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July 23rd, 2015

Ministry of Environment
Mining Operations Environmental Protection
2080 Labieux Rd.
Nanaimo, BC
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WEEKLY POST-TSF BREACH REPORT – JULY 15TH – 21ST, 2015

Government, First Nations and Stakeholder Engagement

Publications and Website Updates	Mount Polley will continue to present interpreted environmental monitoring results and updates on remediation work on the Mount Polley Updates page of the Imperial Metals website (www.imperialmetals.com). No updates were posted this week. On July 13th, Interior Health posted the Public Service Announcement UPDATE: Mount Polley Mine Tailings Pond – Remaining Water Use Restrictions Lifted.
Engagement Activities and Communications with Regulators	Activities relating to government, First Nations, and stakeholder communication and engagement this week included: • The weekly MoE update call on July 15th. • A tour of Hazeltine Creek and lower Edney Creek on July 15th with representatives from the Ministry of Environment (MoE) and the Ministry of Forests, Lands and Natural Resources Operations (MFLNRO). • Calls with representatives from MFLNRO to discuss applications for supporting regulatory approvals required for the proposed short-term water discharge strategy. • Start of the public comment period for Mount Polley Mining Corporation's (MPMC's) permit amendment application to MoE for a short-term water discharge to Quesnel Lake. The Environmental Protection Notice can be viewed in the Williams Lake Tribune (July 22nd, page A23).

TSF Construction

Construction Update	The amendment to permit M-200 approving repair of the TSF breach to manage 2015 freshet was received from the Ministry of Energy and Mines (MEM) on December 17th, 2014. Buttress placement for the Perimeter Embankment is ongoing; all other work associated with the 2015 Freshet Management Embankment construction is complete.

Water Management

Polley Lake	Polley Lake water elevation = 922.37m (July 21st) The Polley Lake weir valve remained open this week to allow approximately 0.2 m^3/s of outflow from Polley Lake into Hazeltine Creek.
TSF Water Collection	All water from the Tailings Storage Facility (TSF) water collection system continues to be transferred to the Springer Pit via the Central Collection Sump. No releases of water to the environment occurred this week. Please refer to the May 28th, 2015 weekly report for an overview map of the TSF water management system.
Springer Pit	Permit amendments from MoE and MEM were received on July 9th allowing MPMC to return to restricted mining and milling operations with tailings deposition into the Springer Pit. Volume of tailings deposited = $0m^3$ Water Elevations (July 21st): • Springer Pit = 1016.67m (+0.28m from last week) • Groundwater well GW12-2a = 1013.08m (+0.04m from last week) • Groundwater well GW12-2b = 1013.14m (+0.03m from last week) • Groundwater well GW15-1a = 1017.92m (+0.21m from last week) • Groundwater well GW15-1b = 1017.82m (+0.22m from last week) • Groundwater well GW15-2a = 1021.78m (-0.02m from last week) • Groundwater well GW15-2b = 1022.03m (-0.02m from last week) A map of the groundwater well locations is presented below as Figure 1. Note that the suffix "a" indicates the deep well in the pair, and the suffix "b" indicates the shallow well in the pair. Monthly water quality results for parameters of interest from the Springer Pit supernatant and adjacent groundwater wells will be included in this report as they become available. This week, results from July sampling of the Springer Pit were received (Table 1) and purging of the groundwater wells commenced in anticipation of sampling next week.

