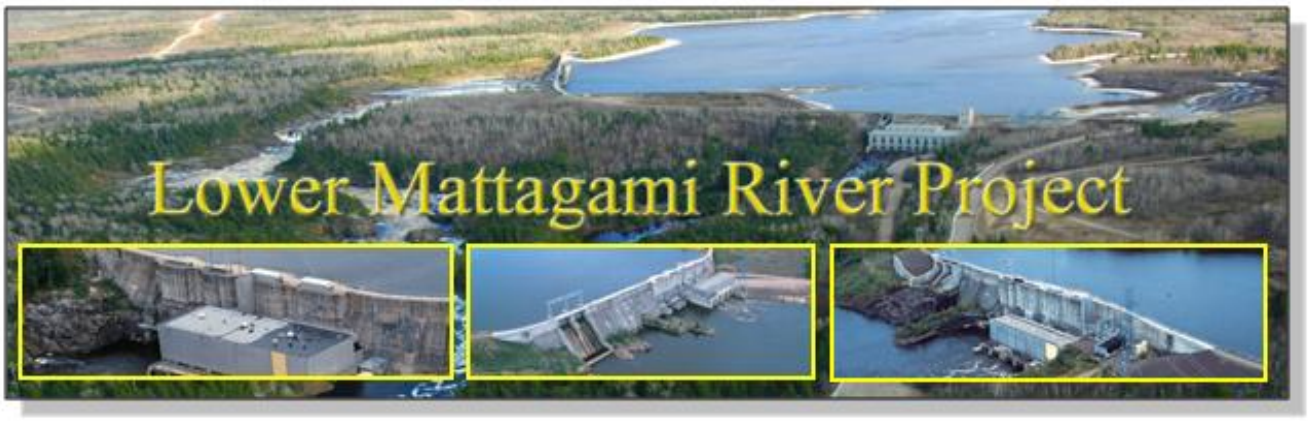
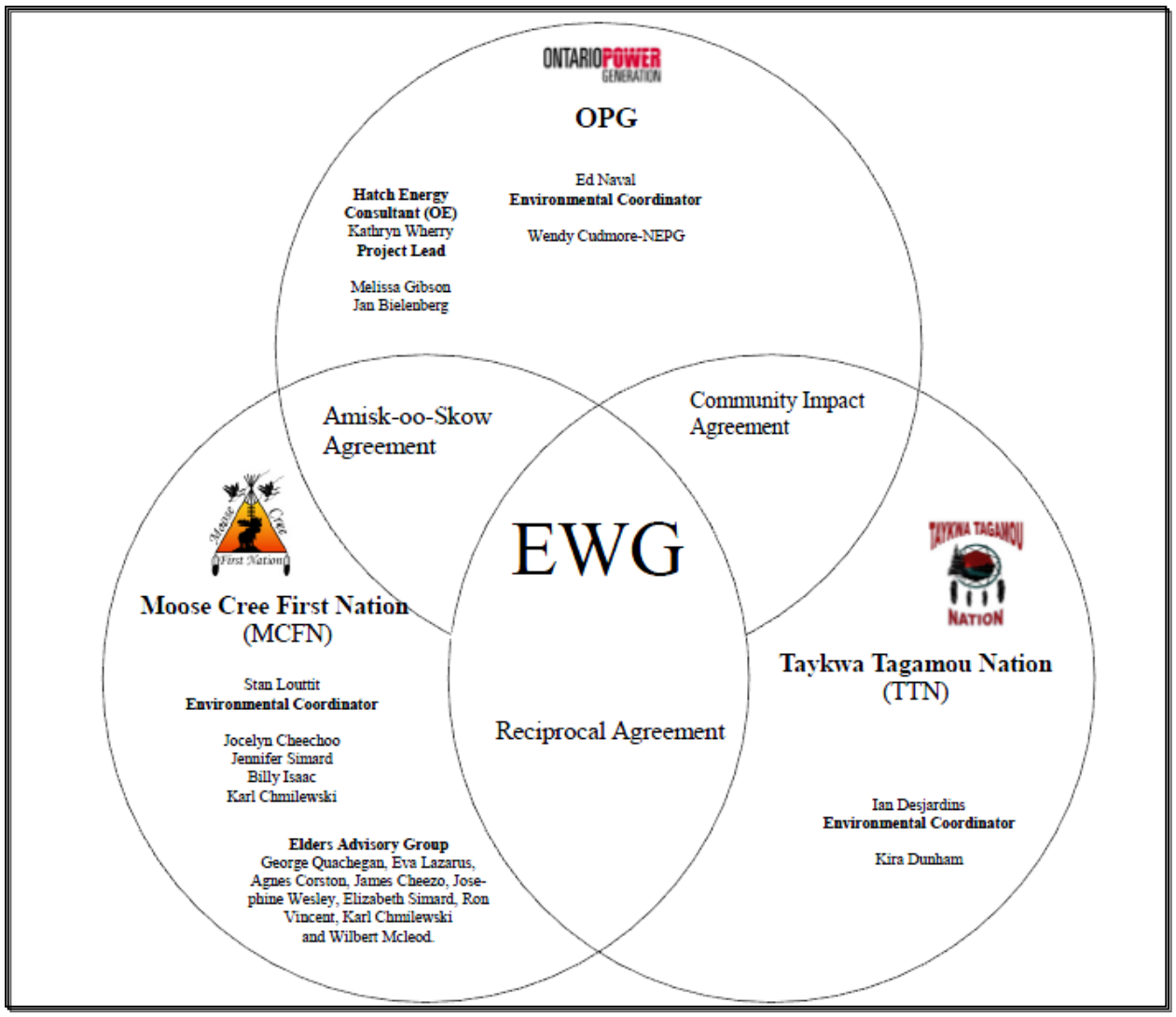


