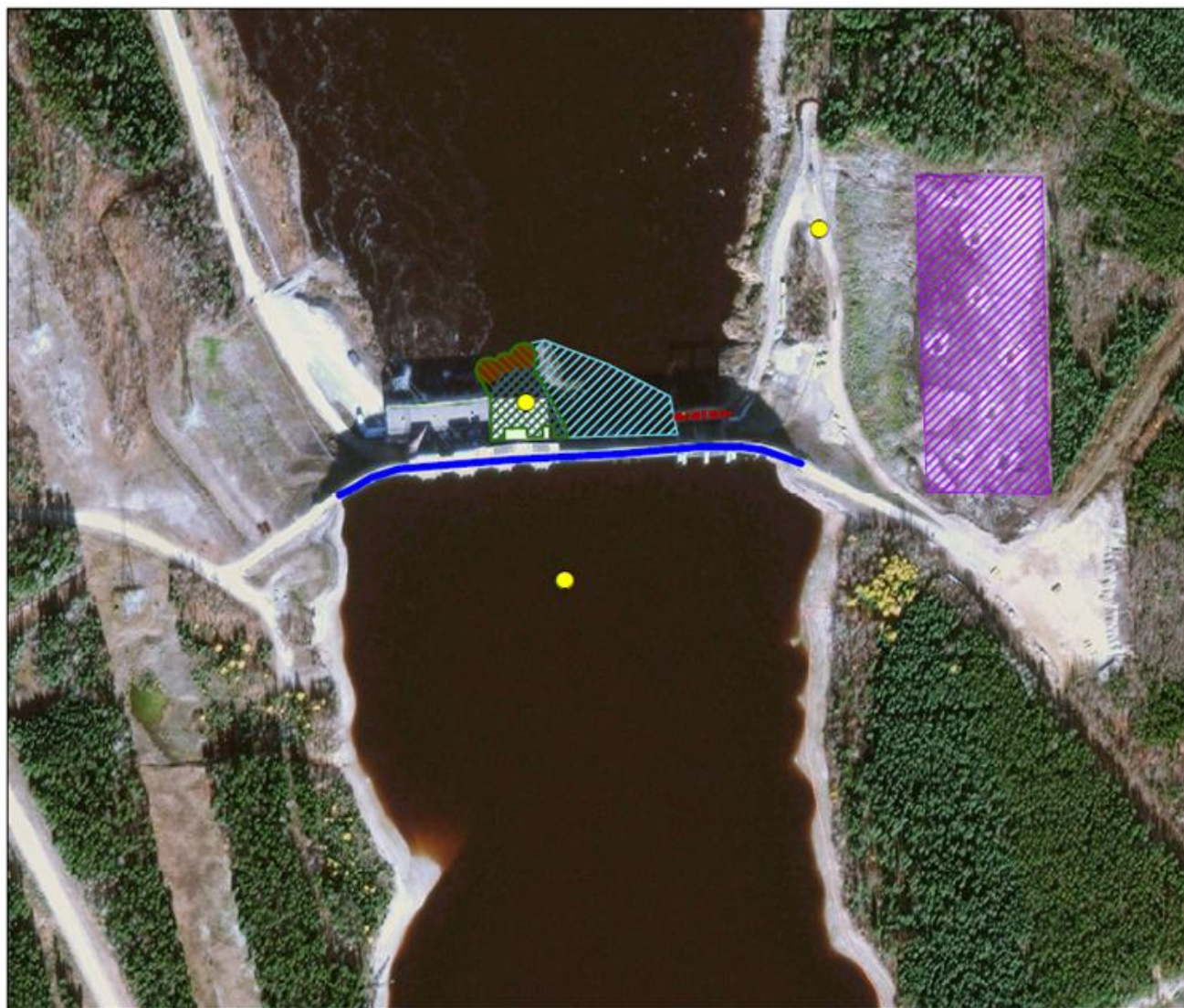
Ministry of Natural Resources

 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



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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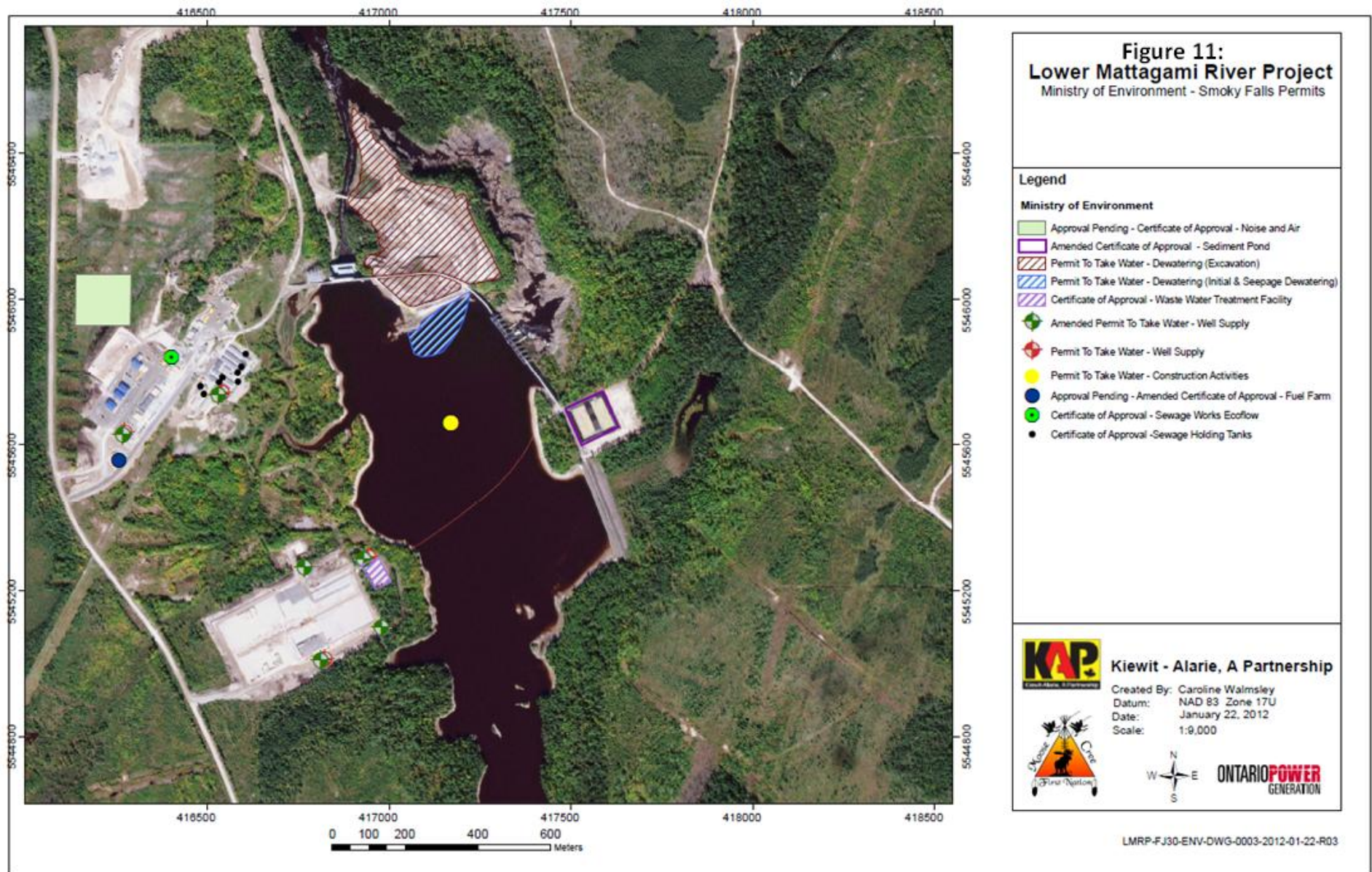
