

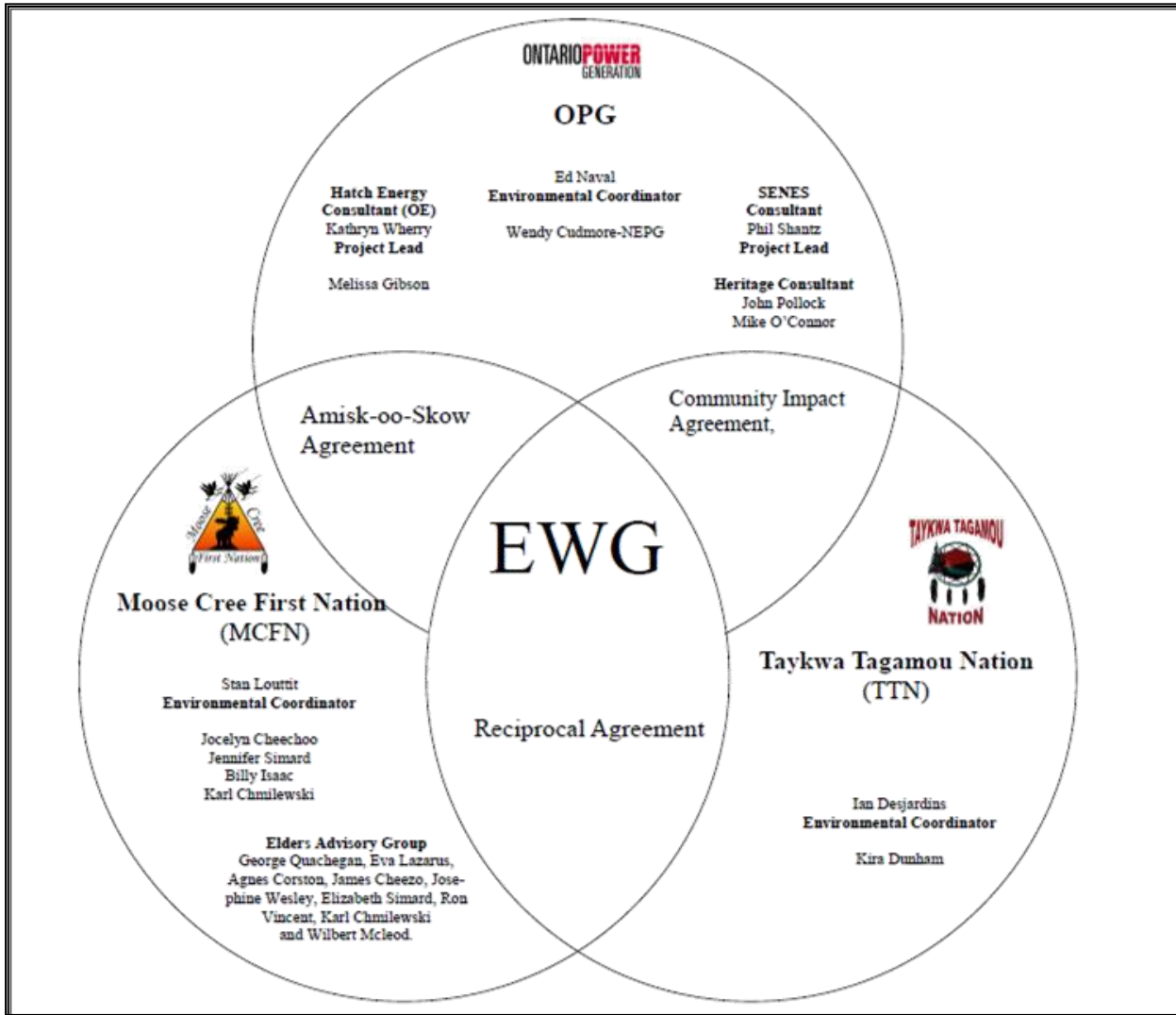
Environmental Working Group

Monthly Report

September 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.
- 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 plan to meet with TTN to coordinate the First Nation perspective. MCFN and TTN are preparing a presentation for the MECC summarizing the results of their interviews for the MECC October meeting.
- 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.
- Review of the Fish Habitat Assessment Report and Mercury in Fish Flesh Summary Report intended to fulfill EA Term and Condition 4b is ongoing. Results of the EWG review will be presented at the MECC's October 2012 meeting.
- Reviews of the Terrestrial Habitat Restoration Downstream of Kipling report intended to fulfill EA Term and Condition 5b is ongoing. The report is being amended to include the comments received to date from OPG and TTN on the report.
- 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. A teleconference was held to update the writing team on September 28, 2012.
- Members of the EWG continued to be engaged with LURA Consulting in preparations for the EWG Team Building event, that will take place on October 9, 2012, in Toronto. The EWG is also preparing for its Face to Face meeting on October 10, 2012, in Toronto.
- Hatch members of the EWG are working towards finalising the results of the EWG Environmental Due Diligence Audit held in July 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.												