Environmental Working Group

Monthly Report

June 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.
- During the month of June the EWG have 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, as well as how Bears are being deterred from the LMRP Site (the EWG want to ensure lethal methods are used only once all other avenues are exhausted).
- The EWG have also reviewed the Blue Heron Report commissioned by KAP on the proposed LMRP site rehabilitation for Little Long.
- On June 25, the EWG conducted its annual due diligence audit on KAPs Environmental Management Plan.
- 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.
- In an effort to improve the understanding of TEK, members of the EWG will watched the documentary entitled "Watermark".

ACTIONS TO BE COMPLETED in 2014

		Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
EWG Environnemental 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 EA T&C 4b: Hydrology, Fish and Aquatic Habitat	EWG present to the MECC "Environmental Effects Monitoring Plan, Lower Mattagami Development"												
EA T&C 5b: Terrestrial Ecology EA T&C 6: Erosion and Sedimentology EA T&C 7: Mercury EA T&C 14: Permit Review and Compliance Monitoring Protocol	EWG present to the MECC "TEK - Environmental Effects Monitoring Plan, Lower Mattagami Development"												
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 650 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 continues to work on closing out punch list items. A Unit outage is planned for early July to address punch list items that require the generator to be offline.
- Little Long Unit was 3 (Figure 1) was declared in service on January 19, 2014.

Figure 1: Little Long Unit 3

Harmon (Figure 2)

- Injections occurred to eliminate leaks inside the powerhouse.
- The Unit tripped late in the month on lower guide bearing high temperature. An investigation revealed the trip settings were set 10 to 15 ^{o}C lower than the recommended settings in the Operations and Maintenance manual. This issue was corrected.
- Temporary power cables used for construction were de-energized and removed from the site.
- KAP worked on correcting punch list items throughout the month.
- During a scheduled Unit outage, PowerTel replaced an improperly sized cable drop in the switchyard with the correct one.
- 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 completed the removal of the shoring towers from the intake.
- Andritz installed the rotor spider, rotor rim, the generator enclosure wall sections, the upper bracket, generator surface air coolers, and a number of piping systems.
- The rotor rim shrink was completed.
- Installation of BOP electrical components, panels and instrumentation continued.
- KAP completed re-routing the cables on the top of the dam and erected the draft tube stop log hoist structure.
- Electrical system installation in the hoist structure has started.It is forecasted that Kipling Unit 3 will be declared in service in December 2014.

Figure 3: Kipling Overview

Smoky Falls

- Dry excavation at the upstream cofferdam was completed by mid-month. Full water-up was completed by June 16th, the silt curtains were installed around the cofferdam and wet excavation proceeded (Figure 4). At month-end, excavation is progressing well and will not prevent Unit 1 wet testing from starting on-schedule.
- Tailrace water-up preparations were completed by June 6th and water-up was completed between June 7th and June 10th. The final blast on the rock plug was completed and wet excavation of the plug material is under way (Figure 5).
- 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 is finalizing the installation of various components. Unit construction is forecast to be completed by early July.
    - At Unit 2, the collector ring and brush assembly, turbine guide support bearing ring, turbine pit walkway, and rotor shroud were installed in the Unit. The installation of the generator cover, shaft seal instrumentation, and various piping systems is in progress.
    - At Unit 3, rotor laminations assembly was completed. Rotor pole installation is under way. Inside the Unit, wicket gate components, the outer head cover, tower assembly (inner head cover / turbine runner), turbine shaft, operating ring, servomotors, and lower bracket were installed.
- Canmec worked on repairs to the intake gate lintel sealing surface in water passages 1 and 2 (Unit 1).
- Trash rack sections were removed and transported to the permanent camp for paint touch-ups and adjustments to the Teflon bumpers.
- 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 cofferdam excavations