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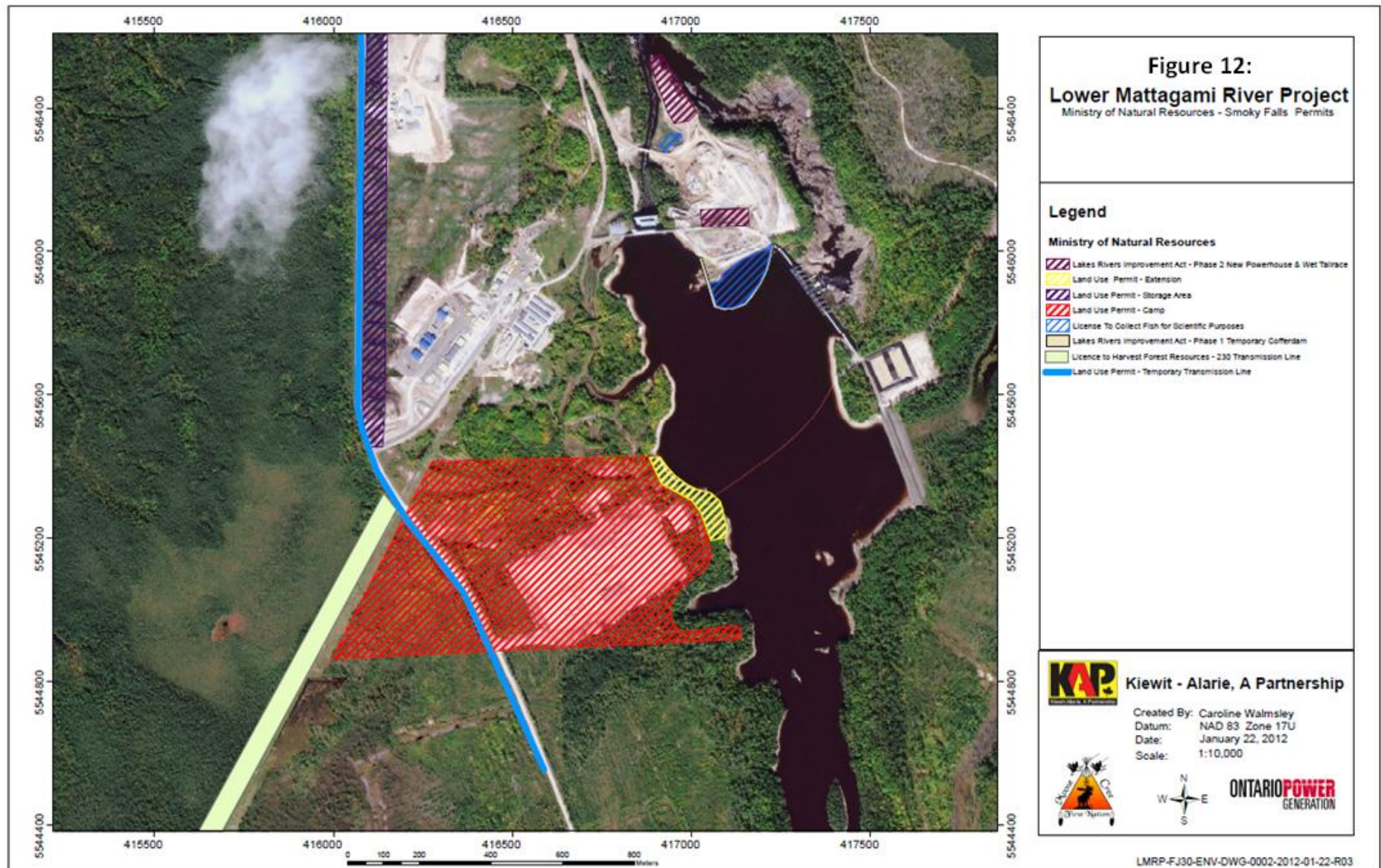
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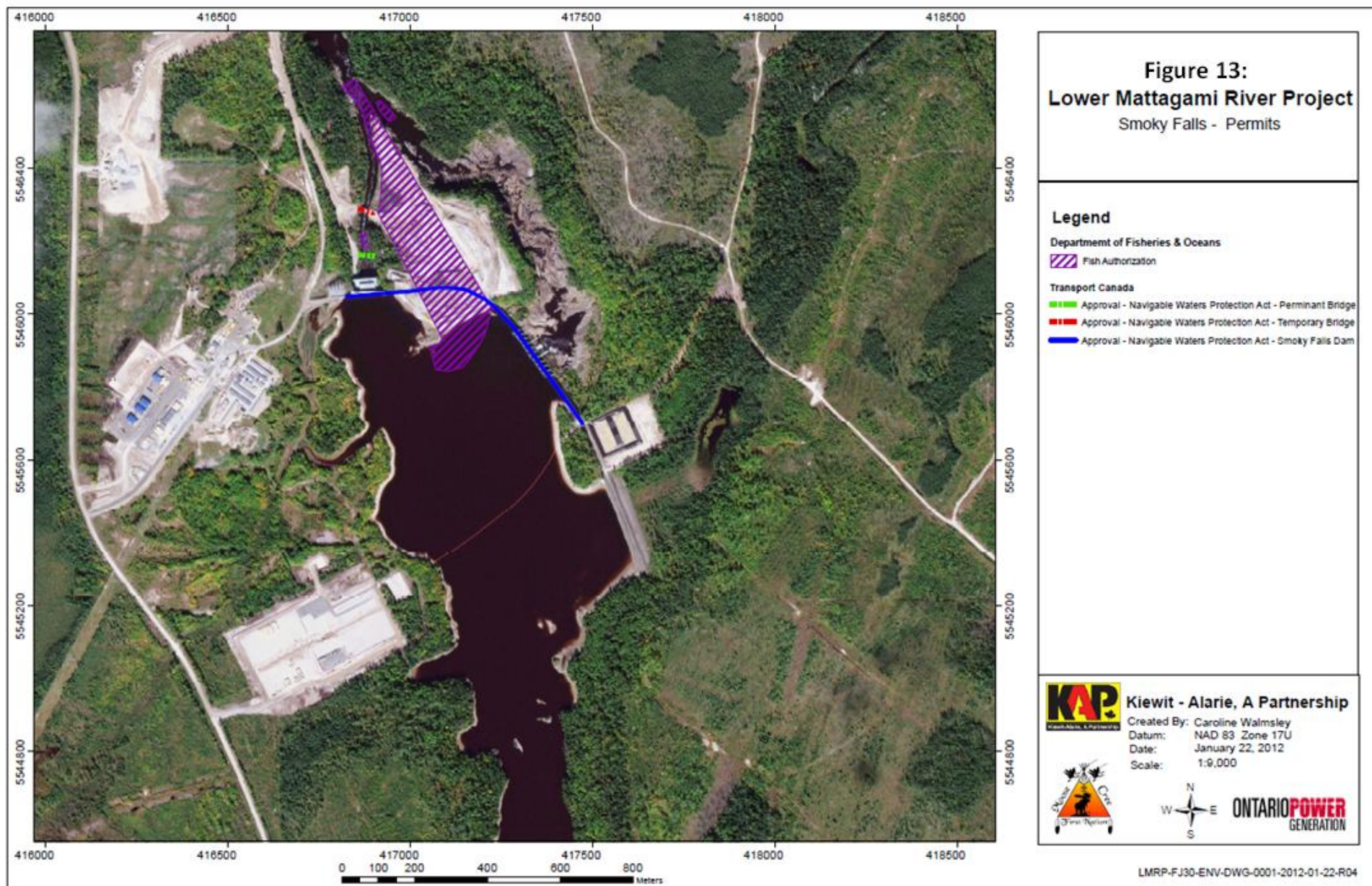


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LMRP-FJ27-ENV-DWG-0001-22012-01-19-R04







Issues and Concerns

- The EWG expressed concerns over the sediment effluent exceedances at the Smoky Falls sediment pond.

Action Required: EWG to get clarification from KAP on cause and mitigation for sediment effluent exceedances.

- MCFN members of the EWG expressed concerns with the state of the fence surrounding the MCFN Cultural Heritage site.

Action Required: EWG to see if KAP can reinforce the fence.