Table 1. Water quality results for key parameters from the Springer Pit supernatant

Date Sampled	09-JUL-15
Physical Tests	
Conductivity (µS/cm)	1070
Hardness (as CaCO3) (mg/L)	526
pH (pH) – in situ	8.09
Anions and Nutrients	
Nitrate (as N) (mg/L)	7.46
Sulfate (SO4) (mg/L)	457
Metals	
Aluminum (Al)-Dissolved (mg/L)	0.0059
Arsenic (As)-Total (mg/L)	0.00132
Cadmium (Cd)-Total (mg/L)	0.0000358
Copper (Cu)-Total (mg/L)	0.0211
Iron (Fe)-Total (mg/L)	0.039
Lead (Pb)-Total (mg/L)	<0.000050
Molybdenum (Mo)-Total (mg/L)	0.122
Selenium (Se)-Total (mg/L)	0.0365

Sediment and Erosion Control Measures

Silt Curtain	The turbidity barrier (silt curtain) installed in Quesnel Lake near the outlet of the constructed Edney (Hazeltine) Creek channel is in good condition.
Monitoring	Environmental monitors are monitoring ongoing sediment and erosion control and rehabilitation work. This monitoring is being conducted by MPMC staff.
Hazeltine Creek Rehabilitation	This week, re-contouring and application of woody debris and organics continued on the disturbed areas between the Hazeltine Creek floodplain and the forest edge for erosion control and reclamation purposes. Work was carried out in Reach 3 on the east side of the channel between the 4,200m and 5,000m marks of the creek (Polley Lake = 0m). The first phase of re-contouring on the west side of Hazeltine Creek in Reach 3 is complete.
Edney Creek	Work commenced this week on construction of the new Edney Creek channel outlet and additional fish habitat features including: • Salvage of fish from the lower Edney Creek reaches (between the fish fences installed last week). • Installation of a culvert and Hazeltine Creek crossing upstream of the sedimentation ponds for access purposes. • Excavation of a temporary channel from the lower sedimentation pond to Quesnel Lake (not yet opened) to be used to divert Hazeltine Creek flow when works are ongoing in the area of the current creek outlet.

Water Quality Monitoring Program

Water Quality Monitoring Program

The current water quality monitoring program is outlined in the table below. No changes to the monitoring program occurred this week. All monitoring was completed as scheduled this week.

Area	Monitoring Type	Frequency	Stations
Polley Lake	Samples	Monthly	P1, P2
	Profiles	Bi-monthly	P1, P2
Hazeltine Creek	Samples	Weekly	HAC-01b
		Monthly	HAC-05, HAC-08, HAC-10
	Field Parameters	Continuous	HAC-01b
Edney Creek	Samples	Weekly	EDC-02
		Monthly	EDC-01
Quesnel Lake	Profiles	Weekly	QUL-54, QUL-55, QUL-56
	Profiles	Bi-monthly	QUL-21a, QUL-18, QUL-66a, QUL-2a, QUL-79
	Profiles	Monthly	QUL-40a, QUL-120a
	Samples	Weekly	QUL-55
	Samples	Monthly	QUL-2a, QUL-18, QUL-40a, QUL-120a
Quesnel River	Samples	Bi-monthly	QUR-1
	Field Parameters	Continuous	QUR-1

Please refer to previous weekly reports, such as the May 7th, 2015 report, for a map of these sampling locations.

Results

Turbidity in Quesnel Lake resulting from the TSF dam failure has, based on our monitoring data, now attenuated to a value that may represent summer background. In addition, settled sediments are not expected to re-suspend with subsequent lake overturn, based on advice Tetra Tech EBA. Based on this information, MPMC does not expect sediments on the bottom of Quesnel Lake to contribute to lake turbidity.

Figure 2 shows a time series graph for this week of daily field turbidity readings in Lower Hazeltine Creek upstream and downstream of the sedimentation ponds (stations HAC-09 and HAC-01b, respectively), and in Edney Creek downstream of the confluence with Hazeltine Creek (station EDC-02). Figure 3 shows turbidity levels at these sites over a longer time period to provide context for this week's data.

Figure 4 shows a turbidity and temperature profile from July 15th at site QUL-55 (a near field site at the mouth of Hazeltine Creek).

Figure 5 shows a time series graph of turbidity at site QUR-1. Turbidity data are from laboratory analysis completed by ALS Environmental. This chart will be updated every second week, as per the monitoring frequency of this site in the sampling program.

