



Figure 5.1.2.3.1 – TSF Clean Water Ditch

5.1.2.4 Bootjack Creek

Bootjack Creek is a 3,050m natural creek running west-to-east along the southern half of the mine property. The creek is crossed by mine infrastructure at three (3) locations: the light-duty vehicle access along the TSF road, the heavy-duty access along the Tailings Access Road, and a heavy-duty access along the old TSF haul road. A 1.3m corrugated steel culvert carries the flow under the light-duty access, two (2) 20" corrugated steel culverts carry flow under the heavy-duty access road, and the TSF haul road runs over a man-made bridge structure called Bootjack Bridge. Bootjack Creek currently flows into Polley Lake.

A figure depicting Bootjack Creek is included as Figure 5.1.2.4.1.



Figure 5.1.2.4.1 – Bootjack Creek

5.1.2.5 Gavin's Ditch

Gavin's Ditch is a 1,250m long open-ditch gravity flow system with an average grade of 7%. At the terminus of Gavin's Ditch there is a sump which settles collected water prior to its release into North Dump Creek.

A figure depicting Gavin's Ditch is included as Figure [5.1.2.5.1](#).

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Figure 5.1.2.5.1 – Gavin's Ditch

5.1.2.6 Wight Pit (Clean Water)

A 750m ditch wraps around the Wight Pit to prevent clean water from entering the Wight Pit workings; returning the water to natural drainage patterns.

A figure depicting the Wight Pit Clean Water Ditch System is included as Figure 5.1.2.6.1.

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Figure 51261 – Wight Pit Clean Water

5.1.3 Dust Control Systems

Dust control systems are designed to optimize water recycling and dust suppression on site. All water used as dust control is captured by existing mine-influenced containment structures.

5.1.3.1 Springer Pit Water Filling Station

The Springer Water Filling Station is designed to provide water to mobile equipment on site for application as dust suppression.

5.1.3.2 SERDS Water Filling Station

The SERDS Water Filling Station is designed to provide water to mobile equipment on site for application as dust suppression.

5.1.3.3 Tailings Water Filling Station

The Tailings Water Filling Station is designed to provide water to mobile equipment on site for application as dust suppression.

5.1.3.4 TSF Sprinklers/Evaporators

TSF Sprinklers and evaporators are designed to provide water evaporation and dust suppression on site.

5.1.3.5 NEZ Dump Sprinklers

NEZ Dump Sprinklers are designed to provide water evaporation and dust suppression on site.

5.1.3.6 East Dump Sprinklers

The East Dump Sprinklers are designed to provide water evaporation and dust suppression on site.

5.2 Tailings Management

During the 2015 freshet management period, no additional tailings will be placed from the Mill into the TSF.

The basis of design must address the following:

- Permanent, secure and total confinement of all solid tailings material;
- Collection and transport of mine-influenced water from site areas to the TSF during the times that Central Collection Sump to Springer Pit pumping system cannot manage the flow;

- Maintenance of a low as practical water level within the TSF by pumping water to the Springer Pit;
- Collection of all free draining liquids from the TSF, water being pumped either to Springer Pit or back into the TSF; and
- Inclusion of monitoring facilities in the TSF to confirm that the design objectives and operating requirements are being met.

5.2.1 Tailings Line

The tailings pipeline to the TSF will not be operated in 2015.

5.2.2 TSF Facility

The tailings embankment consists of the Main, Perimeter and South Embankments. The embankments are constructed using zoned earth fill and rock fill and have been raised in stages by a combination of centreline and modified centreline approaches. Details of the design and construction are reported in various reports and are referenced in [Appendix A](#).

The design and construction monitoring of the TSF embankments through 2010 was completed under the direction of Knight Piésold Limited (KP). AMEC Environment & Infrastructure (AMEC), now AMEC Foster Wheeler, assumed the role of EoR for the TSF January 28th, 2011, with Golder assuming the role in November of 2014.

The overall embankment has incorporated a staged expansion design utilizing a modified centerline construction methodology up to elevation 963.5m, at which point it became centreline construction. The embankments were at an elevation of approximately 970m when the Perimeter Embankment breach occurred. A 2015 Freshet Embankment was constructed to a crest elevation of 950m within the Perimeter Embankment breach.

A breach of the Perimeter Embankment occurred on August 4, 2015 releasing tailings, embankment material, and water. The width of the breach was about 100m, and overall damage occurred to about 400m of the Perimeter Embankment.

Following the breach, a Temporary Upstream Rockfill Berm was constructed upstream of the breach to reduce the potential for further tailings to be released. The 2015 Freshet Embankment was built across the breach to manage the freshet and prevent any further uncontrolled release of water and/or tailings from the TSF.

The 2015 Freshet Embankment consists of cement-soil-bentonite cut-off wall constructed within a granular core and supported by a wide rockfill embankment. The 2015 Freshet Embankment design report is included in [Appendix A](#).

5.2.2.1 Engineer of Record (Design Consultant)

Golder is the EoR currently retained to design the 2015 Freshet Embankment and Perimeter Embankment Buttress.

5.2.2.2 As-Built Report/Annual Review

Golder will prepare an as-built report following completion of the construction of the 2015 Freshet Embankment and Perimeter Embankment Buttress. As per clause C.5. (C) of the M-200 Permit:

The Permittee [MPMC] shall submit an as-built report and construction drawings to the [MEM] Chief Inspector within three (3) months of completion of construction [of the 2015 Freshet Embankment and Perimeter Buttress].

AMEC previously prepared an As-Built and Annual Report summarizing the construction methodology followed and documenting the as-built dam conditions for the each construction season. This as-built report was typically combined with the annual review report. The most recent report was for the 2013 construction season.

5.3 Instrumentation

5.3.1 *Geotechnical Instrumentation*

Geotechnical instrumentation required for the TSF is designed by the EoR and operated and maintained by MPMC personnel. Geotechnical instrumentation suitability is reviewed as part of the annual reporting measures and recommendations on continued suitability evaluated at that time.

5.3.2 *Groundwater Wells*

The groundwater wells on site are constructed out of 2" PVC casing (except 95R-5 which has 5" casing). The casing is in a pre-drilled borehole that is 6" in diameter. The bottom of the casing has an end plug and fits into a steel casing shoe, surrounded by bentonite chips. The lower portion of the casing is slotted to allow infiltration of groundwater and is surrounded by filter sand, and separated from other water bearing horizons by bentonite. The middle portion of the casing is surrounded by a cement-bentonite grout. The upper portion of the casing is surrounded by sand and/or a layer of bentonite. Above the ground surface, there is a J-plug in the top of the casing (to prevent anything from falling in), and it is protected by a stand up metal casing which is fixed in cement and has a protective locking cap.

The wells are typically installed in pairs of “nested” wells (one shallow, one deep) to monitor the groundwater at different depths – usually at the first water bearing horizon in the overburden or bedrock, and a lower one in a water bearing horizon of the bedrock at a target zone.

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6.0 OPERATION

All operation of water management structures as outlined in this OMS Manual is completed in accordance with design criteria, regulatory requirements, company policies and sound operating practices, encompassing all significant aspects of, and activities for, the economical, safe and environmentally responsible disposal and storage of tailings and management of water.

6.1 Water Management

Currently, MPMC does not discharge any mine-influenced water from site. For this reason, all systems are designed to, in order of application: segregate non-mine influenced water from site collection systems, returning it to the surrounding receiving environment; collect all mine-influenced water in site collection systems; convey mine-influenced water, where applicable, directly to the Springer Pit from site collection systems; convey residual mine-influenced water from systems to the Springer Pit; and, temporarily store surplus mine-influenced water in the TSF (for future conveyance to the Springer Pit). All infrastructure in the site water management in place at Mount Polley Mine, as outlined in Section 4.0 and further detailed in Section 5.0, is designed and operated with this overarching set of priorities. All water management is completed in accordance with requirements under the [M-200 Permit](#) and [Effluent Permit 11678](#).

The TSF is required to have sufficient live storage capacity for containment of runoff from the entire contributing catchment area for the 1-in-200-year design inflow event (2.1 Mm³ storage capacity). The TSF design also incorporates an allowance of 1.0 m of freeboard. The TSF will be managed by maintaining as low a volume of water in the TSF as practical.

There are no restrictions, with respect to dam safety, on the rate of filling of the supernatant pond or rate of emergency draw down within the pond.

6.1.1 Sump and Ditch Systems

The seepage collection ponds and recycle pumps generally operate without requiring any external adjustments; however, the following special circumstances require adjustments to the operating procedures:

- In the event of an emergency that may compromise a water-storage facility, all diversion ditches that feed the ponds may need to be directed away. Also, if water quality and permits allow, discharge of water to natural receiving environments may be possible.
- Under freezing conditions, the pumps are operated on a timed pumping cycle based on site conditions to prevent the pipes from freezing. The pumps will

be turned on and off based on the cycle time rather than water level. Once the temperatures return to normal the pumps can operate under normal conditions.

6.1.2 TSF Embankment Seepage Collection Ponds

The Breach Pond is the only one of the TSF (South and Main) ponds that may collect water other than that from the toe and foundation embankment drains or local runoff.

For the MESCP and SESCP, a corrugated steel pipe connects each pond to a seepage recycle sump where recycle pumps are located. The MESCP and SESCP are run based off monitoring height.

The Breach Pond overflows into the Perimeter Till Borrow Pit, from where the water is pumped back to the Central Collection Sump or to the MESCP.

6.2 Reclaim Barge and Pipeline

The floating reclaim pump barge is located in the TSF in an excavated channel, but will be above water level and will not be operated in 2015. The barge is accessible from land along an access walkway. The floating reclaim pump barge was designed externally; refer to the manufacturer's manual for details related to operations, inspections and maintenance. Pumps from the reclaim pump barge have been installed in the Central Collection Sump.

6.3 Tailings Basin

Monitoring of the pond elevation, depth, area and volume is important for the following reasons:

- To maintain a minimum practical volume of water within the TSF;
- Monitor that the basin characteristics on which the storage volume curve was based does not change significantly (this includes monitoring of the steep eroded slopes for slumping and erosion which may reduce storage capacity within the TSF); and
- To enable the correlation of the pond level with other data, such as the piezometer pressures and drain flow quantities.

There is a potential for tailings above the 950m elevation to slump or erode and migrate below the 950m elevation, reducing the available storage capacity. Drone surveys will be used to monitor the steep slopes of the eroded tailings sand existing in the TSF. Multiple drone surveys have been completed since the time of the breach and a minimum of one (1) drone survey will be completed after completion of the 2015 Freshet Embankment to confirm the TSF storage capacity below 950m elevation. Additional drone surveys will

be completed if the water level in the TSF exceeded 945 m and after each time water is pumped into the TSF and then fully removed.

6.4 Tailings Transport and Deposition

No tailings production or deposition will occur within the TSF during 2015.

6.4.1 Tailings Properties

Tailings properties are as described in the [Tailings Transport Design Review](#) completed in 2013 by Ausenco Limited. Select properties are included in Table 6.4.1.1:

Table 6.4.1.1 – Tailings Properties

Slurry Characteristics		
Description	Value	Comments
S.G.	2.7	
pH	11.8	
Solids Concentration	36%	The slurry concentration ranges from 34% solids when operating at minimum tonnage to 41% solids when operating at peak tonnage. The nominal design solids concentration was set at 36% solids.
Particle Size Distribution		
Tyler Mesh	Mesh Size	Cumulative % Passing
28	(595 µ)	100
65	(212 µ)	91
100	(149 µ)	78
150	(105 µ)	68
200	(74 µ)	57
270	(53 µ)	49
325	(44 µ)	36
400	(37 µ)	41

6.4.2 Deposition Management

No tailings deposition will occur within the TSF during 2015.

6.4.3 Beach Management

Tailings settled in the TSF and formed beaches with three (3) distinct slopes. A sandy beach developed as the coarser tailings fraction settled more rapidly adjacent to the embankment. The average beach slope above water was about 0.5 percent. As the tailings flowed into the supernatant pond it formed a submerged beach with a slope of one (1) to two (2) percent. Finer tailings particles are transported further into the supernatant pond before settling at a slope of about 0.3 percent.

The breach led to erosion of the tailings, with erosion gullies being formed. The largest area of water storage is now at the location of the breach.

6.4.4 Sand Cells

Sand Cells were used in satisfying the Zone U (CBL) requirements in the pre-breach [Annual Construction Manual](#), and aided in the formation of beach management. Sand

Cells were built in 100m lengths, corresponding to the length of flanged sections of HDPE tailings pipe. They are 25m-30m wide, as per design constraints, and vary in height with the beach management requirements (height vs. advancement around dam). They were constructed by creating a “cell” out of existing tailings and run-of-mine rock with a decant structure at the end of the cell. Tailings were introduced into the cell by single-point discharge from the tailings line, and allowed to flow through the cell, the coarser layer being contained in the cell to build Zone U (CBL). This was aided by a modified bulldozer, which “worked” the material in order to optimize the material retention. The fine or “slimes” fraction then reported to the tailings pond by means of the decant structure and forms beaches. Management of Sand Cell tailings flow was completed in accordance with [Procedure MO19 – Sand Cell Construction – Communication Procedure](#).

Sand Cells will not be constructed in 2015.

6.4.5 Tailings Pipe

The tailings pipeline to the TSF will not be operational during 2015.

6.5 Instrumentation

All instrumentation components must be read regularly. The monitoring frequency for the geotechnical instrumentation is outlined in the sections below, and specifies the schedule by which data must be collected, plotted and reported. The EoR must be notified of any anomalous trends. Additional readings and inspections may also be required after any [Unusual Event or Observation](#), at the direction of the EoR or Tailings Project Manager.

6.5.1 Geotechnical Instrumentation

Geotechnical instrumentation data is gathered by MPMC personnel in accordance with the frequencies determined by the EoR.

A summary of the existing instrumentation is presented in [Appendix B](#) and the sections below, along with trigger levels, which if exceeded, will require investigation and possible contingency or remedial actions.

If the trigger levels are exceeded, the instruments are to be re-read immediately. If the initial readings are proven accurate, the Design Engineer is to be contacted.

If a change below the trigger level is recorded in multiple instruments in a similar location, the design team is to be notified immediately.

6.5.1.1 Inclinometers

The list of inclinometers installed, along with their co-ordinates are listed in Table 6.5.1.1.1.

Table 6.5.1.1.1 – List of Inclinometers

Inclinometer ID	Embankment	Easting (m)	Northing (m)
SI01-2	Main	5818400.8	595589
SI06-1	Main	5818399.6	595649.6
SI06-2	Main	5818463	595734
SI06-3	Main	5818520.7	595814.7
SI11-1	Main	5818352.7	595526.8
SI11-2	Main	5818715.6	595997.6
SI11-4	Perimeter	5819780.3	595408.6
SI12-1	Perimeter	5819787.7	595407.4
SI12-2	Perimeter	5819420.6	595924.2
GA15-01	Perimeter	594549.3	5820063.3
GA15-02	Perimeter	594727	5820049.7
GA15-03	Perimeter	595507.5	5819686
GA15-04	Perimeter	595603.3	5819623.9
GA15-05	Perimeter	595705	5819552.8
GA15-06	Perimeter	595814.3	5819475.9
GA15-07	Perimeter	595993.8	5819375.5
GA15-08	Perimeter	596082.4	5819255.5
GA15-09	Perimeter	596220.6	5819060
GA15-10	Main	596208.5	5818856.4
GA15-12	Main	596270	5818767
GA15-14	Main	595986.7	5818688.6
GA15-15	Main	596056	5818594
GA15-17	Main	595926.3	5818469.6
GA15-18	Main	595693.2	5818460.6
GA15-19	South	595791	5818331
GA15-20	South	595584.9	5818260.1
SI15-01	Freshet Embankment	595158.3	5819840.9
SI15-02	Freshet Embankment	595092.8	5819884.9
SI15-03	Freshet Embankment	595040.6	5819919.9

The slope inclinometers are to be read, and the data downloaded and submitted to Golder, weekly. The top of the inclinometer casings are to be surveyed quarterly, and the survey data supplied to Golder with the inclinometer readings. Golder shall be responsible for interpreting and analyzing data collected. Based on TSF performance, the reading frequency may be increased or decreased at the sole discretion of the EoR.

The trigger level for action is if the measured displacement in the glaciolacustrine units (GLU) exceeds 1mm from the most recent baseline readings for each inclinometer.

Inclinometer instrumentation is operated in accordance with the [Inclinometer Operation Manual](#).

6.5.1.2 Vibrating Wire Piezometers

The list of vibrating wire piezometers installed in the foundation, along with baseline elevation readings are listed in Table 6.5.1.2.1. The complete list of piezometers installed is included in Appendix B.

Table 6.5.1.2.1 – List of Piezometers Installed within the Foundation

Piezometer ID	Embankment	Foundation unit	Baseline Elevation (m)
A08	Main	N/A	915.7
A09	Main	N/A	912.2
A16	Main	Glaciolacustrine (GLU)	912.0
A17	Main	Glaciolacustrine (GLU)	913.5
A18	Main	Till	915.3
A19	Main	Glaciolacustrine (GLU)	910.6
A20	Main	GLU, glaciofluvial transition	911.5
A21	Main	Till	912.7
B03	Main	Glaciolacustrine (GLU)	917.6
B04	Main	Glaciofluvial	922.6
B06	Main	Till	914.9
B11	Main	Glaciolacustrine (GLU)	915.6
B12	Main	Till	916.1
B13	Main	Glaciolacustrine (GLU)	915.6
C05	Main	Glaciolacustrine (GLU)	916.6
C08	Main	Till	914.0
C11	Main	Glaciolacustrine (GLU)	914.8
C12	Main	Till	915.0
D06	Perimeter	Glaciolacustrine (GLU)	914.4
D07	Perimeter	Glaciofluvial	913.6
E01	Main	Glaciolacustrine (GLU)	916.2
E06	Main	Glaciolacustrine (GLU)	916.6
E07	Main	Glaciofluvial, Till transition)	916.8
F05	South	Till	940.6
G04	Perimeter	Till	940.0
G05	Perimeter	Glaciolacustrine (GLU)	940.4
I05	South	Till	945.0
I06	South	Glaciolacustrine (GLU)	945.0
J01	Perimeter	Till	927.6
K01	Main	Glaciofluvial	934.1
K02	Main	Glaciofluvial	935.8
SH14-02A	Freshet Embankment	Till	929.6
SH14-02B	Freshet Embankment	Till	929.3
SH14-07A	Freshet Embankment	Glaciofluvial	937.0
SH14-07B	Freshet Embankment	till	936.0
SH14-03	Freshet Embankment	Upper Glaciolacustrine	947.0
Ga15-19a	South	Till	943.2
GA15-10a	Main	Glaciolacustrine	926.3
GA15-10b	Main	Glaciolacustrine	917.6
GA15-12a	Main	Glaciolacustrine	917.8
GA15-12b	Main	Glaciolacustrine	918.5
GA15-14a	Main	Glaciolacustrine	914.4
GA15-14b	Main	Glaciolacustrine/glaciofluvial	914.6
GA15-15a	Main	Glaciolacustrine	911.3
GA15-15b	Main	Glaciofluvial	911.7
GA15-17a	Main	Glaciolacustrine	913.6
GA15-17b	Main	Glaciolacustrine	913.7
GA15-18a	Main	Glaciolacustrine/glaciofluvial	931.5
GA15-18b	Main	Glaciolacustrine	922.8
GA15-01	Perimeter	Till	959.9
GA15-02	Perimeter	Till	949.6
GA15-03a	Perimeter	Till	927.4
GA15-03b	Perimeter	Glaciofluvial	911.1
GA15-04a	Perimeter	Till	929.1
GA15-04b	Perimeter	Glaciofluvial	910.8
GA15-05a	Perimeter	Till	920.5
GA15-05b	Perimeter	Till	913.2
GA15-06a	Perimeter	till	919.1
GA15-06b	Perimeter	Till	914.8
GA15-07a	Perimeter	Silty Clay	918.4
GA15-07b	Perimeter	Till	913.6
GA15-08a	Perimeter	Glaciofluvial	936.4
GA15-08b	Perimeter	Till	906.0
GA15-09a	Perimeter	Glaciofluvial	928.2
GA15-09b	Perimeter	Till	914.0

The piezometers are to be read, recorded, and submitted to Golder weekly. Golder shall be responsible for interpreting and analyzing data collected. Based on TSF performance, the reading frequency may be increased or decreased at the sole discretion of the EoR.

The trigger level for action is if there is a change (increase or decrease) greater than 0.5 m from the foundation piezometer baseline elevation readings (as listed in Table 6.5.1.2.1). End of construction pore pressure dissipation will result in a reduction of pore pressure with time, particularly for the piezometers installed within the breach repair area.

The embankment piezometers will fluctuate based on the pond level within the TSF, and will be interpreted by Golder on a weekly basis. Piezometer instrumentation is operated in accordance with the [Piezometer Operation Manual](#).

6.5.1.3 SAA

The two (2) SAAs installed in the footprint of the 2015 Freshet Embankment are listed in Table 6.5.1.3.1.

Table 6.5.1.3.1 – List of SAA

SAA ID	Easting (m)	Northing (m)
SAA15-01	595130.295	5819940.733
SAA15-02	595076.470	5819973.260

The SAAs are to be read by the datalogger at eight (8) hour intervals and the data downloaded and submitted to Golder weekly. Golder shall be responsible for interpreting and analyzing data collected. Based on TSF performance, the reading frequency may be increased or decreased at the sole discretion of the EoR.

The trigger level for action is if the measured displacement in the GLU exceeds 1mm from the most recent baseline reading.

SAA instrumentation is operated in accordance with the [SAA Operation Manual](#).

6.5.1.4 Survey Monuments

The Survey monuments installed on the crest of the Perimeter Embankment and 2015 Freshet Embankment are listed in Table 6.5.1.4.1.

Table 6.5.1.4.1 – List of Survey Monuments

Survey Monument ID	Easting (m)	Northing (m)
SM-01	595446.447	5819642.303
SM-02	595456.938	5819658
SM-03	595363.456	5819698.094
SM-04	595374.257	5819714.051
SM-05	595280.466	5819753.885
SM-06	595291.625	5819770.483
SM-07	595200.95	5819813.366
SM-08	595240.204	5819871.789
SM-09	595117.96	5819869.157
SM-10	595153.666	5819922.271
SM-11	595034.97	5819924.948
SM-12	595070.676	5819978.062
SM-13	594964.214	5819949.78
SM-14	594841.953	5819967.592

The survey monuments are to be surveyed, and the data submitted to Golder, weekly. Golder shall be responsible for interpreting and analyzing data collected. Based on TSF performance, the reading frequency may be increased or decreased at the sole discretion of the EoR.

The trigger level for action is if the horizontal displacement, measured perpendicular to the embankment, exceeds 0.01m, and the vertical displacement exceeds 0.01m.

A monitoring report will be prepared by the EoR on a quarterly basis, summarising and interpreting the monitoring data. Geotechnical instrumentation operational requirements and recommendations will be reviewed as part of this report.

6.5.2 Groundwater Wells

MPMC has a QA/QC Manual, which is required under [Effluent Permit 11678](#) issued by the MoE under the *Environmental Management Act*. This manual was last updated in March of 2014.

The QA/QC Manual includes a [Groundwater Well Standard Operating Procedure](#) and [Groundwater Well Work Method](#) for the operation of groundwater wells at Mount Polley Mine; both are included for reference in [Appendix C](#).

7.0 MAINTENANCE AND SURVEILLANCE

As outlined in this document, water management on site is comprised of multiple components and associated facilities. These components and facilities must be inspected and maintained regularly to ensure that any changes to their condition, performance, or a potentially hazardous condition can be identified and promptly addressed.

7.1 General

The Mill Maintenance Superintendent is responsible for ensuring that surveillance is carried out regularly. The Mill Maintenance Superintendent is responsible for daily management of the TSF water management systems and directs an operating crew to carry out routine activities. The Tailings Project Manager is responsible for directing and co-ordinating all TSF surveillance and maintenance to the specifications of the EoR. A list of site personnel and associated responsibilities are provided in [Table 2.1](#).

The Tailings Project Manager will conduct a dam surveillance walkover at least once (1) per quarter. Dam surveillance reports, if necessary, should be reviewed by the Mill Maintenance Superintendent and filed at the Mount Polley Mine Site. Additional (non-routine), documented “drive-bys” of the TSF and associated facilities will be required following extreme or unusual events. The Mine Operations Manager must be made aware of any unusual events or observations, and must contact the EoR as required. Typical examples of unusual events and observations to be made during such walkovers are outlined in [Unusual Event or Observation](#), included in Appendix C.

Guidance documents are included in the [Water Management Inspection Manual](#) (provided in [Appendix C](#)) to help guide the observation and surveillance process. The documents cover major items related to the TSF and associated facilities. Additional details are provided in the following sections.

7.2 Water Management Systems

The seepage collection ponds and recycle pumps shall be inspected, by the Mill Maintenance Department, in accordance with the [Water Management Inspection Manual](#), which includes water management checklists to be completed. Typical observations to be made during surveillance are as follows:

- Water levels in ditches, sumps, ponds and within the TSF;
- Pump back flow rates from pumps;
- Evidence indicating seepage from the ditches, sumps and/or ponds;
- Evidence indicating erosion or instability on the slopes of ditches, sumps and/or ponds;

- The overflow culverts and pipelines between sumps and/or ponds are free of any obstructions; and
- Ensuring that the discharge end of pipelines is not obstructed (in the case of the pipeline from the Central Collection Sump to the TSF, this should be specifically inspected to ensure that it is not submerged in tailings).

Additional observations will also be required under special circumstances as follows:

- Monitor the pumping from sumps and/or ponds during freezing conditions to ensure that the pumping cycle is adequate at keeping the pipes from freezing and in keeping the pond level constant; and
- Monitor the water quality in the sumps and/or ponds during spring freshet to ensure that the seepage water is at acceptable levels if water permits allow for discharge.

The [Unusual Event or Observation](#) document identifies additional events and circumstances that may require increased observations and documentation.

7.3 Tailings Pond

The TSF is operated by maintaining as low a water level in the TSF as practical. The maximum operating water level is 949.0 m elevation. The main source of water to the TSF is the pipeline from the Central Collection Sump. If the water level is above 948.5 m pumping from the Central Collection Sump to the TSF should be stopped. Other emergency procedures, discussed in Section 9.0, must be followed if the pond reaches the maximum operating level. Daily inspections of the pond level should be carried out and flows into and out of the TSF will be measured.

7.4 Tailings Embankment

Regular surveillance of the embankments and associated structures should follow the [Water Management Inspection Manual](#). Typical observations to be made during surveillance include:

- Evidence indicating dam structure deformation (e.g. slope bulging, tension cracks on the crest or crest settlement);
- Evidence indicating seepage, runoff or erosion;
- Clarity and quantity (visual estimate) of seepage water entering the seepage collection sumps;
- Possible evidence indicating piping downstream of the embankments; and
- Other unusual conditions in the TSF area.

The embankment and associated earthwork structures do not require regular maintenance; however, specific maintenance items may be identified as a result of regular observations and surveillance of the embankment.

The [Unusual Event or Observation](#) document outlines additional observations that may need to be documented after any unusual event.

7.5 Tailings Discharge Pipeline

The tailings discharge pipeline will not be operational in 2015.

7.6 Reclaim Pipeline

The reclaim barge and pipeline will not be operational in 2015.

7.7 Springer Pit

Regular monitoring of the water elevation in the Springer Pit shall be carried out.

7.8 Instrumentation

7.8.1 Geotechnical Instrumentation

Generally, the instruments do not require regular maintenance, but, may require occasional maintenance as follows:

- The piezometer wires may need to be cut and re-attached if the readout box is unable to acquire any data; and
- Piezometer wires that are exposed may become corroded and may need to be trimmed until a fresh surface is exposed to allow readings to be taken.

7.8.2 Groundwater Wells

Decommissioning and replacement of existing groundwater wells and construction of groundwater wells at new monitoring locations are addressed by a third party Qualified Professional in a site groundwater assessment which is completed every five (5) years, as required by permits.

Well development is completed as soon as possible after installation of new wells, and is completed on any wells where water being purged contains significant amounts of sediment (the presence of sediment is noted in sampling observations).

During bi-annual sampling, any wells missing PVC J-plugs, casing protector lids, or locks are noted and fixed.

8.0 DOCUMENTATION

8.1 EoR Annual Dam Safety Inspection Report

Annual inspections of the TSF and associated facilities are required to evaluate the current performance of the TSF and to observe potential deficiencies in its condition, performance and/or operation. The Tailings Project Manager is responsible for arranging the inspections. This level of dam safety evaluation should be based on detailed observations made by the EoR on site and the relevant information on the TSF operations collected by site personnel. Additional reviews may be required also as a follow up to the report of an unusual event or observation.

The Tailings Project Manager or designate should accompany the EoR during the annual inspection. The EoR will evaluate the safety of the TSF and incorporate a routine review of the following:

- The consequence classification of the dam;
- The OMS Manual;
- The availability of all documents pertaining to dam safety on site;
- The site surveillance practice; and
- Changes in relevant regulatory requirements since the last inspection.

The EoR will issue an annual inspection report after completing the review. The report will be prepared in accordance with the MEM *Guidelines for Annual Dam Safety Inspection Reports*. The report will include the following:

- Conclusions on the status of the TSF;
- Statements indicating completion of recommendations from previous inspections and reviews; and
- Recommendations, setting priorities and a timeline for completion, if necessary.

The Mine Manager and the MEM should review each annual inspection report. The report shall be submitted to the Chief Inspector within three (3) months of the inspection. Copies of the reports should be made available on site and are available in the office of the EoR. The Mine Manager should prepare and execute an appropriate action plan to ensure that all recommendations made in the annual inspection report are followed. This action plan should be documented.

8.2 Independent Engineering Review Panel

An independent engineering review panel (IERP) has been established to provide expert technical guidance related to all aspects of the design, construction, operation and closure planning for the TSF.

The IERP is comprised of at least three (3) qualified experts, acceptable to the MEM Chief Inspector, and shall meet at least annually. The minimum objectives of the IERP are to confirm that the design and operation of the TSF is consistent with industry standards of best practice, to identify areas where risk reduction measures may be required and to provide advice that may add value to the safe operation, closure and long term maintenance of the TSF.

A report prepared by the IERP shall be submitted to the Chief Inspector within one (1) month of completion of a review meeting.

8.3 Dam Safety Review

The principle objective of a Dam Safety Review (DSR) is to ascertain that a dam has an adequate margin of safety, based on the current engineering practice and updated design input data. A DSR may also be carried out to address a specific problem.

A qualified engineer will be responsible for conducting each DSR at the TSF. The engineer conducting the DSR must be qualified to conduct safety evaluations and be familiar with the designs and other site-specific conditions and requirements pertaining to operations of the impoundment and associated facilities; but ideally should not have been involved in the design, construction or operation of the TSF.

Routine DSRs at the TSF will be scheduled, confirmed or revised at the time of each annual inspection. As required under the [M-200 Permit](#), the next DSR for the TSF shall be completed by December 2016.

A detailed scope of work for each DSR will be defined by the engineer prior to conducting the review, and be consistent with current engineering practice at the time it is conducted. Each DSR will evaluate the safety of the TSF and incorporate a detailed review of the following:

- The consequences classification of the dam;
- The adequacy of past annual inspection practice, the annual inspection recommendations, and their implementation;
- The OMS Manual; and
- Timing for the next regular DSR.

Each DSR report should include conclusions and, if necessary, recommendations pertaining to the safety of the TSF. Copies of the DSR will be sent to the Mine Manager and the MEM for review. Similar to the annual inspection report, an action plan should be prepared by the Mine Manager to address the DSR recommendations. A copy of each report will be sent to the MEM and will also be available at the site and at the office of the EoR.

9.0 EMERGENCY PROCEDURES

All operation of water management structures as outlined in this OMS Manual, including that relating to emergency procedures, is completed in accordance with regulatory requirements, company policies and sound operating practices, encompassing all significant aspects of, and activities for, the economical, safe and environmentally responsible storage of tailings and management of water. Additionally, there are two (2) documents, independent to the OMS Manual, that specifically emergency response: the TSF-specific [Emergency Preparedness and Response Plan \(EPRP\)](#) and the Mount Polley Mine Site [Emergency Response Plan \(ERP\)](#).

9.1 General

The EPRP will enable MPMC to identify emergency and hazardous conditions threatening the TSF, expedite effective response actions to prevent failure, and reduce loss of life and property damage should failure occur. The EPRP provides TSF-specific guidance to complement the Mount Polley Mine Site [ERP](#).

In the event that MPMC is unable to comply with any of the terms and conditions of the [M-200 Permit](#) regarding the TSF, due to any cause, MPMC will:

1. Immediately notify the MEM of the failure to comply;
2. Immediately take action to stop, contain, and clean up unauthorized discharges or otherwise stop the non-compliance, correct the problem, and if applicable, repeat sampling and analysis of any non-compliance immediately; and,
3. Submit a detailed written report to the MEM within thirty (30) days (five (5) days for upsets and bypasses), unless requested earlier by the MEM. The report will contain a description of the non-compliance, including dates and times, if the non-compliance has not been corrected, the anticipated time it is expected to continue, and the steps taken or planned to reduce, eliminate, and prevent reoccurrence of the non-compliance.

9.2 Warning Signs

Three (3) levels of emergency conditions (or warning signs) can be identified with respect to the site operations. These are defined as follows:

9.2.1 Level 1

Unusual conditions that do not yet represent a potential emergency, but do require prompt investigation and resolution.

9.2.2 Level 2

Conditions that represent a potential emergency, if sustained or allowed to progress, but no emergency situation is imminent.

9.2.3 Level 3

An emergency defined by either failure of a significant component of the TSF and/or associated facility or a significant failure of the performance of a component of the TSF. Such failure may have already occurred, or be imminent.

9.3 Situations

Typical situations that would be classified under the three (3) levels of emergency conditions (Level 1, 2 or 3) and the actions to be taken are outlined in [Emergency Levels](#) (included in [Appendix C](#)) and described below:

9.3.1 Level 1 Situation

The action in the event of a Level 1 Emergency Condition will typically involve an investigation, intensified monitoring, inspecting and/or testing, and defining and implementing possible corrective measures.

Construction equipment will be available at the mine and include, but not be limited to: excavator(s), grader(s), haul truck(s) and bulldozer(s). Material will be available both at the TSF and at the Mine for use in repairing or remediation of any damaged areas.

9.3.2 Level 2 Situation

The first action in the event of a Level 2 Emergency Condition is to discuss and define an action plan, at the site, under the direction of the Environmental Superintendent. After such a plan is prepared, it must be presented to the Mine Manager for approval. Construction equipment should be made available, if required, at short notice.

9.3.3 Level 3 Situation

The first actions in the event of any Level 3 Emergency Condition are:

- Check that all persons who could possibly be affected are safe; and
- Initiate the appropriate chain of communications.

The person who initiated the communication should then stand by at a safe location near the problem area and await further instructions or decisions. All those involved in emergency response, after first having communicated with the appropriate parties,

should consider two (2) types of actions as first steps in the emergency response, with respect to the protection of human life and health, environment and property:

- What can be done to prevent the situation from worsening?
- What can be done to reduce the consequences of the impending or actual failure?

Any such action must be presented to the Mine Manager who will decide on its implementation in consultation with the MEM.

9.4 Incident Notification Procedures

The following incident notification procedures are to be followed for all emergency conditions.

9.4.1 *Level 1 and Level 2*

The notification procedures are as follows:

- The person first noticing a Level 1 or Level 2 Emergency Condition shall notify the Mine Manager and initiate corrective actions and intensified monitoring.
- The Mine Manager shall notify the EoR as appropriate.

9.4.2 *Level 3*

The notification procedure for a Level 3 Emergency Condition is as follows:

- The person noticing a Level 3 Emergency Condition shall notify the Mine Manager and initiate corrective actions and/or intensified monitoring, as appropriate.
- The Mine Manager shall notify the MPMC (Vancouver) office, MPMC Environmental Superintendent, MPMC Tailings Project Manager, and the EoR.

In the event of an emergency situation that will result in an actual or potentially imminent dam failure, or release of untreated water, the Mine Manager shall also notify the MEM.

Names and telephone numbers for the key contacts are given in [Table 2.1](#).

10.0 REFERENCE DOCUMENTS

The following documentation, referenced in this OMS Manual, can be found in [Appendix A](#):

Appendix A	
1	Mount Polley Mine 2015 Freshet Embankment Design (Golder)
2	M-200 Permit Amendment: Approving TSF Breach Repair and Perimeter Embankment Buttress Design for 2015 Freshet
3	Tailings Management Framework (Under TSM Protocols)
4	Amendment Permit 11678 under the Provisions of the Environmental Management Act
5	2013 Environmental and Reclamation Report
6	Annual Monitoring Plan - 2015 (Permit 11678)
7	Biological Monitoring and Lake Monitoring Plan - 2015 (Permit 11678)
8	Permit PA 15087
9	Post TSF-Breach Monitoring Plan - 2015
10	Tailings Storage Facility Stage 9 - 2013 As-Built and Annual Review Report (AMEC)
11	Mount Polley Mining Corporation tailings Transport Design Review - 2013 (Ausenco)
12	Mount Polley Mine Tailings Storage Facility Stage 9 2013 Construction Monitoring Manual (AMEC)
13	Emergency Response Plan (Surface Operations)

The following documentation, referenced in this OMS Manual, can be found in [Appendix C](#):

Appendix C	
1	MO19 - Sand Cell Construction - Communication Procedure
2	Unusual Event or Observation Guide
3	Slope Indicator Manual
4	Piezometer Manual
5	MPMC - SOP - 001: Groundwater Monitoring (Environmental Department)
6	MPMC - WORK - 001: Groundwater Monitoring (Environmental Department)
8	Water Management Inspection Manual
10	Emergency Levels

11.0 CERTIFICATION AND DISTRIBUTION

11.1 Control of this OMS Manual

This OMS Manual will be controlled by the Tailings Project Manager. Copies will be maintained at the following locations:

- One (1) copy for MPMC (Vancouver office),
- One (1) copy for the MPMC Mine Manager,
- One (1) copy for the MPMC Tailings Project Manager,
- One (1) copy for the MPMC Mine Operations Manager,
- One (1) copy for the MPMC Environmental Superintendent,
- One (1) copy for the MPMC Mill Maintenance Superintendent,
- One (1) copy for the MPMC Senior Safety Co-ordinator,
- One (1) copy for the MPMC Mill Operations Superintendent,
- One (1) copy in the MPMC Mill Operations Crew Office (Mill Shifter's Office),
- One (1) copy in the MPMC Mine Operations Office (Mine Shifter's Shack),
- One (1) copy in the Mine Rescue Building,
- One (1) copy for the Engineer of Record, and
- One (1) copy for the MEM Geotechnical Manager.

The Tailings Project Manager is responsible for maintaining a record of the location of each copy of the OMS Manual and to ensure the copies in these locations are kept up to date.

11.2 Distribution of the Manual

A letter of transmittal that clearly identifies the distribution list must accompany each revision of this manual. An update may comprise the entire manual or be limited to specific pages or sections. A copy of each transmittal letter must be kept on record in the office of the Tailings Project Manager. Each revised page of the manual must be clearly marked as to the revision date prior to replacement. The replaced pages must be filed and kept on record in the office of the Tailings Project Manager.

11.3 Certification of the Manual

This report was prepared, reviewed and approved by the undersigned.

Prepared by:

Luke Moger

Project Engineer & Tailings Project Manager, MPMC

Reviewed by:

Terry Eldridge, P.Eng

Principal, Golder Associates Ltd.

Approved by:

Dale Reimer

Mine Manager, MPMC

PERMIT AMENDMENT APPLICATION

UNDER THE BRITISH COLUMBIA MINES ACT

-AND-

UNDER THE ENVIRONMENTAL MANAGEMENT ACT

RMDRC COMMENT TRACKING

MOUNT POLLEY MINE

RETURN TO RESTRICTED OPERATIONS

REVISION 1

PREPARED FOR

RMDRC

PREPARED BY

MOUNT POLLEY MINING CORPORATION

ORIGINAL SUBMISSION: APRIL 30, 2015

UPDATED: MAY 21, 2015

RMDRC Comment Summary List

Date	Group (Author)	Document Type (Name)
April 9, 2015	Ministry of Forests, Lands and Natural Resource Operations (David Weir)	E-mail (Discharge Construction in Stream Work)
April 13, 2015	Likely Chamber Liaison (Doug Watt)	Letter (Comments on MPMC Applications for Restricted Startup/Water Management)
April 13, 2015	Ministry of Energy and Mines (Tania Demchuk)	Letter (Re: Return to Restricted Operations Revision 1 and Long-Term Water Management Planning – MEM Review Comments)
April 13, 2015	Ministry of Energy and Mines and Ministry of Environment (Lorax Environmental)	Memorandum (Mount Polley Limited Restart Permit Application Review Comments)
April 14, 2015	BC Ministry of Agriculture (Ken Awmack)	E-mail (Re: Mt Polley Return to Restricted Operations: Final Call for First Nations, Prov and Fed Regulatory Agency, and Community)
April 14, 2015	Fisheries and Oceans Canada (Darryl Hussey)	E-mail (Mount Polley Mine Return to Restricted Operations Application)
April 14, 2015	Ministry of Environment (Brian Yamelst)	E-mail (MoE Comments Re Mt Polley Tailings Deposition Application)
April 14, 2015	Ministry of Environment (Hubert Bunce)	E-mail (MoE Comments Re Mt Polley Tailings Deposition Application)
April 16, 2015	Ministry of Environment (Brian Yamelst)	E-mail (Additional Comments from Brian on MPMC Application to Date)
April 24, 2015	Williams Lake Indian Band and Xat'sull First Nation (Chief Ann C. Louie and Chief Donna Dixon)	Letter (Re: Mt Polley Mining Corporation (“MPMC”) Return to Restricted Operations Permit Amendment Application (the “Application”) and the Approach for Long-Term Water Management Plan Development)
April 24, 2015	Williams Lake Indian Band and Xat'sull First Nation (MacDonald Environmental Sciences, LGL Ltd. and BOA Ltd.)	Report (Technical Review Comments Summary)
April 24, 2015	Williams Lake Indian Band and Xat'sull First Nation (James R. Kuipers)	Report (Review and Comment on Mount Polley Re-Opening Application and Water Management Plan, 20 March 2015)
May 8, 2015	Ministry of Energy and Mines (Tania Demchuk)	Letter (Re: ME response to RMDRC Comment Tracking for Mount Polley Mine Return to Restricted Operations Application.)
May 8, 2015	Ministry of Energy and Mines and Ministry of Environment (Lorax Environmental)	Memorandum (Mount Polley Limited Restart Permit Application Review)
May 11, 2015	Likely Chamber Liaison (Doug Watt)	Letter (Likely Chamber of Commerce Comments to CMDRC re: MPMC Restricted Restart Application)

Foreword (April 30, 2015 Submission)

MPMC is pleased to have provided responses to RMDRC comments received within the allotted time. We acknowledge recent receipt of comments from the Soda Creek Indian Band and Williams Lakes Indian Band. We value their comments and their participation but were unable to address these recently received comments in the time available. We will respond to their technical comments in the next few days. MPMC is in discussion with the two bands with regards to their non-technical comments.

In addition, we value the continued participation and input of other RMDRC members. We hope that our responses have adequately addressed their feedback. Should this not be the case, we invite their direct communication with MPMC or our technical consultants.

Updated Comments (May 21, 2015 Submission)

This update, dated May 21, 2015, includes edits to the first comment response document provided on April 30, 2015 (edits identified in red font for tracking) and responses to comments received after the initial RMDRC review period. Additional comments to those forming part of the April 30, 2015 version of this document include those provided by First Nations (Williams Lake Indian Band and Soda Creek Indian Band) and their consultants, and responses to follow-up comments based on the original (April 30, 2015) submission of this document from the Ministry of Energy and Mines (MEM), including those from Lorax Environmental, and the Likely Chamber Liaison.

Date: April 9, 2015

Correspondence: E-mail (Discharge Construction in Stream Work)

Source: FLNRO (David Weir)

Author: David Weir

Items

The construction of the discharge structure into a water body requires an authorization, most likely in the form of a Section 9 approval (Water Act) and may also require a land act tenure.

The present permit amendment applications are for the return to restricted operations at Mount Polley mine. These amendments would allow mining to occur and would allow the deposit of tailings into Springer Pit. The advice provided above relates to the effluent permit amendment to enable discharge to surface water as well effluent conveyancing structures. At this time, and with regards to the effluent permit amendment application, a Technical Assessment Report is being prepared and effluent discharge options are being selected, with consultation being part of that selection process. As a final discharge option has not yet been selected, the necessary detail to enable the above-noted authorizations has yet to be determined. We are aware that a specific discharge location and, as appropriate, pipe routing corridor would need to be specified to initiate those processes.

Date: April 13, 2015

Correspondence: Letter (Comments on MPMC Applications for Restricted Startup/Water Management)

Source: Likely Chamber Liaison (Doug Watt)

Author: Doug Watt

Items

A) Water Management Plan

- 1) Provide a clarified timeline/schedule that is more easily read and understood than the Gantt chart provided. Both MEM and MPMC are apparently working on a process flowsheet to hopefully provide more clarity to the process.

An updated process flowsheet and timeline/schedule was presented at the Regional Mine Development Review Committee (RMDRC) meeting on April 28, 2015. Copies of both the Ministry of Energy and Mines (MEM) process slide and the MPMC/Golder schedule slide are included as “Schedule and Timeline Update.pptx”.

- 2) I try and encourage local people to review the applications and provide feedback with their thoughts and concerns though it may be difficult to understand the material supplied. In addition, a significant number are reluctant to submit comments, either verbally or written, to the regulators and MPMC as their comments will be made public with their names attached. Reasons expressed include: shy and not comfortable in front of the public, worried about what the neighbors will think, what my employer (MPMC, local business...) think, how will it affect my doing business with MPMC in the future, what will my relative's supervisor at the mine think, and so forth. This is kind of an unprecedented situation, so is there an alternative method that could be developed to allow input that would allay these concerns?

There are multiple mediums through which to provide comment including technical working groups, public liaison committee meetings, community meetings (including informal drop-ins in Likely), written formal comments, and provision of comments to a representative for discussion (i.e. through the PLCM or RMDRC). MPMC also hosted a vendor table and gave a presentation at the Quesnel Gold Show in Quesnel to inform people about the permit application. Individuals also have the opportunity to provide comment and questions to elected representatives to bring forward for discussion in the abovementioned forums.

Information is available online, including through the Imperial Metals website, the Ministry of Environment (MoE) website and the ~~Ministry of Energy of Mines (MEM)~~ website (amongst other locations). MPMC has also been providing layperson-oriented information to local Likely residents through direct delivery to individual mail boxes of information brochures and the Community Update Bulletins.

MPMC continues to be committed to working with local communities to provide updates and information on Mount Polley mine and to provide opportunities for dialogue; MPMC is open to discussion or suggestions of initiatives to continue to do so. All comments are gladly received and community members can certainly feel secure that they will not be unfairly treated by the company or its representatives.

A public meeting in Likely has been tentatively scheduled for May 13, 2015.

- 3) The short-term water management plan should be totally separated from the long-term plan. The treatment options and discharge options listed can be confusing, particularly when there are likely only a couple of realistic options for the short-term, as well as a couple possibly different options for the long-term.

MPMC has segregated the short- and long-term plans. A separate Technical Assessment Report will be prepared for short-term water balance solutions and another one will be prepared to address the long-term water management strategy. Nevertheless, long-term thinking is an integral part of our short-term plans and options evaluations. For example, we are aware that that short-term measures could pre-judge the decision for long-term measures. Our discharge options evaluation process specifically considers that possibility.

MPMC provided an overview of the segregation of short- and long-term planning approaches, including associated consultation with those approaches at the April 28, 2015 RMDRC meeting and will seek to clarify that distinction for the community at the planned May 13, 2015 community meeting in Likely. In addition, the MoE provided an explanation of the process involved in this segregation at a meeting held on the evening of April 23, 2015 at the Williams Lake Indian Band meeting.

In summary, we agree with the sentiments expressed by this comment and have separated these as noted.

- 4) MPMC is proposing that the long-term water management plan may come into effect as early as the end of the year (2015). There are future uncertainties (i.e. potential long-term operation of the mine beyond the 1 year restricted startup, and removal of water and tailings from Springer Pit to allow for future mining) that cannot be wholly covered at this time. As such, in some respects the long-term water management plan will need to be a living document, to be reviewed and updated as the future status of the mine evolves.

We agree that in reality, all plans need to be reviewed and updated to reflect changing realities; however, we also feel that MPMC should plan for the long-term and should articulate that plan to government, First Nations and communities. The plan will necessarily need to include various possible scenarios, including those identified above.

- 5) Within the community, there are varied and divergent preferences on discharging the treated mine water into the environment, such as temporarily into a partially rehabilitated Hazeltine Creek (HC) or a pipeline into Quesnel Lake (QL), or in the long-term using pipelines and subsurface diffusers into either QL or Quesnel River (QR), downstream of the lake. Individual concerns included scouring, the continuing discharge of dirty water into QL from HC, effect on esthetic values and future local businesses and land values (perceived as no longer pristine), drinking water quality, where and how to safely run pipelines, possible effect on salmon spawning habitat and fry in both QL and QR, etc.

Options analysis and application of best-available-technology are important considerations in evaluation of water management strategies in both the short-term and long-term across the concerns noted. MPMC has considered these matters and will consider options that maintain these values. For instance, discharge into Hazeltine Creek would only be considered if the channel armouring were completed. MPMC is committed to discussing the options available for water discharge with the local community, and has already had input on alternatives for consideration from members of the public attending community meetings in Williams Lake and Likely. We believe that we have demonstrated that we are responsive to this input and have been diligently pursuing options based on input received.

We will present our status update at the community meeting tentatively scheduled for May 13, 2015 and will provide an opportunity for the community to ask questions and provide input.

- 6) Constituents of potential concern (COPC) as stated are based on BC water quality (WQ) guidelines. Comparison should also be made to historical background WQ data from pre-breach and pre-MPMC, and should include nutrients and possibly other substances as well. Recent observations from QL residents include ongoing concern about increased weed and algae growth since the dam breach, including observations over the 2014/2015 winter.

MPMC have been preparing a water quality report that assembles background (pre-breach) data on Quesnel Lake. However, such data are not available in abundance. Nevertheless, MPMC have carried out extensive sampling in areas that were affected by the displaced materials as well as reference areas in Quesnel Lake, which we believe provide a reasonable basis for pre-impact water quality conditions.

The comparison to water quality guidelines is a comparison of convenience because these guidelines provide a ready reference source. However, they do not apply to water contained in a pit or to an effluent. The comparison made is a commonly used approach to screening the data, conservatively (i.e., err on the side of caution), to develop a list of those substances that warrant closer attention.

- 7) The Springer Pit area water wells and groundwater seeps were typically sampled twice per year. With the Springer Pit water level constantly on the rise, and the plan to use it for tails and water disposal, and possibly in-place lime treatment of water, these wells and seeps should be sampled for WQ and level on a weekly basis, until a clear trend is established. Apparently additional monitoring wells are planned for installation around Springer Pit and the area towards Bootjack Lake, and they should also follow the same monitoring frequency as noted. Consideration should also be given to increased frequency of sampling in Bootjack Lake to at least monthly.

The previous sampling frequency was suitable for previous needs. MPMC are aware (and therefore agree with the comment) that present circumstances warrant both an increased sampling frequency and installation of additional wells. Monitoring plans, including those associated with the Springer Pit filling, have been revised with input from Qualified Professionals and in accordance with regulatory requirements.

As reviewed during the RMDRC meeting held on April 28, 2015, water level will be monitored for the existing water well (GW-12 2a/2b) and in new wells. MPMC have initiated the process of well installation. The air photo image below shows the location of the two new multi-level monitoring wells that are planned to be installed in May/June 2015.



Through fall (approximately October) 2015, the monitoring program will consist of:

- Geological observations and hydraulic conductivity testing at locations of new piezometers.
- Daily manual water level measurements, or continuous monitoring using designated water level dataloggers at GW12-2a/b and the new wells, once installed.
- Monthly water chemistry sampling of GW12-2a/b and the new wells, once installed (when weather conditions permit – freezing conditions do not always allow pump use). Full suite samples will be taken, consistent with current groundwater sampling completed on site – nutrients, dissolved metals, anions, physical parameters.

Adjustments to this monitoring program will be based on monitoring results and the status of the Springer Pit water levels, and will be based on recommendations from a Qualified Professional. A potential mechanism for adjusting the schedule is the Annual Monitoring Plan for 2016 which will be submitted to MoE for review January 2016, as per Permit 11678.

Data are provided to MoE quarterly, and are also included in the Annual Report to MoE and MEM. Given the transit time for groundwater from Springer Pit to **Quesnel Bootjack** Lake (~12 months), more frequent monitoring than that proposed is not planned. If the monitoring frequency is reduced in the future, triggers for increased monitoring may be established based on the recommendations of a Qualified Professional.

In the event that anomalous groundwater quality is observed during sampling, additional follow-up sampling will be conducted and reported.

- 8) Contingency plans in case of problems with the management of water (i.e. Springer Pit water level), construction and operational delays or unexpected weather conditions and events, need to be pro-active, robust and effective. I note that the 2015 Freshet Embankment Cutoff Wall construction is nearly 4 weeks behind the original schedule (April 1, 2015), and that not all of the possible contingencies were enacted that may have kept it on schedule. This is likely to be inconsequential to the Cutoff Wall project due to the happy coincidence of the weather and unusual freshet melt conditions that occurred in the spring, but what could have happened if that “good luck” had not occurred?

The TSF Breach repair is nearly complete. As a result of determined efforts and adaptive management, freshet was managed and is now contained in Springer Pit.

In the event that there are delays as noted, there will be approximately 2 Mm³ of contingency capacity in the repaired TSF. This contingency is suitable and will enable additional time to develop these options in the event that monitoring indicates Springer Pit is approaching the 1030 m elevation.

B) Restricted Startup Application

- 1) Operating procedures, OMS manual and Emergency Preparedness/Response plans need to be up-to-date and clearly state priorities and procedures in respect to Mill/Mine production (operations), the protection of the environment, the safety of the public (and workers), water management and the continued rehabilitation/remediation of the dam breach.

MPMC will continue to meet the requirements for the abovereferenced documentation in accordance with the Health, Safety and Reclamation Code for Mines in British Columbia (*Mines Act*) and other applicable regulation.

- 2) It would be helpful to add flow direction arrows to the drawings on pages 16-19.

Details of individual components of the water management systems outlined in figures on pages 16 through 19 are included in Section 3.0 Engineering and Design of

Water Management Components of Appendix A to the Permit Amendment Application, including flow direction arrows in all figures.

- 3) In Appendix A Section 1.1.7, the reagents used for operation along with descriptions and quantities used should be listed (based on past practice?).

Details of chemicals and reagents used during operations, including estimates of volumes of materials that could be expected on site, are included in the Annual Environmental and Reclamation Report (Section 2.1 in the 2013 Report). A copy of the 2013 Annual Environment & Reclamation Report “MPMC 2013 Annual Report” is available for reference.

- 4) Appendix A Figure 1.2.3.1 is poor quality hard to read details.

An updated figure, “2015 Sampling Locations.pdf” is provided for reference.

- 5) Appendix C Figure 2 is poor quality hard to read details.

This figure has since been updated based to reflect current site water management processes. The original figure “Figure 2 Flow Diagram.pdf” is provided in higher resolution for reference.

Date: April 13, 2015

Correspondence: Letter (Re: Return to Restricted Operations Revision 1 and Approach to Long-Term Water Management Planning – MEM Review Comments)

Source: MEM (Tania Demchuk)

Author: Tania Demchuk

Items

1. Updated mine plans for proposed mining in the Cariboo Pit and underground area are requested for review. (Information requirement)

Mining operations are projected to reflect previously permitted mine plans for both the open pit mining in the Cariboo Pit and underground operations. Updated mine plans, based on conditions existing at the time of potential restart will be provided to the MEM for review prior to any restart of operations; based on existing permitting timelines (June 8, 2015), an updated mine plan will be provided by May 23, 2015.

2. If complete dewatering of the Cariboo Pit does not occur prior to mining, a plan for maintaining the health and safety of workers in and around this pit lake is required for review. (Permit Condition)

In accordance with Section 3.3.3 of the Mines Act, MPMC will continue to maintain appropriate safety devices and procedures for personnel to follow while working near any water hazard. In addition to protection for individuals, appropriate berms or barricading will be in place at all times to ensure equipment access to water hazards are controlled. A draft procedure for “Working Safely Near Water” is being developed and will be reviewed and approved by the MPMC Joint, Occupational, Health and Safety Committee. A copy of this procedure, once approved, will be provided to the MEM for review; it is anticipated that this will be complete by May 28, 2015.

3. The application indicates that the non-potentially acid generating (non-PAG) waste rock produced during the proposed mining activities will be used to supply rock that may be required for buttressing of the tailings facility embankments. The design for buttressing has not yet been submitted for review. Will this information be submitted during the review period for this application or is it planned to be submitted as a separate application? The design will require review by our geotechnical engineer and MEM cannot permit movement of this rock to the tailings facility for buttressing without an

approved design for such work. Additionally, please provide confirmation that the permitted SERDS has capacity to store the non-PAG waste rock if the TSF buttress design is not submitted and permitted with the restricted restart application. (Clarification)

Site investigation work was completed in 2015 and involved drilling along the Perimeter Embankment, Main Embankment and South Embankment. Drilling data was interpreted as part of the design update required under bullet point four (4) of condition C.1(d) of the M-200 Mines Act Permit Approving TSF Breach Repair and Perimeter Embankment Buttress Design for 2015 Freshet: “An update to the design of the Perimeter Embankment Rockfill Buttress based on results of additional site investigation by April 30, 2015.”

Site investigation data, as available, will also be interpreted to complete stability analyses for the Main Embankment and South Embankments and evaluate any buttressing required. Buttress designs (if required), once completed by the Engineer of Record, will be submitted to the MEM as a separate amendment application under the Mines Act (M-200) Permit. It is anticipated that such designs would be submitted in late May or early June of 2015 as an application independent of the Return to Restricted Operations M-200 Permit Amendment Application.

No movement of rock to the tailings facility for buttressing (outside of work for the TSF Breach Repair and Perimeter Embankment Buttressing under the existing M-200 Permit) will occur prior to MEM approval of an updated buttress design (if required). It can be confirmed that the permitted SERDS has capacity to store the non-PAG waste rock if the TSF buttress design is not submitted and permitted with the restricted restart application.

4. Additional information is required to understand the low grade ore noted in the Application versus the permitted high grade stockpile (reference July 25, 2013 Mines Act permit amendment). The application document notes that the Cariboo Stockpile will receive up to 1,000,000 tonnes of low grade ore. Based on the existing M-200 permit and associated application documents, this stockpile was permitted as a high-grade ore stockpile. If there is an intention to store low grade ore in this location, please specify the geochemical characteristics of that ore, total stockpile volume and contingency for this stockpile if it is not processed. For example, will it be backhauled and permanently submerged to mitigate risk of metal leaching and/or acid rock drainage? A low grade ore stockpile represents a liability on the mine site that has not been previously considered; therefore, in addition to the geochemical information and mitigation plans, MEM requires the information related to the costs associated with implementation of mitigation plans. (Information Requirement)

The stockpile described in this application is; in fact, a “high-grade” stockpile as defined in previous documents. The material which will be stockpiled displays clear positive economic value, as all current stockpiles at Mount Polley do. The terminology selected perhaps should have been “lower” grade ore. Ore placed into this stockpile during the period of restricted operations will be sampled for ARD potential by performing one

ABA test per every 20,000 tonnes stockpiled. A program for assessing the metal leaching potential for ore stockpiled will be developed with the support of a Qualified Professional.

A review of existing stockpiles will be performed with the intention of characterizing their ML and ARD potentials. A program for rectifying any data deficiencies will be created with the support of a Qualified Professional. Contingency planning for the scenario in which the material would not be processed will be informed by the judgement of a Qualified Professional using the results of a completed stockpile review and general site geochemical conditions for reference. An update on this program for characterization will be provided by May 23, 2015.

5. There is a risk that the Springer Pit lake elevation may surpass an elevation of 1030 m asl if there are delays associated with obtaining discharge authorization, higher than expected precipitation, or higher than expected seepage volumes from the tailings impoundment (see attached Lorax Environmental review comments). A mass-balance assessment of pit lake water quality and potential for effects on water quality in Bootjack Lake is required to reflect scenarios of 1) seepage from Springer Pit to Bootjack Lake if the water level exceeds 1030 m, and 2) surface discharge from the Springer Pit to Bootjack Lake if the water level exceeds 1050 m. This exercise should estimate the time it could take for seepage to reach the lake in relation to the predicted time to reach the spill elevation. This information request was originally discussed on March 9 at a meeting at the Golder offices, and at that time MEM indicated it would make this request under separate cover, however it is clear that the timelines associated with water discharge permitting are ambitious and this question is considered relevant to an adequate review of this application. MEM is also aware the MOE has provided additional guidance related to understanding effects of Springer Pit Lake development. (Information Requirement)

A mass-balance assessment of pit lake water quality and potential for effects on water quality in Bootjack Lake will be provided to the RMDRC by May 13, 2015.

6. Based on discussions to date, and the plan to flood PAG waste rock in the Springer Pit at closure, MEM understands that during the closure phase the Springer Pit will be allowed to fill and discharge from its lowest point at 1050 m asl. To understand the potential effects of this closure scenario, modelling of pit lake water quality based on expected closure conditions is required. It is expected that this work will be included in the required Reclamation and Closure Plan described in item 15 below. (Permit Condition)

As discussed in follow-up with MEM and at the RMDRC meeting on April 28, 2015, modelling of the pit lake quality water based on expected closure conditions will be provided with the updated Reclamation and Closure Plan.

7. Following on questions asked at the March 31, 2015 MDRC meeting, please provide confirmation (and supporting data) showing the depth of the water cover that will exist over the backhauled PAG rock plus tailings in the Springer Pit, and confirm that this water depth is adequate to ensure PAG rock will remain flooded in consideration of wind

effects on the lake level. Based on this information, a maximum additional volume of PAG rock will be recommended as a permit condition. (Information Requirement)

With potentially 3,000,000 m³ of tailings and 9,250,000 m³ of PAG waste rock, a total of 12,250,000 m³ of volume could be occupied by solids with interstitial water in the Springer Pit. This volume corresponds to an elevation of approximately 1041 m asl. Should the Springer Pit lake fill to spill-over at the 1050 m asl elevation, a water cover depth of approximately nine (9) m will be present above all PAG waste rock.

Determination of the minimum required depth of water cover to ensure PAG rock will remain flooded will be provided with the updated Reclamation and Closure Plan.

8. Do the comments about water storage in Section 4.2 relate to the Springer Pit lake at an elevation of 1050 m asl? (Clarification)

Yes, this interpretation is correct.

9. An updated water flow and water quality monitoring program for on-site water (i.e. not necessarily all monitoring points that are captured by the EMA permit) is required. The existing water management plan appears to focus on water levels, not continuous flow, and does not include water quality monitoring. (Information Requirement)

MPMC is reviewing the site Operation, Maintenance and Surveillance (OMS) Manual to confirm inclusion of monitoring completed as part of MEM (M-200 Permit) and MoE (Permit 11678) requirements and additional monitoring completed by MPMC. The updated OMS Manual section will be provided by May 11, 2015.

10. In order to satisfy conditions of the *Mines Act* permit amendment approving the TSF Breach Repair, MPMC developed a water management plan that includes details about the current configuration of the on-site water management system as well as a water management inspection guide (Appendix C). The document indicates that Appendix C will be superseded by an OMS Manual. MEM has received a draft of the OMS Manual and it is under review. Please comment as to whether or not an audit of the water management has occurred with the objective of 1) assessing if capacity is currently adequate to address the range of expected flows, and 2) identifying upgrades that could be made to ensure that capacity is optimized. (Information Requirement)

MPMC re-evaluates water management on site to meet site requirements. Examples of auditing activities completed are: daily inspection of water management systems in accordance with site inspection documents; formal weekly water management meetings to review water management projects, priorities and contingency measures (informal meetings being held more frequently); provision of formal water management plans and contingency plans to regulators as required by Permit conditions; and weekly update calls to regulators on site water management through scheduled calls, amongst others.

MPMC continues to work with experts to model event-based requirements for water management infrastructure to feedback into design and implementation. Additionally, MPMC is working with Golder in creating a GoldSim model to be used in modelling of existing site water management infrastructure under various site conditions. This is greatly enhancing MPMC's ability to plan and evaluate variations to site water management. Goldsim will continue to be updated as additional information is collected, contributing to continual improvement.

11. Further, the water management document does not describe an effectiveness monitoring program, beyond inspection, to assist in progressive planning for ensuring erosion and sediment control is adequate and effective. This is particularly important for non-contact water structures, and run-off supplying these structures, that divert water to the receiving environment, but could also be important for minimizing the total suspended solids (TSS) load being retained on-site. TSS is known to create operational maintenance requirements of collection and pumping systems, and is also linked to elevated metals measured in contact water on-site. An erosion and sediment control plan, with an event-based effectiveness monitoring program, is required to be developed and submitted to the MDRC for review prior to permit issuance, and implemented either separately, or in combination with the OMS Manual, depending on who will be responsible for the implementation of these respective plans. (Information Requirement)

MPMC is updating their Erosion and Sediment and Control Plan based on the guidance provided by MEM in follow-up since the submission of these comments. An updated version of the Erosion and Sediment Control Plan will be submitted by May 6, 2015.

12. It is understood that the OMS associated with water containment in the Springer Pit and Cariboo Pit will be included in the OMS manual for the TSF 2015 Freshet Embankment. This updated OMS will be required as a permit condition in advance of restart of operations. (Permit Condition)

Noted.

13. A Closure Management Manual is required that, at a minimum, a) describes and documents key aspects of the ongoing mitigation, monitoring and maintenance requirements, and b) tracks important changes to components of the system that affect long-term mitigation, monitoring and maintenance requirements. This plan must provide schedules and procedures for ensuring that environmental best practice standards are maintained and document tracking of permit and environmental compliance. The manual must be clear about roles and responsibilities to ensure clarity about who is responsible for conducting the work. The manual should include the results of a risk assessment or environmental audit and contingency or action plans developed based on this assessment exercise. (Information Requirement)

Based on the guidance provided by MEM in follow-up since the submission of these comments, MPMC is creating a Closure and Management Manual to be submitted to the MEM by May 27, 2015.

14. As indicated in screening comments, additional details related to reclamation liability costing are required to enable a review of the reclamation liability that currently exists at the mine. MEM is in receipt of such costing submitted confidentially as part of the Annual Reclamation Report submission. Cost estimates are also required for operational maintenance and monitoring on-site as it is configured at this time. (Information Requirement)

As per the request of the MEM, MPMC will provide cost estimates for operational maintenance and monitoring on site as configured at this time by May 15, 2015.

15. An updated Reclamation and Closure Plan (RCP) for the site should be development concurrently with long-term water management planning. The RCP should be developed in collaboration with First Nations and must include updated closure liability costing for the site. The December 17, 2014 permit amendment includes a condition requiring submission of this document to the Chief Inspector by September 30, 2015. An update of the status of the development of the RCP, including a summary of information currently being collected toward finalizing the RCP, is required at this time. Please also provide comment as to current expected timing of submission of the RCP. (Information Requirement)

As discussed in the 2014 Annual Report Environmental and Reclamation Report submitted to the MEM, MPMC is continuing with progressive reclamation and reclamation research. Prior to the TSF breach, MPMC had been preparing an updated RCP for submission with the permit amendment application to extend the mine life. Revisions to the last submitted plan (including incorporating feedback and addressing comments from the MEM on the previous update) were underway. Currently, there are a number of uncertainties in the future of the Mount Polley site that heavily influence the RCP and depend on the MOE and the MEM permitting decisions:

- Return to restricted operations
- Short-term water management strategy
- Long-term water management strategy
- Return to full time operations (requiring deposition of tailings in the TSF)

Depending on the outcome of the permitting decisions, Mount Polley may close permanently, enter care and maintenance or resume full time operations. Accordingly, closure needs associated with these different scenarios are the primary outstanding sections of the RCP

Work currently being conducted or planned includes:

- Modelling of Springer Pit Lake water quality (long-term);
- Development of short- and long-term water treatment and discharge strategies;
- Modelling existing stockpile volumes and geochemical properties (and, if required, mitigation planning and associated cost implications);
- Ongoing revegetation research with the goal of refining prescriptions for meeting site end land use objectives; and,
- Updating liability cost estimates to incorporate site water management infrastructure (including maintenance).

MPMC plans to submit an updated RCP, as required under the M-200 Permit, by September 30, 2015, reflecting site conditions and long-term water management at that time.

16. The application is focussed on the Restricted Restart of Operations, and while the requirement to manage surplus water on a short timeframe is acknowledged, further discussion related to the details of this requirement are deferred to the Report setting out the approach to water management plan development.

As noted in the March 30, 2015 letter sent following initial application screening period, the Application and Report documents both emphasize that a short-term discharge authorization is requested by July 2015 as a contingency measure to address water management requirements under greater than average water balance conditions. Based on the information provided in the Application and Report, and at the March 31, 2015 MDRC meeting, it is clearly understood that the discharge on this timeframe may be required regardless of operational status, and the timelines are such that it is difficult to separate the permitting of a Restricted Restart from the permitting of short term water discharge.

Further, the Application and Report identify two key pieces of information, 1) the water balance suggests discharge will be required in October 2015, under average water balance conditions, if tailings are placed in the Springer Pit (Application, Table 3.3.1); and, 2) the timelines for long-term water discharge permit set out in the Report (page 50) predict permit issuance in mid-November 2015. As such, in the case of tailings disposal in Springer Pit and due to the apparent delay between predicted need to discharge under average water balance conditions and expected permit issuance for the long-term

discharge scenario, it appears the short-term authorization may need to be actualized under average conditions, if the restricted restart is permitted (i.e. this would no longer be a contingency discharge plan for management of “upper bound” precipitation conditions).

Please clarify the proposed timing for submission of the Technical Assessment Report and associated permit application for short term discharge. This information will be used for planning purposes and to gain clarity regarding timelines associated with the review process. (Clarification)

It is anticipated that the Technical Assessment Report will be provided by May 29, 2015 and that the application will be submitted concurrently with the Technical Assessment Report.

17. The requirements for substantial additional information (and an application) to support water discharge permitting decisions for the short-term discharge authorization and the current understanding that this authorization may not be solely a contingency require that MEM have a clear understanding that a permissible plan is in place and accepted by the Ministry of Environment prior to consideration of permitting decisions related to the application for Restricted Restart of Operations. As noted in the March 30, 2015 screening letter, this could delay permitting decisions that were forecast to occur in early June. (Comment)

As discussed at the RMDRC meetings on March 31, 2015 and April 28, 2015, the MoE and the MEM have indicated that the Technical Assessment Report will be required to provide the permissible plan as referenced above.

18. For consideration during development of future water treatment options, the designers should be aware that any embankment or impoundment structure greater than 2.5 m high that impounds more than 30,000 m³ of water, or water containing any other substance, is considered to be a dam and should therefore be designed and operated in accordance with Canadian Dam Association (CDA) requirements. (Comment)

Noted.

19. MEM has supplied follow-up comments regarding the report prepared by the Independent Engineering Review Board (IERB). It is expected that a response to these comments will be submitted. While these follow-up comments and response are not directly related to the documents under review, it is anticipated that the MDRC membership may be interested in the response and that MEM may share this response as part of the ongoing discussions at the MDRC. (Comment)

Since the time of this submission, responses from the MPMC Independent Engineering Review Panel and the Engineer of Record for the TSF have been provided by MPMC to the MEM addressing the MEM comments referenced. Both the MEM comments and corresponding responses were reviewed at the RMDRC meeting on April 28, 2015.

20. Please refer to the attachment for additional comments and questions from Lorax Environmental. Your detailed response is requested for each of these.

Responses as included herein.

Date: April 13, 2015

Correspondence: Memorandum (Mount Polley Limited Restart Permit Application Review Comments)

Source: MEM/MoE (Tania Demchuk)

Author: Lorax Environmental

Items

3. Site Water Balance Model

3.1 Comments

1. **(Information Request)** What volume of water is currently stored in the Cariboo Pit? Does this volume represent additional water that will require management (*i.e.*, routing to Springer Pit and subsequent discharge), beyond the current monthly modeled values presented in Appendix D? If additional water is currently stored in the Cariboo Pit, has this volume been included in the water balance model predictions?

As of April 27, 2015, the water level in the Cariboo Pit was 1078.39m, corresponding to a volume of 636,670 m³. Due to low mining rates and minimal vertical advance of the pit (deeper) during the restricted operating phase, there are no significant requirements for displacement of water from the Cariboo Pit except for those volumes required to maintain the current Cariboo Pit lake elevation. These volumes are accounted for in water balance planning.

2. **(Information Request)** The Independent Expert Review Panel highlighted the intrinsic hazards associated with dual-purpose impoundments storing both water and tailings, and specifically recommended that surface water be eliminated from the impoundment. Given this, and the fact that surface water will continue to report to the TSF via direct precipitation, contributing watershed runoff, and potentially tailings drain down behind the 2015 Freshet Embankment, further information is requested on:
 - a) The volume of surface and tailings pore water currently stored in the TSF;

Surficial water is only stored in the TSF above the Satellite Dyke, where large flat areas allow water to pond. Due to continuous tailings migration into this basin, and no basin topographical data or access, it is difficult to estimate the current volume of this ponded water. It is known; however, that when the Satellite Dyke pond was released in March, approximately 175,000m³ of water reported to the upstream of the TSF breach repair. Currently, the Satellite Dyke pond is being

pumped down to minimize the amount of water being stored there. Therefore, the maximum amount of water stored can be assumed to be 175,000m³, with the likely total being significantly lower.

Based on the exponential tailings drainage curve developed below, it is estimated that an additional 1.1 Mm³ are expected to drain from the tailings out to December 2017.

MPMC is currently implementing an in situ monitoring program to track TSF seepage. Monitoring for changes in seepage rates will allow MPMC to revise the water balance accordingly.

- b) The expected volumes that will report to the TSF in 2015 by month;

The TSF water components for 2015 are broken out into “precipitation on supernatant”, “precipitation on beach” (using a nominal pond size), “upstream runoff”, and “tailings drawdown”. A summary of the mean monthly volumes for probabilistic analysis volumes is provided in the table below.

Component	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Precipitation on Supernatant (m ³)	1,042	1,094	824	731	675	814	749	-
Precipitation on Beach (m ³)	126,107	158,753	39,857	35,324	32,617	39,384	72,407	-
Upstream Runoff (m ³)	25,290	31,799	6,609	5,856	5,408	6,530	9,797	-
Tailings Drawdown (m ³)	151,026	130,902	113,460	98,342	85,238	73,880	64,036	55,504
Total (m³)	303,465	322,548	160,750	140,253	123,938	120,608	146,989	55,504

- c) The volumes that will be pumped out of the TSF in 2015 by month; and,

The TSF is currently only permitted as a contingency storage location. Given that freshet has already occurred, it is anticipated that all of the volume outlined in b) above will be pumped out of the TSF each month.

The existing Freshet Embankment will have a storage capacity of approximately 2.1 Mm³, plus freeboard. This would not be used for long-term storage, but primarily for freshet management over the period April through June (noting that this was not required in 2015). In 2015, the TSF has been operated by maintaining as low a water level as practical.

The TSF storage could be used as a contingency in the event that Springer Pit water levels approach critical elevations (i.e. above 1030 m).

- d) The predicted tailings pond elevations resulting from the inflows and outflows above.

As described in the response to (c) above, storage of water in the TSF is not planned; the TSF is operated by maintaining as low a water level as practical. The water management plan objective is to obtain an acceptable short-term water discharge solution such that the Springer Pit does not exfiltrate (or overflow) and such that no water is required to be stored in the TSF.

As stated above, the TSF storage could be used as a contingency in the event that Springer Pit water levels approach critical elevations (i.e., above 1030 m).

3. Figure 7 (App. C) presents the modeled vs. measured volume of water accumulated in the Springer Pit since September 2014. The current model outputs underestimate the actual volume by ~37%, based on measured precipitation and snowmelt to the end of February 2015. Section 4.3 states that the difference is likely attributable to the drain down of interstitial pore water in the tailings, but that it is hard to separate the influence of this source from the additional snowmelt experienced during the current (warmer than average) spring. Golder estimates that an additional 9 Mm³ (+/-3 Mm³) of water could still be released from the tailings. If the modeled vs. actual discrepancy in Springer Pit volumes is entirely attributable to tailings drain down, this represents a significant additional volume (~7 +/-3 Mm³) of contact water that must be managed. Given that there is currently 3-4 Mm³ of remaining storage capacity left in Springer Pit (MDRC meeting minutes, March 31, 2015), the remaining capacity could be taken up by the tailings water. The impact of this additional water does not appear to be incorporated into the current water balance projections. Given the tight timelines, and the reliance on accurate predictions of contact water volumes in the Springer Pit, the following information requests are made:

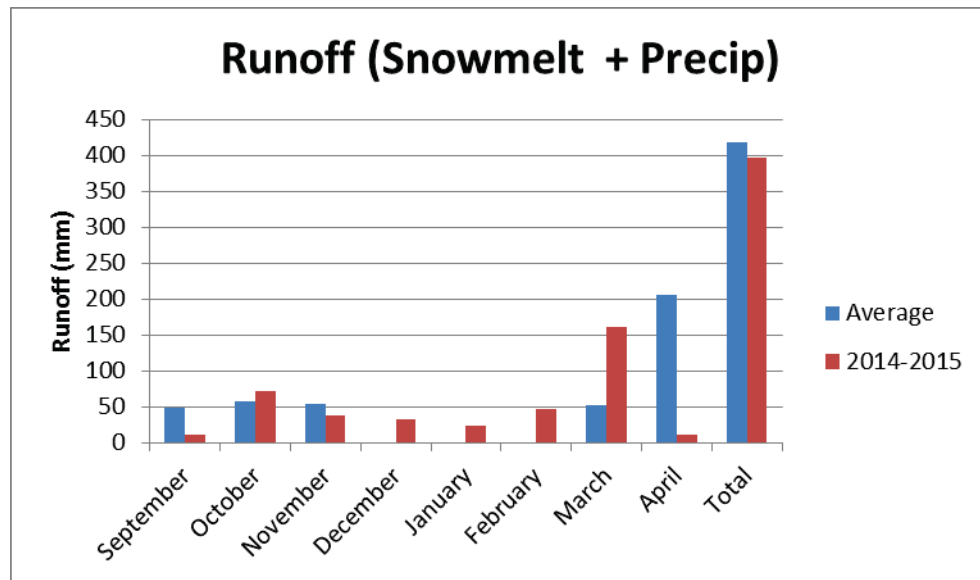
- a) **(Information Request)** Provide historical site snow water equivalent (SWE) data and the current years measurements to confirm the current expected volume of water remaining in the snowpack on site.

The snowpack has been effectively zero for the site as of the end of March. Snowpack data is provided in the attachment “MP Precip (1995-2015).xlsx”.

