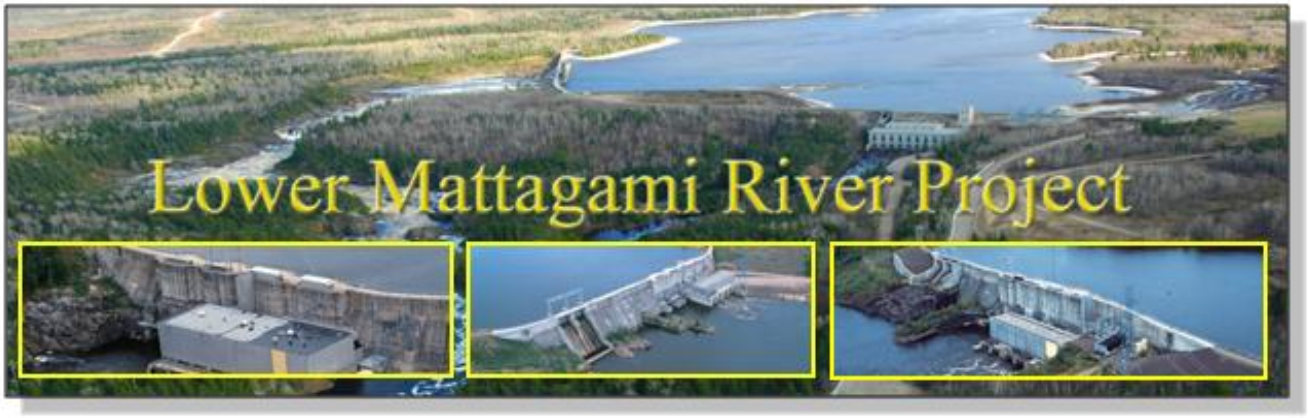


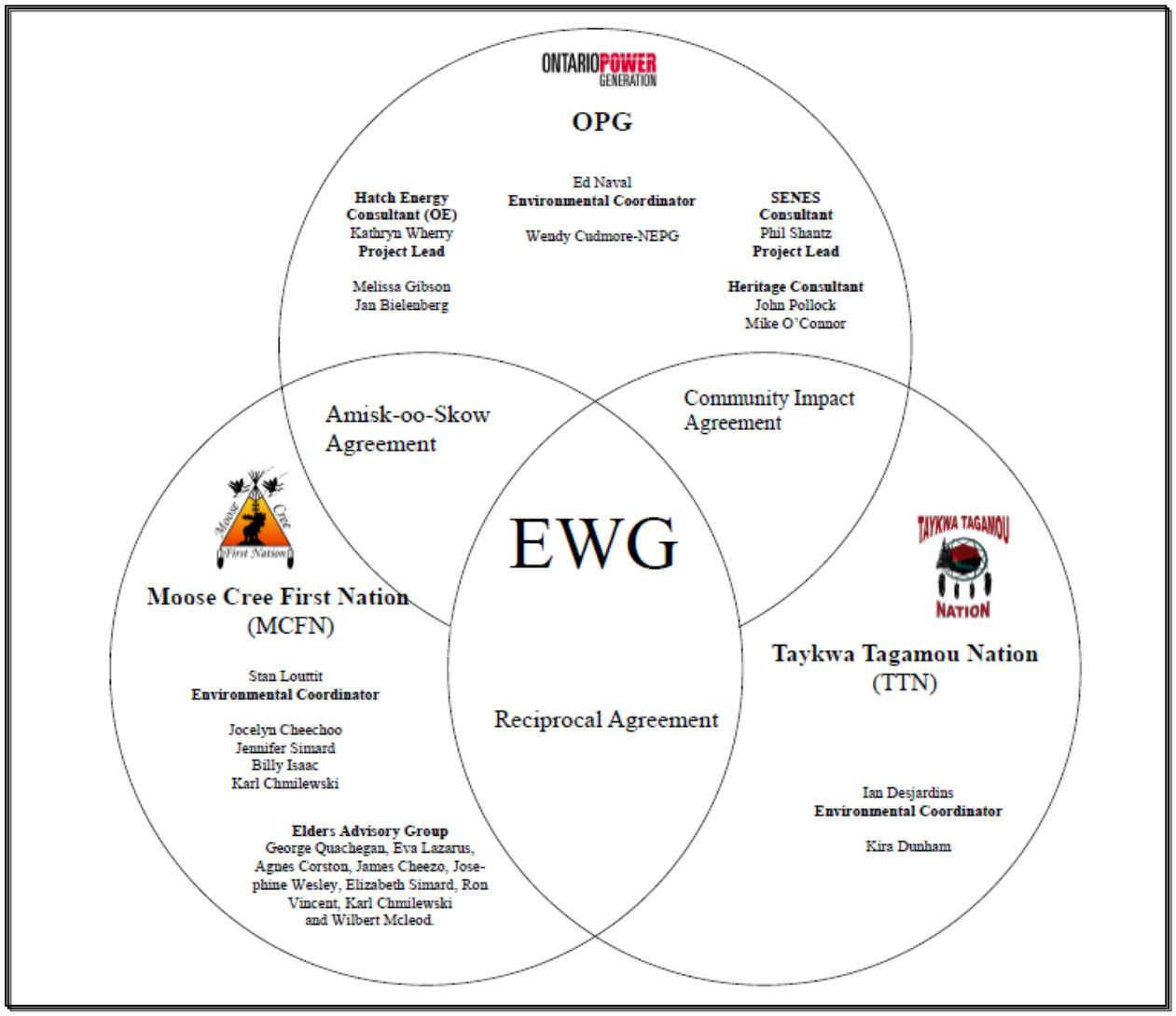
Environmental Working Group

Monthly Report

April 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.
- MCFN members of the EWG followed up with last month's Traditional Ecological Knowledge (TEK) Monitoring Workshop with a meeting with their Elders Advisory Group (EAG). The EAG expressed that they were pleased with how the TEK Monitoring Workshop went and were interested in continuing to provide input on the proposed TEK Monitoring Plan.
- The EWG also closely monitored the construction of the new Kipling cofferdam, as reports were sent daily to the EWG by KAP on the progress of the construction, no further issues have been expressed.
- 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 2012. The First Nations will present a draft report to MECC in June 2013.
- MCFN and TTN members of the EWG hold weekly Traditional Ecological Knowledge (TEK) meetings for the development of a TEK Monitoring Program and discuss how it could work with the OPG Environmental Effects Monitoring Plan 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. A Pre-history piece has now been submitted by John Pollock. The MECC is now hosting the POMRB blog. The writing team has now also given itself a deadline for a first draft by Sept 2013 for review. Members of the team also researched the MNR Map library for assessment of available Cree names maps for inclusion in the book project. The team ran into Freedom of Information issues that now need to be addressed.
- The OPG and Hatch members of the EWG continues to work on collecting additional baseline information and implementing the recommendations to incorporate TEK within the Baseline/monitoring EA Terms and Conditions.
- In an effort to improve the understanding of TEK, members of the EWG started reading Regina Flannery's book "Ellen Smallboy, Glimpses of a Cree Woman's Life". There is a discussion during the EWG weekly call to discuss each chapter as reading progresses.

ACTIONS TO BE COMPLETED in 2013

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
EWG Environnemental 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												
EWG read TEK book 'Sacred Ecology'.												

Completed: Pending: *Additional work still required to fulfill EA Term and Condition

Construction

Little Long

- CanAm continues to install flashing on the north wall of the lower roof.
- Andritz workers continue to install turbine and generator components. Components installed this month include the generator shaft, the inner head cover, wicket gate dowel pins, operating ring, thrust bearing and thrust bearing support cone, lower bracket, rotor frame and rotor rim (Figure 1).
- Adjustments are being made to various installed components as required (wicket gates / links / levers assembly).
- The stator winding has been completed. Testing of the complete winding was successful.