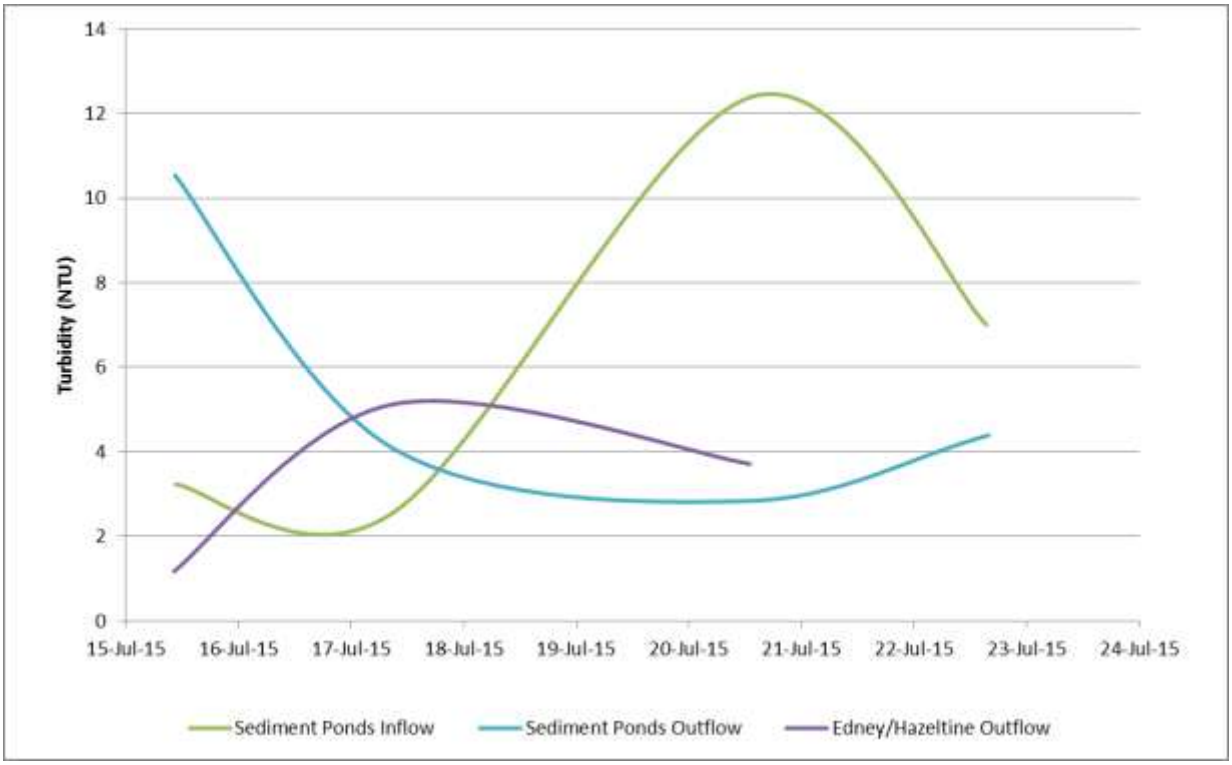

Figure 2. Time series graph for July 15th – 22nd showing turbidity levels at monitoring locations in Hazeltine and Edney Creeks (note: Edney Creek has temporarily been diverted into Hazeltine Creek, upstream of the sedimentation ponds, to allow Edney Creek channel improvements for fish habitat)