- b) **(Information Request)** Provide the historical precipitation record for site, current to the end of March 2015.

This data is provided in the attachment “MP Precip (1995-2015).xlsx”.

The average and observed rainfall and snowmelt at Mount Polley from September 2014 is shown below.



- c) **(Information Request)** At the Water Balance Model Review Meeting (March 13, 2015), Lorax requested that additional information be presented to support the assumption that the divergence in modeled vs. measured volumes in Springer Pit is attributable to tailings dewatering. Specifically, provision of the estimated drain down curve, an estimate of the current position on this curve and the volume of water lost from the tailings, and a comparison of this volume to the current model discrepancy were requested, and this request is carried forward again.

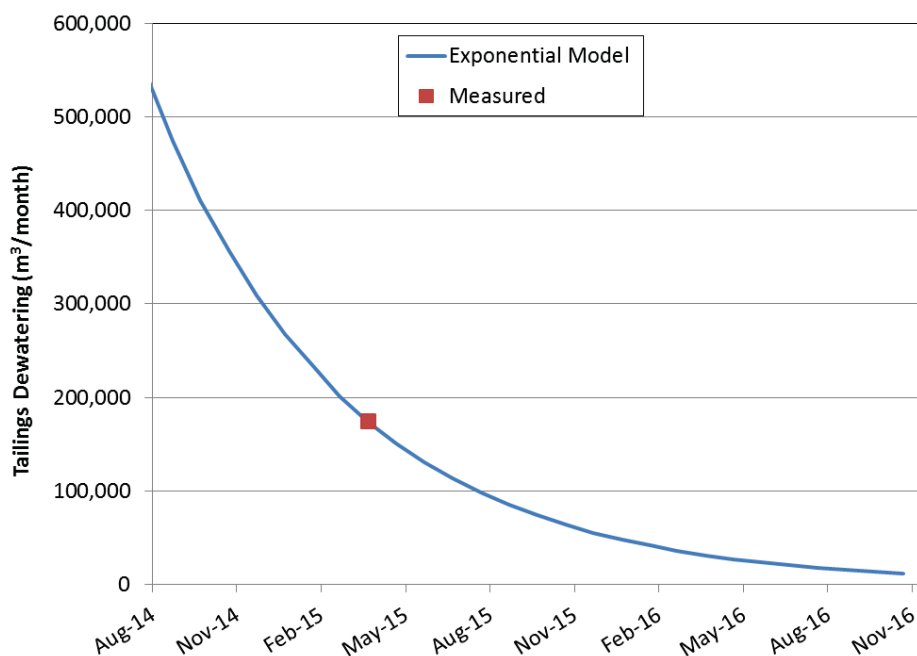
Site measurements were carried out during a period of very low precipitation to roughly represent flow rates from draining of the tailings (refer to table below). The estimated April flow rate is 0.066 m³/s, which equates to approximately 174,000 m³ per month.

Component	Flow (m ³ /s)
TSF internal sumps	0.042
South Toe Drain	0.003
Main Toe Drain (West)	0.003
Main Toe Drain (East)	0.002
Embankment Repair Drains	0.016
Foundation Drains	No flow
Perimeter Toe Drain	No flow
Total	0.066

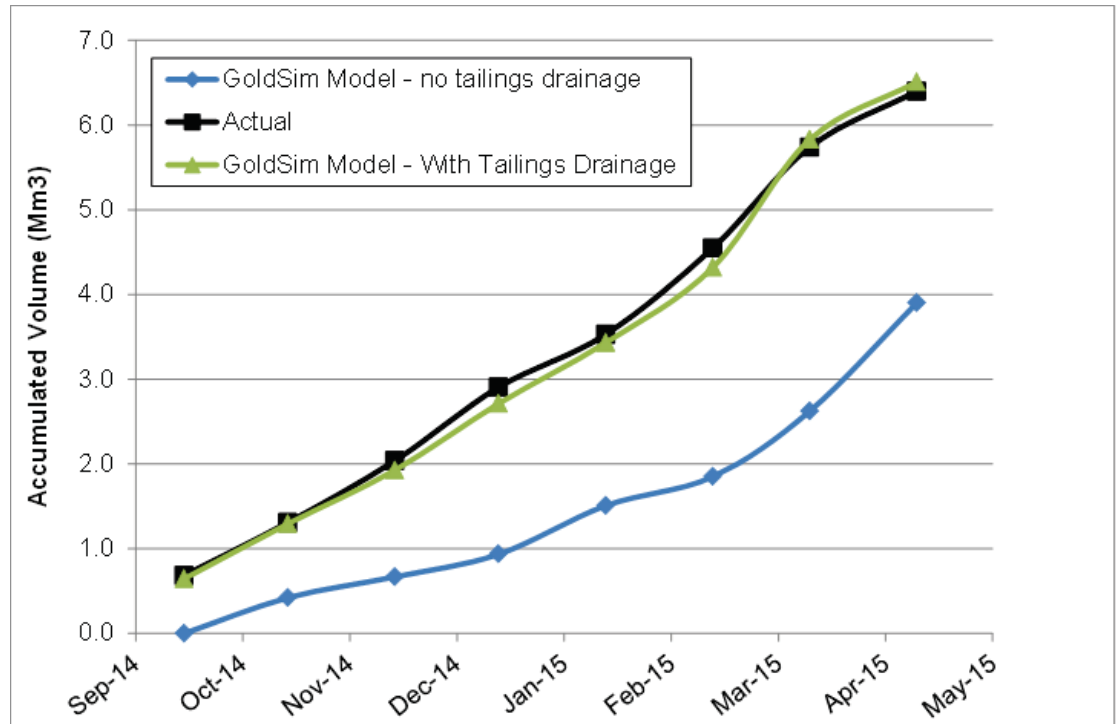
An empirical exponential tailings drain down curve has been developed that reconciles the additional volume that has accumulated in Springer Pit (2.4 Mm³ from September 2014 to April 2015), and forms the basis for future predictions in tailings dewatering volumes to be managed.

The exponential curve is constrained to pass through the April measured value (174,000 m³/month), and to provide 2.4 Mm³ additional accumulated volume for the period September 2014 to April 2015. The exponential model is provided in the figure below.

The exponential drain down curve suggests that 550,000 m³ of tailings pore water was discharged in August prior to closure of the breach.



As a confirmation of the tailings drainage flows, the modelled Springer Pit accumulation for the GoldSim water balance model is compared with the observed accumulation. Adding the tailings dewatering volumes from the exponential model to the GoldSim model flows provides good agreement with the observed Springer Pit accumulation from September 2014 through April 2015 (see figure below).

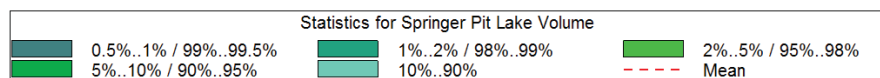
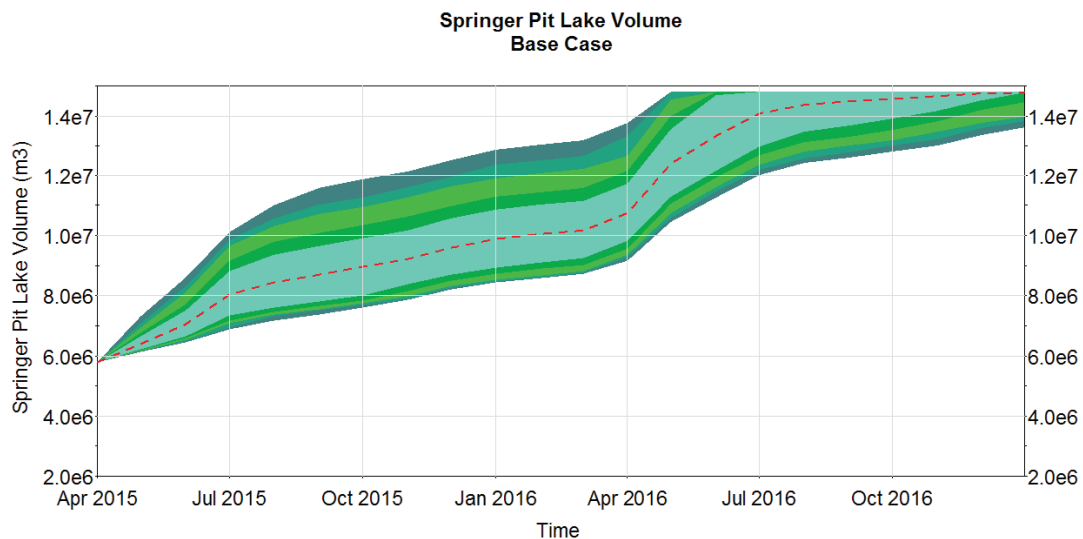
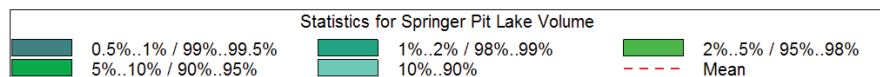
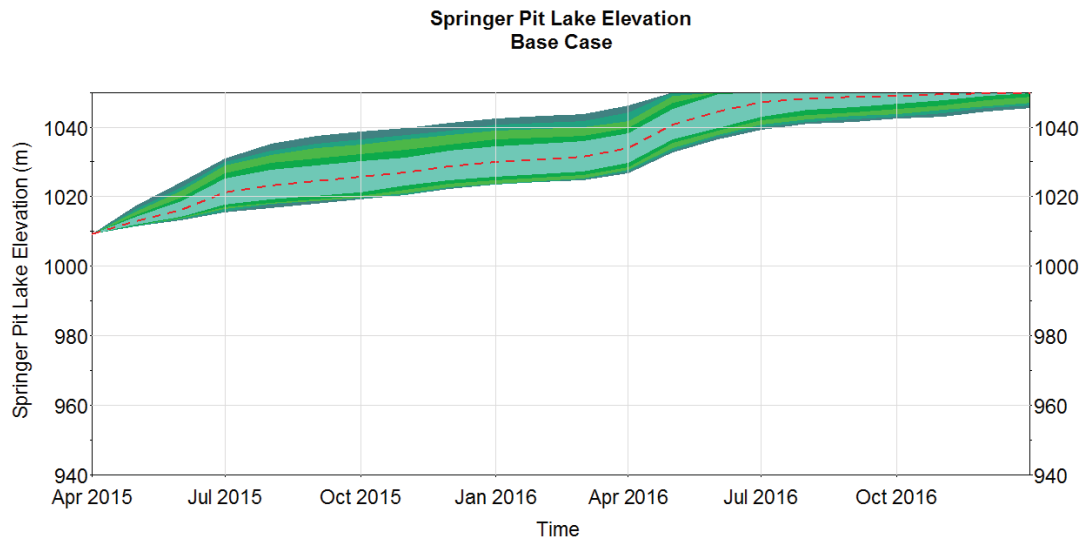


- d) **(Information Request)** Similar to the above request, the estimated water remaining in the tailings that could drain and require routing to the Springer Pit should be included as an input to the predictive water balance model.

The future tailings drain down flows from May 2015 onwards have been incorporated into the GoldSim water balance model. It is estimated from the exponential drain down curve that that an additional 1.1 Mm³ of water will drain from May 2015 out to December 2017. Total dewatering volume from August 2014 to December 2017 is estimated to be 4.1 Mm³, which is lower than the original estimate provided by Golder (~9 +/-3 Mm³).

- e) **(Information Request)** Please provide updated Springer Pit water balance model predictions benchmarked to current conditions (measured Springer Pit elevation, measured snow pack). The updated water balance model should also conservatively include flows that account for the discrepancy between model predictions and observations (e.g., Information Request 3.a and d).

Below are results probabilistic results (elevation and volume) from the GoldSim model for Springer Pit water accumulation for the Base Case conditions (all mine water pumped to Springer with no discharge). The predictions include tailings drainage estimates from the exponential drain down curve.

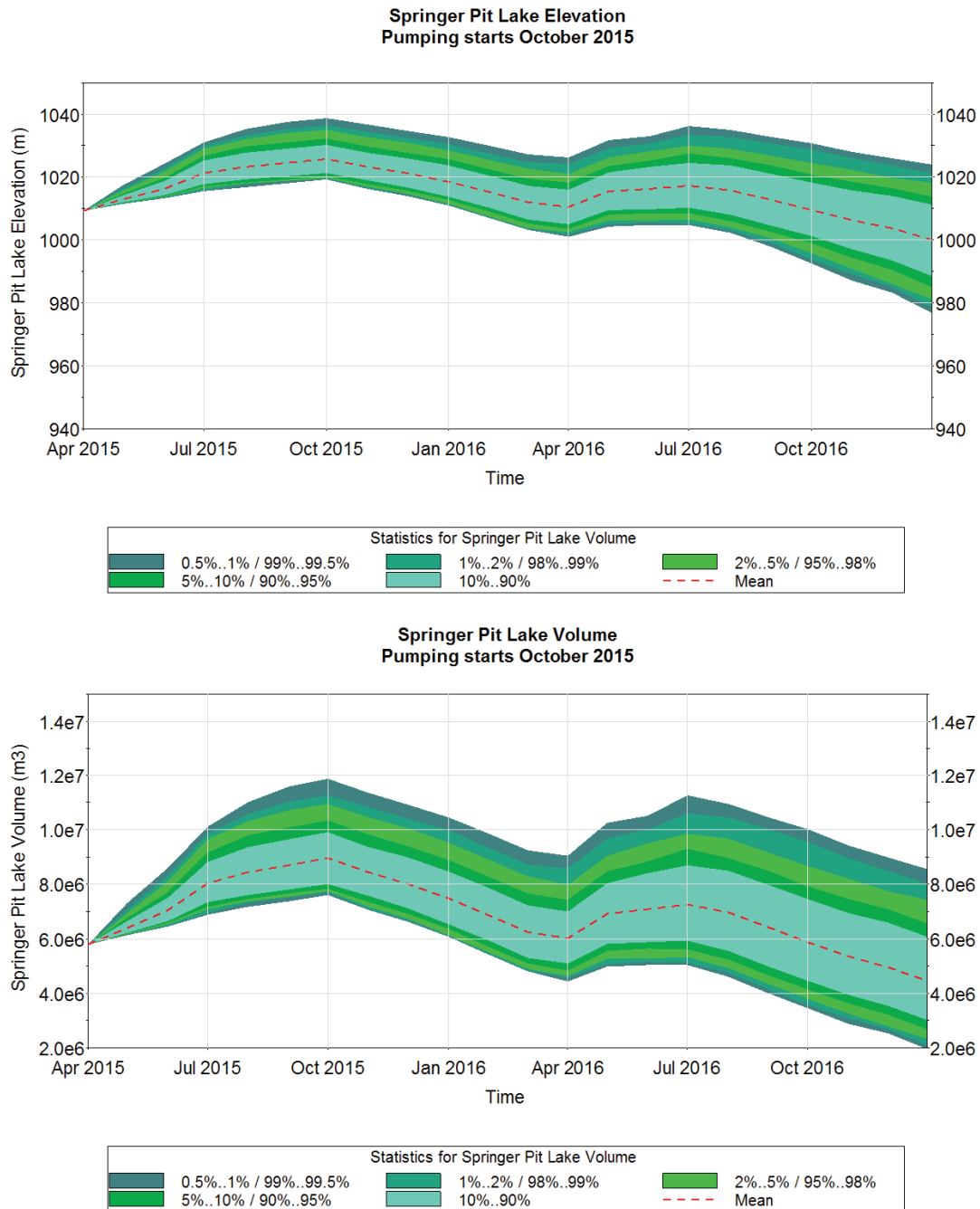


- f) **(Information Request)** Please indicate whether incorporation of the requested information alters the anticipated discharge timelines, and the water management plan as presented.

The revised model predictions above are not materially different from earlier versions.

The discharge timelines have not yet been determined, as these are dependent upon receipt of regulatory approvals and permitting. It is proposed that discharge will be assessed for at a rate of up to 0.3 m³/s (788,000 m³/month). This rate of discharge is approximately equal to the 1:200 year annual contact water volume (9.5 Mm³), and provides capacity to draw down Springer Pit during most years.

Below is an example of a scenario with discharge commencing on October 1, 2015.



4. Figure 5 (App. C) shows the cumulative volumes conveyed by the Long Ditch from October 2012 to June 2014. From May 2013 to February 2014, the model predicts zero (or close to zero) flow in the ditch, while the actual cumulative volume increases to roughly twice that of the modeled volume by February 2014. App. L in the *2013 Annual Monitoring Report* presents data collected for a supplemental monitoring site (LDa [SERDS Ditch and Long Ditch]), which suggests an average flow (based on 8 spot measurements) of $0.096 \text{ m}^3/\text{s}$. Based on the water balance model outputs for an average year (App. D in the Restart Permit Application), the Long Ditch accounts for approximately 70% of the total flow volume of Long Ditch and SERDS Ditch combined, or $\sim 1.2 \text{ Mm}^3$.

- a) **(Information Request)** Based on the above, it is apparent that water is being conveyed by the Long Ditch (below the junction with the SERDS Ditch) throughout the summer of 2013. The water balance model predicts that Long Ditch contributes $\sim 2x$ the flow volumes that the SERDS Ditch does, and therefore, it does not appear that the discrepancy in modeled Long Ditch flows can be explained by additional water from the SERDS Ditch. Please explain the marked difference in flow volumes during the summer of 2013?

MPMC's interpretation of this question is that Lorax would like MPMC to explain the discrepancy between the water balance model and the actual flow measurements in May through February 2014. As described in the Golder memo in Appendix C of the Rev1 Permit Application:

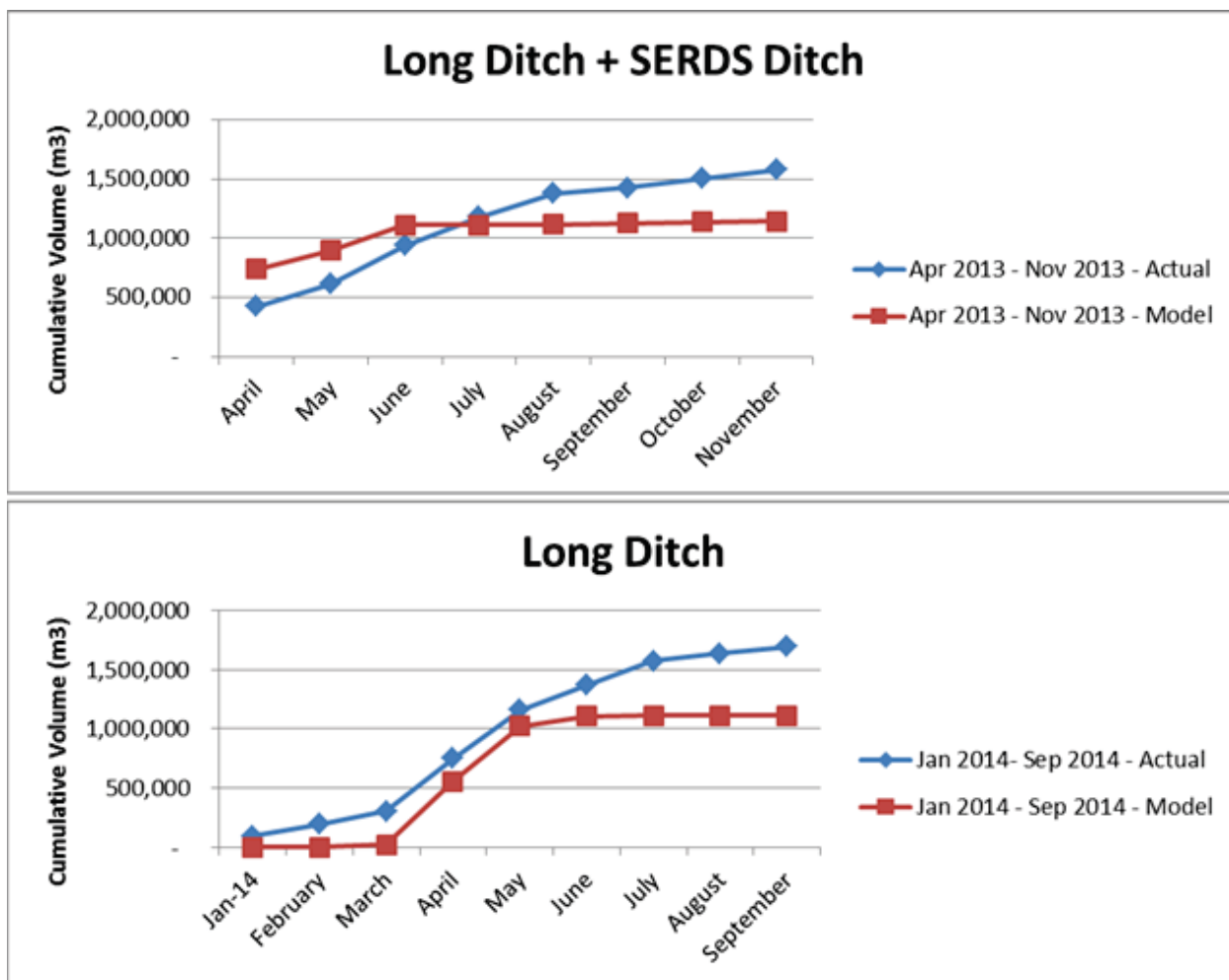
- The validation of the water balance model with limited single point measurements means that variation that occurred through the month may not be accurately reflected in the average of measurements used for comparison with the water balance.

- The Long Ditch has other inputs, including Joe's Creek Pipe and dewatering of the Wight Pit (during select periods). This means that flows from the Long Ditch need to appropriately subtract these inflow volumes to understand the catchment inputs. Measurements from these other sources are not always available in historic data, making this another source of error. For example, if Wight Pit flow subtracted from the total Long Ditch flow is higher than actually occurred, this could reduce the calculated Long Ditch flow.

Improved time series graphs showing measured and modelled Long Ditch flows are provided below, which don't include periods when field readings were not taken, and which don't attempt to separate out Long Ditch flows from combined measurements of the Long Ditch and SERDS Ditch downstream of their confluence. As shown, recent data from January to September 2014, the model and measurements appear to follow the same pattern as the site water balance, with the model over-predicting freshet, and the actual cumulative values on a trajectory to "catch up" during the remainder of the year. Further measurements are not available beyond September for comparison. This pattern is shown as well

in the Long Ditch + SERDS Ditch data collected during the non-freezing months of 2013. Improved (i.e., continuous) monitoring for the Long Ditch is planned on site to help with further validation of the water balance (refer to discussion of a revised Water Monitoring Plan in responses to comments 5 and 11).

The focus of the short-term water management plan is to estimate total monthly flows from the mine that require management, including treatment and discharge. It is acknowledged that components of the model (such as above) do require additional monitoring effort, and further model development and calibration. This will be addressed during development of the long-term water management plan.



5. (Information Request)

Table 1 states that groundwater inflow volumes for the three pits (Springer, Cariboo and Wight) are modeled. Given that dewatering of these pits is (and has been in the past) necessary for mining operations to proceed, these modeled flows should be confirmed with measurements.

Please provide a detailed plan outlining a monitoring program that will be used to measure, record and report the movement of water around the site. This plan should include details on proposed methods and equipment as well as quality assurance/quality control protocols. Please also see Comment 11 below.

At present, direct measurement of groundwater flow into Springer and Cariboo pits is not possible due to the presence of pit lakes. MPMC plans to address monitoring by providing an updated water flow and water quality monitoring program as per MEM comment 9. This Plan will be incorporated into the next revision of the site OMS, and is anticipated to be completed by May 11, 2015.

4. Hydrogeology

The short-term water management plan presented by MPMC is centred on the assertion that the Springer Pit lake elevation must be maintained at or below 1030 m elevation in order to restrict seepage from the pit towards Bootjack Lake. This assertion is based on steady-state groundwater modeling conducted by Golder (2014) estimate groundwater seepage rates into and out of Springer Pit over a range of pit lake elevations. Given the relative importance of this 1030 m elevation to the overall water management plan and the potential implication on timeline until discharge and potentially treatment is required from Springer Pit, Lorax has already made a first set of information requests, to which Golder has responded. This initial correspondence is presented in Appendix A.

Upon consideration of the aforementioned modeling and correspondence, Lorax is generally satisfied with the modeling completed by Golder. Remaining information requests and recommendations are summarized in Section 4.1 below.

4.1 Comments

6. **(Information Request)** Please provide historical water level monitoring records for Springer Pit and groundwater wells in the vicinity. Of specific interest is GW12-2a/b, though historical data for 95-R4 (the well that GW12-2a/b replaced) and other wells in the area with longer term records will be helpful.

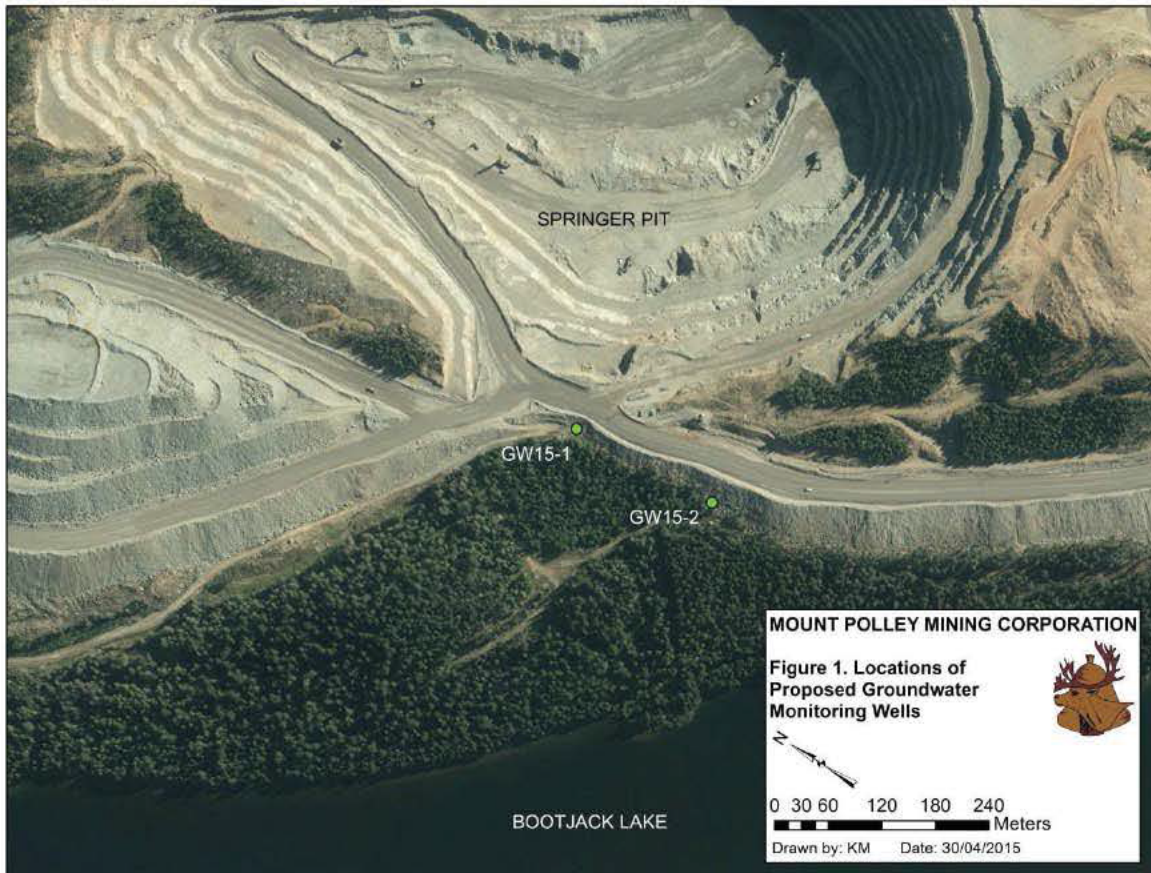
This information is provided in the table below.

Date	Water Level (masl)	
	GW12-2A	GW12-2B
11-Jun-13	1013.68	1013.63
16-Oct-13	1010.16	1010.1
13-May-14	1011.05	1010.93
07-Oct-14	1008.52	1008.58
26-Jan-15	1008.89	1008.85
17-Mar-15	1011.22	1011.09
24-Mar-15	1011.66	1011.54
31-Mar-15	1012.36	1012.15
08-Apr-15	1012.82	1012.73
15-Apr-15	1012.95	1012.92

23-Apr-15	1013.03	1013.06
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7. **(Information Request)** As the hydraulic containment of mine contact water in Springer Pit depends on soft groundwater divides (rather than hard topographic divides), increased temporal and spatial monitoring will be required to verify continued containment and to confirm model assumptions. Please provide details regarding the proposed hydrogeological investigation as well as the surface and groundwater monitoring plan, including timelines for implementation and reporting of results. The plan should include, but not be limited to:
- map(s)/schematic(s) illustrating the current and proposed monitoring locations.

The air photo image below shows the location of the two (2) new multi-level monitoring wells that are planned to be installed in May/June 2015.



- details of the measurements proposed for each location, including frequency and methods for each parameter to be monitored; and,

Through fall (approximately October) 2015, the monitoring program will consist of:

- Geological observations and hydraulic conductivity testing at locations of new piezometers.
- Daily manual water level measurements, or continuous monitoring using designated water level dataloggers at GW12-2a/b and the new wells, once installed.
- Monthly water chemistry sampling of GW12-2a/b and the new wells, once installed (when weather conditions permit – freezing conditions do not always allow pump use). Full suite samples will be taken, consistent with current groundwater sampling completed on site – nutrients, dissolved metals, anions, physical parameters.

Adjustments to this monitoring program will be based on monitoring results and the status of the Springer Pit water levels, and will be based on recommendations from a Qualified Professional. A potential mechanism for adjusting the schedule is the Annual Monitoring Plan for 2016 which will be submitted to MoE for review January 2016, as per Permit 11678.

c. triggers for follow-up action/reporting.

Data are provided to MoE quarterly, and are also included in the Annual Report to MoE and MEM. Given the transit time for groundwater from Springer Pit to **Quesnel Bootjack** Lake (~12 months), more frequent monitoring than that proposed is not planned. If the monitoring frequency is reduced in the future, triggers for increased monitoring may be established based on the recommendations of a Qualified Professional.

In the event that anomalous groundwater quality is observed during sampling, additional follow-up sampling will be conducted and reported.

8. **(Information Request)** While MPMC intends to manage water in Springer Pit to avoid uncontrolled discharges to groundwater or surface water, the potential for premature closure, equipment failure, or failure to obtain an *EMA* permit amendment within the required timeframe must be considered. Please provide an assessment of potential impacts to groundwater and surface water receivers in the event that:

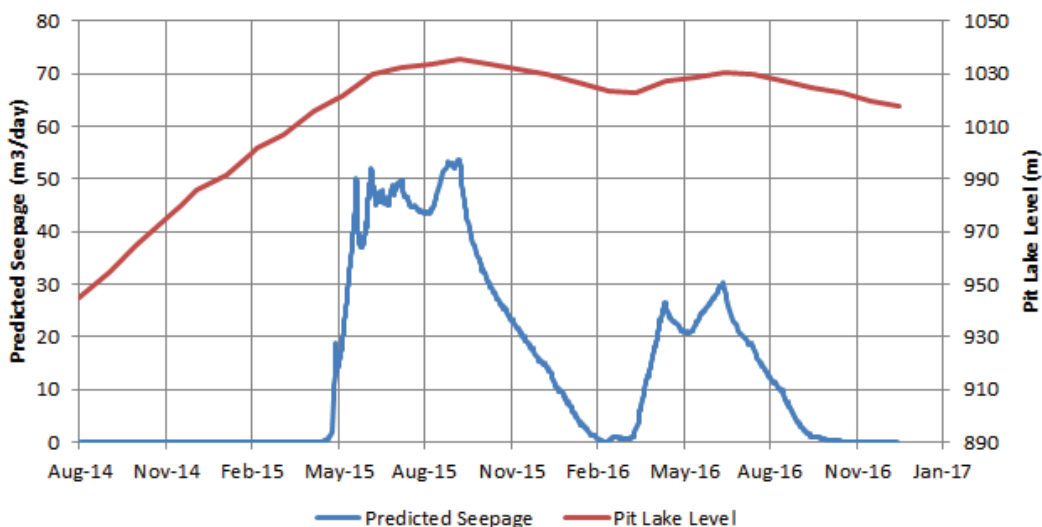
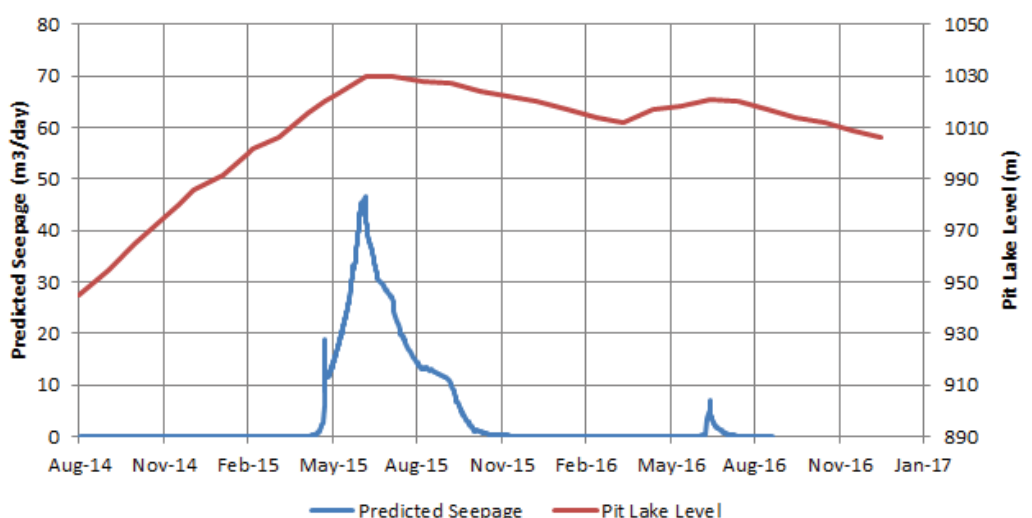
- a) the Springer Pit lake elevation is unable to be maintained below 1030 m elevation; and,
- b) the Springer Pit lake rises to the spill elevation.

Steady-state and transient analyses for selected scenarios have been completed (see Point 9 below). Effect on Bootjack **L**ake water chemistry is currently under investigation with a report to be provided to the RMDRC by May 13, 2015.

9. **(Information Request)** Golder (2014) modeled the passive filling of Springer Pit over a period of 15 to 19 years (*i.e.*, without the deposition of site-wide mine contact water and

potentially tailings in the pit) using a steady-state model. Golder agrees with Lorax that transient effects (*i.e.*, non-equilibrium changes with time) may need to be considered if a more rapid rise in the pit lake level were to be implemented (Appendix A). As the Springer Pit is now predicted to flood over the course of the next several months rather than 15 to 19 years, Lorax suggests that the pit may fill faster than the groundwater system can reach equilibrium, and therefore the assumption of steady-state conditions is no longer valid. Please provide results of transient groundwater modeling representative of the conditions and sensitivity ranges contemplated by this application.

Preliminary transient analyses for selected scenarios that include pumping water out of Springer Pit have been developed. Two (2) examples for the 99.5% upper bound pit lake level are provided below; a technical memorandum is under preparation.



5. Water Management and Monitoring

5.1 Comments

10. **(Comment)** Mine Site Water Monitoring Program: MPMC-SOP-012 Snowpack Measurement

- a) Suggest using a calibrated scale to weigh the tubes at the survey site instead of the current procedure. The spring balances are the simplest with regards to use and maintenance in adverse conditions. The standard reference for snow surveys in BC is found here:

http://www.geoscientific.com/technical/tech_references_pdf_files/snow_surveys_manual.pdf

MPMC has opted to continue following the historic methodology used on sites for consistency of results, but will consider this suggestion.

11. **(Information Request)** Please provide measurement for flow measurements made on site, including:

Clarification on this comment was provided by the MEM and Lorax on April 29, 2015, indicating that the intent of this comment was to request information on site methods and QA/QC procedures followed for taking flow measurements using methods a-e.

- a) Measurement of various flow volumes (site contact water, and receiving environment flows);

Site contact water flows are measured as described in the response to (b), (d), and (e). Flows in the receiving environment are measured as described in the response to (c). The only exception is the Hazeltine Discharge system, which no longer exists, but had an in-pipe flowmeter/totalizer.

- b) Pumped flows (*i.e.*, totalizers);

In the past, MPMC has worked with pump hours and curves to estimate pumping rates, but this was discontinued when challenges and inaccuracies were experienced, largely due to potential error in estimating the efficiency of site pumping systems.

MPMC has one (1) totalizer on site that does not function well; however, MPMC is reconsidering the use of different totalizer options as part of the hydrological monitoring program moving forward.

- c) Streamflow in natural channels;

MPMC maintains staff gauges at the sites referenced in the response to comment (f). Staff gauges are benchmarked annually after freshet. Pressure transducers are installed at these sites during non-freezing periods, with the exception of site W4

(now monitored at site W4a), which is monitored with regular bucket flows as described in the response to comment (e). Pressure transducer, staff gauge readings, and manual gaugings have been used to develop stage-discharge rating curves for these sites. Manual gaugings continue to be taken each year to refine the rating curve and/or confirm it they are still valid for the sites.

Manual gaugings are taken using a FlowTracker (an acoustic Doppler velocimeter). The work method references the manufacturers recommendations, and specific QA/QC considerations include appropriate allowances of calculated International Organization for Standardization and statistical U.S. Geology Survey percent error, and regular use of the built in QA/QC system check.

The following relevant standard operating procedures and work methods from the MPMC QA/QC manual are attached:

“MPMC-SOP-013 Hydrological Monitoring.pdf”

“MPMC-WORK-013 Hydrological Monitoring.pdf”

“MPMC-WORK-005-2 FlowTracker.pdf”

“MPMC-WORK-007 Installing and Benchmarking Staff Gauges.pdf”

Note the V-notch weir referenced in MPMC-WORK-013 no longer exists, and bucket flow measurements are taken from a culvert under a road. Methodology is discussed in the response to (e).

- d) Gravity flow in ditches (flumes or weirs and transducers/staff gauges etc.);

Manual gaugings are taken in gravity flow ditches as using the FlowTracker, as described in the response to comment (c).

- e) Discharge from pipes/culverts (bucket methods, Mannings equation for partially full pipe flow, etc.);

Discharge from pipes and culverts is typically measured using an average of three (3) bucket flow measurements as per MPMC-SOP-013 Hydrological Monitoring and MPMC-WORK-013 Hydrological Monitoring. Depending on the flow rate of the system or the specifics of the pipe outlet location, it is not always possible to obtain reasonable measurements, and in these scenarios, manual gaugings with the FlowTracker are completed. If the pipe/culvert flows does not flow into a channel, however, this is not always possible, for example, the pipe outflow from the Central Collection Sump (via the Booster Station) into the Springer Pit.

- f) Monitoring frequencies and reporting requirements.

As per Permit 11678 under the *Environmental Management Act*, MPMC “must provide and maintain suitable flow measuring devices and record staff gauge measurements, during the non-freezing period, as surface water stations W1b

(Morehead Creek), W4 (North Dump Creek), W5 (Bootjack Creek), and W12 (6K Creek)...These staff gauge readings must be taken at the same time as water samples are collected at the same or associated sites.”

Similar requirements for site W7 (Hazeltine Creek) are in place, however, hydrological monitoring is now occurring at new sites in upper and lower Hazeltine Creek and lower Edney Creek as per the 2015 Post-TSF Breach Monitoring Plan. This work is being managed by a hydrological contractor.

Monitoring frequencies as per the 2014 program are shown in the table below. Not all monitoring was completed as planned after the TSF breach, due to reallocation of resources to focus on post-breach environmental monitoring. Ongoing and planned monitoring for 2015 will be included in the updated water flow and water quality monitoring program referenced in the response to comment 5.

Monitoring Location	Frequency		Flow Type	Continuous Monitoring	Comments
	SG Reading	Flow			
Receiving Environment					
W1b - Morehead Creek	Bi-monthly	Bi-monthly	Flow Tracker	Pressure Transducer	
W12 - 6km Creek	Bi-monthly	Bi-monthly	Flow Tracker	Pressure Transducer	
W4a/W4a - North Dump Creek	Monthly	Monthly	Bucket - Flow Tracker if sufficient flow	-	
W5 - Bootjack Creek	Bi-monthly	Bi-monthly	Flow Tracker	Pressure Transducer	Typically insufficient flow to take manual gaugings during low flow periods
Upper Hazeltine	Weekly	Bi-monthly	Flow Tracker	Pressure Transducer	
Lower Edney Creek	Monthly	Monthly	Flow Tracker	Pressure Transducer	
Contact Water Collection System					
Joe's Creek Pipe	-	Monthly	Bucket - Flow Tracker if sufficient flow	-	
Wight Pit Flow	-	Monthly	Flow Tracker	-	When pumping to Long Ditch
LDb - Long Ditch at pipe outlet	Monthly	Monthly	FlowTracker	Pressure Transducer	Challenges with pressure transducer - required re-installation/lost in TSF breach
SERDS	Monthly	Monthly	FlowTracker	Pressure Transducer	Challenges with pressure transducer - required re-installation
NW Ditch	-	Bi-monthly/Monthly	Bucket - Flow Tracker if sufficient flow	-	
Junction Zone Ditch	-	Monthly	Bucket - Flow Tracker if sufficient flow	-	Started when ditch flow brought into site collection system (July)
ABR-OUT	-	Monthly	Bucket - Flow Tracker if sufficient flow	-	
STD	-	Monthly	Flow Tracker	-	
PTDs	-	Monthly	Flow Tracker	-	
MTDs/FDs	-	Monthly	Bucket	-	

Flow data and a water balance update are provided to the MoE quarterly. These data, along with rating curves and data from measurements supplemental to Permit 11678 (i.e., measurements from site water collection infrastructure for validation of the water balance) are included in the Annual Environmental and Reclamation Report which is provided to the MoE and the MEM annually.

12. **(Information Request)** MPMC Water Management Inspection Manual: Please outline the logic behind the setting of the water release priorities for the water management components during an extreme runoff/precipitation event?

Preferences for release are based on proximity to a fish bearing waterway or water body and the characteristics of the receiving environment, such as presence of a large buffer zone or relative size of the waterbody. Special consideration for sensitive receiving environments is also given (ex. Hazeltine Creek, where erosion potential is high due to exposed material).

A more recent revision of this document has been developed on site to adapt to ongoing changes in the water management system. The revised excerpts regarding priorities for release in an emergency scenario are as follows:

1. Ensure no pit dewatering systems are unnecessarily pumping into site ditch systems (ex. Wight Pit)
2. Avoid breaches at:
 - a. TSF works forming part of the 2015 Freshet Embankment construction
 - b. TSF works that overflow into Hazeltine Creek (it is preferable to release from the Long Ditch Sump)
 - c. Bootjack Creek Sump (continue pumping to SERDS, even if SERDS is overflowing to the Long Ditch Sump)
 - d. SERDS Sump (pump to Long Ditch Sump or lower Long Ditch - release from the Long Ditch Sump is preferable to a release from the SERDS Sump)
3. Direct water to release according to the following priorities:
 - a. TSF System Inputs:
 - i. TSF Main and South Seepage Ponds
 - ii. Lower Long Ditch Sump – from low point in berm at southeast corner
 - iii. Bootjack Creek Sump – through overflow pipe
 - b. NW PAG Stockpile Collection System:
 - i. 9km Sump – through overflow pipe
 - ii. NW Sump – through overflow pipe
4. Install sediment and erosion control materials at breach locations

Follow the response procedures in Section ~~3Error! Reference source not found.~~.

Date: April 14, 2015

Correspondence: E-mail (RE: Mt Polley Return to Restricted Operations: Final Call for First Nations, Prov and Fed Regulatory Agency, and Community Representative Comments)

Source: Ministry of Agriculture (Ken Awmack)

Author: Ken Awmack

Items

None – “There will be no comments coming from Agriculture”.

Date: April 14, 2015

Correspondence: E-mail (Mount Polley Mine Return to Restricted Operations Application)

Source: DFO (Darryl Hussey)

Author: Darryl Hussey

Items

General Comments:

DFO's legislative mandate, as it pertains to the Restricted Operations Application, is defined by the Federal *Fisheries Act*. Application of the fish habitat provisions of the *Fisheries Act* is guided by DFO's Fisheries Protection Policy.

Section 35(1) of the *Fisheries Act*, which prohibits "Serious Harm to Fish" (defined as the killing of fish, destruction of fish habitat and/or permanent alteration of fish habitat) is the primary focus of regulatory reviews under the Fisheries Protection Policy.

DFO defers review and comment of all issues relating to Section 36(3) of the *Fisheries Act*, pertaining to the deposit of deleterious substances into fish bearing waters, to Environment Canada.

Given the potential for Serious Harm to Fish to occur, DFO has notified MPMC, via their consultant Golder Associates, that it is advisable that they apply to DFO for a formal "Project Review" for both the short-term water management plan and the long-term water management plan.

It is anticipated that application for a Project Review will be provided as part of water management planning and permitting as these processes will define the specific project (i.e., discharge location) being applied for.

Mount Polley Mine Return to Restricted Operations Revision 1:

As the proposed restricted operations do not require any expansion of infrastructure or "mine footprint", DFO's interest is limited to the requirement to de-water the Springer Pit and/or re-direct mine contact water, which is currently being directed to the Springer Pit. While DFO appreciates that modelled mine contact water volumes and available Springer Pit capacity necessitate the consideration of both short-term and long-term mine contact water management strategies fully independent of a return to restricted operation, it is our

understanding that a short-term water management plan with discharge to the fish bearing waters of Quesnel Lake or Hazeltine Creek is necessary prior to restart.

This is essentially correct; however, the evaluation of discharge options will include all options identified.

The net result of the modelled “Site Water Management Schedule” is summarized in the statement **“Maintenance of the Springer Pit lake below the groundwater influence elevation of 1030m would require the development of storage or discharge alternative in an appropriate timeline to facilitate transfer of water. In the case of 1-200-year “wet” site condition, this would mean that a site discharge strategy for mine-influenced water would have to be approved and operational by July of 2015.”** In the presentation of the “site water management schedules”, it is not clear whether the modelled schedules factor in the use of the approximate 2-million m³ of mine-contact water storage afforded by the TSF breach repair. Given the very short July, 2015 time line and the likelihood the TSF volume of water storage capacity could significantly increase the time to fill the Springer Pit lake to the critical elevation, it would be prudent to address the repaired TSF storage capacity and how it relates to the modelled schedules.

Use of the TSF as a water management storage facility is not reflected in the site water management schedules included in the Permit Application for the Return to Restricted Operations. However, the TSF repair is nearly complete and it is considered that the TSF will provide contingency infrastructure that will allow considerable added (temporary) water storage in the event that Springer Pit levels begin approaching the 1030 m elevation.

Again, given the very short time lines a historic 1:200 wet year would impose, it would be beneficial if actual snowpack data as of April 1, 2015 could be used to model a more accurate range of “Site Water Management Schedules” for 2015. Given the very mild winter and early spring melt, April 1 snowpack is being reported as less than 80% of normal for the Middle Fraser Basin, which includes the Quesnel watershed. As such, it could be assumed that 1:25 and 1:200 “wet” scenarios moving forward from this date would generate lower volumes of water than historic averages. A reduction in modelled volumes could equate to a significant increase in the time to reach the critical 1030m Springer Pit lake elevation, which could extend the review period and/or increase the number of viable options for short-term water management.

An updated site water balance was presented and reviewed at the April 28, 2015 RMDRC meeting. A copy of the Springer Pit filling projections is provided above. While we agree that snowpack conditions are below normal and suggest a lower water volume that will require management, MPMC feels that it is necessary to plan on the basis of risk-averse predictions. For this reason, our planning includes consideration of a 200-year return period as well as the more likely average return period in the event that cumulative precipitation is wetter than expected. Our team has been working on a priority basis to effect permitting as soon as possible.

Approach for Long-Term Water Management Plan Development:

Effluent Conveyancing and Discharge (Short Term), Sec 4.3.3 Hazeltine Creek Discharge:

The reconstructed Hazeltine channel is characterized as having an armored MAF channel with capacity of 1.6m³/s in Reach 2 and 1.8m³/s in Reach 3. It is proposed that effluent and natural flow combined discharge be limited to 50% of MAF – 0.8m³/s to ensure the reconstructed channel can convey the flows without erosion or overtopping the armored channel. It is DFO's understanding that the Upper Hazeltine Channel was designed such that smaller grades of substrate would be placed within the hard armored flood channel such that a more natural stream morphology, including annual channel migration and substrate distribution within the hardened flood channel, could be attained. The analysis of the Hazeltine Creek short term option does not address potential erosion/displacement/loss of the smaller grade of substrate or what impacts may occur to fish habitat features (such as weirs, pools and LWD structures) that were to be incorporated. Further, the assessment of Hazeltine Creek as a long-term option in Sec 5.2.1 states "...the ability for Hazeltine Creek to accommodate additional flows, within the timing horizon necessary is limited and in conflict with rehabilitation efforts." This statement seems to be in conflict with the short-term option analysis and, as such, should be clarified.

Based on the dilution available within Hazeltine Creek, it is being considered as a short-term option, in advance of it becoming utilized as fish habitat. Based on the engineered channel (when complete), Hazeltine Creek will be able to accommodate the flows. We are presently evaluating other options for effluent conveyancing and discharge and these will be discussed at a May 8, 2015 meeting in Vancouver (to which invitations have been sent).

Notwithstanding the general comment above - that DFO defers comment relating to *Fisheries Act* Section 36(3) to Environment Canada, this section states that, as Hazeltine Creek is currently non-fish bearing, water quality guidelines need to be met within an initial dilution zone in Quesnel Lake. It should be noted that, as Quesnel Lake is a fish bearing water, the compliance point for the deposit of a deleterious substance into fish bearing water is "end of pipe" and not within an initial dilution zone.

The determination of what is a deleterious substance as defined under the general prohibitions of the *Fisheries Act* is based on opinion evidence. However, for the purposes of an effluent from a metal mine, the *Fisheries Act* has a specific regulation made pursuant to it that defines what is a deleterious substance: the Metal Mining Effluent Regulation (MMER). MPMC anticipates that the effluent will comply with the specific parameter limits contained in Schedule 4 of that regulation as well as the non-toxicity requirements of that regulation. As noted in this comment, those limits apply to the point of discharge. More specifically, under the MMER, they apply to the point at which the mine no longer exercises control over that effluent. In the specific circumstance noted, we interpret that final location to be the discharge point to Hazeltine Creek. This end-of-

pipe approach is thematic to the general prohibition and specific regulation requirements of the Fisheries Act. The end-of-pipe application of that law has been judicially clarified to be the substance that is added to water and not the water with the substance diluted into it (R. V. MacMillan Bloedel [Alberni] [1979] Ltd.; R. V. Kingston [City] [2004]; both of which were upheld on appeal to superior courts). In British Columbia, the *Environmental Management Act* (EMA) prohibits a party from causing pollution. Administratively, this usually means that the WQG or other science-based objective (i.e., the water with the substance added) must be met at the edge of the IDZ. This can, at times, appear incompatible with the federal law although we feel that it is not. We anticipate that the permit limits would be applied on an end-of-pipe basis (compatible with MMER) and the general prohibition against causing pollution is confirmed by attainment of WQG at the edge of the IDZ. This attainment, as well as end-of-pipe compliance with federal requirements will be part of the evaluation contained in the Technical Assessment Report and the proposed permit limits will demonstrate compliance with the definition of what is a deleterious substance as well as propose permit limits that will not result in “pollution” as defined by EMA.

Because the federal requirements will be met at the point of discharge to the Hazeltine drainage (under this scenario), the non-deleterious requirement for discharge to Quesnel Lake will therefore also be met. With regard to provincial requirements, the IDZ will be utilized as an assessment tool to identify whether or not attainment of WQG is obtained at the edge of the IDZ.

As the assessment of fisheries productivity impacts includes the assessment of ongoing reduced or lost productivity, if the Hazeltine Ck short-term discharge option is pursued, the loss of productivity resulting from the maintenance of Hazeltine Creek as non-fish bearing should be assessed.

MPMC is aware that utilization of this option would result in interim losses of productivity over the period of this short-term option. This is an additional reason why we see this option as being a short-term discharge option. We note that MPMC is actively engaged with Fisheries and Oceans Canada to address interim losses in productivity and we anticipate that should the Hazeltine Option be used, a requirement for offsets would accrue.

As Hazeltine Creek and Edney Creek currently join prior to entering Quesnel Lake, the potential impact of mine contact water discharge on migrating and homing anadromous and resident fish that use Edney Creek for spawning should be assessed. Even should the creeks be separated as a mitigation strategy, flow mix situations (similar to what is proposed) where a volume of mixed water from two drainages enters downstream of a natal stream, can result in significant delay or impeded upstream migration. As such, if the Hazeltine Ck short-term option is to be pursued, an assessment of potential impacts should occur and a monitoring plan to assess both delay and positive migration in Edney Creek should be developed.

The Technical Assessment Report will address this issue. Given that the necessary timelines for a short-term discharge are limited, we may look to separate these flows such that this issue is avoided. This decision will involve discussion (and application as needed) with the DFO.

Duration of the short-term contingency is not provided and would be required to assess the scale of the potential impacts (e.g. does short-term mean 3-months or 2-years?)

At present, the duration of “short-term” has not been defined. The long-term option necessarily requires proper design and planning as well as consultation. It may also be necessary to “prove out” treatment technologies based on pilot scale testing. Without a specifically defined long-term treatment technology, for example, a specific schedule would be difficult to provide.

We propose that the temporal scale of impacts be addressed as part of the “habitat objectives” program that we have begun with DFO because the framework under discussion is envisioned to address duration of effect.

5.1 Criteria for Discharge Options – the “Capacity” criteria states the effluent volume must be accommodated without adverse effects. While there are physical performance measures and metrics for defining adverse effects there are no biological indicators. Biological indicators, such as ensuring flow mix ratios are within acceptable limits for migration and homing fish and ensuring available habitat quality and quantity for the expected fish communities are not negatively impacted, should be developed and added as rating criteria.

This will be addressed in the Technical Assessment Report.

5.2.1 Hazeltine Creek – the criteria that 35% of natural flow in Hazeltine Creek, a condition for an earlier discharge permit, is adopted here. The hydraulic and ecological analysis and assessment that established this criteria should be presented so that regulatory agencies can ensure that the standard is still valid.

We have used this criteria as a planning tool because it has previously been accepted by agencies. However, such a flow-based approach is not viewed as viable because of the lack of current and foreseeable long-term storage capacity. It is unlikely that this criteria will be used in the long-term.

This criterion would not apply to the short-term conveyance use of Hazeltine Channel.

Date: April 14, 2015 (Comments from April 8, 2015)

Correspondence: E-mail (MoE Comments re Mt Polley tailings deposition application)

Source: MoE (Hubert Bunce)

Author: Brian Yamelst

Items

In summary, the application to discharge tailings and continued and increased storage of mine contact water in Springer Pit includes the general information required. However, a detailed technical review of potential impacts is not included (or predicted) and subject to the future inlet flows, none of which are predicted in the application.

As noted in the RMDRC meetings, a Technical Assessment Report is being prepared to address discharge of dewatering flows. To address the possible consequence of seepage flows to groundwater, an assessment is being prepared for May 13, 2015.

Date: April 14, 2015

Correspondence: E-mail (MoE Comments re Mt Polley tailings deposition application)

Source: MoE (Hubert Bunce)

Author: Hubert Bunce

Items

The Executive Summary includes the situation to date, but does not include information on the proposed actions (i.e., mill operation, associated discharges, etc.), and most important, future decisions on water management and related time frames,

The application segregates background site and breach information into Appendix A, limits scope to a restricted operation (i.e., processing of up to 4,000,000 tonnes of ore over one year period) and related site water management plan, and (i.e., and discharges), and assumes ore properties have been adequately predicted for PAG, NAG,

The development of a long-term management plan is noted, along with awareness of stakeholder approval, but is separated from the application,

Received comment Tables 1.2.1 through 1.2.5 appropriate to include, not acceptable cut and paste as it cannot be read,

A copy of the tables in Excel format have been provided for reference, and are attached as “M-200 Permit Amendment Comments.xlsx”.

Springer Pit lake water chemistry is not adequately summarized, without trending or prediction, considering there is potential for discharge in the near future,

Springer Pit chemistry predictions applicable to the short-term as well as to the long-term are being prepared as part of the Technical Assessment Report.

The existing groundwater flow and quality is not well described and the recommended monitoring program improvements (i.e., new wells) appear to be subject to a future discharge authorization (i.e. the need to have a discharge authorization by July 2015),”

Specific plans to install additional wells and to increase the frequency of monitoring of those wells has been provided above. Additionally, an evaluation of the consequence of

seepage to groundwater, should the pit level exceed 1030 m, is being prepared for May 13, 2015.

Date: April 16, 2015

Correspondence: E-mail (additional Comments from Brian on MPMC application to date)

Source: MoE (Hubert Bunce)

Author: Brian Yamelst

Items

The target of maintaining Springer Pit below 1030m has been set, but consequence of exceeding that level has not included review or assessment of slope stability down gradient (i.e., and potential to impact Bootjack Lake),

The consequence of seepage flows to groundwater should the pit reach the 1030 m elevation is being evaluated in a memorandum to be provided by May 13, 2015. It is also proposed that the TSF be used as contingent infrastructure to aid in maintaining Springer Pit water levels below 1030 m elevation.

The monitoring program as presented in section 3.5 is appropriate in the near term; triggers and related additional monitoring have been noted, and subject to review by a Qualified Person, but none are well defined; the permit section 3.8 requires quarterly reporting of data only, without on-going analysis or assessment that may be more suitable to the short-term operation; there is no existing permit requirement for immediate notification of subsurface discharge conditions changing (i.e. discharge commencing) ; all of which may result in additional permit discussion and requirements.

Notification requirements are common in MoE permits. MPMC anticipates that both the MoE and the MEM (and others) will expect to be updated on the status of Springer Pit water elevation as well as the status of short-term water management plans and progress. MPMC commits to providing those updates in a timely manner and does not object to a permit requirement for notification at a specific threshold. We propose that our consultants and the MoE third party reviewers provide recommendations on a suitable notification elevation for the purpose of the permit, if this is preferred by the MoE.

In general, the application contains the assessment criteria required for a decision to authorize discharge of tailings to Springer Pit. However, additional permit review and discussion (i.e. will take some time) of new and supplemental requirements is required.

Date: April 21, 2015 (Received via E-mail April 24, 2015)

Correspondence: Letter (Re: Mt Polley Mining Corporation (“MPMC”) Return to Restricted Operations Permit Amendment Application (the “Application”) and the Approach for Long-Term Water Management Plan Development)

Source: Williams Lake Indian Band/Xat’sull First Nation (Kirk Dressler)

Author: Chief Ann C. Louie and Chief Donna Dixon

As of the time of the Application, a commonly held view was that the restart application was an all-encompassing application that also included effluent treatment and discharge. Mount Polley, since this time has sought to clarify (and the MoE/the MEM have done the same) that:

- 1) The temporary restart is for a *Mines Act* permit (M-200) amendment to allow mining and an *EMA* permit (PE11678) amendment to allow tailings to be deposited in the Springer Pit;
- 2) A separate amendment application will be filed for an (*EMA*) effluent permit to enable short-term water management (treatment and discharge) to allow control of Springer Pit water levels. This permit amendment application will be subject to an additional thirty (30) day consultation period; however, MPMC has been engaging with the Williams Lake Indian Band and the Xat’sull First Nation (as well as with local community representatives, regulators and stakeholders) in advance of this application being filed; and,
- 3) MPMC is in the process of developing a long-term water management plan that includes long-term treatment and discharge. The Williams Lake Indian Band and Xat’sull First Nation will continue to be welcomed to participate as that plan is developed. Additional statutory consultation will be part of permit amendments needed to implement the long-term water management plan.

A number of the following comments (including the comments from the Technical Reports provided by the Williams Lake Indian Band and Xat’sull First Nation, included separately below) likely reflect the above prior understanding. In the responses below, where the feedback received is reflective of the above expectations, “Please refer to introductory remarks for this item” is noted. It is intended that in those cases, the comments have since been addressed in

ongoing discussions, will be addressed in the Technical Assessment Report (TAR), or will be addressed by separate explanatory detail following issuance of the TAR.

Items below are taken from the “Technical Issues Resulting from the Application” section of the original correspondence. Note - items that are sourced from the appended two (2) technical reports have been addressed in the responses pertaining to those comments (as found in this document).

Items

Technical reports, namely the *Technical Review Comments Summary* prepared by BOA Ltd., LGL Ltd. And MESL dated April 21, 2015 (the “BOA Report”), and the *Review and Comment on Mount Polley Mine Re-Opening Application and Water Management Plan* prepared by James R. Kuipers of Kuipers and Associates dated April 12, 2015 (the “Kuipers Report”) are appended to this letter (collectively, the “Technical Reports”). The Kuipers report was written prior to the understanding that MPMC’s consultants are in the process of developing a Technical Assessment Report (“TAR”).

Responses to these Technical Reports are as provided under their respective headers in this document.

It is our understanding that MPMC is preparing the TAR to provide further information on the Application and the potential impacts of a restart on the environment. Without the TAR it is premature to consider the Application, assess impacts or consider options because of numerous critical information gaps...

Please refer to introductory remarks for this item.

MPMC is preparing a TAR for the short-term water management scenario; it is anticipated that the Technical Assessment Report will be provided by May 29, 2015.

As discussed at the RMDRC meetings on March 31, 2015 and April 28, 2015, the MoE and the MEM have indicated that the Technical Assessment Report will be required to provide a permissible plan for short-term water management in support of a decision on the return to restricted operations application.

The Application seeks to separate water storage and/or discharge issues and suggests that they can be addressed in water management documents that are to be submitted independent of, but parallel to, the Application. Despite our efforts to work with MPMC and the Province on this issue, the First Nations continue to have grave concerns with this approach. The unfortunate reality is that the existence of Mount Polley Mine will necessitate significant discharges into an already damaged receiving environment, in an area over which the First Nations have strong Aboriginal title claims and that is critical to the First Nations for the exercise of their Aboriginal rights. While mine contact water may be released from the site, regardless of whether Mount Polley resumes operations or

not, it is not acceptable for MPMC to use this fact as a mean of escaping immediate ownership and responsibility for the long term water management issues.

Please refer to introductory remarks for this item.

MPMC recognizes the concerns of the First Nations with respect to protecting the environment and shares these concerns. The Company has been consistent in its commitment to managing water in both the short- and long-term at the Mount Polley Mine to protect the surrounding watershed. MPMC has worked with the First Nations, local community, regulators and stakeholders in establishing numerous venues and opportunities through which to discuss both the Application and water management at Mount Polley Mine.

MPMC is investigating a number of options for short- and long-term water management at the mine and is preparing a Technical Assessment Report on short-term water management. As discussed at the RMDRC meetings on March 31, 2015 and April 28, 2015, the MoE and the MEM have indicated that the Technical Assessment Report will be required to provide a permissible plan for short-term water management in support of a decision on the return to restricted operations application.

Although MPMC are preparing a TAR to support a short-term discharge solution, MPMC remain committed to developing a long-term water management strategy. MPMC also believes that they have demonstrated sincere efforts in initiating the long-term water management plan and supporting actions. MPMC have been open and transparent in communicating their approach on this matter and will continue to openly communicate progress.

In order for the First Nations to provide an informed response to the Application, and for the Province to identify, consider and address potential impacts to our rights, the following data is required:

1. Evaluation of options for effluent discharge (i.e., identify and evaluate candidate water discharge locations);

Please refer to introductory remarks for this item.

Since the submission of these comments, an Options Analysis meeting was held on May 8, 2015, during which water management planning for the TAR was discussed. This meeting was attended by representatives of the Williams Lake Indian Band, the Xat'sull First Nation, MPMC, the MEM, the MoE, Fisheries and Oceans Canada, the Likely Community representative and Golder.

During this meeting, presentation was made on the options evaluated for effluent discharge, including Hazeltine Creek/Polley Lake, Edney Creek, Bootjack Lake/Morehead Creek, Quesnel Lake and Quesnel River.

As reviewed during the meeting, of these options, only Quesnel Lake and Quesnel River provide adequate dilution (i.e., minimum of 10:1 based on average flows) to be considered a viable short-term option for effluent discharge. As such, the only viable discharge locations are Hazeltine Creek (short-term, while it is not fish habitat; not viable in the long-term, when it is fish habitat); Quesnel Lake via pipe and diffuser; and, Quesnel River via pipe and diffuser.

During the meeting, there was general agreement that it would be imprudent to proceed with either the Quesnel Lake via pipe and diffuser or Quesnel River via pipe and diffuser for the short-term discharge, because once the infrastructure is installed for either of these discharge locations, the capital expenditure would be of a magnitude that would preclude an alternate option being constructed. Therefore, a discharge to Hazeltine Creek is the most viable short-term solution because it will not require extensive infrastructure that will bind a long-term option, and it will afford the time for sufficiently detailed studies of the other two (2) options to clearly identify which is the best overall for a long-term discharge and to enable consultation on those options.

A copy of the summary from this meeting, as provided by Golder on May 15, 2015, is included as “May 8 Option Analysis Meeting Minutes.pdf”.

2. Predictions of effluent quality and receiving water quality conditions for operations, closure and post-closure;

Please refer to introductory remarks for this item.

As discussed during the Options Analysis meeting held on May 8, 2015, predictions of effluent quality and receiving water quality conditions varies with water treatment and water discharge options. Short-term water management predictions will be available in the TAR anticipated for submission by May 29, 2015.

Longer-term (full operations, closure and post-closure) predictions will continue to be developed and will be included in future TAR(s) and associated permitting.

3. Identification of the need for water treatment to facilitate short-term and/or long-term water management;

Please refer to introductory remarks for this item.

As discussed during the Options Analysis meeting held on May 8, 2015, at this time, short-term water management is planned to entail use of treatment for total suspended solids. Details of water treatment requirements to facilitate short-term water management will be included in the TAR anticipated for submission by May 29, 2015.

As discussed during the Options Analysis meeting held on May 8, 2015, details of water treatment requirements to facilitate long-term water treatment continue to be identified and evaluated and will be included in future TAR(s) and associated permitting.

4. Evaluation of the effects of wastewater discharges on receiving water quality and associated water uses (i.e., an effects assessment).

Please refer to introductory remarks for this item.

Evaluation of the effects of wastewater discharges on receiving water quality and associated water uses for short-term water management will be available in the TAR anticipated for submission by May 29, 2015.

As discussed during the Options Analysis meeting held on May 8, 2015, details of long-term water management continue to be identified and evaluated and will be included in future TAR(s) and associated permitting.

The Kuipers Report focuses on the need for a definitive short-term water management plan and states that “the present approach being taken in the application and WMP does not address the priority nature of the need to address imminent and as yet unmitigated or unpermitted mine discharges, and instead suggests re-opening in a manner that would add to the present urgency.

Please refer to introductory remarks for this item.

MPMC outlined in the Application the need for a short-term water management plan as soon as July of 2015 in the case of a 1-in-200 year wet precipitation scenario; with or without the return to restricted operations. Updated Springer Pit filling sensitivity analyses were provided in the April 30, 2015 version of this document.

MPMC, with its consultants, is proposing to submit a TAR by May 29, 2015 given the agreed view by all parties that short-term water management is of priority.

MPMC have continued to work on water balance details since the submission of this application. There is an effective water balance model with probabilistic evaluations covering scenarios with and without restricted restart. MPMC are of the view that the Hazeltine Creek short term option can be implemented sufficiently soon enough to enable the restricted restart. Moreover, the TSF breach repair has been concluded (final quality assurance testing is in progress as of the time of this writing). The breach repair provides a 2 Mm³ contingency for water management should that become needed.

In addition, since the restricted restart application has been submitted, an evaluation of the consequence of overflow to groundwater has been carried out in the May 8th, 2015 Technical Memorandum: “*Assessment of groundwater seepage outflows from Springer Pit to Bootjack Lake at the Mount Polley Mine, BC*” (attached).

This Technical Memorandum models groundwater seepage to Bootjack Lake from the Springer Pit under scenarios of restricted start-up and no dewatering (i.e., the Springer Pit fills to the overflow elevation of 1050m until December, 2016); the technical memorandum concluded that, “no constituent concentrations were predicted to be greater than the BC WQG in either scenario, therefore, adverse effects to aquatic life are not anticipated). Additionally, laboratory tests conducted on untreated water collected from Springer pit in November 2014 and March 2015, showed no acute toxicity to rainbow trout or the water flea *Daphnia magna* (a sensitive crustacean) in untreated and undiluted Springer Pit water. These tests support the conclusion that significant adverse effects to aquatic life are not anticipated under either scenario.”

Date: April 21, 2015 (Received via E-mail April 24, 2015)

Correspondence: Report (Technical Review Comments Summary)

Source: Williams Lake Indian Band/Xat'sull First Nation (Kirk Dressler)

Author: Don MacDonald (MacDonald Environmental Sciences), Dr. Elmar Plate and Marc Gaboury (LGL Ltd.) and Brian Olding (BOA Ltd.)

Items below are taken from the sections “Comments on Permit Amendment Application MPM Return to Restricted Operations Revision 1” and “Comments on Approach for Long-Term Water Management Plan Development”; other sections of the report are “Executive Summary”, which summarizes the document (including the comment sections) and “Introduction, Background, Structure and Goals for the Comments” which provides context for the comments.

Items

Comments on Permit Amendment Application Mount Polley Mine

General Comments

According to BCMOE (2013), Applicants seeking an *EMA* permit are required to submit a technical assessment report (TAR) that provides enough information to fully understand the application and the potential impacts on the environment.

It is understood that MPMC is currently preparing this TAR. The WLIB expects to collaboratively participate, according to its capacity, in the development of the TAR, with MPMC.

Please refer to introductory remarks for this item. It is anticipated that the TAR for short-term water management will be provided by May 29, 2015.

Since the submission of these comments, an Options Analysis meeting was held on May 8, 2015, during which water management planning for the TAR was discussed. This meeting was attended by representatives of the Williams Lake Indian Band, the Xat'sull First Nation, MPMC, the MEM, the MoE, Fisheries and Oceans Canada, the Likely Community and Golder. Representatives of the Williams Lake Indian Band and Xat'sull First Nation included a contributing author to this *Technical Review Comments Summary*.

The prevailing hydraulic gradients that Golder has provided and that, in principle, have been confirmed by GW Solutions, suggests groundwater originating in the Springer Pit Lake tends to flow westerly towards Bootjack Lake. There is a reasonably high likelihood

that under restricted mining operations, water levels in Springer Pit may be high enough, or potentially significant seepage zones may already exist, for some water from Springer Pit to discharge to Bootjack Lake.

The quality of the mine-influenced waters (based on the existing concentrations of eight substances) would likely have negative impacts on aquatic resources if these waters were discharged to fish bearing lakes and streams within the project area.

Since the submission of these comments, a Technical Memorandum, *Assessment of Groundwater Seepage Outflows from Springer Pit to Bootjack Lake at the Mount Polley Mine, BC* was prepared by Golder, and provided to attendees of the Options Analysis meeting held on May 8, 2015, which included representatives of the Williams Lake Indian Band and Xat'sull First Nation (including an author of this *Technical Review Comments Summary*). A copy of this Technical Memorandum is provided as, "*Seepage Springer Pit to Bootjack.pdf*".

This Technical Memorandum models groundwater seepage to Bootjack Lake from the Springer Pit under scenarios of restricted start-up and no dewatering (i.e., the Springer Pit fills to the overflow elevation of 1050m until December, 2016); the technical memorandum concluded that, "no constituent concentrations were predicted to be greater than the BC WQG in either scenario, therefore, adverse effects to aquatic life are not anticipated). Additionally, laboratory tests conducted on untreated water collected from Springer pit in November 2014 and March 2015, showed no acute toxicity to rainbow trout or the water flea *Daphnia magna* (a sensitive crustacean) in untreated and undiluted Springer Pit water. These tests support the conclusion that significant adverse effects to aquatic life are not anticipated under either scenario."

Quality of discharge water for the short-term water management plan will be included in the TAR anticipated to be provided by May 29, 2015.

Based on a review of the Application, it is apparent that the TAR has not yet been prepared and we understand that it is currently under development. There are, therefore a number of serious deficiencies that must be addressed in the forthcoming TAR before a decision on issuance of a *MA* or *EMA* permit is rendered...The nature and severity of these deficiencies makes it difficult to evaluate the technical merits of the application until such time as the forthcoming TAR has been developed and reviewed.

Please refer to introductory remarks for this item.

As discussed at the RMDRC meetings on March 31, 2015 and April 28, 2015, the MoE and the MEM have indicated that the short-term water management Technical Assessment Report will be required to provide the permittable plan required to make a decision on the return to restricted operations activities in parallel with water management requirements.

Specific Comments

Of the eight substances above [nitrate, sulphate, aluminum, copper, iron, molybdenum, phosphorous, selenium], copper and selenium exceedances have the greatest potential for significant effects on aquatic organisms and terrestrial wildlife. Water treatment should, in particular, focus on reducing the concentrations of these two substances in receiving waters. Which of the above-listed COPCs would be unaffected by liming and what would the impact be on the short-term and long term water discharges?

The short-term water management TAR, anticipated to be provided by May 29, 2015, will include information on the proposed short-term water treatment and water discharge scenarios, including water chemistry. MPMC are aware that it will be necessary to demonstrate to the MoE that the discharge will not cause pollution per *EMA* and demonstrate to Environment Canada that the discharge will meet the requirements of the *MMER*.

The long-term water treatment options will take into account treatment for all COPCs, at present concentrations and predicted future concentrations.

The Application needs to document that viable water management/water storage/water treatment/water discharge options are available at the site and identify the selected option that will provide the basis for establishing the *MA* and *EMA* permits, if such permits are ultimately issued by the Province of British Columbia. These minimum options are discussed below.

Please refer to introductory remarks for this item.

As discussed during the Options Analysis meeting held on May 8, 2015, short-term water management is planned for treated water to Quesnel Lake via Hazeltine Creek (with subsurface discharge) while longer-term water management strategies continue to be developed.

- The data on potential pit lake water quality conditions presented in the Application indicate that the concentrations of numerous constituents of potential concern (COPCs) will exceed BC or CCME WQGs. In some cases, the BCWQGs are exceeded by a factor of 20 (i.e., selenium). Hence, discharge of this water to the environment has the potential to cause adverse effects on aquatic life and/or other designated water uses.

Please refer to introductory remarks for this item.

The short-term water management TAR, anticipated for provision by May 29, 2015, will provide information on the proposed water treatment and water discharge scenarios, including water chemistry.

The potential for COPCs to cause adverse effects will be addressed in the TAR.

- The Application does not identify candidate wastewater discharge locations in the vicinity of the mine site. In addition, data on baseline water quality conditions have not been presented for any of the candidate receiving water bodies. In this respect, we expect a fulsome analysis of all factors related to the discharge to Quesnel Lake and Quesnel River. Furthermore, predictions of future water quality conditions are not provided for any of the candidate receiving water bodies located in the vicinity of the Mount Polley mine site. Hence, the Application does not provide sufficient information to support the development of *EMA* permit conditions.

Please refer to introductory remarks for this item.

As discussed during the Option Analysis meeting held on May 8, 2015, Quesnel Lake and Quesnel River continue to be included as candidate receiving bodies. Candidate receiving bodies in the local vicinity of the Mount Polley mine site (i.e., Hazeltine Creek/Polley Lake, Edney Creek and Bootjack Lake/Morehead Creek) were eliminated from consideration due to inadequate dilution; however, Hazeltine Creek was retained for a short-term discharge while it does not provide habitat for fish.

Short-term water management is planned for treated water to Quesnel Lake (subsurface) while longer-term water management strategies continue to be developed. The short-term water management TAR, anticipated for provision by May 29, 2015, will provide information on the proposed water treatment and water discharge scenarios, including water chemistry.

- The Application does not include an evaluation of the effects on the environment that would be associated with discharges of pit water (or process water) to the environment. Such information is required to identify the need for mitigation and to support an evaluation of mitigation options for addressing impacts on receiving waters in the vicinity of the mine site.

Please refer to introductory remarks for this item.

- The Application has not provided information on the need for water treatment prior to release of wastewater to the environment, on water treatment options for addressing elevated COPC concentrations in the pit water and/or wastewater from other sources, or on potential efficacy of candidate water treatment systems. This represents a major limitation of the Application because it prevents reviewers from evaluating the feasibility of discharging water to the environment, now or in the future.

Please refer to introductory remarks for this item.

- The application indicates that there is about 16,000,000t of PAG waste rock currently stored on site and that this tonnage of waste rock would occupy a volume of 8,000,000m³ when disposed of in the Springer Pit. Because there is a limited space within the Springer Pit (estimated at 14,300,000m³ at an elevation of 1050m), because the Application proposed to dispose of 2,900,000m³ of tailings in the Springer Pit, because additional PAG waste rock will be produced during resumed mining (if permitted), and because all PAG waste rock must be submerged at closure, the technical basis for the volumes of PAG waste rock and tailings should be provided for review and evaluation. Additional options for disposal of PAG waste rock (i.e., beyond Springer Pit and Wight Pit) should be identified in case the volumes of PAG waste rock are higher than expected (i.e., if waste rock density is lower than expected).

Technical basis for the calculation of the volume of PAG waste rock currently stored on site is based on that volume being stockpiled in the Temporary NW PAG Stockpile. Survey of the Temporary NW PAG Stockpile, currently existing on site, using three-dimensional modelling software is cross-referenced with database tracking for hauled materials. These methodologies also provide the basis for calculating the waste rock density as presented in the Application.

As outlined in the Application, PAG rock is characterized according to the current Acid-Based Accounting (ABA) sampling regime, as included as Appendix B to the Application.

- The Application indicates that placement of mine tailings in Springer Pit would not significantly change the requirements for long-term water management at the site. That is, placement of 4,000,000t of tailings in Springer Pit would displace only 1,500,000m³ of water from the facility, which equates to one month of mine-influenced water storage. While it is understood that the tailings would include 1,500,000m³ of solids and 1,400,000m³ of interstitial water, it is unclear if this interstitial water was included in the calculations of water balance for the site. Therefore, more information is required to confirm that interstitial water associated with mine tailings is included in the water-balance model for the site.

Interstitial water is included in the water balance for the site; water management systems would convey site-contact water to the Springer Pit regardless of restricted operations as the Springer Pit represents the only water storage location on site under current conditions.

Under restricted operations, this water would be directed to, and used in, the Mill for processing the ore before being deposited in the Springer Pit; thus, the only net volume introduced to the system would be that of the tailings rock itself (1,500,000m³ of solids).

- It is unclear if other options for disposal of mine tailings were considered in the Application. Therefore, more information should be provided on other tailings disposal options that were considered (e.g., dry stack disposal).

Given the restricted nature of the operations proposed, limitation of available storage locations on site (i.e., only Springer Pit) and the uncertainty with future use of the TSF at this time, the Application evaluated only available disposal options for mine tailings.

In summary, the Application does not provide all the information needed to support development of a *MA* or *EMA* permit for return to restricted operations. In addition to the information provided, the Application needs to include the following elements:

Please refer to introductory remarks for this item.