- The Generator Step-Up (GSU) transformer was filled with oil and post-fill testing was completed.
- The transmission line between the disconnect yard and switchyard was installed.
- Welding of isolated phase bus conductors was completed and welding of the external enclosures has started.
- Electricians continue to install panels, cable trays and cables in various areas in the powerhouse and the switchyard.
- The installation of fire protection system in Unit 3 continues.

Figure 1: Little Long assembling the lower brackets

Harmon

- CanAm has installed the polyurethane foam insulation and has started installing the exterior cladding on the walls of the Unit 3 powerhouse and Mezzanine.
- Andritz completed the installation of the draft tube liner components in Unit 3 (Figure 2).
- KAP and Harris Rebar have nearly completed the preparations (rebar, forms, etc) for draft tube liner secondary concrete.
- KAP has started preparations to water up the lagoon area. Current primary activities on this are clean up of the construction area and the leveling of a pad to drill pressure relief holes.
- AFI continues remedial work on the intake gates. They completed aligning the intake sealing faces and are currently welding the stainless steel overlay to the existing lintel.

- As a result of the damage caused by the April 17th contact between the overhead crane and the scaffolding, KAP electricians have initiated repairs to the crane's damaged bus bar and collector.
- KAP electricians continue installing cable trays and light fixtures in the mezzanine and powerhouse.

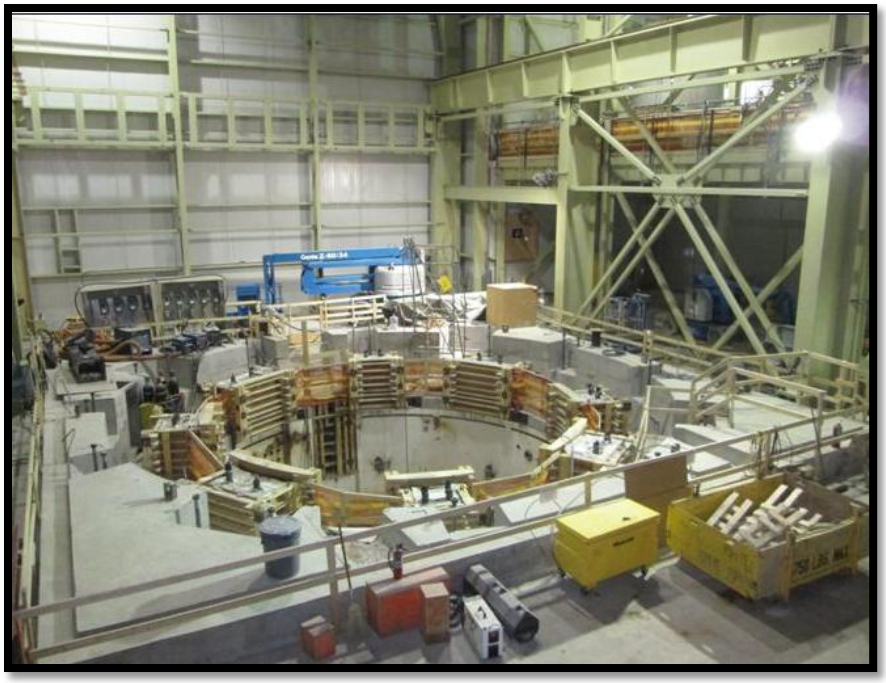


Figure 2: Harmon inside the powerhouse

Smoky Falls

- At the end of the month, five (5) concrete pours are in various stages of work (formwork started and/or rebar being installed) and progressing in the intake, powerhouse, East service bay, East gravity dam, and at the permanent bridge. Twenty-two (22) pours were completed during the month.
- Alstom continues to prepare Turbine/Generator components in the West Service Bay (WSB). They have completed the following tasks:
  - All four presses of the Unit 1 stator were placed (Figure 3). The core loop test is scheduled for early May. Stator winding is scheduled to begin once the core loop test is complete. Unit 1 rotor assembly has started;
  - At Unit 2, the concrete pour under the stay ring was completed (Figure 3); and
  - At Unit 3, formwork and rebar installation for the concrete pour under the stay ring are complete.
- The application of fireproofing material on the structural beams at the first mezzanine floor level of the West Service Bay is complete.
- The main service door at the West Service Bay was installed
- Sluiceway Gate 5 – AFI completed bolting the gate sections together and have installed handrails at the top of the gate. They have also installed stainless steel blocks for the upstream Teflon seal and have installed the insulated panels and flashing on the downstream side of the gate.

