

# **Environmental Working Group**

**Monthly Report** 

June 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.
- First Nation members of the EWG continued its community consultation work with the LMRP Site Rehabilitation Plan, which included a MCFN Elders site visit on June 11. During the site visit review meeting at the KAP office, the issue of whether the marine pad and laydown areas that were built for the Project should remain or be removed was discussed. KAP has asked OPG whether they could leave these areas as is. This issue remains unaddressed as this may be in opposition to the DFO permit conditions.
- The EWG have started preparations for its Environmental Due Diligence Audit that will take place on July 30, 2013.
- 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. TTN presented a draft Cost Benefits TEK study to the EWG during the face to face meeting. MCFN and TTN are now working independently to develop their own community's perspectives for the report.
- 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.
  - ⇒ The MCFN members of the EWG are planning a field trip survey to takes place in July 2013 to gather wildlife baseline data for term 5B.
  - $\Rightarrow$  The Kipling excavated soil contamination was confirmed by KAP and a consultant is to be hired to address its removal.
  - ⇒ The MCFN members of the EWG presented at Delores D. Echum Composite School on the LMRP to a grade 9 Environmental Science class.
  - ⇒ The MCFN members of the EWG are also preparing an LMRP presentation for the Kapuskasing "Growing Together" Youth Conference July 25-27, 2013.
- 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. 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. The writing team held a teleconference to discuss the POMRB on June 14, 2013.
- The OPG and Hatch members of the EWG continue to work on collecting additional baseline information. The EWG members are also working on ways to implement 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 have been reading the "Wisdom of the Elders", by Peter Knudtson and David Suzuki. 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          |     |     |     |     |     |      |      |     |      |     |     | TBD |
| Analysis of Mitigating and Reducing Adam Creek Spill" (Condition 4(c) and (e) of     |     |     |     |     |     |      |      |     |      |     |     |     |
| EA T&Cs) by Hatch.   |     |     |     |     |     |      |      |     |      |     |     |     |
| 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-              |     |     |     |     |     |      |      |     |      |     |     | TBD |
| evaluations (Condition 10 of EA T&Cs).   |     |     |     |     |     |      |      |     |      |     |     |     |
| TEK Workshop   |     |     |     |     |     |      |      |     |      |     |     |     |
| MCFN TEK Workshop  |     |     |     |     |     |      |      |     |      |     |     |     |
| EWG read TEK book 'Sacred Ecology'.  |     |     |     |     |     |      |      |     |      |     |     |     |
| EWG read TEK book 'Ellen Smallboy: Glimpses of a Cree Women's Life'.                 |     |     |     |     |     |      |      |     |      |     |     |     |
| EWG read TEK book 'Wisdom of the Elders'.  |     |     |     |     |     |      |      |     |      |     |     |     |
| Completed: Pending: *Additional work still required to fulfill EA Term and Condition |     |     |     |     |     |      |      |     |      |     |     |     |

### Construction

#### Little Long

- Cofferdam removal was completed.
- Andritz workers continue to install turbine and generator components. Components installed this month include: carbon brushes on the exciter, generator shaft air seal, shear pin failure instrumentation, surface air cooler water supply pipes, servomotor oil pipes, turbine shaft speed signal generator, turbine shaft seal, and generator fire protection piping.
- Backfeed was delayed from June 27th to July 10th to allow adequate time to complete the telemetry testing with Hydro One.
- The installation of the Isolated Phase Bus was completed.
- Electricians continue to install panels, cable trays and cables in various areas in the powerhouse and the switchyard (Figure 1).
- Testing of components is ramping up with a number of tests completed in the month, including: transformer electrical tests, operation of switchyard disconnect switch (from the unit control panels), simulated transformer failures to test protection systems, wet testing of the intake gate, HVAC system pre-tests, pre-operational testing of 600V, 208V and control cables for the fire protection and tailrace hoist systems, pre-operational testing of the transformer deluge system, load verification on a number of circuits, and pressure testing on the lines between the governor and the servomotors.



• The transformer and excitation system were walked down.

Figure 1: Little Long – Unit 3 Switchyard Completed

### Harmon

- KAP has reported that Harmon concrete work is complete. They poured 86 m<sup>3</sup> this month, bringing the earned concrete quantity poured to 11,763 m<sup>3</sup>. (The total volume poured was reported as 12,263 m<sup>3</sup>).
- Cofferdam removal has started, with good progress made in the month. The pier tie-in was removed. The Cell 2 concrete slab was demolished and removed. Blast holes were drilled in the Cell 2 tremie concrete, the excavation of the fill from Cell 2 was completed and Cell 2 sheet pile removal is under way (Figure 2).
- Stator winding started early in the month.
- Cladding installation on the powerhouse north and east walls is nearing completion.