For items 1 through 6 below, short-term evaluation and predictions will be provided in the TAR projected to be provided by May 29, 2015. Long-term evaluation is ongoing and will be the subject of future permitting.

1. Evaluation of options for effluent discharge (i.e., identify and evaluate candidate wastewater discharge locations);
2. Predictions of effluent quality and receiving water quality conditions for operations, closure and post-closure;
3. Evaluation of the need for additional water storage and/or treatment to facilitate short-term and/or long-term water management;
4. Evaluation of the effects of wastewater discharges on receiving water quality and associated water uses (i.e., an effects assessment);
5. Evaluation of the efficacy of various water management and water treatment options; and,
6. Evaluation of the technical and economic feasibility of implementing the preferred water management and water treatment options.

We need to understand that a full adaptive management response in the event that monitoring detects that seepage of degraded water is impacting Bootjack Lake. This includes an understanding of triggers (e.g. specific concentrations of copper or selenium) that would initiate the response. Given the uncertainty around the groundwater discharge level (currently estimated at 1030m), we need to know what a conservative level would be with which to manage Springer Pit.

Monitoring plans, including those associated with the Springer Pit filling, have been revised with input from Qualified Professionals and in accordance with regulatory requirements.

Adjustments to this monitoring program will be based on monitoring results and the status of the Springer Pit water levels, and will be based on recommendations from a Qualified Professional. A potential mechanism for adjusting the schedule is the Annual Monitoring Plan for 2016 which will be submitted to MoE for review January 2016, as per Permit 11678.

Data are provided to MoE quarterly, and are also included in the Annual Report to MoE and MEM. Given the transit time for groundwater from Springer Pit to Bootjack Lake (~12 months), more frequent monitoring than that proposed is not planned. If the monitoring frequency is reduced in the future, triggers for increased monitoring may be established based on the recommendations of a Qualified Professional.

In the event that anomalous groundwater quality is observed during sampling, additional follow-up sampling will be conducted and reported.

A Technical Memorandum, *Updated Predictions of Pit Lake Formation for the Springer Open Pit – Mount Polley Mine*, prepared by Golder and dated December 16, 2014, was provided as part of the Application (Appendix E) and provides further detail on the groundwater discharge level (estimated at 1030m).

Since the submission of these comments, a Technical Memorandum, *Assessment of Groundwater Seepage Outflows from Springer Pit to Bootjack Lake at the Mount Polley Mine, BC* was prepared by Golder, and provided to attendees of the Options Analysis meeting held on May 8, 2015, which included representatives of the Williams Lake Indian Band and Xat'sull First Nation, including an author of this *Technical Review Comments Summary*. A copy of this Technical Memorandum is provided as, "Outflow Seepage Springer Pit to Bootjack.pdf".

This Technical Memorandum models groundwater seepage to Bootjack Lake from the Springer Pit under scenarios of restricted start-up and no dewatering (i.e., the Springer Pit fills to the overflow elevation of 1050m until December, 2016); the technical memorandum concluded that, "no constituent concentrations were predicted to be greater than the BC WQG in either scenario, therefore, adverse effects to aquatic life are not anticipated). Additionally, laboratory tests conducted on untreated water collected from Springer pit in November 2014 and March 2015, showed no acute toxicity to rainbow trout or the water flea *Daphnia magna* (a sensitive crustacean) in untreated and undiluted Springer Pit water. These tests support the conclusion that significant adverse effects to aquatic life are not anticipated under either scenario."

Short-term water management (i.e., discharge) is required to manage Springer Pit elevations; it is the intent of MPMC to manage the elevation of the Springer Pit below the 1030m elevation.

In the event that there are delays in the short-term water management authorizations, there will be approximately 2 Mm³ of contingency capacity in the repaired TSF. This contingency is suitable and will enable additional time to develop these options in the event that monitoring indicates Springer Pit is approaching the 1030 m elevation. However, the most likely forecasts of timing indicate that this contingency will not be necessary. Because climatic conditions can vary in ways that can't be predicted with certainty, this contingency option is considered to be appropriate.

While it is understood that there is a significant pressure to re-open the Mount Polley mine, decisions taken in the near future will have long-term implications. Therefore, it is essential that a viable plan for water management and wastewater discharge be developed prior to approving return to restricted operations at the mine site. Addressing the information needs identified above will help to ensure that decisions that have long-term implications relative to Aboriginal health and the traditional use of the environment are supported by the data and information required for issuance of *MA* and *EMA* permits.

Please refer to introductory remarks for this item.

As discussed at the RMDRC meetings on March 31, 2015 and April 28, 2015, the MoE and the MEM have indicated that the short-term water management Technical Assessment Report will be required to provide the permittable plan required to make a decision on the return to restricted operations activities in parallel with water management requirements.

Much has changed at the Mount Polley mine site since the original Reclamation and Closure Plan was originally designed. The Plan needs to be updated to current conditions and to include restoration and remediation components in this Plan. The Financial Security estimate needs to be updated accordingly.

The Reclamation and Closure Plan (RCP) has been updated on numerous occasions since original design, in accordance with regulatory requirements and reflecting changing site conditions. Restoration and remediation components are included in the RCP and updated financial security estimates are provided annually as required by the MEM. Updated financial security estimates based on current site conditions have been provided to the MEM as required and as requested.

As discussed in the 2014 Annual Report Environmental and Reclamation Report, MPMC is continuing with progressive reclamation and reclamation research. Prior to the TSF breach, MPMC had been preparing an updated RCP for submission with the permit amendment application to extend the mine life. Revisions to the last submitted plan (including incorporating feedback and addressing comments from the MEM on the previous update) were underway. Currently, there are a number of uncertainties in the

future of the Mount Polley site that heavily influence the RCP and depend on the MoE and the MEM permitting decisions:

- Return to restricted operations
- Short-term water management strategy
- Long-term water management strategy
- Return to full time operations (requiring deposition of tailings in the TSF)

Depending on the outcome of the permitting decisions, Mount Polley may close permanently, enter care and maintenance or resume full time operations. Accordingly, closure needs associated with these different scenarios are the primary outstanding sections of the RCP.

Work currently being conducted or planned includes:

- Modelling of Springer Pit Lake water quality (long-term);
- Development of short- and long-term water treatment and discharge strategies;
- Modelling existing stockpile volumes and geochemical properties (and, if required, mitigation planning and associated cost implications);
- Ongoing revegetation research with the goal of refining prescriptions for meeting site end land use objectives; and,
- Updating liability cost estimates to incorporate site water management infrastructure (including maintenance).

MPMC plans to submit an updated RCP, as required under the M-200 Permit, by September 30, 2015, reflecting site conditions and long-term water management at that time.

As outlined in responses provided to the MEM comments as part of the April 30, 2015 issuance of this document, MPMC plans to submit a Closure Management Manual to the MEM by May 27, 2015.

Comments on Approach for Long-Term Water Management Plan Development

General Comments

We understand that there will be two *Environmental Management Act* permits required for the EM Permit Application. One EMA permit will provide for the discharge of tailings from the mill to Springer Pit.

The second EMA Permit will provide for a discharge from the Springer Pit under two possible scenarios. Springer Pit is likely to fill past the point of discharge to groundwater within the coming months. Further, there is uncertainty around the currently designated 1030m level where pit water would discharge to groundwater. Additionally, the modelling for the rate of the filling of Springer Pit has proven to under-estimate this rate and the model is currently being re-calibrated.

Please refer to introductory remarks for this item.

Since the receipt of these comments, clarity on the modelling for the rate of the filling of the Springer Pit has been provided, as part of the April 30, 2015 issuance of this response document. Also since the submission of these comments, a Technical Memorandum, *Assessment of Groundwater Seepage Outflows from Springer Pit to Bootjack Lake at the Mount Polley Mine, BC* was prepared by Golder, and provided to attendees of the Options Analysis meeting held on May 8, 2015, which included representatives of the Williams Lake Indian Band and Xat'sull First Nation (including an author of this *Technical Review Comments Summary*). A copy of this Technical Memorandum is provided as, "*Outflow Seepage Springer Pit to Bootjack.pdf*".

It is understood that MPMC is currently preparing the TAR. The WLIB expects to collaboratively participate, according to its capacity, in the development of the TAR, with MPMC.

It is anticipated that the TAR for short-term water management will be provided by May 29, 2015.

Since the submission of these comments, an Options Analysis meeting was held on May 8, 2015, during which water management planning for the TAR was discussed. This meeting was attended by representatives of the Williams Lake Indian Band, the Xat'sull First Nation, MPMC, the MEM, the MoE, Fisheries and Oceans Canada, the Likely Community and Golder. Representatives of the Williams Lake Indian Band and Xat'sull First Nation included a contributing author to this *Technical Review Comments Summary*.

The WLIB and their technical consultants have also participated in a number of previous meetings and workshops, held either in Vancouver or Williams Lake. Our consulting team has been open and forthcoming with data, interim findings and reasons for decisions with WLIB, Xat'sull First Nation, the Likely Community (open houses have been held) and regulatory agencies. MPMC and its consulting team have found this participation to

be constructive and welcome the continued participation of these parties at early stages of the process, even before statutory consultation has started.

Specific Comments

INTRODUCTION 1.0

The increase from 1.4 million m³/year to >5 million m³/year of mine contact water appears to be very large. We would recommend undertaking the most in-depth analysis possible of how contact water production can be reduced. We recommend that any current surface run-off be directed away from contact with mine rock or tailings. Current watercourses may be re-directed. Rock piles may be covered to avoid contact with water. Water that flows over the mine but does not display any exceedances of Water Quality Guidelines may be separated from water that shows exceedances and discharged directly.

MPMC agrees that reduction of contact water volumes produced is important and continues, as it has during its operation, to analyze and evaluate means by which to achieve this. As suggested above, part of this strategy has involved MPMC completing progressive reclamation on non-active rock stockpiles during operations to reduce contact surfaces in accordance with the Reclamation and Closure Planning for the site.

MPMC also follows a water management hierarchy as outlined in the comment above. As included in the Background Information Package provided as Appendix A to the Application, currently, MPMC does not discharge any mine-influenced water from site. For this reason, all systems are designed to, in order of application: segregate non-mine influenced water from site collection systems, returning it to the surrounding receiving environment; collect all mine influenced water in site collection systems; convey mine-influenced water, where applicable, directly to the Springer Pit from site collection systems; convey residual mine-influenced water from systems to the Springer Pit; and, temporarily store surplus mine-influenced water in the TSF (for future conveyance to the Springer Pit).

MPMC is of the view that continuous improvement in water management is possible. However, it is difficult to reliably quantify the magnitude of such continuous improvement. MPMC are of the view that a conservative perspective of water management needs is a more appropriate basis for design. We have acknowledged openly that this approach is conservative and have explained our reasons for this conservatism. It is in MPMC's interests to reduce the amount of water that is handled, treated, and discharged; however, it is also in MPMC's interests to plan for more conservative outcomes.

TECHNICAL APPROACH 2.2

We expect, as Golder has stated, that surplus water cannot be stored in the TSF.

Noted.

In the event that there are delays in the short-term water management authorizations, there will be approximately 2 Mm³ of contingency capacity in the repaired TSF. This contingency is suitable and will enable additional time to develop these options in the event that monitoring indicates Springer Pit is approaching the 1030 m elevation.

EFFLUENT PERMIT AND SHORT-TERM CONTINGENCY 2.3.2

Liming of mine contact water at the mill or directly in the Springer Pit, suggested as an interim contingency measure, will lead to the precipitation and coagulation of heavy metals in Springer Pit. The sludge at the bottom of Springer pit that will thus be created, will accumulate all metals found in the mine. If this option is to be considered, a management plan for this sludge needs to be provided.

The disposition of this sludge will depend upon the mine's future. In the event that the mine does not resume full operations, the sludge will remain in Springer Pit in the subaqueous environment. In the event that the mine resumes full operation, the tailings, along with the sludge will be transferred to the upgraded TSF.

It is worth noting that the processing of ore previously included the addition of lime and that any such precipitates over the past 17 years were stored in the TSF. The precipitated sludge is therefore not a new material to contend with.

WATER QUANTITY AND QUALITY MONITORING 3.0

Without a defined water quantity and water quality model that addresses all water sources, the evaluation of discharge options is impossible since concentrations of parameters of potential concern are unknown inside and outside the mixing zone in the receiving environment. This is a concern, as noted in more detail below in our comments on section 3.1.

Please refer to introductory remarks for this item.

Discharge to Hazeltine Creek

Based on a very cursory analysis carried out by LGL, the addition of the 5 million m³/year (for simplicity we assumed an even discharge throughout the year) would be diluted by factors ranging from 1:2 to 1:10 if discharged into Hazeltine Creek (average addition of 160L/sec). This discharge could be directed to the area below the sedimentation pond to avoid an increase of flow in the upper reaches of Hazeltine Creek. Additions of flow into the upper reaches could increase erosion, re-disturbance of tailings and thus increase turbidity.

As per the discussions at the May 8, 2015 Option Analysis meeting, the engineered channel constructed in Hazeltine Creek is anticipated to be adequate for conveyance of water to Quesnel Lake via open channel flow. Given that, in the short-term, Hazeltine

Creek is not fish habitat, dilution ratios would be applicable to Quesnel Lake. The Hazeltine Creek open-channel flow is not viable beyond the short-term because the objective for Hazeltine Creek is for use by fish and other aquatic life.

Discharge to Quesnel River

We have not calculated discharge dilution ratios for Quesnel River at different locations. We expect that this work will be undertaken in the development of the TAR.

As presented during the discussions at the May 8, 2015 Option Analysis meeting, the calculated average dilution ratio for the Quesnel River option is 635; however, this assumes dilution across the whole of the river and not within the IDZ. Further work would be provided in a TAR in support of this option as part of long-term water management.

Discharge to Quesnel Lake

When discharged into Quesnel Lake, the concentrations at the diffuser as well as within a 100m mixing zone will need to be calculated. Beyond the 100m mixing zone, concentrations of parameters of potential concern will likely be below Water Quality Guidelines but their accumulation below the thermocline will need to be modelled or calculated. We expect that this work will be undertaken in the development of the TAR.

Short-term water management is planned for treated water to Quesnel Lake via Hazeltine Creek (with subsurface discharge) while longer-term water management strategies continue to be developed. It is anticipated that the Technical Assessment Report will be provided by May 29, 2015, including predictions of water chemistry.

MPMC, through TetraTech EBA, have a 3D hydrodynamic model of Quesnel Lake. The level of assessment available within Quesnel Lake is considerably greater than for other effluent permitting efforts where modelling is typically limited to the IDZ.

IDENTIFYING CONSTITUENTS OF POTENTIAL CONCERN 3.1

It is a requirement for mines to develop predictions of future water quality conditions to support the permitting process. Such information is required to identify COPCs, to determine the quantity of water that must be managed at the site, to identify candidate wastewater treatment technologies, to evaluate the potential efficacy of candidate water treatment technologies, and to evaluate the effects of the project on human health and the environment. We note that a water quantity model or quality model has not been developed, at this time, for the site. Therefore, development of this model should be identified as a priority and proceed in the near term in the development of the TAR.

Please refer to introductory remarks for this item.

Identification and discussion of water quantities that must be managed at the site, candidate wastewater treatment technologies, and efficacy of candidate water treatment technologies took place during the Option Analysis meeting on May 8, 2015. This model has been developed using the GoldSim modeling platform.

Water quantity, water quality, and wastewater treatment technologies are among items to be included in the short-term water management TAR; it is anticipated that the TAR will be provided by May 29, 2015.

Table 2, P.11, presents the results of the screening-level assessment that was conducted to identify COPCs at the site. The results of this assessment indicate that the COPCs at the site include nitrate, sulphate, dissolved aluminum, total copper, total selenium, total iron and TSS. While this evaluation identified some of the COPCs at the site, it should not be considered in any way comprehensive for the following reasons:

Please refer to introductory remarks for this item.

COPC identification, as indicated, was conservative in that BC WQG were applied to the source material. This is not an intended application for WQG; the application was conservative only for that purpose.

Comparison to other water uses will be part of the TAR. Other points raised (e.g. consideration of future water quality) will be part of the long-term planning.

1. BCWQGS for water uses beyond protection of aquatic life were not considered. Identification of COPCs requires consideration of all water uses, not just aquatic life. For example, the BCWQG for molybdenum for the protection of wildlife is a factor of 20 lower than the BCWQG for the protection of aquatic life.
2. The following candidate COPCs were not considered in the evaluation: ammonia, phosphorus, dissolved metals (i.e., beyond Al, Cu and Fe) and TDS.
3. No BCWQGs were reported for many of the candidate COPCs that were identified, including conductivity, pH, temperature, turbidity, alkalinity, and hardness.
4. For many of the metals, the BCWQGs are hardness dependent. However, the water hardness at the site is much higher than the upper limit that has been defined for calculating the BCWQGs for the protection of aquatic life. Therefore, the WQGs for metals may be overstated.
5. The three water sources evaluated may or not fully reflect water quality conditions for the sources at the site.
6. A predictive evaluation of future water quality conditions has not been conducted. As conditions may change in the future, the results of water quality modeling, as well as

on-site measurements of water quality conditions, will need to be considered in the COPC identification process.

WATER QUALITY MODULE, RECEIVING ENVIRONMENT MODULE 3.2.2.

To our knowledge, the H3D model is typically used for marine environments. We hope that it can be adjusted to consider the strong separation of the water column by the thermocline in the summer and subsequent mixing of the water column in the fall and spring.

The H3D model has been used for both fresh and salt water. The model was developed specifically for Quesnel Lake and its predictions of turbidity conditions has been good, especially with a hindcast run when actual climatic conditions could be input.

EVALUATION OF EFFLUENT MANAGEMENT OPTIONS 5.0

The evaluations of the options presented in Section 6 is impossible without knowing the concentrations of constituents of potential concern within the Initial Mixing Zone of all water bodies and the concentrations in the water body following mixing. As part of the information that needs to be presented, accumulation of constituents of potential concern in all water bodies or their final receiving environments (Fraser River and Georgia Strait for the Quesnel River option) need to be provided.

We disagree that model runs out to the Strait of Georgia are necessary, nor are such models appropriate for a project of this type. If the TAR findings indicate that water quality guidelines are met at the edge of the IDZ, then downstream uses are protected.

It is agreed that a wastewater treatment and wastewater discharge plan needs to be developed in the near term. It is also agreed that the infrastructure needed to facilitate discharge of treated wastewater to the environment needs to be constructed before water levels in the Springer Pit reach the 1030m elevation. However, this work should not be part of the long-term water management planning process or constrained by the Application for amendment of permits for return to restricted operations. Rather, this essential work should be initiated immediately and support an amendment of the *EMA* permit that addresses the need for wastewater discharge only. Other issues related to the return to restructured operations can be addressed subsequently or in parallel.

Please refer to introductory remarks for this item.

As discussed at the RMDRC meetings on March 31, 2015 and April 28, 2015, the MoE and the MEM have indicated that the short-term water management Technical Assessment Report will be required to provide the permittable plan required to make a decision on the return to restricted operations activities in parallel with water management requirements.

The proposed criteria for evaluating discharge options may represent some of the criteria that need to be established to support evaluation of long-term discharge options. However, the five criteria identified should not be considered to provide the necessary and sufficient basis for evaluating discharge options.

Please refer to introductory remarks for this item.

Criteria for evaluating discharge options were reviewed during the May 8, 2015 Options Analysis meeting. As presented in the summary from this meeting, *Summary and Outcome of the May 8, 2015 Options Analysis* as provided by Golder on May 15, 2015 (referring to the Options Analysis meeting held on May 8, 2015), the intent of the process was to support a decision, not to make a definitive decision, and that the value of the process lies in the discussion of each criterion, whereby all stakeholders give their views regarding each option.

As noted previously, wastewater discharges to Polley Lake, Hazeltine Creek, and Edney Creek should be avoided in so far as they have high ecological value and severely limited capacity to absorb potential wastewater discharges. Discharges of wastewater to any of these water bodies would degrade water quality conditions and put critical sockeye salmon rearing habitat in Quesnel Lake at risk. As stated earlier, we expect that a thorough analysis of the impacts of discharging to Quesnel Lake and to Quesnel River will be undertaken in the development of the TAR.

As per the discussions at the May 8, 2015 Option Analysis meeting, the engineered channel constructed in Hazeltine Creek is anticipated to be adequate for conveyance of water to Quesnel Lake via open channel flow. Given that, in the short-term, Hazeltine Creek is not fish habitat, contrary to the above statement. Polley Lake is not accessible to sockeye salmon for rearing and Hazeltine Creek was not previously significant for sockeye rearing because juvenile sockeye rear in lakes. The Hazeltine Creek open-channel flow is not viable in the long-term, when it is fish habitat and; thus, this short-term water management strategy would no longer be appropriate. Edney Creek does not have sufficient hydraulic capacity. The only water bodies suitable for long-term discharge are Quesnel Lake and Quesnel River and these are the only options being considered for the long term.

Impacts to discharging will be included in the TAR for the short- term water management plans.

MONITORING PLAN 7.0

There is a need to develop a long-term water monitoring plan that will guide the collection of water quality and quantity data at the site. At minimum, three monitoring programs will be required, including:

Surveillance Network Program (SNP) - This program is required to provide data and information on water quality and quantity for all the on-site sources. Effluent monitoring may be included in the SNP or AEMP.

Aquatic Effects Monitoring Program (AEMP) - This program is required to provide data and information on effluent quality/quantity, water quality/quantity, sediment quality, tissue quality, and biological integrity in the vicinity of the site. This information is needed to evaluate project-related effects and to guide adaptive management at site.

Environmental Effects Monitoring (EEM) Program - This program is required to fulfill federal requirements under the Metal Mining Effluent Regulations.

It is essential that appropriate baseline data be collected in the vicinity of the proposed discharge(s) to facilitate evaluation of project-related effects.

MPMC collects data and information on water quality and quantity for on-site sources as required under the MEM (M-200 Permit) and the MoE (Permit 11678) requirements and additional monitoring completed by MPMC. In addition, there is monitoring that is taking place and will continue to take place in connection with the TSF foundation failure. Monitoring to address the changes associated with an effluent permit amendment and monitoring as required by the MMER will also be undertaken. MPMC expects that a monitoring framework, consistent with BC and federal requirements will be followed as part of discharge.

SCHEDULE 8.0

The Schedule should be supplemented with the estimated sequencing of all Permits and with the key points of collaboration with the Williams Lake Indian Band.

A revised schedule was provided as part of the April 30, 2015 issuance of these response comments.

Date: April 12, 2015 (Received via E-mail April 24, 2015)

Correspondence: Report (Review and Comment on Mount Polley Re-Opening Application and Water Management Plan, 20 March 2015)

Source: Williams Lake Indian Band/Xat'sull First Nation (Kirk Dressler)

Author: James R. Kuipers, P.E. (Kuipers and Associates)

These comments were provided to the Williams Lake Indian Band as dated on April 12, 2015, but were not supplied as part of permit response until April 24, 2015. As such, many of the information requests and clarifications have since been provided and discussed through the RMDRC, issuance of the April 30, 2015 version of this document and through other presentations and documents provided.

Additionally, the Williams Lake Indian Band and the Xat'sull First Nation, in providing these comments, noted that they were drafted prior to James Kuipers' knowledge that a TAR was being drafted by MPMC.

Items

Mount Polley Mine Re-Opening Application

General Comment

The application suggests that tailings would be removed from Springer Pit to an as yet to be determined location to accommodate future mining. For this reason the description should be changed to "temporarily deposited". However, this suggests that overall the environmental as well as economic impacts of the proposed short-term action to resume mining cannot be determined without identification of future/permanent TSF.

This also confirms the "temporary" nature of the tailings deposition in the Springer Pit. In order for the PAG waste rock to be disposed subaqueously the tailings would need to be removed and stored in a permanent TSF which has not been identified in this proposal. This would appear to make this application contingent on identification of the permanent TSF location. Given the re-use of the existing TSF or identification and use of an alternative is a significant undertaking that has yet to be undertaken, this suggests that the re-opening application itself is premature without MPMC having performed this undertaking.

Although it is the intention of MPMC to return Mount Polley to full operation, as outlined in the application, the total tailings tonnages proposed for mining under
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restricted operations acknowledges a scenario in which the mine does not operate past the restricted operations phase; ensuring that there is sufficient storage in the Springer Pit for the would-be volume of deposited tailings, combined with the required storage volume for the projected Temporary Northwest PAG Stockpile volumes (existing on site in addition to that projected to be mined during restricted operations). This storage capacity in the Springer Pit also provides adequate water cover for subaqueous disposal of the PAG, as outlined in the April 30, 2015 issuance of these comments.

Tailings would not require removal from the Springer Pit to facilitate subaqueous disposal of PAG rock, and, as such, no additional TSF or alternative use is required. The return to restricted operations makes no assumption about the future use of the existing TSF.

Only if Mount Polley mine was to operate past the restricted operation stage, with resumed operations in the Springer Pit, would tailings material be removed from Springer Pit for storage; this is understood to require a subsequent *Mines Act* permit (M-200) amendment application by MPMC, and is not proposed, or necessary, under the conditions of the return to restricted operations.

The re-opening application incorporates the TSF Embankment buttressing activities intended for “...any future use of the TSF or for the closure of the TSF in its existing state.” However, it does not describe those activities and the future permanent storage of tailings from the proposed action as well as any future actions requires identification and evaluation of a permanent TSF facility.

Some critical questions arise that include the following: How will the embankment design be determined relative to future use or closure in its existing state using waste rock generated from mine re-opening?

As described in the April 30, 2015 issuance of this response document, TSF site investigation work was completed in April 2015 and involved drilling along the Perimeter Embankment, Main Embankment and South Embankment.

Site investigation data, as available, will be interpreted to complete stability analyses for the Main Embankment and South Embankments and evaluate any buttressing required under current site conditions. Buttress designs (if required), once completed by the Engineer of Record, will be submitted to the MEM as a separate amendment application under the *Mines Act* (M-200) permit. It is anticipated that such designs would be submitted in late May or early June of 2015 as an application independent of the Return to Restricted Operations M-200 Permit Amendment Application.

Although it is the intention of MPMC to return Mount Polley to full operation, as outlined in the application, no assumptions have been made about the future use of the TSF at this time. It is understood that if Mount Polley mine was to operate past the restricted operation stage, with deposition of tailings into this, or another TSF; this would

require a subsequent *Mines Act* permit (M-200) amendment application by MPMC. This is not proposed, nor necessary, under the conditions of the return to restricted operations.

How will this be done without a reclamation and closure plan specifically for the TSF in its existing state as well as potential re-use scenarios?

Site investigation data, as available, will be interpreted to complete stability analyses for the Main Embankment and South Embankments and evaluate any buttressing required under current site conditions. Although it is the intention of MPMC to return Mount Polley to full operation, as outlined in the application, no assumptions have been made about the future use of the TSF at this time. An updated Reclamation and Closure Plan is required for submission by September 30, 2015.

I recommend that any future embankment construction on the existing TSF incorporate slopes consistent with closure design requirements including for the existing and future scenarios when compatible.

It is premature for MPMC to be able to comment on the compatibility of existing and future TSF construction at this time, prior to receipt of design for the existing TSF and understanding of the future use of the TSF (and to a greater extent the site as a whole).

MPMC will continue to work with its Engineer of Record for the TSF and its Independent Engineering Review Panel to confirm that the design and operation of the TSF is consistent with industry guidelines of best practice and to identify areas where risk reduction may be required.

As acknowledged in the application, the “likely site conditions” are highly uncertain at this time. However, it is the responsibility of the MEM under sections 10 (4) and 10 (5) of the *British Columbia Mines Act* to require adequate financial security under the existing conditions for the entire mine site as well as for the area requiring remediation from the TSF breach. Therefore, it can be reasoned that an updated Reclamation and Closure Plan (RCP) and Financial Security reflecting the current site conditions and consistent with current best technology and practice should be a requirement prior to any re-opening activities. The RCP and security should also be updated, on or before September 30, 2015, to reflect conditions at the end of the re-opening activities as one scenario, and at the end of all planned mining as another scenario.

As outlined in responses provided to the MEM comments as part of the April 30, 2015 issuance of this document, MPMC has provided an update on the status of the RCP in advance of the formal submission scheduled for September 30, 2015. As part of that same issuance of this document, MPMC also plans to submit a Closure Management Manual to the MEM by May 27, 2015. Updated Financial Security, based on current site conditions, has also been provided to the MEM.

Section 2 Mine Plan

Resumption of timing of milling should not be at the discretion of MPMC, but rather should be conditional and require that MPMC demonstrate both implementation of a short-term plan to address the potential for unauthorized discharges prior to resumption of milling, and development of a long-term plan to address site water management under multiple potential scenarios as previously recommended.

As outlined above, these comments were made before the author was aware that MPMC was drafting a TAR for short-term water management.

As discussed at the RMDRC meetings on March 31, 2015 and April 28, 2015, the MoE and the MEM have indicated that a ‘permittable’ short-term water management TAR will provide the required supporting information and confidence to make a decision on the return to restricted operations activities.

Some questions arise that are not answered in the application. For example, are we correct to assume that low-grade ore stockpiled in the Cariboo Stockpile is primarily PAG that, depending on copper grade, may be classified as either low grade ore or PAG waste? How is the potential that the low-grade stockpile will not be milled but left in place following completion of short-term or long-term mining addressed in the existing reclamation and closure plan or in the financial security?

As outlined in responses provided to the MEM comments as part of the April 30, 2015 issuance of this document, the stockpile described in this application is; in fact, a “high-grade” stockpile as defined in previous documents. The material which will be stockpiled displays clear positive economic value, as all current stockpiles at Mount Polley do. The terminology selected perhaps should have been “lower” grade ore. Ore placed into this stockpile during the period of restricted operations will be sampled for acid rock drainage (ARD) potential by performing one ABA test per every 20,000 tonnes stockpiled. A program for assessing the metal leaching potential for ore stockpiled will be developed with the support of a Qualified Professional.

A review of existing stockpiles will be performed with the intention of characterizing their metal leaching and ARD potentials. A program for rectifying any data deficiencies will be created with the support of a Qualified Professional. Contingency planning for the scenario in which the material would not be processed will be informed by the judgement of a Qualified Professional using the results of a completed stockpile review and general site geochemical conditions for reference. An update on this program for characterization will be provided to the MEM by May 23, 2015.

Section 2.2 Mining - Underground

Additional information needs to be provided to explain what makes the underground ore of “heightened importance”. This is one of the few places where MPMC possibly infers its motivation is to “high-grade” the mine for cash-flow purposes. MPMC also needs to

explain how not having this high-grade source in future operations as compared to pre-breach operations will not result in future operations being less likely or long-lived.

Throughout the entire history of Mount Polley, underground ore has only been available to the mill in significant quantities for two (2) months. The current reserve base for the underground operation at Mount Polley constitutes less than one and one-half years of production at 1,000 tonnes per day (less than 5% of mill throughput under normal operations). This production was not planned at the time when mine-life expectancy and the related reserve base was increased in 2012, and therefore is not necessary for the viability of this reserve base. The reason that the underground ore will have heightened performance during the period of restricted operations is that the higher grades will help to offset the higher unit operating costs and high capital costs associated with the restricted operating phase. These higher costs are a result of reduced economies of scale, unused capacity in the processing plant, and construction requirements at the TSF.

The applicant should consider using Springer Pit as the source of mill water as an option. This may maximize the benefits of milling on pit lake water quality prior to discharge by providing greater mixing and possibly other benefits within the pit lake. An option under this alternative would be to utilize a tailings thickener and further treat (filter for TSS) and discharge the thickener overflow while using Springer Pit as mill water. However, it should be kept in mind that both of these options are contingent on mill operations and should not be considered as primary treatment options for short-term or long-term discharges. At the same time, use of the existing mill facilities to be operated to accomplish water treatment without milling should be considered as a short-term measure to address imminent discharges which once accomplished could then allow for transition to milling and water treatment in a combined mode with the same measures available once milling is discontinued as a temporary or short-term water treatment scenario.

The discussion of possible water management and water treatment options is appreciated and forms part of site considerations.

Section 3 Short-Term Water Management

The modeling and scheduling should first be done without the resumption of milling but with the implementation of short-term water treatment and discharge provisions and then the appropriate time to resume milling (e.g. when discharges exceed rate at which overall water balance on site is achieved) can be determined.

Since the submission of these comments, significant sensitivity analysis has been provided on operational and water discharge timelines. Such analyses have been presented during RMDRC meetings, during the Options Analysis workshop, and in the first issuance of these response comments.

The geochemistry evaluation for the Springer Pit lake during filling has yet to be completed. While the evaluation may in fact show that groundwater will not play a

significant role in Springer Pit filling rates or in pit lake chemistry, the statement is not presently supported by facts.

Since the submission of these comments, significant information on Springer Pit Lake formation, groundwater influence and water chemistry (and corresponding influence on Bootjack Lake) has been provided. Such information has been presented during RMDRC meetings, during the Options Analysis workshop, and in the first issuance of these response comments.

The comparisons we have seen between actual pit lakes filling and expected filling show a gap which is most likely due to interstitial water draining from the tailings inside the TSF. The model has not been corrected for draining and while it has been suggested that a draindown analysis be performed, it has not been provided or incorporated.

The correction of the water balance model for the interstitial water draining from the tailings inside the TSF was provided in the April 30, 2015 issuance of this document.

Use of the 1030m benchmark for discharge leaves no margin for safety or for potential errors in the estimate. While we believe the 1030m level is based on competent professional practice, we question whether it is appropriate as the regulatory benchmark and would suggest that a lower level of 1025m be used in order to provide an adequate margin of safety so as to actually prevent any discharge. In making this suggestion it should be noted that establishment of this lower threshold would result in the need for immediate water treatment and discharge measures to be established more quickly, and at the same time would result in even more exacerbation of the present circumstances were milling to resume in June 2015.

Since the submission of these comments, significant information of Springer Pit Lake formation, groundwater influence and water chemistry (and corresponding influence on Bootjack Lake) has been provided. Additionally, information on proposed groundwater monitoring programs and installation of additional groundwater wells has been provided.

Such information has been presented during RMDRC meetings, during the Options Analysis workshop, and in the first issuance of these response comments.

Since the submission of these comments, a Technical Memorandum, *Assessment of Groundwater Seepage Outflows from Springer Pit to Bootjack Lake at the Mount Polley Mine, BC* was prepared by Golder, and provided to attendees of the Options Analysis meeting held on May 8, 2015, which included representatives of the Williams Lake Indian Band and Xat'sull First Nation, including an author of this *Technical Review Comments Summary*. A copy of this Technical Memorandum is provided as, "Outflow Seepage Springer Pit to Bootjack.pdf".

This Technical Memorandum models groundwater seepage to Bootjack Lake from the Springer Pit under scenarios of restricted start-up and no dewatering (i.e., the Springer Pit fills to the overflow elevation of 1050m until December, 2016); the technical

memorandum concluded that, “no constituent concentrations were predicted to be greater than the BC WQG in either scenario, therefore, adverse effects to aquatic life are not anticipated). Additionally, laboratory tests conducted on untreated water collected from Springer pit in November 2014 and March 2015, showed no acute toxicity to rainbow trout or the water flea *Daphnia magna* (a sensitive crustacean) in untreated and undiluted Springer Pit water. These tests support the conclusion that significant adverse effects to aquatic life are not anticipated under either scenario.”

Section 3.5 Groundwater Monitoring

Anomalous water elevation or water chemistry results would indicate a discharge at a lower elevation than predicted. The question arises as to what impact in terms of responding to an anomalous situation additional monitoring would provide. It would appear from the information provided that in such an event the only mitigation would be to cease discharging into the Springer Pit, however, there appear to be no contingency options other than just to monitor the discharge and attempt to lower the pit lake level. Additional discussion should be provided relative to this and other contingencies that need to be identified and addressed, prior to permit approval, and not as a deliverable post-approval.

There will also be approximately 2 Mm³ of contingency capacity in the repaired TSF. This contingency could be used to enable additional time to develop options in the event that an anomalous monitoring reading results from the Springer Pit. Any temporary or emergency use of the TSF for water storage would have to be authorized by the MoE and the MEM through an approval process.

The application would benefit by providing additional description of how the documents [Return to Restricted Operations Application and Water Management Plan] are intended to mesh including in terms of scheduling and outcomes so as to better understand how short-term discharge permitting, implementation of water management and treatment capacity can be accomplished so as to ensure that addition of tailings to the Springer Put would not increase the potential for an unpermitted discharge.

Since the submission of these comments, during the RMDRC meeting on April 28, 2015 and within the April 30, 2015 issuance of this document an updated schedule and process slides were provided.

Section 4 Potential Influence on Existing Closure Plans

Regardless of the re-opening application, an updated Reclamation and Closure Plan has been urgently required to ensure that liability for the currently existing site situation remains with the project operator and not potentially with the government and ultimately taxpayers.

As outlined in responses provided to the MEM comments as part of the April 30, 2015 issuance of this document, MPMC has provided an update on the status of the RCP in advance of the formal submission scheduled for September 30, 2015. As part of that same issuance of this document, MPMC also plans to submit a Closure Management Manual to the MEM by May 27, 2015. Updated Financial Security, based on current site conditions, has also been provided to the MEM.

Section 5 Consequences for Reserve Viability

As the economic value of the reserve is dependent on the price of copper and gold, what is the anticipated price that would be needed to warrant the effort to remove the tailings in the Springer Pit? This is important because if the current price of copper would not support that effort then it is possible if not likely that the tailings will remain in the pit and that a temporary closure extending for an indefinite period of time.

The economic value of the reserve will not be significantly affected by the addition of tailings to the Springer Pit because the mass of material which will be placed there, should the full allowable amount be utilized, would not be significant relative to the waste stripping requirements which are already associated with the reserve. For example, the existing reserve base requires approximately 250,000,000 tonnes of waste materials to be moved. When compared against this amount, the 4,000,000 tonnes of tailings which could be placed in the pit are not expected to significantly change the economics of the property.

Although it is the intention of MPMC to return Mount Polley to full operation, as outlined in the application, the total tailings tonnages proposed for mining under restricted operations acknowledge a scenario in which the mine does not operate past the restricted operations phase; ensuring that there is sufficient storage in the Springer Pit for the would-be volume of deposited tailings, combined with the required storage volume for the projected Temporary Northwest PAG Stockpile volumes (existing on site in addition to that projected to be mined during restricted operations). This storage capacity in the Springer Pit also provides adequate water cover for subaqueous disposal of the PAG, as outlined in the April 30, 2015 issuance of these comments.

Section 6.1 Buttressing Requirements for a Repaired TSF

The discussion should be limited to the need to utilize NAG waste rock from re-opening and avoid discussion of any anticipated re-use of the TSF. Discussion of any potential re-use is highlight premature at this time and the result of it being included in this discussion is that it will likely be seen as a connected action and therefore something that must be resolved prior to re-opening. In addition, the suggestion of the re-sure of the TSF is contradicted statements in the WMP which suggest that future re-use of the TSF in a water holding mode is unlikely.

Site investigation data, as available, will be interpreted to complete stability analyses for the Main Embankment and South Embankments and evaluate any buttressing required

under current site conditions. Although it is the intention of MPMC to return Mount Polley to full operation, as outlined in the application, no assumptions have been made about the future use of the TSF at this time.

It is understood that if Mount Polley mine was to operate past the restricted operation stage, with deposition of tailings into this, or another TSF; this would require a subsequent *Mines Act* permit (M-200) amendment application by MPMC. This is not proposed, nor necessary, under the conditions of the return to restricted operations.

MPMC will continue to work with its Engineer of Record for the TSF and its Independent Engineering Review Panel to confirm that the design and operation of the TSF is consistent with industry guidelines of best practice and to identify areas where risk reduction may be required.

Approach to Long-Term Water Management Plan Development (WMP)

Section 1.0

According to the WMP a permit amendment was issue in 2010 for discharge to Hazeltine Creek and subsequently MPMC proposed an interim measure using a RO plant with discharge of treated water to Polley Lake. Why weren't these measures previously implemented?

The Hazeltine Creek discharge was implemented and operational and the interim measure using an RO Plant was in the permitting stage at the time of the breach.

Why aren't these measures, which already are permitted and/or have advanced designs, being implemented as short-term measures? While discharge to Hazeltine Creek does not provide adequate capacity by itself and RO is not a long-term solution, if they could be implemented rapidly and draw from Springer Lake, then they should both be considered for immediate implementation.

Both discharge to Hazeltine Creek and use of an RO Plant were considered in options analysis for short-term water management.

The Hazeltine Creek discharge reported to Hazeltine Creek and was only authorized to discharge dam filtered (TSF drain) water; thus, is no longer operational post-breach.

The RO Plant was being permitted as an interim water management measure, and was not operational at the time of the breach. As discussed throughout the water management planning process, operation of an RO Plant is not viewed as an appropriate technology in the short term as, among other deterrents, the RO relied on having independent brine and source water locations to operate; thus, with only one (1) water storage location on site, brine would have to be recycled to the source water (Springer Pit).

Section 2.0

We would argue that short-term measures as necessary must be taken, and that while ideally they should fit within the context of a long-term vision, that is contingent on long-term planning, and under the current circumstances short-term measures are required as necessary and alternatives must be considered which may not fit within the context of long-term vision.

Please refer to introductory remarks for this item.

As discussed during the May 8, 2015 Option Analysis meeting, short-term water management does not reflect final long-term water management, but some considerations should be made understanding the long-term water management planning process. For example, during this meeting, there was general agreement that it would be imprudent to proceed with either of the Quesnel River or Quesnel Lake options for the short-term discharge, as once the infrastructure is installed for either of these discharge locations, the capital expenditure would be of a magnitude that would preclude an alternate option.

The WMP development document should have provided a detailed plan for consultation showing key opportunities and milestones. It should be noted that only limited meetings between the First Nations, other parties and Golder have taken place to date. Without a clear and robust consultation plan and schedule, as well as capacity to participate by the First Nations and their advisors, it would appear that Golder's proposal in this regard is not being filled.

As noted above, these comments were provided early in the review process prior to significant planning of the TAR and subsequent discussion. Since the submission of these comments, there have been First Nation community meetings, an RMDRC update meeting, regularly scheduled Implementation Committee meetings, provision of a formal RMDRC response document, specific technical workshops, an Options Analysis meeting, community meetings and public meetings, among other opportunities, for participation. The consultation that has been undertaken considerably exceeds statutory requirements and MPMC feel that there has been considerable openness and transparency.

Section 2.2.1 Existing Condition

The existing condition scenario should extend until the current post-breach water management achieves a net negative water balance. This means that with respect to potential discharges under the existing conditions, adequate water treatment and discharge capacity must be permitted, implemented and operating so as to prevent a future unregulated discharge under any future scenario. Therefore the existing condition must be addressed and mitigation adequately achieved prior to resumed operations.

Please refer to introductory remarks for this item.

As outlined above, these comments were made before the author was aware that MPMC was drafting a TAR for short-term water management.

As discussed at the RMDRC meetings on March 31, 2015 and April 28, 2015, the MoE and the MEM have indicated that a ‘permissible’ short-term water management TAR will provide the required supporting information and confidence to make a decision on the return to restricted operations activities.

Section 2.2.3 Resumed Operations

The assumption of commissioning of a re-built TSF is premature. While this may be possible, we would similarly note the Minister’s panel recommendation which actually suggests that wet tailings facilities not be used and instead alternative best technology such as dry stack tailings be used in the future. Given the circumstances we believe any suggestion of re-opening the TSF will require a complete and thorough vetting of alternatives such as converting to dry stack tailings, converting to paste tailings, and in both cases potentially utilizing the existing TSF in conjunction with those alternatives or constructing a new TSF using those alternatives. We would otherwise agree that under any present or future scenario no site contact water including that collected within the TSF other than that for a minimal period of time should be stored in the TSF.

It is understood that if Mount Polley mine was to operate past the restricted operation stage, with deposition of tailings into this, or another TSF; this would require a subsequent *Mines Act* permit (M-200) amendment application by MPMC. This is not proposed, nor necessary, under the conditions of the return to restricted operations.

MPMC will continue to work with its Engineer of Record and its Independent Engineering Review Panel to confirm that the design and operation of the existing (or any future) TSF is consistent with industry guidelines of best practice and to identify areas where risk reduction may be required.

Section 2.2.4 Resumed Operations

The WMP should also consider a “Temporary Closure” phase which might result between Restricted Start-up and Resumed Operations as well as at any other time in the future such as during a catastrophic or other unplanned event such as company bankruptcy.

As outlined above, these comments were made before the author was aware that MPMC was drafting a TAR for short-term water management.

Section 2.3.1 Restricted Restart Permit

We hope MEM and MoE have since realized that rather than treating it as a “contingency” prior to the processing of a restart application a short-term water

management plan must be similarly processed to address the existing condition as well as future conditions such as for restricted restart.

Please refer to introductory remarks for this item.

Section 2.3.2 Effluent Permit and Short-Term Contingency

In the same manner, under the short-term existing condition scenario, it has been and continues to be possible to utilize the existing mill infrastructure to add lime and conduct water treatment operations without the restricted restart permit. While the operations would be ancillary to milling operations, this does not preclude the mill facilities (e.g. lime slaker, mixing tanks, thickener) from being utilized ahead of milling operations to achieve reasonable existing conditions (e.g. net negative water balance).

The discussion of possible water management and water treatment options is appreciated and forms part of site considerations.

Section 3.2.1 Water Quantity Module

We recommend that ongoing/long-term draindown water from the tailings within the TSF be included as an input in the WBM. However, in doing so we recognize that by this time it may not be a significant contributor. But given the apparent discrepancy in existing models and actual pit water volume that can be likely accounted for by tailings draindown since the breach and subsequent capture was established, including long-term draindown would ensure that future models were more accurate.

The correction of the water balance model for the interstitial water draining from the tailings inside the TSF was provided in the April 30, 2015 issuance of this document.

Section 4.3.3 Effluent Conveyancing and Discharge (Short Term)

As discussed, we recommend that in addition to Hazeltine Creek and Quesnel Lake, discharge into the Quesnel River should also be considered as a short-term discharge option. We also recommend that multiple or staged discharges be considered in the short-term.

As suggested, Quesnel River was one of the options considered for short-term discharge.

During the Options Analysis meeting held on May 8, 2015, we inferred general agreement that it would be imprudent to proceed with either discharge to Quesnel Lake via pipe and diffuser or Quesnel River via pipe and diffuser for the short-term discharge, because once the infrastructure is installed for either of these discharge locations, the capital expenditure would be of a magnitude that would preclude an alternate option. Therefore, a discharge to Hazeltine Creek is the most viable short-term solution because it will not require extensive infrastructure that will bind a long-term option, and it will afford the time for sufficiently detailed studies of the other two (2) options to clearly identify which is the best overall for a long-term discharge.

Discharge to Quesnel River would have the highest complexity to overcome in the short term and has a number of technical issues to resolve.

Table 3: Summary of Criteria for Evaluating Discharge Options

An option that should be considered in the event water levels rise to the 1030m elevation would be to continue to pump from the TSF to Springer Pit and cause an emergency overflow/discharge from Springer Pit in order to bypass or overflow the TSF.

It is MPMC's intention to operate the Springer Pit below the 1030m elevation, which will require an authorization to discharge water from site in the short-term. In the event that there are delays in the short-term water management authorizations, there will be approximately 2 Mm³ of contingency capacity in the repaired TSF. This contingency is geotechnically suitable and would enable additional time to develop these options in the event that monitoring indicates Springer Pit is approaching the 1030 m elevation. Any temporary or emergency use of the TSF for water storage would have to be authorized by the MoE and the MEM through an approval process.

7.0 Monitoring Plan

Consultations with FNs and MEM and MoE should take place with respect to evaluation of the water models and establishment of additional monitoring stations as may be needed to either improve upon or validate the model.

As noted above, these comments were provided early in the review process prior to significant planning of the TAR and subsequent discussion of the water balance, water models and water monitoring locations.

Since the submission of these comments, there have been First Nation community meetings, an RMDRC update meeting, regularly scheduled Implementation Committee meetings, provision of a formal RMDRC response document, the Options Analysis meeting, community meetings and public meetings, among other instances in which the evaluation of the water models and monitoring programs have been reviewed with FNs, the MEM, the MoE, local community representatives, regulators and other stakeholders.

8.0 Schedule

The draft project schedule is helpful but needs to be more thoroughly described and linked to the existing conditions/contingency/short-term permit and restricted opening as well as long-term permit requirements relative to both discharge and resumption of full operations. In addition, the schedule should identify key consultation opportunities and milestones with First Nations, local communities and agencies.

Since the submission of these comments, during the RMDRC meeting on April 28, 2015 and within the April 30, 2015 issuance of this document an updated schedule and process slides were provided.

Date: May 7, 2015 (Received via E-mail May 8, 2015)

Correspondence: Letter (Re: ME response to RMDRC Comment Tracking for Mount Polley Mine Return to Restricted Operations Application.)

Source: Ministry of Energy and Mines (Tania Demchuk)

Author: Tania Demchuk

Items

1. In the response, dated April 30, 2015, MPMC has indicated that responses to a number of questions from MEM will be submitted throughout the month of May as follows:
 - Updated mine plans for the Cariboo Pit and underground operations: May 23, 2015 (depending on permitting timelines)
 - A procedure for “Working Safely Near Water”, that has been approved by the MPMC Joint Occupational Health and Safety Committee: May 28, 2015
 - An updated program for geochemical characterization of stockpiled ore: May 23, 2015
 - Mass-balance assessment of pit lake water quality and potential for effects on water quality in Bootjack Lake: May 13, 2015
 - An updated OMS manual, including water flow and quality monitoring on the mine site: May 11, 2015
 - Closure Management Manual: May 27, 2015
 - Updated reclamation liability costing: May 15, 2015
 - Technical Assessment Report: May 29, 2015

The above documents and responses will form an integral part of the application review process for the return to restricted operations and when these documents are received they will be reviewed to assess adequacy and information any additional comments or recommended permit conditions. (Comment)

Correct, the documents and submission timelines reflect those provided in the April 30, 2015 issuance of this document. Since the submission of these comments, the following has been provided to the MEM:

- Mass-Balance assessment of pit lake water quality and potential for effects on water quality in Bootjack Lake (May 8, 2015)
- An updated OMS Manual, including water flow and quality monitoring on the mine site (May 11, 2015)

- Updated reclamation liability costing (May 14, 2015)
- A procedure for “Working Safely Near Water”, that has been approved by the MPMC Joint Occupational Health and Safety Committee (May 21, 2015)
- Updated Mine plans for the Cariboo Pit and underground operations (May 21, 2015)

2. It is understood that a standalone application for additional buttressing of the TSF embankments (if required based on results of recent foundation condition drilling) will be submitted to MEM in late May or early June for review and approval. (Comment)

This is correct.

3. It is expected that the updated program for geochemical characterization of stockpiled ore, to be submitted by May 23, 2015, will include a discussion of contingency planning informed by the judgement of a qualified professional with experience in the development of such plans. (Information Requirement)

As outlined in the April 30, 2015 issuance of this document, an update on the program for characterization of ore stockpiles will be provided by May 23, 2015. This program (and corresponding update) will include discussion of contingency planning informed by the judgement of a qualified professional.

4. It is understood that MPMC evaluates water management on-site to meet site requirements and that MPMC is working with Golder to model existing site water management structure under various conditions. Based on these evaluation and modeling exercises, please provide conclusive information regarding the capacities of the all of the water management structures on-site (i.e., what is the range of flow conditions that can be safely conveyed/stored for each structure). Using this information in the context of current water management needs for the site, please identify improvements that should be made to ensure that physical integrity of the structures is maintained (i.e., is the capacity sufficient to address current site conditions) and water quality is optimized (i.e., sediment entrainment and delivery is minimized). (Information Requirement)

The GoldSim model currently being refined by Golder for the Mount Polley site will be used to fulfill this information requirement. Given the current water management uncertainties while a short-term water management and discharge strategy is being developed and approved, as well as the potential for operational changes on site, MPMC plans to conduct the evaluation and modelling exercises when the path forward is more certain.

Given that the 2015 freshet and associated high flow conditions have already occurred, this work is planned for the upcoming low flow months prior to 2016 freshet and updates will be included in an OMS Manual update.

MPMC will continue to use on-site guidance documents such as the OMS Manual, Water Management Inspection Manual and the Erosion and Sediment Control Plan to support evaluation of the efficacy of water management systems and in the identification of possible improvements.

5. The Erosion and Sediment Control Plan update was received by MEM on May 5, 2015. These documents are now under review and follow-up comments will be provided if required. Preliminary review indicates the plan has incorporated MEM's comments and is improved from the previous version reviewed. Permit conditions will be included to address erosion and sediment control considerations, including annual plan revision to incorporate adaptive management learnings, freshet preparedness, and reporting of significant sediment releases. (Permit Conditions).

Noted. MPMC looks forward to receiving follow-up comments on the Erosion and Sediment Control Plan from the MEM. MPMC suggests that incorporation of some comments, where appropriate, into an update to the plan may have greater operational benefit in lieu of permit conditions.

6. As per previous comments and discussions at the Mine Development Review Committee meeting and summarized in previous review comments, the receipt and review of the Technical Assessment Report for short-term water discharge, and the determination that the information is acceptable to move into review, is critical to the ability to continue moving forward with the application for restricted restart of operations. (Comment)

Noted. It is anticipated that the TAR will be provided by May 29, 2015.

7. Please refer to the attachment for additional comments from Lorax Environmental. Your detailed response to these is requested.

Responses as included herein.

Date: May 5, 2015 (Received via E-mail May 8, 2015)

Correspondence: Memorandum (Mount Polley Limited Restart Permit Application Review)

Source: MEM/MoE (Tania Demchuk)

Author: Lorax Environmental

Items

1. **(Comment)** MPMC states that they will provide the following documents, relevant to Lorax's review, to the MDRC by the end of May 2015:
 - a. Updated water flow and quality monitoring OMS Manual sections will be provided by May 11, 2015.
 - b. Springer Pit water quality predictions and impact assessment on Bootjack Lake by May 13, 2015.
 - c. *Environmental Management Act* effluent discharge TAR to be provided by May 29, 2015.

These documents will form an integral part of the application and are required to fill outstanding information requirements relating to the *Mines Act* and *Environmental Management Act* permit amendments under present consideration.

Correct, the documents and submission timelines reflect those provided in the April 30, 2015 issuance of this document. Since the submission of these comments, the following has been provided:

- An updated OMS Manual, including water flow and quality monitoring on the mine site (May 11, 2015)
- Mass-Balance assessment of pit lake water quality and potential for effects on water quality in Bootjack Lake (May 8, 2015)

2. **(Comment)** *MPMC-WORK-007 Installing and Benchmarking Staff Gauges* details the procedures to be followed when installing and surveying staff gauges. The procedures listed are suitable and follow industry standard. However, the document outlines a procedure for re-installing a staff gauge if it was removed for the winter. This is generally not recommended, as the removal and re-installation introduces further uncertainty in the consistency of inter-annual measurements of stage-discharge (or level-volume) relationships. Where possible, it is recommended that all staff gauges remain installed year-round.

Noted. MPMC is in agreement and, where possible, leaves staff gauges installed year-round.

3. **(Information Request)** In the responses to reviewer's comments, several references are made to the contingency storage available in the TSF (approximately 2.1 Mm³), as a result of the completion of the 2015 Freshet Embankment. For example, in response to Comment 2. c) from Lorax, MPMC states that "The TSF storage could be used as a contingency in the event that Springer Pit water levels approach critical elevations (i.e., above 1030 m)." Given this statement, the restrictions on storage volume in Springer Pit and the tight timelines, please provide information on:
- The conditions under which the TSF storage capacity may be required;

It is the intent of MPMC to keep the elevation of the water in the Springer Pit below 1030m elevation, understanding that this elevation corresponds to potential for influence of Springer Pit lake water to groundwater. Given that the Springer Pit represents the only available storage location for water on site, this requires a short-term water management strategy (i.e., discharge) such that site contact water is not accumulated past this elevation.

Understanding the timelines over which such a water discharge would need to be permitted and operational, the TSF, repaired to the 950m elevation under the 2015 Freshet Embankment and Perimeter Buttressing design, has an available 2Mm³ of storage.

Outside of freshet, conditions under which the TSF storage capacity may be required are limited to a reasonably unforeseen emergency event. While availability of water storage is decreasing in the Springer Pit, MPMC is actively pursuing a short-term water management and discharge solution that is anticipated to alleviate the potential need for water storage in the TSF.

Any emergency water storage in the TSF would be carried out through an approval process with the MEM and the MoE.

- The sources of water that would report to the TSF (if additional to the sources listed in response to Lorax comment 2.c);

There are no other additional sources of current or planned water inflow into the TSF than those included in the response to the Lorax comment 2. These sources are: direct precipitation; runoff from upstream areas that are downstream of the clean water diversion ditch; and dewatering of exposed tailings.

During emergency storage, as referenced in the comment response above, site contact water from various site systems could be directed into the TSF via the Central Collection Sump.

- c. The plan and potential timing for the routing, treatment and discharge of the water accumulated behind the 2015 Freshet Embankment, and;

All water currently accumulating behind the 2015 Freshet Embankment is being pumped out and transferred to the Springer Pit for storage. Timing and routing for treatment and discharge of water from the Springer Pit are being developed and will be permitted with the short- and long-term water management strategies.

- d. The implications for the storage of the 2016 freshet contact water.

All water currently accumulating behind the 2015 Freshet Embankment is being pumped out and transferred to the Springer Pit for storage.

As per the existing M-200 Permit, a permit amendment is required for operation of the TSF for water management beyond December 17, 2015. Management of 2016 freshet contact water will require pursuing such a permit amendment or incorporation into short-term water management (i.e., discharge) permitting.

4. **(Information Request)** MPMC indicates that preliminary transient analyses for selected groundwater modeling scenarios that include pumping water out of Springer Pit have been developed, and that a technical memorandum is under preparation. Please advise when the MDRC should expect to receive this memorandum for review.

Since the submission of these comments, this document has been provided.

5. **(Comment)** Given the importance of the water balance model predictions for the restricted restart permit application and longer-term water management strategies, and the gaps in monitoring data following the TSF breach (*e.g.*, pumped flow volumes per source to Springer Pit), the following recommendations are made:
- Require that all pumping systems that route water from a major site component (*e.g.*, sumps, pits, ditches, *etc.*) be equipped with totalizers.
 - Compile all SOPs related to flow monitoring into a single document for reference by site staff.
 - Engage an appropriately qualified professional to review the monitoring procedures on a regular basis (*e.g.*, every 3 years) to ensure that the consistency and quality of data is maintained.
 - Extend the site water balance model to include the receiving environment water balance for the location of the proposed discharge, as part of the application for the long-term effluent discharge permit.
 - Engage an appropriately qualified third-party professional to review the water balance model on a regular basis (*e.g.*, every 3 years) to ensure that the model remains representative of site water management practices and prevailing climatic conditions.

These suggestions have been noted for evaluation in site water management programs.

6. **(Comment)** Excerpts of updated groundwater modeling results provided by Golder indicate that transient effects (*i.e.*, those induced by filling Springer Pit at a faster rate than the surrounding groundwater levels can equilibrate) will result in higher rates of groundwater seepage from Springer Pit towards Bootjack Lake than previously predicted, and this seepage will be initiated at lower Springer Pit elevations. As the hydraulic containment of mine contact water in Springer Pit depends on soft groundwater divides (rather than hard topographic divides) that are impacted by multiple factors including the rate of Springer Pit filling and local precipitation and infiltration, Lorax recommends that reporting requirements be considered for the Springer Pit Lake elevation and groundwater elevations in the downgradient monitoring wells:
- a. If at any time the water elevation in Springer Pit exceeds the groundwater elevation in any monitoring well between Springer Pit and Bootjack Lake, this must be immediately reported. This report should contain the following:
 - i. all groundwater and Springer Pit water level records for the previous six months in tabular and graphical format;
 - ii. all groundwater and Springer Pit water quality results and required field parameters for the previous six months in tabular and graphical format; and,
 - iii. the plan and timeline to restore containment of groundwater seepage.

Since the submission of these comments, the updated groundwater modeling results have been provided by Golder.

It is recognized that MPMC will be submitting additional monitoring plans with the updated OMS that is scheduled to be submitted on May 11, 2015.

Since the submission of these comments, this document has been provided.

Date: May 8, 2015 (Received via E-mail May 11, 2015)

Correspondence: Likely Chamber of Commerce Comments to CMDRC re: MPMC Restricted Restart Application

Source: Likely Chamber Liaison (Doug Watt)

Author: Doug Watt

It is noted that the original letter is dated May 8, 2015, was provided to the MEM on May 10, 2015, and was provided to MPMC by the MEM on May 11, 2015.

Items

Cold weather well sampling can be problematic at times, but can generally be overcome with proper design and equipment. WQ sampling from wells and surface sites occurs year round in the far north in extremes down to -40C and colder, speaking from personal experience.

This feedback is appreciated.

Given the previous permit conditions of bi-annual sampling, MPMC groundwater well installations and monitoring equipment are not set up for cold weather monitoring. If, based on water quality trends and water level readings indicate that there is an imminent need to sample the wells, appropriate steps will be taken to conduct this monitoring. If the timelines discussed at the MDRC for development of a short-term water discharge solution are followed as planned, this is anticipated to reduce the need for winter sampling.

With regular monthly data analysis and reporting, accelerated response to potential compliance issues is generally fairly quick based on the regular trending analysis and the use of data management software alarm points.

This feedback is noted.

It is a bit disingenuous of MPMC to ask a reviewer to dig down into a 2013 annual report to find out what reagents are used in the Mill operation when discussing water management and WQ issues for restart, particularly considering the excessively thorough job that MPMC did while testing flocculants that were supposed to be considered for use on the HC Settling Ponds.

It was assumed that reviewers had previously been provided copies of or had access to the 2013 Annual Environmental and Reclamation Report. Copies of this report were provided to the Likely and Williams Lake Public Libraries after publication, and MPMC was not aware that these were no longer on file. A copy of the report, “*2013 AERR.pdf*” is attached for reference.

PERMIT AMENDMENT APPLICATION

UNDER THE BRITISH COLUMBIA MINES ACT

-AND-

UNDER THE ENVIRONMENTAL MANAGEMENT ACT

RMDRC COMMENT TRACKING

MOUNT POLLEY MINE

RETURN TO RESTRICTED OPERATIONS

REVISION 1

PREPARED FOR

RMDRC

PREPARED BY

MOUNT POLLEY MINING CORPORATION

ORIGINAL SUBMISSION: APRIL 30, 2015

UPDATED: MAY 21, 2015

RMDRC Comment Summary List

Date	Group (Author)	Document Type (Name)
April 9, 2015	Ministry of Forests, Lands and Natural Resource Operations (David Weir)	E-mail (Discharge Construction in Stream Work)
April 13, 2015	Likely Chamber Liaison (Doug Watt)	Letter (Comments on MPMC Applications for Restricted Startup/Water Management)
April 13, 2015	Ministry of Energy and Mines (Tania Demchuk)	Letter (Re: Return to Restricted Operations Revision 1 and Long-Term Water Management Planning – MEM Review Comments)
April 13, 2015	Ministry of Energy and Mines and Ministry of Environment (Lorax Environmental)	Memorandum (Mount Polley Limited Restart Permit Application Review Comments)
April 14, 2015	BC Ministry of Agriculture (Ken Awmack)	E-mail (Re: Mt Polley Return to Restricted Operations: Final Call for First Nations, Prov and Fed Regulatory Agency, and Community)
April 14, 2015	Fisheries and Oceans Canada (Darryl Hussey)	E-mail (Mount Polley Mine Return to Restricted Operations Application)
April 14, 2015	Ministry of Environment (Brian Yamelst)	E-mail (MoE Comments Re Mt Polley Tailings Deposition Application)
April 14, 2015	Ministry of Environment (Hubert Bunce)	E-mail (MoE Comments Re Mt Polley Tailings Deposition Application)
April 16, 2015	Ministry of Environment (Brian Yamelst)	E-mail (Additional Comments from Brian on MPMC Application to Date)
April 24, 2015	Williams Lake Indian Band and Xat'sull First Nation (Chief Ann C. Louie and Chief Donna Dixon)	Letter (Re: Mt Polley Mining Corporation (“MPMC”) Return to Restricted Operations Permit Amendment Application (the “Application”) and the Approach for Long-Term Water Management Plan Development)
April 24, 2015	Williams Lake Indian Band and Xat'sull First Nation (MacDonald Environmental Sciences, LGL Ltd. and BOA Ltd.)	Report (Technical Review Comments Summary)
April 24, 2015	Williams Lake Indian Band and Xat'sull First Nation (James R. Kuipers)	Report (Review and Comment on Mount Polley Re-Opening Application and Water Management Plan, 20 March 2015)
May 8, 2015	Ministry of Energy and Mines (Tania Demchuk)	Letter (Re: ME response to RMDRC Comment Tracking for Mount Polley Mine Return to Restricted Operations Application.)
May 8, 2015	Ministry of Energy and Mines and Ministry of Environment (Lorax Environmental)	Memorandum (Mount Polley Limited Restart Permit Application Review)
May 11, 2015	Likely Chamber Liaison (Doug Watt)	Letter (Likely Chamber of Commerce Comments to CMDRC re: MPMC Restricted Restart Application)

Foreword (April 30, 2015 Submission)

MPMC is pleased to have provided responses to RMDRC comments received within the allotted time. We acknowledge recent receipt of comments from the Soda Creek Indian Band and Williams Lakes Indian Band. We value their comments and their participation but were unable to address these recently received comments in the time available. We will respond to their technical comments in the next few days. MPMC is in discussion with the two bands with regards to their non-technical comments.

In addition, we value the continued participation and input of other RMDRC members. We hope that our responses have adequately addressed their feedback. Should this not be the case, we invite their direct communication with MPMC or our technical consultants.

Updated Comments (May 21, 2015 Submission)

This update, dated May 21, 2015, includes edits to the first comment response document provided on April 30, 2015 (edits identified in red font for tracking) and responses to comments received after the initial RMDRC review period. Additional comments to those forming part of the April 30, 2015 version of this document include those provided by First Nations (Williams Lake Indian Band and Soda Creek Indian Band) and their consultants, and responses to follow-up comments based on the original (April 30, 2015) submission of this document from the Ministry of Energy and Mines (MEM), including those from Lorax Environmental, and the Likely Chamber Liaison.

Date: April 9, 2015

Correspondence: E-mail (Discharge Construction in Stream Work)

Source: FLNRO (David Weir)

Author: David Weir

Items

The construction of the discharge structure into a water body requires an authorization, most likely in the form of a Section 9 approval (Water Act) and may also require a land act tenure.

The present permit amendment applications are for the return to restricted operations at Mount Polley mine. These amendments would allow mining to occur and would allow the deposit of tailings into Springer Pit. The advice provided above relates to the effluent permit amendment to enable discharge to surface water as well effluent conveyancing structures. At this time, and with regards to the effluent permit amendment application, a Technical Assessment Report is being prepared and effluent discharge options are being selected, with consultation being part of that selection process. As a final discharge option has not yet been selected, the necessary detail to enable the above-noted authorizations has yet to be determined. We are aware that a specific discharge location and, as appropriate, pipe routing corridor would need to be specified to initiate those processes.

Date: April 13, 2015

Correspondence: Letter (Comments on MPMC Applications for Restricted Startup/Water Management)

Source: Likely Chamber Liaison (Doug Watt)

Author: Doug Watt

Items

A) Water Management Plan

- 1) Provide a clarified timeline/schedule that is more easily read and understood than the Gantt chart provided. Both MEM and MPMC are apparently working on a process flowsheet to hopefully provide more clarity to the process.

An updated process flowsheet and timeline/schedule was presented at the Regional Mine Development Review Committee (RMDRC) meeting on April 28, 2015. Copies of both the Ministry of Energy and Mines (MEM) process slide and the MPMC/Golder schedule slide are included as “Schedule and Timeline Update.pptx”.

- 2) I try and encourage local people to review the applications and provide feedback with their thoughts and concerns though it may be difficult to understand the material supplied. In addition, a significant number are reluctant to submit comments, either verbally or written, to the regulators and MPMC as their comments will be made public with their names attached. Reasons expressed include: shy and not comfortable in front of the public, worried about what the neighbors will think, what my employer (MPMC, local business...) think, how will it affect my doing business with MPMC in the future, what will my relative's supervisor at the mine think, and so forth. This is kind of an unprecedented situation, so is there an alternative method that could be developed to allow input that would allay these concerns?

There are multiple mediums through which to provide comment including technical working groups, public liaison committee meetings, community meetings (including informal drop-ins in Likely), written formal comments, and provision of comments to a representative for discussion (i.e. through the PLCM or RMDRC). MPMC also hosted a vendor table and gave a presentation at the Quesnel Gold Show in Quesnel to inform people about the permit application. Individuals also have the opportunity to provide comment and questions to elected representatives to bring forward for discussion in the abovementioned forums.

Information is available online, including through the Imperial Metals website, the Ministry of Environment (MoE) website and the ~~Ministry of Energy of Mines (MEM)~~ website (amongst other locations). MPMC has also been providing layperson-oriented information to local Likely residents through direct delivery to individual mail boxes of information brochures and the Community Update Bulletins.

MPMC continues to be committed to working with local communities to provide updates and information on Mount Polley mine and to provide opportunities for dialogue; MPMC is open to discussion or suggestions of initiatives to continue to do so. All comments are gladly received and community members can certainly feel secure that they will not be unfairly treated by the company or its representatives.

A public meeting in Likely has been tentatively scheduled for May 13, 2015.

- 3) The short-term water management plan should be totally separated from the long-term plan. The treatment options and discharge options listed can be confusing, particularly when there are likely only a couple of realistic options for the short-term, as well as a couple possibly different options for the long-term.

MPMC has segregated the short- and long-term plans. A separate Technical Assessment Report will be prepared for short-term water balance solutions and another one will be prepared to address the long-term water management strategy. Nevertheless, long-term thinking is an integral part of our short-term plans and options evaluations. For example, we are aware that that short-term measures could pre-judge the decision for long-term measures. Our discharge options evaluation process specifically considers that possibility.

MPMC provided an overview of the segregation of short- and long-term planning approaches, including associated consultation with those approaches at the April 28, 2015 RMDRC meeting and will seek to clarify that distinction for the community at the planned May 13, 2015 community meeting in Likely. In addition, the MoE provided an explanation of the process involved in this segregation at a meeting held on the evening of April 23, 2015 at the Williams Lake Indian Band meeting.

In summary, we agree with the sentiments expressed by this comment and have separated these as noted.

- 4) MPMC is proposing that the long-term water management plan may come into effect as early as the end of the year (2015). There are future uncertainties (i.e. potential long-term operation of the mine beyond the 1 year restricted startup, and removal of water and tailings from Springer Pit to allow for future mining) that cannot be wholly covered at this time. As such, in some respects the long-term water management plan will need to be a living document, to be reviewed and updated as the future status of the mine evolves.

We agree that in reality, all plans need to be reviewed and updated to reflect changing realities; however, we also feel that MPMC should plan for the long-term and should articulate that plan to government, First Nations and communities. The plan will necessarily need to include various possible scenarios, including those identified above.

- 5) Within the community, there are varied and divergent preferences on discharging the treated mine water into the environment, such as temporarily into a partially rehabilitated Hazeltine Creek (HC) or a pipeline into Quesnel Lake (QL), or in the long-term using pipelines and subsurface diffusers into either QL or Quesnel River (QR), downstream of the lake. Individual concerns included scouring, the continuing discharge of dirty water into QL from HC, effect on esthetic values and future local businesses and land values (perceived as no longer pristine), drinking water quality, where and how to safely run pipelines, possible effect on salmon spawning habitat and fry in both QL and QR, etc.

Options analysis and application of best-available-technology are important considerations in evaluation of water management strategies in both the short-term and long-term across the concerns noted. MPMC has considered these matters and will consider options that maintain these values. For instance, discharge into Hazeltine Creek would only be considered if the channel armouring were completed. MPMC is committed to discussing the options available for water discharge with the local community, and has already had input on alternatives for consideration from members of the public attending community meetings in Williams Lake and Likely. We believe that we have demonstrated that we are responsive to this input and have been diligently pursuing options based on input received.

We will present our status update at the community meeting tentatively scheduled for May 13, 2015 and will provide an opportunity for the community to ask questions and provide input.

- 6) Constituents of potential concern (COPC) as stated are based on BC water quality (WQ) guidelines. Comparison should also be made to historical background WQ data from pre-breach and pre-MPMC, and should include nutrients and possibly other substances as well. Recent observations from QL residents include ongoing concern about increased weed and algae growth since the dam breach, including observations over the 2014/2015 winter.

MPMC have been preparing a water quality report that assembles background (pre-breach) data on Quesnel Lake. However, such data are not available in abundance. Nevertheless, MPMC have carried out extensive sampling in areas that were affected by the displaced materials as well as reference areas in Quesnel Lake, which we believe provide a reasonable basis for pre-impact water quality conditions.

The comparison to water quality guidelines is a comparison of convenience because these guidelines provide a ready reference source. However, they do not apply to water contained in a pit or to an effluent. The comparison made is a commonly used approach to screening the data, conservatively (i.e., err on the side of caution), to develop a list of those substances that warrant closer attention.

- 7) The Springer Pit area water wells and groundwater seeps were typically sampled twice per year. With the Springer Pit water level constantly on the rise, and the plan to use it for tails and water disposal, and possibly in-place lime treatment of water, these wells and seeps should be sampled for WQ and level on a weekly basis, until a clear trend is established. Apparently additional monitoring wells are planned for installation around Springer Pit and the area towards Bootjack Lake, and they should also follow the same monitoring frequency as noted. Consideration should also be given to increased frequency of sampling in Bootjack Lake to at least monthly.

The previous sampling frequency was suitable for previous needs. MPMC are aware (and therefore agree with the comment) that present circumstances warrant both an increased sampling frequency and installation of additional wells. Monitoring plans, including those associated with the Springer Pit filling, have been revised with input from Qualified Professionals and in accordance with regulatory requirements.

As reviewed during the RMDRC meeting held on April 28, 2015, water level will be monitored for the existing water well (GW-12 2a/2b) and in new wells. MPMC have initiated the process of well installation. The air photo image below shows the location of the two new multi-level monitoring wells that are planned to be installed in May/June 2015.



Through fall (approximately October) 2015, the monitoring program will consist of:

- Geological observations and hydraulic conductivity testing at locations of new piezometers.
- Daily manual water level measurements, or continuous monitoring using designated water level dataloggers at GW12-2a/b and the new wells, once installed.
- Monthly water chemistry sampling of GW12-2a/b and the new wells, once installed (when weather conditions permit – freezing conditions do not always allow pump use). Full suite samples will be taken, consistent with current groundwater sampling completed on site – nutrients, dissolved metals, anions, physical parameters.

Adjustments to this monitoring program will be based on monitoring results and the status of the Springer Pit water levels, and will be based on recommendations from a Qualified Professional. A potential mechanism for adjusting the schedule is the Annual Monitoring Plan for 2016 which will be submitted to MoE for review January 2016, as per Permit 11678.

Data are provided to MoE quarterly, and are also included in the Annual Report to MoE and MEM. Given the transit time for groundwater from Springer Pit to **Quesnel Bootjack** Lake (~12 months), more frequent monitoring than that proposed is not planned. If the monitoring frequency is reduced in the future, triggers for increased monitoring may be established based on the recommendations of a Qualified Professional.

In the event that anomalous groundwater quality is observed during sampling, additional follow-up sampling will be conducted and reported.

- 8) Contingency plans in case of problems with the management of water (i.e. Springer Pit water level), construction and operational delays or unexpected weather conditions and events, need to be pro-active, robust and effective. I note that the 2015 Freshet Embankment Cutoff Wall construction is nearly 4 weeks behind the original schedule (April 1, 2015), and that not all of the possible contingencies were enacted that may have kept it on schedule. This is likely to be inconsequential to the Cutoff Wall project due to the happy coincidence of the weather and unusual freshet melt conditions that occurred in the spring, but what could have happened if that “good luck” had not occurred?

The TSF Breach repair is nearly complete. As a result of determined efforts and adaptive management, freshet was managed and is now contained in Springer Pit.

In the event that there are delays as noted, there will be approximately 2 Mm³ of contingency capacity in the repaired TSF. This contingency is suitable and will enable additional time to develop these options in the event that monitoring indicates Springer Pit is approaching the 1030 m elevation.

B) Restricted Startup Application

- 1) Operating procedures, OMS manual and Emergency Preparedness/Response plans need to be up-to-date and clearly state priorities and procedures in respect to Mill/Mine production (operations), the protection of the environment, the safety of the public (and workers), water management and the continued rehabilitation/remediation of the dam breach.

MPMC will continue to meet the requirements for the abovereferenced documentation in accordance with the Health, Safety and Reclamation Code for Mines in British Columbia (*Mines Act*) and other applicable regulation.

- 2) It would be helpful to add flow direction arrows to the drawings on pages 16-19.

Details of individual components of the water management systems outlined in figures on pages 16 through 19 are included in Section 3.0 Engineering and Design of

Water Management Components of Appendix A to the Permit Amendment Application, including flow direction arrows in all figures.

- 3) In Appendix A Section 1.1.7, the reagents used for operation along with descriptions and quantities used should be listed (based on past practice?).

Details of chemicals and reagents used during operations, including estimates of volumes of materials that could be expected on site, are included in the Annual Environmental and Reclamation Report (Section 2.1 in the 2013 Report). A copy of the 2013 Annual Environment & Reclamation Report “MPMC 2013 Annual Report” is available for reference.

- 4) Appendix A Figure 1.2.3.1 is poor quality hard to read details.

An updated figure, “2015 Sampling Locations.pdf” is provided for reference.

- 5) Appendix C Figure 2 is poor quality hard to read details.

This figure has since been updated based to reflect current site water management processes. The original figure “Figure 2 Flow Diagram.pdf” is provided in higher resolution for reference.

Date: April 13, 2015

Correspondence: Letter (Re: Return to Restricted Operations Revision 1 and Approach to Long-Term Water Management Planning – MEM Review Comments)

Source: MEM (Tania Demchuk)

Author: Tania Demchuk

Items

1. Updated mine plans for proposed mining in the Cariboo Pit and underground area are requested for review. (Information requirement)

Mining operations are projected to reflect previously permitted mine plans for both the open pit mining in the Cariboo Pit and underground operations. Updated mine plans, based on conditions existing at the time of potential restart will be provided to the MEM for review prior to any restart of operations; based on existing permitting timelines (June 8, 2015), an updated mine plan will be provided by May 23, 2015.

2. If complete dewatering of the Cariboo Pit does not occur prior to mining, a plan for maintaining the health and safety of workers in and around this pit lake is required for review. (Permit Condition)

In accordance with Section 3.3.3 of the Mines Act, MPMC will continue to maintain appropriate safety devices and procedures for personnel to follow while working near any water hazard. In addition to protection for individuals, appropriate berms or barricading will be in place at all times to ensure equipment access to water hazards are controlled. A draft procedure for “Working Safely Near Water” is being developed and will be reviewed and approved by the MPMC Joint, Occupational, Health and Safety Committee. A copy of this procedure, once approved, will be provided to the MEM for review; it is anticipated that this will be complete by May 28, 2015.