- Work continues to enhance the stability of the rock under the Service Bay East. Progress continues on drilling for rock anchors, anchor installation, anchor pipe sleeve installation, and concrete pours.

Figure 3: Smoky Falls Unit 1 and 2 Scroll Case

Kipling

- The Stage 2 vertical extension for spring flooding (lagging wall) portion of the earth berm was completed (Figure 4). Dewatering the work area was completed April 25th.
- Fill from Arc Cell 2-3 was placed under the concrete ring to create a level pad on which to lower it.
- The concrete ring from the failed Cell 3 was safely lowered to the ground April 30th. Demolition of the ring has started.
- Previously submerged forms have been inspected for damage. No significant issues were identified.
- Clean-up of the work area is under way with concrete pours scheduled to resume in early May (Figure 5).
- Electrical panels, light fixtures, lightning arrestors and grounding wires were installed in the switchyard.
- PowerTel finalized the installation of disconnect switches in the switchyard and performed a final inspection of the transmission structures and their components.
- Electricians installed grounding wires for the new platform for the 15kV disconnect switch.
- Unit 3 Direct Current (DC) system installation (cable pulling, distribution panels, breakers)has started.

Figure 4: Kipling Completed Lagging Wall
(with H-piles and sheet piles)

Figure 5: Kipling debris clean-up within dewatered lagoon

Monthly Summary – April 2013

<table>
<tr><td colspan="4">SPILLS</td></tr>
<tr><td colspan="2">No. of Spills:</td><td colspan="2">6; Spill Reports 340-345 (see Figure 6 for LMRP spills breakdown).</td></tr>
<tr><td colspan="2">Classification of Spills:</td><td colspan="2"><u>Project Classification</u>
Minor – 5 Moderate – 1 Major –0 To Water - 0
<u>MOE Classification</u>
Non-reportable - 6
Reportable to MOE
- Class C – 0
- Class B – 0
- Class A – 0</td></tr>
<tr><td colspan="4">Reportable Spills</td></tr>
<tr><td>No.</td><td>Quantity /Product Spilled</td><td>Spill Site</td><td>Reason for being Reportable</td></tr>
<tr><td>n/a</td><td>n/a</td><td>n/a</td><td>n/a</td></tr>
<tr><td colspan="2">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)</td><td colspan="2">MOE Classification
Non-reportable: < 100L
Reportable to MOE
• Class C - Less Serious
• Class B – Serious
• Class A – Very Serious</td></tr>
<tr><td colspan="4">Sediment Pond Exceedance of Effluent Objective</td></tr>
<tr><td>No. of Exceedance days recorded</td><td>Location</td><td colspan="2">Mitigation Measures used</td></tr>
<tr><td>1 (April 31)</td><td>Smoky Falls</td><td colspan="2">The daily turbidity value for the sediment pond discharge was slightly above the MOE objective of 30 NTU with a value of 34 NTU. The cause is due to the snow melt and extra runoff that is being directed to the pond. The pond was bringing the levels down but there is still some ice weighing down the baffle curtains in the second cell and this may be allowing water to take a shorter path to the discharge pipe. Alum was later used.</td></tr>
</table>

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.