- AFI continues remedial work on the intake gate embedded parts.
- AFI is also erecting the draft tube hoist superstructure.
- KAP electricians continue to pull electrical cables, and install cable trays in various areas in the powerhouse.
- Installation of the Isolated Phase Bus (IPB) has started near the generator circuit breaker.
- Post-installation verification identified that the red and blue colour phase identification for current transformers, voltage transformers, and disconnect switches in the 230 kV switchyard was inverted. PowerTel was directed to correct the deficiency.



Figure 2: Harmon – Cofferdam Cell #2 excavation

#### Smoky Falls

- 8,449 m<sup>3</sup> of concrete was poured this month in the service bay, powerhouse, and intake areas, bringing the total poured to date to 113,622 m<sup>3</sup> of 155,084 m<sup>3</sup> total.
- At the end of the month, sixteen (16) concrete pours are in various stages of work (formwork started and/or rebar being installed) and progressing in the intake (Figure 3), powerhouse, East service bay, East gravity dam, and at the permanent bridge. Thirty-one (31) 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:
- Unit 1 stator winding continues. Alstom completed stacking the rotor and have started torquing the studs. The upper draft tube cone, bottom ring, and discharge ring were installed in the Unit and alignment of the components is under way;
- At Unit 2, the first scrollcase soffit concrete pour (approx. 900 m<sup>3</sup>) was completed. Alstom has started to assemble the Unit 2 rotor in the Service Bay; and
- At Unit 3, Alstom installed and welded the grouting plugs for the stay ring.
  - Sluiceway Gate 5 Electrical cable installation has started for the gate control building.

Concrete work continues at the Service Bay East. Mud slab pours were completed (SBEand formwork installation has started for superstructure footings. Once the footings have been poured (expected in July), work can start on structural steel erection.



Figure 3: Smoky Falls Intake Progress

#### Kipling

- 1,014 m<sup>3</sup> of concrete was poured this month, bringing the total poured to date to 7,749 m<sup>3</sup> of 11,647 m<sup>3</sup> total.
- The remaining Cell 3 sheet piles in the work area were removed.
- KAP has started to remove the sand and draft tube modular formwork from the Unit 3 west draft tube passage (Figure 4).
- The first intake soffit concrete pour was completed.
- Excessive leakage was identified through the spillway deflector wall, which caused a minor delay in construction. River flow was temporarily diverted through the Adam Creek Spillway, allowing KAP to identify and correct the deficiency. A concrete plug needed to be re-poured and small plates needed to be re-welded to the deflector wall (Figure 5).
- The upper draft tube cone sections were received at site.
- The battery bank relocation at Kipling was completed.
- Revenue metering current transformers were installed at the switchyard. Deficiencies were identified and some repairs will be required.



Figure 4: Kipling – Stripping Forms from the Draft Tube



Figure 5: Work on Kipling Deflector Wall

No. of

Exceedance days recorded

Location

#### SPILLS No. of Spills: 16; Spill Reports 355-370 (see Figure 6 for LMRP spills breakdown). Classification of **KAP Project Classification** Spills: Minor – 12 Moderate – 3 Major –1 To Water - 0 **MOE Classification** Non-reportable - 13 Reportable to MOE \_ Class C – 3 Class B – 0 \_ Class A – 0 **Reportable Spills** Quantity No. Spill Site Reason for being Reportable /Product Spilled 1 200 L/ Smoky Falls – On-land reportable spill. Upon further inspection of the alum Sediment Pond Aluminum tote at the Smoky Falls sediment pond, it was noticed that the Sulphate fitting on the tote (shut-off valve) had completely eroded, which (Alum) filled up the secondary containment under it. The secondary containment had also eroded, which caused the alum to leak onto the ground. The fitting on the tote was replaced with a different one to prevent the alum from eroding through the steel, and all fittings on alum and citric acid totes will be replaced on site. The environmental department will look at ordering secondary containment that will not erode with these types of products. 2 20 L/ Raw On-land reportable spill. The wash car had been used Harmon – Existing Sewage throughout the day, and had overfilled the tank, causing raw Powerhouse sewage to leak out of the tank, onto the ground. The workers were reminded to call the site services department to empty out pad the washcars when they were full in order to prevent these types of spills. 3 10 L/Engine Harmon In-water reportable spill. A truck that pulled over to the side of Oil Upper laydown the road tipped onto its side. Engine oil was released from the breather hose. The oil went on the ground and the water from yard the truck washed it into the drainage ditch and culvert leading to the Mattagami River. **KAP Project Classification** MOE Classification (see Reportable and Non-reportable Spills Minor: $\leq 10L$ definition below) Moderate: Between 10L and 100L Non-reportable: < 100L Major: ≥100L Reportable to MOE To Water: Any amount is reportable to Class C - Less Serious ٠ the MOE Class B - Serious (See Figure 7: KAP Spills Response Class A – Very Serious Flowchart) Sediment Pond Exceedance of Effluent Objective