3. The application indicates that the non-potentially acid generating (non-PAG) waste rock produced during the proposed mining activities will be used to supply rock that may be required for buttressing of the tailings facility embankments. The design for buttressing has not yet been submitted for review. Will this information be submitted during the review period for this application or is it planned to be submitted as a separate application? The design will require review by our geotechnical engineer and MEM cannot permit movement of this rock to the tailings facility for buttressing without an

approved design for such work. Additionally, please provide confirmation that the permitted SERDS has capacity to store the non-PAG waste rock if the TSF buttress design is not submitted and permitted with the restricted restart application. (Clarification)

Site investigation work was completed in 2015 and involved drilling along the Perimeter Embankment, Main Embankment and South Embankment. Drilling data was interpreted as part of the design update required under bullet point four (4) of condition C.1(d) of the M-200 Mines Act Permit Approving TSF Breach Repair and Perimeter Embankment Buttress Design for 2015 Freshet: “An update to the design of the Perimeter Embankment Rockfill Buttress based on results of additional site investigation by April 30, 2015.”

Site investigation data, as available, will also be interpreted to complete stability analyses for the Main Embankment and South Embankments and evaluate any buttressing required. Buttress designs (if required), once completed by the Engineer of Record, will be submitted to the MEM as a separate amendment application under the Mines Act (M-200) Permit. It is anticipated that such designs would be submitted in late May or early June of 2015 as an application independent of the Return to Restricted Operations M-200 Permit Amendment Application.

No movement of rock to the tailings facility for buttressing (outside of work for the TSF Breach Repair and Perimeter Embankment Buttressing under the existing M-200 Permit) will occur prior to MEM approval of an updated buttress design (if required). It can be confirmed that the permitted SERDS has capacity to store the non-PAG waste rock if the TSF buttress design is not submitted and permitted with the restricted restart application.

4. Additional information is required to understand the low grade ore noted in the Application versus the permitted high grade stockpile (reference July 25, 2013 Mines Act permit amendment). The application document notes that the Cariboo Stockpile will receive up to 1,000,000 tonnes of low grade ore. Based on the existing M-200 permit and associated application documents, this stockpile was permitted as a high-grade ore stockpile. If there is an intention to store low grade ore in this location, please specify the geochemical characteristics of that ore, total stockpile volume and contingency for this stockpile if it is not processed. For example, will it be backhauled and permanently submerged to mitigate risk of metal leaching and/or acid rock drainage? A low grade ore stockpile represents a liability on the mine site that has not been previously considered; therefore, in addition to the geochemical information and mitigation plans, MEM requires the information related to the costs associated with implementation of mitigation plans. (Information Requirement)

The stockpile described in this application is; in fact, a “high-grade” stockpile as defined in previous documents. The material which will be stockpiled displays clear positive economic value, as all current stockpiles at Mount Polley do. The terminology selected perhaps should have been “lower” grade ore. Ore placed into this stockpile during the period of restricted operations will be sampled for ARD potential by performing one

ABA test per every 20,000 tonnes stockpiled. A program for assessing the metal leaching potential for ore stockpiled will be developed with the support of a Qualified Professional.

A review of existing stockpiles will be performed with the intention of characterizing their ML and ARD potentials. A program for rectifying any data deficiencies will be created with the support of a Qualified Professional. Contingency planning for the scenario in which the material would not be processed will be informed by the judgement of a Qualified Professional using the results of a completed stockpile review and general site geochemical conditions for reference. An update on this program for characterization will be provided by May 23, 2015.

5. There is a risk that the Springer Pit lake elevation may surpass an elevation of 1030 m asl if there are delays associated with obtaining discharge authorization, higher than expected precipitation, or higher than expected seepage volumes from the tailings impoundment (see attached Lorax Environmental review comments). A mass-balance assessment of pit lake water quality and potential for effects on water quality in Bootjack Lake is required to reflect scenarios of 1) seepage from Springer Pit to Bootjack Lake if the water level exceeds 1030 m, and 2) surface discharge from the Springer Pit to Bootjack Lake if the water level exceeds 1050 m. This exercise should estimate the time it could take for seepage to reach the lake in relation to the predicted time to reach the spill elevation. This information request was originally discussed on March 9 at a meeting at the Golder offices, and at that time MEM indicated it would make this request under separate cover, however it is clear that the timelines associated with water discharge permitting are ambitious and this question is considered relevant to an adequate review of this application. MEM is also aware the MOE has provided additional guidance related to understanding effects of Springer Pit Lake development. (Information Requirement)

A mass-balance assessment of pit lake water quality and potential for effects on water quality in Bootjack Lake will be provided to the RMDRC by May 13, 2015.

6. Based on discussions to date, and the plan to flood PAG waste rock in the Springer Pit at closure, MEM understands that during the closure phase the Springer Pit will be allowed to fill and discharge from its lowest point at 1050 m asl. To understand the potential effects of this closure scenario, modelling of pit lake water quality based on expected closure conditions is required. It is expected that this work will be included in the required Reclamation and Closure Plan described in item 15 below. (Permit Condition)

As discussed in follow-up with MEM and at the RMDRC meeting on April 28, 2015, modelling of the pit lake quality water based on expected closure conditions will be provided with the updated Reclamation and Closure Plan.

7. Following on questions asked at the March 31, 2015 MDRC meeting, please provide confirmation (and supporting data) showing the depth of the water cover that will exist over the backhauled PAG rock plus tailings in the Springer Pit, and confirm that this water depth is adequate to ensure PAG rock will remain flooded in consideration of wind

effects on the lake level. Based on this information, a maximum additional volume of PAG rock will be recommended as a permit condition. (Information Requirement)

With potentially 3,000,000 m³ of tailings and 9,250,000 m³ of PAG waste rock, a total of 12,250,000 m³ of volume could be occupied by solids with interstitial water in the Springer Pit. This volume corresponds to an elevation of approximately 1041 m asl. Should the Springer Pit lake fill to spill-over at the 1050 m asl elevation, a water cover depth of approximately nine (9) m will be present above all PAG waste rock.

Determination of the minimum required depth of water cover to ensure PAG rock will remain flooded will be provided with the updated Reclamation and Closure Plan.

8. Do the comments about water storage in Section 4.2 relate to the Springer Pit lake at an elevation of 1050 m asl? (Clarification)

Yes, this interpretation is correct.

9. An updated water flow and water quality monitoring program for on-site water (i.e. not necessarily all monitoring points that are captured by the EMA permit) is required. The existing water management plan appears to focus on water levels, not continuous flow, and does not include water quality monitoring. (Information Requirement)

MPMC is reviewing the site Operation, Maintenance and Surveillance (OMS) Manual to confirm inclusion of monitoring completed as part of MEM (M-200 Permit) and MoE (Permit 11678) requirements and additional monitoring completed by MPMC. The updated OMS Manual section will be provided by May 11, 2015.

10. In order to satisfy conditions of the *Mines Act* permit amendment approving the TSF Breach Repair, MPMC developed a water management plan that includes details about the current configuration of the on-site water management system as well as a water management inspection guide (Appendix C). The document indicates that Appendix C will be superseded by an OMS Manual. MEM has received a draft of the OMS Manual and it is under review. Please comment as to whether or not an audit of the water management has occurred with the objective of 1) assessing if capacity is currently adequate to address the range of expected flows, and 2) identifying upgrades that could be made to ensure that capacity is optimized. (Information Requirement)

MPMC re-evaluates water management on site to meet site requirements. Examples of auditing activities completed are: daily inspection of water management systems in accordance with site inspection documents; formal weekly water management meetings to review water management projects, priorities and contingency measures (informal meetings being held more frequently); provision of formal water management plans and contingency plans to regulators as required by Permit conditions; and weekly update calls to regulators on site water management through scheduled calls, amongst others.

MPMC continues to work with experts to model event-based requirements for water management infrastructure to feedback into design and implementation. Additionally, MPMC is working with Golder in creating a GoldSim model to be used in modelling of existing site water management infrastructure under various site conditions. This is greatly enhancing MPMC's ability to plan and evaluate variations to site water management. Goldsim will continue to be updated as additional information is collected, contributing to continual improvement.

11. Further, the water management document does not describe an effectiveness monitoring program, beyond inspection, to assist in progressive planning for ensuring erosion and sediment control is adequate and effective. This is particularly important for non-contact water structures, and run-off supplying these structures, that divert water to the receiving environment, but could also be important for minimizing the total suspended solids (TSS) load being retained on-site. TSS is known to create operational maintenance requirements of collection and pumping systems, and is also linked to elevated metals measured in contact water on-site. An erosion and sediment control plan, with an event-based effectiveness monitoring program, is required to be developed and submitted to the MDRC for review prior to permit issuance, and implemented either separately, or in combination with the OMS Manual, depending on who will be responsible for the implementation of these respective plans. (Information Requirement)

MPMC is updating their Erosion and Sediment and Control Plan based on the guidance provided by MEM in follow-up since the submission of these comments. An updated version of the Erosion and Sediment Control Plan will be submitted by May 6, 2015.

12. It is understood that the OMS associated with water containment in the Springer Pit and Cariboo Pit will be included in the OMS manual for the TSF 2015 Freshet Embankment. This updated OMS will be required as a permit condition in advance of restart of operations. (Permit Condition)

Noted.

13. A Closure Management Manual is required that, at a minimum, a) describes and documents key aspects of the ongoing mitigation, monitoring and maintenance requirements, and b) tracks important changes to components of the system that affect long-term mitigation, monitoring and maintenance requirements. This plan must provide schedules and procedures for ensuring that environmental best practice standards are maintained and document tracking of permit and environmental compliance. The manual must be clear about roles and responsibilities to ensure clarity about who is responsible for conducting the work. The manual should include the results of a risk assessment or environmental audit and contingency or action plans developed based on this assessment exercise. (Information Requirement)

Based on the guidance provided by MEM in follow-up since the submission of these comments, MPMC is creating a Closure and Management Manual to be submitted to the MEM by May 27, 2015.

14. As indicated in screening comments, additional details related to reclamation liability costing are required to enable a review of the reclamation liability that currently exists at the mine. MEM is in receipt of such costing submitted confidentially as part of the Annual Reclamation Report submission. Cost estimates are also required for operational maintenance and monitoring on-site as it is configured at this time. (Information Requirement)

As per the request of the MEM, MPMC will provide cost estimates for operational maintenance and monitoring on site as configured at this time by May 15, 2015.

15. An updated Reclamation and Closure Plan (RCP) for the site should be development concurrently with long-term water management planning. The RCP should be developed in collaboration with First Nations and must include updated closure liability costing for the site. The December 17, 2014 permit amendment includes a condition requiring submission of this document to the Chief Inspector by September 30, 2015. An update of the status of the development of the RCP, including a summary of information currently being collected toward finalizing the RCP, is required at this time. Please also provide comment as to current expected timing of submission of the RCP. (Information Requirement)

As discussed in the 2014 Annual Report Environmental and Reclamation Report submitted to the MEM, MPMC is continuing with progressive reclamation and reclamation research. Prior to the TSF breach, MPMC had been preparing an updated RCP for submission with the permit amendment application to extend the mine life. Revisions to the last submitted plan (including incorporating feedback and addressing comments from the MEM on the previous update) were underway. Currently, there are a number of uncertainties in the future of the Mount Polley site that heavily influence the RCP and depend on the MOE and the MEM permitting decisions:

- Return to restricted operations
- Short-term water management strategy
- Long-term water management strategy
- Return to full time operations (requiring deposition of tailings in the TSF)

Depending on the outcome of the permitting decisions, Mount Polley may close permanently, enter care and maintenance or resume full time operations. Accordingly, closure needs associated with these different scenarios are the primary outstanding sections of the RCP

Work currently being conducted or planned includes:

- Modelling of Springer Pit Lake water quality (long-term);
- Development of short- and long-term water treatment and discharge strategies;
- Modelling existing stockpile volumes and geochemical properties (and, if required, mitigation planning and associated cost implications);
- Ongoing revegetation research with the goal of refining prescriptions for meeting site end land use objectives; and,
- Updating liability cost estimates to incorporate site water management infrastructure (including maintenance).

MPMC plans to submit an updated RCP, as required under the M-200 Permit, by September 30, 2015, reflecting site conditions and long-term water management at that time.

16. The application is focussed on the Restricted Restart of Operations, and while the requirement to manage surplus water on a short timeframe is acknowledged, further discussion related to the details of this requirement are deferred to the Report setting out the approach to water management plan development.

As noted in the March 30, 2015 letter sent following initial application screening period, the Application and Report documents both emphasize that a short-term discharge authorization is requested by July 2015 as a contingency measure to address water management requirements under greater than average water balance conditions. Based on the information provided in the Application and Report, and at the March 31, 2015 MDRC meeting, it is clearly understood that the discharge on this timeframe may be required regardless of operational status, and the timelines are such that it is difficult to separate the permitting of a Restricted Restart from the permitting of short term water discharge.

Further, the Application and Report identify two key pieces of information, 1) the water balance suggests discharge will be required in October 2015, under average water balance conditions, if tailings are placed in the Springer Pit (Application, Table 3.3.1); and, 2) the timelines for long-term water discharge permit set out in the Report (page 50) predict permit issuance in mid-November 2015. As such, in the case of tailings disposal in Springer Pit and due to the apparent delay between predicted need to discharge under average water balance conditions and expected permit issuance for the long-term

discharge scenario, it appears the short-term authorization may need to be actualized under average conditions, if the restricted restart is permitted (i.e. this would no longer be a contingency discharge plan for management of “upper bound” precipitation conditions).

Please clarify the proposed timing for submission of the Technical Assessment Report and associated permit application for short term discharge. This information will be used for planning purposes and to gain clarity regarding timelines associated with the review process. (Clarification)

It is anticipated that the Technical Assessment Report will be provided by May 29, 2015 and that the application will be submitted concurrently with the Technical Assessment Report.

17. The requirements for substantial additional information (and an application) to support water discharge permitting decisions for the short-term discharge authorization and the current understanding that this authorization may not be solely a contingency require that MEM have a clear understanding that a permissible plan is in place and accepted by the Ministry of Environment prior to consideration of permitting decisions related to the application for Restricted Restart of Operations. As noted in the March 30, 2015 screening letter, this could delay permitting decisions that were forecast to occur in early June. (Comment)

As discussed at the RMDRC meetings on March 31, 2015 and April 28, 2015, the MoE and the MEM have indicated that the Technical Assessment Report will be required to provide the permissible plan as referenced above.

18. For consideration during development of future water treatment options, the designers should be aware that any embankment or impoundment structure greater than 2.5 m high that impounds more than 30,000 m³ of water, or water containing any other substance, is considered to be a dam and should therefore be designed and operated in accordance with Canadian Dam Association (CDA) requirements. (Comment)

Noted.

19. MEM has supplied follow-up comments regarding the report prepared by the Independent Engineering Review Board (IERB). It is expected that a response to these comments will be submitted. While these follow-up comments and response are not directly related to the documents under review, it is anticipated that the MDRC membership may be interested in the response and that MEM may share this response as part of the ongoing discussions at the MDRC. (Comment)

Since the time of this submission, responses from the MPMC Independent Engineering Review Panel and the Engineer of Record for the TSF have been provided by MPMC to the MEM addressing the MEM comments referenced. Both the MEM comments and corresponding responses were reviewed at the RMDRC meeting on April 28, 2015.

20. Please refer to the attachment for additional comments and questions from Lorax Environmental. Your detailed response is requested for each of these.

Responses as included herein.

Date: April 13, 2015

Correspondence: Memorandum (Mount Polley Limited Restart Permit Application Review Comments)

Source: MEM/MoE (Tania Demchuk)

Author: Lorax Environmental

Items

3. Site Water Balance Model

3.1 Comments

1. **(Information Request)** What volume of water is currently stored in the Cariboo Pit? Does this volume represent additional water that will require management (*i.e.*, routing to Springer Pit and subsequent discharge), beyond the current monthly modeled values presented in Appendix D? If additional water is currently stored in the Cariboo Pit, has this volume been included in the water balance model predictions?

As of April 27, 2015, the water level in the Cariboo Pit was 1078.39m, corresponding to a volume of 636,670 m³. Due to low mining rates and minimal vertical advance of the pit (deeper) during the restricted operating phase, there are no significant requirements for displacement of water from the Cariboo Pit except for those volumes required to maintain the current Cariboo Pit lake elevation. These volumes are accounted for in water balance planning.

2. **(Information Request)** The Independent Expert Review Panel highlighted the intrinsic hazards associated with dual-purpose impoundments storing both water and tailings, and specifically recommended that surface water be eliminated from the impoundment. Given this, and the fact that surface water will continue to report to the TSF via direct precipitation, contributing watershed runoff, and potentially tailings drain down behind the 2015 Freshet Embankment, further information is requested on:
 - a) The volume of surface and tailings pore water currently stored in the TSF;

Surficial water is only stored in the TSF above the Satellite Dyke, where large flat areas allow water to pond. Due to continuous tailings migration into this basin, and no basin topographical data or access, it is difficult to estimate the current volume of this ponded water. It is known; however, that when the Satellite Dyke pond was released in March, approximately 175,000m³ of water reported to the upstream of the TSF breach repair. Currently, the Satellite Dyke pond is being

pumped down to minimize the amount of water being stored there. Therefore, the maximum amount of water stored can be assumed to be 175,000m³, with the likely total being significantly lower.

Based on the exponential tailings drainage curve developed below, it is estimated that an additional 1.1 Mm³ are expected to drain from the tailings out to December 2017.

MPMC is currently implementing an in situ monitoring program to track TSF seepage. Monitoring for changes in seepage rates will allow MPMC to revise the water balance accordingly.

- b) The expected volumes that will report to the TSF in 2015 by month;

The TSF water components for 2015 are broken out into “precipitation on supernatant”, “precipitation on beach” (using a nominal pond size), “upstream runoff”, and “tailings drawdown”. A summary of the mean monthly volumes for probabilistic analysis volumes is provided in the table below.

Component	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Precipitation on Supernatant (m ³)	1,042	1,094	824	731	675	814	749	-
Precipitation on Beach (m ³)	126,107	158,753	39,857	35,324	32,617	39,384	72,407	-
Upstream Runoff (m ³)	25,290	31,799	6,609	5,856	5,408	6,530	9,797	-
Tailings Drawdown (m ³)	151,026	130,902	113,460	98,342	85,238	73,880	64,036	55,504
Total (m³)	303,465	322,548	160,750	140,253	123,938	120,608	146,989	55,504

- c) The volumes that will be pumped out of the TSF in 2015 by month; and,

The TSF is currently only permitted as a contingency storage location. Given that freshet has already occurred, it is anticipated that all of the volume outlined in b) above will be pumped out of the TSF each month.

The existing Freshet Embankment will have a storage capacity of approximately 2.1 Mm³, plus freeboard. This would not be used for long-term storage, but primarily for freshet management over the period April through June (noting that this was not required in 2015). In 2015, the TSF has been operated by maintaining as low a water level as practical.

The TSF storage could be used as a contingency in the event that Springer Pit water levels approach critical elevations (i.e. above 1030 m).

- d) The predicted tailings pond elevations resulting from the inflows and outflows above.

As described in the response to (c) above, storage of water in the TSF is not planned; the TSF is operated by maintaining as low a water level as practical. The water management plan objective is to obtain an acceptable short-term water discharge solution such that the Springer Pit does not exfiltrate (or overflow) and such that no water is required to be stored in the TSF.

As stated above, the TSF storage could be used as a contingency in the event that Springer Pit water levels approach critical elevations (i.e., above 1030 m).

3. Figure 7 (App. C) presents the modeled vs. measured volume of water accumulated in the Springer Pit since September 2014. The current model outputs underestimate the actual volume by ~37%, based on measured precipitation and snowmelt to the end of February 2015. Section 4.3 states that the difference is likely attributable to the drain down of interstitial pore water in the tailings, but that it is hard to separate the influence of this source from the additional snowmelt experienced during the current (warmer than average) spring. Golder estimates that an additional 9 Mm³ (+/-3 Mm³) of water could still be released from the tailings. If the modeled vs. actual discrepancy in Springer Pit volumes is entirely attributable to tailings drain down, this represents a significant additional volume (~7 +/-3 Mm³) of contact water that must be managed. Given that there is currently 3-4 Mm³ of remaining storage capacity left in Springer Pit (MDRC meeting minutes, March 31, 2015), the remaining capacity could be taken up by the tailings water. The impact of this additional water does not appear to be incorporated into the current water balance projections. Given the tight timelines, and the reliance on accurate predictions of contact water volumes in the Springer Pit, the following information requests are made:

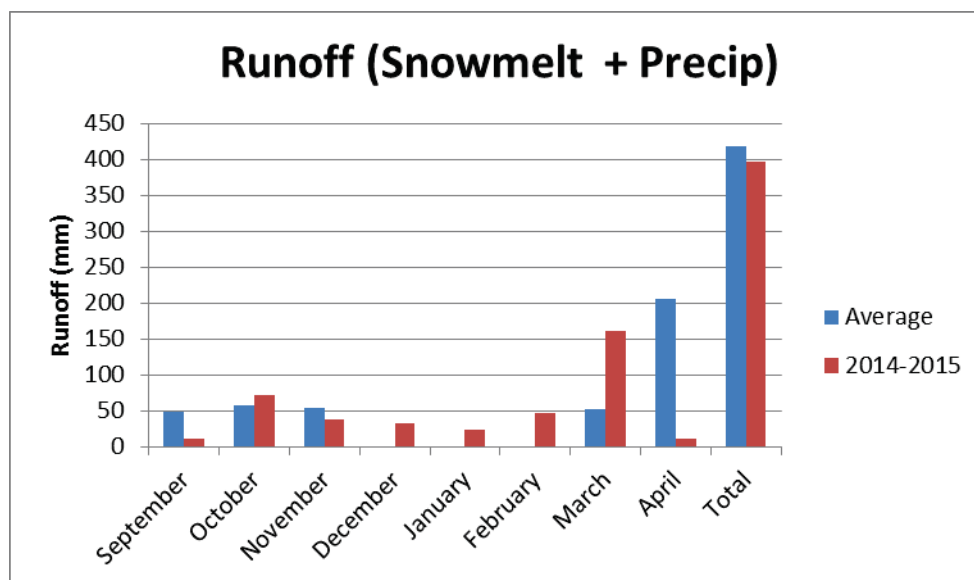
- a) **(Information Request)** Provide historical site snow water equivalent (SWE) data and the current years measurements to confirm the current expected volume of water remaining in the snowpack on site.

The snowpack has been effectively zero for the site as of the end of March. Snowpack data is provided in the attachment “MP Precip (1995-2015).xlsx”.

- b) **(Information Request)** Provide the historical precipitation record for site, current to the end of March 2015.

This data is provided in the attachment “MP Precip (1995-2015).xlsx”.

The average and observed rainfall and snowmelt at Mount Polley from September 2014 is shown below.



- c) **(Information Request)** At the Water Balance Model Review Meeting (March 13, 2015), Lorax requested that additional information be presented to support the assumption that the divergence in modeled vs. measured volumes in Springer Pit is attributable to tailings dewatering. Specifically, provision of the estimated drain down curve, an estimate of the current position on this curve and the volume of water lost from the tailings, and a comparison of this volume to the current model discrepancy were requested, and this request is carried forward again.

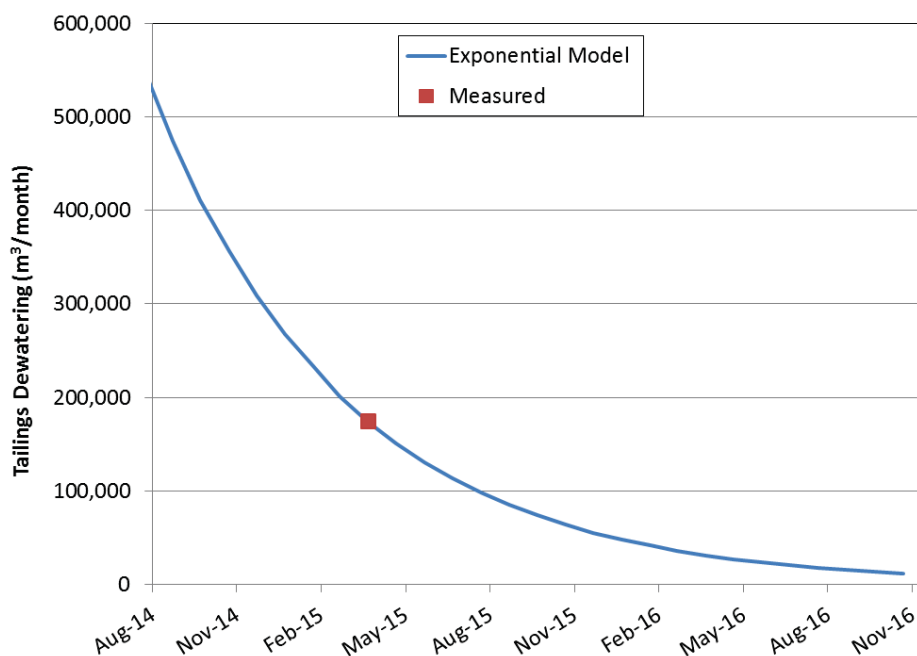
Site measurements were carried out during a period of very low precipitation to roughly represent flow rates from draining of the tailings (refer to table below). The estimated April flow rate is 0.066 m³/s, which equates to approximately 174,000 m³ per month.

Component	Flow (m ³ /s)
TSF internal sumps	0.042
South Toe Drain	0.003
Main Toe Drain (West)	0.003
Main Toe Drain (East)	0.002
Embankment Repair Drains	0.016
Foundation Drains	No flow
Perimeter Toe Drain	No flow
Total	0.066

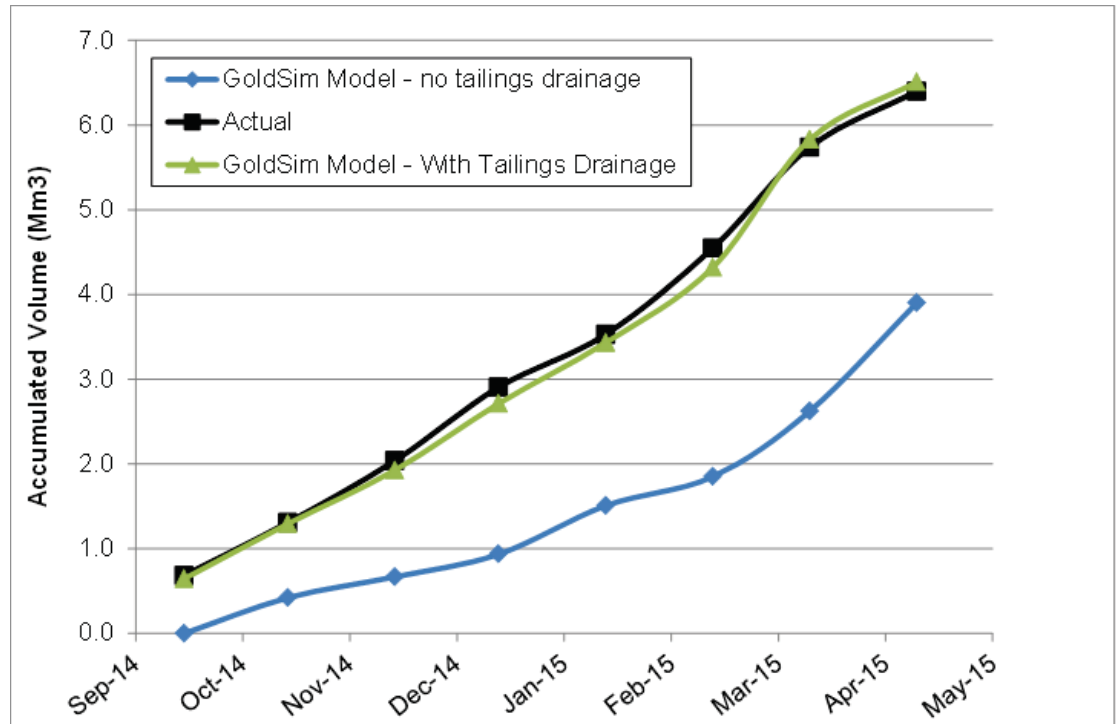
An empirical exponential tailings drain down curve has been developed that reconciles the additional volume that has accumulated in Springer Pit (2.4 Mm³ from September 2014 to April 2015), and forms the basis for future predictions in tailings dewatering volumes to be managed.

The exponential curve is constrained to pass through the April measured value (174,000 m³/month), and to provide 2.4 Mm³ additional accumulated volume for the period September 2014 to April 2015. The exponential model is provided in the figure below.

The exponential drain down curve suggests that 550,000 m³ of tailings pore water was discharged in August prior to closure of the breach.



As a confirmation of the tailings drainage flows, the modelled Springer Pit accumulation for the GoldSim water balance model is compared with the observed accumulation. Adding the tailings dewatering volumes from the exponential model to the GoldSim model flows provides good agreement with the observed Springer Pit accumulation from September 2014 through April 2015 (see figure below).

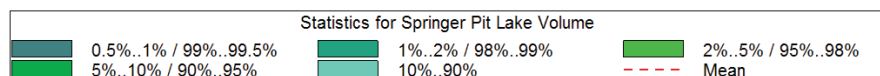
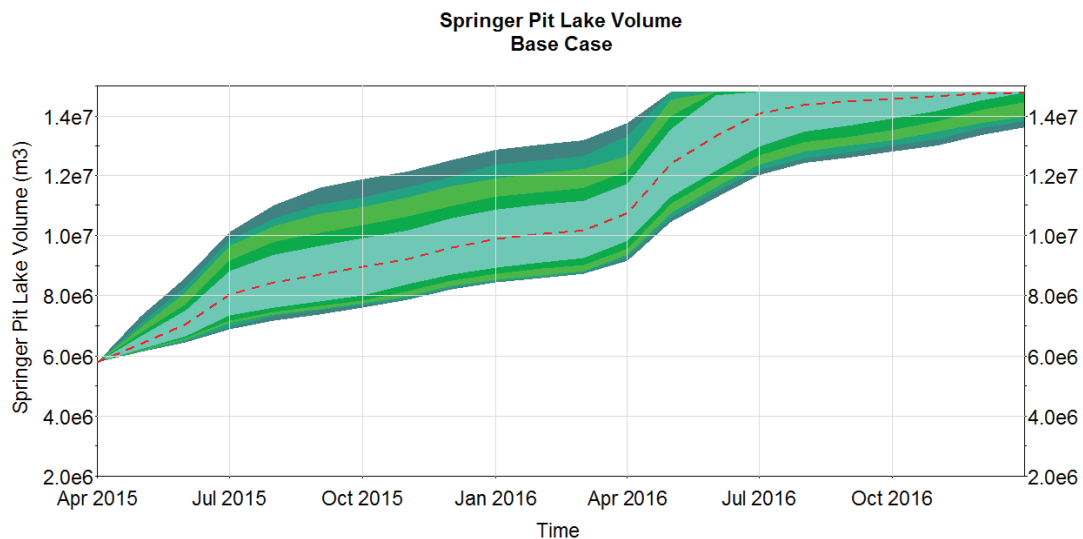
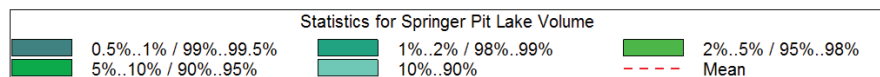
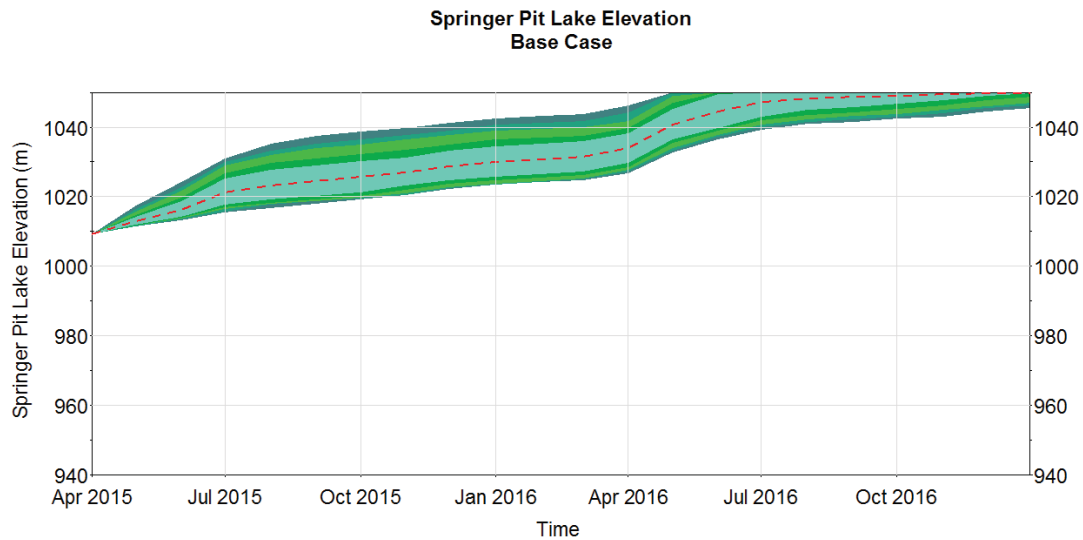


- d) **(Information Request)** Similar to the above request, the estimated water remaining in the tailings that could drain and require routing to the Springer Pit should be included as an input to the predictive water balance model.

The future tailings drain down flows from May 2015 onwards have been incorporated into the GoldSim water balance model. It is estimated from the exponential drain down curve that that an additional 1.1 Mm³ of water will drain from May 2015 out to December 2017. Total dewatering volume from August 2014 to December 2017 is estimated to be 4.1 Mm³, which is lower than the original estimate provided by Golder (~9 +/-3 Mm³).

- e) **(Information Request)** Please provide updated Springer Pit water balance model predictions benchmarked to current conditions (measured Springer Pit elevation, measured snow pack). The updated water balance model should also conservatively include flows that account for the discrepancy between model predictions and observations (e.g., Information Request 3.a and d).

Below are results probabilistic results (elevation and volume) from the GoldSim model for Springer Pit water accumulation for the Base Case conditions (all mine water pumped to Springer with no discharge). The predictions include tailings drainage estimates from the exponential drain down curve.

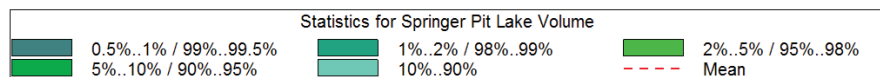
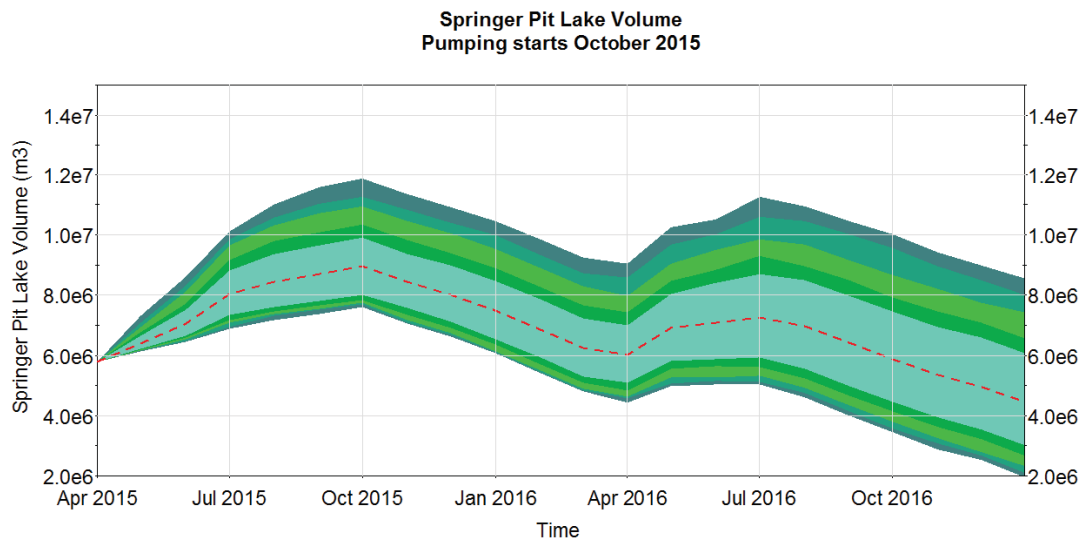
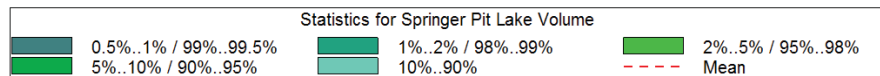
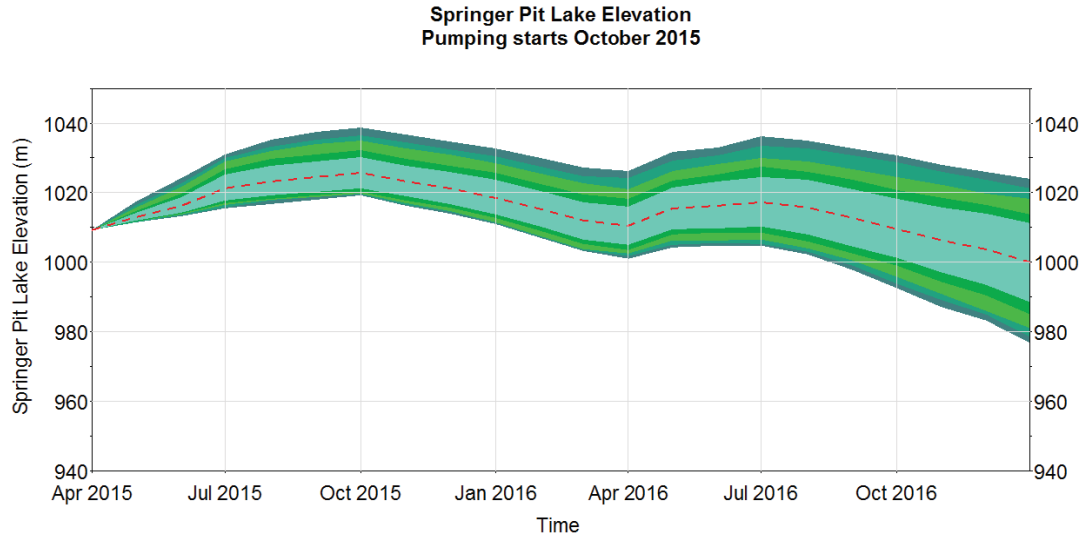


- f) **(Information Request)** Please indicate whether incorporation of the requested information alters the anticipated discharge timelines, and the water management plan as presented.

The revised model predictions above are not materially different from earlier versions.

The discharge timelines have not yet been determined, as these are dependent upon receipt of regulatory approvals and permitting. It is proposed that discharge will be assessed for at a rate of up to 0.3 m³/s (788,000 m³/month). This rate of discharge is approximately equal to the 1:200 year annual contact water volume (9.5 Mm³), and provides capacity to draw down Springer Pit during most years.

Below is an example of a scenario with discharge commencing on October 1, 2015.



4. Figure 5 (App. C) shows the cumulative volumes conveyed by the Long Ditch from October 2012 to June 2014. From May 2013 to February 2014, the model predicts zero (or close to zero) flow in the ditch, while the actual cumulative volume increases to roughly twice that of the modeled volume by February 2014. App. L in the *2013 Annual Monitoring Report* presents data collected for a supplemental monitoring site (LDa [SERDS Ditch and Long Ditch]), which suggests an average flow (based on 8 spot measurements) of $0.096 \text{ m}^3/\text{s}$. Based on the water balance model outputs for an average year (App. D in the Restart Permit Application), the Long Ditch accounts for approximately 70% of the total flow volume of Long Ditch and SERDS Ditch combined, or $\sim 1.2 \text{ Mm}^3$.

- a) **(Information Request)** Based on the above, it is apparent that water is being conveyed by the Long Ditch (below the junction with the SERDS Ditch) throughout the summer of 2013. The water balance model predicts that Long Ditch contributes $\sim 2x$ the flow volumes that the SERDS Ditch does, and therefore, it does not appear that the discrepancy in modeled Long Ditch flows can be explained by additional water from the SERDS Ditch. Please explain the marked difference in flow volumes during the summer of 2013?

MPMC's interpretation of this question is that Lorax would like MPMC to explain the discrepancy between the water balance model and the actual flow measurements in May through February 2014. As described in the Golder memo in Appendix C of the Rev1 Permit Application:

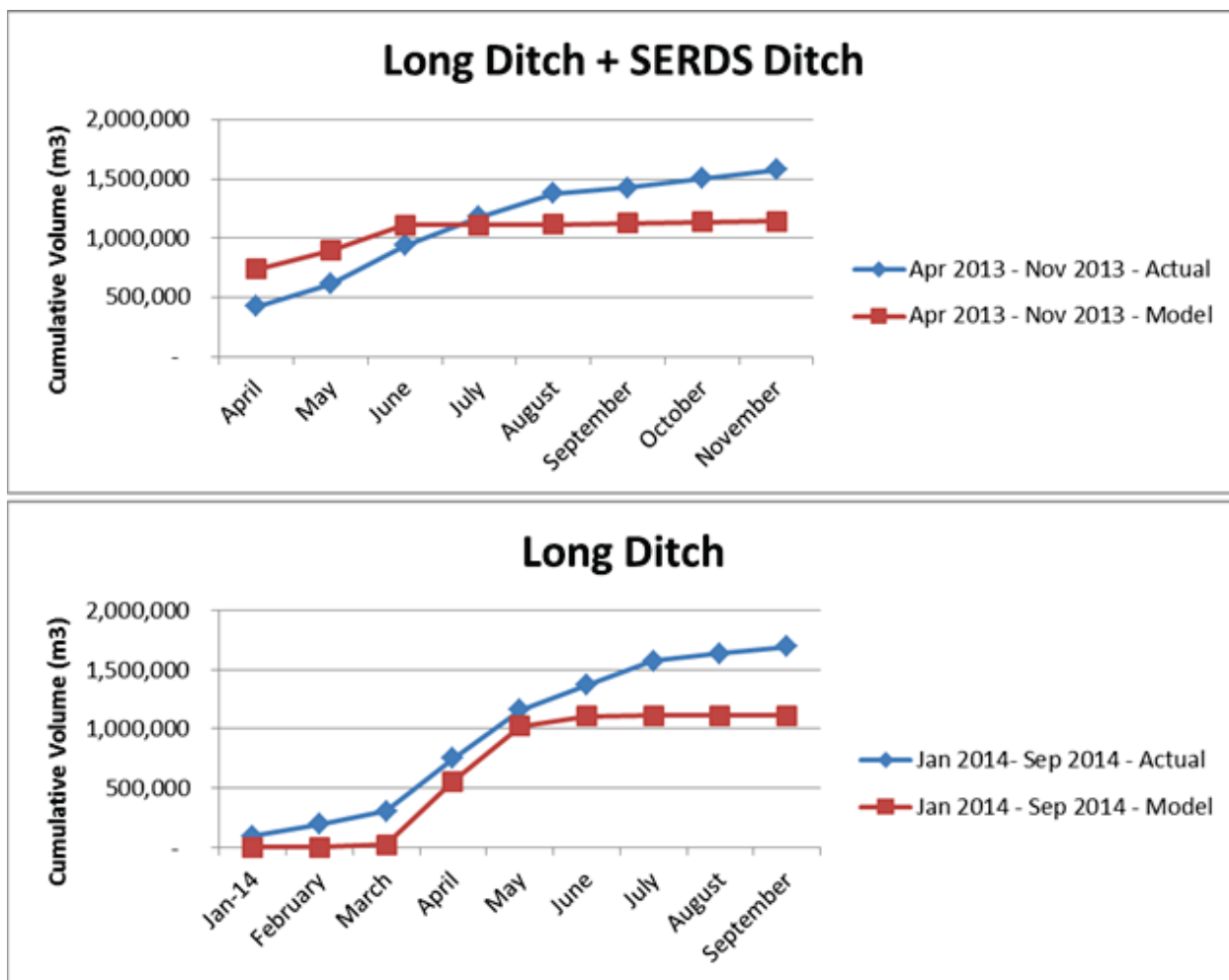
- The validation of the water balance model with limited single point measurements means that variation that occurred through the month may not be accurately reflected in the average of measurements used for comparison with the water balance.

- The Long Ditch has other inputs, including Joe's Creek Pipe and dewatering of the Wight Pit (during select periods). This means that flows from the Long Ditch need to appropriately subtract these inflow volumes to understand the catchment inputs. Measurements from these other sources are not always available in historic data, making this another source of error. For example, if Wight Pit flow subtracted from the total Long Ditch flow is higher than actually occurred, this could reduce the calculated Long Ditch flow.

Improved time series graphs showing measured and modelled Long Ditch flows are provided below, which don't include periods when field readings were not taken, and which don't attempt to separate out Long Ditch flows from combined measurements of the Long Ditch and SERDS Ditch downstream of their confluence. As shown, recent data from January to September 2014, the model and measurements appear to follow the same pattern as the site water balance, with the model over-predicting freshet, and the actual cumulative values on a trajectory to "catch up" during the remainder of the year. Further measurements are not available beyond September for comparison. This pattern is shown as well

in the Long Ditch + SERDS Ditch data collected during the non-freezing months of 2013. Improved (i.e., continuous) monitoring for the Long Ditch is planned on site to help with further validation of the water balance (refer to discussion of a revised Water Monitoring Plan in responses to comments 5 and 11).

The focus of the short-term water management plan is to estimate total monthly flows from the mine that require management, including treatment and discharge. It is acknowledged that components of the model (such as above) do require additional monitoring effort, and further model development and calibration. This will be addressed during development of the long-term water management plan.



5. (Information Request)

Table 1 states that groundwater inflow volumes for the three pits (Springer, Cariboo and Wight) are modeled. Given that dewatering of these pits is (and has been in the past) necessary for mining operations to proceed, these modeled flows should be confirmed with measurements.

Please provide a detailed plan outlining a monitoring program that will be used to measure, record and report the movement of water around the site. This plan should include details on proposed methods and equipment as well as quality assurance/quality control protocols. Please also see Comment 11 below.

At present, direct measurement of groundwater flow into Springer and Cariboo pits is not possible due to the presence of pit lakes. MPMC plans to address monitoring by providing an updated water flow and water quality monitoring program as per MEM comment 9. This Plan will be incorporated into the next revision of the site OMS, and is anticipated to be completed by May 11, 2015.

4. Hydrogeology

The short-term water management plan presented by MPMC is centred on the assertion that the Springer Pit lake elevation must be maintained at or below 1030 m elevation in order to restrict seepage from the pit towards Bootjack Lake. This assertion is based on steady-state groundwater modeling conducted by Golder (2014) estimate groundwater seepage rates into and out of Springer Pit over a range of pit lake elevations. Given the relative importance of this 1030 m elevation to the overall water management plan and the potential implication on timeline until discharge and potentially treatment is required from Springer Pit, Lorax has already made a first set of information requests, to which Golder has responded. This initial correspondence is presented in Appendix A.

Upon consideration of the aforementioned modeling and correspondence, Lorax is generally satisfied with the modeling completed by Golder. Remaining information requests and recommendations are summarized in Section 4.1 below.

4.1 Comments

6. **(Information Request)** Please provide historical water level monitoring records for Springer Pit and groundwater wells in the vicinity. Of specific interest is GW12-2a/b, though historical data for 95-R4 (the well that GW12-2a/b replaced) and other wells in the area with longer term records will be helpful.

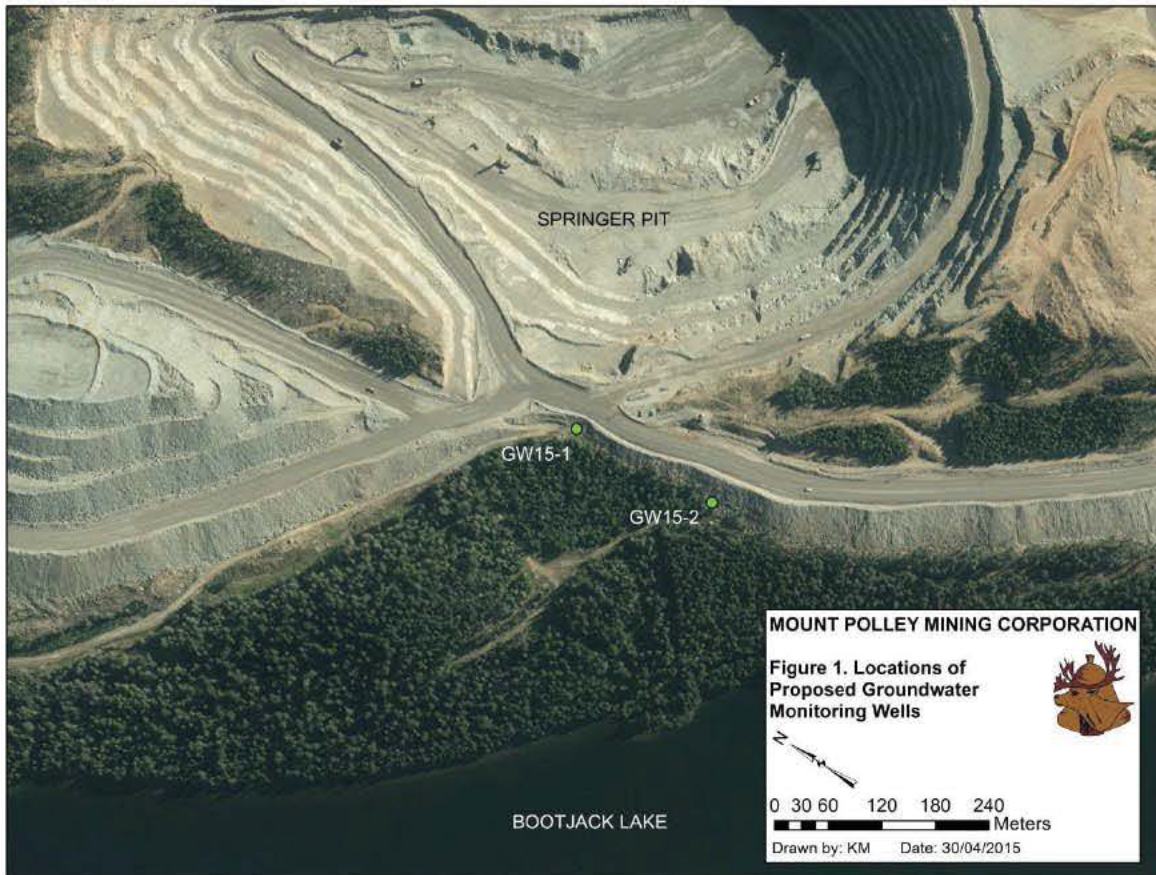
This information is provided in the table below.

Date	Water Level (masl)	
	GW12-2A	GW12-2B
11-Jun-13	1013.68	1013.63
16-Oct-13	1010.16	1010.1
13-May-14	1011.05	1010.93
07-Oct-14	1008.52	1008.58
26-Jan-15	1008.89	1008.85
17-Mar-15	1011.22	1011.09
24-Mar-15	1011.66	1011.54
31-Mar-15	1012.36	1012.15
08-Apr-15	1012.82	1012.73
15-Apr-15	1012.95	1012.92

23-Apr-15	1013.03	1013.06
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7. **(Information Request)** As the hydraulic containment of mine contact water in Springer Pit depends on soft groundwater divides (rather than hard topographic divides), increased temporal and spatial monitoring will be required to verify continued containment and to confirm model assumptions. Please provide details regarding the proposed hydrogeological investigation as well as the surface and groundwater monitoring plan, including timelines for implementation and reporting of results. The plan should include, but not be limited to:
- map(s)/schematic(s) illustrating the current and proposed monitoring locations.

The air photo image below shows the location of the two (2) new multi-level monitoring wells that are planned to be installed in May/June 2015.



- details of the measurements proposed for each location, including frequency and methods for each parameter to be monitored; and,

Through fall (approximately October) 2015, the monitoring program will consist of:

- Geological observations and hydraulic conductivity testing at locations of new piezometers.
- Daily manual water level measurements, or continuous monitoring using designated water level dataloggers at GW12-2a/b and the new wells, once installed.
- Monthly water chemistry sampling of GW12-2a/b and the new wells, once installed (when weather conditions permit – freezing conditions do not always allow pump use). Full suite samples will be taken, consistent with current groundwater sampling completed on site – nutrients, dissolved metals, anions, physical parameters.

Adjustments to this monitoring program will be based on monitoring results and the status of the Springer Pit water levels, and will be based on recommendations from a Qualified Professional. A potential mechanism for adjusting the schedule is the Annual Monitoring Plan for 2016 which will be submitted to MoE for review January 2016, as per Permit 11678.

c. triggers for follow-up action/reporting.

Data are provided to MoE quarterly, and are also included in the Annual Report to MoE and MEM. Given the transit time for groundwater from Springer Pit to **Quesnel Bootjack** Lake (~12 months), more frequent monitoring than that proposed is not planned. If the monitoring frequency is reduced in the future, triggers for increased monitoring may be established based on the recommendations of a Qualified Professional.

In the event that anomalous groundwater quality is observed during sampling, additional follow-up sampling will be conducted and reported.

8. **(Information Request)** While MPMC intends to manage water in Springer Pit to avoid uncontrolled discharges to groundwater or surface water, the potential for premature closure, equipment failure, or failure to obtain an *EMA* permit amendment within the required timeframe must be considered. Please provide an assessment of potential impacts to groundwater and surface water receivers in the event that:

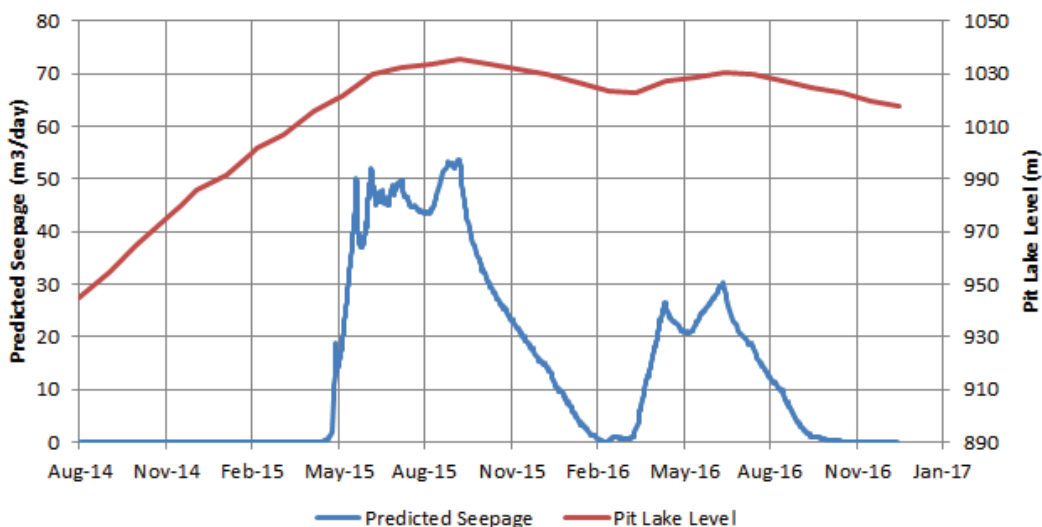
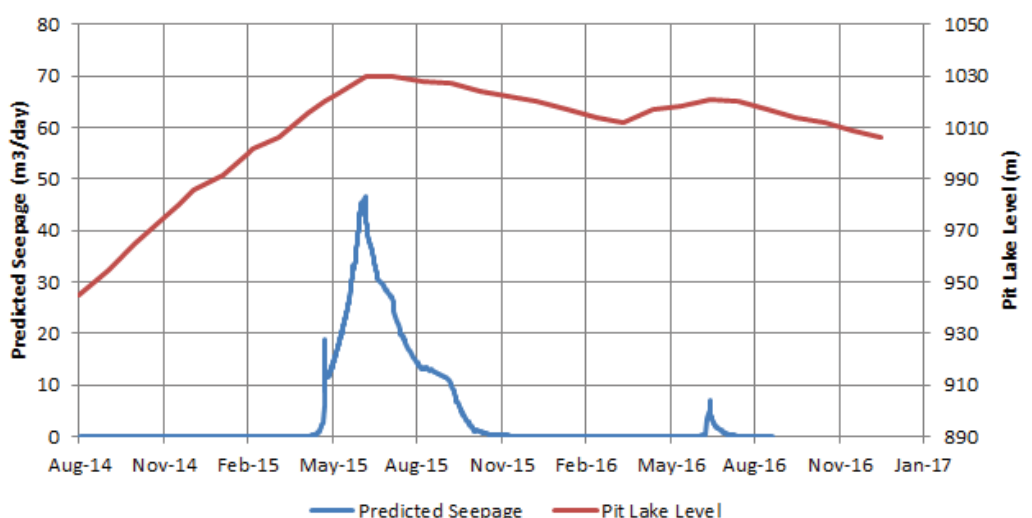
- a) the Springer Pit lake elevation is unable to be maintained below 1030 m elevation; and,
- b) the Springer Pit lake rises to the spill elevation.

Steady-state and transient analyses for selected scenarios have been completed (see Point 9 below). Effect on **Bootjack Lake** water chemistry is currently under investigation with a report to be provided to the RMDRC by May 13, 2015.

9. **(Information Request)** Golder (2014) modeled the passive filling of Springer Pit over a period of 15 to 19 years (*i.e.*, without the deposition of site-wide mine contact water and

potentially tailings in the pit) using a steady-state model. Golder agrees with Lorax that transient effects (*i.e.*, non-equilibrium changes with time) may need to be considered if a more rapid rise in the pit lake level were to be implemented (Appendix A). As the Springer Pit is now predicted to flood over the course of the next several months rather than 15 to 19 years, Lorax suggests that the pit may fill faster than the groundwater system can reach equilibrium, and therefore the assumption of steady-state conditions is no longer valid. Please provide results of transient groundwater modeling representative of the conditions and sensitivity ranges contemplated by this application.

Preliminary transient analyses for selected scenarios that include pumping water out of Springer Pit have been developed. Two (2) examples for the 99.5% upper bound pit lake level are provided below; a technical memorandum is under preparation.



5. Water Management and Monitoring

5.1 Comments

10. **(Comment)** Mine Site Water Monitoring Program: MPMC-SOP-012 Snowpack Measurement

- a) Suggest using a calibrated scale to weigh the tubes at the survey site instead of the current procedure. The spring balances are the simplest with regards to use and maintenance in adverse conditions. The standard reference for snow surveys in BC is found here:

http://www.geoscientific.com/technical/tech_references_pdf_files/snow_surveys_manual.pdf

MPMC has opted to continue following the historic methodology used on sites for consistency of results, but will consider this suggestion.

11. **(Information Request)** Please provide measurement for flow measurements made on site, including:

Clarification on this comment was provided by the MEM and Lorax on April 29, 2015, indicating that the intent of this comment was to request information on site methods and QA/QC procedures followed for taking flow measurements using methods a-e.

- a) Measurement of various flow volumes (site contact water, and receiving environment flows);

Site contact water flows are measured as described in the response to (b), (d), and (e). Flows in the receiving environment are measured as described in the response to (c). The only exception is the Hazeltine Discharge system, which no longer exists, but had an in-pipe flowmeter/totalizer.

- b) Pumped flows (*i.e.*, totalizers);

In the past, MPMC has worked with pump hours and curves to estimate pumping rates, but this was discontinued when challenges and inaccuracies were experienced, largely due to potential error in estimating the efficiency of site pumping systems.

MPMC has one (1) totalizer on site that does not function well; however, MPMC is reconsidering the use of different totalizer options as part of the hydrological monitoring program moving forward.

- c) Streamflow in natural channels;

MPMC maintains staff gauges at the sites referenced in the response to comment (f). Staff gauges are benchmarked annually after freshet. Pressure transducers are installed at these sites during non-freezing periods, with the exception of site W4

(now monitored at site W4a), which is monitored with regular bucket flows as described in the response to comment (e). Pressure transducer, staff gauge readings, and manual gaugings have been used to develop stage-discharge rating curves for these sites. Manual gaugings continue to be taken each year to refine the rating curve and/or confirm it they are still valid for the sites.

Manual gaugings are taken using a FlowTracker (an acoustic Doppler velocimeter). The work method references the manufacturers recommendations, and specific QA/QC considerations include appropriate allowances of calculated International Organization for Standardization and statistical U.S. Geology Survey percent error, and regular use of the built in QA/QC system check.

The following relevant standard operating procedures and work methods from the MPMC QA/QC manual are attached:

“MPMC-SOP-013 Hydrological Monitoring.pdf”

“MPMC-WORK-013 Hydrological Monitoring.pdf”

“MPMC-WORK-005-2 FlowTracker.pdf”

“MPMC-WORK-007 Installing and Benchmarking Staff Gauges.pdf”

Note the V-notch weir referenced in MPMC-WORK-013 no longer exists, and bucket flow measurements are taken from a culvert under a road. Methodology is discussed in the response to (e).

- d) Gravity flow in ditches (flumes or weirs and transducers/staff gauges etc.);

Manual gaugings are taken in gravity flow ditches as using the FlowTracker, as described in the response to comment (c).

- e) Discharge from pipes/culverts (bucket methods, Mannings equation for partially full pipe flow, etc.);

Discharge from pipes and culverts is typically measured using an average of three (3) bucket flow measurements as per MPMC-SOP-013 Hydrological Monitoring and MPMC-WORK-013 Hydrological Monitoring. Depending on the flow rate of the system or the specifics of the pipe outlet location, it is not always possible to obtain reasonable measurements, and in these scenarios, manual gaugings with the FlowTracker are completed. If the pipe/culvert flows does not flow into a channel, however, this is not always possible, for example, the pipe outflow from the Central Collection Sump (via the Booster Station) into the Springer Pit.

- f) Monitoring frequencies and reporting requirements.

As per Permit 11678 under the *Environmental Management Act*, MPMC “must provide and maintain suitable flow measuring devices and record staff gauge measurements, during the non-freezing period, as surface water stations W1b

(Morehead Creek), W4 (North Dump Creek), W5 (Bootjack Creek), and W12 (6K Creek)...These staff gauge readings must be taken at the same time as water samples are collected at the same or associated sites.”

Similar requirements for site W7 (Hazeltine Creek) are in place, however, hydrological monitoring is now occurring at new sites in upper and lower Hazeltine Creek and lower Edney Creek as per the 2015 Post-TSF Breach Monitoring Plan. This work is being managed by a hydrological contractor.

Monitoring frequencies as per the 2014 program are shown in the table below. Not all monitoring was completed as planned after the TSF breach, due to reallocation of resources to focus on post-breach environmental monitoring. Ongoing and planned monitoring for 2015 will be included in the updated water flow and water quality monitoring program referenced in the response to comment 5.

Monitoring Location	Frequency		Flow Type	Continuous Monitoring	Comments
	SG Reading	Flow			
Receiving Environment					
W1b - Morehead Creek	Bi-monthly	Bi-monthly	Flow Tracker	Pressure Transducer	
W12 - 6km Creek	Bi-monthly	Bi-monthly	Flow Tracker	Pressure Transducer	
W4a/W4a - North Dump Creek	Monthly	Monthly	Bucket - Flow Tracker if sufficient flow	-	
W5 - Bootjack Creek	Bi-monthly	Bi-monthly	Flow Tracker	Pressure Transducer	Typically insufficient flow to take manual gaugings during low flow periods
Upper Hazeltine	Weekly	Bi-monthly	Flow Tracker	Pressure Transducer	
Lower Edney Creek	Monthly	Monthly	Flow Tracker	Pressure Transducer	
Contact Water Collection System					
Joe's Creek Pipe	-	Monthly	Bucket - Flow Tracker if sufficient flow	-	
Wight Pit Flow	-	Monthly	Flow Tracker	-	When pumping to Long Ditch
LDb - Long Ditch at pipe outlet	Monthly	Monthly	FlowTracker	Pressure Transducer	Challenges with pressure transducer - required re-installation/lost in TSF breach
SERDS	Monthly	Monthly	FlowTracker	Pressure Transducer	Challenges with pressure transducer - required re-installation
NW Ditch	-	Bi-monthly/Monthly	Bucket - Flow Tracker if sufficient flow	-	
Junction Zone Ditch	-	Monthly	Bucket - Flow Tracker if sufficient flow	-	Started when ditch flow brought into site collection system (July)
ABR-OUT	-	Monthly	Bucket - Flow Tracker if sufficient flow	-	
STD	-	Monthly	Flow Tracker	-	
PTDs	-	Monthly	Flow Tracker	-	
MTDs/FDs	-	Monthly	Bucket	-	

Flow data and a water balance update are provided to the MoE quarterly. These data, along with rating curves and data from measurements supplemental to Permit 11678 (i.e., measurements from site water collection infrastructure for validation of the water balance) are included in the Annual Environmental and Reclamation Report which is provided to the MoE and the MEM annually.

12. **(Information Request)** MPMC Water Management Inspection Manual: Please outline the logic behind the setting of the water release priorities for the water management components during an extreme runoff/precipitation event?

Preferences for release are based on proximity to a fish bearing waterway or water body and the characteristics of the receiving environment, such as presence of a large buffer zone or relative size of the waterbody. Special consideration for sensitive receiving environments is also given (ex. Hazeltine Creek, where erosion potential is high due to exposed material).

A more recent revision of this document has been developed on site to adapt to ongoing changes in the water management system. The revised excerpts regarding priorities for release in an emergency scenario are as follows:

1. Ensure no pit dewatering systems are unnecessarily pumping into site ditch systems (ex. Wight Pit)
2. Avoid breaches at:
 - a. TSF works forming part of the 2015 Freshet Embankment construction
 - b. TSF works that overflow into Hazeltine Creek (it is preferable to release from the Long Ditch Sump)
 - c. Bootjack Creek Sump (continue pumping to SERDS, even if SERDS is overflowing to the Long Ditch Sump)
 - d. SERDS Sump (pump to Long Ditch Sump or lower Long Ditch - release from the Long Ditch Sump is preferable to a release from the SERDS Sump)
3. Direct water to release according to the following priorities:
 - a. TSF System Inputs:
 - i. TSF Main and South Seepage Ponds
 - ii. Lower Long Ditch Sump – from low point in berm at southeast corner
 - iii. Bootjack Creek Sump – through overflow pipe
 - b. NW PAG Stockpile Collection System:
 - i. 9km Sump – through overflow pipe
 - ii. NW Sump – through overflow pipe
4. Install sediment and erosion control materials at breach locations

Follow the response procedures in Section ~~3Error! Reference source not found.~~.

Date: April 14, 2015

Correspondence: E-mail (RE: Mt Polley Return to Restricted Operations: Final Call for First Nations, Prov and Fed Regulatory Agency, and Community Representative Comments)

Source: Ministry of Agriculture (Ken Awmack)

Author: Ken Awmack

Items

None – “There will be no comments coming from Agriculture”.

Date: April 14, 2015

Correspondence: E-mail (Mount Polley Mine Return to Restricted Operations Application)

Source: DFO (Darryl Hussey)

Author: Darryl Hussey

Items

General Comments:

DFO's legislative mandate, as it pertains to the Restricted Operations Application, is defined by the Federal *Fisheries Act*. Application of the fish habitat provisions of the *Fisheries Act* is guided by DFO's Fisheries Protection Policy.

Section 35(1) of the *Fisheries Act*, which prohibits "Serious Harm to Fish" (defined as the killing of fish, destruction of fish habitat and/or permanent alteration of fish habitat) is the primary focus of regulatory reviews under the Fisheries Protection Policy.

DFO defers review and comment of all issues relating to Section 36(3) of the *Fisheries Act*, pertaining to the deposit of deleterious substances into fish bearing waters, to Environment Canada.

Given the potential for Serious Harm to Fish to occur, DFO has notified MPMC, via their consultant Golder Associates, that it is advisable that they apply to DFO for a formal "Project Review" for both the short-term water management plan and the long-term water management plan.

It is anticipated that application for a Project Review will be provided as part of water management planning and permitting as these processes will define the specific project (i.e., discharge location) being applied for.

Mount Polley Mine Return to Restricted Operations Revision 1:

As the proposed restricted operations do not require any expansion of infrastructure or "mine footprint", DFO's interest is limited to the requirement to de-water the Springer Pit and/or re-direct mine contact water, which is currently being directed to the Springer Pit. While DFO appreciates that modelled mine contact water volumes and available Springer Pit capacity necessitate the consideration of both short-term and long-term mine contact water management strategies fully independent of a return to restricted operation, it is our

understanding that a short-term water management plan with discharge to the fish bearing waters of Quesnel Lake or Hazeltine Creek is necessary prior to restart.

This is essentially correct; however, the evaluation of discharge options will include all options identified.

The net result of the modelled “Site Water Management Schedule” is summarized in the statement **“Maintenance of the Springer Pit lake below the groundwater influence elevation of 1030m would require the development of storage or discharge alternative in an appropriate timeline to facilitate transfer of water. In the case of 1-200-year “wet” site condition, this would mean that a site discharge strategy for mine-influenced water would have to be approved and operational by July of 2015.”** In the presentation of the “site water management schedules”, it is not clear whether the modelled schedules factor in the use of the approximate 2-million m³ of mine-contact water storage afforded by the TSF breach repair. Given the very short July, 2015 time line and the likelihood the TSF volume of water storage capacity could significantly increase the time to fill the Springer Pit lake to the critical elevation, it would be prudent to address the repaired TSF storage capacity and how it relates to the modelled schedules.

Use of the TSF as a water management storage facility is not reflected in the site water management schedules included in the Permit Application for the Return to Restricted Operations. However, the TSF repair is nearly complete and it is considered that the TSF will provide contingency infrastructure that will allow considerable added (temporary) water storage in the event that Springer Pit levels begin approaching the 1030 m elevation.

Again, given the very short time lines a historic 1:200 wet year would impose, it would be beneficial if actual snowpack data as of April 1, 2015 could be used to model a more accurate range of “Site Water Management Schedules” for 2015. Given the very mild winter and early spring melt, April 1 snowpack is being reported as less than 80% of normal for the Middle Fraser Basin, which includes the Quesnel watershed. As such, it could be assumed that 1:25 and 1:200 “wet” scenarios moving forward from this date would generate lower volumes of water than historic averages. A reduction in modelled volumes could equate to a significant increase in the time to reach the critical 1030m Springer Pit lake elevation, which could extend the review period and/or increase the number of viable options for short-term water management.

An updated site water balance was presented and reviewed at the April 28, 2015 RMDRC meeting. A copy of the Springer Pit filling projections is provided above. While we agree that snowpack conditions are below normal and suggest a lower water volume that will require management, MPMC feels that it is necessary to plan on the basis of risk-averse predictions. For this reason, our planning includes consideration of a 200-year return period as well as the more likely average return period in the event that cumulative precipitation is wetter than expected. Our team has been working on a priority basis to effect permitting as soon as possible.

Approach for Long-Term Water Management Plan Development:

Effluent Conveyancing and Discharge (Short Term), Sec 4.3.3 Hazeltine Creek Discharge:

The reconstructed Hazeltine channel is characterized as having an armored MAF channel with capacity of 1.6m³/s in Reach 2 and 1.8m³/s in Reach 3. It is proposed that effluent and natural flow combined discharge be limited to 50% of MAF – 0.8m³/s to ensure the reconstructed channel can convey the flows without erosion or overtopping the armored channel. It is DFO's understanding that the Upper Hazeltine Channel was designed such that smaller grades of substrate would be placed within the hard armored flood channel such that a more natural stream morphology, including annual channel migration and substrate distribution within the hardened flood channel, could be attained. The analysis of the Hazeltine Creek short term option does not address potential erosion/displacement/loss of the smaller grade of substrate or what impacts may occur to fish habitat features (such as weirs, pools and LWD structures) that were to be incorporated. Further, the assessment of Hazeltine Creek as a long-term option in Sec 5.2.1 states "...the ability for Hazeltine Creek to accommodate additional flows, within the timing horizon necessary is limited and in conflict with rehabilitation efforts." This statement seems to be in conflict with the short-term option analysis and, as such, should be clarified.

Based on the dilution available within Hazeltine Creek, it is being considered as a short-term option, in advance of it becoming utilized as fish habitat. Based on the engineered channel (when complete), Hazeltine Creek will be able to accommodate the flows. We are presently evaluating other options for effluent conveyancing and discharge and these will be discussed at a May 8, 2015 meeting in Vancouver (to which invitations have been sent).

Notwithstanding the general comment above - that DFO defers comment relating to *Fisheries Act* Section 36(3) to Environment Canada, this section states that, as Hazeltine Creek is currently non-fish bearing, water quality guidelines need to be met within an initial dilution zone in Quesnel Lake. It should be noted that, as Quesnel Lake is a fish bearing water, the compliance point for the deposit of a deleterious substance into fish bearing water is "end of pipe" and not within an initial dilution zone.

The determination of what is a deleterious substance as defined under the general prohibitions of the *Fisheries Act* is based on opinion evidence. However, for the purposes of an effluent from a metal mine, the *Fisheries Act* has a specific regulation made pursuant to it that defines what is a deleterious substance: the Metal Mining Effluent Regulation (MMER). MPMC anticipates that the effluent will comply with the specific parameter limits contained in Schedule 4 of that regulation as well as the non-toxicity requirements of that regulation. As noted in this comment, those limits apply to the point of discharge. More specifically, under the MMER, they apply to the point at which the mine no longer exercises control over that effluent. In the specific circumstance noted, we interpret that final location to be the discharge point to Hazeltine Creek. This end-of-

pipe approach is thematic to the general prohibition and specific regulation requirements of the Fisheries Act. The end-of-pipe application of that law has been judicially clarified to be the substance that is added to water and not the water with the substance diluted into it (R. V. MacMillan Bloedel [Alberni] [1979] Ltd.; R. V. Kingston [City] [2004]; both of which were upheld on appeal to superior courts). In British Columbia, the *Environmental Management Act* (EMA) prohibits a party from causing pollution. Administratively, this usually means that the WQG or other science-based objective (i.e., the water with the substance added) must be met at the edge of the IDZ. This can, at times, appear incompatible with the federal law although we feel that it is not. We anticipate that the permit limits would be applied on an end-of-pipe basis (compatible with MMER) and the general prohibition against causing pollution is confirmed by attainment of WQG at the edge of the IDZ. This attainment, as well as end-of-pipe compliance with federal requirements will be part of the evaluation contained in the Technical Assessment Report and the proposed permit limits will demonstrate compliance with the definition of what is a deleterious substance as well as propose permit limits that will not result in “pollution” as defined by EMA.

Because the federal requirements will be met at the point of discharge to the Hazeltine drainage (under this scenario), the non-deleterious requirement for discharge to Quesnel Lake will therefore also be met. With regard to provincial requirements, the IDZ will be utilized as an assessment tool to identify whether or not attainment of WQG is obtained at the edge of the IDZ.

As the assessment of fisheries productivity impacts includes the assessment of ongoing reduced or lost productivity, if the Hazeltine Ck short-term discharge option is pursued, the loss of productivity resulting from the maintenance of Hazeltine Creek as non-fish bearing should be assessed.

MPMC is aware that utilization of this option would result in interim losses of productivity over the period of this short-term option. This is an additional reason why we see this option as being a short-term discharge option. We note that MPMC is actively engaged with Fisheries and Oceans Canada to address interim losses in productivity and we anticipate that should the Hazeltine Option be used, a requirement for offsets would accrue.

As Hazeltine Creek and Edney Creek currently join prior to entering Quesnel Lake, the potential impact of mine contact water discharge on migrating and homing anadromous and resident fish that use Edney Creek for spawning should be assessed. Even should the creeks be separated as a mitigation strategy, flow mix situations (similar to what is proposed) where a volume of mixed water from two drainages enters downstream of a natal stream, can result in significant delay or impeded upstream migration. As such, if the Hazeltine Ck short-term option is to be pursued, an assessment of potential impacts should occur and a monitoring plan to assess both delay and positive migration in Edney Creek should be developed.

The Technical Assessment Report will address this issue. Given that the necessary timelines for a short-term discharge are limited, we may look to separate these flows such that this issue is avoided. This decision will involve discussion (and application as needed) with the DFO.

Duration of the short-term contingency is not provided and would be required to assess the scale of the potential impacts (e.g. does short-term mean 3-months or 2-years?)

At present, the duration of “short-term” has not been defined. The long-term option necessarily requires proper design and planning as well as consultation. It may also be necessary to “prove out” treatment technologies based on pilot scale testing. Without a specifically defined long-term treatment technology, for example, a specific schedule would be difficult to provide.

We propose that the temporal scale of impacts be addressed as part of the “habitat objectives” program that we have begun with DFO because the framework under discussion is envisioned to address duration of effect.

5.1 Criteria for Discharge Options – the “Capacity” criteria states the effluent volume must be accommodated without adverse effects. While there are physical performance measures and metrics for defining adverse effects there are no biological indicators. Biological indicators, such as ensuring flow mix ratios are within acceptable limits for migration and homing fish and ensuring available habitat quality and quantity for the expected fish communities are not negatively impacted, should be developed and added as rating criteria.

This will be addressed in the Technical Assessment Report.

5.2.1 Hazeltine Creek – the criteria that 35% of natural flow in Hazeltine Creek, a condition for an earlier discharge permit, is adopted here. The hydraulic and ecological analysis and assessment that established this criteria should be presented so that regulatory agencies can ensure that the standard is still valid.

We have used this criteria as a planning tool because it has previously been accepted by agencies. However, such a flow-based approach is not viewed as viable because of the lack of current and foreseeable long-term storage capacity. It is unlikely that this criteria will be used in the long-term.

This criterion would not apply to the short-term conveyance use of Hazeltine Channel.

Date: April 14, 2015 (Comments from April 8, 2015)

Correspondence: E-mail (MoE Comments re Mt Polley tailings deposition application)

Source: MoE (Hubert Bunce)

Author: Brian Yamelst

Items

In summary, the application to discharge tailings and continued and increased storage of mine contact water in Springer Pit includes the general information required. However, a detailed technical review of potential impacts is not included (or predicted) and subject to the future inlet flows, none of which are predicted in the application.

As noted in the RMDRC meetings, a Technical Assessment Report is being prepared to address discharge of dewatering flows. To address the possible consequence of seepage flows to groundwater, an assessment is being prepared for May 13, 2015.

Date: April 14, 2015

Correspondence: E-mail (MoE Comments re Mt Polley tailings deposition application)

Source: MoE (Hubert Bunce)

Author: Hubert Bunce

Items

The Executive Summary includes the situation to date, but does not include information on the proposed actions (i.e., mill operation, associated discharges, etc.), and most important, future decisions on water management and related time frames,

The application segregates background site and breach information into Appendix A, limits scope to a restricted operation (i.e., processing of up to 4,000,000 tonnes of ore over one year period) and related site water management plan, and (i.e., and discharges), and assumes ore properties have been adequately predicted for PAG, NAG,

The development of a long-term management plan is noted, along with awareness of stakeholder approval, but is separated from the application,

Received comment Tables 1.2.1 through 1.2.5 appropriate to include, not acceptable cut and paste as it cannot be read,

A copy of the tables in Excel format have been provided for reference, and are attached as “M-200 Permit Amendment Comments.xlsx”.