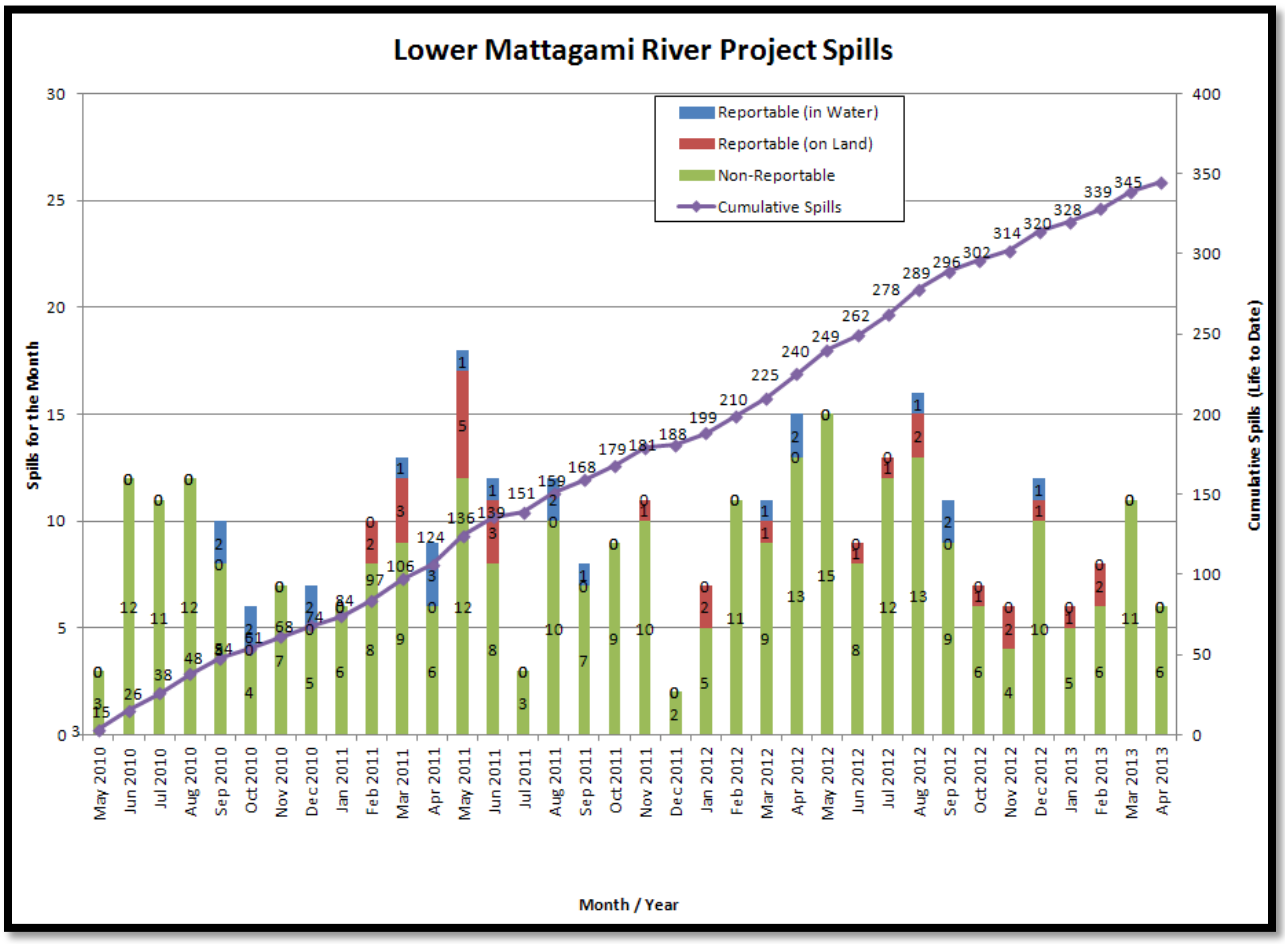


Figure 6: Lower Mattagami River Project spills

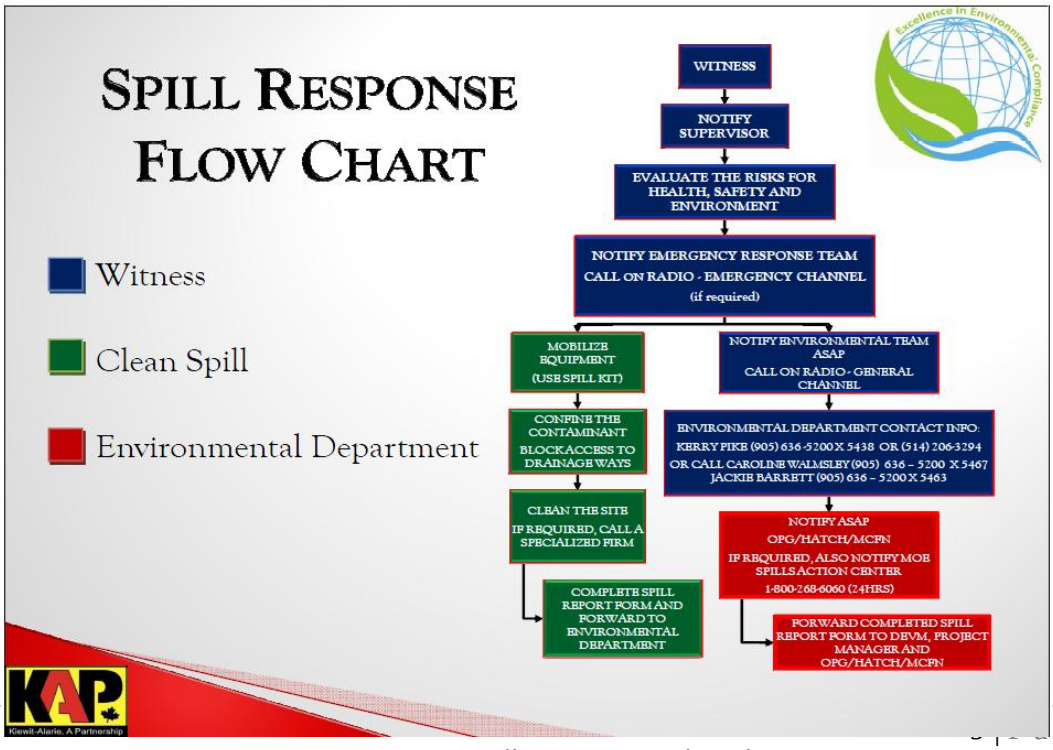
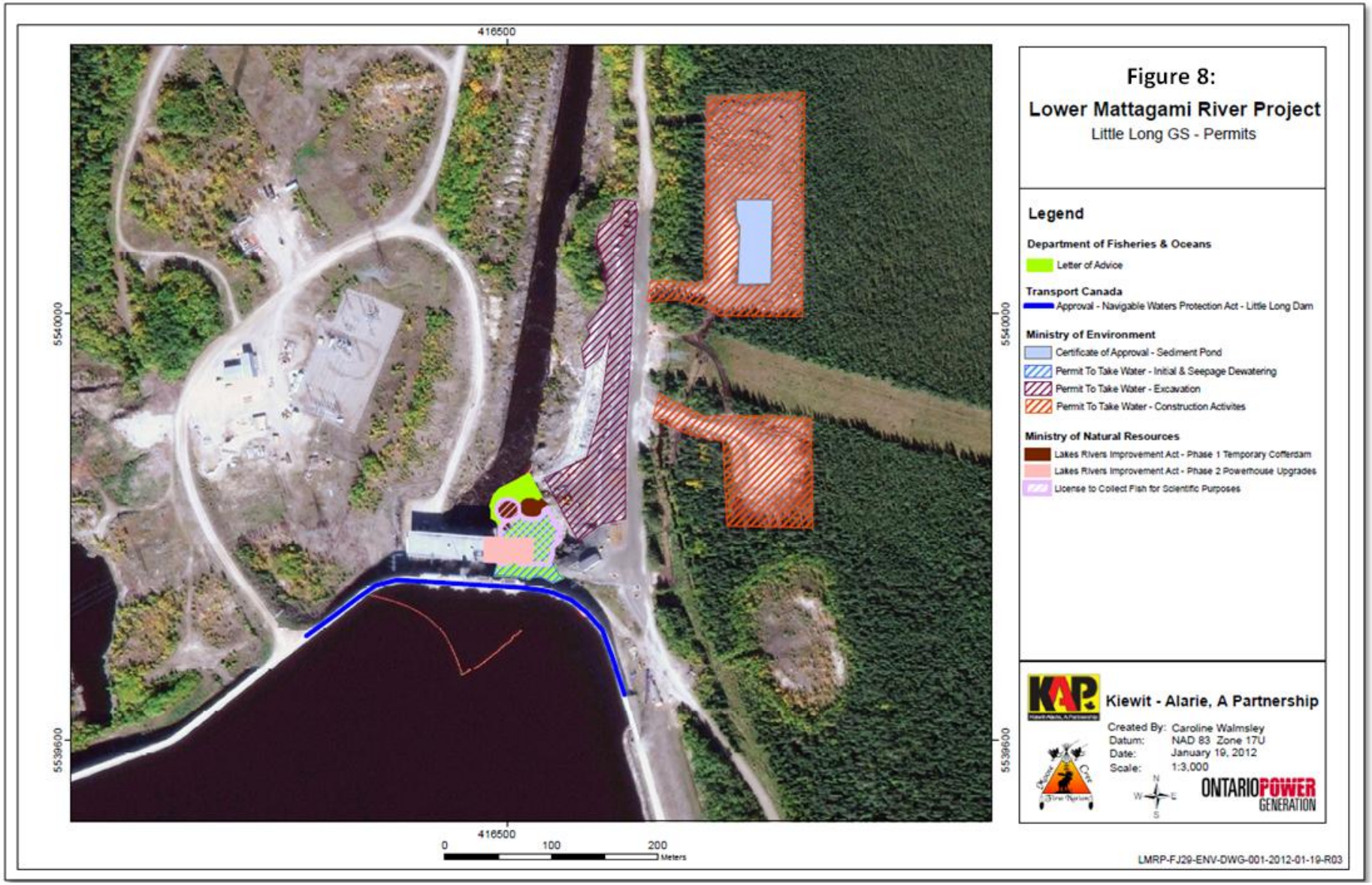