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
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).												TBD
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

- As noted last month concrete work is nearing completion, with only small pours remaining to complete that phase of the work. 45 m³ of concrete was poured this month, bringing the total poured to date to 13,146 m³ of 13,886 m³ total, against a plan of 12,978 m³.
- The superstructure erection was completed on September 26th.
- Roof deck installation has started over the superstructure (Figure 1).
- Watering-up of the lagoon area was successfully completed after an inspection of the draft tube sectional gates (Figure 1).
- The existing powerhouse East wall external cladding and insulation were removed.
- Two sump shaft modules were delivered to site and installed by KAP in the sump shaft.
- Andritz has assembled and lowered the draft tube upper cone sections to the laydown area.
- Removal of the cofferdam has started with the demolition and removal of the reinforced concrete cap on Cell #3 and granular material excavation.
- Installation of the new bus bar system required to extend the crane into the Unit 3 powerhouse is progressing.
- Fiber optic cable installation between Little Long and Smoky Falls is progressing.



Figure 1: Little Long Superstructure and watered-up lagoon

Harmon

- 743 m³ of concrete was poured this month, bringing the total poured to date to 8,796 m³ of 12,251 m³ total, against a plan of 7,417 m³.
- All four stay ring sections have been assembled in place and welding of the top and bottom anchors to the stay ring is complete (Figure 2).
- Welding of the pit liner sections is under way.
- Concrete repairs are progressing as the deficiencies are identified.
- Fiber optic cable installation between Harmon and Smoky Falls is complete.
- Removal of the penstock shoring towers from Unit 3 continues.

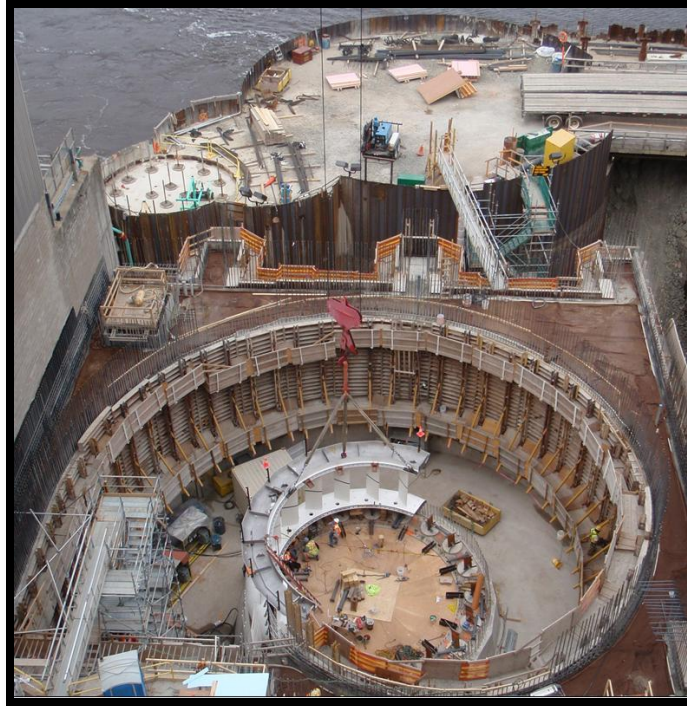


Figure 2: Harmon Stay ring assembly

Kipling

- 722 m³ of structural concrete was poured this month, bringing the total poured to date to 1,766 m³ of 11,647 m³ total, against a baseline plan of 7,330 m³.
- The concrete supply line from the top of the existing tailrace deck to the placing boom pad was installed.
- Work for Unit 3 support equipment continues to progress at the switchyard.
- Draft tube shoring formwork modules have been installed on the draft tube base slab as part of ongoing powerhouse concrete work (Figure 4).
- The sump shaft steel form was also installed in the powerhouse area.
- Work has started on the 230 kV transmission line and the 15 kV bus bar between the existing powerhouse and the switchyard.



Figure 4: Kipling draft tube formwork module.