Springer Pit lake water chemistry is not adequately summarized, without trending or prediction, considering there is potential for discharge in the near future,

Springer Pit chemistry predictions applicable to the short-term as well as to the long-term are being prepared as part of the Technical Assessment Report.

The existing groundwater flow and quality is not well described and the recommended monitoring program improvements (i.e., new wells) appear to be subject to a future discharge authorization (i.e. the need to have a discharge authorization by July 2015),”

Specific plans to install additional wells and to increase the frequency of monitoring of those wells has been provided above. Additionally, an evaluation of the consequence of

seepage to groundwater, should the pit level exceed 1030 m, is being prepared for May 13, 2015.

Date: April 16, 2015

Correspondence: E-mail (additional Comments from Brian on MPMC application to date)

Source: MoE (Hubert Bunce)

Author: Brian Yamelst

Items

The target of maintaining Springer Pit below 1030m has been set, but consequence of exceeding that level has not included review or assessment of slope stability down gradient (i.e., and potential to impact Bootjack Lake),

The consequence of seepage flows to groundwater should the pit reach the 1030 m elevation is being evaluated in a memorandum to be provided by May 13, 2015. It is also proposed that the TSF be used as contingent infrastructure to aid in maintaining Springer Pit water levels below 1030 m elevation.

The monitoring program as presented in section 3.5 is appropriate in the near term; triggers and related additional monitoring have been noted, and subject to review by a Qualified Person, but none are well defined; the permit section 3.8 requires quarterly reporting of data only, without on-going analysis or assessment that may be more suitable to the short-term operation; there is no existing permit requirement for immediate notification of subsurface discharge conditions changing (i.e. discharge commencing) ; all of which may result in additional permit discussion and requirements.

Notification requirements are common in MoE permits. MPMC anticipates that both the MoE and the MEM (and others) will expect to be updated on the status of Springer Pit water elevation as well as the status of short-term water management plans and progress. MPMC commits to providing those updates in a timely manner and does not object to a permit requirement for notification at a specific threshold. We propose that our consultants and the MoE third party reviewers provide recommendations on a suitable notification elevation for the purpose of the permit, if this is preferred by the MoE.

In general, the application contains the assessment criteria required for a decision to authorize discharge of tailings to Springer Pit. However, additional permit review and discussion (i.e. will take some time) of new and supplemental requirements is required.

Date: April 21, 2015 (Received via E-mail April 24, 2015)

Correspondence: Letter (Re: Mt Polley Mining Corporation (“MPMC”) Return to Restricted Operations Permit Amendment Application (the “Application”) and the Approach for Long-Term Water Management Plan Development)

Source: Williams Lake Indian Band/Xat’sull First Nation (Kirk Dressler)

Author: Chief Ann C. Louie and Chief Donna Dixon

As of the time of the Application, a commonly held view was that the restart application was an all-encompassing application that also included effluent treatment and discharge. Mount Polley, since this time has sought to clarify (and the MoE/the MEM have done the same) that:

- 1) The temporary restart is for a *Mines Act* permit (M-200) amendment to allow mining and an *EMA* permit (PE11678) amendment to allow tailings to be deposited in the Springer Pit;
- 2) A separate amendment application will be filed for an (*EMA*) effluent permit to enable short-term water management (treatment and discharge) to allow control of Springer Pit water levels. This permit amendment application will be subject to an additional thirty (30) day consultation period; however, MPMC has been engaging with the Williams Lake Indian Band and the Xat’sull First Nation (as well as with local community representatives, regulators and stakeholders) in advance of this application being filed; and,
- 3) MPMC is in the process of developing a long-term water management plan that includes long-term treatment and discharge. The Williams Lake Indian Band and Xat’sull First Nation will continue to be welcomed to participate as that plan is developed. Additional statutory consultation will be part of permit amendments needed to implement the long-term water management plan.

A number of the following comments (including the comments from the Technical Reports provided by the Williams Lake Indian Band and Xat’sull First Nation, included separately below) likely reflect the above prior understanding. In the responses below, where the feedback received is reflective of the above expectations, “Please refer to introductory remarks for this item” is noted. It is intended that in those cases, the comments have since been addressed in

ongoing discussions, will be addressed in the Technical Assessment Report (TAR), or will be addressed by separate explanatory detail following issuance of the TAR.

Items below are taken from the “Technical Issues Resulting from the Application” section of the original correspondence. Note - items that are sourced from the appended two (2) technical reports have been addressed in the responses pertaining to those comments (as found in this document).

Items

Technical reports, namely the *Technical Review Comments Summary* prepared by BOA Ltd., LGL Ltd. And MESL dated April 21, 2015 (the “BOA Report”), and the *Review and Comment on Mount Polley Mine Re-Opening Application and Water Management Plan* prepared by James R. Kuipers of Kuipers and Associates dated April 12, 2015 (the “Kuipers Report”) are appended to this letter (collectively, the “Technical Reports”). The Kuipers report was written prior to the understanding that MPMC’s consultants are in the process of developing a Technical Assessment Report (“TAR”).

Responses to these Technical Reports are as provided under their respective headers in this document.

It is our understanding that MPMC is preparing the TAR to provide further information on the Application and the potential impacts of a restart on the environment. Without the TAR it is premature to consider the Application, assess impacts or consider options because of numerous critical information gaps...

Please refer to introductory remarks for this item.

MPMC is preparing a TAR for the short-term water management scenario; it is anticipated that the Technical Assessment Report will be provided by May 29, 2015.

As discussed at the RMDRC meetings on March 31, 2015 and April 28, 2015, the MoE and the MEM have indicated that the Technical Assessment Report will be required to provide a permissible plan for short-term water management in support of a decision on the return to restricted operations application.

The Application seeks to separate water storage and/or discharge issues and suggests that they can be addressed in water management documents that are to be submitted independent of, but parallel to, the Application. Despite our efforts to work with MPMC and the Province on this issue, the First Nations continue to have grave concerns with this approach. The unfortunate reality is that the existence of Mount Polley Mine will necessitate significant discharges into an already damaged receiving environment, in an area over which the First Nations have strong Aboriginal title claims and that is critical to the First Nations for the exercise of their Aboriginal rights. While mine contact water may be released from the site, regardless of whether Mount Polley resumes operations or

not, it is not acceptable for MPMC to use this fact as a mean of escaping immediate ownership and responsibility for the long term water management issues.

Please refer to introductory remarks for this item.

MPMC recognizes the concerns of the First Nations with respect to protecting the environment and shares these concerns. The Company has been consistent in its commitment to managing water in both the short- and long-term at the Mount Polley Mine to protect the surrounding watershed. MPMC has worked with the First Nations, local community, regulators and stakeholders in establishing numerous venues and opportunities through which to discuss both the Application and water management at Mount Polley Mine.

MPMC is investigating a number of options for short- and long-term water management at the mine and is preparing a Technical Assessment Report on short-term water management. As discussed at the RMDRC meetings on March 31, 2015 and April 28, 2015, the MoE and the MEM have indicated that the Technical Assessment Report will be required to provide a permissible plan for short-term water management in support of a decision on the return to restricted operations application.

Although MPMC are preparing a TAR to support a short-term discharge solution, MPMC remain committed to developing a long-term water management strategy. MPMC also believes that they have demonstrated sincere efforts in initiating the long-term water management plan and supporting actions. MPMC have been open and transparent in communicating their approach on this matter and will continue to openly communicate progress.

In order for the First Nations to provide an informed response to the Application, and for the Province to identify, consider and address potential impacts to our rights, the following data is required:

1. Evaluation of options for effluent discharge (i.e., identify and evaluate candidate water discharge locations);

Please refer to introductory remarks for this item.

Since the submission of these comments, an Options Analysis meeting was held on May 8, 2015, during which water management planning for the TAR was discussed. This meeting was attended by representatives of the Williams Lake Indian Band, the Xat'sull First Nation, MPMC, the MEM, the MoE, Fisheries and Oceans Canada, the Likely Community representative and Golder.

During this meeting, presentation was made on the options evaluated for effluent discharge, including Hazeltine Creek/Polley Lake, Edney Creek, Bootjack Lake/Morehead Creek, Quesnel Lake and Quesnel River.

As reviewed during the meeting, of these options, only Quesnel Lake and Quesnel River provide adequate dilution (i.e., minimum of 10:1 based on average flows) to be considered a viable short-term option for effluent discharge. As such, the only viable discharge locations are Hazeltine Creek (short-term, while it is not fish habitat; not viable in the long-term, when it is fish habitat); Quesnel Lake via pipe and diffuser; and, Quesnel River via pipe and diffuser.

During the meeting, there was general agreement that it would be imprudent to proceed with either the Quesnel Lake via pipe and diffuser or Quesnel River via pipe and diffuser for the short-term discharge, because once the infrastructure is installed for either of these discharge locations, the capital expenditure would be of a magnitude that would preclude an alternate option being constructed. Therefore, a discharge to Hazeltine Creek is the most viable short-term solution because it will not require extensive infrastructure that will bind a long-term option, and it will afford the time for sufficiently detailed studies of the other two (2) options to clearly identify which is the best overall for a long-term discharge and to enable consultation on those options.

A copy of the summary from this meeting, as provided by Golder on May 15, 2015, is included as “May 8 Option Analysis Meeting Minutes.pdf”.

2. Predictions of effluent quality and receiving water quality conditions for operations, closure and post-closure;

Please refer to introductory remarks for this item.

As discussed during the Options Analysis meeting held on May 8, 2015, predictions of effluent quality and receiving water quality conditions varies with water treatment and water discharge options. Short-term water management predictions will be available in the TAR anticipated for submission by May 29, 2015.

Longer-term (full operations, closure and post-closure) predictions will continue to be developed and will be included in future TAR(s) and associated permitting.

3. Identification of the need for water treatment to facilitate short-term and/or long-term water management;

Please refer to introductory remarks for this item.

As discussed during the Options Analysis meeting held on May 8, 2015, at this time, short-term water management is planned to entail use of treatment for total suspended solids. Details of water treatment requirements to facilitate short-term water management will be included in the TAR anticipated for submission by May 29, 2015.

As discussed during the Options Analysis meeting held on May 8, 2015, details of water treatment requirements to facilitate long-term water treatment continue to be identified and evaluated and will be included in future TAR(s) and associated permitting.

4. Evaluation of the effects of wastewater discharges on receiving water quality and associated water uses (i.e., an effects assessment).

Please refer to introductory remarks for this item.

Evaluation of the effects of wastewater discharges on receiving water quality and associated water uses for short-term water management will be available in the TAR anticipated for submission by May 29, 2015.

As discussed during the Options Analysis meeting held on May 8, 2015, details of long-term water management continue to be identified and evaluated and will be included in future TAR(s) and associated permitting.

The Kuipers Report focuses on the need for a definitive short-term water management plan and states that “the present approach being taken in the application and WMP does not address the priority nature of the need to address imminent and as yet unmitigated or unpermitted mine discharges, and instead suggests re-opening in a manner that would add to the present urgency.

Please refer to introductory remarks for this item.

MPMC outlined in the Application the need for a short-term water management plan as soon as July of 2015 in the case of a 1-in-200 year wet precipitation scenario; with or without the return to restricted operations. Updated Springer Pit filling sensitivity analyses were provided in the April 30, 2015 version of this document.

MPMC, with its consultants, is proposing to submit a TAR by May 29, 2015 given the agreed view by all parties that short-term water management is of priority.

MPMC have continued to work on water balance details since the submission of this application. There is an effective water balance model with probabilistic evaluations covering scenarios with and without restricted restart. MPMC are of the view that the Hazeltine Creek short term option can be implemented sufficiently soon enough to enable the restricted restart. Moreover, the TSF breach repair has been concluded (final quality assurance testing is in progress as of the time of this writing). The breach repair provides a 2 Mm³ contingency for water management should that become needed.

In addition, since the restricted restart application has been submitted, an evaluation of the consequence of overflow to groundwater has been carried out in the May 8th, 2015 Technical Memorandum: “*Assessment of groundwater seepage outflows from Springer Pit to Bootjack Lake at the Mount Polley Mine, BC*” (attached).

This Technical Memorandum models groundwater seepage to Bootjack Lake from the Springer Pit under scenarios of restricted start-up and no dewatering (i.e., the Springer Pit fills to the overflow elevation of 1050m until December, 2016); the technical memorandum concluded that, “no constituent concentrations were predicted to be greater than the BC WQG in either scenario, therefore, adverse effects to aquatic life are not anticipated). Additionally, laboratory tests conducted on untreated water collected from Springer pit in November 2014 and March 2015, showed no acute toxicity to rainbow trout or the water flea *Daphnia magna* (a sensitive crustacean) in untreated and undiluted Springer Pit water. These tests support the conclusion that significant adverse effects to aquatic life are not anticipated under either scenario.”

Date: April 21, 2015 (Received via E-mail April 24, 2015)

Correspondence: Report (Technical Review Comments Summary)

Source: Williams Lake Indian Band/Xat'sull First Nation (Kirk Dressler)

Author: Don MacDonald (MacDonald Environmental Sciences), Dr. Elmar Plate and Marc Gaboury (LGL Ltd.) and Brian Olding (BOA Ltd.)

Items below are taken from the sections “Comments on Permit Amendment Application MPMC Return to Restricted Operations Revision 1” and “Comments on Approach for Long-Term Water Management Plan Development”; other sections of the report are “Executive Summary”, which summarizes the document (including the comment sections) and “Introduction, Background, Structure and Goals for the Comments” which provides context for the comments.

Items

Comments on Permit Amendment Application Mount Polley Mine

General Comments

According to BCMOE (2013), Applicants seeking an *EMA* permit are required to submit a technical assessment report (TAR) that provides enough information to fully understand the application and the potential impacts on the environment.

It is understood that MPMC is currently preparing this TAR. The WLIB expects to collaboratively participate, according to its capacity, in the development of the TAR, with MPMC.

Please refer to introductory remarks for this item. It is anticipated that the TAR for short-term water management will be provided by May 29, 2015.

Since the submission of these comments, an Options Analysis meeting was held on May 8, 2015, during which water management planning for the TAR was discussed. This meeting was attended by representatives of the Williams Lake Indian Band, the Xat'sull First Nation, MPMC, the MEM, the MoE, Fisheries and Oceans Canada, the Likely Community and Golder. Representatives of the Williams Lake Indian Band and Xat'sull First Nation included a contributing author to this *Technical Review Comments Summary*.

The prevailing hydraulic gradients that Golder has provided and that, in principle, have been confirmed by GW Solutions, suggests groundwater originating in the Springer Pit Lake tends to flow westerly towards Bootjack Lake. There is a reasonably high likelihood

that under restricted mining operations, water levels in Springer Pit may be high enough, or potentially significant seepage zones may already exist, for some water from Springer Pit to discharge to Bootjack Lake.

The quality of the mine-influenced waters (based on the existing concentrations of eight substances) would likely have negative impacts on aquatic resources if these waters were discharged to fish bearing lakes and streams within the project area.

Since the submission of these comments, a Technical Memorandum, *Assessment of Groundwater Seepage Outflows from Springer Pit to Bootjack Lake at the Mount Polley Mine, BC* was prepared by Golder, and provided to attendees of the Options Analysis meeting held on May 8, 2015, which included representatives of the Williams Lake Indian Band and Xat'sull First Nation (including an author of this *Technical Review Comments Summary*). A copy of this Technical Memorandum is provided as, "*Seepage Springer Pit to Bootjack.pdf*".

This Technical Memorandum models groundwater seepage to Bootjack Lake from the Springer Pit under scenarios of restricted start-up and no dewatering (i.e., the Springer Pit fills to the overflow elevation of 1050m until December, 2016); the technical memorandum concluded that, "no constituent concentrations were predicted to be greater than the BC WQG in either scenario, therefore, adverse effects to aquatic life are not anticipated). Additionally, laboratory tests conducted on untreated water collected from Springer pit in November 2014 and March 2015, showed no acute toxicity to rainbow trout or the water flea *Daphnia magna* (a sensitive crustacean) in untreated and undiluted Springer Pit water. These tests support the conclusion that significant adverse effects to aquatic life are not anticipated under either scenario."

Quality of discharge water for the short-term water management plan will be included in the TAR anticipated to be provided by May 29, 2015.

Based on a review of the Application, it is apparent that the TAR has not yet been prepared and we understand that it is currently under development. There are, therefore a number of serious deficiencies that must be addressed in the forthcoming TAR before a decision on issuance of a *MA* or *EMA* permit is rendered...The nature and severity of these deficiencies makes it difficult to evaluate the technical merits of the application until such time as the forthcoming TAR has been developed and reviewed.

Please refer to introductory remarks for this item.

As discussed at the RMDRC meetings on March 31, 2015 and April 28, 2015, the MoE and the MEM have indicated that the short-term water management Technical Assessment Report will be required to provide the permittable plan required to make a decision on the return to restricted operations activities in parallel with water management requirements.

Specific Comments

Of the eight substances above [nitrate, sulphate, aluminum, copper, iron, molybdenum, phosphorous, selenium], copper and selenium exceedances have the greatest potential for significant effects on aquatic organisms and terrestrial wildlife. Water treatment should, in particular, focus on reducing the concentrations of these two substances in receiving waters. Which of the above-listed COPCs would be unaffected by liming and what would the impact be on the short-term and long term water discharges?

The short-term water management TAR, anticipated to be provided by May 29, 2015, will include information on the proposed short-term water treatment and water discharge scenarios, including water chemistry. MPMC are aware that it will be necessary to demonstrate to the MoE that the discharge will not cause pollution per *EMA* and demonstrate to Environment Canada that the discharge will meet the requirements of the *MMER*.

The long-term water treatment options will take into account treatment for all COPCs, at present concentrations and predicted future concentrations.

The Application needs to document that viable water management/water storage/water treatment/water discharge options are available at the site and identify the selected option that will provide the basis for establishing the *MA* and *EMA* permits, if such permits are ultimately issued by the Province of British Columbia. These minimum options are discussed below.

Please refer to introductory remarks for this item.

As discussed during the Options Analysis meeting held on May 8, 2015, short-term water management is planned for treated water to Quesnel Lake via Hazeltine Creek (with subsurface discharge) while longer-term water management strategies continue to be developed.

- The data on potential pit lake water quality conditions presented in the Application indicate that the concentrations of numerous constituents of potential concern (COPCs) will exceed BC or CCME WQGs. In some cases, the BCWQGs are exceeded by a factor of 20 (i.e., selenium). Hence, discharge of this water to the environment has the potential to cause adverse effects on aquatic life and/or other designated water uses.

Please refer to introductory remarks for this item.

The short-term water management TAR, anticipated for provision by May 29, 2015, will provide information on the proposed water treatment and water discharge scenarios, including water chemistry.

The potential for COPCs to cause adverse effects will be addressed in the TAR.

- The Application does not identify candidate wastewater discharge locations in the vicinity of the mine site. In addition, data on baseline water quality conditions have not been presented for any of the candidate receiving water bodies. In this respect, we expect a fulsome analysis of all factors related to the discharge to Quesnel Lake and Quesnel River. Furthermore, predictions of future water quality conditions are not provided for any of the candidate receiving water bodies located in the vicinity of the Mount Polley mine site. Hence, the Application does not provide sufficient information to support the development of *EMA* permit conditions.

Please refer to introductory remarks for this item.

As discussed during the Option Analysis meeting held on May 8, 2015, Quesnel Lake and Quesnel River continue to be included as candidate receiving bodies. Candidate receiving bodies in the local vicinity of the Mount Polley mine site (i.e., Hazeltine Creek/Polley Lake, Edney Creek and Bootjack Lake/Morehead Creek) were eliminated from consideration due to inadequate dilution; however, Hazeltine Creek was retained for a short-term discharge while it does not provide habitat for fish.

Short-term water management is planned for treated water to Quesnel Lake (subsurface) while longer-term water management strategies continue to be developed. The short-term water management TAR, anticipated for provision by May 29, 2015, will provide information on the proposed water treatment and water discharge scenarios, including water chemistry.

- The Application does not include an evaluation of the effects on the environment that would be associated with discharges of pit water (or process water) to the environment. Such information is required to identify the need for mitigation and to support an evaluation of mitigation options for addressing impacts on receiving waters in the vicinity of the mine site.

Please refer to introductory remarks for this item.

- The Application has not provided information on the need for water treatment prior to release of wastewater to the environment, on water treatment options for addressing elevated COPC concentrations in the pit water and/or wastewater from other sources, or on potential efficacy of candidate water treatment systems. This represents a major limitation of the Application because it prevents reviewers from evaluating the feasibility of discharging water to the environment, now or in the future.

Please refer to introductory remarks for this item.

- The application indicates that there is about 16,000,000t of PAG waste rock currently stored on site and that this tonnage of waste rock would occupy a volume of 8,000,000m³ when disposed of in the Springer Pit. Because there is a limited space within the Springer Pit (estimated at 14,300,000m³ at an elevation of 1050m), because the Application proposed to dispose of 2,900,000m³ of tailings in the Springer Pit, because additional PAG waste rock will be produced during resumed mining (if permitted), and because all PAG waste rock must be submerged at closure, the technical basis for the volumes of PAG waste rock and tailings should be provided for review and evaluation. Additional options for disposal of PAG waste rock (i.e., beyond Springer Pit and Wight Pit) should be identified in case the volumes of PAG waste rock are higher than expected (i.e., if waste rock density is lower than expected).

Technical basis for the calculation of the volume of PAG waste rock currently stored on site is based on that volume being stockpiled in the Temporary NW PAG Stockpile. Survey of the Temporary NW PAG Stockpile, currently existing on site, using three-dimensional modelling software is cross-referenced with database tracking for hauled materials. These methodologies also provide the basis for calculating the waste rock density as presented in the Application.

As outlined in the Application, PAG rock is characterized according to the current Acid-Based Accounting (ABA) sampling regime, as included as Appendix B to the Application.

- The Application indicates that placement of mine tailings in Springer Pit would not significantly change the requirements for long-term water management at the site. That is, placement of 4,000,000t of tailings in Springer Pit would displace only 1,500,000m³ of water from the facility, which equates to one month of mine-influenced water storage. While it is understood that the tailings would include 1,500,000m³ of solids and 1,400,000m³ of interstitial water, it is unclear if this interstitial water was included in the calculations of water balance for the site. Therefore, more information is required to confirm that interstitial water associated with mine tailings is included in the water-balance model for the site.

Interstitial water is included in the water balance for the site; water management systems would convey site-contact water to the Springer Pit regardless of restricted operations as the Springer Pit represents the only water storage location on site under current conditions.

Under restricted operations, this water would be directed to, and used in, the Mill for processing the ore before being deposited in the Springer Pit; thus, the only net volume introduced to the system would be that of the tailings rock itself (1,500,000m³ of solids).

- It is unclear if other options for disposal of mine tailings were considered in the Application. Therefore, more information should be provided on other tailings disposal options that were considered (e.g., dry stack disposal).

Given the restricted nature of the operations proposed, limitation of available storage locations on site (i.e., only Springer Pit) and the uncertainty with future use of the TSF at this time, the Application evaluated only available disposal options for mine tailings.

In summary, the Application does not provide all the information needed to support development of a *MA* or *EMA* permit for return to restricted operations. In addition to the information provided, the Application needs to include the following elements:

Please refer to introductory remarks for this item.

For items 1 through 6 below, short-term evaluation and predictions will be provided in the TAR projected to be provided by May 29, 2015. Long-term evaluation is ongoing and will be the subject of future permitting.

1. Evaluation of options for effluent discharge (i.e., identify and evaluate candidate wastewater discharge locations);
2. Predictions of effluent quality and receiving water quality conditions for operations, closure and post-closure;
3. Evaluation of the need for additional water storage and/or treatment to facilitate short-term and/or long-term water management;
4. Evaluation of the effects of wastewater discharges on receiving water quality and associated water uses (i.e., an effects assessment);
5. Evaluation of the efficacy of various water management and water treatment options; and,
6. Evaluation of the technical and economic feasibility of implementing the preferred water management and water treatment options.

We need to understand that a full adaptive management response in the event that monitoring detects that seepage of degraded water is impacting Bootjack Lake. This includes an understanding of triggers (e.g. specific concentrations of copper or selenium) that would initiate the response. Given the uncertainty around the groundwater discharge level (currently estimated at 1030m), we need to know what a conservative level would be with which to manage Springer Pit.

Monitoring plans, including those associated with the Springer Pit filling, have been revised with input from Qualified Professionals and in accordance with regulatory requirements.

Adjustments to this monitoring program will be based on monitoring results and the status of the Springer Pit water levels, and will be based on recommendations from a Qualified Professional. A potential mechanism for adjusting the schedule is the Annual Monitoring Plan for 2016 which will be submitted to MoE for review January 2016, as per Permit 11678.

Data are provided to MoE quarterly, and are also included in the Annual Report to MoE and MEM. Given the transit time for groundwater from Springer Pit to Bootjack Lake (~12 months), more frequent monitoring than that proposed is not planned. If the monitoring frequency is reduced in the future, triggers for increased monitoring may be established based on the recommendations of a Qualified Professional.

In the event that anomalous groundwater quality is observed during sampling, additional follow-up sampling will be conducted and reported.

A Technical Memorandum, *Updated Predictions of Pit Lake Formation for the Springer Open Pit – Mount Polley Mine*, prepared by Golder and dated December 16, 2014, was provided as part of the Application (Appendix E) and provides further detail on the groundwater discharge level (estimated at 1030m).

Since the submission of these comments, a Technical Memorandum, *Assessment of Groundwater Seepage Outflows from Springer Pit to Bootjack Lake at the Mount Polley Mine, BC* was prepared by Golder, and provided to attendees of the Options Analysis meeting held on May 8, 2015, which included representatives of the Williams Lake Indian Band and Xat'sull First Nation, including an author of this *Technical Review Comments Summary*. A copy of this Technical Memorandum is provided as, "Outflow Seepage Springer Pit to Bootjack.pdf".

This Technical Memorandum models groundwater seepage to Bootjack Lake from the Springer Pit under scenarios of restricted start-up and no dewatering (i.e., the Springer Pit fills to the overflow elevation of 1050m until December, 2016); the technical memorandum concluded that, "no constituent concentrations were predicted to be greater than the BC WQG in either scenario, therefore, adverse effects to aquatic life are not anticipated). Additionally, laboratory tests conducted on untreated water collected from Springer pit in November 2014 and March 2015, showed no acute toxicity to rainbow trout or the water flea *Daphnia magna* (a sensitive crustacean) in untreated and undiluted Springer Pit water. These tests support the conclusion that significant adverse effects to aquatic life are not anticipated under either scenario."

Short-term water management (i.e., discharge) is required to manage Springer Pit elevations; it is the intent of MPMC to manage the elevation of the Springer Pit below the 1030m elevation.

In the event that there are delays in the short-term water management authorizations, there will be approximately 2 Mm³ of contingency capacity in the repaired TSF. This contingency is suitable and will enable additional time to develop these options in the event that monitoring indicates Springer Pit is approaching the 1030 m elevation. However, the most likely forecasts of timing indicate that this contingency will not be necessary. Because climatic conditions can vary in ways that can't be predicted with certainty, this contingency option is considered to be appropriate.

While it is understood that there is a significant pressure to re-open the Mount Polley mine, decisions taken in the near future will have long-term implications. Therefore, it is essential that a viable plan for water management and wastewater discharge be developed prior to approving return to restricted operations at the mine site. Addressing the information needs identified above will help to ensure that decisions that have long-term implications relative to Aboriginal health and the traditional use of the environment are supported by the data and information required for issuance of *MA* and *EMA* permits.

Please refer to introductory remarks for this item.

As discussed at the RMDRC meetings on March 31, 2015 and April 28, 2015, the MoE and the MEM have indicated that the short-term water management Technical Assessment Report will be required to provide the permittable plan required to make a decision on the return to restricted operations activities in parallel with water management requirements.

Much has changed at the Mount Polley mine site since the original Reclamation and Closure Plan was originally designed. The Plan needs to be updated to current conditions and to include restoration and remediation components in this Plan. The Financial Security estimate needs to be updated accordingly.

The Reclamation and Closure Plan (RCP) has been updated on numerous occasions since original design, in accordance with regulatory requirements and reflecting changing site conditions. Restoration and remediation components are included in the RCP and updated financial security estimates are provided annually as required by the MEM. Updated financial security estimates based on current site conditions have been provided to the MEM as required and as requested.

As discussed in the 2014 Annual Report Environmental and Reclamation Report, MPMC is continuing with progressive reclamation and reclamation research. Prior to the TSF breach, MPMC had been preparing an updated RCP for submission with the permit amendment application to extend the mine life. Revisions to the last submitted plan (including incorporating feedback and addressing comments from the MEM on the previous update) were underway. Currently, there are a number of uncertainties in the

future of the Mount Polley site that heavily influence the RCP and depend on the MoE and the MEM permitting decisions:

- Return to restricted operations
- Short-term water management strategy
- Long-term water management strategy
- Return to full time operations (requiring deposition of tailings in the TSF)

Depending on the outcome of the permitting decisions, Mount Polley may close permanently, enter care and maintenance or resume full time operations. Accordingly, closure needs associated with these different scenarios are the primary outstanding sections of the RCP.

Work currently being conducted or planned includes:

- Modelling of Springer Pit Lake water quality (long-term);
- Development of short- and long-term water treatment and discharge strategies;
- Modelling existing stockpile volumes and geochemical properties (and, if required, mitigation planning and associated cost implications);
- Ongoing revegetation research with the goal of refining prescriptions for meeting site end land use objectives; and,
- Updating liability cost estimates to incorporate site water management infrastructure (including maintenance).

MPMC plans to submit an updated RCP, as required under the M-200 Permit, by September 30, 2015, reflecting site conditions and long-term water management at that time.

As outlined in responses provided to the MEM comments as part of the April 30, 2015 issuance of this document, MPMC plans to submit a Closure Management Manual to the MEM by May 27, 2015.

Comments on Approach for Long-Term Water Management Plan Development

General Comments

We understand that there will be two *Environmental Management Act* permits required for the EM Permit Application. One EMA permit will provide for the discharge of tailings from the mill to Springer Pit.

The second EMA Permit will provide for a discharge from the Springer Pit under two possible scenarios. Springer Pit is likely to fill past the point of discharge to groundwater within the coming months. Further, there is uncertainty around the currently designated 1030m level where pit water would discharge to groundwater. Additionally, the modelling for the rate of the filling of Springer Pit has proven to under-estimate this rate and the model is currently being re-calibrated.

Please refer to introductory remarks for this item.

Since the receipt of these comments, clarity on the modelling for the rate of the filling of the Springer Pit has been provided, as part of the April 30, 2015 issuance of this response document. Also since the submission of these comments, a Technical Memorandum, *Assessment of Groundwater Seepage Outflows from Springer Pit to Bootjack Lake at the Mount Polley Mine, BC* was prepared by Golder, and provided to attendees of the Options Analysis meeting held on May 8, 2015, which included representatives of the Williams Lake Indian Band and Xat'sull First Nation (including an author of this *Technical Review Comments Summary*). A copy of this Technical Memorandum is provided as, "*Outflow Seepage Springer Pit to Bootjack.pdf*".

It is understood that MPMC is currently preparing the TAR. The WLIB expects to collaboratively participate, according to its capacity, in the development of the TAR, with MPMC.

It is anticipated that the TAR for short-term water management will be provided by May 29, 2015.

Since the submission of these comments, an Options Analysis meeting was held on May 8, 2015, during which water management planning for the TAR was discussed. This meeting was attended by representatives of the Williams Lake Indian Band, the Xat'sull First Nation, MPMC, the MEM, the MoE, Fisheries and Oceans Canada, the Likely Community and Golder. Representatives of the Williams Lake Indian Band and Xat'sull First Nation included a contributing author to this *Technical Review Comments Summary*.

The WLIB and their technical consultants have also participated in a number of previous meetings and workshops, held either in Vancouver or Williams Lake. Our consulting team has been open and forthcoming with data, interim findings and reasons for decisions with WLIB, Xat'sull First Nation, the Likely Community (open houses have been held) and regulatory agencies. MPMC and its consulting team have found this participation to

be constructive and welcome the continued participation of these parties at early stages of the process, even before statutory consultation has started.

Specific Comments

INTRODUCTION 1.0

The increase from 1.4 million m³/year to >5 million m³/year of mine contact water appears to be very large. We would recommend undertaking the most in-depth analysis possible of how contact water production can be reduced. We recommend that any current surface run-off be directed away from contact with mine rock or tailings. Current watercourses may be re-directed. Rock piles may be covered to avoid contact with water. Water that flows over the mine but does not display any exceedances of Water Quality Guidelines may be separated from water that shows exceedances and discharged directly.

MPMC agrees that reduction of contact water volumes produced is important and continues, as it has during its operation, to analyze and evaluate means by which to achieve this. As suggested above, part of this strategy has involved MPMC completing progressive reclamation on non-active rock stockpiles during operations to reduce contact surfaces in accordance with the Reclamation and Closure Planning for the site.

MPMC also follows a water management hierarchy as outlined in the comment above. As included in the Background Information Package provided as Appendix A to the Application, currently, MPMC does not discharge any mine-influenced water from site. For this reason, all systems are designed to, in order of application: segregate non-mine influenced water from site collection systems, returning it to the surrounding receiving environment; collect all mine influenced water in site collection systems; convey mine-influenced water, where applicable, directly to the Springer Pit from site collection systems; convey residual mine-influenced water from systems to the Springer Pit; and, temporarily store surplus mine-influenced water in the TSF (for future conveyance to the Springer Pit).

MPMC is of the view that continuous improvement in water management is possible. However, it is difficult to reliably quantify the magnitude of such continuous improvement. MPMC are of the view that a conservative perspective of water management needs is a more appropriate basis for design. We have acknowledged openly that this approach is conservative and have explained our reasons for this conservatism. It is in MPMC's interests to reduce the amount of water that is handled, treated, and discharged; however, it is also in MPMC's interests to plan for more conservative outcomes.

TECHNICAL APPROACH 2.2

We expect, as Golder has stated, that surplus water cannot be stored in the TSF.

Noted.

In the event that there are delays in the short-term water management authorizations, there will be approximately 2 Mm³ of contingency capacity in the repaired TSF. This contingency is suitable and will enable additional time to develop these options in the event that monitoring indicates Springer Pit is approaching the 1030 m elevation.

EFFLUENT PERMIT AND SHORT-TERM CONTINGENCY 2.3.2

Liming of mine contact water at the mill or directly in the Springer Pit, suggested as an interim contingency measure, will lead to the precipitation and coagulation of heavy metals in Springer Pit. The sludge at the bottom of Springer pit that will thus be created, will accumulate all metals found in the mine. If this option is to be considered, a management plan for this sludge needs to be provided.

The disposition of this sludge will depend upon the mine's future. In the event that the mine does not resume full operations, the sludge will remain in Springer Pit in the subaqueous environment. In the event that the mine resumes full operation, the tailings, along with the sludge will be transferred to the upgraded TSF.

It is worth noting that the processing of ore previously included the addition of lime and that any such precipitates over the past 17 years were stored in the TSF. The precipitated sludge is therefore not a new material to contend with.

WATER QUANTITY AND QUALITY MONITORING 3.0

Without a defined water quantity and water quality model that addresses all water sources, the evaluation of discharge options is impossible since concentrations of parameters of potential concern are unknown inside and outside the mixing zone in the receiving environment. This is a concern, as noted in more detail below in our comments on section 3.1.

Please refer to introductory remarks for this item.

Discharge to Hazeltine Creek

Based on a very cursory analysis carried out by LGL, the addition of the 5 million m³/year (for simplicity we assumed an even discharge throughout the year) would be diluted by factors ranging from 1:2 to 1:10 if discharged into Hazeltine Creek (average addition of 160L/sec). This discharge could be directed to the area below the sedimentation pond to avoid an increase of flow in the upper reaches of Hazeltine Creek. Additions of flow into the upper reaches could increase erosion, re-disturbance of tailings and thus increase turbidity.

As per the discussions at the May 8, 2015 Option Analysis meeting, the engineered channel constructed in Hazeltine Creek is anticipated to be adequate for conveyance of water to Quesnel Lake via open channel flow. Given that, in the short-term, Hazeltine

Creek is not fish habitat, dilution ratios would be applicable to Quesnel Lake. The Hazeltine Creek open-channel flow is not viable beyond the short-term because the objective for Hazeltine Creek is for use by fish and other aquatic life.

Discharge to Quesnel River

We have not calculated discharge dilution ratios for Quesnel River at different locations. We expect that this work will be undertaken in the development of the TAR.

As presented during the discussions at the May 8, 2015 Option Analysis meeting, the calculated average dilution ratio for the Quesnel River option is 635; however, this assumes dilution across the whole of the river and not within the IDZ. Further work would be provided in a TAR in support of this option as part of long-term water management.

Discharge to Quesnel Lake

When discharged into Quesnel Lake, the concentrations at the diffuser as well as within a 100m mixing zone will need to be calculated. Beyond the 100m mixing zone, concentrations of parameters of potential concern will likely be below Water Quality Guidelines but their accumulation below the thermocline will need to be modelled or calculated. We expect that this work will be undertaken in the development of the TAR.

Short-term water management is planned for treated water to Quesnel Lake via Hazeltine Creek (with subsurface discharge) while longer-term water management strategies continue to be developed. It is anticipated that the Technical Assessment Report will be provided by May 29, 2015, including predictions of water chemistry.

MPMC, through TetraTech EBA, have a 3D hydrodynamic model of Quesnel Lake. The level of assessment available within Quesnel Lake is considerably greater than for other effluent permitting efforts where modelling is typically limited to the IDZ.

IDENTIFYING CONSTITUENTS OF POTENTIAL CONCERN 3.1

It is a requirement for mines to develop predictions of future water quality conditions to support the permitting process. Such information is required to identify COPCs, to determine the quantity of water that must be managed at the site, to identify candidate wastewater treatment technologies, to evaluate the potential efficacy of candidate water treatment technologies, and to evaluate the effects of the project on human health and the environment. We note that a water quantity model or quality model has not been developed, at this time, for the site. Therefore, development of this model should be identified as a priority and proceed in the near term in the development of the TAR.

Please refer to introductory remarks for this item.

Identification and discussion of water quantities that must be managed at the site, candidate wastewater treatment technologies, and efficacy of candidate water treatment technologies took place during the Option Analysis meeting on May 8, 2015. This model has been developed using the GoldSim modeling platform.

Water quantity, water quality, and wastewater treatment technologies are among items to be included in the short-term water management TAR; it is anticipated that the TAR will be provided by May 29, 2015.

Table 2, P.11, presents the results of the screening-level assessment that was conducted to identify COPCs at the site. The results of this assessment indicate that the COPCs at the site include nitrate, sulphate, dissolved aluminum, total copper, total selenium, total iron and TSS. While this evaluation identified some of the COPCs at the site, it should not be considered in any way comprehensive for the following reasons:

Please refer to introductory remarks for this item.

COPC identification, as indicated, was conservative in that BC WQG were applied to the source material. This is not an intended application for WQG; the application was conservative only for that purpose.

Comparison to other water uses will be part of the TAR. Other points raised (e.g. consideration of future water quality) will be part of the long-term planning.

1. BCWQGS for water uses beyond protection of aquatic life were not considered. Identification of COPCs requires consideration of all water uses, not just aquatic life. For example, the BCWQG for molybdenum for the protection of wildlife is a factor of 20 lower than the BCWQG for the protection of aquatic life.
2. The following candidate COPCs were not considered in the evaluation: ammonia, phosphorus, dissolved metals (i.e., beyond Al, Cu and Fe) and TDS.
3. No BCWQGs were reported for many of the candidate COPCs that were identified, including conductivity, pH, temperature, turbidity, alkalinity, and hardness.
4. For many of the metals, the BCWQGs are hardness dependent. However, the water hardness at the site is much higher than the upper limit that has been defined for calculating the BCWQGs for the protection of aquatic life. Therefore, the WQGs for metals may be overstated.
5. The three water sources evaluated may or not fully reflect water quality conditions for the sources at the site.
6. A predictive evaluation of future water quality conditions has not been conducted. As conditions may change in the future, the results of water quality modeling, as well as

on-site measurements of water quality conditions, will need to be considered in the COPC identification process.

WATER QUALITY MODULE, RECEIVING ENVIRONMENT MODULE 3.2.2.

To our knowledge, the H3D model is typically used for marine environments. We hope that it can be adjusted to consider the strong separation of the water column by the thermocline in the summer and subsequent mixing of the water column in the fall and spring.

The H3D model has been used for both fresh and salt water. The model was developed specifically for Quesnel Lake and its predictions of turbidity conditions has been good, especially with a hindcast run when actual climatic conditions could be input.

EVALUATION OF EFFLUENT MANAGEMENT OPTIONS 5.0

The evaluations of the options presented in Section 6 is impossible without knowing the concentrations of constituents of potential concern within the Initial Mixing Zone of all water bodies and the concentrations in the water body following mixing. As part of the information that needs to be presented, accumulation of constituents of potential concern in all water bodies or their final receiving environments (Fraser River and Georgia Strait for the Quesnel River option) need to be provided.

We disagree that model runs out to the Strait of Georgia are necessary, nor are such models appropriate for a project of this type. If the TAR findings indicate that water quality guidelines are met at the edge of the IDZ, then downstream uses are protected.

It is agreed that a wastewater treatment and wastewater discharge plan needs to be developed in the near term. It is also agreed that the infrastructure needed to facilitate discharge of treated wastewater to the environment needs to be constructed before water levels in the Springer Pit reach the 1030m elevation. However, this work should not be part of the long-term water management planning process or constrained by the Application for amendment of permits for return to restricted operations. Rather, this essential work should be initiated immediately and support an amendment of the *EMA* permit that addresses the need for wastewater discharge only. Other issues related to the return to restructured operations can be addressed subsequently or in parallel.

Please refer to introductory remarks for this item.

As discussed at the RMDRC meetings on March 31, 2015 and April 28, 2015, the MoE and the MEM have indicated that the short-term water management Technical Assessment Report will be required to provide the permittable plan required to make a decision on the return to restricted operations activities in parallel with water management requirements.

The proposed criteria for evaluating discharge options may represent some of the criteria that need to be established to support evaluation of long-term discharge options. However, the five criteria identified should not be considered to provide the necessary and sufficient basis for evaluating discharge options.

Please refer to introductory remarks for this item.

Criteria for evaluating discharge options were reviewed during the May 8, 2015 Options Analysis meeting. As presented in the summary from this meeting, *Summary and Outcome of the May 8, 2015 Options Analysis* as provided by Golder on May 15, 2015 (referring to the Options Analysis meeting held on May 8, 2015), the intent of the process was to support a decision, not to make a definitive decision, and that the value of the process lies in the discussion of each criterion, whereby all stakeholders give their views regarding each option.

As noted previously, wastewater discharges to Polley Lake, Hazeltine Creek, and Edney Creek should be avoided in so far as they have high ecological value and severely limited capacity to absorb potential wastewater discharges. Discharges of wastewater to any of these water bodies would degrade water quality conditions and put critical sockeye salmon rearing habitat in Quesnel Lake at risk. As stated earlier, we expect that a thorough analysis of the impacts of discharging to Quesnel Lake and to Quesnel River will be undertaken in the development of the TAR.

As per the discussions at the May 8, 2015 Option Analysis meeting, the engineered channel constructed in Hazeltine Creek is anticipated to be adequate for conveyance of water to Quesnel Lake via open channel flow. Given that, in the short-term, Hazeltine Creek is not fish habitat, contrary to the above statement. Polley Lake is not accessible to sockeye salmon for rearing and Hazeltine Creek was not previously significant for sockeye rearing because juvenile sockeye rear in lakes. The Hazeltine Creek open-channel flow is not viable in the long-term, when it is fish habitat and; thus, this short-term water management strategy would no longer be appropriate. Edney Creek does not have sufficient hydraulic capacity. The only water bodies suitable for long-term discharge are Quesnel Lake and Quesnel River and these are the only options being considered for the long term.

Impacts to discharging will be included in the TAR for the short- term water management plans.

MONITORING PLAN 7.0

There is a need to develop a long-term water monitoring plan that will guide the collection of water quality and quantity data at the site. At minimum, three monitoring programs will be required, including:

Surveillance Network Program (SNP) - This program is required to provide data and information on water quality and quantity for all the on-site sources. Effluent monitoring may be included in the SNP or AEMP.

Aquatic Effects Monitoring Program (AEMP) - This program is required to provide data and information on effluent quality/quantity, water quality/quantity, sediment quality, tissue quality, and biological integrity in the vicinity of the site. This information is needed to evaluate project-related effects and to guide adaptive management at site.

Environmental Effects Monitoring (EEM) Program - This program is required to fulfill federal requirements under the Metal Mining Effluent Regulations.

It is essential that appropriate baseline data be collected in the vicinity of the proposed discharge(s) to facilitate evaluation of project-related effects.

MPMC collects data and information on water quality and quantity for on-site sources as required under the MEM (M-200 Permit) and the MoE (Permit 11678) requirements and additional monitoring completed by MPMC. In addition, there is monitoring that is taking place and will continue to take place in connection with the TSF foundation failure. Monitoring to address the changes associated with an effluent permit amendment and monitoring as required by the MMER will also be undertaken. MPMC expects that a monitoring framework, consistent with BC and federal requirements will be followed as part of discharge.

SCHEDULE 8.0

The Schedule should be supplemented with the estimated sequencing of all Permits and with the key points of collaboration with the Williams Lake Indian Band.

A revised schedule was provided as part of the April 30, 2015 issuance of these response comments.

Date: April 12, 2015 (Received via E-mail April 24, 2015)

Correspondence: Report (Review and Comment on Mount Polley Re-Opening Application and Water Management Plan, 20 March 2015)

Source: Williams Lake Indian Band/Xat'sull First Nation (Kirk Dressler)

Author: James R. Kuipers, P.E. (Kuipers and Associates)

These comments were provided to the Williams Lake Indian Band as dated on April 12, 2015, but were not supplied as part of permit response until April 24, 2015. As such, many of the information requests and clarifications have since been provided and discussed through the RMDRC, issuance of the April 30, 2015 version of this document and through other presentations and documents provided.

Additionally, the Williams Lake Indian Band and the Xat'sull First Nation, in providing these comments, noted that they were drafted prior to James Kuipers' knowledge that a TAR was being drafted by MPMC.

Items

Mount Polley Mine Re-Opening Application

General Comment

The application suggests that tailings would be removed from Springer Pit to an as yet to be determined location to accommodate future mining. For this reason the description should be changed to "temporarily deposited". However, this suggests that overall the environmental as well as economic impacts of the proposed short-term action to resume mining cannot be determined without identification of future/permanent TSF.

This also confirms the "temporary" nature of the tailings deposition in the Springer Pit. In order for the PAG waste rock to be disposed subaqueously the tailings would need to be removed and stored in a permanent TSF which has not been identified in this proposal. This would appear to make this application contingent on identification of the permanent TSF location. Given the re-use of the existing TSF or identification and use of an alternative is a significant undertaking that has yet to be undertaken, this suggests that the re-opening application itself is premature without MPMC having performed this undertaking.

Although it is the intention of MPMC to return Mount Polley to full operation, as outlined in the application, the total tailings tonnages proposed for mining under
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restricted operations acknowledges a scenario in which the mine does not operate past the restricted operations phase; ensuring that there is sufficient storage in the Springer Pit for the would-be volume of deposited tailings, combined with the required storage volume for the projected Temporary Northwest PAG Stockpile volumes (existing on site in addition to that projected to be mined during restricted operations). This storage capacity in the Springer Pit also provides adequate water cover for subaqueous disposal of the PAG, as outlined in the April 30, 2015 issuance of these comments.

Tailings would not require removal from the Springer Pit to facilitate subaqueous disposal of PAG rock, and, as such, no additional TSF or alternative use is required. The return to restricted operations makes no assumption about the future use of the existing TSF.

Only if Mount Polley mine was to operate past the restricted operation stage, with resumed operations in the Springer Pit, would tailings material be removed from Springer Pit for storage; this is understood to require a subsequent *Mines Act* permit (M-200) amendment application by MPMC, and is not proposed, or necessary, under the conditions of the return to restricted operations.

The re-opening application incorporates the TSF Embankment buttressing activities intended for "...any future use of the TSF or for the closure of the TSF in its existing state." However, it does not describe those activities and the future permanent storage of tailings from the proposed action as well as any future actions requires identification and evaluation of a permanent TSF facility.

Some critical questions arise that include the following: How will the embankment design be determined relative to future use or closure in its existing state using waste rock generated from mine re-opening?

As described in the April 30, 2015 issuance of this response document, TSF site investigation work was completed in April 2015 and involved drilling along the Perimeter Embankment, Main Embankment and South Embankment.

Site investigation data, as available, will be interpreted to complete stability analyses for the Main Embankment and South Embankments and evaluate any buttressing required under current site conditions. Buttress designs (if required), once completed by the Engineer of Record, will be submitted to the MEM as a separate amendment application under the *Mines Act* (M-200) permit. It is anticipated that such designs would be submitted in late May or early June of 2015 as an application independent of the Return to Restricted Operations M-200 Permit Amendment Application.

Although it is the intention of MPMC to return Mount Polley to full operation, as outlined in the application, no assumptions have been made about the future use of the TSF at this time. It is understood that if Mount Polley mine was to operate past the restricted operation stage, with deposition of tailings into this, or another TSF; this would

require a subsequent *Mines Act* permit (M-200) amendment application by MPMC. This is not proposed, nor necessary, under the conditions of the return to restricted operations.

How will this be done without a reclamation and closure plan specifically for the TSF in its existing state as well as potential re-use scenarios?

Site investigation data, as available, will be interpreted to complete stability analyses for the Main Embankment and South Embankments and evaluate any buttressing required under current site conditions. Although it is the intention of MPMC to return Mount Polley to full operation, as outlined in the application, no assumptions have been made about the future use of the TSF at this time. An updated Reclamation and Closure Plan is required for submission by September 30, 2015.

I recommend that any future embankment construction on the existing TSF incorporate slopes consistent with closure design requirements including for the existing and future scenarios when compatible.

It is premature for MPMC to be able to comment on the compatibility of existing and future TSF construction at this time, prior to receipt of design for the existing TSF and understanding of the future use of the TSF (and to a greater extent the site as a whole).

MPMC will continue to work with its Engineer of Record for the TSF and its Independent Engineering Review Panel to confirm that the design and operation of the TSF is consistent with industry guidelines of best practice and to identify areas where risk reduction may be required.

As acknowledged in the application, the “likely site conditions” are highly uncertain at this time. However, it is the responsibility of the MEM under sections 10 (4) and 10 (5) of the *British Columbia Mines Act* to require adequate financial security under the existing conditions for the entire mine site as well as for the area requiring remediation from the TSF breach. Therefore, it can be reasoned that an updated Reclamation and Closure Plan (RCP) and Financial Security reflecting the current site conditions and consistent with current best technology and practice should be a requirement prior to any re-opening activities. The RCP and security should also be updated, on or before September 30, 2015, to reflect conditions at the end of the re-opening activities as one scenario, and at the end of all planned mining as another scenario.

As outlined in responses provided to the MEM comments as part of the April 30, 2015 issuance of this document, MPMC has provided an update on the status of the RCP in advance of the formal submission scheduled for September 30, 2015. As part of that same issuance of this document, MPMC also plans to submit a Closure Management Manual to the MEM by May 27, 2015. Updated Financial Security, based on current site conditions, has also been provided to the MEM.

Section 2 Mine Plan

Resumption of timing of milling should not be at the discretion of MPMC, but rather should be conditional and require that MPMC demonstrate both implementation of a short-term plan to address the potential for unauthorized discharges prior to resumption of milling, and development of a long-term plan to address site water management under multiple potential scenarios as previously recommended.

As outlined above, these comments were made before the author was aware that MPMC was drafting a TAR for short-term water management.

As discussed at the RMDRC meetings on March 31, 2015 and April 28, 2015, the MoE and the MEM have indicated that a ‘permittable’ short-term water management TAR will provide the required supporting information and confidence to make a decision on the return to restricted operations activities.

Some questions arise that are not answered in the application. For example, are we correct to assume that low-grade ore stockpiled in the Cariboo Stockpile is primarily PAG that, depending on copper grade, may be classified as either low grade ore or PAG waste? How is the potential that the low-grade stockpile will not be milled but left in place following completion of short-term or long-term mining addressed in the existing reclamation and closure plan or in the financial security?

As outlined in responses provided to the MEM comments as part of the April 30, 2015 issuance of this document, the stockpile described in this application is; in fact, a “high-grade” stockpile as defined in previous documents. The material which will be stockpiled displays clear positive economic value, as all current stockpiles at Mount Polley do. The terminology selected perhaps should have been “lower” grade ore. Ore placed into this stockpile during the period of restricted operations will be sampled for acid rock drainage (ARD) potential by performing one ABA test per every 20,000 tonnes stockpiled. A program for assessing the metal leaching potential for ore stockpiled will be developed with the support of a Qualified Professional.

A review of existing stockpiles will be performed with the intention of characterizing their metal leaching and ARD potentials. A program for rectifying any data deficiencies will be created with the support of a Qualified Professional. Contingency planning for the scenario in which the material would not be processed will be informed by the judgement of a Qualified Professional using the results of a completed stockpile review and general site geochemical conditions for reference. An update on this program for characterization will be provided to the MEM by May 23, 2015.

Section 2.2 Mining - Underground

Additional information needs to be provided to explain what makes the underground ore of “heightened importance”. This is one of the few places where MPMC possibly infers its motivation is to “high-grade” the mine for cash-flow purposes. MPMC also needs to

explain how not having this high-grade source in future operations as compared to pre-breach operations will not result in future operations being less likely or long-lived.

Throughout the entire history of Mount Polley, underground ore has only been available to the mill in significant quantities for two (2) months. The current reserve base for the underground operation at Mount Polley constitutes less than one and one-half years of production at 1,000 tonnes per day (less than 5% of mill throughput under normal operations). This production was not planned at the time when mine-life expectancy and the related reserve base was increased in 2012, and therefore is not necessary for the viability of this reserve base. The reason that the underground ore will have heightened performance during the period of restricted operations is that the higher grades will help to offset the higher unit operating costs and high capital costs associated with the restricted operating phase. These higher costs are a result of reduced economies of scale, unused capacity in the processing plant, and construction requirements at the TSF.

The applicant should consider using Springer Pit as the source of mill water as an option. This may maximize the benefits of milling on pit lake water quality prior to discharge by providing greater mixing and possibly other benefits within the pit lake. An option under this alternative would be to utilize a tailings thickener and further treat (filter for TSS) and discharge the thickener overflow while using Springer Pit as mill water. However, it should be kept in mind that both of these options are contingent on mill operations and should not be considered as primary treatment options for short-term or long-term discharges. At the same time, use of the existing mill facilities to be operated to accomplish water treatment without milling should be considered as a short-term measure to address imminent discharges which once accomplished could then allow for transition to milling and water treatment in a combined mode with the same measures available once milling is discontinued as a temporary or short-term water treatment scenario.

The discussion of possible water management and water treatment options is appreciated and forms part of site considerations.

Section 3 Short-Term Water Management

The modeling and scheduling should first be done without the resumption of milling but with the implementation of short-term water treatment and discharge provisions and then the appropriate time to resume milling (e.g. when discharges exceed rate at which overall water balance on site is achieved) can be determined.

Since the submission of these comments, significant sensitivity analysis has been provided on operational and water discharge timelines. Such analyses have been presented during RMDRC meetings, during the Options Analysis workshop, and in the first issuance of these response comments.

The geochemistry evaluation for the Springer Pit lake during filling has yet to be completed. While the evaluation may in fact show that groundwater will not play a

significant role in Springer Pit filling rates or in pit lake chemistry, the statement is not presently supported by facts.

Since the submission of these comments, significant information on Springer Pit Lake formation, groundwater influence and water chemistry (and corresponding influence on Bootjack Lake) has been provided. Such information has been presented during RMDRC meetings, during the Options Analysis workshop, and in the first issuance of these response comments.

The comparisons we have seen between actual pit lakes filling and expected filling show a gap which is most likely due to interstitial water draining from the tailings inside the TSF. The model has not been corrected for draining and while it has been suggested that a draindown analysis be performed, it has not been provided or incorporated.

The correction of the water balance model for the interstitial water draining from the tailings inside the TSF was provided in the April 30, 2015 issuance of this document.

Use of the 1030m benchmark for discharge leaves no margin for safety or for potential errors in the estimate. While we believe the 1030m level is based on competent professional practice, we question whether it is appropriate as the regulatory benchmark and would suggest that a lower level of 1025m be used in order to provide an adequate margin of safety so as to actually prevent any discharge. In making this suggestion it should be noted that establishment of this lower threshold would result in the need for immediate water treatment and discharge measures to be established more quickly, and at the same time would result in even more exacerbation of the present circumstances were milling to resume in June 2015.

Since the submission of these comments, significant information of Springer Pit Lake formation, groundwater influence and water chemistry (and corresponding influence on Bootjack Lake) has been provided. Additionally, information on proposed groundwater monitoring programs and installation of additional groundwater wells has been provided.

Such information has been presented during RMDRC meetings, during the Options Analysis workshop, and in the first issuance of these response comments.

Since the submission of these comments, a Technical Memorandum, *Assessment of Groundwater Seepage Outflows from Springer Pit to Bootjack Lake at the Mount Polley Mine, BC* was prepared by Golder, and provided to attendees of the Options Analysis meeting held on May 8, 2015, which included representatives of the Williams Lake Indian Band and Xat'sull First Nation, including an author of this *Technical Review Comments Summary*. A copy of this Technical Memorandum is provided as, "Outflow Seepage Springer Pit to Bootjack.pdf".

This Technical Memorandum models groundwater seepage to Bootjack Lake from the Springer Pit under scenarios of restricted start-up and no dewatering (i.e., the Springer Pit fills to the overflow elevation of 1050m until December, 2016); the technical

memorandum concluded that, “no constituent concentrations were predicted to be greater than the BC WQG in either scenario, therefore, adverse effects to aquatic life are not anticipated). Additionally, laboratory tests conducted on untreated water collected from Springer pit in November 2014 and March 2015, showed no acute toxicity to rainbow trout or the water flea *Daphnia magna* (a sensitive crustacean) in untreated and undiluted Springer Pit water. These tests support the conclusion that significant adverse effects to aquatic life are not anticipated under either scenario.”

Section 3.5 Groundwater Monitoring

Anomalous water elevation or water chemistry results would indicate a discharge at a lower elevation than predicted. The question arises as to what impact in terms of responding to an anomalous situation additional monitoring would provide. It would appear from the information provided that in such an event the only mitigation would be to cease discharging into the Springer Pit, however, there appear to be no contingency options other than just to monitor the discharge and attempt to lower the pit lake level. Additional discussion should be provided relative to this and other contingencies that need to be identified and addressed, prior to permit approval, and not as a deliverable post-approval.

There will also be approximately 2 Mm³ of contingency capacity in the repaired TSF. This contingency could be used to enable additional time to develop options in the event that an anomalous monitoring reading results from the Springer Pit. Any temporary or emergency use of the TSF for water storage would have to be authorized by the MoE and the MEM through an approval process.

The application would benefit by providing additional description of how the documents [Return to Restricted Operations Application and Water Management Plan] are intended to mesh including in terms of scheduling and outcomes so as to better understand how short-term discharge permitting, implementation of water management and treatment capacity can be accomplished so as to ensure that addition of tailings to the Springer Put would not increase the potential for an unpermitted discharge.

Since the submission of these comments, during the RMDRC meeting on April 28, 2015 and within the April 30, 2015 issuance of this document an updated schedule and process slides were provided.

Section 4 Potential Influence on Existing Closure Plans

Regardless of the re-opening application, an updated Reclamation and Closure Plan has been urgently required to ensure that liability for the currently existing site situation remains with the project operator and not potentially with the government and ultimately taxpayers.

As outlined in responses provided to the MEM comments as part of the April 30, 2015 issuance of this document, MPMC has provided an update on the status of the RCP in advance of the formal submission scheduled for September 30, 2015. As part of that same issuance of this document, MPMC also plans to submit a Closure Management Manual to the MEM by May 27, 2015. Updated Financial Security, based on current site conditions, has also been provided to the MEM.

Section 5 Consequences for Reserve Viability

As the economic value of the reserve is dependent on the price of copper and gold, what is the anticipated price that would be needed to warrant the effort to remove the tailings in the Springer Pit? This is important because if the current price of copper would not support that effort then it is possible if not likely that the tailings will remain in the pit and that a temporary closure extending for an indefinite period of time.

The economic value of the reserve will not be significantly affected by the addition of tailings to the Springer Pit because the mass of material which will be placed there, should the full allowable amount be utilized, would not be significant relative to the waste stripping requirements which are already associated with the reserve. For example, the existing reserve base requires approximately 250,000,000 tonnes of waste materials to be moved. When compared against this amount, the 4,000,000 tonnes of tailings which could be placed in the pit are not expected to significantly change the economics of the property.

Although it is the intention of MPMC to return Mount Polley to full operation, as outlined in the application, the total tailings tonnages proposed for mining under restricted operations acknowledge a scenario in which the mine does not operate past the restricted operations phase; ensuring that there is sufficient storage in the Springer Pit for the would-be volume of deposited tailings, combined with the required storage volume for the projected Temporary Northwest PAG Stockpile volumes (existing on site in addition to that projected to be mined during restricted operations). This storage capacity in the Springer Pit also provides adequate water cover for subaqueous disposal of the PAG, as outlined in the April 30, 2015 issuance of these comments.

Section 6.1 Buttressing Requirements for a Repaired TSF

The discussion should be limited to the need to utilize NAG waste rock from re-opening and avoid discussion of any anticipated re-use of the TSF. Discussion of any potential re-use is highlight premature at this time and the result of it being included in this discussion is that it will likely be seen as a connected action and therefore something that must be resolved prior to re-opening. In addition, the suggestion of the re-sure of the TSF is contradicted statements in the WMP which suggest that future re-use of the TSF in a water holding mode is unlikely.

Site investigation data, as available, will be interpreted to complete stability analyses for the Main Embankment and South Embankments and evaluate any buttressing required

under current site conditions. Although it is the intention of MPMC to return Mount Polley to full operation, as outlined in the application, no assumptions have been made about the future use of the TSF at this time.

It is understood that if Mount Polley mine was to operate past the restricted operation stage, with deposition of tailings into this, or another TSF; this would require a subsequent *Mines Act* permit (M-200) amendment application by MPMC. This is not proposed, nor necessary, under the conditions of the return to restricted operations.

MPMC will continue to work with its Engineer of Record for the TSF and its Independent Engineering Review Panel to confirm that the design and operation of the TSF is consistent with industry guidelines of best practice and to identify areas where risk reduction may be required.

Approach to Long-Term Water Management Plan Development (WMP)

Section 1.0

According to the WMP a permit amendment was issued in 2010 for discharge to Hazeltine Creek and subsequently MPMC proposed an interim measure using a RO plant with discharge of treated water to Polley Lake. Why weren't these measures previously implemented?

The Hazeltine Creek discharge was implemented and operational and the interim measure using an RO Plant was in the permitting stage at the time of the breach.

Why aren't these measures, which already are permitted and/or have advanced designs, being implemented as short-term measures? While discharge to Hazeltine Creek does not provide adequate capacity by itself and RO is not a long-term solution, if they could be implemented rapidly and draw from Springer Lake, then they should both be considered for immediate implementation.

Both discharge to Hazeltine Creek and use of an RO Plant were considered in options analysis for short-term water management.

The Hazeltine Creek discharge reported to Hazeltine Creek and was only authorized to discharge dam filtered (TSF drain) water; thus, is no longer operational post-breach.

The RO Plant was being permitted as an interim water management measure, and was not operational at the time of the breach. As discussed throughout the water management planning process, operation of an RO Plant is not viewed as an appropriate technology in the short term as, among other deterrents, the RO relied on having independent brine and source water locations to operate; thus, with only one (1) water storage location on site, brine would have to be recycled to the source water (Springer Pit).

Section 2.0

We would argue that short-term measures as necessary must be taken, and that while ideally they should fit within the context of a long-term vision, that is contingent on long-term planning, and under the current circumstances short-term measures are required as necessary and alternatives must be considered which may not fit within the context of long-term vision.

Please refer to introductory remarks for this item.

As discussed during the May 8, 2015 Option Analysis meeting, short-term water management does not reflect final long-term water management, but some considerations should be made understanding the long-term water management planning process. For example, during this meeting, there was general agreement that it would be imprudent to proceed with either of the Quesnel River or Quesnel Lake options for the short-term discharge, as once the infrastructure is installed for either of these discharge locations, the capital expenditure would be of a magnitude that would preclude an alternate option.

The WMP development document should have provided a detailed plan for consultation showing key opportunities and milestones. It should be noted that only limited meetings between the First Nations, other parties and Golder have taken place to date. Without a clear and robust consultation plan and schedule, as well as capacity to participate by the First Nations and their advisors, it would appear that Golder's proposal in this regard is not being filled.

As noted above, these comments were provided early in the review process prior to significant planning of the TAR and subsequent discussion. Since the submission of these comments, there have been First Nation community meetings, an RMDRC update meeting, regularly scheduled Implementation Committee meetings, provision of a formal RMDRC response document, specific technical workshops, an Options Analysis meeting, community meetings and public meetings, among other opportunities, for participation. The consultation that has been undertaken considerably exceeds statutory requirements and MPMC feel that there has been considerable openness and transparency.

Section 2.2.1 Existing Condition

The existing condition scenario should extend until the current post-breach water management achieves a net negative water balance. This means that with respect to potential discharges under the existing conditions, adequate water treatment and discharge capacity must be permitted, implemented and operating so as to prevent a future unregulated discharge under any future scenario. Therefore the existing condition must be addressed and mitigation adequately achieved prior to resumed operations.

Please refer to introductory remarks for this item.

As outlined above, these comments were made before the author was aware that MPMC was drafting a TAR for short-term water management.

As discussed at the RMDRC meetings on March 31, 2015 and April 28, 2015, the MoE and the MEM have indicated that a ‘permissible’ short-term water management TAR will provide the required supporting information and confidence to make a decision on the return to restricted operations activities.

Section 2.2.3 Resumed Operations

The assumption of commissioning of a re-built TSF is premature. While this may be possible, we would similarly note the Minister’s panel recommendation which actually suggests that wet tailings facilities not be used and instead alternative best technology such as dry stack tailings be used in the future. Given the circumstances we believe any suggestion of re-opening the TSF will require a complete and thorough vetting of alternatives such as converting to dry stack tailings, converting to paste tailings, and in both cases potentially utilizing the existing TSF in conjunction with those alternatives or constructing a new TSF using those alternatives. We would otherwise agree that under any present or future scenario no site contact water including that collected within the TSF other than that for a minimal period of time should be stored in the TSF.

It is understood that if Mount Polley mine was to operate past the restricted operation stage, with deposition of tailings into this, or another TSF; this would require a subsequent *Mines Act* permit (M-200) amendment application by MPMC. This is not proposed, nor necessary, under the conditions of the return to restricted operations.

MPMC will continue to work with its Engineer of Record and its Independent Engineering Review Panel to confirm that the design and operation of the existing (or any future) TSF is consistent with industry guidelines of best practice and to identify areas where risk reduction may be required.

Section 2.2.4 Resumed Operations

The WMP should also consider a “Temporary Closure” phase which might result between Restricted Start-up and Resumed Operations as well as at any other time in the future such as during a catastrophic or other unplanned event such as company bankruptcy.

As outlined above, these comments were made before the author was aware that MPMC was drafting a TAR for short-term water management.

Section 2.3.1 Restricted Restart Permit

We hope MEM and MoE have since realized that rather than treating it as a “contingency” prior to the processing of a restart application a short-term water

management plan must be similarly processed to address the existing condition as well as future conditions such as for restricted restart.

Please refer to introductory remarks for this item.

Section 2.3.2 Effluent Permit and Short-Term Contingency

In the same manner, under the short-term existing condition scenario, it has been and continues to be possible to utilize the existing mill infrastructure to add lime and conduct water treatment operations without the restricted restart permit. While the operations would be ancillary to milling operations, this does not preclude the mill facilities (e.g. lime slaker, mixing tanks, thickener) from being utilized ahead of milling operations to achieve reasonable existing conditions (e.g. net negative water balance).

The discussion of possible water management and water treatment options is appreciated and forms part of site considerations.

Section 3.2.1 Water Quantity Module

We recommend that ongoing/long-term draindown water from the tailings within the TSF be included as an input in the WBM. However, in doing so we recognize that by this time it may not be a significant contributor. But given the apparent discrepancy in existing models and actual pit water volume that can be likely accounted for by tailings draindown since the breach and subsequent capture was established, including long-term draindown would ensure that future models were more accurate.

The correction of the water balance model for the interstitial water draining from the tailings inside the TSF was provided in the April 30, 2015 issuance of this document.

Section 4.3.3 Effluent Conveyancing and Discharge (Short Term)

As discussed, we recommend that in addition to Hazeltine Creek and Quesnel Lake, discharge into the Quesnel River should also be considered as a short-term discharge option. We also recommend that multiple or staged discharges be considered in the short-term.

As suggested, Quesnel River was one of the options considered for short-term discharge.

During the Options Analysis meeting held on May 8, 2015, we inferred general agreement that it would be imprudent to proceed with either discharge to Quesnel Lake via pipe and diffuser or Quesnel River via pipe and diffuser for the short-term discharge, because once the infrastructure is installed for either of these discharge locations, the capital expenditure would be of a magnitude that would preclude an alternate option. Therefore, a discharge to Hazeltine Creek is the most viable short-term solution because it will not require extensive infrastructure that will bind a long-term option, and it will afford the time for sufficiently detailed studies of the other two (2) options to clearly identify which is the best overall for a long-term discharge.

Discharge to Quesnel River would have the highest complexity to overcome in the short term and has a number of technical issues to resolve.

Table 3: Summary of Criteria for Evaluating Discharge Options

An option that should be considered in the event water levels rise to the 1030m elevation would be to continue to pump from the TSF to Springer Pit and cause an emergency overflow/discharge from Springer Pit in order to bypass or overflow the TSF.

It is MPMC's intention to operate the Springer Pit below the 1030m elevation, which will require an authorization to discharge water from site in the short-term. In the event that there are delays in the short-term water management authorizations, there will be approximately 2 Mm³ of contingency capacity in the repaired TSF. This contingency is geotechnically suitable and would enable additional time to develop these options in the event that monitoring indicates Springer Pit is approaching the 1030 m elevation. Any temporary or emergency use of the TSF for water storage would have to be authorized by the MoE and the MEM through an approval process.

7.0 Monitoring Plan

Consultations with FNs and MEM and MoE should take place with respect to evaluation of the water models and establishment of additional monitoring stations as may be needed to either improve upon or validate the model.

As noted above, these comments were provided early in the review process prior to significant planning of the TAR and subsequent discussion of the water balance, water models and water monitoring locations.

Since the submission of these comments, there have been First Nation community meetings, an RMDRC update meeting, regularly scheduled Implementation Committee meetings, provision of a formal RMDRC response document, the Options Analysis meeting, community meetings and public meetings, among other instances in which the evaluation of the water models and monitoring programs have been reviewed with FNs, the MEM, the MoE, local community representatives, regulators and other stakeholders.

8.0 Schedule

The draft project schedule is helpful but needs to be more thoroughly described and linked to the existing conditions/contingency/short-term permit and restricted opening as well as long-term permit requirements relative to both discharge and resumption of full operations. In addition, the schedule should identify key consultation opportunities and milestones with First Nations, local communities and agencies.

Since the submission of these comments, during the RMDRC meeting on April 28, 2015 and within the April 30, 2015 issuance of this document an updated schedule and process slides were provided.

Date: May 7, 2015 (Received via E-mail May 8, 2015)

Correspondence: Letter (Re: ME response to RMDRC Comment Tracking for Mount Polley Mine Return to Restricted Operations Application.)

Source: Ministry of Energy and Mines (Tania Demchuk)

Author: Tania Demchuk

Items

1. In the response, dated April 30, 2015, MPMC has indicated that responses to a number of questions from MEM will be submitted throughout the month of May as follows:
 - Updated mine plans for the Cariboo Pit and underground operations: May 23, 2015 (depending on permitting timelines)
 - A procedure for “Working Safely Near Water”, that has been approved by the MPMC Joint Occupational Health and Safety Committee: May 28, 2015
 - An updated program for geochemical characterization of stockpiled ore: May 23, 2015
 - Mass-balance assessment of pit lake water quality and potential for effects on water quality in Bootjack Lake: May 13, 2015
 - An updated OMS manual, including water flow and quality monitoring on the mine site: May 11, 2015
 - Closure Management Manual: May 27, 2015
 - Updated reclamation liability costing: May 15, 2015
 - Technical Assessment Report: May 29, 2015

The above documents and responses will form an integral part of the application review process for the return to restricted operations and when these documents are received they will be reviewed to assess adequacy and information any additional comments or recommended permit conditions. (Comment)

Correct, the documents and submission timelines reflect those provided in the April 30, 2015 issuance of this document. Since the submission of these comments, the following has been provided to the MEM:

- Mass-Balance assessment of pit lake water quality and potential for effects on water quality in Bootjack Lake (May 8, 2015)
- An updated OMS Manual, including water flow and quality monitoring on the mine site (May 11, 2015)

- Updated reclamation liability costing (May 14, 2015)
- A procedure for “Working Safely Near Water”, that has been approved by the MPMC Joint Occupational Health and Safety Committee (May 21, 2015)
- Updated Mine plans for the Cariboo Pit and underground operations (May 21, 2015)

2. It is understood that a standalone application for additional buttressing of the TSF embankments (if required based on results of recent foundation condition drilling) will be submitted to MEM in late May or early June for review and approval. (Comment)

This is correct.

3. It is expected that the updated program for geochemical characterization of stockpiled ore, to be submitted by May 23, 2015, will include a discussion of contingency planning informed by the judgement of a qualified professional with experience in the development of such plans. (Information Requirement)

As outlined in the April 30, 2015 issuance of this document, an update on the program for characterization of ore stockpiles will be provided by May 23, 2015. This program (and corresponding update) will include discussion of contingency planning informed by the judgement of a qualified professional.

4. It is understood that MPMC evaluates water management on-site to meet site requirements and that MPMC is working with Golder to model existing site water management structure under various conditions. Based on these evaluation and modeling exercises, please provide conclusive information regarding the capacities of the all of the water management structures on-site (i.e., what is the range of flow conditions that can be safely conveyed/stored for each structure). Using this information in the context of current water management needs for the site, please identify improvements that should be made to ensure that physical integrity of the structures is maintained (i.e., is the capacity sufficient to address current site conditions) and water quality is optimized (i.e., sediment entrainment and delivery is minimized). (Information Requirement)

The GoldSim model currently being refined by Golder for the Mount Polley site will be used to fulfill this information requirement. Given the current water management uncertainties while a short-term water management and discharge strategy is being developed and approved, as well as the potential for operational changes on site, MPMC plans to conduct the evaluation and modelling exercises when the path forward is more certain.

Given that the 2015 freshet and associated high flow conditions have already occurred, this work is planned for the upcoming low flow months prior to 2016 freshet and updates will be included in an OMS Manual update.

MPMC will continue to use on-site guidance documents such as the OMS Manual, Water Management Inspection Manual and the Erosion and Sediment Control Plan to support evaluation of the efficacy of water management systems and in the identification of possible improvements.

5. The Erosion and Sediment Control Plan update was received by MEM on May 5, 2015. These documents are now under review and follow-up comments will be provided if required. Preliminary review indicates the plan has incorporated MEM's comments and is improved from the previous version reviewed. Permit conditions will be included to address erosion and sediment control considerations, including annual plan revision to incorporate adaptive management learnings, freshet preparedness, and reporting of significant sediment releases. (Permit Conditions).

Noted. MPMC looks forward to receiving follow-up comments on the Erosion and Sediment Control Plan from the MEM. MPMC suggests that incorporation of some comments, where appropriate, into an update to the plan may have greater operational benefit in lieu of permit conditions.

6. As per previous comments and discussions at the Mine Development Review Committee meeting and summarized in previous review comments, the receipt and review of the Technical Assessment Report for short-term water discharge, and the determination that the information is acceptable to move into review, is critical to the ability to continue moving forward with the application for restricted restart of operations. (Comment)

Noted. It is anticipated that the TAR will be provided by May 29, 2015.

7. Please refer to the attachment for additional comments from Lorax Environmental. Your detailed response to these is requested.

Responses as included herein.

Date: May 5, 2015 (Received via E-mail May 8, 2015)

Correspondence: Memorandum (Mount Polley Limited Restart Permit Application Review)

Source: MEM/MoE (Tania Demchuk)

Author: Lorax Environmental

Items

1. **(Comment)** MPMC states that they will provide the following documents, relevant to Lorax's review, to the MDRC by the end of May 2015:
 - a. Updated water flow and quality monitoring OMS Manual sections will be provided by May 11, 2015.
 - b. Springer Pit water quality predictions and impact assessment on Bootjack Lake by May 13, 2015.
 - c. *Environmental Management Act* effluent discharge TAR to be provided by May 29, 2015.

These documents will form an integral part of the application and are required to fill outstanding information requirements relating to the *Mines Act* and *Environmental Management Act* permit amendments under present consideration.

Correct, the documents and submission timelines reflect those provided in the April 30, 2015 issuance of this document. Since the submission of these comments, the following has been provided:

- An updated OMS Manual, including water flow and quality monitoring on the mine site (May 11, 2015)
- Mass-Balance assessment of pit lake water quality and potential for effects on water quality in Bootjack Lake (May 8, 2015)

2. **(Comment)** *MPMC-WORK-007 Installing and Benchmarking Staff Gauges* details the procedures to be followed when installing and surveying staff gauges. The procedures listed are suitable and follow industry standard. However, the document outlines a procedure for re-installing a staff gauge if it was removed for the winter. This is generally not recommended, as the removal and re-installation introduces further uncertainty in the consistency of inter-annual measurements of stage-discharge (or level-volume) relationships. Where possible, it is recommended that all staff gauges remain installed year-round.

Noted. MPMC is in agreement and, where possible, leaves staff gauges installed year-round.

3. **(Information Request)** In the responses to reviewer's comments, several references are made to the contingency storage available in the TSF (approximately 2.1 Mm³), as a result of the completion of the 2015 Freshet Embankment. For example, in response to Comment 2. c) from Lorax, MPMC states that "The TSF storage could be used as a contingency in the event that Springer Pit water levels approach critical elevations (i.e., above 1030 m)." Given this statement, the restrictions on storage volume in Springer Pit and the tight timelines, please provide information on:
- The conditions under which the TSF storage capacity may be required;

It is the intent of MPMC to keep the elevation of the water in the Springer Pit below 1030m elevation, understanding that this elevation corresponds to potential for influence of Springer Pit lake water to groundwater. Given that the Springer Pit represents the only available storage location for water on site, this requires a short-term water management strategy (i.e., discharge) such that site contact water is not accumulated past this elevation.

Understanding the timelines over which such a water discharge would need to be permitted and operational, the TSF, repaired to the 950m elevation under the 2015 Freshet Embankment and Perimeter Buttressing design, has an available 2Mm³ of storage.