Figure 5: Smoky Falls rock plug excavations

Monthly Summary – June 2014

<table>
<tr><td colspan="4">SPILLS</td></tr>
<tr><td>No. of Spills:</td><td colspan="3">8; Spill Reports 438-445 (see Figure 6 for LMRP spills breakdown).</td></tr>
<tr><td>Classification of Spills:</td><td colspan="3">KAP Project Classification
Minor – 6 Moderate – 2 Major – 0 To Water - 0
MOE Classification
Non-reportable - 2
Reportable to MOE
- Class C – 6
- 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>1</td><td>4L/Hydraulic Oil</td><td>Smoky Falls Tailrace</td><td>Reportable (in-water). While monitoring the watering-up operation of the Smoky Falls Tailrace Channel it was noticed a slow hydraulic leak originating from the plug of the hydraulic tank of the pump. The plug of the tank aligns with one of the cross beams of the cage surrounding it, which rubbed against the plug causing it to loosen. When the pump was removed, approximately 1 liter of hydraulic oil was released to the ground (3 L in-water, 1 L on Land). A permanent oil boom was placed in the water prior to the start of in-water work at the Smoky Falls Rock Plug as a preventative measure.</td></tr>
<tr><td>2</td><td>40 L/Hydraulic Oil</td><td>Smoky Falls Cofferdam</td><td>Reportable (in-water). While excavating the west side of the cofferdam, the worker was lifting his loaded bucket from the water. When his bucket came out of the water, he noticed he could no longer lift it. The cylinder became detached at the top, and tore a hydraulic line. The operator immediately brought his boom onto the cofferdam to prevent more oil from entering the water (30 L in-water and 10 L on–land). Operators will conduct inspections on their equipment 4 times per shift, and report any deficiencies so preventative maintenance can be conducted.</td></tr>
<tr><td colspan="2">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)</td><td colspan="2">MOE Classification (see Reportable and Non-reportable Spills definition below)
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>n/a</td><td></td><td colspan="2"></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.