### Monthly Summary – June 2013

Mitigation Measures used

| 2 (June 3 <sup>rd</sup><br>and 10) | Kipling<br>Sediment<br>Pond | The result of the weekly sample taken June 3rd, had a result<br>of 19 mg/L, above the 15 mg/L objective. The curtains in the<br>pond were adjusted and this is believed to have disturbed<br>some of the settled sediment. A sample taken on June 10th<br>resulted in a TSS of 57 mg/L which is above the limit of 25<br>mg/L. Again, KAP had to adjust the baffle curtains in the days<br>prior to sampling as they were getting weighed down and this<br>caused material to become suspended. With the additional<br>treatment system KAP are removing more solids and this is<br>causing more of a buildup than KAP have previously seen in<br>other ponds onsite. |
|------------------------------------|-----------------------------|---|

#### 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.

Lower Mattagami River Project



Figure 6: Lower Mattagami River Project spills



Figure 7: KAP Spills Response Flowchart

| PERMIT AND APPROVAL REVIEW   |           |        |   |  |  |
|--|-----------|--------|---|--|--|
| No. Reviewed:  | 0         | List:  | <ul> <li>Smoky Falls Powerhouse - New Leaching<br/>Bed</li> <li>Kipling Powerhouse Industrial Sewage<br/>Works</li> </ul>   |  |  |
| No. Sent to KAP:   | 0         | List:  | <ul> <li>Smoky Falls Powerhouse - New Leaching<br/>Bed</li> <li>Kipling Powerhouse Industrial Sewage<br/>Works</li> </ul>   |  |  |
| <b>Reports Review</b>  |           |        |   |  |  |
| No. Reviewed for<br>KAP  | 0         | List:  |   |  |  |
| No. Sent to KAP  | 0         | List:  |   |  |  |
| No. Reviewed for<br>MECC   | 5         | List:  | <ul> <li>On-going:</li> <li>Cost Benefit Analysis of Mitigating and<br/>Reducing Spill in Adam Creek</li> <li>Mercury in Fish Flesh Summary Report</li> <li>Fish Habitat Assessment Report</li> <li>Terrestrial Habitat Restoration Downstream<br/>of Kipling GS</li> <li>Draft Environmental Effects Monitoring Plan</li> <li>KAP LMRP Site Rehabilitation Plan</li> </ul> |  |  |
| No. Review<br>Completed  | 4         | List:  | <ul> <li>Operation Overview Report</li> <li>Waste Management Plan</li> <li>Noise Control Plan</li> <li>The Interim Measures Agreement as it<br/>relates to EA Term and Condition 14c<br/>(Permit Review and Compliance<br/>Monitoring Protocol)</li> </ul>  |  |  |
| <b>REQUESTS FOR IN</b>   | FORMATION | (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. |           |        |   |  |  |













16 | P a g e

#### **Issues and Concerns**

 MCFN members of the EWG were concerned about the potential impacts resulting from the increased spilling at Adam Creek resulting from seasonal high flows and work being done at Kipling. The EWG wanted to know if the smaller bodies of water down Adam Creek needed to be checked for any entrained fish, and if any measures to reduce erosion are being done.

Action Required: OPG members of the EWG have followed up with OPG fisheries biologists and have confirmed that in 2007 the Department of Fisheries and Oceans, and OPG conducted aerial and walk down observations of the pools further down the bigger pools at Adam Creek. The results of the observations determined that the fish would find their way out of the smaller pools and make their way to the bigger pools as the flow of water decreased. It was concluded that OPG was not required to conduct their annual fish relocation program beyond the large pools within Adam Creek (MCFN did not support this conclusion).

With regards to erosion, the LMRP is the only potential mitigation being conducted at this time to reduce the amount of spilling down Adam Creek. The LMRP will result in the diversion of approx. 250 cms down the Mattagami River away from Adam Creek. The MECC is currently looking into any other possible mitigative measures through its independent Adam Creek study.