Outside of freshet, conditions under which the TSF storage capacity may be required are limited to a reasonably unforeseen emergency event. While availability of water storage is decreasing in the Springer Pit, MPMC is actively pursuing a short-term water management and discharge solution that is anticipated to alleviate the potential need for water storage in the TSF.

Any emergency water storage in the TSF would be carried out through an approval process with the MEM and the MoE.

- The sources of water that would report to the TSF (if additional to the sources listed in response to Lorax comment 2.c);

There are no other additional sources of current or planned water inflow into the TSF than those included in the response to the Lorax comment 2. These sources are: direct precipitation; runoff from upstream areas that are downstream of the clean water diversion ditch; and dewatering of exposed tailings.

During emergency storage, as referenced in the comment response above, site contact water from various site systems could be directed into the TSF via the Central Collection Sump.

- c. The plan and potential timing for the routing, treatment and discharge of the water accumulated behind the 2015 Freshet Embankment, and;

All water currently accumulating behind the 2015 Freshet Embankment is being pumped out and transferred to the Springer Pit for storage. Timing and routing for treatment and discharge of water from the Springer Pit are being developed and will be permitted with the short- and long-term water management strategies.

- d. The implications for the storage of the 2016 freshet contact water.

All water currently accumulating behind the 2015 Freshet Embankment is being pumped out and transferred to the Springer Pit for storage.

As per the existing M-200 Permit, a permit amendment is required for operation of the TSF for water management beyond December 17, 2015. Management of 2016 freshet contact water will require pursuing such a permit amendment or incorporation into short-term water management (i.e., discharge) permitting.

4. **(Information Request)** MPMC indicates that preliminary transient analyses for selected groundwater modeling scenarios that include pumping water out of Springer Pit have been developed, and that a technical memorandum is under preparation. Please advise when the MDRC should expect to receive this memorandum for review.

Since the submission of these comments, this document has been provided.

5. **(Comment)** Given the importance of the water balance model predictions for the restricted restart permit application and longer-term water management strategies, and the gaps in monitoring data following the TSF breach (*e.g.*, pumped flow volumes per source to Springer Pit), the following recommendations are made:
- Require that all pumping systems that route water from a major site component (*e.g.*, sumps, pits, ditches, *etc.*) be equipped with totalizers.
 - Compile all SOPs related to flow monitoring into a single document for reference by site staff.
 - Engage an appropriately qualified professional to review the monitoring procedures on a regular basis (*e.g.*, every 3 years) to ensure that the consistency and quality of data is maintained.
 - Extend the site water balance model to include the receiving environment water balance for the location of the proposed discharge, as part of the application for the long-term effluent discharge permit.
 - Engage an appropriately qualified third-party professional to review the water balance model on a regular basis (*e.g.*, every 3 years) to ensure that the model remains representative of site water management practices and prevailing climatic conditions.

These suggestions have been noted for evaluation in site water management programs.

6. **(Comment)** Excerpts of updated groundwater modeling results provided by Golder indicate that transient effects (*i.e.*, those induced by filling Springer Pit at a faster rate than the surrounding groundwater levels can equilibrate) will result in higher rates of groundwater seepage from Springer Pit towards Bootjack Lake than previously predicted, and this seepage will be initiated at lower Springer Pit elevations. As the hydraulic containment of mine contact water in Springer Pit depends on soft groundwater divides (rather than hard topographic divides) that are impacted by multiple factors including the rate of Springer Pit filling and local precipitation and infiltration, Lorax recommends that reporting requirements be considered for the Springer Pit Lake elevation and groundwater elevations in the downgradient monitoring wells:
- a. If at any time the water elevation in Springer Pit exceeds the groundwater elevation in any monitoring well between Springer Pit and Bootjack Lake, this must be immediately reported. This report should contain the following:
 - i. all groundwater and Springer Pit water level records for the previous six months in tabular and graphical format;
 - ii. all groundwater and Springer Pit water quality results and required field parameters for the previous six months in tabular and graphical format; and,
 - iii. the plan and timeline to restore containment of groundwater seepage.

Since the submission of these comments, the updated groundwater modeling results have been provided by Golder.

It is recognized that MPMC will be submitting additional monitoring plans with the updated OMS that is scheduled to be submitted on May 11, 2015.

Since the submission of these comments, this document has been provided.

Date: May 8, 2015 (Received via E-mail May 11, 2015)

Correspondence: Likely Chamber of Commerce Comments to CMDRC re: MPMC Restricted Restart Application

Source: Likely Chamber Liaison (Doug Watt)

Author: Doug Watt

It is noted that the original letter is dated May 8, 2015, was provided to the MEM on May 10, 2015, and was provided to MPMC by the MEM on May 11, 2015.

Items

Cold weather well sampling can be problematic at times, but can generally be overcome with proper design and equipment. WQ sampling from wells and surface sites occurs year round in the far north in extremes down to -40C and colder, speaking from personal experience.

This feedback is appreciated.

Given the previous permit conditions of bi-annual sampling, MPMC groundwater well installations and monitoring equipment are not set up for cold weather monitoring. If, based on water quality trends and water level readings indicate that there is an imminent need to sample the wells, appropriate steps will be taken to conduct this monitoring. If the timelines discussed at the MDRC for development of a short-term water discharge solution are followed as planned, this is anticipated to reduce the need for winter sampling.

With regular monthly data analysis and reporting, accelerated response to potential compliance issues is generally fairly quick based on the regular trending analysis and the use of data management software alarm points.

This feedback is noted.

It is a bit disingenuous of MPMC to ask a reviewer to dig down into a 2013 annual report to find out what reagents are used in the Mill operation when discussing water management and WQ issues for restart, particularly considering the excessively thorough job that MPMC did while testing flocculants that were supposed to be considered for use on the HC Settling Ponds.

It was assumed that reviewers had previously been provided copies of or had access to the 2013 Annual Environmental and Reclamation Report. Copies of this report were provided to the Likely and Williams Lake Public Libraries after publication, and MPMC was not aware that these were no longer on file. A copy of the report, “*2013 AERR.pdf*” is attached for reference.

MDRC Correspondence Tracking

Date	Sender	Affiliation	Email Address	Addressed Recipient(s)	CC'd Recipient(s)	Attachment(s)	Subject Title	Summary
2015-04-09	David Weir Water Section Head	FLNRO	David.J.Weir@gov.bc.ca	n/a	Jane Nichol (FLNRO)	n/a	Discharge construction in stream work	The construction of the discharge structure into a water body requires an authorization most likely in the form of a Sec 9 approval and may also require a land act tenure.
2015-04-13	Tania Demchuk	MEM	Tania.Demchuk@gov.bc.ca	Luke Moger Don Parsons		Message: Discharge construction in stream work	FLNRO comments on Restricted Restart and water discharge planning	Attached email from David Weir re: future permitting requirements. Additional information re: application requirements also provided.
2015-04-13	Doug Watt	Likely Chamber Liasion	s.22	Tania Demchuk Rick		PDF: 150413 Preliminary Comments on MPMC Applications	Pre liminary Comments on MPMC App ications	Preliminary Comments on MPMC Applications
2015-04-14	Hubert Bunce A/Director Mount Polley	Environmental Protection Regional Operations	Hubert.Bunce@gov.bc.ca				MoE Comments re Mt Polley tailings deposition application	MoE comments by Brian Yamelst dated April 8 2015. Comments from Hubert Bunce also included.
2015-04-14	Darryl Hussey Oceans and Habitat Management Biologist	Fisheries Protection Program DFO	Darryl.Hussey@dfo-mpo.gc.ca	n/a	Tania Demchuk Adams	n/a	Mount Polley Mine Return to Restricted Operations Application	DFO's comments regarding the submitted documents: "Mount Polley Mine Return to Restricted Operations Revision 1" (Mount Polley Mining Corporation March 20 2013) and "Mount Polley Mine Approach to Long-Term Water Management Plan Development" (Golder Associates March 20 2015).
2015-04-14	Tania Demchuk	MEM	Tania.Demchuk@gov.bc.ca	n/a	n/a	13Apr2015_MEM Restricted Restart Application review comments.pdf 20150413 A385-1 Mount Polley Limited Restart Application - Lorax Review Comments_FINAL_SIGNED.pdf	FW: MEM Restricted Restart Application Review Comments	MEM's Restricted Restart application review comments. Review comments from Lorax Environmental on behalf of MEM and MOE are also attached.
2015-04-15	Ken Amwach Resource Development Agrolgist	Ministry of Agriculture	Ken.Amwach@gov.bc.ca	n/a	Rick Adams	n/a	RE: Mt Polley Return to Restricted Operations: Final Call for First Nations Prov and Fed Regulatory Agency and Community Representative Comments	There will be no comments coming from Agriculture.
2015-04-16	Hubert Bunce A/Director Mount Polley	Environmental Protection Regional Operations	Hubert.Bunce@gov.bc.ca	Luke Moger Don Parsons	Rick Adams	n/a	FW: additional Comments from Brian on MPMC application to date	Additional comments regarding the MPMC's Permit Ammendment Application. Restricted Restart
2015-05-08	Tania Demchuk	Mount Polley Project Manager	Tania.Demchuk@gov.bc.ca	Luke Moger Don Parsons Dale Reimer Steve Robertson Ryan Brown	Hubert Bunce Brian Yamelst Diane Howe Al Hoffman Jennifer McConnachie Rick Adams	Mount Polley Limited Restart Application - Responses_05052015_DRAFT Mount Polley Limited Restart Application - Responses_05052015_Secured 08May2015_MEM_Response to MPMC comment tracking and responses FINAL	MEM follow-up comments re: Restricted Restart permit application review	Comments from MEM and Lorax Environmental to lowing review of the responses from MPMC regarding the application for Restricted Restart of Operations.

Public Correspondence Tracking

Date	Sender	Email Address	Physical Address	Addressed Recipient(s)	CC'd Recipient(s)	Subject Title	Summary	Status	Response
2015-04-09	S.22	S.22	West Vancouver, BC	n/a	Forwarded to S.22	Really, eh?	Writer does not support the re-opening of Mt. Polley and feels that the remediation work is not complete.	con	
2015-04-09			n/a	n/a	n/a	Temporary reopening	Writer is employed by Mt. Polley and supports the re-opening of the mine. States that it will support the local economy and continue with remediation work.	con	
2015-04-09			n/a	n/a	n/a	Mt. Polley permit to reopen	Writer is a geological engineer, and does not support the reopening of the mine due to high risk of another breach resulting from geological conditions and poor company management.	con	
2015-04-09			n/a	n/a	n/a	Fwd Really, eh?	Asks for decision makers to consider future generations, nature and animals before making the decision to re-open.	con	
2015-04-22			n/a		inquiries@imperialmetals.com	Permitting	Writer supports the re-opening of Mt. Polley.	con	
2015-04-22			1517 Juniper St, Williams Lake, BC	n/a	n/a	Mt Polley	Writer supports the re-opening of Mt. Polley.	con	
2015-04-23			n/a	n/a	n/a	Regarding permit to reopen mine	Writer supports the re-opening of Mt. Polley.	con	
2015-04-23			Williams Lake, BC	n/a	n/a	Mt. Polley Mine Permit	Writer supports the re-opening of Mt. Polley.	con	
2015-04-23			Williams Lake, BC	n/a	n/a	Reopening of Mt. Polley Mines	Writer supports the re-opening of Mt. Polley.	con	
2015-04-23			Williams Lake, BC	n/a	n/a	Re-opening	Writer believes Mt. Polley should not be reopened until all concerns have been addressed , including butressing of the dam, proving of water treatment strategies, and having management held accountable for the breach.	con	
2015-04-23			Williams Lake, BC	n/a	n/a	Mount Polley permit process	Writer supports the application for restart if Imperial Metals demonstrates that it understands what must be done to mitigate this situation.	con	
2015-04-23			n/a	n/a	n/a	Mount Polley	Writer supports the reopening of the mine.	con	
			n/a	n/a	n/a	Comment of support for Mount Polley Mine...	Writer attended the community meeting and is satisfied with the information provided for the restricted re-start application. Mt. Polley helps to support his business.	con	
2015-04-24			n/a	n/a	n/a	Mt. Polley Mine	Writer does not support the re-opening of Mt. Polley and mentions that the mine is on unceded Secwepmec territory.	con	
2015-04-24			Williams Lake, BC	n/a	n/a	Mt Polley restart permit	Writer supports restricted re-start application. Mt. Polley helps to support his business.	con	
2015-04-24			n/a	n/a	n/a	Reopening of the Mine	Writer doesn't support the reopening of Mt. Polley for environmental reasons.	con	
2015-04-24			no	n/a	n/a	Imperial Metals - Please stop Mount Polley Reopening	Writer doesn't support the reopening and asks for FN consultation.	con	
2015-04-24			Williams Lake, BC	n/a	n/a	Restart Mt Polley Mine	Writer supports the reopening of the mine.	con	
2015-04-24			n/a	n/a	n/a		Writer works at the mine and supports the reopening	con	
2015-04-24			n/a	n/a	n/a	Open Mount Polley Mine	Writer supports the reopening of the mine for economic reasons	con	
2015-04-24			n/a	n/a	n/a	Mount Polley	Writer doesn't support the reopening, wants to see more clean-up.	con	
2015-04-24			15-4630 Lochside Dr Victoria BC V8Y 2T1	n/a	n/a	Mt Polley Mine permit to reopen	Writer doesn't support the reopening, believes it is premature as criminal investigation is underway and clean-up not complete.	con	
2015-04-24			Portland	n/a	n/a	Mount Polley Permit	Writer doesn't support the reopening due to environmental concerns.	con	
2015-04-25			n/a	Trevena.MLA, Claire F LASS EX	n/a	Please do not open the Mount Polley Mine	Writer doesn't support the reopening due to environmental and FN consultation concerns.	con	flagged

Date	Sender	Email Address	Physical Address	Addressed Recipient(s)	CC'd Recipient(s)	Subject Title	Summary	Status	Response
2015-04-25			Box 569, Station B Happy Valley-Goose Bay, Labrador NL AOP 1E0	n/a	n/a	We are opposed!	Writer doesn't support the reopening due to environmental and FN consultation concerns.	con	flagged
2015-04-25			n/a	n/a	n/a	Mt Polley	Writer doesn't support the reopening due to environmental and FN consultation concerns.	con	flagged
2015-04-25			Williams Lake, BC	n/a	n/a	Comment regarding Mt Polley Permit applications	Writer does business w/ Mt. Polley and supports the restart.	con	
2015-04-25			n/a	n/a	n/a	Say no to Mt Polley Mine Reopening	Writer doesn't believe that IM should continue to operate.	con	
2015-04-25			n/a	Suzanne.Anton.MLA@leg.bc.ca, Dan.Ashton.MLA@leg.bc.ca>, Robin.Austin.MLA@leg.bc.ca, Harry.Bains.MLA@leg.bc.ca, Donna.Barnett.MLA@leg.bc.ca, Bill.Bennett.MLA@leg.bc.ca, Mike.Bernier.MLA@leg.bc.ca, Doug.Bing.MLA@leg.bc.ca, Shirley.Bond.MLA@leg.bc.ca, Stephanie.Cadieux.MLA@leg.bc.ca, chandraherbert.mla@leg.bc.ca, Raj.Chouhan.MLA@leg.bc.ca, Premier@gov.bc.ca, Rich.Coleman.MLA@leg.bc.ca, Katrine.Conroy.MLA@leg.bc.ca, Kathy.Corrigan.MLA@leg.bc.ca, Marc.Dalton.MLA@leg.bc.ca, Judy.Darcy.MLA@leg.bc.ca, Mike.deJong.MLA@leg.bc.ca, Adrian.Dix.MLA@leg.bc.ca, Doug.Donaldson.MLA@leg.bc.ca, David.Eby.MLA@leg.bc.ca, Mable.Elmore.MLA@leg.bc.ca, Mike.Farnworth.MLA@leg.bc.ca, Peter.Fassbender.MLA@leg.bc.ca, Rob.Fleming.MLA@leg.bc.ca, Eric.Foster.MLA@leg.bc.ca, Scott.Fraser.MLA@leg.bc.ca, Sue.Hammell.MLA@leg.bc.ca, Gibson.MLA, Simon.Gibson.MLA@leg.bc.ca, George.Heyman.MLA@leg.bc.ca	n/a	Mt Polley Mine	Writer doesn't support the reopening due to environmental and FN consultation concerns.	con	flagged
2015-05-25			n/a	n/a	Randall.Garrison@parl.gc.ca, Lana.Popham.MLA@leg.bc.ca	Mt Polley ReOpening	Writer doesn't support the reopening due to environmental and FN consultation concerns.	con	flagged
2015-05-25			2021 Panorama Drive North Vancouver V7G 1V2	n/a	Jane.Thornthwaite.MLA@leg.bc.ca, Saxton.A@parl.gc.ca		Writer doesn't support the reopening due to environmental and FN consultation concerns.	con	flagged
2015-04-26			n/a	n/a	n/a	Stop Mount Polley!	Writer doesn't support the reopening due to environmental and FN consultation concerns.	con	
2015-04-26			n/a	n/a	n/a	Stop the Mount Polley Mines	Writer doesn't support the reopening due to environmental and FN consultation concerns.	con	
2015-04-26			n/a	n/a	n/a	Opposition	Writer doesn't support the reopening due to environmental and FN consultation concerns.	con	
2015-04-26			Likely	n/a	Donna.Barnett.MLA@leg.bc.ca, Katrine.Conroy.MLA@leg.bc.ca, Premier@gov.bc.ca, Scott.Fraser.MLA@leg.bc.ca, John.Horgan.MLA@leg.bc.ca		Writer is a resident of Likely and does not support the reopening. She is concerned about the TSF, sickness from the contaminants and lack of disclosure.	con	flagged
2015-04-26			n/a	n/a	n/a	Public Comment	Writer doesn't support the reopening due to environmental and FN consultation concerns.	con	flagged
2015-04-26			n/a	n/a	Donna.Barnett.MLA@leg.bc.ca,Bill.Bennett.MLA@leg.bc.ca, s.chandraherbert.mla@leg.bc.ca, Premier@gov.bc.ca, Katrine.Conroy.MLA@leg.bc.ca, John.Horgan.MLA@leg.bc.ca	I oppose the Mount Polley Re-opening application	Writer is a past employee of the mine and doesn't support the reopening. He is concerned about neglect, pollution and dangerous conditions overlooked by management.	con	flagged
2015-04-26			n/a	n/a	n/a	YES! Restart Mount Polley.	Writer was employed by Mt. Polley and supports the reopening.	con	
2015-04-26			n/a	n/a	n/a	No way to more mines	Writer doesn't support the reopening due to environmental and FN consultation concerns.	con	

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Date	Sender	Email Address	Physical Address	Addressed Recipient(s)	CC'd Recipient(s)	Subject Title	Summary	Status	Response
2015-04-26			n/a	n/a	n/a	Permit application	Writer supports the reopening.	con	
2015-04-27			n/a	n/a	n/a	No new mine!	Writer doesn't support the reopening due to environmental and FN consultation concerns.	con	
2015-04-27			Quesnel Lake	n/a	n/a	Comments regarding the re/opening of Mt Polley Mine	Writer doesn't support the reopening due to environmental, water management, and concerns.	con	flagged
2015-04-27			n/a	n/a	n/a	Do Not reopen Mount Polley Mine til THEY clean up their toxic Pollution	Writer doesn't support the reopening due to environmental and FN consultation concerns.	con	flagged
2015-04-27			n/a	n/a	n/a	You have to be kidding!	Writer doesn't support reopening Mt. Polley	con	
2015-04-27			n/a	inquiries@imperialmetals.com	n/a	Mount Polley Permit Opinion - Accept Permit Application	Writer supports the permit application to support Williams Lake economy	pro	
2015-04-27			n/a	n/a	n/a	Mt polley mine permit	Writer doesn't support the reopening due to environmental and FN consultation concerns.	con	flagged
2015-04-27			n/a	n/a	n/a	Mt Polley Mine Permit	Writer doesn't support the reopening due to environmental and FN consultation concerns.	con	
2015-04-27			n/a	n/a	n/a	NO to allowing Imperial Metals carry on	Writer doesn't believe that clean up has been substantial enough.	con	
2015-04-27			Quesnel Lake	n/a	n/a	Mt. polley mine restart permit application	Writer owns property at Quesnel Lake and doesn't believe that clean-up has been sufficient and is concerned about further environmental damage	con	
2015-04-27			n/a	n/a	n/a	Mount Polley Mine	Writer is concerned about poor management at the mine and lack of proper safety and geotechnical engineering	con	
2015-04-28			n/a		Coralee.Oakes.MLA@leg.bc.ca , john.hogan.mla@leg.bc.ca , Norm.Macdonald.MLA@leg.bc.ca , Mary.Polak.MLA@leg.bc.ca	Polley Mine	Writer would like the decision to open the mine to be left until the Conservation Report finding are announced.	con	
2015-04-28			n/a	n/a	n/a	No Consent	Writer does not agree to the reopening	con	
					MtPolleyMinePermit@gov.bc.ca , onna.Barnett.MLA@leg.bc.ca , Coralee.Oakes.MLA@leg.bc.ca , richard.harris@parl.gc.ca , inquiries@imperialmetals.com			con	
2015-04-28			n/a	n/a	n/a	Mt Polley Environmental Disaster	Writer doesn't support the reopening due to environmental and FN consultation concerns.		flagged
2015-04-28			Quesnel Lake	n/a	n/a	Permits to release tailings water into Quesnel Lake/ Permit to start up Mount Polley Mine	Writer lives at Quesnel Lake and is concerned about environmental contamination and the dumping of more tailings water into Quesnel Lake	con	flagged
2015-04-28			n/a	n/a	n/a		Writer doesn't support the reopening due to environmental and FN consultation concerns.	con	flagged
2015-04-28			Williams Lake, BC	n/a	n/a	Open Mount Polley Mine as soon as possible	Writer supports the reopening of Mt. Polley.	pro	
2015-04-28			n/a	n/a	n/a	RE Mount Polley Mine	Writer doesn't support the reopening due to environmental and FN consultation concerns.	con	
2015-04-28			Vancouver	n/a	n/a	Comments on Imperial Metal's permit to reopen	Writer is concerned about using Springer Pit as a TSF, and doesn't believe remediation has been sufficient	con	flagged
2015-04-28			Quesnel	n/a	n/a	re permission to reopen Mount Polley	Writer doesn't support the reopening due to environmental and FN consultation concerns.	con	flagged
2015-04-28			n/a	n/a	n/a	re-opening of Polley Mine	Writer believes more clean up is needed and promotes 'dry-stack' method.	con	
2015-04-28			Williams Lake, BC	n/a	n/a	Mount Polley Mine permit	Writer supports the restart permit	pro	flagged
				inquiries@imperialmetals.com ; Min@dfo-mpo.gc.ca ; JTST.Minister@gov.bc.ca ; Premier@gov.bc.ca ; jsorley@cariboord.ca ; MtPolleyMinePermit@gov.bc.ca ; MtPolleyMinePermit@gov.bc.ca ; inquiries@imperialmetals.com			con		
2015-04-28			Quesnel Lake	n/a	n/a	Mount Polley Mine Action	Writer is concerned that the water management plan is not sufficient and wants to see water treated before released.		flagged
2015-04-28			n/a	n/a	n/a	Comments	Writer states FN consent is lacking.	con	
							Writer is part of Williams Lake Indian Band and doesn't support the reopening due to lack of knowledge of consequences of the breach, and believes that few FN are benefiting from the mine.	con	
2015-04-28			Williams Lake, BC	n/a	n/a	No re-open	Writer doesn't support the reopening due to environmental and FN consultation concerns.	con	flagged (wmp)
2015-04-29			n/a	n/a	n/a			con	flagged
2015-04-29			n/a	n/a	n/a	Imperial Metals - Please stop Mount Polley Reopening	Writer doesn't support mining	con	

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Date	Sender	Email Address	Physical Address	Addressed Recipient(s)	CC'd Recipient(s)	Subject Title	Summary	Status	Response
								pro	
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First Nations Correspondence Tracking

Original Correspondence Date	Date(s) of Reply (if applicable)	Sender (if applicable)	Message Recipient(s) (if applicable)	Attendees (if applicable)	Topic	Type of Correspondence
2015-01-20	2015-03-04, 2015-03-13	Tania Demchuck	Jacinda Mack, Douglas Watt, Rick Adams, Ryan Brown, Shelley Metcalfe, Jason Kerley, Katie McMahon, Brian Yamelst, Harry Jennings, Janis Bell, Julia Banks, Joan Sorley, Luke Moger, Jim Kuipers, Stephen Rothman, Gabriel Matscha, Aaron Higginbottom, Rick Adams, Amy Crook, Ann Louie, Art Frye, Ken Awmack, B. Sellars, Robert Birtles, Hubert Bunce, Chris Carr, Dale Reimer, Douglas Hill, Robin Hoffos, Diane Howe, Stephanie Huska, Darryl Hussey, Don Parsons, Donna Dixon, Leigh-Ann Fenwick, Michael Gash, Rick Holmes, Jennifer McConnachie, David Weir, Walt Cobb, Steve Robertson, Tricia Morris, Ken Vanderburgh, Willie Sellars, Brian Olding	N/A	MPMC Terms of Reference for IERP- Jim Kuiper's comments	Email
2015-01-20	2015-03-17	Leigh-Ann Fenwick	Jacinda Mack, Celine Lee, Tania Demchuck, Aaron Higginbottom, Willie Sellars, Julia Banks, Tricia ABR	N/A	Planning/scheduling upcoming meetings	Email
2015-01-20	2015-01-20, 2015-01-20	Tania Demchuck	Dale Reimer, Luke Moger, Ryan Brown, Don Parsons, Steve Robertson, Jacinda Mack, Diane Howe, Al Hoffman, ChrisCarr, Stephen Rothman, Rick Adams, Hubert Bunce, Jennifer McConnachie, Jim Kuipers	N/A	Restricted Restart Application - MEM screening comments	Email
2015-02-10	2015-03-18, 2015-03-19, 2015-03-19, 2015-03-19, 2015-03-19, 2015-03-19	Luke Moger	Tania Demchuck, Don Parsons, Jennifer McConnachie, Chris Carr, Brian Yamelst, Jim Kuipers, Rick Adams	N/A	M-200 Permit Application DRAFT - Water Management Plan Questions	Email
2015-02-12	2015-03-30, 2015-03-30	Tania Demchuck	Dale Reimer, Luke Moger, Don Parsons, Steve Robertson, Ryan Brown, Hubert Bunce, Diane Howe, Al Hoffman, Rick Adams, Jennifer McConnachie, Chris Swan, Brian Yamelst, Jim Kuipers, Doug Watt, Chris Carr, Brent Beattie, Aaron Higginbottom, Julia Banks, Jacinda Mack	N/A	Return to Restricted Operations application screening letter to MMPC	Email
2015-02-26	2015-01-20	Tania Demchuck	Dale Reimer, Luke Moger, Ryan Brown, Don Parsons, Steve Robertson, Jacinda Mack, Diane Howe, Al Hoffman, ChrisCarr, Stephen Rothman, Rick Adams, Hubert Bunce, Jennifer McConnachie, Jim Kuipers	N/A	MEM's screening comments re Restart Application	Email
2015-03-02		Tania Demchuck	Celine Lee, Jacinda Mack, Jim Kuipers, Willie Sellars, Hubert Bunce, David Morel, Lori Halls	N/A	Restricted Restart DRAFT timeline, MOE information expectations for water treatment and discharge.	Email
2015-03-06	2015-03-16	Lee Nikl	Tania Demchuck, Chris Carr, Celine Lee, Don Parsons, Brent Beattie, Jennifer McConnachie, Stephen Rothman, Hubert Bunce, Brian Yamelst	N/A	Meeting request Mt. Polley Restart and Water Balance Discussion	Email
2015-03-06	2015-03-16, 2015-03-17, 2015-03-17	Celine Lee	Tania Demchuck, Jacinda Mack	N/A	March 18 meeting and MDRC	Email
2015-03-09		Tania Demchuck	Luke Moger, Ryan Brown, Jacinda Mack, Celine Lee, Jim Kuipers, Chris Carr, Stephen Rothman, Rick Adams	N/A	Weekly Update meeting request MPMC Breach Repair	Email
2015-03-13	2015-01-20, 2015-01-20	Tania Demchuck	Jacinda Mack	N/A	Weekly phone call with Mount Polley re Breach Repair update	Email
2015-03-13	2015-04-01, 2015-04-08	Tania Demchuck	Aaron Higginbottom, Rick Adams, Amy Crook, Ann Louie, Art Frye, Ken Awmack, Brent Beattie, Robert Birtles, Hubert Bunce, Chris Carr, Dale Reimer, Darryl Hussey, Don Parsons, Doug Watt, Leigh-Ann Fenwick, Michael Gash, Douglas Hill, Robin Hoffos, Diane Howe, Stephanie Huska, Jacinda Mack, Janis Bell, Harry Jennings, Jim Kuipers, Joan Sorely, Julia Banks, Katie McMahon, Jason Kerley, Luke Moger, Gabriele Matscha, Jennifer McConnachie, Shelley Metcalfe, Tricia Morris, Rick Holmes, Stephen Rothman, Ryan Brown, Steve Robertson, Chris Swan, Ken Vanderburgh, Nick Vukovic, Walt Cobb, David Weir, Willie Sellars, Brian Yamelst, Donna Dixon	N/A	First Nations consultation re Restricted Restart application	Email
2015-03-16	N/A	N/A	N/A	MEM, MOE, Williams Lake and Soda Creek Indian Bands	Process review and opportunity for input related to the review of the proposed restricted restart application	Conference Call (with opportunity to be in person)
2015-03-17	N/A	N/A	N/A		Senior Officials Meeting	Meeting
2015-03-17	N/A	N/A	N/A	MEM, MOE, Williams Lake and Soda Creek Indian Bands	Restricted restart application and long-term planning discussion	Conference Call
2015-03-18	N/A	N/A	N/A	Imperial Metals, Mount Polley Mining Corporation, MEM, MOE, Williams Lake and Soda Creek Indian Bands	In person discussion regarding restricted restart application and water treatment and discharge planning (full day)	Meeting

March 20-26, 2015	N/A	N/A	N/A		Cariboo MDRC meeting	Meeting
2015-03-27	N/A	N/A	N/A	Golder, MEM and Jim Kuipers (First Nations consultant)	Detailed in person meeting with technical consultants – Mount Polley water balance model.	Meeting
2015-03-30	N/A	N/A	N/A	MEM, MOE, First Nations, Golder, Imperial Metals, Mount Polley	Short term water management planning.	Conference Call
2015-03-30	N/A	N/A	N/A	MEM, MOE, Jim Kuipers (FN rep) and community of Likely rep	Restricted Restart application screening, including conference call on March 23 and March 26.	Meeting/Conference Call
2015-03-31	N/A	N/A	N/A	Jim Kuipers and Tania Demchuk	Cap of application screening and initial comments.	Phone Call
2015-04-04	08-Apr	Luke Moger	Diane Howe, Tania Demchuk, Rick Adams, Don Parsons, Dale Reimer, Terry Eldridge, Kirk Dressler, Aaron Higginbottom, Byron Louie, 'nrmanager@xatsull.com', 'referrals@xatsull.com', 'carenvir@wake.com', 'cthomas@xatsull.com', Doug Watt, Janis Bell, 'jsorely@cariboord.bc.ca'	N/A	IERP Report #1 [M-200 Permit - Approving the TSF Breach Repair and Perimeter Embankment Buttress Design for 2015 Embankment]	Email
2015-05-08	N/A	N/A	N/A	Mount Polley, Golder Associates, MoE, MEM	Meeting re short-term water treatment and discharge options	Meeting
2015-05-19	2015-05-19, 2015-05-19, 2015-05-19	Tania Demchuk	Celine Lee, Aaron Higginbottom, Julia Banks, Hubert Bunce, Rick Adams, Brian Yamelst, Jason Kerley	N/A	Preparation for May 29th meeting	Email
2015-05-29	N/A	N/A	N/A	Celine Lee, Aaron Higginbottom, Susan Aspinall, Hubert Bunce, Rick Adams, Brian Yamelst, Jason Kerley	Meeting June 29 re issues and next steps related to restricted restart application review, next steps regarding short term water discharge application, discussion of draft permit conditions related to proposed restricted restart.	Meeting
2015-06-26	N/A	N/A	N/A	MoE, MEM, MARR, Williams Lake Band and Soda Creek Chiefs	Senior Officials Committee meeting	Meeting

Non- MDRC Correspondence Tracking

Date	Sender	Email Address	Addressed Recipient(s)	CC'd Recipient(s)	Attachments	Subject Title	Summary
2015-04-15	Tania Demchuk	Tania.Demchuk@gov.bc.ca	Luke Moger Don Parsons	MtPolleyMinePermit@gov.bc.ca Chris Carr Breant Beattie		Re: Draft OMS Manual [M-200 Permit - Approving the TSF Breach Repair and Perimeter Embankment Buttress Design for 2015 Embankment]	Request to review and respond to the email below summarizing Chris Carr's review of the draft OMS manual submitted on March 27th.

Miscellaneous (not submitted) Correspondence Tracking

Date	Sender	Email Address	Addressed Recipient(s)	CC'd Recipient(s)	Attachments	Subject Title	Summary
2015-04-04	Kim Dressler	kdressler@williamslake.ca	Rick Adams		MountPolleySupport.pdf	Mt Polley Return to Restricted Operations: Final Call for First Nations, Prov and Fed Regulatory Agency, and Community Representative Comments	Copy of a letter dated February 23, 2015 from Mayor Walt Cobb to Hon. Bill Bennett, requesting timely approval of a restoration and reopening plan for Mount Polley Mine.



File: 107461
Mine Permit: M-200

Ref: 90741

Mr. Dale Reimer
Mine Manager
Mount Polley Mining Corporation
PO Box 12
Likely, BC V0L 1N0

Dear Mr. Reimer:

I write with respect to Mine Development Certificate 92-13 issued to Imperial Metals Corporation on October 6, 1992 pursuant to the Mine Development Assessment Act, as assigned to Mount Polley Holding Company Limited (now Mount Polley Mining Corporation, "MPMC") on September 2, 1997 and continued as Project Approval Certificate M96 07 under the Environmental Assessment Act (the "Certificate").

Condition 1 of the Certificate provides that the certificate holder must cause the Mount Polley Copper/Gold Project (the "Development") to be designed, located, constructed and operated in accordance with the Certificate and the "Application" (which is comprised of 13 documents listed in the Certificate). Condition 2 of the Certificate provides that the certificate holder shall, prior to any material alteration of the Development as described in the Application, obtain the written consent of the Minister of Energy, Mines and Petroleum Resources (now the Minister of Energy and Mines; the "Minister") and the Minister of Environment, Lands and Parks (now the Minister of Environment), and the Minister may determine what constitutes a material alteration.

The Application includes a document titled "Stage I Environmental and Socio-economic Impact Assessment Report, Responses to Comments by Agencies (January 1991), Imperial Metals Corporation" (the "Report"). I understand that during a presentation to the Regional Mine Development Review Committee (the "RMDRC") on April 28, 2015, company representatives indicated that the Report provided for a water surplus of 2,490,985 m³/yr in a "1 in 50" wet year (as provided in Table A4.1 of the Report). The Report also indicates that watersheds in the immediate vicinity of the mine site (i.e. Morehead, Bootjack and Polley Lakes and associated drainages) are expected to receive mine-influenced waters from the Development site.

.../2

I understand that MPMC has submitted an application (the “Amendment Application”) to amend its discharge permits under the Environmental Management Act, requesting authorization to discharge 5.9 million m³ of mine-influenced water in an average year, and 9.3 million m³ of mine-influenced water in a “1-in-200” wet year, into Quesnel Lake or Quesnel River instead of the other lakes referenced above.

I note that the surplus water discharge volumes contemplated in the Amendment Applications are considerably greater than the surplus water discharge volumes contemplated in the Report (and referred to in your presentation to the RMDRC) and that the Amendment Applications contemplate discharging such water into a water body that differs from those indicated in the Report.

I am writing on behalf of the Minister of Energy and Mines to request that MPMC provide me with written submissions as to whether:

1. the proposed:
 - a. increases in the volume of surplus water discharge from the Development; and
 - b. change to the water body that would receive such surplus water discharge, would constitute “alterations” of the Development, as described in the Application for the Certificate; and
2. if so, whether such “alterations” of the Development are “material” in nature.

Upon receipt of such submissions from MPMC, I will review, with the help of my staff, any materials provided by MPMC. It is also anticipated that your views will be shared with First Nations for their comments. A package of information will then be provided to the Minister of Energy and Mines to assist him in deciding whether such proposed changes concerning surplus water discharge constitute “material alterations” for which consent of the Minister and the Minister of Environment is required pursuant to condition 2 of the Certificate.

If you have any questions or comments, please contact me.

Yours Truly,

David Morel,
Assistant Deputy Minister
Ministry of Energy and Mines

PERMIT AMENDMENT APPLICATION

UNDER THE BRITISH COLUMBIA MINES ACT

-AND-

UNDER THE ENVIRONMENTAL MANAGEMENT ACT

PUBLIC CONSULTATION REPORT

MOUNT POLLEY MINE

RETURN TO RESTRICTED OPERATIONS

REVISION 1

PREPARED FOR

THE MINISTRY OF ENERGY AND MINES

-AND-

THE MINISTRY OF ENVIRONMENT

PREPARED BY

MOUNT POLLEY MINING CORPORATION

MAY 29, 2015

DOCUMENT BACKGROUND

On March 20, 2015, Mount Polley Mining Corporation (MPMC) submitted a permit amendment application (the Application), *Mount Polley Mine Return to Restricted Operations Revision 1*, for the return to restricted operations at the Mount Polley Mine. The return to restricted operations would require permit amendments from the British Columbia Ministry of Energy and Mines (MEM) under the British Columbia *Mines Act* (MPMC Permit M-200) and from the British Columbia Ministry of Environment (MoE) under the *Environmental Management Act* (MPMC Permit 11678).

In e-mail correspondence to MPMC from the MoE (Hubert Bunce, Director, Mount Polley, Environmental Protection), *RE: Permit 11678 Permit Amendment Application: Return to Restricted Operations*, on January 15, 2015, it was advised that,

“...while the application is considered a minor amendment, considering the level of public concern relative to the current operations of Mount Polley Mining Corp and in the interests of an open public process an Environmental Publication Notice will be required in this case to be published to formally advise the local public of the proposed changes and enable their comment.”

Additionally, in e-mail correspondence to MPMC from the MEM (Tania Demchuk, Msc, PGeo, Mount Polley Project Manager), *RE: Mines Act Permit Amendment Application: Return to Restricted Operations*, on January 15, 2015, it was advised that,

“...the Ministry of Energy and Mines requires that MPMC publish a notice of filing of the Mines Act permit amendment application, pursuant to part 10.2.1 of the Health, Safety and Reclamation Code. This is being required due to the level of public interest regarding the restart of mining operations. This notice must be posted in the BC Gazette and local newspapers, and the application must be made accessible to the public. The public notice shall provide an opportunity for a 30 day public comment period. Comments related to the Mines Act permit are to be submitted to the Chief Inspector of Mines. Similar to comments received during the MDRC review, Mount Polley Mining Corporation will be responsible for responding to any questions related to the application that arise during the public review period.

It is recommended that you post the notices for both applications together, and ensure there is clarity that there are two applications being reviewed and to whom the comments should be sent.”

This document, *Public Consultation Report*, dated May 29, 2015, is provided by MPMC to the MEM and the MoE to fulfill these requirements to formally advise the local public of the proposed changes under the Application, enable the public to comment, and provide response to any questions related to the Application that arise during the public review period.

MOUNT POLLEY MINING CORPORATION

MOUNT POLLEY MINE

RETURN TO RESTRICTED OPERATIONS – PUBLIC CONSULTATION REPORT

TABLE OF CONTENTS

1.0	BACKGROUND	III
2.0	PUBLIC CONSULTATION	IV
2.1	Referrals	iv
2.2	Notifications	iv
2.3	Consultation Events	v
2.3.1	Community Meetings.....	v
2.3.3	Informal Drop-Ins	vi
2.4	Public Comments Received	vi
2.5	Summary of Responses to Relevant Concerns	vii
3.0	CLOSURE	VIII

LIST OF FIGURES

TABLE 2.3.1 CONSULTATION EVENT LOG	V
TABLE 2.4.1 UNIQUE COMMENTS (BY LOCATION)	VI

APPENDICES

Appendix A – Notifications
Appendix B – Community Meetings
Appendix C – Community Update Bulletins
Appendix D – Public Comments
Appendix E – Public Comment Templates

MOUNT POLLEY MINE

RETURN TO RESTRICTED OPERATIONS – PUBLIC CONSULTATION REPORT

1.0 BACKGROUND

On March 20, 2015, Mount Polley Mining Corporation (MPMC) submitted a permit amendment application (the “Application”), *Mount Polley Mine Return to Restricted Operations Revision 1*, for the return to restricted operations at the Mount Polley Mine. The return to restricted operations would require permit amendments from the British Columbia Ministry of Energy and Mines (MEM) under the British Columbia *Mines Act* (MPMC Permit M-200) and from the British Columbia Ministry of Environment (MoE) under the *Environmental Management Act* (MPMC Permit 11678).

The purpose of this Application is to provide an option for MPMC (for the benefit of MPMC, regulators, stakeholders and First Nations) that would mitigate detrimental effects which a prolonged shut-down would entail, while not forming presumptions as to the results of the ongoing Tailings Storage Facility (TSF) geotechnical investigations or expediting the return to a ‘normal’ operating state without appropriate supporting technical information or review period. Pursuing the proposed works outlined in the Application would have numerous direct benefits, without creating any significant additional site disturbance, liabilities, commitments to future operations, or materially affecting the long-term management of the site.

The MEM and the MoE each indicated that the Application required public notice and provision of a thirty day period to enable public comment; it was advised that the notices for the two (2) permit amendment applications should be completed together (see Document Background for details). It was indicated by the MEM that MPMC would be responsible for responding to any questions related to the Application that arose during the public review period.

This document, *Public Consultation Report*, is provided by MPMC to the MEM and the MoE to fulfill these requirements to formally advise the local public of the proposed changes under the Application, enable the public to comment, and provide response to any questions related to the Application that arise during the public review period.

2.0 PUBLIC CONSULTATION

This Public Consultation Report (the “Report”) documents public consultation completed in respect to the Application to fulfill the requirements of the MEM and the MoE as detailed in the Document Background and Section 1.0 (Background). This document does not include documentation of consultation completed as part of the Regional Mine Development Review Committee (RMDRC) review of the Application, which has been submitted separately to the MEM and the MoE in the document, *RMDRC Comment Tracking Mount Polley Mine Return to Restricted Operations*, dated April 30, 2015 (and again as updated and re-submitted in the document of the same name dated May 21, 2015). This Report does not include documentation of consultation completed specifically with First Nations, which will provide in a separate consultation log as required for Application review.

2.1 Referrals

Two (2) documents were provided by MPMC in support of the permit amendment applications under the *Mines Act* and the *Environmental Management Act*: the Application and the supporting document, *Mount Polley Mine Approach for Long-Term Water Management Plan Development*, dated March 20, 2015 (the “Water Management Plan”). These two (2) documents were submitted to: the MEM, the MoE, First Nations (Williams Lake Indian Band and Xat’sull First Nation), and the Likely Representative (Likely Chamber Liaison).

Hard copies of the Application and the Water Management Plan were provided to the Likely Library and the Williams Lake Library.

Copies of the Application and the Water Management Plan were referred to the RMDRC by the MEM, and also posted online by the MEM, the MoE and Imperial Metals.

2.2 Notifications

A combined Environmental Protection Notice and Public Notice (under the *Environmental Management Act* and the *Mines Act*, respectively) was drafted (the “Notice”), as per the direction of the MEM and the MoE to ensure there was clarity that there are two (2) applications being reviewed. A copy of the Notice is provided in Appendix A.

The Notice was published in: the Williams Lake Tribune (April 3, 2015); and the BC Gazette (April 9, 2015). Copies of tear sheets from each of these publications are included in Appendix A.

A copy of the Notice was also posted online on the Imperial Metals website (April 9, 2015).

2.3 Consultation Events

In addition to the referral and notifications as outlined above, consultation with the public was completed prior to and throughout the Application process. Table 2.3.1 provides a summary of the public consultation since the date of submission of the Application, with specific references to Community Meetings, Community Update Bulletins and Informal Drop-Ins as included below.

Table 2.3.1 Consultation Event Log

Date	Event	Location
April 1, 2015	Community Update Bulletin	Circulation
April 1, 2015	Likely Community Meeting	Likely (Likely Hall)
April 22, 2015	Williams Lake Community Meeting	Williams Lake (Gibraltar Room)
April 24, 2015	Likely Informal Drop-in	Likely (Likely Lodge)
April 25, 2015	Quesnel Gold Show	Quesnel (Alex Fraser Park)
May 13, 2015	Likely Community Meeting	Likely (Likely Hall)

2.3.1 *Community Meetings*

Community Meetings have been held prior to and throughout the Application process. Notices of Community Meetings are posted in public locations, distributed in hard copy to post office boxes, distributed through e-mail mailing lists and made available on the Imperial Metals website. The Notice of Community Meeting dated April 22, 2015 (Williams Lake) specifically addresses the public comment period, and is included as Appendix B; the notice reflects the topics of discussion of this same meeting.

2.3.2 *Community Update Bulletins*

Community Update Bulletins have been provided as part of the Mount Polley Information Resource prior to and throughout the Application process. Community Update Bulletins are distributed in hard copy to post office boxes, distributed at Community Meetings, and made available on the Imperial Metals website. The April 1, 2015, Community Update Bulletin included information on the 30 day public consultation and e-mail addresses for public comment. A copy of this Community Update Bulletin is included as Appendix C.

2.3.3 Informal Drop-Ins

Informal Drop-ins have been held prior to and throughout the Application process. Notices of Informal Drop-ins are posted in public locations and distributed through e-mail mailing lists, and made available on the Imperial Metals website.

2.4 Public Comments Received

As detailed in the Notice, public comments were provided directly to MPMC (General Manager, Dale Reimer), to the MoE (Director of Mining Operations Mount Polley, Hubert Bunce) and/or to the MEM (Chief Inspector, Al Hoffman). Copies of public comments received by the MEM and the MoE were provided to MPMC. A summary table of the public comments received is included in Appendix D, and is followed by copies of the individual public comments.

During the consultation period, 376 public comments were received. Of these, 359 were unique submissions (i.e., some e-mails had been copied to multiple parties across MPMC, the MEM and the MoE). Table 2.4.1 summarizes the location of the commenters, as available.

Table 2.4.1 Unique Comments (by Location)

Location	Number
Canada	143
British Columbia (BC)	120
Local*	71
Rest of BC	49
Ontario	13
Alberta	3
Quebec	3
Yukon Territories	2
Nova Scotia	1
Newfoundland	1
United States	5
Other	2
Unspecified	209
Total Unique Submissions	359

* Williams Lake, Likely, 150 Mile House and Horsefly

Of the 359 unique public submissions received, 82 were comments from templates; including either whole or partial copy of a template comment. 281 unique comments, accounting for only one (1) copy of each of these four (4) template comments, were received. Two (2) documents accounted for 75 of the 82 template public comments received: The Pacific Streamkeepers Federation (14); and a second multiple party template (61). Copies of comments referencing these templates are included in the individual public

comments in Appendix D. Full copies of each of the two (2) most frequently used templates are included in Appendix E.

An online petition was started by Clayoquot Action in regards to the Application. Online petition numbers had 694 supporters as of May 27, 2015. A copy of the original posting is included in Appendix E for reference.

2.5 Summary of Responses to Relevant Concerns

In reviewing the public comments, a commonly held view was that the Application is an all-encompassing application that also includes effluent treatment and discharge. Mount Polley, since this time has sought to clarify (and the MoE/the MEM have done the same) that:

- 1) The return to restricted operations under the Application is for a *Mines Act* permit (M-200) amendment to allow mining and an *Environmental Management Act* permit (PE11678) amendment to allow tailings to be deposited in the Springer Pit; and,
- 2) A separate amendment application will be filed for an (*Environmental Management Act*) effluent permit to enable short-term water management (treatment and discharge) to allow control of Springer Pit water levels. This permit amendment application will be subject to an additional thirty (30) day consultation period; however, MPMC has been engaging with the First Nations (Williams Lake Indian Band and the Xat'sull First Nation) as well as with local community representatives, the public, regulators and stakeholders in advance of this application being filed.

Comments related to the Application were as follows:

- Lack of consultation with First Nations and local communities: MPMC has continued to engage First Nations, local community representatives and stakeholders throughout the breach remediation, during ongoing water management planning and during the Application process. Community meetings, First Nation Chief and Council meetings, First Nation community meetings, First Nation Implementation Committee Meetings under the respective Participation Agreements, Informal Public Drop-in meetings, RMDRC Meetings, Public Liaison Committee Meetings, Application Working Group and Water Management Plan Working Group Meetings have all been held, in addition to the information updates provided in Community Update Bulletins and posted online through the Imperial Metals website.

- Application is being permitted without a water management strategy in place: MPMC is investigating a number of options for short- and long-term water management at the mine and is preparing a Technical Assessment Report on short-term water management. The MoE and the MEM have indicated that the Technical Assessment Report will be required to provide a permissible plan for short-term water management in support of a decision on the return to restricted operations at Mount Polley mine as outlined in the Application.
- Lack of information/details and assessment of water management strategies: MPMC is preparing a Technical Assessment Report on short-term water management in support of a separate amendment application that will be filed for an (*Environmental Management Act*) effluent permit to enable short-term water management (treatment and discharge) to allow control of Springer Pit water levels. This permit amendment application will be subject to an additional thirty (30) day consultation period.

Additional comments were received that were not related to the permit amendments under the *Mines Act* and the *Environmental Management Act* for the works as outlined in the Application.

3.0 CLOSURE

This Report is provided by MPMC as per the requirements of the MEM and the MoE to summarize the manner in which MPMC formally advised the local public of the proposed changes under the Application, enabled the public to comment, and, by means of this Report, provided response to any questions related to the Application that arose during the public review period. We trust that this document provides sufficient information for your present needs.

APPENDIX A

NOTIFICATIONS

**BC MINISTRY OF ENVIRONMENT
ENVIRONMENTAL PROTECTION NOTICE
&
BC MINISTRY OF ENERGY AND MINES
PUBLIC NOTICE**

**Application for Permit Amendments under the Provisions of the
Environmental Management Act and *the Mines Act***

We, Mount Polley Mining Corporation, 200 – 580 Hornby St., Vancouver, BC, V6C 3B6, intend to submit this permit amendment application to:

1. The Ministry of Environment Director of Mining Operations Mount Polley to amend Permit 11678, issued May 30, 1997 and last amended June 7, 2013, which authorizes the discharge of effluent from a copper-gold mine and mill.
2. The Ministry of Mines Chief Inspector to amend Permit M-200, issued August 3, 1995 and last amended December 17, 2014, which authorizes mining and milling activities.

The land upon which the facility is situated and the discharge occurs is within Mining Leases 345731 and 410495 and Mineral Claim 514039, Cariboo Mining Division, Cariboo Land District. The location of the point of the currently permitted discharge is five (5) kilometers southeast of Mount Polley, adjacent to the tailings impoundment facility on Mineral Claim 514039.

The amendment requests the resumption of mining operations, and that the following permit conditions be changed from:

1. Authorized discharge of effluent from a copper-gold mine and ore concentrator to a tailings impoundment.
2. The location of the point of discharge (tailings impoundment) is five (5) kilometers southeast of Mount Polley, on Mineral Claim 514039.
3. The monthly average authorized rate of discharge of slurry is 54,500 cubic meters per day.
4. The authorized discharge period is continuous.

To:

1. Authorized discharge of effluent from a copper-gold mine and ore concentrator to an open pit.
2. The location of the point of discharge (Springer Pit) is one (1) kilometer west of Mount Polley on Mining Lease 345731.
3. The monthly average authorized discharge rate of slurry is not to exceed 54,500 cubic meters per day, and is expected to occur at approximately half that rate
4. The authorized discharge period is one (1) year, with a maximum of 4,000,000 tonnes of ore being processed (approximately half of one (1) year's production at full production of tonnages).

The full permit amendment application is available for review online at:

<http://www2.gov.bc.ca/gov/topic.page?id=BB2BE7299657481185F9E1C95698E91A>

Hard copies of the permit amendment application are available for review at:

1. The Likely Public Library
2. The Williams Lake Public Library

Any person who may be adversely affected by the proposed amendment and wishes to provide relevant information may, within 30 days after the last date of posting, publishing, service or display, send written comments to:

1. The applicant, Mount Polley Mining Corporation
General Manager Dale Reimer (inquiries@imperialmetals.com, Box 12, Likely BC, V0L 1N0);
2. The Ministry of Environment Director of Mining Operations Mount Polley, Hubert Bunce
(MtPolleyMinePermit@gov.bc.ca, 2080 A Labieux Road, Nanaimo BC, V9T 6J0); and/or
3. The Ministry of Energy and Mines Chief Inspector, Al Hoffman (MtPolleyMinePermit@gov.bc.ca, PO Box 9320 Stn Prov Govt, Victoria BC, V8W 9N3).

The identity of any respondents and the contents of anything submitted in relation to this application will become part of the public record.

Dated this 1ST day of APRIL, 20 15



Contact person: Dale Reimer

Telephone No.: (250) 790-2215



The British Columbia Gazette

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VICTORIA, APRIL 9, 2015

No. 14

MINISTRY OF ENVIRONMENT

ENVIRONMENTAL PROTECTION NOTICE AND PUBLIC NOTICE

Application for a permit amendment under the provisions of the *Environmental Management Act*, and the *Mines Act*.

We, **Mount Polley Mining Corporation**, 200 - 580 Hornby St., Vancouver, BC, V6C 3B6, intend to submit this permit amendment application to:

1. The Ministry of Environment Director of Mining Operations Mount Polley to amend Permit 11678, issued May 30, 1997 and last amended June 7, 2013, which authorizes the discharge of effluent from a copper-gold mine and mill.

2. The Ministry of Energy and Mines Chief Inspector to amend Permit M-200, issued August 3, 1995 and last amended December 17, 2014, which authorizes mining and milling activities.

The land upon which the facility is situated and the discharge occurs is within Mining Leases 345731 and 410495 and Mineral Claim 514039, Cariboo Mining Division, Cariboo Land District. The location of the point of the currently permitted discharge is five (5) kilometers southeast of Mount Polley, adjacent to the tailings impoundment facility on Mineral Claim 514039.

The amendment requests the resumption of mining operations, and that the following permit conditions be changed from:

1. Authorized discharge of effluent from a copper-gold mine and ore concentrator to a tailings impoundment.

2. The location of the point of discharge (tailings impoundment) is five (5) kilometers southeast of Mount Polley, on Mineral Claim 514039.

3. The monthly average authorized rate of discharge of slurry is 54,500 cubic meters per day.

4. The authorized discharge period is continuous.

To:

1. Authorized discharge of effluent from a copper-gold mine and ore concentrator to an open pit.

2. The location of the point of discharge (Springer Pit) is one (1) kilometer west of Mount Polley on Mining Lease 345731.

3. The monthly average authorized discharge rate of slurry is not to exceed 54,500 cubic meters per day, and is expected to occur at approximately half that rate

4. The authorized discharge period is one (1) year, with a maximum of 4,000,000 tonnes of ore being processed (approximately half of one (1) year's production at full production of tonnages).

The full permit amendment application is available for review online at:

<http://www.gov.bc.ca/MountPolley>

Hard copies of the permit amendment application are available for review at:

1. The Likely Public Library

2. The Williams Lake Public Library

Any person who may be adversely affected by the proposed amendment and wishes to provide relevant information may, within 30 days after the last date of posting, publishing, service or display, send written comments to:

1. The applicant, Mount Polley Mining Corporation

General Manager Dale Reimer (inquiries@imperialmetals.com, Box 12, Likely BC, V0L 1N0);

2. The Ministry of Environment Director of Mining Operations Mount Polley, Hubert Bunce (MtPolleyMinePermit@gov.bc.ca, 2080 A Labieux Road, Nanaimo BC, V9T 6J0); and/or

3. The Ministry of Energy and Mines Chief Inspector, Al Hoffman (MtPolleyMinePermit@gov.bc.ca, PO Box 9320 Stn Prov Govt, Victoria BC, V8W 9N3).

The identity of any respondents and the contents of anything submitted in relation to this application will become part of the public record.

Environmental Management Act Permit No. 11678

Mines Act Permit No. M-200

Contact person: Dale Reimer, Telephone No.: (250) 790-2215 [ap9]

FREE ONLINE ACCESS

For online access to The British Columbia Gazette and Corporate Registry Notices visit www.bclaws.ca

MINISTRY OF JUSTICE

NOTICE TO CREDITORS AND OTHERS

Notice is hereby given that creditors and others having claims against the following estates:

Ronald Sydney Agnew (also known as Ronald Agnew and Ron Agnew), deceased, formerly of 1309 Craigflower Road Unit 21, Victoria, BC, are required to send full particulars of such claims to the Public Guardian and Trustee of British Columbia, 700 - 808 West Hastings Street, Vancouver, BC V6C 3L3, on or before the 9th day of May 2015, after which date the estate's assets will be distributed, having regard only to the claims that have been received. — *Public Guardian and Trustee*. [Z003] [ap9]

Phyllis Helen Cairns, deceased, formerly of 1233 Kiwanis Crescent, Nanaimo, BC, are required to send full particulars of such claims to the undersigned executors, c/o Stevens & Company, Parksville, BC V9P 2G9, PO Box 943, on or before the 20th day of May 2015, after which date the estate's assets will be distributed, having regard only to the claims that have been received. — *Frances Joan Takenaka and Nancy Eleanor Cantelon, Executors. Stevens & Company, Solicitors*. [ap9]

Elizabeth Anne Canwell (also known as Anne Canwell), deceased, formerly of Suite 309 - 2059 Chesterfield Avenue, North Vancouver, BC, are required to send full particulars of such claims to the Public Guardian and Trustee of British Columbia,

APPENDIX B

COMMUNITY MEETINGS



Mount Polley Mining Corporation

an Imperial Metals company

Box 12 • Likely, BC V0L 1N0 • T 250.790.2215 • F 250.790.2613

Community Open House

When: Wednesday, April 22, 2015
Where: Gibraltar Room-CMRC
Address: 525 Proctor Street, Williams Lake
Time: 6:30pm – 8:30pm

Residents are invited to join staff from Mount Polley Mining Corporation for a presentation and discussion.

We welcome and encourage residents to attend.

This is part of our ongoing communications with the community and is a component of the Public Comment Period related to permit applications for the proposed restart of Mount Polley mine.

Feedback from residents is appreciated.

Coffee, tea and snacks will be served.

Representatives of the regional, provincial and federal government have also been invited to attend.

APPENDIX C

COMMUNITY UPDATE BULLETINS



Mount Polley Mining Corporation

an Imperial Metals company

Box 12 • Likely, BC V0L 1N0 • T 250.790.2215 • F 250.790.2613

Community Update Bulletin » April 1, 2015

TEMPORARY RESTART OF MINING OPERATIONS

Mount Polley Mining Corporation (MPMC or Mount Polley) made a formal resubmission of the permit amendment applications to Ministry of Mines (MEM) and Ministry of Environment (MoE) for a Temporary Return to Operations on March 20, 2015. The Cariboo Regional Mine Development Review Committee met March 31, 2015 to discuss the applications with representatives from MPMC and Imperial Metals.

The temporary restart application includes a proposal to operate to a maximum mill throughput of 4 million tonnes or approximately one-half year's normal production. Ore would be produced from mining of the Cariboo Pit and the underground operation, as well as stockpiles, and the Springer pit would be used for tailings and water storage.

A temporary restart of operations would bring benefits to the local community, the region and the Company including: retaining skilled employees and increasing employment numbers, continuing opportunities for local business who provide services to the mine, open pit sourcing of construction material for site remediation and tailings storage facility (TSF) repair work, and some revenue to help defray costs of remediation and repair work.

The permit application process involves a 30 day public consultation period starting from the date the Company publicly advertises the permit application. The Company is responsible for tracking and responding to public comments. We are encouraging the public to provide us with their input on the permit applications, which will be available for review at the Williams Lake and Likely public libraries, and on the MEM website.

Email addresses for public comments: inquiries@imperialmetals.com and MtPolleyMinePermit@gov.bc.ca.

We plan to have another public community meeting in Williams Lake on April 22, and a meeting for First Nations on April 23.

WATER MANAGEMENT

Since MPMC received its original mine development certificate in 1992, it has been recognized the mine would need to discharge water from the site. As part of our ongoing planning for the future, for a restart, ongoing operations or closure, the mine is investigating options for water discharge.

On March 18, 2015 an information notice entitled *Mount Polley Mine Water Management Planning* was distributed to Likely residents and posted it to the Mount Polley Updates webpage. This notice summarized the evolution of the water balance at the mine since operations began in 1997. As stated in the notice "**regardless of whether or not the Mount Polley mine operates again**, the estimated 5.9 million cubic metres per year [of mine-influenced water] must be managed in a responsible manner and all options that are available for this volume will involve discharge of treated water to a water body".

We acknowledge area residents and First Nations will have concerns about the mine discharging water to the surrounding environment but we are committed to communicating with the local community and discussing openly how we will approach our water management planning and what options we are considering for discharge.

QUESNEL LAKE & QUESNEL RIVER TURBIDITY

The water quality monitoring program currently consists of weekly samples at:

QUR-1 (Quesnel River at the Quesnel River Research Centre);

HAC-08 (Hazeltime Creek upstream of the sedimentation ponds);

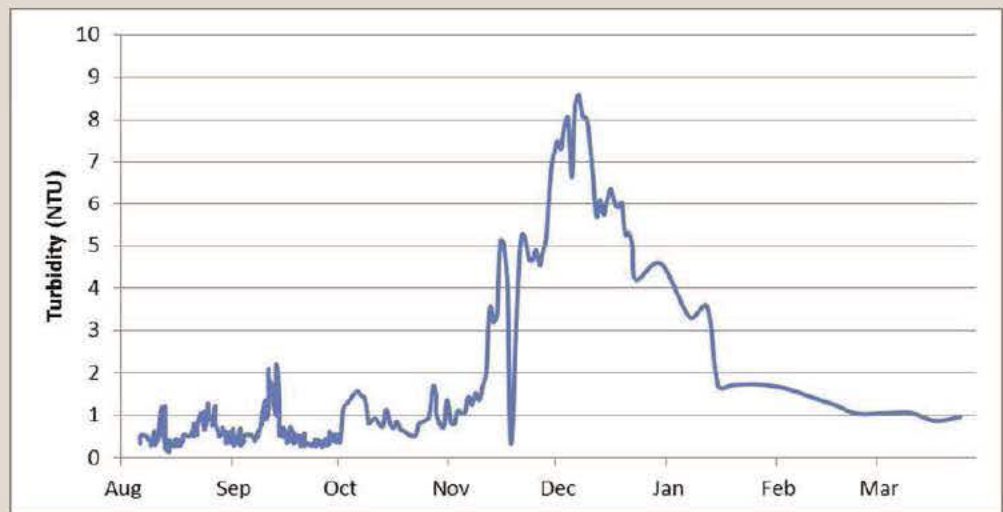
HAC-01b (Hazeltime Creek at the outlet of the sedimentation ponds);

EDC-02 (Edney Creek downstream of the new confluence with Hazeltime Creek, just upstream of Quesnel Lake); and

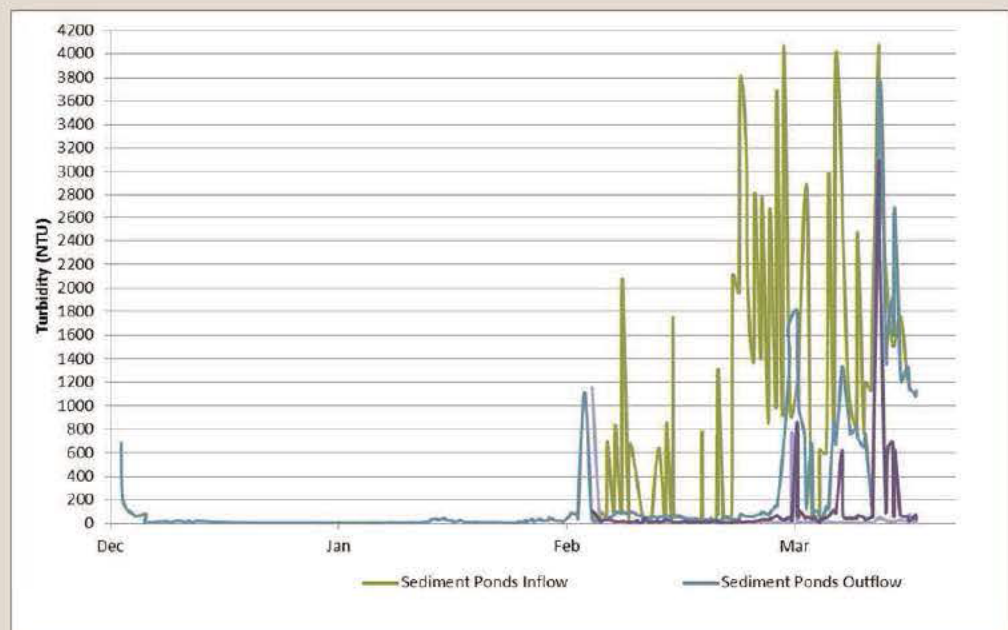
EDC-01 (Edney Creek just upstream from the confluence with Hazeltime).

We are also maintaining our continuous monitoring program with our sondes (dataloggers) that are deployed at monitoring site QUR-1 (Figure 1) and at HAC-01b (Figure 2). The sondes measure field parameters (turbidity, pH, specific conductance, dissolved oxygen, and temperature) every 15 minutes.

*Figure 1.
Turbidity time series at
sample location QUR-1 (Aug
6 –Mar 24) near the Quesnel
River Research Centre.*



*Figure 2.
Turbidity time series graph
for Hazeltime Creek
upstream of the
sedimentation ponds (Feb
15–Mar 31), downstream of
the sedimentation ponds
(Dec 12–Mar 31), for Edney
Creek in its new channel
(Feb 15– Mar 31), and the
combined Edney/Hazeltime
Creek outflow into Quesnel
Lake (Feb 15–Mar 31).*



Monitoring of Quesnel Lake (weather permitting) is currently ongoing to monitor lake turnover. This typically includes weekly field parameter profiles at sites: QUL-2a, QUL-18, QUL-54, QUL-55, QUL-56, QUL-40a, and samples at sites: QUL-2a, QUL-18, QUL-55, QUL-40a. (refer to our weekly reports posted on the Mount Polley Updates webpage www.imperialmetals.com/s/Mt_Polley_Update.asp?ReportID=677021 for sample location maps, and see Figure 3 for example profiles.)

These data show we are continuing to see improvements in the water quality of Quesnel Lake and Quesnel River. In particular our March 18 sample from QUR-1 measured 0.87 Nephelometric Turbidity Unit (ntu). Ministry of Environment water quality results also indicate "There were no exceedances observed for the data available at the Likely Bridge location".

(MoE Memorandum March 25, 2015: Quesnel River Water Quality for samples collected February 17 to March 19, 2015 compared to Drinking Water Guidelines.)

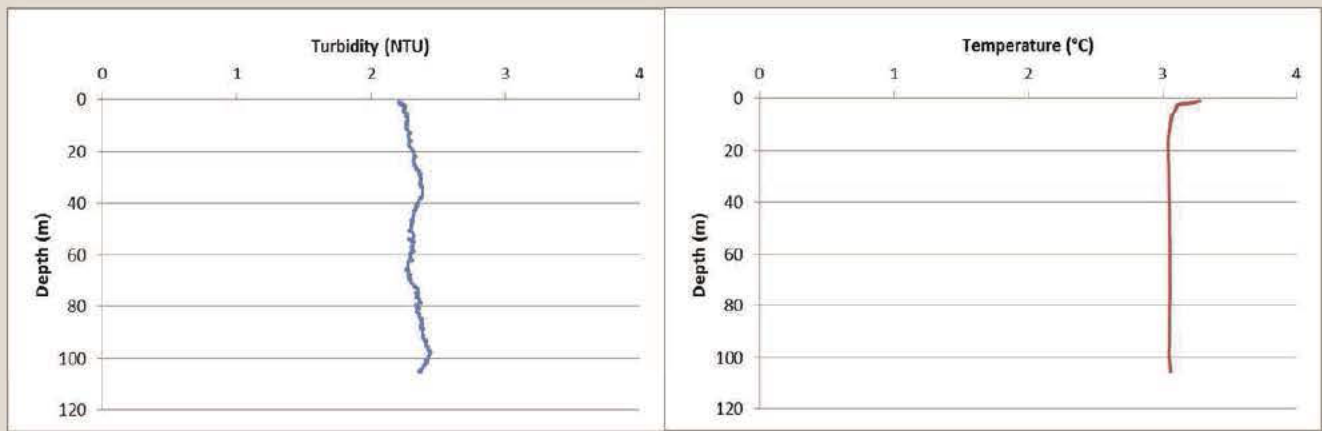


Figure 3.

Turbidity and temperature profiles from site QUL-18 (Mar 24) located in Quesnel Lake between Hazeltine Creek and Likely

SEDIMENT CONTROL AND EROSION MEASURES & HAZELTINE CREEK REHABILITATION

The new silt curtain installed in Quesnel Lake near the mouth of the new Edney (Hazeltine) Creek channel is in good condition and operating well. Environmental Monitors continue to monitor creek sediment and erosion control and rehabilitation work in Hazeltine Creek.

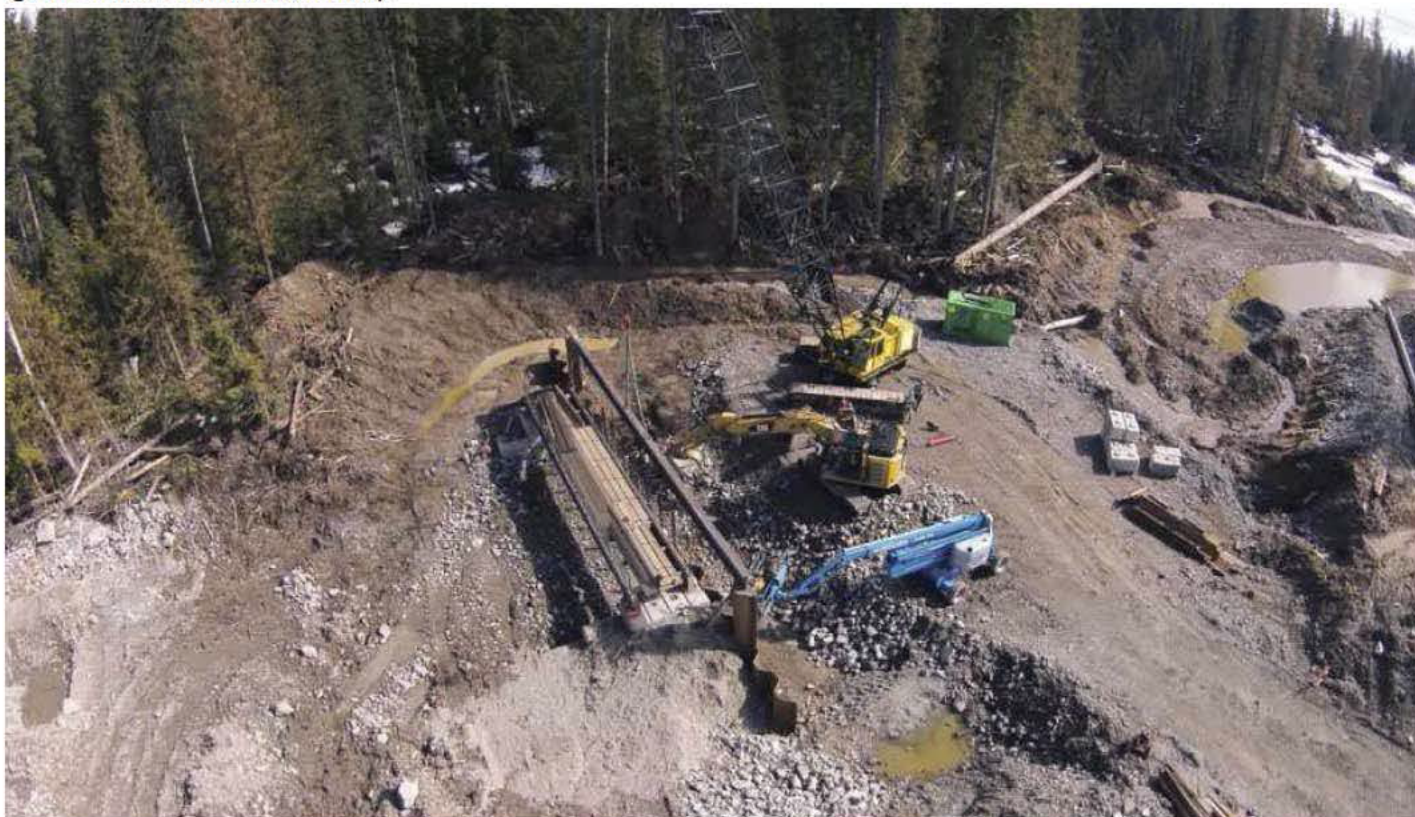


We continue the construction and 'rocking in' of the Hazeltine Creek channel and have completed this work on approximately 50% of the creek. Capping of exposed glacial sediments, re-contouring and application of wood chip mulch and coarse woody debris for reclamation purposes has been completed on much of the area of Lower Hazeltine Creek. Planting of willow whips and wattles will be initiated soon.

<< Excavator placing wood chips in lower Hazeltine Creek near the Ditch Road bridge.

POLLEY LAKE OUTLET

Construction of the Polley Lake outlet structure is nearly complete, and construction of the floodplain and channel grade downstream is underway.



Aerial (drone) image of the Polley Lake outlet weir structure under construction.

TAILINGS STORAGE FACILITY (TSF) CONSTRUCTION

The amendment to permit M-200 approving repair of the TSF breach area to manage 2015 freshet was received from MEM on December 17, 2014. Work presently being completed under this approval includes:

- ongoing foundation preparation and material placement
- CSM (cutter soil mixing) machine operating on the cut-off wall construction (in progress)
- foundation preparation and placement immediately downstream of cut-off wall (Phase 2 footprint) (in progress)

INDEPENDENT ENGINEERING REVIEW PANEL

We have established our own Independent Engineering Review Panel. The role of the panel is to provide an independent review of and advice to MPMC on the TSF breach repair. Our intention is to retain this panel to provide us with ongoing advice on TSF operations. The panel is comprised of three leading experts in relevant fields of study important to the design, construction and operation of TSF's. The first meeting of the expert panel took place on March 2, 3 and 4.

Following are sources for ongoing information about the work being done at Mount Polley:

- Imperial Metals/Mount Polley Updates » www.imperialmetals.com
- Ministry of Environment/Mount Polley » www.env.gov.bc.ca/eemp/incidents/2014/mount-polley/
- Likely Library » request to see the Mount Polley information binder, containing copies of the documents posted on the Mount Polley Update webpages.

The next public meeting will be in Williams Lake on April 22, and the next meeting for First Nations will be on April 23. Notices will be distributed before the meeting dates.