Figure 7: KAP Spills Response Flowchart

PERMIT AND APPROVAL REVIEW			
No. Reviewed:	0	List:	
No. Sent to KAP:	0	List:	• Harmon Cofferdam Removal LRIA Approval • SF Sewage Holding Tanks Application
Reports Review			
No. Reviewed for KAP	0	List:	
No. Sent to KAP	0	List:	
No. Reviewed for MECC	5	List:	On-going: • 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:	• 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.			


416500
5540000
5539600
416500
0
100
200
Meters
Figure 8:
Lower Mattagami River Project
Little Long GS - Permits
Legend
Department of Fisheries & Oceans
Letter of Advice
Transport Canada
Approval - Navigable Waters Protection Act - Little Long Dam
Ministry of Environment
Certificate of Approval - Sediment Pond
Permit To Take Water - Initial & Seepage Dewatering
Permit To Take Water - Excavation
Permit To Take Water - Construction Activites
Ministry of Natural Resources
Lakes Rivers Improvement Act - Phase 1 Temporary Cofferdam
Lakes Rivers Improvement Act - Phase 2 Powerhouse Upgrades
License to Collect Fish for Scientific Purposes
Kiewit - Alarie, A Partnership
Created By: Caroline Walmsley
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Date: January 19, 2012
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LMRP-FJ29-ENV-DWG-001-2012-01-19-R03