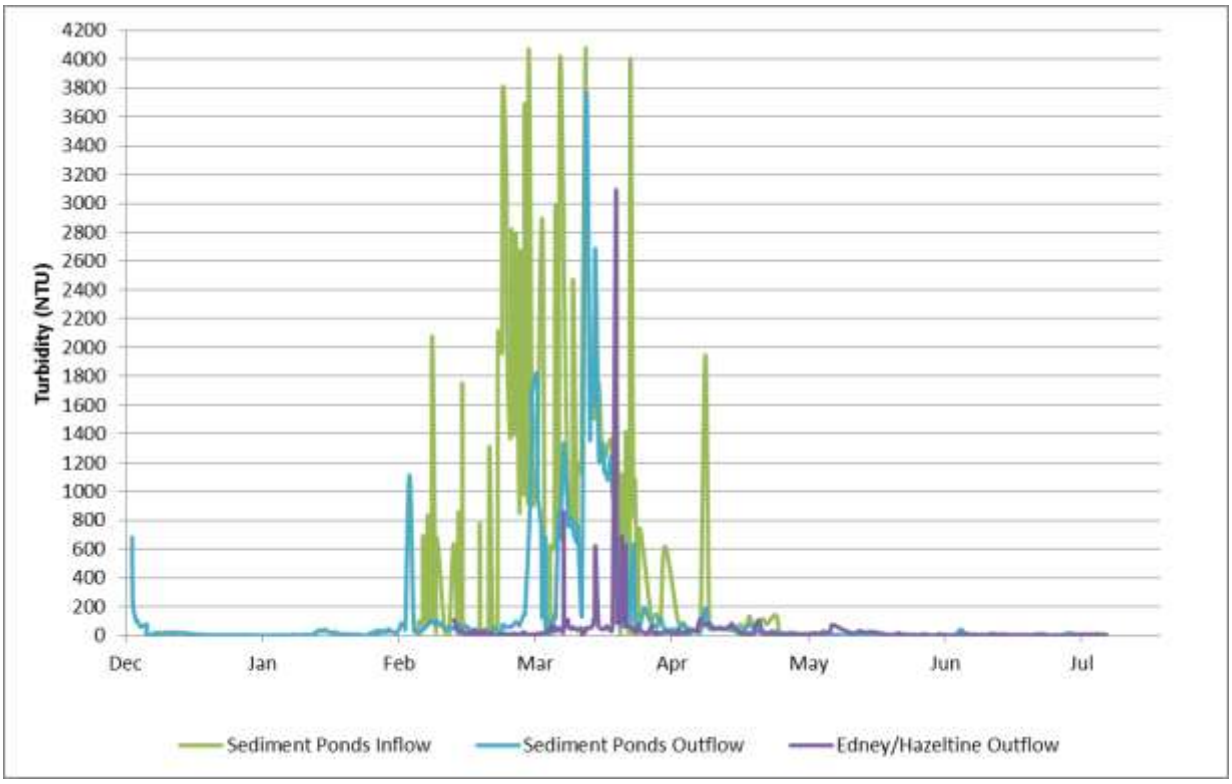

Figure 3. Time series graph for December 12th, 2014 – July 22nd, 2015 showing turbidity levels at monitoring locations in Hazeltine Creek