Smoky Falls

- 7,753 m3 of concrete was poured this month in the service bay, powerhouse, and intake areas, bringing the total poured to date to 66,425 m3 of 155,084 m3 total, against a plan of 70,529 m3.
- At the end of the month, twenty five (25) 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 (Figure 4).
- Alstom has installed the four draft tube cone sections in Unit 2 and is welding them together.
- The Unit 3 draft tube cone sections are being welded at the laydown area and will be installed once the welding is complete.
- Work continues on the switchyard and the transmission line, with 230 kV line arrestors, CVTs wiring and grounding pigtailed, NEMA pads for the double pole insulators and the disconnect structure installation in progress.
- The steel superstructure erection over the Service Bay West continues.
- Sluiceway Gate 5 – The service stop logs were successfully installed and the space between the stop logs and the existing gate was successfully dewatered. Core drilling has been completed (necessary for reinforcing the existing piers) and 60 anchors have been installed and torqued. AFI workers are installing a 10-ton chainfall for the removal of the existing gate.
- Wet Tailrace Channel: Phase 2 blast 2 was completed successfully as scheduled on September 1st. Mucking and hauling of blast rock to the disposal area was completed, a bathymetric survey of the existing tailrace channel and new wet tailrace area showed only one minor “out of specification” rock encroachment into the channel. SLI reviewed the findings, determined there will be no issues with the encroachment affecting the channel flow, and approved the bathymetric survey.



Figure 4: Smoky Falls Site Overview

Monthly Summary – September 2012

SPILLS			
No. of Spills:		11; Spill Reports 279-289 (see Figure 6 for LMRP spills breakdown).	
Classification of Spills:		<u>Project Classification</u> Minor – 5 Moderate – 4 Major –0 To Water - 2 <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	Hydraulic Oil/9.5 L	Smoky Falls – Wet Tailrace	While the operator was loading a 773 Rock Truck at the wet tailrace, the driver of the truck informed the operator of oil spraying from the boom. The operator immediately stopped the machine and inspected the boom. A small crack was observed on a hydraulic line. A small amount of oil spray (<1 L) hit the water.
2	Hydraulic Oil/37 L	Smoky Falls – Wet Tailrace	The excavator was working within the wet tailrace when the operator heard a pop and then noticed oil spraying from the top of the boom on the excavator. The operators swung the boom to shore and placed the bucket on the ground before shutting the machine down. An oil boom curtain has been installed in front of the existing turbidity curtain as an additional measure as well as a second larger spill drum was also placed at the tailrace.
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			
No. of Exceedance	Location	Mitigation Measures used	

days recorded		
3 (September 2, 8 and 20)	Kipling	On Sept. 2, 2012 samples at Kipling indicated slightly above the pH effluent objectives (6.5 – 8.5pH), with a reading of 8.8pH. The increase in the pH levels within the pond was due to the washing of the greencut (partially cured concrete is blasted with high pressure water to roughen the surface to allow for a better bond with the next pour) within the cofferdam area. KAP started to add citric acid to the pond as a corrective measure.
1 (September 20)	Harmon	KAP has indicated it looked back at the data for both Kipling and Harmon during the week prior and the week that the increased turbidity samples were taken; no specific trends or weather could give an indication as to why the turbidity levels were higher. As lab retests were inconclusive KAP has indicated that the exceedances may have been a sampling error on their part. Since then, sediment pond testing has indicated that levels are below TSS ECA limits.