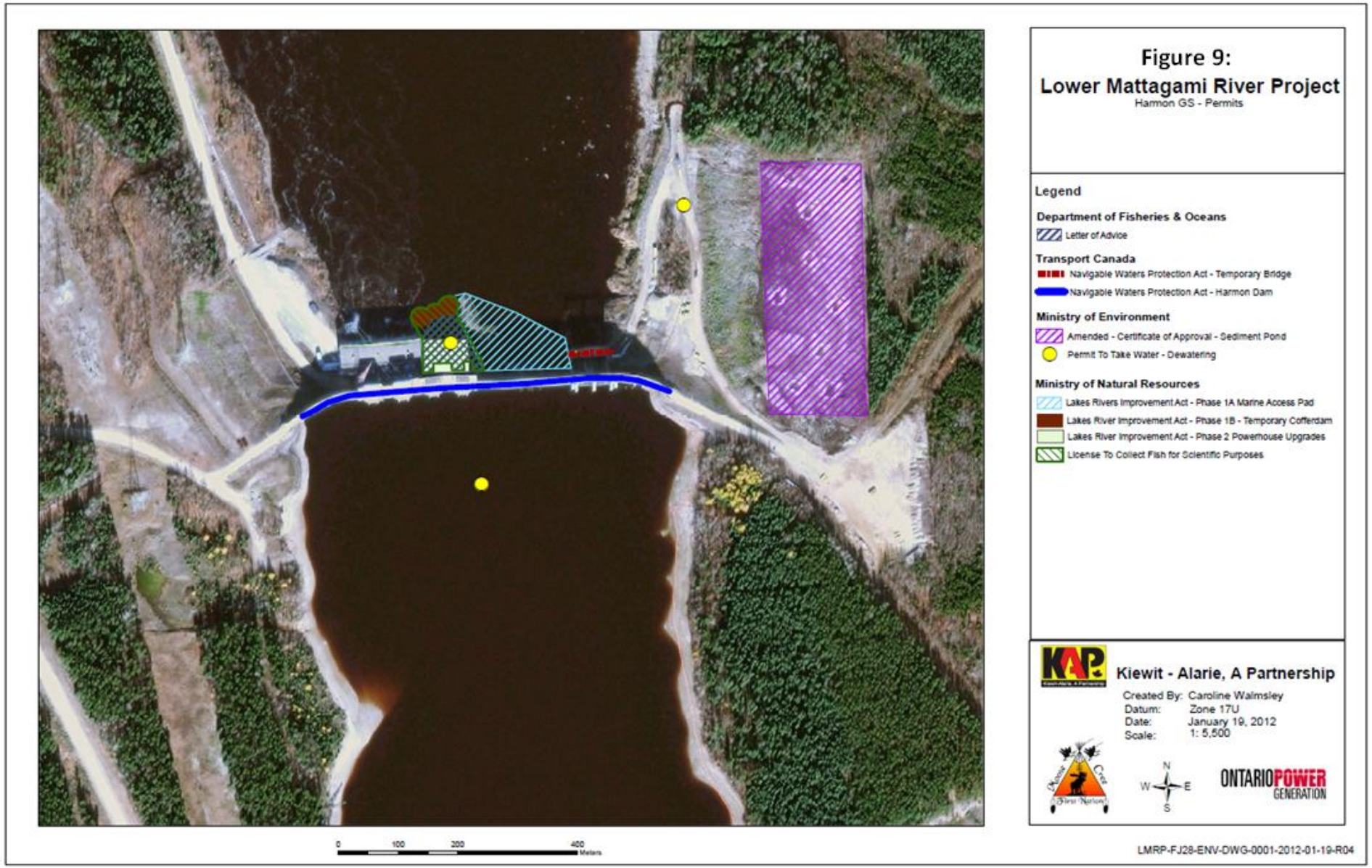
Figure 9:
Lower Mattagami River Project
Harmon GS - Permits
Legend
Department of Fisheries & Oceans
Letter of Advice
Transport Canada
Navigable Waters Protection Act - Temporary Bridge
Navigable Waters Protection Act - Harmon Dam
Ministry of Environment
Amended - Certificate of Approval - Sediment Pond
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
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ONTARIO POWER GENERATION
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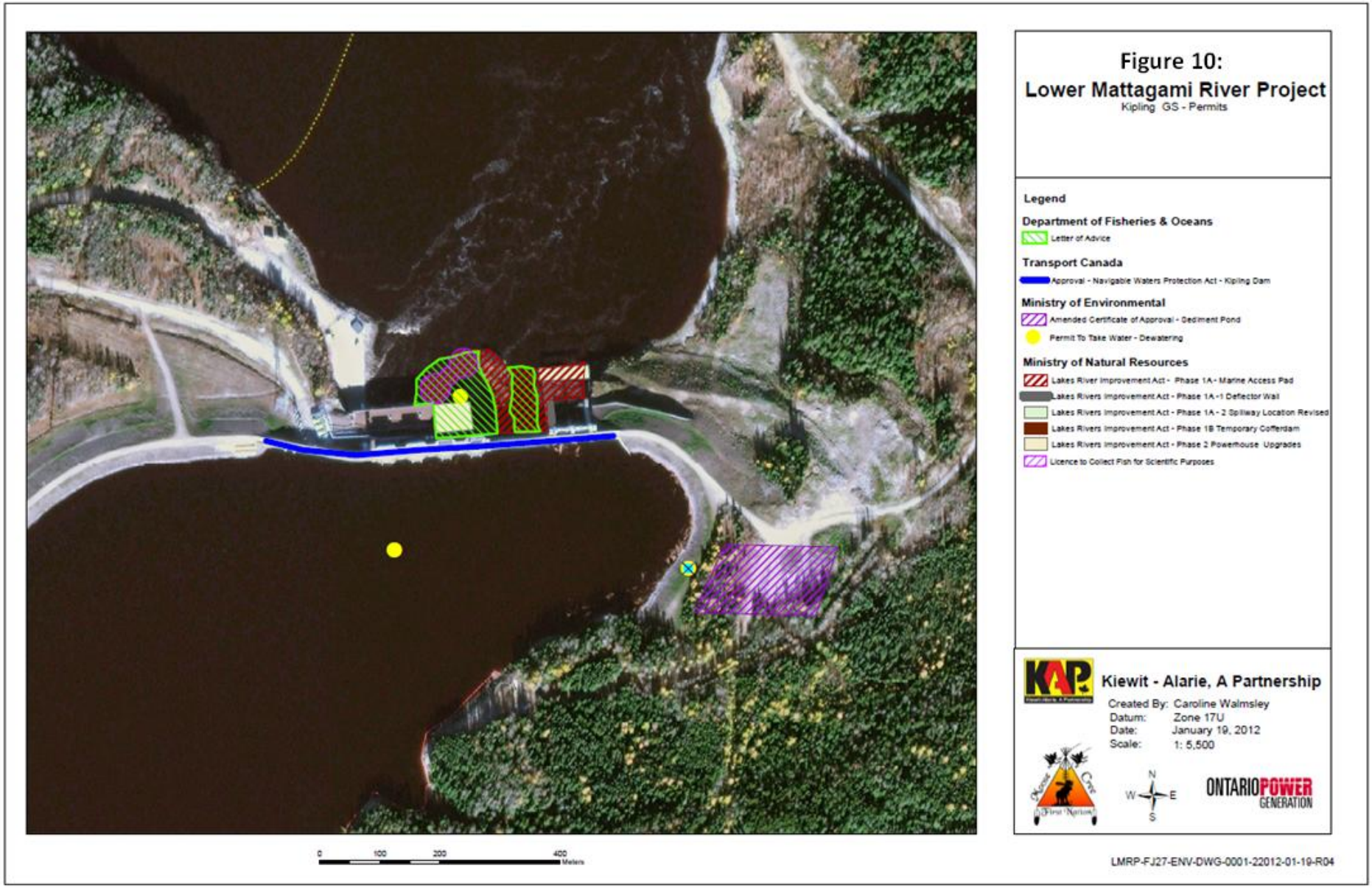
Figure 10:
Lower Mattagami River Project
Kipling GS - Permits
Legend
Department of Fisheries & Oceans
Letter of Advice
Transport Canada
Approval - Navigable Waters Protection Act - Kipling Dam
Ministry of Environmental
Amended Certificate of Approval - Sediment Pond
Permit To Take Water - Dewatering
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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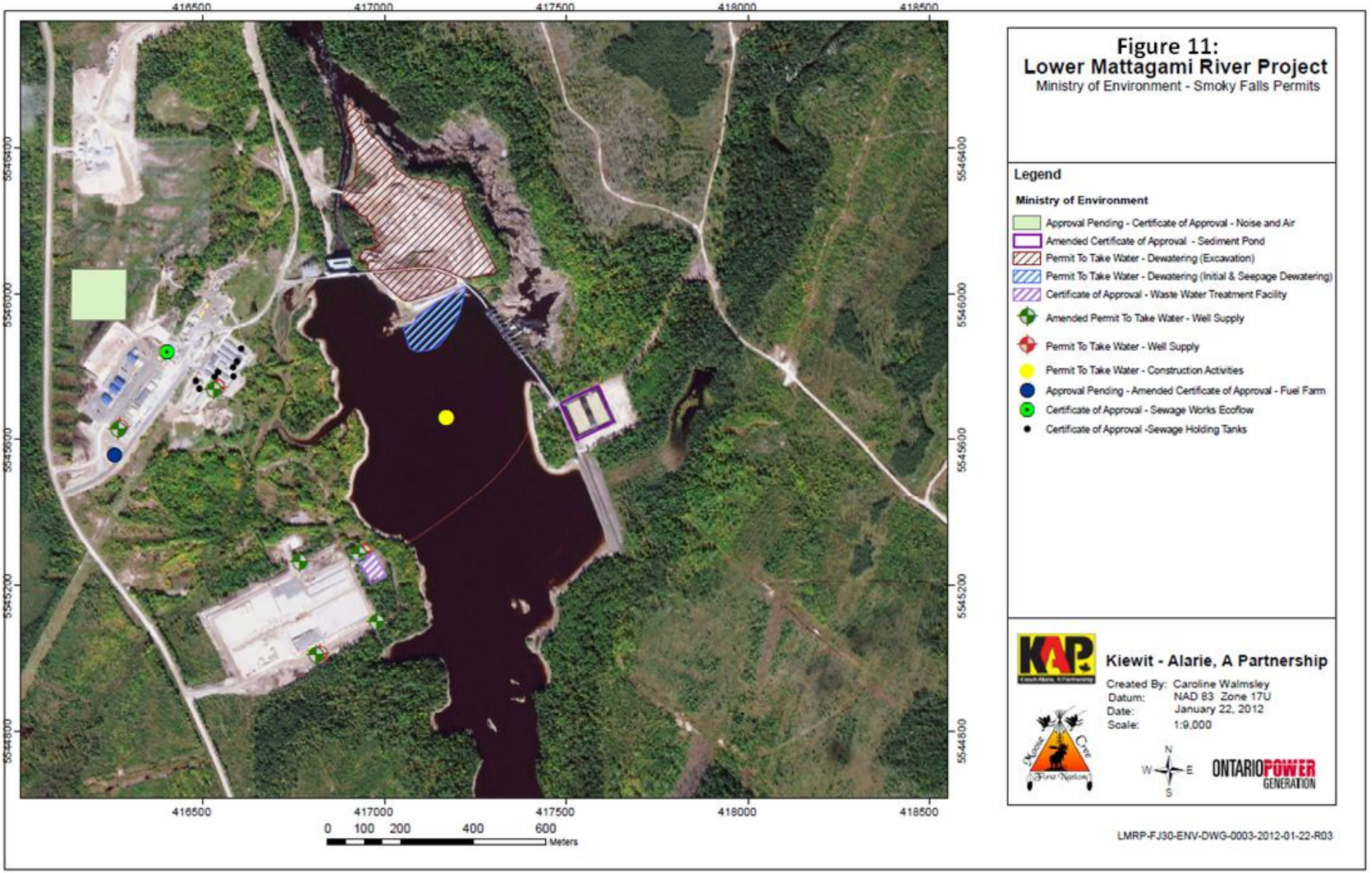
Figure 11:
Lower Mattagami River Project
Ministry of Environment - Smoky Falls Permits
Legend