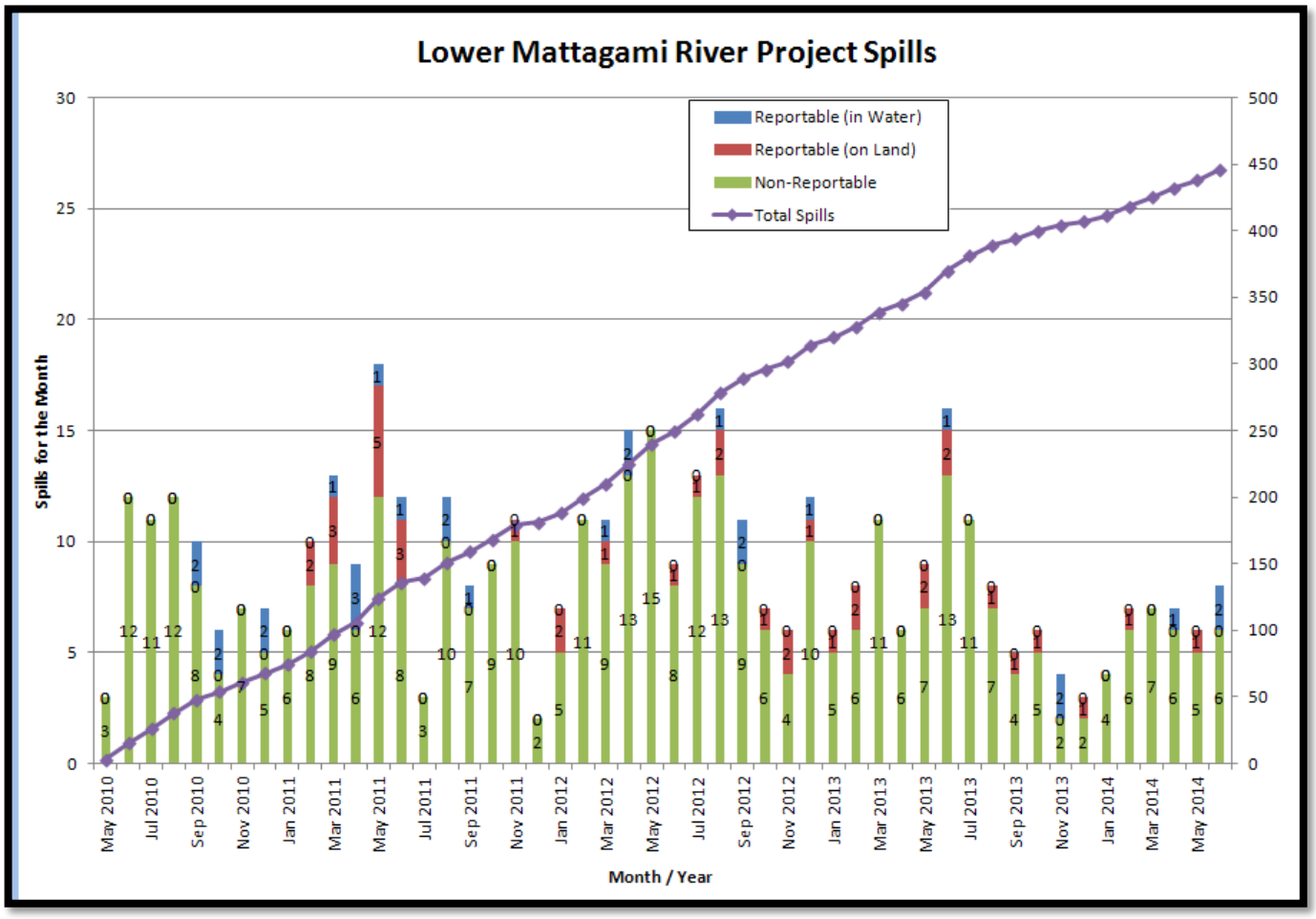


Figure 6: Lower Mattagami River Project spills

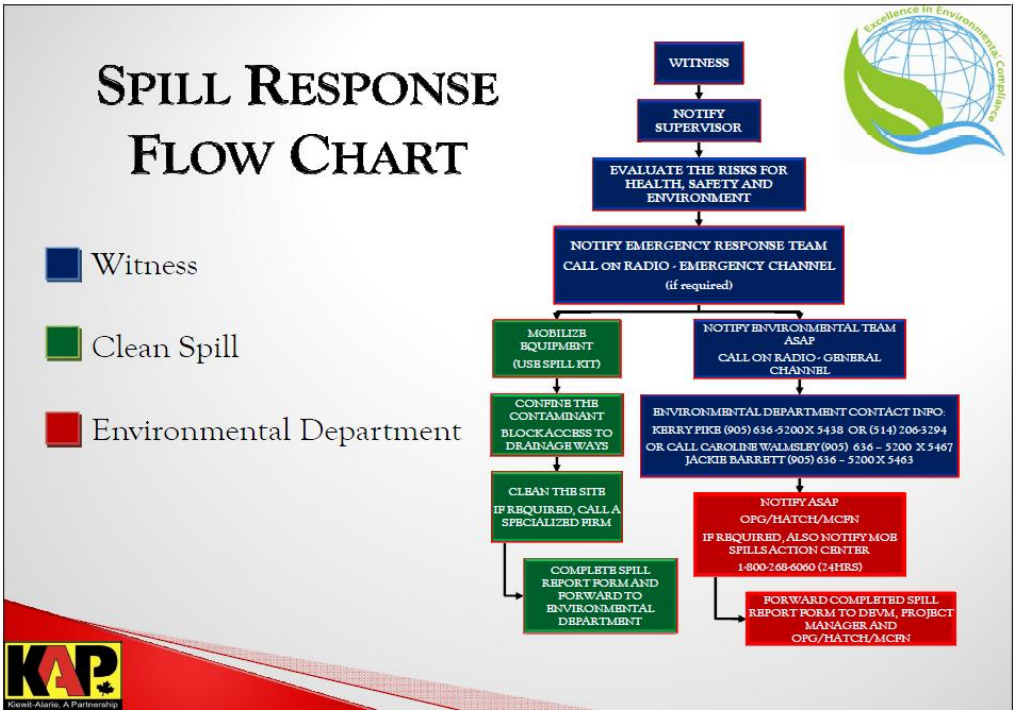


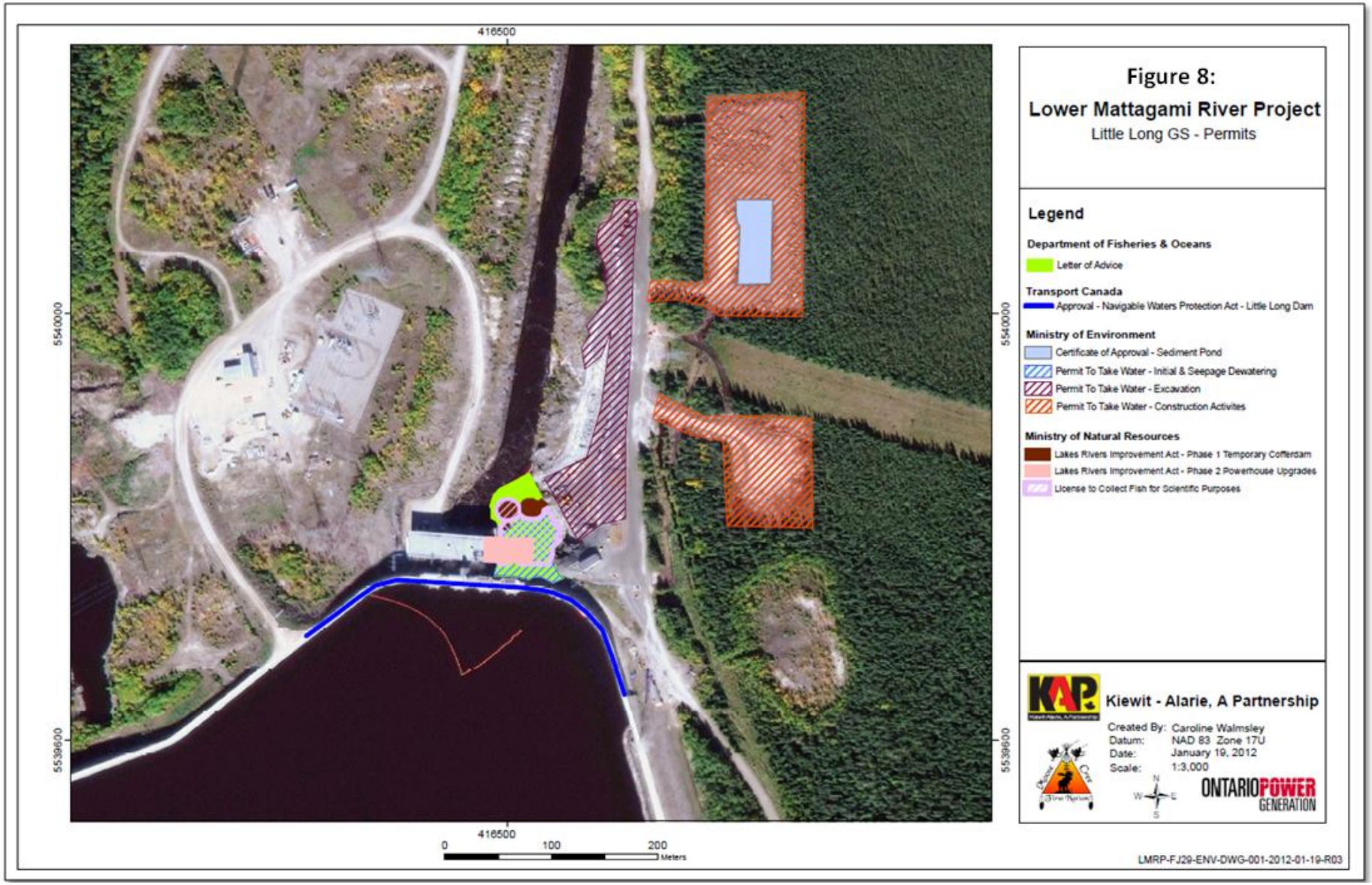
Figure 7: KAP Spills Response Flowchart

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	●	●	●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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
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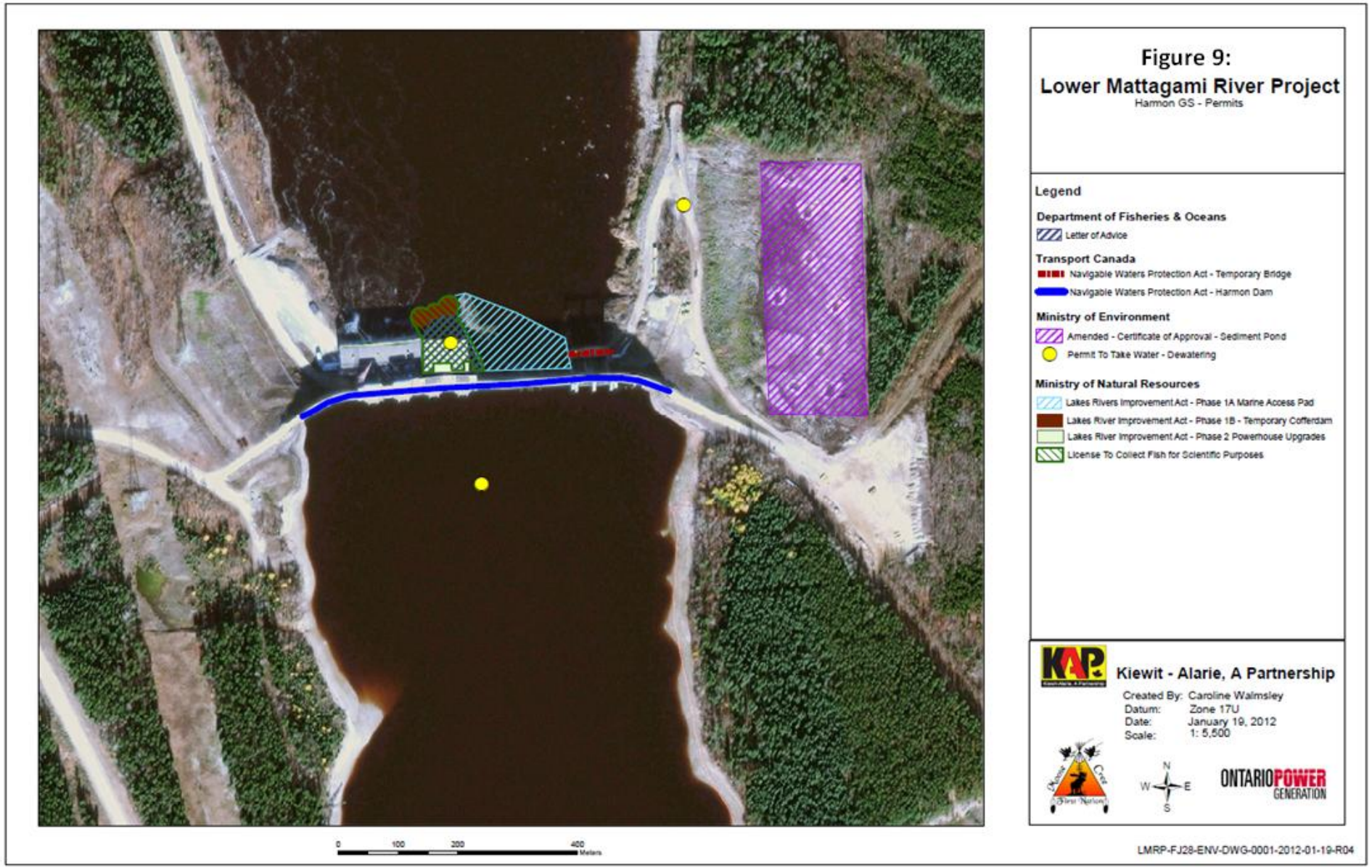
Figure 9:
Lower Mattagami River Project
Harmon GS - Permits
Legend
Department of Fisheries & Oceans