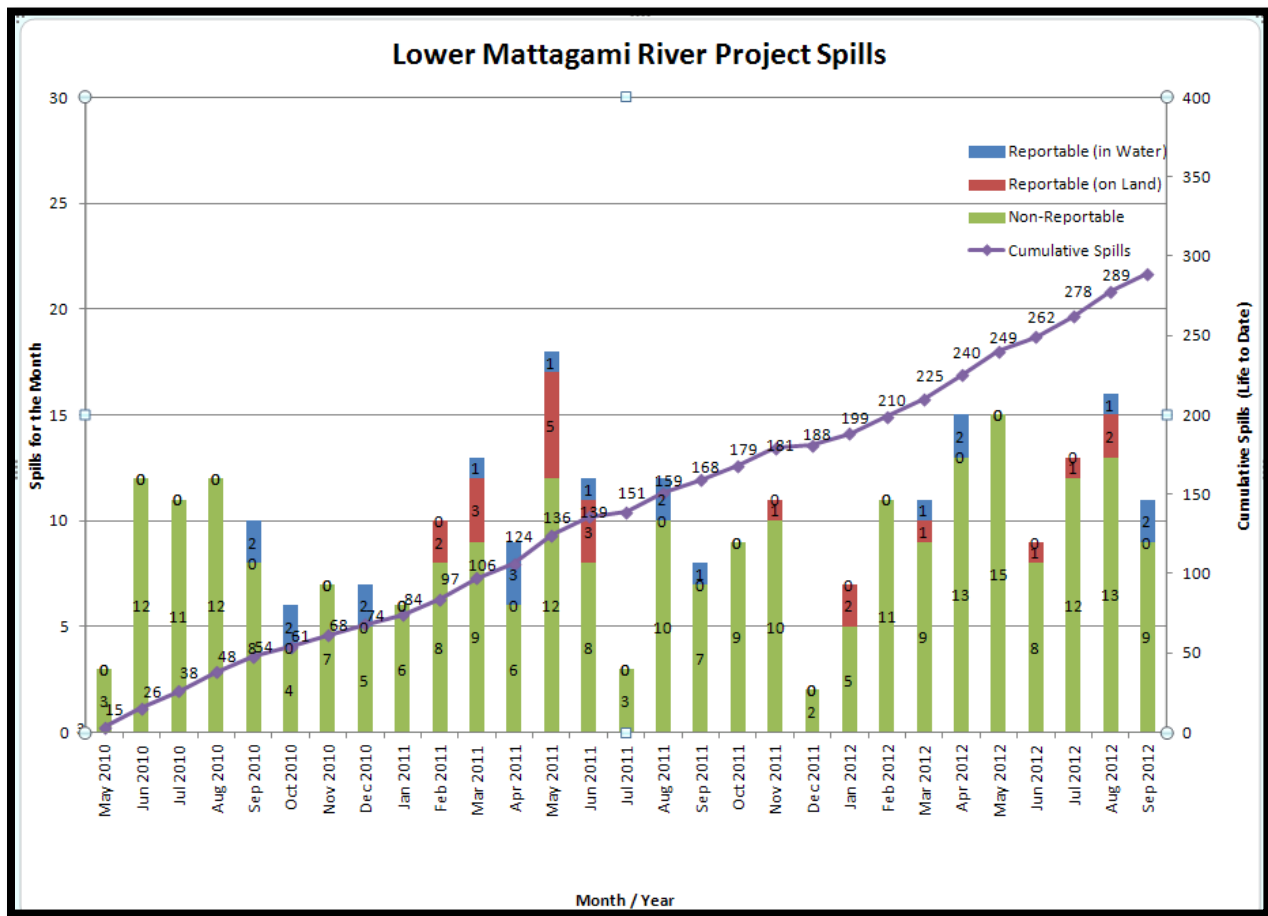
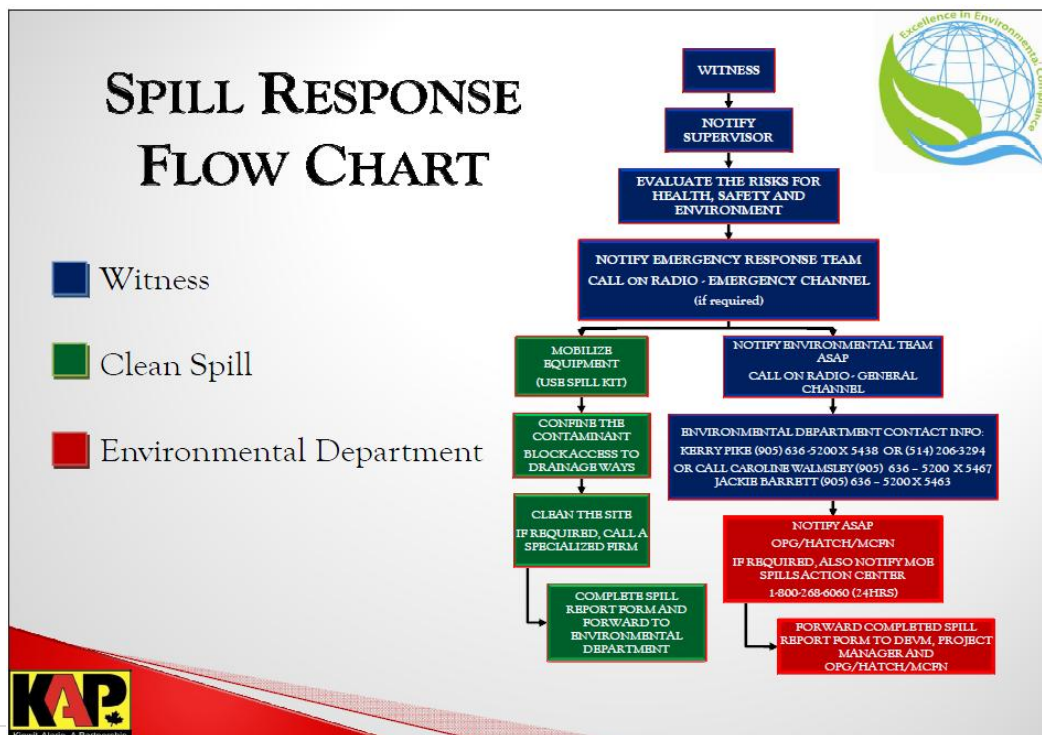