Ministry of Environment
Approval Pending - Certificate of Approval - Noise and Air
Amended Certificate of Approval - Sediment Pond
Permit To Take Water - Dewatering (Excavation)
Permit To Take Water - Dewatering (Initial & Seepage Dewatering)
Certificate of Approval - Waste Water Treatment Facility
Amended Permit To Take Water - Well Supply
Permit To Take Water - Well Supply
Permit To Take Water - Construction Activities
Approval Pending - Amended Certificate of Approval - Fuel Farm
Certificate of Approval - Sewage Works Ecoflow
Certificate of Approval -Sewage Holding Tanks
Kiewit - Alarie, A Partnership
Created By: Caroline Walmsley
Datum: NAD 83 Zone 17U
Date: January 22, 2012
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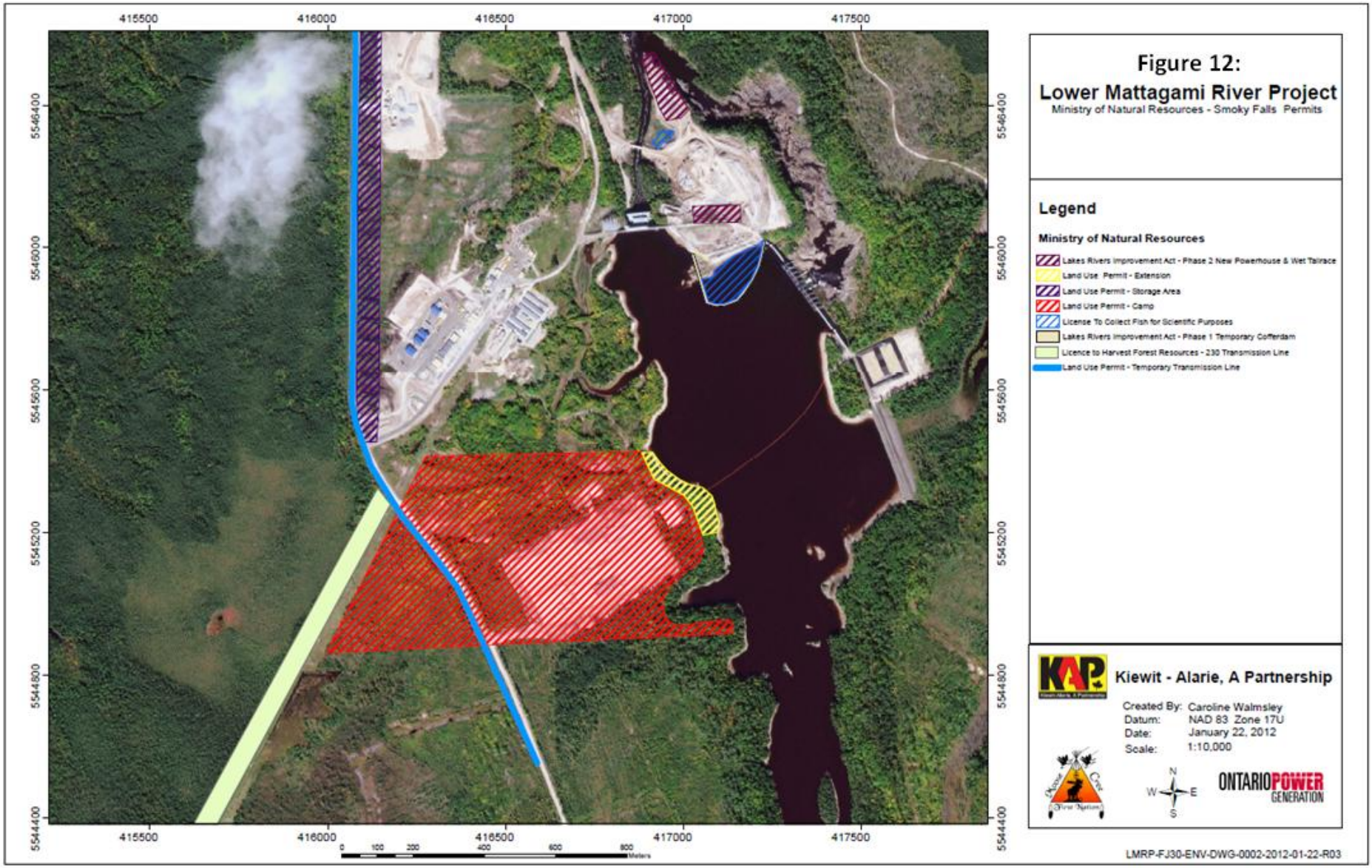
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5544800
5544400
0 100 200 400 600 800 Meters
Figure 12:
Lower Mattagami River Project
Ministry of Natural Resources - Smoky Falls Permits
Legend
Ministry of Natural Resources
Lakes Rivers Improvement Act - Phase 2 New Powerhouse & Wet Tailrace
Land Use Permit - Extension
Land Use Permit - Storage Area