Letter of Advice
Transport Canada
Navigable Waters Protection Act - Temporary Bridge
Navigable Waters Protection Act - Harmon Dam
Ministry of Environment
Amended - Certificate of Approval - Sediment Pond
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
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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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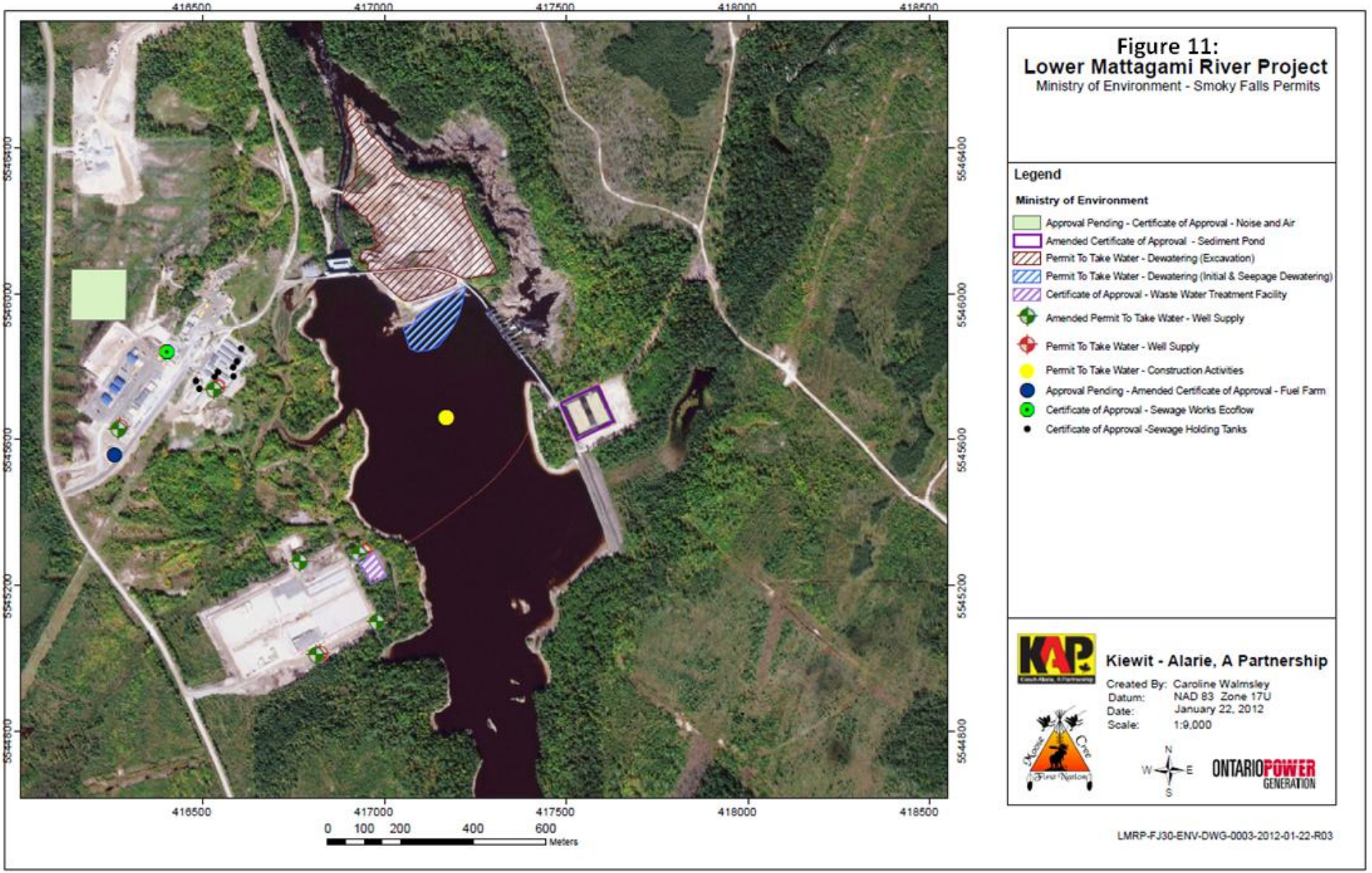
Figure 11:
Lower Mattagami River Project
Ministry of Environment - Smoky Falls Permits
Legend
Ministry of Environment