Figure 6: Lower Mattagami River Project spills



PERMIT AND APPROVAL REVIEW			
No. Reviewed:	2	List:	<ul style="list-style-type: none"> The Oil/Water Separator for Little Long The Oil/Water Separator for Kipling
No. Sent to KAP:	2	List:	<ul style="list-style-type: none"> The Oil/Water Separator for Little Long The Oil/Water Separator for Kipling
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
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



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

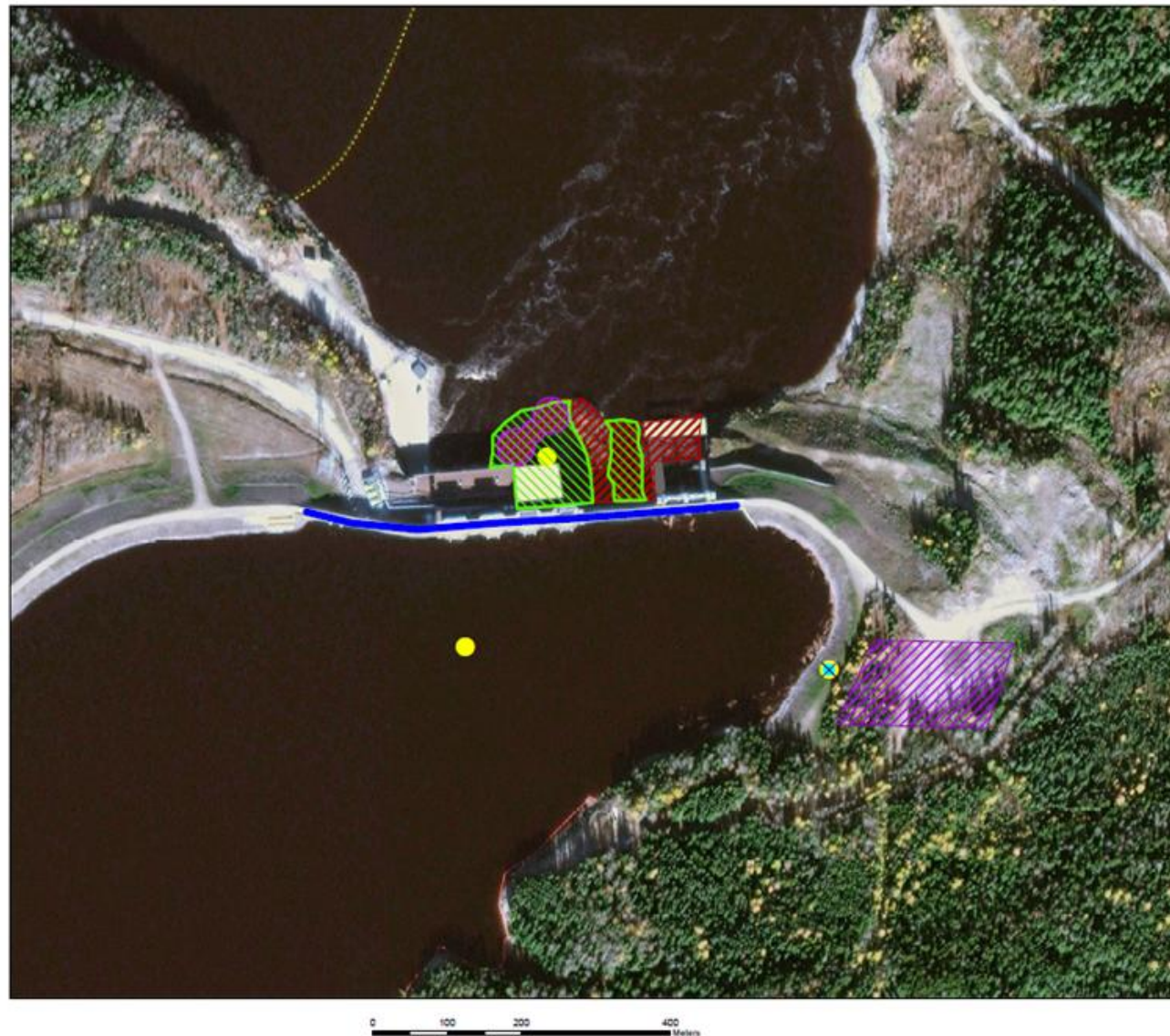


Figure 10:
Lower Mattagami River Project
Kipling GS - Permits

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 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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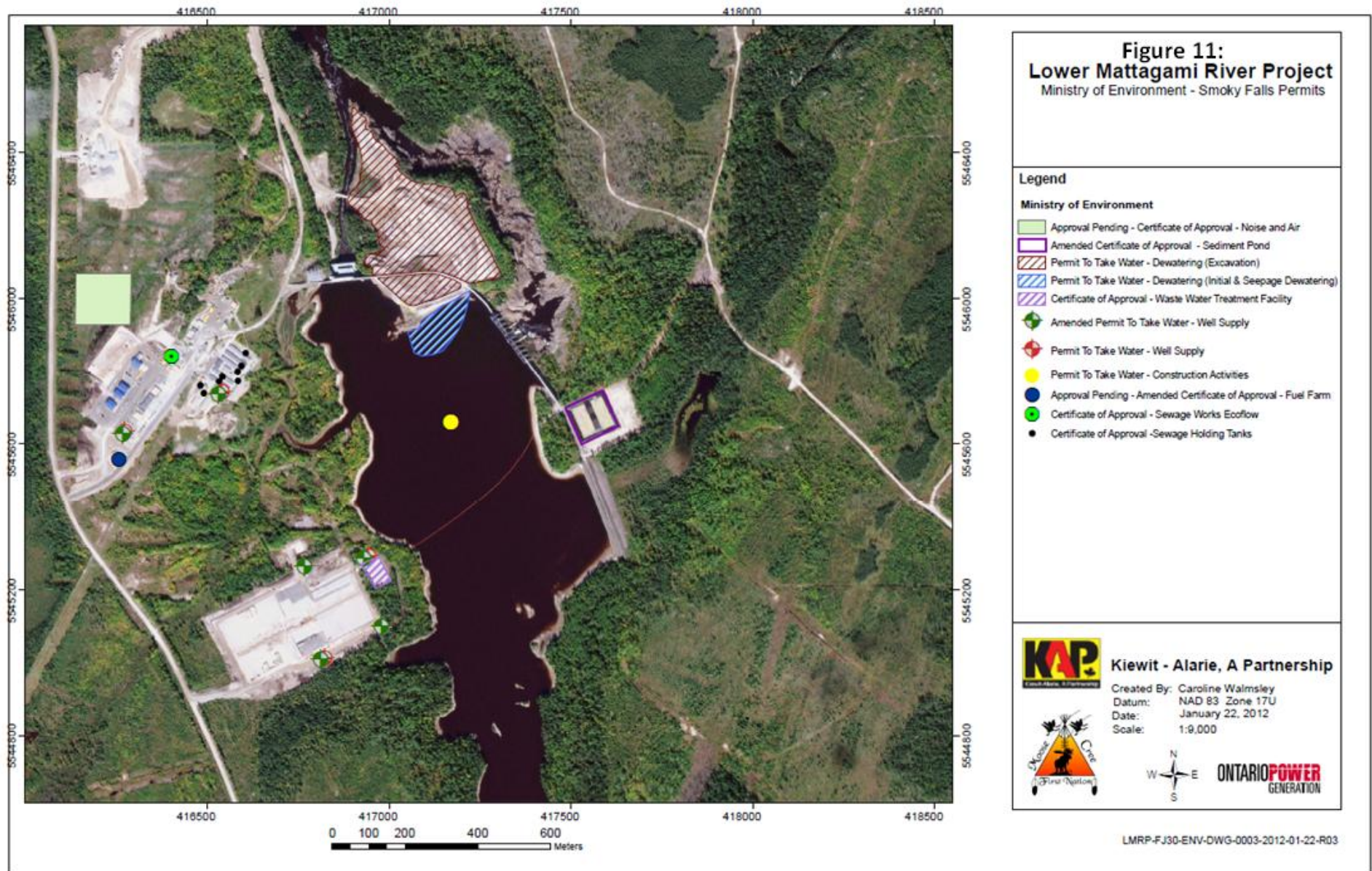
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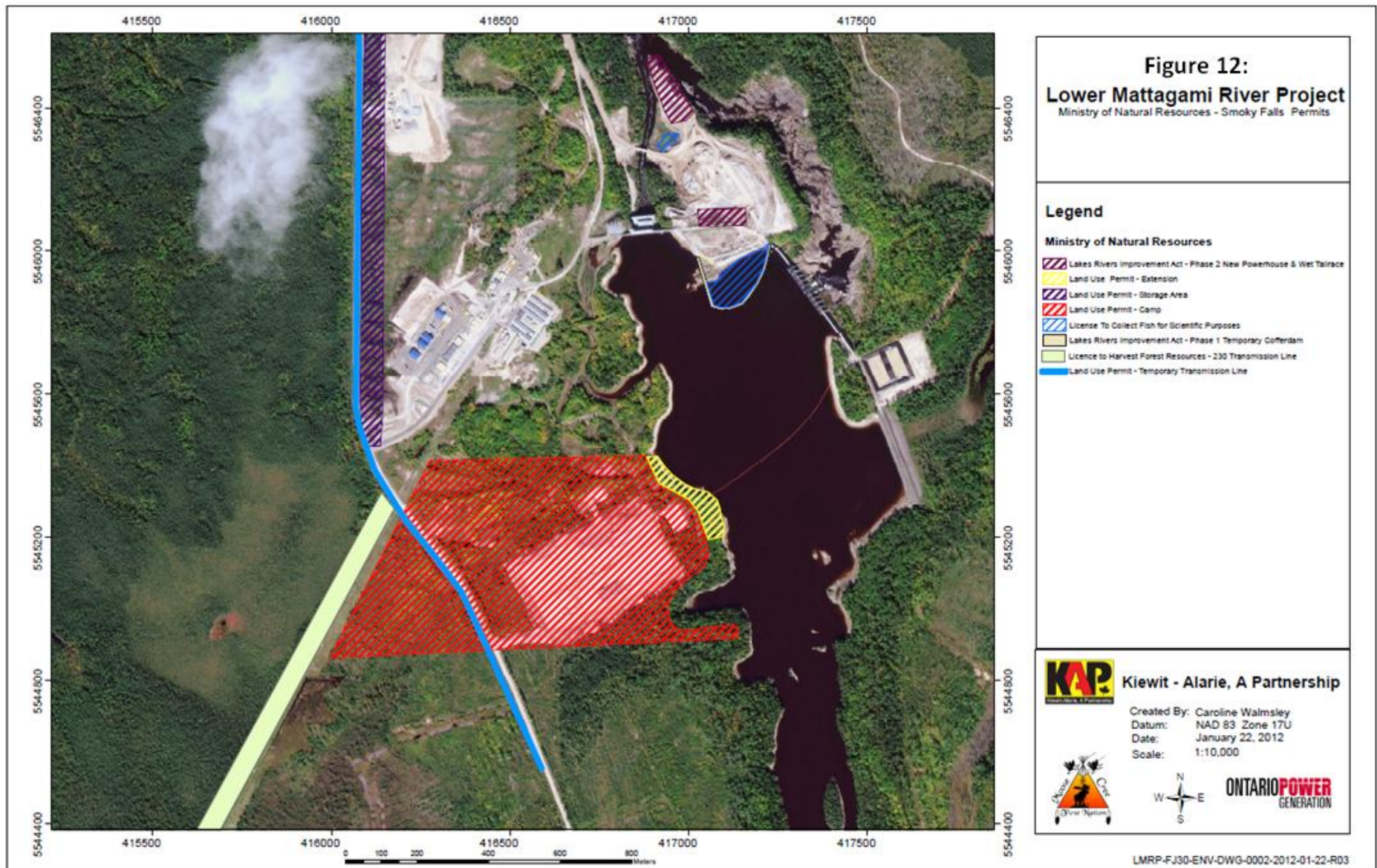
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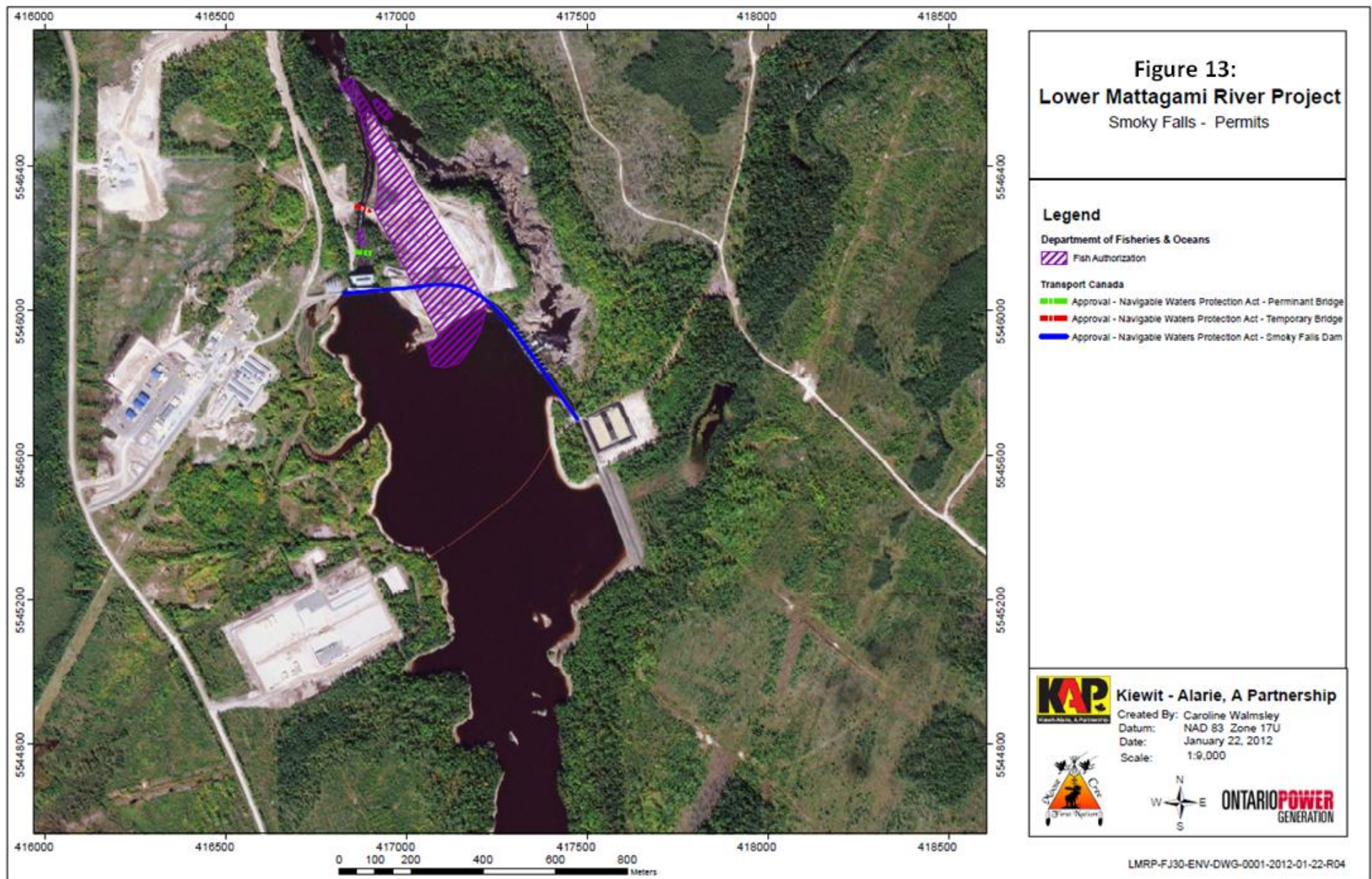


ONTARIO POWER
GENERATION

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







Issues and Concerns

- MCFN members of EWG had a process issue with MECC interpretation on t/c 5b being communicated and issued as complete to EWG. MECC requested EWG review of t/c although MCFN MECC member John Turner's comments had not been acquired or included in the chart that had been sent to EWG as being complete.

Action: MCFN to bring up process issue with MECC and to request that John Turner's comments be updated in the MECC chart before MCFN EWG members would begin their review.

- MCFN members of EWG were concerned with inconsistency in the sediment pond turbidity values (values collected at site were very different from values calculated at MOE lab).

Action: EWG to ask Kerry/KAP environment to follow up with his team and with the MOE on the source of the inconsistency.

- EWG were made aware that Hydro-One found fossil remains at their Tower 14 near the Kipling GS.

Action: Hydro-One took photographic records of the fossil remains and sent them to the Ontario Geological Survey, Paleontological Division. It was determined by Ontario Geological Survey (Ontario Ministry of Northern Development and Mines) that the fossils are a variety of coral, and there were no objections to Hydro One work proceeding.