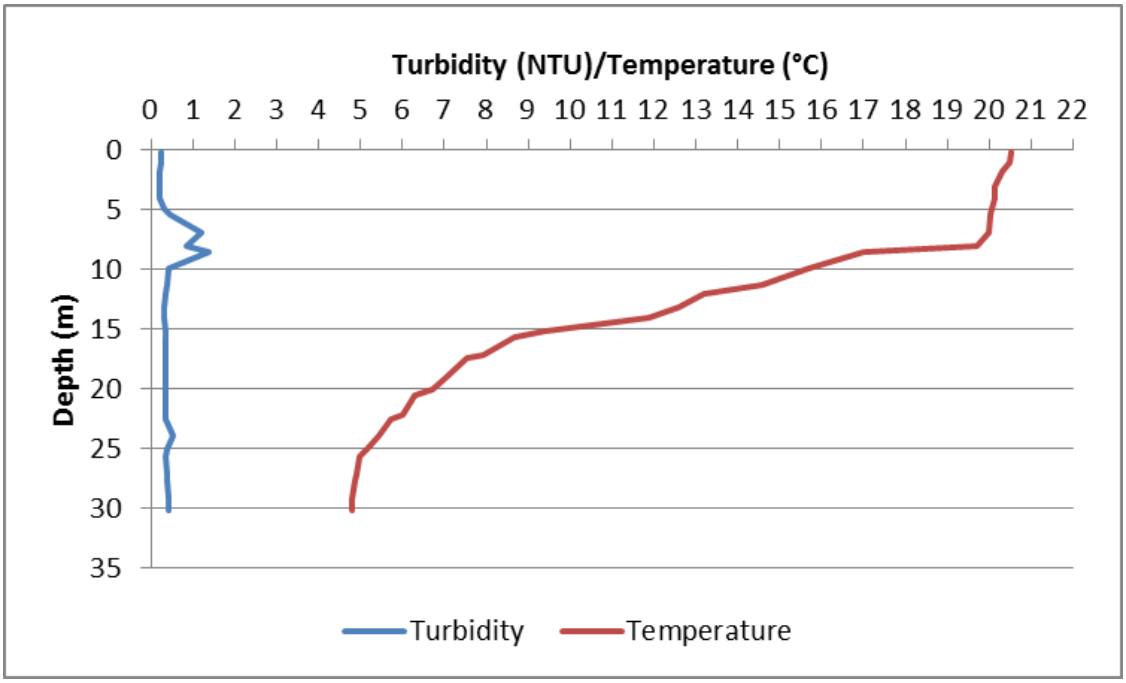

Figure 4. Turbidity and temperature profiles at station QUL-55 on July 15th

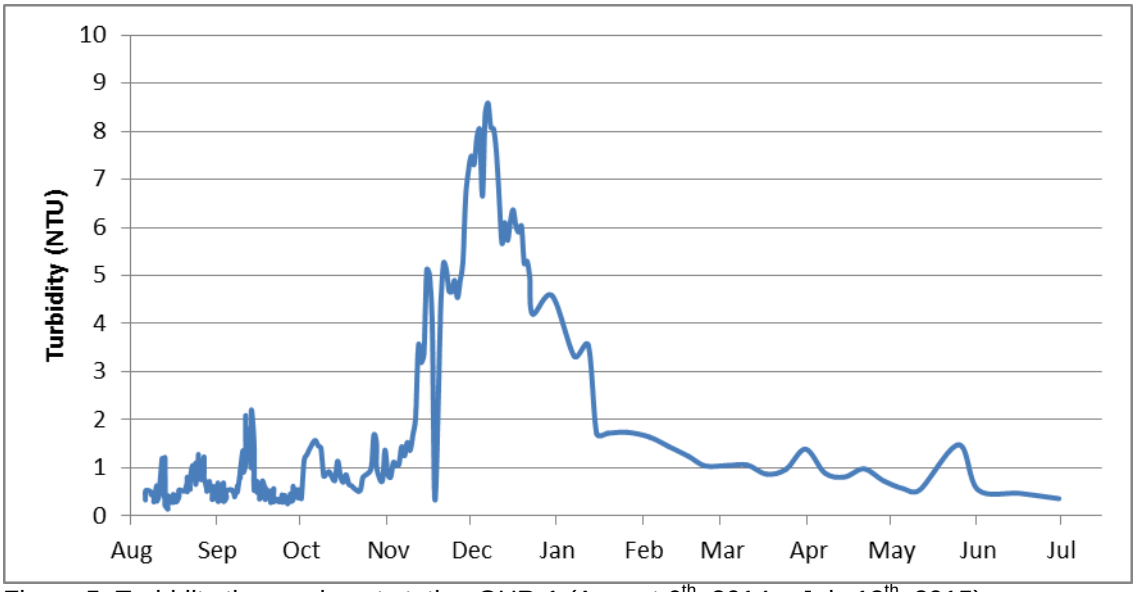

Figure 5. Turbidity time series at station QUR-1 (August 6th, 2014 – July 13th, 2015)