Approval Pending - Certificate of Approval - Noise and Air
Amended Certificate of Approval - Sediment Pond
Permit To Take Water - Dewatering (Excavation)
Permit To Take Water - Dewatering (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
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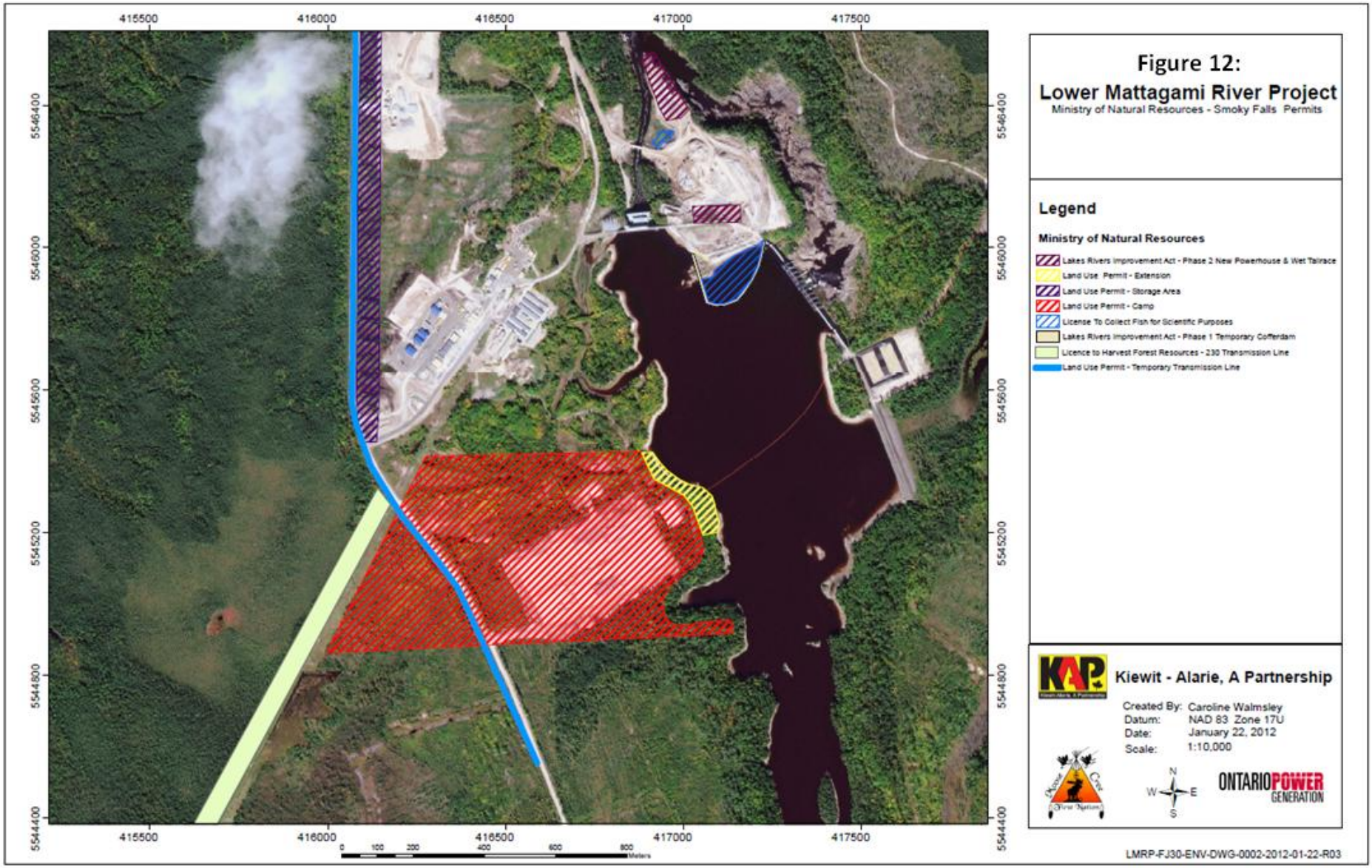
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Figure 12:
Lower Mattagami River Project
Ministry of Natural Resources - Smoky Falls Permits
Legend
Ministry of Natural Resources
Lakes Rivers Improvement Act - Phase 2 New Powerhouse & Wet Tailrace