APPENDIX D

PUBLIC COMMENTS

Public Comment Summary Log

Item #	Date	Communication Method	Subject	From Person	Contact Organization	Contact Phone	Contact Email	Contact Address	Receiving Address
1	April 9 2015	Email	Really eh?		Pri ate Citizen				MtPolley MinePermit MEM EX
2	April 9 2015	Email	Temporary reopening		Pri ate Citizen				MtPolley MinePermit MEM EX
3	April 9 2015	Email	Mt. Polley permit to reopen		Pri ate Citizen				MtPolley MinePermit MEM EX
4	April 9 2015	Email	Fwd: Rea ly eh?		Pri ate Citizen				MtPolley MinePermit MEM EX
5	April 22 2015	Email	Permitting		Pri ate Citizen				MtPolley MinePermitting - bc.ca
6	April 22 2015	Email	Mount Polley		Pri ate Citizen				enquiries@imperialmetals.com
7	April 22 2015	Email	Mine Perm t		Pri ate Citizen				enquiries@imperialmetals.com
8	April 22 2015	Email	Mt. Polley		Pri ate Citizen				MtPolley MinePermit MEM EX
9	April 23 2015	Email	Regarding permit to reopen mine		Pri ate Citizen				MtPolley MinePermit MEM EX
10	April 23 2015	Email	Mt. Polley Mine Permit		Pri ate Citizen				MtPolley MinePermit MEM EX
11	April 23 2015	Email	Reopening of Mt. Polley Mines		Pri ate Citizen				MtPolley MinePermit MEM EX
12	April 23 2015	Email	Re-opening		Pri ate Citizen				MtPolley MinePermit MEM EX
13	April 23 2015	Email	Mount Polley permit process		Pri ate Citizen				MtPolley MinePermit MEM EX
14	April 23 2015	Letter	Let er to the Editor April 2015		Pri ate Citizen				MtPolley MinePermit MEM EX
15	April 23 2015	Email	Comments on Go rument website		Pri ate Citizen				enquiries@imperialmetals.com
16	April 23 2015	Email	Mount Polley		Pri ate Citizen				MtPolley MinePermit MEM EX
17	April 2 2015	Email	Support Early S an		Pri ate Citizen				enquiries@imperialmetals.com
18	April 2 2015	Email	Comment of support for Mount Po ley Mine		Pri ate Citizen				MtPolley MinePermit MEM EX
19	April 2 2015	Email	Start Mount Polley Up Please		Pri ate Citizen				enquiries@imperialmetals.com
20	April 2 2015	Email	Mt. Polley Mine		Pri ate Citizen				MtPolley MinePermit MEM EX
21	April 2 2015	Email	Mt. Polley resant permit		Pri ate Citizen				MtPolley MinePermit MEM EX
22	April 2 2015	Email	Reopening of the Mine		Pri ate Citizen				MtPolley MinePermit MEM EX
23	April 2 2015	Email	Imperial Metals - Please Stop Mount Polley Mine Reopening		Pri ate Citizen				MtPolley MinePermit MEM EX
24	April 2 2015	Email	Restart Mt Polley Mine		Pri ate Citizen				MtPolley MinePermit MEM EX
25	April 2 2015	Email	(un tilde)		Pri ate Citizen				MtPolley MinePermit MEM EX
26	April 2 2015	Email	Open Mount Po ley Mine		Pri ate Citizen				MtPolley MinePermit MEM EX
27	April 2 2015	Email	Mount polley		Pri ate Citizen				MtPolley MinePermit MEM EX
28	April 2 2015	Email	Mount Polley permit		Pri ate Citizen				MtPolley MinePermit MEM EX
29	April 25 2015	Email	Please do not re-open - he Mount Polley Mine		Pri ate Citizen				MtPolley MinePermit MEM EX
30	April 25 2015	Email	We are opposed!		Grand B. schieper Labrador Inc.				MtPolley MinePermit MEM EX
31	April 25 2015	Email	Mt Polley		Pri ate Citizen				MtPolley MinePermit MEM EX
32	April 25 2015	Email	Comment regarding Mt Polley Permit applica ions		Pri ate Citizen				MtPolley MinePermit MEM EX
33	April 25 2015	Email	Say No o Mt Polley Mine Reopening		Pri ate Citizen				MtPolley MinePermit MEM EX
34	April 25 2015	Email	Mt Polley M se		Pri ate Citizen				MtPo ley MinePermit MEM EX
35	April 25 2015	Email	Mt Polley ReOpening		Pri ate Citizen				MtPo ley MinePermit MEM EX
36	April 26 2015	Email	YES! Restart Mount Po ley		Pri ate Citizen				MtPo ley MinePermit MEM EX
37	April 26 2015	Email	No way to more mines		Pri ate Citizen				MtPo ley MinePermit MEM EX
38	April 26 2015	Email	Permit applicat on		Pri ate Citizen				MtPo ley MinePermit MEM EX
39	April 27 2015	Email	No new n tel		Pri ate Citizen				MtPo ley MinePermit MEM EX
40	April 27 2015	Email	Comments regarding the re/opening of Mt Polley Mine		Pri ate Citizen				MtPolley MinePermit MEM EX
41	April 27 2015	Email	Do Not reopen Mount Polley Mine ! THEY clean up their oxic Pollution!		Pri ate Citizen				MtPolley MinePermit MEM EX
42	April 27 2015	Email	You ha e to be kidding!		Pri ate Citizen				MtPolley MinePermit MEM EX
43	April 27 2015	Email	Mount Polley Permit Opinion- Accept Perm t Appl cation		Pri ate Citizen				MtPolley MinePermitting - bc.ca
44	April 27 2015	Email	Mt. Polley mine permit		Earthworkaction				MtPolley MinePermit MEM EX
45	April 27 2015	Email	Mt. Polley M se Permit		Pri ate Citizen				MtPolley MinePermit MEM EX
46	April 27 2015	Email	No to allowing Imperial Metals to carry on		Pri ate Citizen				MtPolley MinePermit MEM EX
47	April 27 2015	Email	Mt. Polley mine restart permit applicat on		Pri ate Citizen				MtPolley MinePermit MEM EX
48	April 27 2015	Email	BC cannot afford another Mount Polley mine disaster		Pri ate Citizen				MtPolley MinePermit MEM EX
49	April 27 2015	Email	Mount Polley Mine		Pri ate Citizen				MtPolley MinePermit MEM EX
50	April 28 2015	Email	Dust's ha e a nice day		Pri ate Citizen				enquiries@imperialmetals.com
51	April 28 2015	Email	Think about all he consequences of your greed!		Pri ate Citizen				enquiries@imperialmetals.com
52	April 28 2015	Email	No Consent		Pri ate Citizen				MtPolley MinePermit MEM EX
53	April 28 2015	Email	Appro al of mine permit for restarting operations		Wendy Leo				enquiries@imperialmetals.com
54	April 28 2015	Email	Mt Polley En ironmental Disas er		Pri ate Citizen				MtPolley MinePermitting - bc.ca
55	April 28 2015	Email	Permits to release tailings wa er into Queneau Lake / Permit to start up Mount Polley Mine		Pri ate Citizen				MtPolley MinePermit MEM EX
56	April 28 2015	Email	(un tilde)		Pri ate Citizen				MtPolley MinePermit MEM EX
57	April 28 2015	Email	Open Mount Po ley Mine as soon as possible		Pri ate Citizen				MtPolley MinePermit MEM EX
58	April 28 2015	Email	RE Mount Polley Mine		Pri ate Citizen				MtPolley MinePermit MEM EX
59	April 28 2015	Email	Comments on Imperial Metal's permit o re-open		E-Tech International				MtPolley MinePermit MEM EX
60	April 28 2015	Message	E-Tech Comments on Mt. Polley		E-Tech International				MtPolley MinePermit MEM EX
61	April 28 2015	Letter	TREAT THE WATER: Final Lettr2		Pri ate Citizen				enquiries@imperialmetals.com
62	April 29 2015	Email	Mount Polley Mine Permit Request		Pri ate Citizen				MtPolley MinePermit MEM EX
63	April 29 2015	Email	My support		Pri ate Citizen				MtPolley MinePermit MEM EX
64	April 29 2015	Email	BC cannot afford another Mount Polley mine disaster		Pri ate Citizen				MtPolley MinePermit MEM EX
65	April 29 2015	Email	Mt. Polley Mine appl cation		Pri ate Citizen				MtPolley MinePermit MEM EX
66	April 29 2015	Email	do not open/re-open the Mount Polley mine		Pri ate Citizen				MtPolley MinePermit MEM EX
67	April 29 2015	Email	BC cannot afford another Mount Polley mine disaster		Pri ate Citizen				MtPolley MinePermit MEM EX
68	April 29 2015	Email	React on to Imperial Metals Application o Resume Res ricted Operations		Pri ate Citizen				MtPolley MinePermit MEM EX
69	April 29 2015	Email	BC cannot afford another Mount Polley mine disaster		Pri ate Citizen				MtPolley MinePermit MEM EX
70	April 29 2015	Email	Please do Not re opening Mt. Polley Mine?		Pri ate Citizen				MtPolley MinePermit MEM EX
71	April 29 2015	Email	Do not open Mt Polly		Pri ate Citizen				MtPolley MinePermit MEM EX
72	April 29 2015	Email	Please don't re-open ng of the Mt. Polley mine		Pri ate Citizen				MtPolley MinePermit MEM EX
73	April 29 2015	Email	Statement of concern		Pri ate Citizen				MtPolley MinePermit MEM EX
74	April 29 2015	Email	Mt. Polley Mine Reopen ng		Pri ate Citizen				MtPo ley MinePermit MEM EX
75	April 29 2015	Email	British Columbia must not ect the reopening of Imperial Metals' Mount Polley mine		Pri ate Citizen				MtPo ley MinePermit MEM EX
76	April 29 2015	Email	don't do i		Pri ate Citizen				MtPo ley MinePermit MEM EX
77	April 29 2015	Email	No to re-opening Mount Polley		Pri ate Citizen				MtPo ley MinePermit MEM EX
78	April 29 2015	Email	Mount Polley mine		Pri ate Citizen				MtPo ley MinePermit MEM EX
79	April 29 2015	Email	Re opening Mt Po ly		Pri ate Citizen				MtPo ley MinePermit MEM EX
80	April 29 2015	Email	Re Mount Polley		Pri ate Citizen				MtPo ley MinePermit MEM EX
81	April 29 2015	Email	Mine reopen		Pri ate Citizen				MtPo ley MinePermit MEM EX
82	April 29 2015	Email	Stop Mt Polley		Pri ate Citizen				MtPolley MinePermit MEM EX
83	April 29 2015	Email	Mount Polley Mining Disaster		Pri ate Citizen				MtPolley MinePermit MEM EX
84	April 29 2015	Email	No to Mt Polley Mine		Pri ate Citizen				MtPolley MinePermit MEM EX
85	April 29 2015	Email	Public comment regarding reopening of Imperial Metals' Mount Polley mine		Pri ate Citizen				MtPolley MinePermit MEM EX
86	April 29 2015	Email	Please do not allow yet more toxic mining to take place at mt polley		Pri ate Citizen				MtPolley MinePermit MEM EX
87	April 29 2015	Email	We as First Nations demand the Mt. Polley mine be Re-Opened		Pri ate Citizen				MtPolley MinePermit MEM EX
88	April 29 2015	Email	Oppose possible reopening of Mount Polley Mine		Wild Game Fish Conservation Internat ional				MtPolley MinePermit MEM EX
89	April 29 2015	Email	application to reopen IMMP mine		Pri ate Citizen				MtPolley MinePermit MEM EX
90	April 29 2015	Email	Mount Polley re-open		Pri ate Citizen				MtPolley MinePermit MEM EX
91	April 29 2015	Email	BC cannot afford another Mount Polley mine disaster		Pri ate Citizen				MtPolley MinePermit MEM EX
92	April 29 2015	Email	No to Mount Polley mine permit		Pri ate Citizen				MtPolley MinePermit MEM EX
93	April 29 2015	Email	Stop Mt Polley re-opening		Pri ate Citizen				MtPolley MinePermit MEM EX
94	April 29 2015	Email	objections to reopening Mt. Po ley Mine		Pri ate Citizen				MtPolley MinePermit MEM EX
95	April 29 2015	Email	BC cannot afford another Mount Polley mine disaster		Pri ate Citizen				MtPolley MinePermit MEM EX
96	April 29 2015	Email	Reopening of Mt. Polley Mine		Pri ate Citizen				MtPolley MinePermit MEM EX
97	April 29 2015	Email	BC cannot afford another Mount Polley mine disaster		Pri ate Citizen				MtPolley MinePermit MEM EX
98	April 29 2015	Email	BC cannot afford another Mount Polley mine disaster		Pri ate Citizen				MtPolley MinePermit MEM EX
99	April 30 2015	Email	Imp t costs		Pri ate Citizen				MtPolley MinePermit MEM EX
100	April 30 2015	Email	BC cannot afford another Mount Polley mine disaster		Pri ate Citizen				MtPolley MinePermit MEM EX
101	April 30 2015	Email	Mt Polley M se permit		Pri ate Citizen				MtPolley MinePermit MEM EX
102	April 30 2015	Email	concerned citizens		Pri ate Citizen				MtPolley MinePermit MEM EX
103	April 30 2015	Email	Reject the Reopen ng of the Mount Polley Mine!		Pri ate Citizen				MtPo ley MinePermit MEM EX
104	April 30 2015	Email	DO NOT PERMIT RE-OPENING!		Pri ate Citizen				MtPolley MinePermit MEM EX
105	April 30 2015	Email	re-act, ate the mine now... what... that's nuts		Pri ate Citizen				MtPolley MinePermit MEM EX

S 22

S 22

Public Comment Summary Log										
Item #	Date	Communication Method	Subject	From Person	Contact Organization	Contact Phone	Contact Email	Contact Address	Receiving Address	
106	April 30 2015	Email	Mount Polley							
107	April 30 2015	Email	Mt. Polley Mine							
108	April 30 2015	Email	comments about restart.							
109	April 30 2015	Email	Surely a \$1 Million election donation isn't enough!							
110	April 30 2015	Email	BC cannot afford another Mount Polley mine disaster							
111	April 30 2015	Email	Stop the appeal at for reopening he Mount Polley Mine							
112	April 30 2015	Email	Mt. Polley reopening permit							
113	April 30 2015	Email	Imperial Metals - Please Stop Mount Polley Mine Reopening							
114	April 30 2015	Email	Reject application!							
115	April 30 2015	Email	Mount Polley mine re-opening							
116	April 30 2015	Email	Mount Polley Mine re-opening application							
117	April 30 2015	Email	Formal complaint.							
118	April 30 2015	Email	who has to reopen the Mount Polley mine...							
119	April 30 2015	Email	The re-Opening of Mt Polley Mine							
120	April 30 2015	Email	Oppos tion to restart mine							
121	April 30 2015	Email	A concerned U.S. citizen							
122	April 30 2015	Email	Mount Polley Mine							
123	April 30 2015	Email	reopening of Mt Polley Mine							
124	April 30 2015	Email	The reopening of Imperial Metals' Mount Polley mine							
125	April 30 2015	Email	Re Mount Polley Mine Re-opening							
126	April 30 2015	Email	Do not re-open Mount Polley							
127	April 30 2015	Email	Mount Polley mine							
128	April 30 2015	Email	Polly Mine							
129	April 30 2015	Email	Do not re-open Mount Polley							
130	April 30 2015	Email	Mount Polley							
131	April 30 2015	Email	Reopening of Imperial Metals' Mount Polley mine							
132	April 30 2015	Email	Re Imperial Metals permit							
133	April 30 2015	Email	Do not re-open Mount Polley							
134	April 30 2015	Email	Mt. Polly Mine							
135	April 30 2015	Email	Do not re-open Mount Polley							
136	April 30 2015	Email	Mount Polley							
137	April 30 2015	Email	Do not re-open Mount Polley							
138	April 30 2015	Email	Mount Polley permit							
139	April 30 2015	Email	Do not re-open Mount Polley							
140	April 30 2015	Email	Do not re-open Mount Polley							
141	April 30 2015	Email	Mount Polley mine							
142	May 1 2015	Email	Do not re-open Mount Polley							
143	May 1 2015	Email	Respect Citizens please.							
144	May 1 2015	Email	Do not re-open Mount Polley							
145	May 1 2015	Email	oppose mount polley mines							
146	May 1 2015	Email	Temp permit							
147	May 1 2015	Email	Polley Mine							
148	May 1 2015	Email	Polley Mine							
149	May 1 2015	Email	Williams Lake BC							
150	May 1 2015	Email	Mount Polley - why is BC not considering providing permission to re-open?							
151	May 1 2015	Email	letter of support re temporary permit							
152	May 1 2015	Email	RE Mount Polley Mine							
153	May 1 2015	Email	No permit to be issued to the Imperial Metals Corporation							
154	May 1 2015	Email	Public comment from Craig Maty-Pouso							
155	May 1 2015	Email	Do not re-open Mount Polley							
156	May 1 2015	Email	Please Reject the Mt Polley Mine Permit							
157	May 1 2015	Email	Say No to Reopening the Mine							
158	May 1 2015	Email	IMPERIAL NO MORE							
159	May 1 2015	Email	Mount Polley mine should stay closed							
160	May 1 2015	Email	Public Consultation Per Od							
161	May 1 2015	Email	Mine reopen							
162	May 1 2015	Email	Mount Polley Mine Re-opening							
163	May 1 2015	Email	Re Mount Polley Mine							
164	May 1 2015	Email	Imperial Metals							
165	May 1 2015	Email	Keep it Closed							
166	May 1 2015	Email	Mount Polley Mine Re-opening Must be Rejected							
167	May 1 2015	Email	Do not re-open Mount Polley							
168	May 1 2015	Email	About the Clean Up							
169	May 1 2015	Email	Mount Polley Mine Re-opening Must be Rejected!							
170	May 1 2015	Email	Do not re-open Mount Polley							
171	May 1 2015	Email	NO MOUNT POLLEY MINES!!!							
172	May 1 2015	Email	No!							
173	May 1 2015	Email	Mt Polley Mine							
174	May 1 2015	Email	reject the permit							
175	May 1 2015	Email	Shame!							
176	May 1 2015	Email	don't reopen the mine!							
177	May 1 2015	Email	Mt. Polley Mining Permit							
178	May 1 2015	Email	Mount Polley Mine Re-opening Must be Rejected!							
179	May 1 2015	Email	Mine Res art							
180	May 1 2015	Email	No Mine							
181	May 1 2015	Email	Application to reopen Mt. Polley							
182	May 1 2015	Email	Reject the Mt Polley Mine reopening permit.							
183	May 1 2015	Email	mt. polley mine permit							
184	May 1 2015	Email	Mt Polley							
185	May 1 2015	Email	Reject the reopening of Imperial Metals' Mount Polley mine until communities get a consent							
186	May 1 2015	Email	REJECT Mt Polley Mine re-opening							
187	May 1 2015	Email	DO NOT re-OPEN the mine!							
188	May 1 2015	Email	DO NOT re-open he Mount Polley Mine							
189	May 1 2015	Email	MPAC Polley Lake							
190	May 1 2015	Email	Why you must reject re-opening of Mount Polley Mine							
191	May 1 2015	Email	Mount Polley Mine Permit							
192	May 1 2015	Email	Reopening the Mine							
193	May 1 2015	Email	Reject the Mount Polley mine re-opening proposal							
194	May 1 2015	Email	Don't reopen the disaster mine.							
195	May 1 2015	Email	Say no to RM							
196	May 1 2015	Email	Open Mt. Polley							
197	May 1 2015	Email	Mount Polley							
198	May 1 2015	Email	Mount Polley Clean Up							
199	May 1 2015	Email	Mount Polley							
200	May 1 2015	Email	Let us of Support							
201	May 1 2015	Email	Reject Mount Polley request to re-open							
202	May 1 2015	Email	British Columbia must reject the reopening of Imperial Metals' Mount Polley mine without the consent of communities impacted by the tailings disaster							
203	May 1 2015	Email	Restart Application							
204	May 1 2015	Email	Don't reopen Mount Polley							
205	May 1 2015	Email	Please do not reopen the Mount Polley mine							
206	May 1 2015	Email	s op							
207	May 1 2015	Email	Do not re-open Mt. Polley							
208	May 1 2015	Email	Reject permit to Mount Polley re-open ng							
209	May 1 2015	Email	Proposed reopening of Mount Polley mine							
210	May 1 2015	Email	Re-opening the mine	Gabrielle Lemoine	Pri					

Public Comment Summary Log									
Item #	Date	Communication Method	Subject	From Person	Contact Organization	Contact Phone	Contact Email	Contact Address	Receiving Address
211	May 1 2015	Email	NO to Mount Polley Permit		Pri ate Citizen				AtPolley MinePermit MEM EX
212	May 1 2015	Email	MT Polley mine		Pri ate Citizen				AtPolley MinePermit MEM EX
213	May 1 2015	Email	Re-opening the mine		Pri ate Citizen				AtPolley MinePermit MEM EX
214	May 1 2015	Email	Stop the slurry.		Pri ate Citizen				AtPolley MinePermit MEM EX
215	May 1 2015	Email	Mt Polley must NOT be reopened		Pri ate Citizen				AtPolley MinePermit MEM EX
216	May 1 2015	Email	In support of he Mount Polley Mine permitting process		Pri ate Citizen				AtPolley MinePermit MEM EX
217	May 1 2015	Email	In support of he Mount Polley Mine permitting process		Pri ate Citizen				AtPolley MinePermit MEM EX
218	May 1 2015	Email	Do not re-open Mount Polley		Pri ate Citizen				AtPolley MinePermit MEM EX
219	May 1 2015	Email	Please don't reopen the mine		Pri ate Citizen				AtPolley MinePermit MEM EX
220	May 1 2015	Email	We say no!		Pri ate Citizen				AtPolley MinePermit MEM EX
221	May 1 2015	Email	Please Listen		Pri ate Citizen				AtPolley MinePermit MEM EX
222	May 1 2015	Email	Mt Polley has done enough		Pri ate Citizen				AtPolley MinePermit MEM EX
223	May 1 2015	Email	Do not re-open Mount Polley		Pri ate Citizen				AtPolley MinePermit MEM EX
224	May 1 2015	Email	Please open the mine		Pri ate Citizen				AtPolley MinePermit MEM EX
225	May 1 2015	Email	Mount polley		Pri ate Citizen				AtPolley MinePermit MEM EX
226	May 1 2015	Email	Mt Polley mine		Pri ate Citizen				AtPolley MinePermit MEM EX
227	May 1 2015	Email	Concerns with Mount Polley M re Reopening ug		Pri ate Citizen				AtPolley MinePermit MEM EX
228	May 1 2015	Email	Mt Polley mine		Pri ate Citizen				AtPolley MinePermit MEM EX
229	May 1 2015	Email	Mt Polley		Pri ate Citizen				AtPolley MinePermit MEM EX
230	May 1 2015	Email	Mt Polley Re-open ug let er of comment		Pri ate Citizen				AtPolley MinePermit MEM EX
231	May 1 2015	Email	Reopening of Mt Polley mine		Pri ate Citizen				AtPolley MinePermit MEM EX
232	May 1 2015	Email	no reopening of mt po ley in ne		Pri ate Citizen				AtPolley MinePermit MEM EX
233	May 1 2015	Email	Mount polley mine permit		Pri ate Citizen				AtPolley MinePermit MEM EX
234	May 1 2015	Email	Mount Polley Mine		Pri ate Citizen				AtPolley MinePermit MEM EX
235	May 1 2015	Email	Mine reopening		Pri ate Citizen				AtPolley MinePermit MEM EX
236	May 1 2015	Email	Mount polley mine permit		Pri ate Citizen				AtPolley MinePermit MEM EX
237	May 1 2015	Email	(un tiled)		Pri ate Citizen				AtPolley MinePermit MEM EX
238	May 1 2015	Email	restart Polley Mine		Pri ate Citizen				AtPolley MinePermit MEM EX
239	May 1 2015	Email	reopening		Pri ate Citizen				AtPolley MinePermit MEM EX
240	May 1 2015	Email	Mount Polley Mine Re-opening Must be Rejected		Pri ate Citizen				AtPolley MinePermit MEM EX
241	May 1 2015	Email	RE Start		Pri ate Citizen				AtPolley MinePermit MEM EX
242	May 1 2015	Email	please do "not" re-open he Mt. Polley mine		Pri ate Citizen				AtPolley MinePermit MEM EX
243	May 1 2015	Email	My Polley Mine		Pri ate Citizen				AtPolley MinePermit MEM EX
244	May 1 2015	Email	reopening of Mt. Polley mine		Pri ate Citizen				AtPolley MinePermit MEM EX
245	May 1 2015	Email	Mount Polley		Pri ate Citizen				AtPolley MinePermit MEM EX
246	May 1 2015	Email	Please do not allow the re-opening ug the Mt Polley Mine		Pri ate Citizen				AtPolley MinePermit MEM EX
247	May 1 2015	Email	Recommendation		Pri ate Citizen				AtPolley MinePermit MEM EX
248	May 1 2015	Email	Reopening of Imperial Metals Mount Polley mine		Pri ate Citizen				AtPolley MinePermit MEM EX
249	May 1 2015	Email	DON'T REOPEN IT!		Pri ate Citizen				AtPolley MinePermit MEM EX
250	May 1 2015	Email	When does it stop?		Pri ate Citizen				AtPolley MinePermit MEM EX
251	May 1 2015	Email	Public Comments Re Mt. Polley Mine		Pri ate Citizen				AtPolley MinePermit MEM EX
252	May 1 2015	Email	Mount Polley mine		Pri ate Citizen				AtPolley MinePermit MEM EX
253	May 1 2015	Email	Comments on proposed o res art operat ons at Mount Polley		Pri ate Citizen				AtPolley MinePermit MEM EX
254	May 1 2015	Email	Pulley mines		Pri ate Citizen				AtPolley MinePermit MEM EX
255	May 1 2015	Email	Let us Against Mt Polley Mine Re-opening		Father Creek Watershed Society				AtPolley MinePermit MEM EX
256	May 1 2015	Email	Please reject the reopening of the Mt. Polley mine		Pri ate Citizen				AtPolley MinePermit MEM EX
257	May 1 2015	Email	Mt Polley M re Permit		Pri ate Citizen				AtPolley MinePermit MEM EX
258	May 1 2015	Email	Support		Pri ate Citizen				AtPolley MinePermit MEM EX
259	May 1 2015	Email	FinalistNoMore		Pri ate Citizen				AtPolley MinePermit MEM EX
260	May 1 2015	Email	Don't reopen it		Pri ate Citizen				AtPolley MinePermit MEM EX
261	May 1 2015	Email	Mount Polley Mine Re-opening Must be Rejected!		Pri ate Citizen				AtPolley MinePermit MEM EX
262	May 1 2015	Email	Mt. Polley Mine		Pri ate Citizen				AtPolley MinePermit MEM EX
263	May 1 2015	Email	No mine reopening		Pri ate Citizen				AtPolley MinePermit MEM EX
264	May 1 2015	Email	Re-opening he mine		Pri ate Citizen				AtPolley MinePermit MEM EX
265	May 1 2015	Email	Re-open the mine! (carefully)		Pri ate Citizen				AtPolley MinePermit MEM EX
266	May 2 2015	Email	Mt. Polley Mine Permit		Pri ate Citizen				AtPolley MinePermit MEM EX
267	May 2 2015	Email	Mt. Polley M re Consensus		Pri ate Citizen				AtPolley MinePermit MEM EX
268	May 2 2015	Email	Re Oppose to Reopening Mt. Polley Mine		Pri ate Citizen				AtPolley MinePermit MEM EX
269	May 2 2015	Email	re-open ug the mine		Pri ate Citizen				AtPolley MinePermit MEM EX
270	May 1 2015	Email	Twel opening the mine		Pri ate Citizen				AtPolley MinePermit MEM EX
271	May 2 2015	Email	Please do not re open Mount Polley Mine		Pri ate Citizen				AtPolley MinePermit MEM EX
272	May 2 2015	Email	Do not reopen mount polley mines		Pri ate Citizen				AtPolley MinePermit MEM EX
273	May 2 2015	Email	Mount Polley - why is IBC r en considering pro iding permission to re-open?		Pri ate Citizen				AtPolley MinePermit MEM EX
274	May 2 2015	Email	Keep it closed!		Pri ate Citizen				AtPolley MinePermit MEM EX
275	May 2 2015	Email	Polley		Pri ate Citizen				AtPolley MinePermit MEM EX
276	May 2 2015	Email	Mount Polley Mine Re-opening Must be Rejected		Pri ate Citizen				AtPolley MinePermit MEM EX
277	May 2 2015	Email	Mt Polley permit		Pri ate Citizen				AtPolley MinePermit MEM EX
278	May 2 2015	Email	Polley mine		Pri ate Citizen				AtPolley MinePermit MEM EX
279	May 2 2015	Email	Polley mine		Pri ate Citizen				AtPolley MinePermit MEM EX
280	May 2 2015	Email	Polley mine		Pri ate Citizen				AtPolley MinePermit MEM EX
281	May 2 2015	Email	Polley mine		Pri ate Citizen				AtPolley MinePermit MEM EX
282	May 2 2015	Email	Polley mine		Pri ate Citizen				AtPolley MinePermit MEM EX
283	May 2 2015	Email	Mount Polley Mine		Pri ate Citizen				AtPolley MinePermit MEM EX
284	May 2 2015	Email	Mine		Pri ate Citizen				AtPolley MinePermit MEM EX
285	May 2 2015	Email	Reject Mt Polley Mine Re-Opening		Pri ate Citizen				AtPolley MinePermit MEM EX
286	May 2 2015	Email	Do not re-open Mount Polley		Pri ate Citizen				AtPolley MinePermit MEM EX
287	May 2 2015	Email	Mt. Polley mine re-opening permit		Pri ate Citizen				AtPolley MinePermit MEM EX
288	May 2 2015	Email	Where are your heads?		Pri ate Citizen				AtPolley MinePermit MEM EX
289	May 1 2015	Email	(un tiled)		Pri ate Citizen				AtPolley MinePermit MEM EX
290	May 2 2015	Email	We ehemently oppose the re-opening of the largest industrial disaster in Canadian history.		Pri ate Citizen				AtPolley MinePermit MEM EX
291	May 2 2015	Email	Re-opening mine?		Pri ate Citizen				AtPolley MinePermit MEM EX
292	May 2 2015	Email	Don't reopen Mount Polley M re until IMC has fulfilled it's responsibility to return the landscape to pre spill condition		Pri ate Citizen				AtPolley MinePermit MEM EX
293	May 2 2015	Email	impolysynne		Pri ate Citizen				AtPolley MinePermit MEM EX
294	May 2 2015	Email	do not reopen he Mt Polley mine		Pri ate Citizen				AtPolley MinePermit MEM EX
295	May 2 2015	Email	Common sense please		Pri ate Citizen				AtPolley MinePermit MEM EX
296	May 2 2015	Email	Mount Polley Re-Opening		Pri ate Citizen				AtPolley MinePermit MEM EX
297	May 2 2015	Email	Reject reopening Mt. Polley		Pri ate Citizen				AtPolley MinePermit MEM EX
298	May 2 2015	Email	(un tiled)		Pri ate Citizen				AtPolley MinePermit MEM EX
299	May 2 2015	Email	support for temporary mine permit		Pri ate Citizen				AtPolley MinePermit MEM EX
300	May 2 2015	Email	Writing in opposition on to the reopen ug of the Mount PolleyM re		Pri ate Citizen				AtPolley MinePermit MEM EX
301	May 2 2015	Email	I as a Canadian citizen and a resident of British Columbia demand hat Mount Polley not be Re-Opened		Pri ate Citizen				AtPolley MinePermit MEM EX
302	May 2 2015	Email	Mt Polley M re Permit		Pri ate Citizen				AtPolley MinePermit MEM EX
303	May 2 2015	Email	permit application for the Mount Polley M re		Pri ate Citizen				AtPolley MinePermit MEM EX
304	May 2 2015	Email	Temporary restart		Pri ate Citizen				AtPolley MinePermit MEM EX
305	May 2 2015	Email	restart Mt Polley Mine		Pri ate Citizen				AtPolley MinePermit MEM EX
306	May 2 2015	Email	Mount Polley mine		Pri ate Citizen				AtPolley MinePermit MEM EX
307	May 2 2015	Email	Re-opening of the Mount Polley Mine		Pri ate Citizen				AtPolley MinePermit MEM EX
308	May 2 2015	Email	Restart Mt Polley Mine		Pri ate Citizen				AtPolley MinePermit MEM EX
309	May 2 2015	Email	Comments on Application to Restart Opera ions at Mount Polley Mine		Fraser R. ekeepers				AtPolley MinePermit MEM EX
310	May 2 2015	Letter	TREAT THE WATER Final Letm2		Fraser R. ekeepers				AtPolley MinePermit MEM EX
311	May 2 2015	Email	Comments on Application to Restart Opera ions at Mount Polley Mine		Pri ate Citizen				AtPolley MinePermit MEM EX
312	May 2 2015	Letter	TREAT THE WATER Final Letm2		Fraser R. ekeepers				AtPolley MinePermit MEM EX
313	May 2 2015	Email	Do not re-open Mount Polley		Pri ate Citizen				AtPolley MinePermit MEM EX
314	May 2 2015	Email	Mount Polley Mine Permit. No Consent. No Consultation		Pri ate Citizen				AtPolley MinePermit MEM EX

S 22

S 22

Public Comment Summary Log									
Item #	Date	Communication Method	Subject	From Person	Contact Organization	Contact Phone	Contact Email	Contact Address	Receiving Address
311	May 2 2013	Email	Help save the Earth reject the reopening of Imperial Metals		Pri ate Citizen				MtPolley MinePermit MEM EX
310	May 2 2013	Email	STOP the re-opening of he Mount Polley Mine		Pri ate Citizen				MtPolley MinePermit MEM EX
317	May 2 2013	Email	STOP the re-opening of he Mount Polley Mine		Pri ate Citizen				MtPolley MinePermit MEM EX
310	May 2 2013	Email	Re Mount Polley Mine		Pri ate Citizen				MtPolley MinePermit MEM EX
310	May 2 2013	Email	Mount Polley Mine Re-opening Must be Rejected!		Pri ate Citizen				MtPolley MinePermit MEM EX
320	May 2 2013	Email	Do Not Allow The Mt. Polley Mine to Reopen		Pri ate Citizen				MtPolley MinePermit MEM EX
321	May 2 2013	Email	Mount Polley		Pri ate Citizen				MtPolley MinePermit MEM EX
322	May 2 2013	Email	Re-opening the mine.		Pri ate Citizen				MtPolley MinePermit MEM EX
323	May 2 2013	Email	Mount Polley Must Not Reopen!		Pri ate Citizen				MtPolley MinePermit MEM EX
32	May 2 2013	Email	I oppose reopen ng the mine		Pri ate Citizen				MtPolley MinePermit MEM EX
325	May 2 2013	Email	Mount Polley Mine Permit. No Consent, No Consultation		Pri ate Citizen				MtPolley MinePermit MEM EX
326	May 2 2013	Email	Lack of social impact assessment		Pri ate Citizen				MtPolley MinePermit MEM EX
327	May 2 2013	Email	Mount Polley Mine reopening decision		Pri ate Citizen				MtPolley MinePermit MEM EX
328	May 2 2013	Email	Mine reopened		Pri ate Citizen				MtPolley MinePermit MEM EX
329	May 2 2013	Email	(un tiled)		Pri ate Citizen				MtPolley MinePermit MEM EX
330	May 2 2013	Email	close he mine		Pri ate Citizen				MtPolley MinePermit MEM EX
331	May 2 2013	Email	Mount Polley not ready to re-open		Pri ate Citizen				MtPolley MinePermit MEM EX
332	May 2 2013	Email	Mount Polley Mine Re-opening consultation		Pri ate Citizen				MtPolley MinePermit MEM EX
333	May 2 2013	Email	Proposal to Reopen the Mount Polley Mine Site		Pri ate Citizen				MtPolley MinePermit MEM EX
33	May 2 2013	Email	We want to go back o work		Pri ate Citizen				MtPolley MinePermit MEM EX
335	May 2 2013	Email	Mount Polley Mine Re-opening Must be Rejected!		Pri ate Citizen				MtPolley MinePermit MEM EX
336	May 2 2013	Email	Mt. Polley mine -do not reopen mine		Pri ate Citizen				MtPolley MinePermit MEM EX
337	May 2 2013	Email	My Polley		Pri ate Citizen				MtPolley MinePermit MEM EX
338	May 2 2013	Email	02-May		Pri ate Citizen				MtPolley MinePermit MEM EX
339	May 2 2013	Email	Mount Polley Mine Re-opening Must be Rejected!		Pri ate Citizen				MtPolley MinePermit MEM EX
3 0	May 2 2013	Email	Mount Polley Mine must NOT re-open		Pri ate Citizen				MtPolley MinePermit MEM EX
3 1	May 2 2013	Email	Do not re-open Mount Polley		Pri ate Citizen				MtPolley MinePermit MEM EX
3 2	May 2 2013	Email	Do not reopen Mount Polley Mine		Pri ate Citizen				MtPolley MinePermit MEM EX
3 3	May 2 2013	Email	mine reopening		Pri ate Citizen				MtPolley MinePermit MEM EX
3	May 2 2013	Email	Mt. Polley mine		Pri ate Citizen				MtPolley MinePermit MEM EX
3 4	May 2 2013	Email	Reopening Mount Polley Mine		Pri ate Citizen				MtPolley MinePermit MEM EX
3 0	May 2 2013	Email	Citizen input		Pri ate Citizen				MtPolley MinePermit MEM EX
3	May 2 2013	Email	Do not re-open Mount Polley		Pri ate Citizen				MtPolley MinePermit MEM EX
3 0	May 2 2013	Email	Hold big players accountable.		Pri ate Citizen				MtPolley MinePermit MEM EX
3 0	May 2 2013	Email	Mount Polley Mine must not be reopened without consent of he communities impacted		Pri ate Citizen				MtPolley MinePermit MEM EX
360	May 2 2013	Email	temporary restart		Pri ate Citizen				MtPolley MinePermit MEM EX
351	May 2 2013	Email	(un tiled)		Pri ate Citizen				MtPolley MinePermit MEM EX
352	May 2 2013	Email	Do not re-open Mount Polley		Pri ate Citizen				MtPolley MinePermit MEM EX
353	May 2 2013	Email	temporary start up		Pri ate Citizen				MtPolley MinePermit MEM EX
35	May 2 2013	Email	Mt. Polley permit.		Pri ate Citizen				MtPolley MinePermit MEM EX
355	May 2 2013	Email	Please do NOT permit he Mount Polley Mine to be re-opened		Pri ate Citizen				MtPolley MinePermit MEM EX
356	May 2 2013	Email	Restart Mount Polley Mine Please!		Pri ate Citizen				MtPolley MinePermit MEM EX
357	May 2 2013	Email	Do not re-open Mount Polley		Pri ate Citizen				MtPolley MinePermit MEM EX
358	May 2 2013	Email	Concerns about mine		Pri ate Citizen				MtPolley MinePermit MEM EX
359	May 2 2013	Email	(un tiled)		Pri ate Citizen				MtPolley MinePermit MEM EX
360	May 2 2013	Email	Do not re-open Mount Polley		Pri ate Citizen				MtPolley MinePermit MEM EX
361	May 2 2013	Email	Honour and the Mt. Polley Mine disaster		Pri ate Citizen				MtPolley MinePermit MEM EX
362	May 2 2013	Email	Mount Polley Amendment Application		Pri ate Citizen				MtPolley MinePermit MEM EX
363	May 2 2013	Letter	Mount Polley Amendment Application		Pri ate Citizen				MtPolley MinePermit MEM EX
36	May 2 2013	Email	Regarding reopening - a complex issue		Pri ate Citizen				MtPolley MinePermit MEM EX
364	May 2 2013	Email	Close Down Mt. Polley Mine-Canadian Res dent		Pri ate Citizen				MtPolley MinePermit MEM EX
365	May 2 2013	Letter	Cedar Point Park mine support		Cedar Point Park				MtPolley MinePermit MEM EX
367	May 2 2013	Letter	mine support		Likely & District Community Forest Ltd.				MtPolley MinePermit MEM EX
368	May 2 2013	Letter	mine support letter						MtPolley MinePermit MEM EX
369	May 2 2013	Email	mine		Pri ate Citizen				mine comments
370	May 2 2013	Email	reopen		Pri ate Citizen				mine comments
371	May 2 2013	Email	sa e the mine		Pri ate Citizen				mine comments
372	May 2013	Email	In Support of the Mount Polley Restart Applications		Pri ate Citizen				MtPolley MinePermit MEM EX
373	May 2013	Email	Re-Opening Mount Polley		Pri ate Citizen				MtPolley MinePermit MEM EX
37	May 2013	Email	Support for reopening of Polley Mine		Pri ate Citizen				support@imperialmetals.com
375	May 2013	Email	Support for Polley		Pri ate Citizen				support@imperialmetals.com
376	May 2013	Email	Support		Pri ate Citizen				support@imperialmetals.com

S.22

S.22

From: s.22
Sent: April-09-15 11:02 AM
To: MtPolley MinePermit MEM:EX
Subject: Really, eh?

So Mt. Polley mine wants to start up again? Well, I don't see the land and waters restored to their original state yet, do you?

HOW THE HELL DARE THEY EVEN TRY BEFORE THEY PUT IT ALL BACK TO THE ORIGINAL CONDITION WHERE IT WAS BEFORE THEY CREATED THIS MESS!

And if they can't or won't, well tough luck, send them a ticket on the first plane back to the good old USA! With that sort of record, they do not have a right to operate in BC, or anywhere else in Canada! Period!

Sincerely

s.22
West Vancouver, BC

From:
Sent: April-09-15 4:24 PM
To: MtPolley MinePermit MEM:EX
Subject: Temporary reopening.

s.22

To Whom it May Concern;

It would seem that many people think that by allowing Mt Polley to re-open, the government is rewarding Imperial Metals for doing a bad thing. I happen to think differently.

Allowing Mt Polley to re-open allows us to keep working to fix the creek. It allows 300 people to continue to help Williams Lake and its economy. It allows us to continue to do the right thing, which we have now done for 7 months. Surely that shows everyone that we are here to stay if we are allowed to, and will make Hazeltine Creek into a world class spawning area which supports far more habitat than it ever has. I don't recall a mining company ever showing a conscience like this anytime in history.

Everyone has been down on us as a result of this. But no one has been as down on us as we have. Perhaps the lessons we have all learned as a result of what happened will turn Mt Polley into a spearhead for change, and allowing us to re-open will simply allow us to continue in that direction. Not really too much to ask.

Regards

s.22

From: s.22
Sent: April-09-15 8:15 PM
To: MtPolley MinePermit MEM:EX
Subject: Mt Polley permit to reopen

I have seen the devastation first hand at Hazeltine Creek. The scale is unbelievable and nothing has been cleaned up 8 months later.

There is evidence from ex employees that the mine knew the dam was unsafe.

s.22 and concerned citizen I would NOT allow this company to continue operating the Mt. Polley mine. The risk of another failure is HIGH based on the geological conditions under the dam and lax attitude of the company.

Sincerely, s.22

From: §
22
Sent: April-09-15 10:58 PM
To: MtPolley MinePermit MEM:EX
Subject: Fwd: Really, eh?

Whoever it is that sits at the table and makes decisions about who is to live and who is to die; that means You People; remember that when you are laying on your death bed; You made the decision for All Those with no Voice. Your grandchildren and mine. The birds, wildlife, fish, insects, trees, flowers, bees, butterflies, and all of their babies. You are the ones who are sitting there deciding over All These Little Ones' Lives.

Please listen to your hearts People. Please hear what you can of the Truth about Life. We all know the truth about profit, about shares, dividends, and so on. That does not take two brain cells to figure out. But Life and Death? This takes great Intelligence which can only come from Our Hearts. Not books, papers, balance sheets, computer screens. Our Hearts. These are what We are blessed with to Connect us with Truth.

Please. Do not pretend you don't hear me. I know you do.

§
22

Please. There will be a trial sooner or later. The truth always comes out. Don't forget the Nuremburg trials. Different war, yes. Still, war against Mother Earth is the greatest Crime there is, and there will be a Trial.

Begin forwarded message:

From: §
22
Date: April 9, 2015 11:02:08 AM PDT (CA)
To: mtpolleyminepermit@gov.bc.ca
Subject: Really, eh?

So Mt. Polley mine wants to start up again? Well, I don't see the land and waters restored to their original state yet, do you?

HOW THE HELL DARE THEY EVEN TRY BEFORE THEY PUT IT ALL BACK TO THE ORIGINAL CONDITION WHERE IT WAS

BEFORE THEY CREATED THIS MESS!

And if they can't or won't, well tough luck, send them a ticket on the first plane back to the good old USA! With that sort of record, they do not have a right to operate in BC, or anywhere else in Canada! Period!

Sincerely

s.22

West Vancouver, BC

From: s.22
Sent: April-22-15 11:30 AM
To: MtPolleyMinePermit@gov.bc.ca
Cc: inquiries@imperialmetals.com
Subject: Permitting

Imperial metals and mount Polley staff have exhibited the qualities we need in an active Mining Corporation. They have taken the known properties and built a thriving mining property. They have rebounded from the unknowns of the property and repaired the damages.

The provincial and municipal governments kept The populace informed on a continuous basis. We greatly appreciate that. They were surprised and blindsided by a hard mother nature.

They learned from this experience and have proven to be capable of a strong and safe recovery.

It is our request that there be no unnecessary i.e.[political posturing] delays in the permitting process.

We know that you are aware of the many interests dependent on this mine reopening to full potential.

Entire communities are dependent upon your departments fair and mature handling of the permitting regulations.

The method by which this disaster has been handled gives us much hope and we pray that this attitude continues and we stand prepared to assist in any way that we can.

Sincerely

s.22

From: s22
Sent: April-22-15 8:51 PM
To: inquiries@imperialmetals.com
Subject: Mount Polley

[From the Imperial Metals Corporation website at [http://www.imperialmetals.com/s/Mt Polley Update.asp?ReportID=671047](http://www.imperialmetals.com/s/Mt_Polley_Update.asp?ReportID=671047) on Wed Apr 22, 2015 at 8:41:52 PM] My name is s22 BC. I would just like to acknowledge the tremendous job that Imperial Metals has done in addressing the dam breach at Mount Polley.

I think that Imperial Metals has set the bar for doing the right thing in addressing this breach.

You have gone over and above in ensuring that workers keep employed.

My one question is why isn't the water that is being stored in the Cariboo pit being treated right now? By doing so you would take away the negativity being put out by certain people.

s22

Sent from my iPad

From:
Sent: April-22-15 10:11 PM
To: inquiries@imperialmetals.com
Subject: Mine Permit

s.22

As a
members needs Mt. Polley to get back and running as soon as possible.

s.22

I find it difficult to make an opinion. Williams Lake business and community

Having said that, I am not in support of discharging the effluent into Quesnel Lake. I feel the lake has taken in enough and does not need any more! I can see the extra discharge at the mouth of Hazeltine Creek causing more turbidity where all the tailings sludge sits on the bottom of Quesnel Lake. I did hear a very interesting alternative though when Jack Leggett spoke about looking at the Bullion Pit as a water treatment? That would interest me if a further study was to be done on that idea....sounds interesting....

Sincerely,

s.22

Sent from my iPad

From:
Sent: April-22-15 10:17 PM
To: ;
Subject: Mt Polley

I am a resident of Williams Lake , I am one of the many eagerly awaiting the reopening of the mine. Mistakes were made that resulted in a disaster. We need to learn from this and move on. Our community needs employment and this mine supplies that. I believe we can mine and still keep the environment safe. Please get on with it.

s.22

From: s.22
Sent: April-23-15 6:36 AM
To: MtPolley MinePermit MEM:EX
Subject: Regarding permit to reopen mine

Goodmorning,

I attended the meeting last night at the Gibraltar Room in Williams Lake. Very interesting and informative. I would like to add my voice to say that I would like to see this mine reopened.

A local resident said something that impacted a great lot of us. He spoke of the time when worker's were building the Second Narrows bridge. On June 17, 1958 two spans, collapsed into Burrard Inlet, killing 19 men. This did not stop us from building bridges. And just recently Carson Air, out of Kelowna, had a cargo plane go down shortly after take off out of YVR, and killed both pilots on board. This will not halt further building of air planes. The intent being that we learn from mistakes and try to insure that they do not happen again. In light of the facts that accidents do happen, daily. Mount Polley is doing everything in their power to correct the situation and be able to hire back the men and women that work there. Our community needs these people to be able to support their families by earning and living in this area.

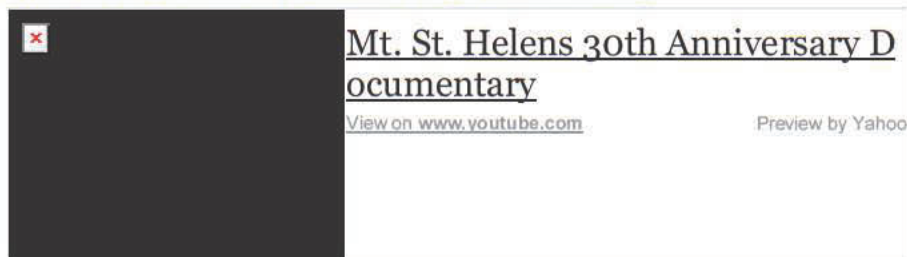
Thank You for your time and consideration when reading my email.

Sincerely,

s.22

From: s.22
Sent: April-23-15 7:16 AM
To: MtPolley MinePermit MEM:EX
Subject: Mt. Polley Mine Permit

[Mt. St. Helens 30th Anniversary Documentary](#)



This is a great documentary on really how strong our earth can be. It just takes some time. Although the Mt. Polley breach was a disaster, it no where compares to Mt. St. Helens. The fact that this area has come back to life is encouraging and a learning experience for all to see. Although no one wants these things to happen naturally or industrially, we learn, we change and we move forward. I believe whether the mine opens or closes ... the water coming into the site has to be treated and released somewhere, so we should definitely keep the mine open and our men and women working and our communities growing. It's amazing the amount of work and money already spent by Imperial Metals on clean up and restoration. Great job!

s.22
Williams Lake, BC

From:
Sent: April-23-15 7:36 AM
To: MtPolley MinePermit MEM:EX
Subject: Reopening of Mt. Polley Mines

s.22

To Whom it may concern:

We are behind Mt. Polley Mines reopening. They definitely need to pass all environmental safe guards before doing this, but by what I am seeing they are really working hard towards this.

Our community of Williams Lake, BC really needs these jobs. Just since closing down we see a decrease in sells and property values. Forestry will not be here for ever and mining can help the community survive.

We have lived in Williams Lake s.22 and have raised a family here. This mine directly effects our children having work and being able to stay in the same community as us.

We a hoping that they government will pass their permits and approvals.

Yours Sincerely;

s.22

From:
Sent: April-23-15 9:13 AM
To: MtPolley MinePermit MEM:EX
Subject: Re-opening

I am writing this letter with my concerns of the operations of Mount Polley Mine. Yes I do agree we need these jobs but to what cost to the Planet. I do agree that Imperial Metals have done a great job in the reclamation of Hazeltine Crk but they should have. This was a very serious breach and could have been even worse than it was, thank GOD no human lives were lost. I have spent most of my life working in the mining industry. Yes i have had a good life from it.

and at times have questioned them on certain practices. Yes it would be sad to net see Mt Polley re-open. But in saying that do we want to keep polluting our lakes,rivers,streams and the environment. We all forget that life is not all about money and how much we can make or how much we can destroy the planet. The rich just keep getting richer and the working people just follow the masses.

1_If Mount Polley is allowed to re-open they should have to buttress the whole dam at a 3-1 slope that will stabilize the toe of the existing dam that should have been done, back in 2010 or even from the original build foot print. There always was a problem with this section of the Dam all the years I spent at Mt Polley.(wet sub soils) And anytime you remove soils from the toe of a structure of this size you may cause movement ?

2- If they are proposing to treat the water then the water treatment plant should be in place running to prove to the people in this province that the water is safe to be released back to environment through our rivers,streams and lakes.

3- The management that was managing this mine over the last 20 years should be held responsible there were issues and could have been doing things to rectify this issue all along. But again it is all about money and a cost of prevention. So we end up with the biggest breach in our history of mining here in our province. And yes they are fixing it and we are learning from it but did we need to learn this way.

I have heard so many views on this breach,and I agree that it could have been much worse. I all so believe it could have been prevented if management would of listened to the people on the ground and took those concerns to heart and shared them with the engineering firms that they had over seeing all aspects of the work being done at Mt Polley.

So until Imperial Metals does all it can to show the people that live in this Province and in Canada and the mining industry they have done all they can to prevent this from happening ever again. They should not be allowed to re-open until it has proven with out a doubt.

Red Chris has started into production and are we all sure that this Dam will hold the test of time? I no I am not sure. It has its own issues like Polley did.

From: s.22
Sent: April-23-15 11:07 AM
To: MtPolley MinePermit MEM:EX
Subject: Mount Polley permit process
Attachments: Letter to the Editor, April 2015.docx

This was submitted to the local paper and presented at the Public meeting on Aril 22nd, 2015

Letter to the Editor

I am part of an advocacy group s.22 We were shocked at the Mount Polley dam failure. It's difficult to be a fan of something when adversity takes place, however we would like to point out that humans do make mistakes. There are no 100% scenarios. I would like to talk about other situations and use them as examples of events that should not have happened, but did. In 1958, an Engineer made an incorrect calculation that resulted in two spans of the new Second Narrows Bridge, in Vancouver, collapsing. A tragic event that resulted in a number of people being killed or injured. This Bridge is called the Ironworkers Memorial Bridge in memory of this event. We have not stopped building or utilizing Bridges, but we are a lot smarter at it.

Recently a plane crashed in the North Vancouver Mountains with both pilots being killed. It was a cargo plane for an airline that was started by former Williams Lake resident. Initial indications are that the plane broke up in flight. Maybe it was under engineered or poorly maintained, but it should not have happened. Again a tragic event. We will not stop building and flying planes, but the conclusion will make us smarter.

In August the tailings dam was breached for what could be an engineering error or a maintenance issue. It should not have happened, but thankfully no was killed or injured. Our group has thought about the action that has to take place to make sure that this doesn't happen again. In conclusion, we must continue to look upon bridges, planes and mines as necessary events. If Imperial Metals has demonstrated that it understands what it must do to mitigate this situation, then we see no reason to hold up the re-start of the active mining. The alternative to resource activity is the return of double digit unemployment like this community experienced in the 90's and the early 2000's.

s.22

From:
Sent: April-23-15 11:30 AM
To: 'inquiries@imperialmetals.com'
Subject: Comments on Government website...

s.22

Good morning,

I attended the community meeting in Williams Lake yesterday, and I'm hoping someone can give me the Provincial Government website where we can post our comments in support of the permit application for the restricted re-start of the Mount Polley operation. Unfortunately, I did not write it down and cannot find where this site is! We have been a local supplier to Mount Polley for many years, and this event has impacted our business very dramatically. We want to support the re-start and see Mount Polley resume operations. Any feedback would be greatly appreciated. Thank you.

Regards,

s.22

s.22

s.22

From:
Sent: April-23-15 7:40 PM
To: MtPolley MinePermit MEM:EX
Subject: Mount Polley

Mount Polley is do a good job cleaning and should get a permit to start.

s.22

Sent from my BlackBerry 10 smartphone on the TELUS network.

From:
Sent: April-24-15 7:19 AM
To: s.22
Inquiries@imperialmetals.com
Subject: Support Early Start

It's time to let the mine get back to work, to promote further recovery in the surrounding communities of Likely, Big Lake, Horsefly, and Williams Lake.

Individual workers, business owners and everyone else, whether they know it or not, needs this mine to show the Province of BC that mining in our province is safe and important and that it has the support of the people and our politicians.

Was there an accident? - yes. Has Imperial Metals cleaned it up? - yes. Do they continue to perform rehab work? - yes. Did the mining practices prior to the spill negate catastrophic environmental damage? - yes. Did the mining industry learn and improve because of this incident? - yes.

Then Yes, it's time to move forward. Allow Imperial Metals to move forward and recover too.

This was an accident. Imperial Metals has set the benchmark for being a good corporate and environmental citizen. If they are held back or penalized then it is highly probable that companies in future will take alternate actions that may be better to their bottom line and not so people environmentally friendly. There will always be accidents, it's how companies respond and recover that is important and Imperial Metals has responded and recovered well.

I am personally in FULL SUPPORT of the mine getting back to work as soon as possible.

Don't stop today because of yesterday. Learn, improve and go forward better than yesterday.

Sent from Samsung Mobile

From:
Sent: April-24-15 9:09 AM
To: MtPolley MinePermit MEM:EX
Subject: Comment of support for Mount Polley Mine...

s.22

Good Morning,

I attended the community meeting in Williams Lake on Tuesday, and I was satisfied with the information provided for the permit application (s) for the restricted re-start of the Mount Polley operation. We have been a local supplier to the Mount Polley Mine operation for many years, and this event has impacted our business very dramatically. I can honestly say Mount Polley demonstrates a “local supplier first” business philosophy, and we have grown with these opportunities as they presented themselves. Our business has been servicing Williams Lake and area for 40 years. The Williams Lake area has lost 3 sawmill operations in the last 22 years. Williams Lake cannot afford to lose this key segment of industry. We want to support the re-start and see Mount Polley resume operations. Thank you.

Regards,

s.22

s.22

From:
Sent: April-24-15 10:32 AM
To: inquiries@imperialmetals.com
Subject: Start Mount Polley Up Please

s.22

Mount Polley mine is essential to the wellbeing of our local community of Likely and Williams Lake.
Please allow this company to restart the mine and get employees back to work.

s.22

From:
Sent: April-24-15 11:52 AM
To: MtPolley MinePermit MEM:EX
Subject: Mt. Polley Mine

To Whom it May Concern;

I just wanted to voice my opinion that I am astonished and outraged that Imperial metals is re-opening the mine at Mt. Polley. I am aware of the horrific destruction caused to the land, waterways, animals and people when the tailings pond broke open last august. I am also aware that the mine was placed on uncaded Secwecpmec territory and that you had no permission to be there.

I was very disturbed when I heard that the management had ignored employees warnings that the walls of the tailings pond were going to breach and were ignored by management and owners of the mine.It has been proven that the need for profits outweighed the environmental justice of the land.

All living creatures need clean water to survive. This was the largest environmental destruction in Canadian history and needs to be stopped. The heavy metals, toxic substances and bio waste flushed into the environment last time, destroyed so much sacred land and waterways.

Please do not re open the mine again.

Thank you,

s.22

From: s22
Sent: April-24-15 12:32 PM
To: MtPolley MinePermit MEM:EX
Subject: Mt Polley restart permit

Hello,

I would like to offer my support for the permit application of Mt Polley Mine to resume limited operations. Without Mt. Polley Mine s22

s22 all with families and homes and almost most all are local. Much of this growth and success can be attributed to Mt Polley's ongoing commitment to support local business including ours. There are many stakeholders involved with this but regardless of anyone's politics', locally we all need the support of Mt Polley to thrive in this community and Mt Polley now needs our support too as they are vital to the health of our community and surrounding areas.

As mentioned, we all live here and no one (including Mt Polley) wants another environmental problem. I wonder if those opposed to this have ever been afforded a second chance at something in their life and if so how did they respond?

Thanks

s22

l'usage de la (des) personne(s) à qui elle est adressée et contient des informations privilégiées et confidentielles. Toute divulgation, distribution, copie, ou autre utilisation de cette transmission par une autre personne est strictement prohibée. Si vous avez reçu ce courriel par erreur, veuillez s'il vous plaît en aviser immédiatement l'expéditeur par courriel et détruire tout exemplaire ou copie de la transmission originale. [Pour gérer vos abonnements, s'il vous plaît cliquez ici](#)

From: s.22
Sent: April-24-15 12:59 PM
To: MtPolley MinePermit MEM:EX
Subject: Reopening of the Mine

To Whom It May Concern:
It is unfathomable that you are considering reopening this mine.
The repercussions from this spill are still not completely known.
I have been told that it will take many decades for the pollution to disperse.
Do you simply not care about such destruction?
Do not reopen this mine that is capable of causing such destruction.
Sincerely, s.22

From:
Sent: April-24-15 1:15 PM
To: MtPolley MinePermit MEM:EX
Subject: Imperial Metals - Please Stop Mount Polley Mine Reopening

s.22

Dear Sir/Madame,

I would please ask that the Ministry of Energy and Mines do NOT reopen Imperial Metals : Mount Polley Mine.

Please speak with the Secwepemc Peoples and respect what they would like to see happen on their territory.

With thanks,

s.22

From: s22
Sent: April-24-15 1:23 PM
To: MtPolley MinePermit MEM:EX
Subject: Restart Mt Polley Mine

Greetings,
I would like to offer my support for the granting of a permit for the restart of operations at Mt. Polley.
Our community needs this mine. YES to the permit !

s22
Williams Lake Area Resident

From:
Sent: April-24-15 1:34 PM
To: MtPolley MinePermit MEM:EX

Please reopen mount polley mine.

Please open this mine up again. It was a mistake that the dam breached but we are all human right. Cheers

Sent from Samsung Mobile

From:
Sent: April-24-15 12:51 PM
To: MtPolley MinePermit MEM:EX
Subject: Open Mount Polley Mine

s.22

To whom it may concern,
Please open Mount Polley Mine. Alot of people rely on jobs and the income that this place generates. There are so many people struggling since the tailings breach happened. It was an accident. Accidents happen it doesn't mean hundreds of people should lose their jobs over it. Mount Polley needs to open again.
Thanks

From:
Sent: April-24-15 1:54 PM
To: MtPolley MinePermit MEM:EX
Subject: Mount polley

s.22

Hi

I strongly disagree with the re-opening of mount polley.

I think we the public need to see more of what imperial has done for clean up and what the long term plans are.

s.22

Sent from my iPhone

From:
Sent: April-24-15 9:27 PM
To: MtPolley MinePermit MEM:EX
Subject: Mount Polley permit

Dear government of British Columbia,

I am living down in Portland and I am horrified that you plan to give a new permit to the Mount Polley mine. It doesn't seem like the spill was even cleaned up. This mine is clearly a great danger to the clean water of our entire region, seeing as we are all located in the same greater aquifer. We are paying attention in Washington and Oregon and we are planning to also express our opposition to the Canadian embassy in Washington, DC.

s.22

From:
Sent: April-25-15 12:30 AM
To: MtPolley MinePermit MEM:EX; Trevena.MLA, Claire F LASS:EX
Subject: Please do not re-open the Mount Polley Mine

To Whom it May Concern,

I am very opposed to allowing Imperial Metals to re-open the Mount Polley Mine. Based on my discussions with many indigenous peoples, I do not believe that the re-opening of the mine has the support of the majority of peoples of the Secwepemc Nation, nor the general (indigenous and not) populace off reserve. Williams Lake Band council may appear to support this endeavour, but that does not mean that the majority of Williams Lake Band members do support it. Also, Williams Lake Band does not speak for all Secwepemc peoples. The only way to really understand the interests of the Secwepemc and settler peoples of the regions affected, in my opinion, is to create a poll or referendum. Imperial Metals states that they fulfilled their obligation to have community meetings but in no way reports on how they were responded to by the communities. The BC Conservation Service inquiry, in conjunction with the RCMP, Environment Canada and Fisheries and Oceans Canada, is investigating the impacts of the Mt Polley Breech on the environment and their report is not due out until June. Will the results of that investigation be available for the Ministry of Energy and Mines and Ministry of Environment to use in their decision about this re-opening permit application? Why is the deadline for public comment so soon, meaning that we will not have these BC Conservation Service inquiry results available to us by your May 2 deadline for public comment?

It states in the Water Management Plan (WMP) document (Golder 2015) that the current permit allows 1.4 million cubic metres annually of water treated and discharged, while at the same time stating that the current discharge could be 3 times that. It also states that onsite levels of Nitrate, Copper, Sulphate, Aluminum, Iron, Selenium and Suspended Solids are above accepted concentrations. The report implies that if the WMP is not pushed through then previously unaffected areas like Bootjack Lake will potentially be impacted. This feels like the threat of contamination of Bootjack Lake is being used to push through the latest permit application. The Return to Restricted Operations permit application implies that they will be working at reduced capacities, although the work suggested is at half load, which is still very substantial. I feel strongly that pushing this Return to Restricted Operations Permit through before the results from the BC Conservation et al inquiry, and a fuller understanding of the actual individual First Nations and settler support or rejection of this permit is unacceptable. Scientists in the area reported a substantial diatom dieoff in the fall of 2014 in Quesnel Lake. Diatoms feed zooplankton that salmon fry consume. Until we better understand the long term impacts of the disaster on the environment, we cannot justify putting any more people, animals and flora in jeopardy by re-opening the mine. The clean-up that has occurred (minimal) barely begins to address the impacts on the environment. I suggest that more time is spent getting an understanding of the long term impacts especially on salmon before any re-opening at any capacity will be considered. The WMP could be put into place without starting up the mine again.

Sincerely,

s.22

1

From:
Sent: April-25-15 1:32 AM
To: MtPolley MinePermit MEM:EX
Subject: We are opposed!

s.22

To Whom it May Concern,

We are appalled that our federal government has taken such a callous approach to the environmental issues of our time! We are equally appalled that the BC government seems hell bent in the same direction. We have one earth, one home, on which all of the provincial and federal ministers and the Prime Minister and their families live on along with the rest of us! To throw precaution to the wind as this administration has done with our environment is reckless and will ultimately result in their defeat in the next election. The same will result for any future government that does not protect our only home. Canadians take pride in our wild places; the federal government, some Provincial governments and many opposition members however, seems to scorn anything natural and clean and promote development at any cost! Remember, biodiversity is how we evolved! Destroying biodiversity ultimately destroys us and you!

We are very opposed to allowing Imperial Metals to re-open the Mount Polley Mine. Based on my discussions with many indigenous peoples, I do not believe that the re-opening of the mine has the support of the majority of peoples of the Secwepemc Nation, nor the general (indigenous and not) populace off reserve. Williams Lake Band council may appear to support this endeavor, but that does not mean that the majority of Williams Lake Band members do support it. Also, Williams Lake Band does not speak for all Secwepemc peoples. The only way to really understand the interests of the Secwepemc and settler peoples of the regions affected, in my opinion, is to create a poll or referendum. Imperial Metals states that they fulfilled their obligation to have community meetings but in no way reports on how they were responded to by the communities. The BC Conservation Service inquiry, in conjunction with the RCMP, Environment Canada and Fisheries and Oceans Canada, is investigating the impacts of the Mt Polley Breach on the environment and their report is not due out until June. Will the results of that investigation be available for the Ministry of Energy and Mines and Ministry of Environment to use in their decision about this re-opening permit application? Why is the deadline for public comment so soon, meaning that we will not have these BC Conservation Service inquiry results available to us by your May 2 deadline for public comment?

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Sincerely,

s.22

From:
Sent: April-25-15 3:07 PM
To: MtPolley MinePermit MEM:EX
Subject: Mt Polley

To Whom it May Concern,

I am very opposed to allowing Imperial Metals to re-open the Mount Polley Mine. Based on my discussions with many indigenous peoples, I do not believe that the re-opening of the mine has the support of the majority of peoples of the Secwepemc Nation, nor the general (indigenous and not) populace off reserve. Williams Lake Band council may appear to support this endeavour, but that does not mean that the majority of Williams Lake Band members do support it. Also, Williams Lake Band does not speak for all Secwepemc peoples. The only way to really understand the interests of the Secwepemc and settler peoples of the regions affected, in my opinion, is to create a poll or referendum. Imperial Metals states that they fulfilled their obligation to have community meetings but in no way reports on how they were responded to by the communities. The BC Conservation Service inquiry, in conjunction with the RCMP, Environment Canada and Fisheries and Oceans Canada, is investigating the impacts of the Mt Polley Breech on the environment and their report is not due out until June. Will the results of that investigation be available for the Ministry of Energy and Mines and Ministry of Environment to use in their decision about this re-opening permit application? Why is the deadline for public comment so soon, meaning that we will not have these BC Conservation Service inquiry results available to us by your May 2 deadline for public comment?

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Sincerely,

From: § 22
Sent: April-25-15 3:40 PM
To: MtPolley MinePermit MEM:EX
Subject: Comment regarding Mt Polley Permit applications

Whom it Concerns,

I would like to submit comment on the Mt Polley Mine permit applications (Permit 11678 & Permit M-200) that are currently under review. Our company and in particular our local branch (§ 22 has been negatively affected by the shut down of this mining operation. As § 22 long time community member I believe it would be of extreme benefit to us and our community to have Mt Polley resume operations as soon as possible.

Your consideration is appreciated.

Regards,

§ 22

s.22

From: s.22
Sent: April-25-15 7:00 PM
To: MtPolley MinePermit MEM:EX
Subject: Say No to Mt Polley Mine Reopening

To whom it may concern,

I am a resident of Williams Lake. I DO NOT support the reopening of Mt Polley Mine.

s.22 I understand that there may be many people that support the reopening for financial reasons. But Mt Polley had their chance to mine in the area as long as they were responsible with their wastes. They failed to hold up their end of the bargain and now I believe that their right to continue at the Mt Polley site should be revoked.

Thank you for your time,

s.22

From:
Sent: April-25-15 8:25 PM
To: Anton.MLA, Suzanne LASS:EX; MtPolley MinePermit MEM:EX; Ashton.MLA, Dan LASS:EX; Austin.MLA, Robin D LASS:EX; Bains.MLA, Harry LASS:EX; Barnett.MLA, Donna LASS:EX; Bennett.MLA, Bill LASS:EX; Bernier.MLA, Mike LASS:EX; Bing.MLA, Doug LASS:EX; Bond.MLA, Shirley LASS:EX; Cadieux.MLA, Stephanie LASS:EX; Chandra Herbert.MLA, Spencer LASS:EX; Chouhan.MLA, Raj LASS:EX; OfficeofthePremier, Office PREM:EX; Coleman.MLA, Rich LASS:EX; Conroy.MLA, Katrine LASS:EX; Corrigan.MLA, Kathy LASS:EX; Dalton.MLA, Marc LASS:EX; Darcy.MLA, Judy LASS:EX; deJong.MLA, Mike LASS:EX; Dix.MLA, Adrian LASS:EX; Donaldson.MLA, Doug LASS:EX; Eby.MLA, David LASS:EX; Elmore.MLA, Mable LASS:EX; Farnworth.MLA, Mike LASS:EX; Fassbender.MLA, Peter LASS:EX; Fleming.MLA, Rob LASS:EX; Foster.MLA, Eric LASS:EX; Fraser.MLA, Scott LASS:EX; Hammell.MLA, Sue LASS:EX; Gibson.MLA, Simon LASS:EX; Heyman.MLA, George LASS:EX
Subject: Mt Polley Mine

To Whom it May Concern,

I am very opposed to allowing Imperial Metals to re-open the Mount Polley Mine. Based on my discussions with many indigenous peoples, I do not believe that the re-opening of the mine has the support of the majority of peoples of the Secwepemc Nation, nor the general (indigenous and not) populace off reserve. Williams Lake Band council may appear to support this endeavour, but that does not mean that the majority of Williams Lake Band members do support it. Also, Williams Lake Band does not speak for all Secwepemc peoples. The only way to really understand the interests of the Secwepemc and settler peoples of the regions affected, in my opinion, is to create a poll or referendum. Imperial Metals states that they fulfilled their obligation to have community meetings but in no way reports on how they were responded to by the communities. The BC Conservation Service inquiry, in conjunction with the RCMP, Environment Canada and Fisheries and Oceans Canada, is investigating the impacts of the Mt Polley Breach on the environment and their report is not due out until June. Will the results of that investigation be available for the Ministry of Energy and Mines and Ministry of Environment to use in their decision about this re-opening permit application? Why is the deadline for public comment so soon, meaning that we will not have these BC Conservation Service inquiry results available to us by your May 2 deadline for public comment?

RECORDS 2-3 Page 302 of 500
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the environment. I suggest that more time is spent getting an understanding of the long term impacts especially on salmon before any re-opening at any capacity will be considered. The WMP could be put into place without starting up the mine again.

Sincerely,

s.22

From: s22
Sent: April-25-15 9:58 PM
To: MtPolley MinePermit MEM:EX
Cc: Popham.MLA, Lana LASS:EX; Randall.Garrison@parl.gc.ca
Subject: Mt Polley ReOpening.

To Whom it May Concern,

I stand in solidarity with First Nations, concerned non-indigenous citizens of BC, Canada and the world, and with archaeologist Celia A. Nord who wrote the following.

'I am very opposed to allowing Imperial Metals to re-open the Mount Polley Mine. Based on my discussions with many indigenous peoples, I do not believe that the re-opening of the mine has the support of the majority of peoples of the Secwepemc Nation, nor the general (indigenous and not) populace off reserve. Williams Lake Band council may appear to support this endeavour, but that does not mean that the majority of Williams Lake Band members do support it. Also, Williams Lake Band does not speak for all Secwepemc peoples. The only way to really understand the interests of the Secwepemc and settler peoples of the regions affected, in my opinion, is to create a poll or referendum. Imperial Metals states that they fulfilled their obligation to have community meetings but in no way reports on how they were responded to by the communities. The BC Conservation Service inquiry, in conjunction with the RCMP, Environment Canada and Fisheries and Oceans Canada, is investigating the impacts of the Mt Polley Breech on the environment and their report is not due out until June. Will the results of that investigation be available for the Ministry of Energy and Mines and Ministry of Environment to use in their decision about this re-opening permit application? Why is the deadline for public comment so soon, meaning that we will not have these BC Conservation Service inquiry results available to us by your May 2 deadline for public comment?

It states in the Water Management Plan (WMP) document (Golder 2015) that the current permit allows 1.4 million cubic metres annually of water treated and discharged, while at the same time stating that the current discharge could be 3 times that. It also states that onsite levels of Nitrate, Copper, Sulphate, Aluminum, Iron, Selenium and Suspended Solids are above accepted concentrations. The report implies that if the WMP is not pushed through then previously unaffected areas like Bootjack Lake will potentially be impacted. This feels like the threat of contamination of Bootjack Lake is being used to push through the latest permit application. The Return to Restricted Operations permit application implies that they will be working at reduced capacities, although the work suggested is at half load, which is still very substantial. I feel strongly that pushing this Return to Restricted Operations Permit through before the results from the BC Conservation et al inquiry, and a fuller understanding of the actual individual First Nations and settler support or rejection of this permit is unacceptable. Scientists in the area reported a substantial diatom dieoff in the fall of 2014 in Quesnel Lake. Diatoms feed zooplankton that salmon fry consume. Until we better understand the long term impacts of the disaster on the environment, we cannot justify putting any more people, animals and flora in jeopardy by re-opening the mine. The clean-up that has occurred (minimal) barely begins to address the impacts on

the environment. I suggest that more time is spent getting an understanding of the long term impacts especially on salmon before any re-opening at any capacity will be considered. The WMP could be put into place without starting up the mine again.'

I do not support the re-opening of the Mt Polley mine under any circumstances. It is time to start changing our approach to our lands and waters and putting conservation and preservation first.

Sincerely,

s.22

From:
Sent: April-26-15 5:33 PM
To: MtPolley MinePermit MEM:EX
Subject: YES! Restart Mount Polley.

s.22

I also want to commend Mount Polley's response to the tailings disaster and their commitment to keeping the public informed of the progress made in cleaning up the mess.

Regards,

From: s.22
Sent: April-26-15 8:35 PM
To: MtPolley MinePermit MEM:EX
Subject: No way to more mines

I'm standing in solidarity with the First Nations people against the plans for Imperial Metals to build a new mine.

10 billion gallons of heavy metal waste, a ruined salmon run, a community left with no drinking water and destruction of their ancestral land, and no consequences for Imperial Metals, and they want to open another mine?

Another symptom of the ongoing genocide of First Peoples in the name of capitalism and imperialism.

NO WAY this can go on. No way.

s.22

From:
Sent: April-26-15 9:29 PM
To: MtPolley MinePermit MEM:EX
Subject: Permit application

s.22

Mr. Hoffman,

I'm writing in to you to voice my support for Mount Polley's application to commence operations. Short and sweet, no campaigning as you of all people should know where Mount Polley sits and whether or not we should reopen.

s.22

From:
Sent: April-27-15 5:41 AM
To: MtPolley MinePermit MEM:EX
Subject: No new mine!

"10 billion gallons of heavy metal waste, a ruined salmon run, a community left with no drinking water and destruction of their ancestral land, and no consequences for Imperial Metals, and they want to open another mine?

Another symptom of the ongoing genocide of First Peoples in the name of capitalism and imperialism.

NO WAY this can go on. No way.



From: s22
Sent: April-27-15 10:47 AM
To: MtPolley MinePermit MEM:EX; mtpolleyminepermit@goc.bc.ca
Subject: Comments regarding the re/opening of Mt Polley Mine

I strongly oppose the hurried re-opening of Mt. Polley Mine. Economic benefits without due respect for our environment is no longer acceptable. Reasons for my opposition include.....

Mt. Polley mine does not have a water management system in place.

Mt. Polley mine does not have adequate tailings dust control in place. I have recently seen and have pictures of tailings dust clouds blowing towards my home which is in Mitchell Bay on Quesnel Lake. Now that there is little water in the TSF, the prevalent westerly winds pick up the tailings and blow them into the outside environment.

Mt Polley claims that they will only release 1/2 of the nearly 55000 cu. metres of tailings water into the environment (Quesnel Lake). Why then, have they applied for twice the amount of expected production of tailings and water collection. This equates to over 19 million cubic metres of effluent yearly...almost the total amount of the catastrophic failure of Aug 4, 2014.

MPMC has not yet removed the barriers it placed on nearby roads that we residents used regularly in order to more easily exist in this environment which we used to love.

So far, it is not apparent that this Company has learned a single thing from the catastrophic event of aug 4, 2014.

There are still ongoing investigations into what led to the catastrophic event of August 4/15. It would be stupid and irresponsible to hurry a restart of this mine before all investigations are complete and understood.

This whole public consultation process has become flawed by Imperial Metals Mining Corporations. There were many people who wished to attend the meeting in Williams Lake that was held in a meeting room too small to accommodate them all. This was because MPMC gave their employees time off to attend this meeting and encouraged all contractors working for them to attend in support of the re-opening.

This whole plan is terrible for long term economic benefits of this province, not to mention the health of our environment. It will put more barriers in place for further mining development in not only this area but in the whole province and country.

I am one of a majority of people in this province who historically has always welcomed economic opportunities be it from the resource, tourism, technology, business or entertainment sectors. Unfortunately irresponsible government policy, and poor resource extraction practices have forced the public into a more

active role against the corruption that is becoming common practice between Government and big corporations who make political donations in order to get political favours for their monetary support.

s.22

From: s22
Sent: April-27-15 10:57 AM
To: MtPolley MinePermit MEM:EX
Subject: Do Not reopen Mount Polley Mine til THEY clean up their toxic Pollution!

To Whom it May Concern,

I am very opposed to allowing Imperial Metals to re-open the Mount Polley Mine. Based on my discussions with many indigenous peoples, I do not believe that the re-opening of the mine has the support of the majority of peoples of the Secwepemc Nation, nor the general (indigenous and not) populace off reserve. Williams Lake Band council may appear to support this endeavour, but that does not mean that the majority of Williams Lake Band members do support it. Also, Williams Lake Band does not speak for all Secwepemc peoples. The only way to really understand the interests of the Secwepemc and settler peoples of the regions affected, in my opinion, is to create a poll or referendum.

Imperial Metals states that they fulfilled their obligation to have community meetings but in no way reports on how they were responded to by the communities. The BC Conservation Service inquiry, in conjunction with the RCMP, Environment Canada and Fisheries and Oceans Canada, is investigating the impacts of the Mt Polley Breech on the environment and their report is not due out until June. Will the results of that investigation be available for the Ministry of Energy and Mines and Ministry of Environment to use in their decision about this re-opening permit application? Why is the deadline for public comment so soon, meaning that we will not have these BC Conservation Service inquiry results available to us by your May 2 deadline for public comment?

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Until we better understand the long term impacts of the disaster on the environment, we cannot justify putting any more people, animals and flora in jeopardy by re-opening the mine. The clean-up that has occurred (minimal) barely begins to address the impacts on the environment. I suggest that more time is spent getting an understanding of the long term impacts especially on salmon before any re-opening at any capacity will be considered.

The WMP could be put into place without starting up the mine again.

Sincerely,

[f4ee02d.jpg] Wood chips cover the tailings sludge that covers the landscape along Hazeltine Creek to Quesnel, Lake, BC Photo by Nicky Young

The Secwepemc Woman Warriors Society calls on all people across the land to use any tactics possible to stand in solidarity with the Secwepemc Peoples eviction of Imperial Metals from their Territory! Please hear our cries. There is not much time left to send in comments to join in our outrage that the province, municipality of Williams Lake and Imperial Metals, Mount Polley are trying to reopen their mine.

Kanahus Manuel (Secwepemc) speaks about this issue in a short video by Nicky Young:

<https://www.youtube.com/watch?v=WvahN7pdXek>
<<https://www.facebook.com/l.php?u=https%3A%2F%2Fwww.youtube.com%2Fwatch%3Fv%3DWvahN7pdXek&h=nAQHjVxbm&s=1>>

Global Day of Action: Stop Mount Polley Mine Re-opening Wednesday April 29, 2015 Around the World Facebook Event Page<https://www.facebook.com/events/479754152172313/>
<<https://www.facebook.com/events/479754152172313/>>
:<https://www.facebook.com/events/479754152172313/>
<<https://www.facebook.com/events/479754152172313/>>

http://mssi.nrs.gov.bc.ca/MountPolleyIncidentPage/MountPolley_WaterManagementPlan_March2015.pdf This
<http://mssi.nrs.gov.bc.ca/MountPolleyIncidentPage/MountPolley_WaterManagementPlan_March2015.pdf> Golder and Associates report implies that if this Water Management Plan is not accepted, more damage will happen, ie. overflow of Springer Pit water/discharge into water table, thereby affecting Bootjack Lake, which is apparently so far not impacted by this event. It states that the current permit allows a maximum water discharge of 1.4 million cubic mm, even tho the current output estimate is 4 times that amount. Tables show that onsite levels of Nitrate, Copper, Sulphate, Aluminum, Iron, Selenium and Suspended Solids are above accepted concentrations

From:
Sent: April-27-15 11:46 AM
To: MtPolley MinePermit MEM:EX
Subject: You have to be kidding!

s.22

Don't ever let this mine open again!

Sent from my iPhone

From: s.22
Sent: April-27-15 12:04 PM
To: mtpolleyminepermit@gov.bc.ca; inquiries@imperialmetals.com
Subject: Mount Polley Permit Opinion- Accept Permit Application

To whom it may concern,

Please accept this email as my formal opinion on the Mount Polley Permit application.