Land Use Permit - Camp
License To Collect Fish for Scientific Purposes
Lakes Rivers Improvement Act - Phase 1 Temporary Cofferdam
Licence to Harvest Forest Resources - 230 Transmission Line
Land Use Permit - Temporary Transmission Line
Kiewit - Alarie, A Partnership
Created By: Caroline Walmsley
Datum: NAD 83 Zone 17U
Date: January 22, 2012
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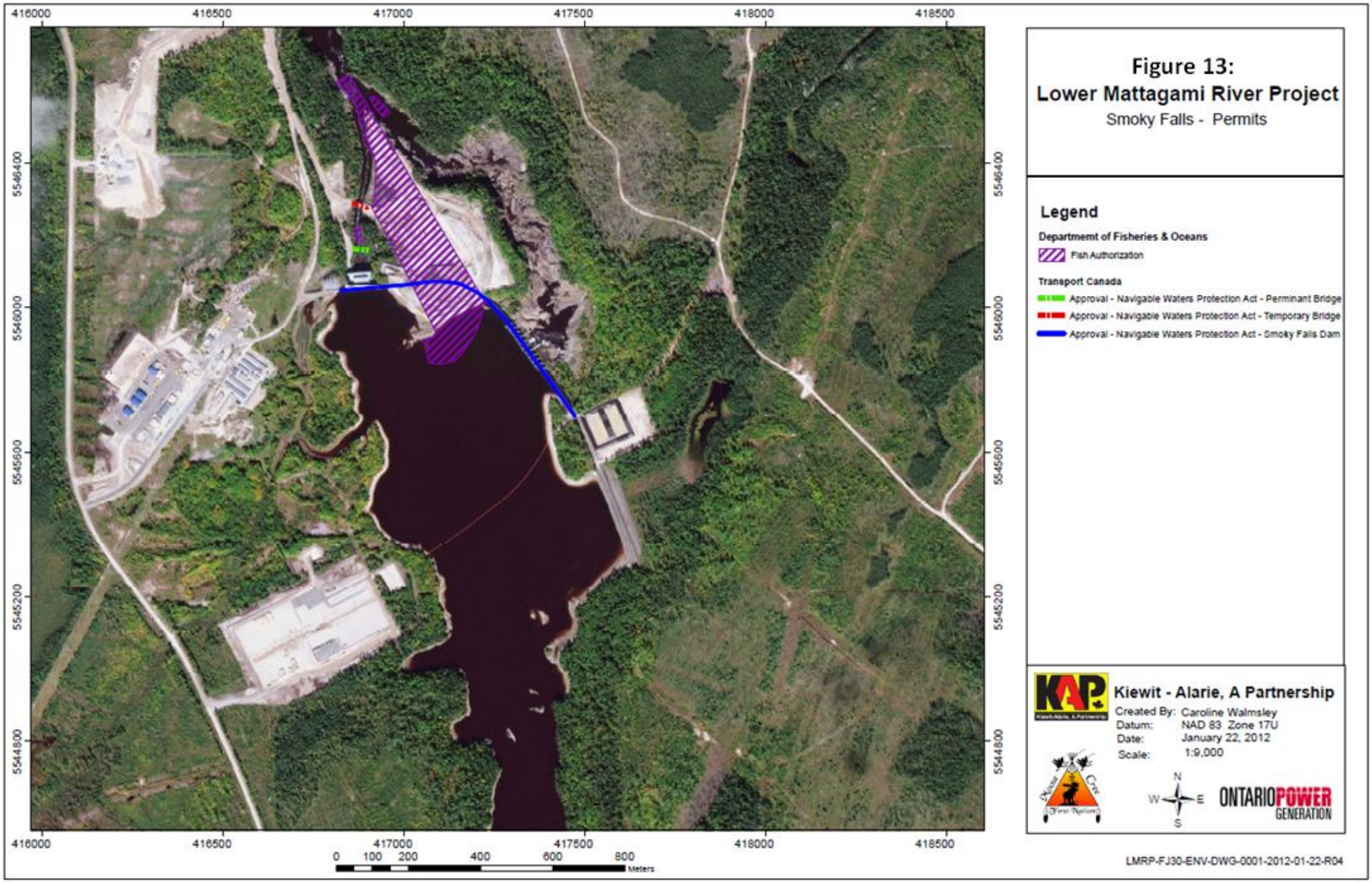
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Meters
Figure 13:
Lower Mattagami River Project
Smoky Falls - Permits
Legend
Department of Fisheries & Oceans
Fish Authorization
Transport Canada
Approval - Navigable Waters Protection Act - Perminant Bridge
Approval - Navigable Waters Protection Act - Temporary Bridge
Approval - Navigable Waters Protection Act - Smoky Falls Dam
Kiewit - Alarie, A Partnership
Created By: Caroline Walmsley
Datum: NAD 83 Zone 17U
Date: January 22, 2012
Scale: 1:9,000
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ONTARIOPOWER GENERATION
LMRP-FJ30-ENV-DWG-0001-2012-01-22-R04

Issues and Concerns
None occurred this month.