Land Use Permit - Extension
Land Use Permit - Storage 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
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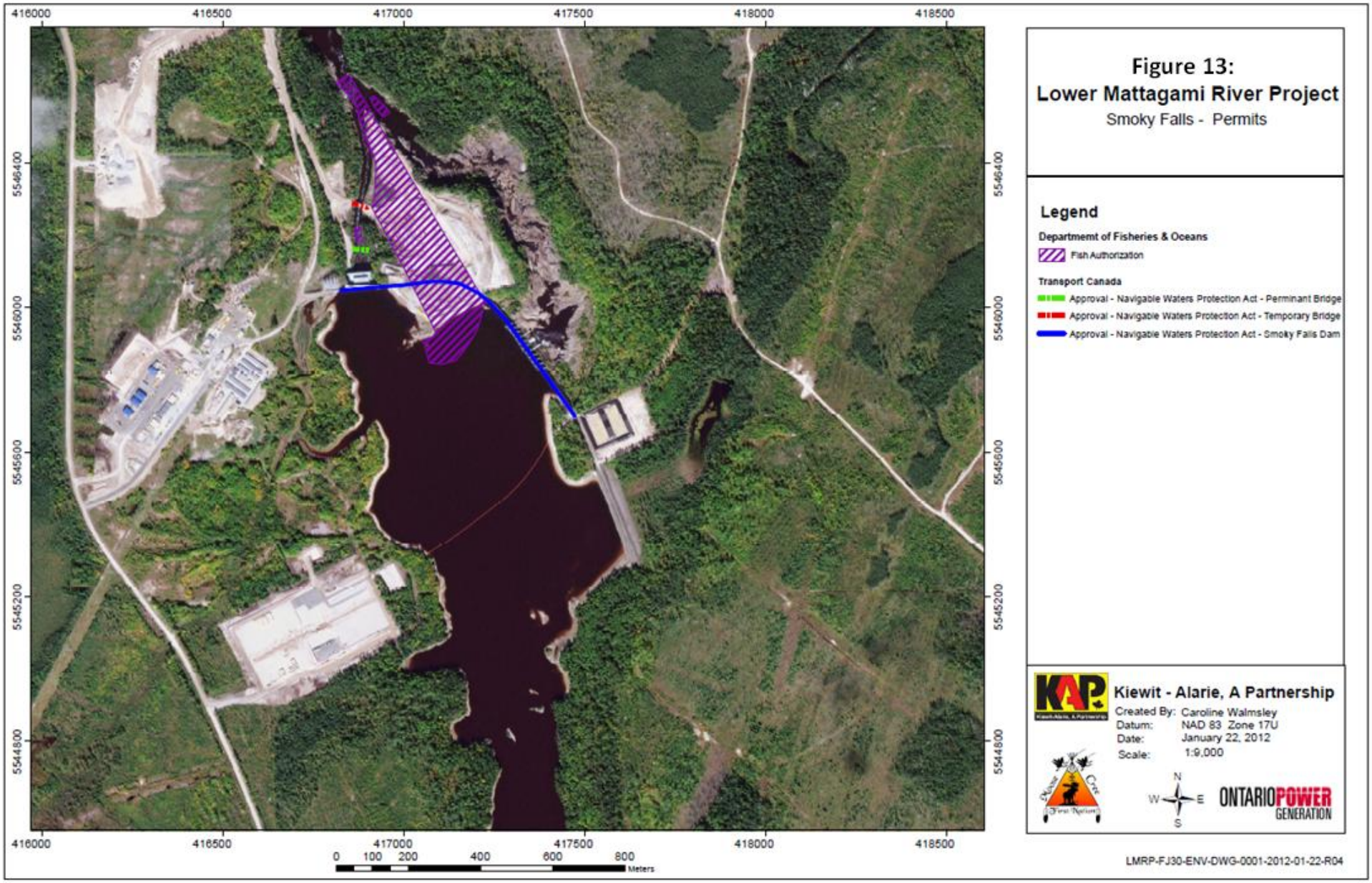
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Figure 13:
Lower Mattagami River Project
Smoky Falls - Permits
Legend
Department of Fisheries & Oceans
Fish Authorization
Transport Canada
Approval - Navigable Waters Protection Act - Perminant Bridge
Approval - Navigable Waters Protection Act - Temporary Bridge
Approval - Navigable Waters Protection Act - Smoky Falls Dam
Kiewit - Alarie, A Partnership
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Date: January 22, 2012
Scale: 1:9,000
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Issues and Concerns
• The MCFN members of the EWG had concerns with the potential for bear mortalities before other mitigation measures were exhausted. Action required: The MCFN and EWG would prepare a revised process for KAP to follow that included the readjustment of traps, and the introduction of using rubber bullets before shooting of bears was to occur.