First off I would like to start off by saying that Williams Lake economy needs this permit to go through. We are finally having national retailers like Walmart, Sport Check and Winners move into our community. Their decision to operate here is based upon the economy and it's industries. Williams Lake's major industries are Mining and Forestry. Closing Mount Polley would be taking away a large portion of the mining industry in our community, not to mention revenue.

Mount Polley Mine also donates a lot of money back into the community. They donate to non-profit groups such as the Big Brothers and Sisters, The Child development Centre and Gavin Lake Forest Education Centre, just to name a few. Without Mount Polley operating our community programs will take a huge blow financially and may not be able to provide all of the wonderful services they do. Our community needs sponsors like Mount Polley.

Last I would like to let you know what this permit means to our family.

s.22

s.21

The Mount Polley Breach was a terrible thing, but terrible things happen and what makes us better as individuals, a community and a society is learning from our mistakes. Please do not punish the families and community of Williams Lake for this. Let's fix this, learn from it and move on.

Kind Regards,

s.22

From:
Sent: April-27-15 12:51 PM
To: MtPolley MinePermit MEM:EX
Subject: Mt polley mine permit

s.22

I am very opposed to allowing Imperial Metals to re-open the Mount Polley Mine. I do not believe that the re-opening of the mine has the support of the majority of peoples of the Secwepemc Nation, nor the general (indigenous and not) populace off reserve. Williams Lake Band council may appear to support this endeavour, but that does not mean that the majority of Williams Lake Band members do support it. Also, Williams Lake Band does not speak for all Secwepemc peoples. The only way to really understand the interests of the Secwepemc and settler peoples of the regions affected, in my opinion, is to create a poll or referendum. Imperial Metals states that they fulfilled their obligation to have community meetings but in no way reports on how they were responded to by the communities. The BC Conservation Service inquiry, in conjunction with the RCMP, Environment Canada and Fisheries and Oceans Canada, is investigating the impacts of the Mt Polley Breech on the environment and their report is not due out until June. Will the results of that investigation be available for the Ministry of Energy and Mines and Ministry of Environment to use in their decision about this re-opening permit application? Why is the deadline for public comment so soon, meaning that we will not have these BC Conservation Service inquiry results available to us by your May 2 deadline for public comment?

It states in the Water Management Plan (WMP) document (Golder 2015) that the current permit allows 1.4 million cubic mm of water discharge, while at the same time stating that the current discharge could be 3 times that. It also states that onsite levels of Nitrate, Copper, Sulphate, Aluminum, Iron, Selenium and Suspended Solids are above accepted concentrations. The report implies that if the WMP is not pushed through then previously unaffected areas like Bootjack Lake will potentially be impacted. This feels like the threat of contamination of Bootjack Lake is being used to push through the latest permit application. The Return to Restricted Operations permit application implies that they will be working at reduced capacities, although the work suggested is at half load, which is still very substantial. I feel strongly that pushing this Return to Restricted Operations Permit through before the results from the BC Conservation et al inquiry, and a fuller understanding of the actual individual First Nations and settler support or rejection of this permit is unacceptable. Scientists in the area reported a substantial diatom dieoff in the fall of 2014 in Quesnel Lake. Diatoms feed zooplankton that salmon fry consume. Until we better understand the long term impacts of the disaster on the environment, we cannot justify putting any more people, animals and flora in jeopardy by re-opening the mine. The clean-up that has occurred (minimal) barely begins to address the impacts on the environment. I suggest that more time is spent getting an understanding of the long term impacts especially on salmon before any re-opening at any capacity will be considered. The WMP could be put into place without starting up the mine again.

RECORDS 2-3 Page 31

s.22

s.22

From:
Sent: April-27-15 12:55 PM
To: MtPolley MinePermit MEM:EX
Subject: Mt Polley Mine Permit

s.22

Dear Government,

10 billion gallons of heavy metal waste, a ruined salmon run, a community left with no drinking water and destruction of their ancestral land, and no consequences for Imperial Metals, and they want to open another mine?

Another symptom of the ongoing disregard of First Peoples in the name of capitalism and imperialism.

NO WAY this can go on. No way.

s.22



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Please print only if necessary

From:
Sent: April-27-15 2:02 PM
To: MtPolley MinePermit MEM:EX
Subject: NO to allowing Imperial Metals carry on

Hello,
I am writing to indicate that I am opposed to allowing Imperial Metals to reopen the Mount Polley Mine. The clean up that they have done so far is very minimal and demonstrates they are not responsible enough for this job.
This is a very important natural place and this company has already jeopardized enough the water and those that depend on it.
At least wait until more is known about the damage that has already occurred.
Thank you for your consideration,

s.22

From:
Sent: April-27-15 2:11 PM
To: MtPolley MinePermit MEM:EX
Subject: Mt. polley mine restart permit application

Mr. Hoffman,

compelled to oppose this application.

The Imperial Metals restart application has not addressed the fact that the contents of their tailings pond are still in the lake. When the removal of the slurry which they have allowed to flow, unchecked, into Quesnel lake, has been completed and re-contained in a much safer manner-then that is the time to entertain proposals for reopening of the mine. The idea that a corporation has no responsibility to recover spillage into a watershed makes no sense. Where is the onus to prevent further spills? There is none. Corporations need to be held accountable for their actions and the body charged with that accountability is our government. That means you and your staff, Mr. Hoffman are the ones responsible for overseeing the fixing of the damage already in the water. If the mine is allowed to reopen without removing what they put in the lake, where is the incentive for them to clean out that section of lake bottom?

You are entrusted with the drinking and irrigation water for an entire watershed, I would hope that you take that responsibility seriously. Would the people of Vancouver or Victoria be so happy to drink water with thousands of tonnes of mine tailings in their reservoirs? I think not.

I can appreciate the need to get back to work for the employees of the mine who have been laid off. Surely a paycheck from the mine involving clean- up of the watershed is as good or better than one that has contributed to the damaged lake in the first place?

Sincerely,

RECORDS 2-3 P

s.22

s.22

I feel

From:
Sent: April-27-15 2:43 PM
To: MtPolley MinePermit MEM:EX
Subject: BC cannot afford another Mount Polley mine disaster

BC Ministry of Energy and Mines
BC Ministry of Environment
Victoria, BC

RE: BC cannot afford another Mount Polley disaster

Mount Polley MUST NOT be repeated.

Despite recommendations from the independent panel investigating the tailings pond failure, the plan for re-opening the Mount Polley mine still involves storing the tailings mixed with water. As recommended by the panel, mines such as Mount Polley should be required to use the “dry stack” method of storing tailings.

Mount Polley MUST NOT be repeated.

Tailings mixed with water have been the cause of terrible mine disasters around the world. New mining regulations that prohibit storing tailings mixed with water could help prevent future environmental damage.

Mount Polley MUST NOT be repeated.

RE

s.22

From:
Sent: April-27-15 8:11 PM
To: MtPolley MinePermit MEM:EX
Subject: Mount Polley Mine

I am wholly against Mount Polley Mine reopening. The management of this company have shown utterly reckless disregard for safety and health of the inhabitants of BC. To date nothing appears to have been done to prove that anything beyond greed and selfishness is the motivator here. If the Government cannot regulate safety, and we have a several million tonnes of proof of that, then it is totally irresponsible to suggest it is a new mine and now safer. Hazelton Creek is gone and is now an industrial sewer connected directly to Quesnel Lake and the Fraser. What exactly was in their application to reopen that convinced you they have changed their commitment to safety and proper geotechnical engineering?

--

Sent from myMail app for Android

From:
Sent: April-28-15 8:56 AM
To: inquiries@imperialmetals.com
Subject: Don't have a nice day...

s.22

You are PSYCHOPATHS!!!

<https://news.vice.com/article/tailings-ponds-are-the-biggest-environmental-disaster-youve-never-heard-of>

From:
Sent: April-28-15 8:53 AM
To: inquiries@imperialmetals.com
Subject: Think about all the consequences of your greed!

s.22

So, you going to continue to destroy healthy ecology, habitat, the earth, as you have with the Mt. Polley, with the Red Chris Mine, using lakes as tailing ponds, eh???

You'll be fought and sued into oblivion if you continue on this path ASSHOLES!!!

You are criminals against the earth, all it's species and humanity, and you will be shut down!

Steve Robertson is a liar, and you are all, deceivers, liars and destroyers...

From:
Sent: April-28-15 11:39 AM
To: MtPolley MinePermit MEM:EX
Subject: No Consent

s.22

I do NOT agree to the re opening at this time.

From:
Sent: April-28-15 12:17 PM
To: inquiries@imperialmetals.com
Subject: Approval of mine permit for restarting operations

s22

[From the Imperial Metals Corporation website at <http://www.imperialmetals.com/s/Contact.asp> on Tue Apr 28, 2015 at 11:42:45 AM]

I am a ^{s22} resident in Williams Lake and I believe that not allowing this mine to restart would have a negative impact on the community. Many workers at the mine equates to so many additional spin off jobs in the community. All of these jobs help to support the community, the schools, the recreational facilities, and they provide Provincial and Federal tax revenue. Permitting the restart of Mount Polley should be front and centre on the governments agenda. Especially when jobs are so important due to the recent down turn in the economy. I find it very difficult to accept that the arguments a hand full of people have presented that have no scientific basis could have an effect on keeping this mine closed. From my own observations at the town hall meetings and demonstrations etc. a number of these people do not even live in the area.

Imperial Metals have done everything asked of them to return the environment and the area back to an acceptable level of what it once was. They have investigated the cause of the breach and have cooperated with the authorities in every way to my knowledge. Imperial Metals have also given preference to local vendors and natives when it comes to contracts and jobs, even when some of the very people want them shut down. Native groups have profit sharing agreements with Mount Polley which will no doubt be gone if the mine does not start up. Imperial Metals gives tremendously to the community through the United Way, Boys and Girls Club and other local charities. All of these social benefits will be lost if Mount Polley is not allowed to re-open.

In my opinion it would be a grave mistake to not re-open Mount Polley due to the loud noise of a few people who cannot justifiably prove why the mine should not be re-opened. The science, the testing results, the economy, the social benefits and direct jobs for Williams Lake and surrounding area all point towards re-opening of the mine. I hope that will happen at the soonest possible time.

I would appreciate it if you could forward this letter to the proper person within the government for review.

Kind Regards,

s22

RECORDS 2-3 Page

00

For more information please visit <http://www.symanteccloud.com>

From: s.22
Sent: April-28-15 2:00 PM
To: mtpolleyminepermit@gov.bc.ca; donna.barnett.mla@leg.bc.ca; coralee.oakes.mla@leg.bc.ca; richard.harris@parl.gc.ca; inquiries@imperialmetals.com
Subject: Mt Polley Environmental Disaster

To Whom it May Concern,

I am very opposed to allowing Imperial Metals to re-open the Mount Polley Mine at this time. Imperial Metals states that they fulfilled their obligation to have community meetings but in no way reports on how they were responded to by the communities. The BC Conservation Service inquiry, in conjunction with the RCMP, Environment Canada and Fisheries and Oceans Canada, is investigating the impacts of the Mt Polley breach on the environment and their report is not due out until June. Will the results of that investigation be available for the Ministry of Energy and Mines and Ministry of Environment to use in their decision about this re-opening permit application? Why is the deadline for public comment so soon, meaning that we will not have these BC Conservation Service inquiry results available to us by your May 2 deadline for public comment?

It states in the Water Management Plan (WMP) document (Golder 2015) that the current permit allows 1.4 million cubic mm of water discharge, while at the same time stating that the current discharge could be 3 times that. It also states that onsite levels of Nitrate, Copper, Sulphate, Aluminum, Iron, Selenium and Suspended Solids are above accepted concentrations. The report implies that if the WMP is not pushed through then previously unaffected areas like Bootjack Lake will potentially be impacted. This feels like the threat of contamination of Bootjack Lake is being used to push through the latest permit application. The Return to Restricted Operations permit application implies that they will be working at reduced capacities, although the work suggested is at half load, which is still very substantial. I feel strongly that pushing this Return to Restricted Operations Permit through before the results from the BC Conservation et al inquiry, and a fuller understanding of the actual individual First Nations and settler support or rejection of this permit is unacceptable. Scientists in the area reported a substantial diatom dieoff in the fall of 2014 in Quesnel Lake. Diatoms feed zooplankton that salmon fry consume. Until we better understand the long term impacts of the disaster on the environment, we cannot justify putting any more people, animals and flora in jeopardy by re-opening the mine. The clean-up that has occurred (minimal) barely begins to address the impacts on the environment. I suggest that more time is spent getting an understanding of the long term impacts especially on salmon before any re-opening at any capacity will be considered. The WMP could be put into place without starting up the mine again.

Without the environment, there is no economy.

Sincerely,

s.22

Williams Lake, BC

From: s22
Sent: April-28-15 2:10 PM
To: MtPolley MinePermit MEM:EX
Subject: Permits to release tailings water into Quesnel Lake / Permit to start up Mount Polley Mine

April 26, 2015

Ministry of Environment
Hubert Bunce, Director of Mining Operation
MtPolleyMinePermit@gov.bc.ca

Ministry of Energy and Mines
Al Hoffman, Chief Inspector
MtPolleyMinePermit@gov.bc.ca

Mount Polley Mining Corporation
Dale Reimer, General Manager
inquiries@imperialmetals.com

Dear Sir/Madame;

I am required to provide relevant information to show that my family and I are being adversely affected by the proposed amendments / permits;

RECORDS 2-3 Page 331 of 500
RE: Permit to Restart Mount Polley Mine
Permit to dump toxins into the Quesnel Lake / Hazeltine Creek

My family and I came s22 because of the pristine ecosystem; fishing, hunting, water sports, healthy air, healthy water , healthy land. This was to be a place where we could come to rest in our old age. This was to be a place where we could share with our family the beauty of British Columbia.

Since the tailings pond failure, we are afraid to drink the water, we are afraid to swim in the water, we will not eat the fish from this water, and we will not eat animals raised around this water. Our friends and families are staying away from this once pristine area.

Our enjoyment o s22 has been taken from us, our land value has been taken from us, and our quality of life has been taken from us!

Imperial Metals has predicted another tailing pond disaster – July 2015. The Springer Pitt tailings and collected mine site water at Mount Polley mine will top its banks. Is this responsible water management by the Mine? Imperial Metals’ treatment plan is to use lime to clean 60% of the heavy metals out of the tailings. Is a 40% toxic waste dump into a Fraser River watershed an acceptable risk to the province? It is not an acceptable risk to the residents of Quesnel Lake. Why would we allow this in Imperial Metal’s permit request? What will the lime do to the ph level of the water? If this method of processing toxic tailings water with lime works, and is good for our environment and our health, why is this not standard procedure for all Mines across BC and then dump their tailings water directly into the environment?

Mount Polley Mine and Imperial Metals has spent no time or money on an alternative plan – there is NO alternative plan. What will happen if we say NO to the temporary permit to dump more toxic waste into Quesnel Lake? Mount Polley Mine will have 2 months to figure out a different water treatment plan! They have already told us if we do not approve this permit to release 40% toxic water into the Hazeltine or Quesnel Lake directly we will have another tailing ponds disaster in July!

We feel like we have a gun to our heads – the Government and 1st Nations said no to Mount Polley Mine to release toxic tailing pond water into the Hazeltine in 2013 and look what happened –WHAT HAPPENS IF WE SAY NO TO THIS COMPANY AGAIN!!!

This is the company’s MO; temporary ideas that become permanent solutions! Responsible would have had the company building a water treatment plant the day they opened the mine. We still don’t have any idea what the tailings water and slurry that was released into the lake last August is actually doing to the Lake! Why would the government even consider more toxic water being dumped into the lake?

I would like to see the people put back to work in this area; our small community needs the jobs however there is NO REASON that this company should not be held responsible and accountable to their employees, the community, area residents, and the environment! TREAT THE WATER to 100% before dumping it back into the environment!

This is a direct quote from the company’s website about their Environmental Policy’s;

...Throughout our operations one of the key commitments is to maintain water quality that sustains aquatic life. Aquatic life is the most sensitive user of water; therefore by protecting aquatic ecosystems other water users (recreational, drinking water and wildlife) are also protected. The long term water quality is closely monitored to ensure the requisite water quality criteria to protect aquatic life are achieved.”

At the very least we need to have in place an approved long term water treatment plan, a plan that the community has some input on, as we have to live with this mine in our back yard for the rest of our lives and our family’s lives!

We need answers to our concerns and we need to be allowed to be directly involved in the decision making;

- 1) Dam Report: that dam repairs are described in detail, and that we are provided with the dam design plus the “as-built” drawings and reports.
- 2) Water Management: A new Mill Recycle Water Pond must be constructed, for a location of water volumes to be discharged from the Tailings Impoundment and to enable Mill production. There should be an approved Water Management Plan, reviewed and distributed to everyone. This “plan” and management implementation will be required not only throughout the life of the mine, but into Closure Phase, since water

cannot be allowed to accumulate within the tailings impoundment. Weather Pattern and Climate Trend plus groundwater discharges within the impoundment itself will assure that this structure will accumulate water volumes that must be managed, forever.

- 3) Water Treatment Plant; design, operational requirement, discharge dilution requirements/Permit....and treatment plant sludge disposal area. This is absolutely necessary; construction must be completed this year, 2015.
- 4) Open Pit Mine Waste Disposal. A Waste Handling Plan must be approved; we need a copy of that plan.
- 5) Acid Rock Drainage geochemistry –we want the company to distribute their lab work on ARD.

Do NOT approve the opening of the mine until Imperial Metals/ Mount Polley Mine Corp., have an APPROVED water treatment plan and has implemented the plan (installed a water treatment plant.) Imperial can employ the area workers to help build their water treatment plant!

Do NOT approve the temporary dumping of toxic water into Quesnel Lake, what you have and are allowing to be dumped in now and for the last 9 months is ENOUGH. We don't even know if the lake will survive what has already been dumped!

s.22

Ministry of Energy and Mines
The Honourable Bill Bennett
Mem.Minister@gov.bc.ca

Ministry of Tourism
The Honourable Shirley Bond
JTST.Minister@gov.bc.ca

The Honourable Christy Clark, Premier
premier@gov.bc.ca

Cariboo District MLA Joan Sorley
jsorley@cariboord.ca

CONFIDENTIALITY NOTICE

This e-mail and any attachment are confidential and may be privileged or otherwise protected from disclosure. It is solely intended for the person(s) named above. If you are not the intended recipient, any reading, use, disclosure, copying or distribution of all or parts of this e-mail or associated attachments is strictly prohibited. If you are not an intended recipient, please notify the sender immediately by replying to this message or by telephone and delete this e-mail and any attachments permanently from your system.

From:
Sent: April-28-15 3:03 PM
To: MtPolley MinePermit MEM:EX

s.22

To Whom it May Concern,

I am very opposed to allowing Imperial Metals to re-open the Mount Polley Mine. Based on my discussions with many indigenous peoples, I do not believe that the re-opening of the mine has the support of the majority of peoples of the Secwepemc Nation, nor the general (indigenous and not) populace off reserve. Williams Lake Band council may appear to support this endeavour, but that does not mean that the majority of Williams Lake Band members do support it. Also, Williams Lake Band does not speak for all Secwepemc peoples. The only way to really understand the interests of the Secwepemc and settler peoples of the regions affected, in my opinion, is to create a poll or referendum. Imperial Metals states that they fulfilled their obligation to have community meetings but in no way reports on how they were responded to by the communities. The BC Conservation Service inquiry, in conjunction with the RCMP, Environment Canada and Fisheries and Oceans Canada, is investigating the impacts of the Mt Polley Breach on the environment and their report is not due out until June. Will the results of that investigation be available for the Ministry of Energy and Mines and Ministry of Environment to use in their decision about this re-opening permit application? Why is the deadline for public comment so soon, meaning that we will not have these BC Conservation Service inquiry results available to us by your May 2 deadline for public comment?

It states in the Water Management Plan (WMP) document (Golder 2015) that the current permit allows 1.4 million cubic mm of water discharge, while at the same time stating that the current discharge could be 3 times that. It also states that onsite levels of Nitrate, Copper, Sulphate, Aluminum, Iron, Selenium and Suspended Solids are above accepted concentrations. The report implies that if the WMP is not pushed through then previously unaffected areas like Bootjack Lake will potentially be impacted. This feels like the threat of contamination of Bootjack Lake is being used to push through the latest permit application. The Return to Restricted Operations permit application implies that they will be working at reduced capacities, although the work suggested is at half load, which is still very substantial. I feel strongly that pushing this Return to Restricted Operations Permit through before the results from the BC Conservation et al inquiry, and a fuller understanding of the actual individual First Nations and settler support or rejection of this permit is unacceptable. Scientists in the area reported a substantial diatom dieoff in the fall of 2014 in Quesnel Lake. Diatoms feed zooplankton that salmon fry consume. Until we better understand the long term impacts of the disaster on the environment, we cannot justify putting any more people, animals and flora in jeopardy by re-opening the mine. The clean-up that has occurred (minimal) barely begins to address the impacts on the environment. I suggest that more time is spent getting an understanding of the long term impacts especially on salmon before any re-opening at any capacity will be considered. The WMP could be put into place without starting up the mine again.

Sincerely,

From: § 22
Sent: April-28-15 10:46 AM
To: MtPolley MinePermit MEM:EX
Subject: Open Mount Polley Mine as soon as possible

Thank you for this opportunity to provide my comments on the temporary restart permit application submitted to the Ministry of Mines and to the Ministry of Environment. I do not believe there could be any reason that Mount Polley should not be able to continue operations, temporary or otherwise. If Mount Polley had ceased operations for any other reason than the breach and then submitted this application 5 months later to temporarily use the Springer Pit for tailings storage I believe that permit would have been issued after the first application in December. There appears to be an excessive scrutiny on this application that is not founded. The process for this application should be no different than any other, yet it clearly is very different. Mount Polley has gone above and beyond in responding to the breach and should be able to continue to mine in the responsible manner they have always operated in.

I am a § 22 resident in Williams Lake and I believe that not allowing this mine to restart would have a negative impact on the community. We all know the math, so many workers at the mine equates to so many additional jobs in the community. All of these jobs help to support the community, the schools, the recreational facilities, and they provide Provincial and Federal tax revenue. Permitting the restart of Mount Polley should happen now.

§ 22

From:
Sent: April-28-15 3:33 PM
To: MtPolley MinePermit MEM:EX
Subject: RE: Mount Polley Mine

s.22

To the Province of BC, the Municipality of Williams Lake, Imperial Metals,

I implore all of you, as a concerned mother, PLEASE DO NOT REOPEN THE MOUNT POLLEY MINE! I strongly do not agree to the re-opening of this mine at this time or ever. Enough and unnecessary damage has been done to the land, water, fish and land animals. The multi-generational impacts are deplorable that anyone with a conscience would not be a part of this. Short term profit for a select few at the expense of generational health for people and the environment is not just in any way.

The solution is simple.

Long term generation health for all of us is integral with respectful acknowledgement and relations with the Secwepemc People. This is Secwepemc traditional sacred land. Anyone with integrity would respectfully acknowledge that and take responsible action by cleaning up the damage that was done by spills that have happened already.

LISTEN to your hearts, you wouldn't want your own family, friends and relatives to get sick from the tailing ponds...in fact no one would, but it has and is happening. Stop this nonsense and act responsibly.

For decades I have witnessed a lot of atrocities in Canada, do not turn a blind eye and deaf ears to your own conscience.

s.22

From:
Sent: April-28-15 4:18 PM
To: MtPolley MinePermit MEM:EX
Subject: Comments on Imperial Metal's permit to re-open
Attachments: E-Tech Comments on Mt. Polley.pdf

s.22

Please find attached the technical observations concerning the permit application by Imperial Metals for re-starting Restricted Operations at Mt. Polley mine.

Sincerely,

s.22



231 Las Mañanitas • Santa Fe • NM • 87501 • USA
www.etechninternational.org

April 28th, 2015
Vancouver, BC

To: The Province of British Columbia / Ministry of Energy and Mines
From: Ricardo Segovia, Hydrogeologist, E-Tech International (E-Tech)
Re: Permit to Return to Restricted Operations at Mt. Polley Mine

Introduction:

E-Tech is a non-profit technical organization based in Santa Fe, New Mexico conformed of scientists and engineers from various technical disciplines. The organization was created in 2003 in order to increase the technical capacity of governments and communities so that informed decisions can be made in relation to large-scale industrial projects that have the potential to contaminate soil and water. We currently train and support communities in Peru, Ecuador, Mexico, and Canada.

I had the opportunity to visit Hazeltine Creek on April 5th and 6th, 2015 at the request of members of the Secwepemc First Nations, whose territory was affected by the tailings dam failure at Mt. Polley. We walked the entire length of the creek to make primary observations and take photographs with coordinates (see Appendix 2 for photographs).

Contaminants of Concern:

By the estimates of Imperial Metals, 7.3 million cubic meters of tailings solids (dry weight) were spilled on August 4th, 2014. Based on 35 samples of tailings taken by Imperial Metals the average copper content of the solids is 793 mg/kg, far exceeding the provincial limits of 90 to 150 mg/kg. Roughly estimating that about 40% of the tailings solids still remain on the ground surface, **the amount of copper still remaining on the ground surrounding Hazeltine Creek upstream of Quesnel Lake is more than 7 million kilograms (see calculations in Appendix 1).**

Although other constituents within the tailings exceed provincial limits, copper is of highest concern due to its potential effects on salmon and other fish. High copper concentrations can disrupt brachial ion transport (breathing) in salmon. Other harmful effects include delayed time if egg hatching and a reduction in growth (Mahrosh, 2014).

Inaction by Imperial Metals and Potential Risks:

Currently there is one settlement pond near the mouth of Hazeltine Creek and one or two partially constructed settlement ponds along the length of the creek. The turbidity in Hazeltine Creek is still extreme and visibility in the water is only about 1.5 inches, implying that the settlement ponds are having little effect on turbidity.

Instability caused by the tailings flow slide along the cliffs of Hazeltine Creek is causing large trees and native soil to slide into the valley. This erosion has not been controlled along most of the length of Hazeltine Creek and represents another considerable source of sediment and metals that exceed the natural background levels found previously in Hazeltine Creek.

8 months after the tailings breach, millions of cubic meters of tailings still remain on the ground surface, representing a highly erodible and very unstable source of copper and other potential contaminants. During the sight visit there was no work being done to remove the tailings from the surface or the bed of Hazeltine Creek.

Studies from a similar tailings dam failure at the Aznalcóllar mine in Spain show that tailings continue to be a source of contamination for many years. On April 25th, 1998, this dam failure in southern Spain spilled 4.5 million cubic meters of water and tailings into the Agrio and Guadiamar watersheds. This is about ¼ of the material spilled from the Mt. Polley tailings dam but the concentrations of copper in tailings of the spill in Spain are very similar to the concentrations found in the Mt. Polley mine tailings (Peinado, 2015). **The Peinado study concludes that although the remediation at the Aznalcóllar site has been relatively successful, those tailings that remained on the surface and mixed with native soil continue to act as a source of contamination and that the best way to prevent future contamination is to remove the tailings completely.**

Conclusion / Recommendations:

Settlement ponds and ground cover of rip-rap and mulch have not reduced the turbidity of Hazeltine Creek. The discharge from Hazeltine and the surface runoff continue to represent a serious source of contamination to Quesnel Lake and Quesnel River. Removal of all the tailings and reshaping / stabilization of the eroding banks and cliffs should be carried out to reduce the contaminant loads to Hazeltine Creek and Quesnel Lake.

Tracks of moose, deer, and cougar are visible all around Hazeltine creek, and otters were spotted swimming at the mouth of the creek. Fencing should be installed to minimize direct contact with wildlife due to the risk of contamination through ingestion or skin contact but also because of the quicksand-like properties that some of the tailings present.

Under the Return to Restricted Operations application presented by Imperial Metals, Springer Pit would be used to deposit newly produced tailings. Springer Pit was not designed for long-term storage of tailings and the environmental impact of having groundwater move in in out of the pit through tailings

have not been adequately studied or described. Long term hydrogeological and geochemical studies should be carried out before considering Springer Pit as a potential site for tailings storage.

The application by Imperial Metals to return to Restricted Operations does not present a remediation or restoration plan that adequately addresses the potential risk for long-term copper contamination. Based on the sensitivity of the salmon populations, the millions of tons of tailings still on the ground surface, and the mistrust from the surrounding communities, granting any permit to Imperial Metals to restart profit generating activities would be irresponsible.

If you have any questions about the preceding observations, please contact me by email.

Sincerely,

s.22

Appendix 1:

Total copper spilled from tailings dam:

Total Copper In Tailings:						
density	units	concentration	units	total tailings	units	total kg copper
2900	kg	0.000793	kg Cu	7300000	m3	16787810
	m3		kg tailings			

Total copper remaining on the surface in and around Hazeltine Creek:

Tailings Remaining on Surface:					
Dimensions adjacent to dam (m)	Dimensions in Hazeltine Creek (m)	Volume next to dam (m3)	Volume in Creek (m3)	Percent of total spill	kg remaining
800	7500	2400000	675000	42%	7071578
1000	30				
3	3				

Appendix 2: Photographs of April 2015 site visit:



Figure 1: Turbid waters of Hazeltine Creek downstream of a settlement pond, April 5th 2015



Figure 2: Eroding tailings at the banks of Hazeltine Creek, April 5th 2015



Figure 3: Otter swimming at the mouth of Hazeltine Creek, April 5th 2015



Figure 4: Tailings covering the ground and vegetation around Hazeltine Creek, April 5th 2015



Figure 5: Soil instability caused by scouring of cliffs during tailings flow slide, April 5th 2015



Figure 6: Widespread tailings coverage on the ground surface near the tailings dam at Mt. Polley mine, April 5th 2015

References:

Imperial Metals Corporation, *Mt. Polley Updates*, recovered from:
[http://www.imperialmetals.com/s/Mt Polley Update.asp?ReportID=671668](http://www.imperialmetals.com/s/Mt_Polley_Update.asp?ReportID=671668) on March 22, 2015

Mahrosh, U., Kleiven, M., Meland, S., Rosseland, B.O., Salbu, B., Teien, H.C. (2014), *Toxicity of road deicing salt (NaCl) and copper (Cu) to fertilization and early developmental stages of Atlantic salmon (Salmo salar)*, Journal of Hazardous Materials. 280, 331-339

Peinado, F.J.M., Freire, A.R., Fernández, I.G., Aragón, M.S., Bernad, I.O., Torres, M.S. (2015), *Long-term contamination in a recovered area affected by a mining spill*, Science of the Total Environment. 514, 219-223

From: s.22
Sent: April-28-15 9:58 PM
To: inquiries@imperialmetals.com; Min@dfo-mpo.gc.ca; JTST.Minister@gov.bc.ca; premier@gov.bc.ca; jsorley@cariboord.ca; MtPolleyMinePermit@gov.bc.ca; MtPolleyMinePermit@gov.bc.ca; inquiries@imperialmetals.com
Subject: Mount Polley Mine action
Attachments: TREAT THE WATER Final Lettr2.docx

s.22
Quesnel Lake. We were there visiting the day after this unconscionable act by Polley mines was allowed to happen. I don't refer to it as a disaster because "disaster" infers that the event was unforeseeable and thus not preventable as in an "act of nature". This was completely preventable and was the result of our provincial government abdicating its responsibility to protect the interests of the citizens of BC. By ignoring our interests, and leaving Polley Mines to "protect" our interests, together, you have created this catastrophe. To now accept Polley Mines assertion that they must release more toxic waste into our ecosystem is to reaffirm that this government has no interest in protecting the citizens of British Columbia. It is time to act in our interests.

s.22

April 28, 2015

Mount Polley Mining Corporation
Dale Reimer, General Manager
inquiries@imperialmetals.com

Ministry of Environment
Hubert Bunce, Director of Mining Operation
MtPolleyMinePermit@gov.bc.ca

Ministry of Energy and Mines
Al Hoffman, Chief Inspector
MtPolleyMinePermit@gov.bc.ca

Dear Sir/Madame;

I am required to provide relevant information to show that my family and I are being adversely affected by the proposed amendments / permits;

RE: Permit to Restart Mount Polley Mine
Permit to dump toxins into the Quesnel Lake / Hazeltine Creek

My family and I came s.22 because of the pristine ecosystem; fishing, hunting, water sports, healthy air, healthy water , healthy land. This was to be a place where we could come to rest in our old age. This was to be a place where we could share with our family the beauty of British Columbia.

Since the tailings pond failure, we are afraid to drink the water, we are afraid to swim in the water, we will not eat the fish from this water, and we will not eat animals raised around this water. Our friends and families are staying away from this once pristine area.

Our enjoyment s.22 has been taken from us, our land value has been taken from us, and our quality of life has been taken from us!

Imperial Metals has predicted another tailing pond disaster – July 2015. The Springer Pitt tailings and collected mine site water at Mount Polley mine will top its banks. Is this responsible water management by the Mine? Imperial Metals' treatment plan is to use lime to clean 60% of the heavy metals out of the tailings. Is a 40% toxic waste dump into a Fraser River watershed an acceptable risk to the province? It is not an acceptable risk to the residents of Quesnel Lake. Why would we allow this in Imperial Metal's permit request? What will the lime do to the ph level of the water? If this method of processing toxic tailings water with lime works, and is good for our environment and our health, why is this not standard procedure for all Mines across BC and then dump their tailings water directly into the environment?

Mount Polley Mine and Imperial Metals has spent no time or money on an alternative plan – there is NO alternative plan. What will happen if we say NO to the temporary permit to dump more toxic waste into Quesnel Lake? Mount Polley Mine will have 2 months to figure out a different water treatment plan! They have already told us if we do not approve this permit to release 40% toxic water into the Hazeltine or Quesnel Lake directly we will have another tailing ponds disaster in July!

We feel like we have a gun to our heads – the Government and 1st Nations said no to Mount Polley Mine to release toxic tailing pond water into the Hazeltine in 2013 and look what happened –WHAT HAPPENS IF WE SAY NO TO THIS COMPANY AGAIN!!!

This is the company's MO; temporary ideas that become permanent solutions! Responsible would have had the company building a water treatment plant the day they opened the mine. We still don't have any idea what the tailings water and slurry that was released into the lake last August is actually doing to the Lake! Why would the government even consider more toxic water being dumped into the lake?

I would like to see the people put back to work in this area; our small community needs the jobs however there is NO REASON that this company should not be held responsible and accountable to their employees, the community, area residents, and the environment! TREAT THE WATER to 100% before dumping it back into the environment!

This is a direct quote from the company's website about their Environmental Policy's;

....Throughout our operations one of the key commitments is to maintain water quality that sustains aquatic life. Aquatic life is the most sensitive user of water; therefore by protecting aquatic ecosystems other water users (recreational, drinking water and wildlife) are also protected. The long term water quality is closely monitored to ensure the requisite water quality criteria to protect aquatic life are achieved."

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CC The Honourable Gail Shea
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Min@dfo-mpo.gc.ca

Ministry of Energy and Mines
The Honourable Bill Bennett
Mem.Minister@gov.bc.ca

Ministry of Tourism
The Honourable Shirley Bond
JTST.Minister@gov.bc.ca

The Honourable Christy Clark, Premier
premier@gov.bc.ca

Cariboo District MLA Joan Sorley
jsorley@cariboord.ca

From:
Sent: April-29-15 8:09 AM
To: premier@gov.bc.ca; inquiries@imperialmetals.com; MtPolleyMinePermit@gov.bc.ca; Min@dfo-mpo.gc.ca; Mem.Minister@gov.bc.ca; JTST.Minister@gov.bc.ca; jsorley@cariboord.ca
Subject: Mount Polley Mine Permit Request

April 28, 2015

The Honorable Christy Clark, Premier
premier@gov.bc.ca

Mount Polley Mining Corporation
Dale Reimer, General Manager
inquiries@imperialmetals.com

Ministry of Environment
Hubert Bunce, Director of Mining Operation
MtPolleyMinePermit@gov.bc.ca

Ministry of Energy and Mines
Al Hoffman, Chief Inspector
MtPolleyMinePermit@gov.bc.ca

Dear Sir/Madame;

I am writing to protest the application to restart Mount Polley Mine and the permit request to dump toxic materials into Quesnel Lake / Hazeltine Creek

I am required to provide relevant information to show that my family and I are being adversely affected by the proposed amendments / permits;

RE: Permit to Restart Mount Polley Mine
Permit to dump toxins into the Quesnel Lake / Hazeltine Creek

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Min@dfo-mpo.gc.ca

Ministry of Energy and Mines
The Honorable Bill Bennett
Mem.Minister@gov.bc.ca

Ministry of Tourism
The Honorable Shirley Bond
JTST.Minister@gov.bc.ca

Cariboo District MLA Joan Sorley
jsorley@cariboord.ca

From:
Sent: April-29-15 9:53 AM
To: MtPolley MinePermit MEM:EX
Subject: My support

s.22

I am sending this email to share my complete support for a restart of the Mount Polley mine outside of Williams Lake, BC (the sooner the better). This is where I live and have lived for the past ^{s.22} years, I am in complete support of mining in our province and especially in our area. We have a desperate need of well paying jobs and the opportunities for the whole community that those well paying jobs create. It would be nice to give our younger generation a reason to stay in our community and also see new business open rather the the continual closing of our downtown business' that we see now. I realize that there are risks involved but I also believe the mining industry is being held to a higher standard and that they are taking the strongest measures possible to protect the environment while still mining the resources we need.

Regards ^{s.22}

From: s.22
Sent: April-29-15 10:36 AM
To: MtPolley MinePermit MEM:EX
Subject: BC cannot afford another Mount Polley mine disaster

BC Ministry of Energy and Mines
BC Ministry of Environment
Victoria, BC

RE: BC cannot afford another Mount Polley disaster

I am writing to request that you reject the premature application to re-open the Mount Polley mine. Also, BC should enact regulations that prohibit BC mines from storing tailings in large ponds mixed with water, and instead require companies to use the “dry stack” method to store mine tailings.

As you know, the Mount Polley mine dam failure was the worst tailings pond breach in Canadian mining history, releasing approximately 17 million cubic metres of wastewater and eight million cubic metres of tailings into nearby fish-bearing streams, Polley Lake and Quesnel Lake.

The BC government has said it will take years to restore the region’s natural environment after the tailings dam breach. It is far too soon to even consider re-opening the mine given the sensitive condition of the surrounding lands and waters.

The damage that has been done to the area will continue to affect communities and local First Nations – who use the lands for fishing and hunting – for many years to come. It is distressing and extremely insensitive to even consider reopening the mine so soon.

Despite recommendations from the independent panel investigating the tailings pond failure, the plan for re-opening the Mount Polley mine still involves storing the tailings mixed with water. As recommended by the panel, mines such as Mount Polley should be required to use the “dry stack” method of storing tailings.

Tailings mixed with water have been the cause of terrible mine disasters around the world. New mining regulations that prohibit storing tailings mixed with water could help prevent future environmental damage.

I hope BC has the common sense, integrity, and vision to implement such basic, precautionary regulations, and to stop wastefully polluting the precious water that gives this land life.

Vancouver, BC

This letter was sent via WildernessCommittee.org

From: s.22
Sent: April-29-15 12:17 PM
To: MtPolley MinePermit MEM:EX
Subject: Mt. Polley Mine application

Importance: High

Mr. Hubert Bunce, Director
Mining Operations Mount Polley
The Ministry of Environment
2080 A Labieux Road
NANAIMO BC V9T 6J0

Mr. Al Hoffman, Inspector
Ministry of Energy and Mines
PO Box 9320 Stn Prov Govt
VICTORIA BC V8W 9N3

29 April 2015

Dear Mr. Bunce and Mr. Hoffman,

Like all British Columbians, I am shocked and saddened by the toxic tailings spill that occurred at Mt. Polley last August.

RECORDS 2-3 Page 356 of 500
Having reviewed the comments of the engineer who built the tailings impoundments, I am anxious that other impoundments may be subject to the same saturation, overfill and stress faults. I would like to know how you are sharing the critical information with other mining sites in BC and across Canada in order to prevent further occurrences.

Given the serious impact the spill had on local residents and wildlife, the application by Imperial Metals to soon resume operations seems preposterous and exceedingly disrespectful.

I understand that the new application includes a tailings impoundment at a distance from the current site. Can you assure me that you are not urging the government to approve an application which has the possibility of damaging yet another area in this territory before Imperial Metals has completely restored the area affected by the August catastrophe?

Sincerely,

s.22

From:
Sent: April-29-15 12:34 PM
To: MtPolley MinePermit MEM:EX
Subject: do not open/re-open the Mount Polley mine...

Please do not open/re-open the Mount Polley mine...

From: §
22
Sent: April-29-15 12:56 PM
To: MtPolley MinePermit MEM:EX
Subject: BC cannot afford another Mount Polley mine disaster

BC Ministry of Energy and Mines
BC Ministry of Environment
Victoria, BC

RE: BC cannot afford another Mount Polley disaster

I'm opposed to the re-opening of the Mount Polley mine. Please reject the application.

This has been a big environmental disaster, whose consequences have not been studied enough, and there has not been any remediation at all in the impacted sites.

The Hazeltine Creek and valley, Quesnel and Polley Lake are coated forever by toxic sludge. The same places have big salmon run and we don't know the effects on that. Although BC government rushed to reassure people that the water is drinkable, this contradicts all the scientific knowledge about toxic substances and their impact on the environment. Has been studied how the sediments will release toxics and how they will bio-accumulate in fish etc.? Has the Province made a plan to remove the toxic sediments?

People living there have their life impacted forever; they (local communities and First Nations) should have the biggest voice in this. People living of fishing and hunting will be impacted in their health. How is possible to think to re-open the mine when nothing has been cleaned up? Imperial Metals is still under investigation, and should clean up its mess before only thinking to re-open. This is due not only to the local people there but to all BC residents.

We cannot afford to risk another environmental disaster like this; the consequences are on the environment and from the environment on people, health, water, salmon, food etc.

From the technical report comes up that the tailing ponds are not a safe technology. Can BC learn something from this bad experience and update the BC legislation, making mandatory for the mining industry the use of dry stack method instead tailing ponds?

We cannot trust Imperial Metals. Risky technologies shouldn't be used. The consequences are on the environment and then on people. And the trust has to be earned.

The mine must not re-open before the environment has been cleaned up, and for sure not with a tailing pond.
Please reject the application.

Thank you for listening,

s.22

Burnaby, British Columbia

This letter was sent via WildernessCommittee.org

From: s22
Sent: April-29-15 2:01 PM
To: MtPolley MinePermit MEM:EX
Cc: OfficeofthePremier, Office PREM:EX; Bennett.MLA, Bill LASS:EX; Polak.MLA, Mary LASS:EX
Subject: Reaction to Imperial Metals Application to Resume Restricted Operations

April 29th 2015 Vancouver, BC

To : The Province of British Columbia (Christy Clark) / Ministry of Energy and Mines (Bill Bennett) / Ministry of Environment (Mary Pollack)

From: S.22, University of British Columbia Re: Permit to Return to Restricted Operations at Mt. Polley Mine

The breach of the Mt Polley tailings dam created a major environmental and social concern. By Imperial Metals estimates, 7.3 million cubic meters of solid tailings matter spilled into Hazeltine Creek on August 4th 2014. This creek flows into Quesnel Lake, one of the world's deepest freshwater fjords and an important habitat for sockeye salmon travelling to up-stream spawning grounds. Samples taken by Imperial Metals indicate that the average copper component in the solid tailings is 793 mg/kg, exceeding the provincial limit of 90-150mg/kg and posing a significant ecological concern for aquatic life.

Copper levels, as high as indicated by Imperial Metals, are of a particular concern to salmon populations that must travel through Quesnel Lake in order to access their spawning grounds. Elevated copper levels in water may affect salmons' directional sense and their ability to navigate the necessary waterways before reaching Horsefly and Mitchell Rivers where they are known to spawn. The salmon that rely on these watersheds are important cultural, spiritual, social beings for the First Nations communities of British Columbia as well as a valuable economic and nutritional resource for First Nations and settlers communities alike.

Although there have been considerable efforts and resources allocated to assess the cause and magnitude of the tailings dam failure, including the independent review panel report published on January 30th 2015, eight months after the spill occurred there is still an abundance of solid tailings that remains on site. This remaining solid tailings matter is exposed to weathering, erosion, and sedimentation and poses a serious concern for further contamination.

The long-term effect of this exposed tailings as it responds to weathering is unknown and has received little to no attention. Recently exposed, geologically un- weathered materials react chemically and can release a range of new compounds eg. sulphuric acid from acid mine drainage as well as heavy metals which are potentially toxic to aquatic life when released into water.

Photos and first hand accounts of the ecological state of Hazeltine Creek and Quesnel Lake as of mid-April 2015 indicate that very little attention and effort has been put into remediating the area. Attempts to minimize erosion have been made with occasional placement of fences, many of which are falling over. A channel has been dug to return flow to Hazeltine Creek, although the water that runs has extremely high turbidity and is obviously loaded with tailings sediment. The

sediment ponds created at the mouth where Hazeltine Creek becomes Quesnel Lake is insufficient to adequately prevent contaminated water from entering the lake. Photos of Quesnel Lake prior to the spill compared to those of today show two very different colours and clarity. That there has been an effect on the water of Quesnel Lake is apparent.

In advance of the Imperial Metals returning to Restricted Operations, the tailings spilled from the dam must be cleaned up and moved to a secure facility as to prevent future weathering, erosion and source of contamination. Ecological restoration of the site should be the top concern and response of both the B.C. provincial government and Imperial Metals. It is completely irresponsible to consider granting Imperial Metals application to return to Restricted Operations without first, removing the potential source of long-term environmental contaminants (tailings) and implementing a rigorous restoration that has been studied and analyzed on site for its success. As long as the tailings remains on site it is a potential source of contamination.

The precautionary principal in environmental law has received limited implementation in Canada but is a policy that has been codified by numerous international treaties. Canada has been a signatory of some of these. The policy “denotes a duty to prevent harm, when it is within our power to do so, *even when all the evidence is not in.*” Given the magnitude and severity of devastation that the failure at Mt. Polley caused it seems only sensible and with responsible long-term foresight that action is taken to prevent further ecological, cultural and social harm. The action can be taken by ensuring the immediate removal the remaining tailings and remediating the site of the spill, measurable by predefined indicators.

It is in your power as a provincial government and ministry to do so, “even if all the evidence is not in.” Inaction with respect to clean up and rigorous restoration would be regretful and irresponsible. It is your duty to ensure that no application to resume Restricted Operations is granted to Imperial Metals as adequate action has not been taken to prevent further harm to the area and its communities.

RE Sincerely,

s.22

ge 362 of 500
References

Canadian Environmental Law Association, “The Precautionary Principle”: <http://www.cela.ca/collections/pollution/precautionary-principle> Accessed on April 28 2015

Imperial Metals Corporation, Mt. Polley Updates: [http://www.imperialmetals.com/s/Mt Polley Update.asp?ReportID=671668](http://www.imperialmetals.com/s/Mt_Polley_Update.asp?ReportID=671668) on Accessed on April 28, 2015

Lee, Adrian, "New information gives salmon expert pause on mine leak impact": <http://www.macleans.ca/news/canada/new-information-gives-salmon-expert-pause-on-mine-leak-impact/>

Accessed on April 28, 2015

From: s.22
Sent: April-29-15 2:47 PM
To: MtPolley MinePermit MEM:EX
Subject: BC cannot afford another Mount Polley mine disaster

BC Ministry of Energy and Mines
BC Ministry of Environment
Victoria, BC

RE: BC cannot afford another Mount Polley disaster

The Mount Polley Mine disaster is the worst mining disaster in Canadian history and its effects will take many years until the natural environment will renew itself, if it ever does completely.

I would therefore urge the BC government not to allow the reopening mining activity at the Mount Polley mine, especially the storage of mine tailings mixed with water in tailings ponds.

s.22

Blairmore, AB

This letter was sent via WildernessCommittee.org

From: s22
Sent: April-29-15 4:03 PM
To: MtPolley MinePermit MEM:EX
Subject: Please do Not re:opening Mt. Polley Mine!

Please do not allow the Mt. Polley mine to reopen. At the very least they should clean up ALL of their mess and restore the spill area to a healthy state, BEFORE any reopening of operations.

s22

From: s.22
Sent: April-29-15 4:22 PM
To: MtPolley MinePermit MEM:EX
Subject: Do not open Mt Polly

Hello,
It's shameful Murry Edwards and Tim Fish aren't behind bars. The lake is poisoned and can't be cleaned up, not that any attempt has even been made. Mt Polly should not be allowed by the BC government to re-open. The people have said "NO."

s.22

From:
Sent: April-29-15 5:32 PM
To: MtPolley MinePermit MEM:EX
Subject: Please deny the re-opening of the Mt. Polley mine

s.22

There needs to be some accountability for environmental offenders, a title to which few have as much claim as Imperial Metals. Please protect our environment and enforce sanctions and cleanup efforts. They should not be allowed to continue to profit on a site they have already destroyed once.

Sincerely,
s.22
Vancouver BC

From:
Sent: April-29-15 5:42 PM
To: MtPolley MinePermit MEM:EX
Subject: Statement of concern

Hello,

My name is s.22 I live in Vancouver, and I write as a concerned citizen of BC and a settler on unceded lands. I strongly recommend the denial of the permit to re-open recently applied for by Imperial Metals. While an impatience to continue with "business as usual" is no doubt motivating IMC, the fact remains that they have failed to obtain the consent of communities most directly impacted in the region, particularly the Secwepemc people, whose land they are mining. It strikes me as gross negligence to have allowed such a critical lapse in safety precautions, then rub salt in the wound by continuing to ignore the voices and rights of those who will have to bear the brunt of their lapse. If Imperial Metals was taking significant responsibility for remediation and clean-up, and could prove that they had the support of local communities, perhaps there could be more openness to permit approval. As it stands, they have sought only to continue their operations as quickly as possible, now suggesting that they will dump "treated" water directly into Quesnel Lake. This is a false solution and can only bring more problems.

Please do not approve the re-opening of the Mount Polley mine.

Sincerely,

s.22

From:
Sent: April-29-15 5:56 PM
To: MtPolley MinePermit MEM:EX
Subject: Mt Polley mine Reopening

Dear Christy Clarke:

The potential reopening of the Mt Polley is of grave concern to me and the indigenous people of Secwepemc territories, the residents of Likely, BC and those living on the Quesnel and Fraser River watersheds.

On 04 August 2014, the tailings storage facility at the Mount Polley Mine, near Likely, BC, and owned by Imperial Metals Corporation (IMC), had a catastrophic failure, allowing approximately 25 millions of cubic metres of toxic sludge and contaminated water to rush into nearby Polley Lake and seven kilometers down Hazeltine Creek to Quesnel Lake. This spill is one of the biggest environmental disasters in modern Canadian history.

The BC Government initially denied it was an environmental disaster, has downplayed the damage and has taken little to no action to assure that such a disaster would not happen again. Now, Imperial Metals Corporation has submitted an application to provincial regulators to return to operations. Our organizations strongly urge that this application be rejected for the following reasons:

Continuing Ecological Destruction: In the eight months since the 04 August 2014 failure of the tailings storage facility IMC's wholly-owned subsidiary Mount Polley Mining Corporation (MPMC) has demonstrated greater effort to ready the tailings storage facility for imminent production than to remediate the land and prevent further pollution of Quesnel Lake and the downstream rivers. Now the company plans to release "treated" mining waste water back into the watershed and potentially use Quesnel Lake as the site of discharge.

Criminal Investigation: The company remains under criminal investigation for gross negligence leading up to the massive failure of the tailings storage facility at the Mount Polley mine.

Consent of Communities: The lands to which Imperial Metals Corporation (IMC) has acquired access through provincial and federal permitting are the contested, occupied, traditional, ancestral, and unceded territories of the Secwepemc people. The Secwepemc people have not given their unanimous free, prior, and informed consent to the projects on their territories. Neither have the people of Likely, BC.

Until all communities impacted have unanimously given their explicit free, prior, and informed consent to any and all project plans, timelines, and methods, with caveats, special requirements, and timelines that are on their own terms, and until a third-party team of observers, individually selected by the ancestral authorities of the area and with full access to all areas of the Mount Polley Mine site and all areas of the area affected by the tailings failure, has reported that IMC/MPMC has fulfilled their duty to clean up the affected area, this permit should be rejected.

Neglect and Greed: MPMC has, demonstrated a pattern of opting to maximize profits at the expense of the land and ecosystems their operations threaten. The managers of MPMC ignored repeated warnings from consultants and employees regarding the unsafe condition of the tailings storage facility, workplace health and safety, and other environmental discharges.

Clean Up and Remediation: Until the IMC has removed every cubic meter of spilled tailings waste to the tailings storage facility, has returned the destroyed land to its original condition, and has returned the water and bed conditions of Polley Lake, Hazeltine Creek, Etney Creek, and Quesnel Lake to their pre-spill conditions, the re-opening of this mine would be furthering an ongoing catastrophe.

There is still time for the provincial government to do the right thing. The Premier needs to act now to demonstrate her government's commitment to respecting and upholding the rights of Indigenous peoples and the people of B.C.

Please do not allow this to happen !!

s22

From:
Sent: April-29-15 6:14 PM
To: MtPolley MinePermit MEM:EX
Subject: British Columbia must reject the reopening of Imperial Metals' Mount Polley mine

Memo to: Cariboo Region Mine Development Review Committee April 29, 2015

Subject: Reopening of Imperial Metals' Mount Polley mine

As a volunteer streamkeeper, I am deeply concerned that the Mt. Polley mine disaster is still affecting the salmon in the Fraser River watershed. It is way too soon to re-open the mine for several reasons:

1. Rather than remediating the land and preventing further pollution of Quesnel Lake and the downstream rivers, the Mount Polley Mining Corporation (MPMC) plans to release "treated" mining waste water back into the watershed and potentially use Quesnel Lake as the site of discharge.
2. The company remains under criminal investigation for gross negligence leading up to the massive failure of the tailings storage facility.
3. The managers of MPMC are not to be trusted. They ignored repeated warnings from consultants and employees regarding the unsafe condition of the tailings storage facility, workplace health and safety, and other environmental discharges.
4. The communities in the area, both indigenous and settlers, have not consented to this project.

For these reasons, I ask you not to approve the reopening until the criminal investigation is finished and MPMC has returned the destroyed land to its original condition and has returned the water and bed conditions of Polley Lake, Hazeltine Creek, Etney Creek, and Quesnel Lake to their pre-spill conditions.

Regards,

"The loss of biodiversity is the only truly irreversible global environmental change the Earth faces today." – Biologists Rodolfo Dirzo and Peter Raven [Cite](#)

From:
Sent: April-29-15 6:17 PM
To: MtPolley MinePermit MEM:EX
Subject: don't do it

s.22

To whom it may concern,

British Columbia must reject the reopening of Imperial Metals' Mount Polley mine without their consent of communities impacted by the tailings disaster.

The Government of British Columbia is failing the indigenous people of Secwepemc territories, the residents of Likely, BC and those living on the Quesnel and Fraser River watersheds. This is a matter of urgent concern for all our organizations.

On 04 August 2014, the tailings storage facility at the Mount Polley Mine, near Likely, BC, and owned by Imperial Metals Corporation (IMC), had a catastrophic failure, allowing approximately 25 millions of cubic metres of toxic sludge and contaminated water to rush into nearby Polley Lake and seven kilometers down Hazeltine Creek to Quesnel Lake. This spill is one of the biggest environmental disasters in modern Canadian history.

The BC Government initially denied it was an environmental disaster, has downplayed the damage and has taken little to no action to assure that such a disaster would not happen again. Now, Imperial Metals Corporation has submitted an application to provincial regulators to return to operations. Our organizations strongly urge that this application be rejected for the following reasons:

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Criminal Investigation: The company remains under criminal investigation for gross negligence leading up to the massive failure of the tailings storage facility at the Mount Polley mine.

Consent of Communities: The lands to which Imperial Metals Corporation (IMC) has acquired access through provincial and federal permitting are the contested, occupied, traditional, ancestral, and unceded territories of the Secwepemc people. The Secwepemc people have not given their unanimous free, prior, and informed consent to the projects on their territories. Neither have the people of Likely, BC.

Until all communities impacted have unanimously given their explicit free, prior, and informed consent to any and all project plans, timelines, and methods, with caveats, special requirements, and timelines that are on their own terms, and until a third-party team of observers, individually selected by the ancestral authorities of the area and with full access to all areas of the Mount Polley Mine site and all areas of the area affected by the tailings failure, has reported that IMC/MPMC has fulfilled their duty to clean up the affected area, this permit should be rejected.

Neglect and Greed: MPMC has demonstrated a pattern of opting to maximize profits at the expense of the land and ecosystems their operations threaten. The managers of MPMC ignored repeated warnings from consultants and employees regarding the unsafe condition of the tailings storage facility, workplace health

and safety, and other environmental discharges.

Clean Up and Remediation: Until the IMC has removed every cubic meter of spilled tailings waste to the tailings storage facility, has returned the destroyed land to its original condition, and has returned the water and bed conditions of Polley Lake, Hazeltine Creek, Etney Creek, and Quesnel Lake to their pre-spill conditions, the re-opening of this mine would be furthering an ongoing catastrophe.

From:
Sent: April-29-15 6:25 PM
To: MtPolley MinePermit MEM:EX
Subject: No to re-opening Mount Polley

s.22

I say No to the re-opening of the Mount Polley tailings pond, or anywhere in that area. Clearly from the last tailings pond, there can be no adequate responsibility in cleaning up after yourselves.
All My Relations

s.22

From: s.22
Sent: April-29-15 6:49 PM
To: MtPolley MinePermit MEM:EX
Subject: Mount Polley mine

i followed with disbelief when this disaster took place. The company is clearly incompetent and so are some civil servants whose job it was to protect our land, water, air and wildlife. This mine should not be opened until this is through the courts.

Stop this from going ahead or the public will. This is an informed province that is fed up with incompetent and greedy corporations.

s.22
Victoria

From:
Sent: April-29-15 7:02 PM
To: MtPolley MinePermit MEM:EX
Subject: Re opening Mt Polly

s.22

Dear Madam/ Sir,

Re opening this mine is not in the best interests of the majority of people in BC – the company has shown its true colours by ignoring warnings from staff about the stability of the tailings ponds - this is not good enough for the people of BC.

The land, animals, salmon, fresh water and the right to live in an unpolluted area are far more important than the right of Imperial metals to make money.

The local communities who have been and will continue to be directly affected have said NO ...the indigenous people of Secwepemc territories, the residents of Likely, BC and those living on the Quesnel and Fraser River watersheds deserve better.

A decision to open this mine while the disaster is under criminal investigation for gross negligence & in the face of loud local opposition is a clear message that the BC government does not care about the concerns & opinions of BC voters.

There is still time for the provincial government to do the right thing. The Premier needs to act now to demonstrate her government's commitment to respecting and upholding the rights of Indigenous peoples and the people of B.C

Thanks for accepting my comments

s.22

Whistler BC

From:
Sent: April-29-15 7:17 PM
To: MtPolley MinePermit MEM:EX
Subject: Re : Mount Polley

This is not simply a local matter. It affects all Canadians.

s22

I live in Alberta. I fully support this letter and add my name to the undersigned.

British Columbia must reject the reopening of Imperial Metals' Mount Polley mine without their consent of communities impacted by the tailings disaster.

The Government of British Columbia is failing the indigenous people of Secwepemc territories, the residents of Likely, BC and those living on the Quesnel and Fraser River watersheds. This is a matter of urgent concern for all our organizations.

On 04 August 2014, the tailings storage facility at the Mount Polley Mine, near Likely, BC, and owned by Imperial Metals Corporation (IMC), had a catastrophic failure, allowing approximately 25 millions of cubic metres of toxic sludge and contaminated water to rush into nearby Polley Lake and seven kilometers down Hazeltine Creek to Quesnel Lake. This spill is one of the biggest environmental disasters in modern Canadian history.

The BC Government initially denied it was an environmental disaster, has downplayed the damage and has taken little to no action to assure that such a disaster would not happen again. Now, Imperial Metals Corporation has submitted an application to provincial regulators to return to operations. Our organizations strongly urge that this application be rejected for the following reasons:

Continuing Ecological Destruction: In the eight months since the 04 August 2014 failure of the tailings storage facility IMC's wholly-owned subsidiary Mount Polley Mining Corporation (MPMC) has demonstrated greater effort to ready the tailings storage facility for imminent production than to remediate the land and prevent further pollution of Quesnel Lake and the downstream rivers. Now the company plans to release "treated" mining waste water back into the watershed and potentially use Quesnel Lake as the site of discharge.

Criminal Investigation: The company remains under criminal investigation for gross negligence leading up to the massive failure of the tailings storage facility at the Mount Polley mine.

Consent of Communities: The lands to which Imperial Metals Corporation (IMC) has acquired access through provincial and federal permitting are the contested, occupied, traditional, ancestral, and unceded territories of the Secwepemc people. The Secwepemc people have not given their unanimous free, prior, and informed consent to the projects on their territories. Neither have the people of Likely, BC.

Until all communities impacted have unanimously given their explicit free, prior, and informed consent to any and all project plans, timelines, and methods, with caveats, special requirements, and timelines that are on their own terms, and until a third-party team of observers, individually selected by the ancestral authorities of the area and with full access to all areas of the Mount Polley Mine site and all areas of the area affected by the tailings failure, has reported that IMC/MPMC has fulfilled their duty to clean up the affected area, this permit should be rejected.

Neglect and Greed: MPMC has, demonstrated a pattern of opting to maximize profits at the expense of the land and ecosystems their operations threaten. The managers of MPMC ignored repeated warnings from consultants and employees regarding the unsafe condition of the tailings storage facility, workplace health and safety, and other environmental discharges.

Clean Up and Remediation: Until the IMC has removed every cubic meter of spilled tailings waste to the tailings storage facility, has returned the destroyed land to its original condition, and has returned the water and bed conditions of Polley Lake, Hazeltine Creek, Etney Creek, and Quesnel Lake to their pre-spill conditions, the re-opening of this mine would be furthering an ongoing catastrophe.

There is still time for the provincial government to do the right thing. The Premier needs to act now to demonstrate her government's commitment to respecting and upholding the rights of Indigenous peoples and the people of B.C.

This letter has been endorsed by:

Ancestral Pride
Beyond Boarding
Building Bridges - Human Rights Vancouver
Café Rebelde
Council of Canadians
E-Tech International
Forest Action Network
Fraser Riverkeeper
Indigenous Network on Economies and Trade
Leadnow
Mining Justice Alliance
Mining Injustice Solidarity Network
MiningWatch Canada
Native Youth Movement
No One Is Illegal - Toronto
No One Is Illegal - Vancouver, Coast Salish Territories
Rising Tide - Vancouver, Coast Salish Territories
Secwepemc Nation Youth Network
Secwepemc Woman Warrior Society
Streams of Justice
Vancouver Ecosocialist Group
Water Wealth Project

From:
Sent: April-29-15 7:20 PM
To: MtPolley MinePermit MEM:EX
Subject: Mine reopen

mtpolleyminepermit@gov.bc.ca

It should never re open. You crooks don't respect the environment. Shut it down

Respectfully yours

From:
Sent: April-29-15 7:23 PM
To: MtPolley MinePermit MEM:EX
Subject: Stop Mt Polley

Hello I am amazed at the disregard you have for Humans Animals and the Earth Mt Polley was the worst Mining disaster in BC and you are sweeping it under the rug so you can get back to raping the planet and poisoning the lakes and rivers.

Hubert Bunce should never be in charge of any mines or position of power as he is a complete idiot that is destroying water for people all over BC including my Shawnigan Lake on Vancouver Island I realize that common sense does not exist any more its all about the money laundering and dollars.

Makes dollars NOT sense seems to be your ministries moto now....we certainly cant call you the ministry of Environment because you obviously and in our faces dont care! How do you sleep at night?

Water is life and it will be very hard bathing your grandchildren in bottle Nestle Water!!

Do the right and safe thing and shut this reopening down before the people have too!

Count your losses and get out!!!

LEAVE IT IN THE GROUND!

From:
Sent: April-29-15 7:24 PM
To: MtPolley MinePermit MEM:EX
Subject: Mount Polley Mining Disaster

An application for a restricted re-opening of the mine has been recently accepted by the Ministry of Energy and Mines and Ministry of Environment.

I am calling on the BC Government and the Mining industry to take responsibility for the worst mining disaster in the history of mining. I am outraged that nothing has been done about it and am strongly urging our Government to reject this application for the following reasons:

Continuing Ecological Destruction: In the eight months since the 04 August 2014 failure of the tailings storage facility IMC's wholly-owned subsidiary Mount Polley Mining Corporation (MPMC) has demonstrated greater effort to ready the tailings storage facility for imminent production than to remediate the land and prevent further pollution of Quesnel Lake and the downstream rivers. Now the company plans to release "treated" mining waste water back into the watershed and potentially use Quesnel Lake as the site of discharge.

Criminal Investigation: The company remains under criminal investigation for gross negligence leading up to the massive failure of the tailings storage facility at the Mount Polley mine.

Consent of Communities: The lands to which Imperial Metals Corporation (IMC) has acquired access through provincial and federal permitting are the contested, occupied, traditional, ancestral, and unceded territories of the Secwepemc people. The Secwepemc people have not given their unanimous free, prior, and informed consent to the projects on their territories. Neither have the people of Likely, BC.

Until all communities impacted have unanimously given their explicit free, prior, and informed consent to any and all project plans, timelines, and methods, with caveats, special requirements, and timelines that are on their own terms, and until a third-party team of observers, individually selected by the ancestral authorities of the area and with full access to all areas of the Mount Polley Mine site and all areas of the area affected by the tailings failure, has reported that IMC/MPMC has fulfilled their duty to clean up the affected area, **this permit should be rejected.**

Sincerely,

RECORDS

s.22

From:
Sent: April-29-15 7:28 PM
To: MtPolley MinePermit MEM:EX
Subject: No to Mt Polley Mine

s.22

To the BC Gov't,

For the following reasons I do not want Mt Polley Mine to be permitted to resume operations:

Continuing Ecological Destruction: In the eight months since the 04 August 2014 failure of the tailings storage facility IMC's wholly-owned subsidiary Mount Polley Mining Corporation (MPMC) has demonstrated greater effort to ready the tailings storage facility for imminent production than to remediate the land and prevent further pollution of Quesnel Lake and the downstream rivers. Now the company plans to release "treated" mining waste water back into the watershed and potentially use Quesnel Lake as the site of discharge.

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Clean Up and Remediation: Until the IMC has removed every cubic meter of spilled tailings waste to the tailings storage facility, has returned the destroyed land to its original condition, and has returned the water and bed conditions of Polley Lake, Hazeltine Creek,

Etney Creek, and Quesnel Lake to their pre-spill conditions, the re-opening of this mine would be furthering an ongoing catastrophe.

s.22

From:
Sent: April-29-15 7:31 PM
To: MtPolley MinePermit MEM:EX
Cc: OfficeofthePremier, Office PREM:EX; Karagianis.MLA, Maurine E LASS:EX
Subject: Public comment regarding reopening of Imperial Metals' Mount Polley mine

To whom it may concern,

I stand with the Secwepemc Women's Warrior Society and many others in opposing the reopening of the Imperial Metals' Mount Polley mine without the full informed consent of communities impacted by the tailings disaster.

The tailings disaster has not been adequately cleaned up. Its impact on the communities, wilderness and water systems will take years to fully study and comprehend. The first priority should be a sustained and long-term committed effort to restore the natural systems.

The BC Government initially denied it was an environmental disaster, has downplayed the damage and has taken little to no action to assure that such a disaster would not happen again. Now, Imperial Metals Corporation has submitted an application to provincial regulators to return to operations.

I strongly urge that this application be rejected for the following reasons:

Continuing Ecological Destruction: In the eight months since the 04 August 2014 failure of the tailings storage facility IMC's wholly-owned subsidiary Mount Polley Mining Corporation (MPMC) has demonstrated greater effort to ready the tailings storage facility for imminent production than to remediate the land and prevent further pollution of Quesnel Lake and the downstream rivers. Now the company plans to release "treated" mining waste water back into the watershed and potentially use Quesnel Lake as the site of discharge.

Criminal Investigation: The company remains under criminal investigation for gross negligence leading up to the massive failure of the tailings storage facility at the Mount Polley mine.

Consent of Communities: The lands to which Imperial Metals Corporation (IMC) has acquired access through provincial and federal permitting are the contested, occupied, traditional, ancestral, and unceded territories of the

Secwepemc people. The Secwepemc people have not given their unanimous free, prior, and informed consent to the projects on their territories. Neither have the people of Likely, BC.

Until all communities impacted have unanimously given their explicit free, prior, and informed consent to any and all project plans, timelines, and methods, with caveats, special requirements, and timelines that are on their own terms, and until a third-party team of observers, individually selected by the ancestral authorities of the area and with full access to all areas of the Mount Polley Mine site and all areas of the area affected by the tailings failure, has reported that IMC/MPMC has fulfilled their duty to clean up the affected area, this permit should be rejected.

Neglect and Greed: MPMC has, demonstrated a pattern of opting to maximize profits at the expense of the land and ecosystems their operations threaten. The managers of MPMC ignored repeated warnings from consultants and employees regarding the unsafe condition of the tailings storage facility, workplace health and safety, and other environmental discharges.

Clean Up and Remediation: Until the IMC has removed every cubic meter of spilled tailings waste to the tailings storage facility, has returned the destroyed land to its original condition, and has returned the water and bed conditions of Polley Lake, Hazeltine Creek, Etney Creek, and Quesnel Lake to their pre-spill conditions, the re-opening of this mine would be furthering an ongoing catastrophe.

There is still time for the provincial government to do the right thing. The Premier needs to act now to demonstrate her government's commitment to respecting and upholding the rights of Indigenous peoples and the people of B.C.

Sincerely,

s.22

From: § 22
Sent: April-29-15 7:43 PM
To: MtPolley MinePermit MEM:EX
Subject: Please do not allow yet more toxic mining to take place at mt.polley

Please do not allow yet more toxic mining to take place at Mt.Polley.
Sincerely,

§ 22

From:
Sent: April-29-15 7:47 PM
To: MtPolley MinePermit MEM:EX
Subject: We as ustralians demand that Mount Polley not be Re-Opened

Australia

29 April 2015

We stand in solidarity with the Secwepemc people
Our Message to the Gouvernement,

British Columbia must reject the reopening of Imperial Metals' Mount Polley mine without their consent of communities impacted by the tailings disaster.
We as First Nation Australians demand demand that Mount Polley not be Re-Opened

The Government of British Columbia is failing the Indigenous people of Secwepemc territories, the residents of Likely, BC and those living on the Quesnel and Fraser River watersheds. This is a matter of urgent concern for all of their organizations.

On 04 August 2014, the tailings storage facility at the Mount Polley Mine, near Likely, BC, and owned by Imperial Metals Corporation (IMC), had a catastrophic failure, allowing approximately 25 millions of cubic metres of toxic sludge and contaminated water to rush into nearby Polley Lake and seven kilometers down Hazeltine Creek to Quesnel Lake. This spill is one of the biggest environmental disasters in modern Canadian history.

What has been done by way of clean up of the affected areas?

Can we please find out the water safety reading information concerching drinking supplies etc since the failure in 2014?

How when the BC Government initially denied it was an environmental disaster, has downplayed the damage and has taken little to no action to assure that such a disaster would not happen again. Now, Imperial Metals Corporation has submitted an application to provincial regulators to return to operations? We support the Indigenous peoples, their organizations strongly urge that this application be rejected for the following reasons:

Continuing Ecological Destruction: In the eight months since the 04 August 2014 failure of the tailings storage facility IMC's wholly-owned subsidiary Mount Polley Mining Corporation (MPMC) has demonstrated greater effort to ready the tailings storage facility for imminent production than to remediate the land and prevent further pollution of Quesnel Lake and the downstream rivers. Now the company plans to release "treated" mining waste water back into the watershed and potentially use Quesnel Lake as the site of discharge.

Criminal Investigation: The company remains under criminal investigation for gross negligence leading up to the massive failure of the tailings storage facility at the Mount Polley mine.

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Until all communities impacted have unanimously given their explicit free, prior, and informed consent to any and all project plans, timelines, and methods, with caveats, special requirements, and timelines that are on their own terms, and until a third-party team of observers, individually selected by the ancestral authorities of the area and with full access to all areas of the Mount Polley Mine site and all areas of the area affected by the tailings failure, has reported that IMC/MPMC has fulfilled their duty to clean up the affected area, this permit should be rejected.

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There is still time for the provincial government to do the right thing. The Premier needs to act now to demonstrate her government's commitment to respecting and upholding the rights of Indigenous peoples and the people of B.C. The whole world is watching.

In Unity we trust,

§ 22

N.B. Original letter has been endorsed by:

RECORDS 2-3 Page 388 of 500
Ancestral Pride
Beyond Boarding
Building Bridges - Human Rights Vancouver
Café Rebelde
Council of Canadians
E-Tech International
Forest Action Network
Fraser Riverkeeper
Indigenous Network on Economies and Trade
Leadnow
Mining Justice Alliance
Mining Injustice Solidarity Network

MiningWatch Canada
Native Youth Movement
No One Is Illegal - Toronto
No One Is Illegal - Vancouver, Coast Salish Territories
Rising Tide - Vancouver, Coast Salish Territories
Secwepemc Nation Youth Network
Secwepemc Woman Warrior Society
Streams of Justice
Vancouver Ecosocialist Group
Water Wealth Project

From:
Sent: April-29-15 8:48 PM
To: MtPolley MinePermit MEM:EX
Cc:
Subject: Oppose possible reopening of Mount Polley Mine

We at Wild Game Fish Conservation International oppose the possible reopening of Imperial Metals' Mount Polley Mine.

The expectation of this mine's failure by senior mine staff was unfortunately realized August 4th, 2014 when the earthen dam retaining Mount Polley Mine's toxic mining tailings failed.

This catastrophic breach resulted in a local, national and international downstream aquatic disaster that will never be recovered from.

This disaster has impacted, and will continue to impact, human health, the environment and economy.

Clearly, this important watershed must be given time and significant resources to recover the best it can from this disaster.

Reopening this Mount Polley and putting additional natural resources at risk from future dam breaches is nothing short of madness and would be viewed as a total disregard for the area's natural resources and all that rely on them.

Sincerely,

RECORDS 2-

s22

Wild Game Fish Conservation International
Web: <http://WGFCI.blogspot.com>
Facebook: <http://www.Facebook.com/WGFCI>
SKYPE: Steelhead.Salmon
(360) 352-7988

From:
Sent: April-29-15 9:03 PM
To: MtPolley MinePermit MEM:EX
Subject: application to reopen IMMP mine

When the same people responsible for the mine tailings pond disaster apply to re-open even as they show more effort to prepare to continue mining than to ameliorate the damage caused by their negligence, clearly they are not trustworthy and responsible. Therefore they have established that they must not be allowed to repeat the process, the placing of mine company share holder profits before the irreparable damage done to BC. These blankety blanks must never be allowed to operate a mine in BC again.

From:
Sent: April-29-15 9:24 PM
To: MtPolley MinePermit MEM:EX
Subject: Mount Polly mine

s22

I am against you re opening this mine.

From:
Sent: April-29-15 9:29 PM
To: MtPolley MinePermit MEM:EX
Subject: BC cannot afford another Mount Polley mine disaster

BC Ministry of Energy and Mines
BC Ministry of Environment
Victoria, BC

RE: BC cannot afford another Mount Polley disaster

I am opposed to re-opening the Mt Polley Mine in light of the damage caused by the dam failure. Scientists have said it will take years to restore the affected habitat and wildlife area affected. We can't afford to continue blindly polluting the places where we live and the environment we share. I stand in solidarity with the many people fighting against these acts of aggression.

vancouver , BC

This letter was sent via WildernessCommittee.org

From:
Sent: April-29-15 9:54 PM
To: MtPolley MinePermit MEM:EX
Subject: No to Mount Polley mine permit

Cariboo Region Mine Development Review Committee:

I strongly oppose the re-opening of the Mount Polley mine. Many people in Oregon, Washington and Idaho are shocked at the negligence of Imperial Metals and the BC government. The Mount Polley spill is a detriment to our entire region, and proof of Canada's rapidly expanding extractions economy. Leave it in the ground, build your economy on sustainable industries. Respect the First Nations people and their commitment to protecting their ancestral lands, salmon, and water. You have a beautiful region - you should preserve it for tourism, not allow it to be desecrated by a finite extraction mission. Shame on Canada for its increasingly shocking and alarming environmental track record.

s.22

From:
Sent: April-29-15 9:04 PM
To: MtPolley MinePermit MEM:EX
Subject: Stop Mt Polley re-opening.

s.22

To whom it may concern,

British Columbia must reject the reopening of Imperial Metals' Mount Polley mine without their consent of communities impacted by the tailings disaster.

The Government of British Columbia is failing the indigenous people of Secwepemc territories, the residents of Likely, BC and those living on the Quesnel and Fraser River watersheds. This is a matter of urgent concern for all our organizations.

On 04 August 2014, the tailings storage facility at the Mount Polley Mine, near Likely, BC, and owned by Imperial Metals Corporation (IMC), had a catastrophic failure, allowing approximately 25 millions of cubic metres of toxic sludge and contaminated water to rush into nearby Polley Lake and seven kilometers down Hazeltine Creek to Quesnel Lake. This spill is one of the biggest environmental disasters in modern Canadian history.

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Criminal Investigation: The company remains under criminal investigation for gross negligence leading up to the massive failure of the tailings storage facility at the Mount Polley mine.

Consent of Communities: The lands to which Imperial Metals Corporation (IMC) has acquired access through provincial and federal permitting are the contested, occupied, traditional, ancestral, and unceded territories of the Secwepemc people. The Secwepemc people have not given their unanimous free, prior, and informed consent to the projects on their territories. Neither have the people of Likely, BC.

Until all communities impacted have unanimously given their explicit free, prior, and informed consent to any and all project plans, timelines, and methods, with caveats, special requirements, and timelines that are on their own terms, and until a third-party team of observers, individually selected by the ancestral authorities of the area and with full access to all areas of the Mount Polley Mine site and all areas of the area affected by the tailings failure, has reported that IMC/MPMC has fulfilled their duty to clean up the affected area, this permit should be rejected.

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There is still time for the provincial government to do the right thing. The Premier needs to act now to demonstrate her government's commitment to respecting and upholding the rights of Indigenous peoples and the people of B.C.

s.22

Kamloops BC

From:
Sent: April-29-15 10:41 PM
To: MtPolley MinePermit MEM:EX
Subject: objections to reopening Mt. Polley Mine

To Whom it May Concern: I have serious concerns about the possibility of the Mt. Polley Mine reopening when there is no evidence that any cleanup attempt was made after the tailings pond breach of a few months ago. Rather, from raw video I watched, it would appear that a small attempt was made to COVER UP some of the mess along the creekbed. I am highly concerned about the salmon stocks and the health of the Fraser River generall. I feel that Imperial Metals needs to take responsibility for this (now irreversable) situation and that they should not be permitted to mine in BC, not at Mt. Polley and not up in the Sacred Headwaters. Thank you.

From:
Sent: April-29-15 10:51 PM
To: MtPolley MinePermit MEM:EX
Subject: BC cannot afford another Mount Polley mine disaster

BC Ministry of Energy and Mines
BC Ministry of Environment
Victoria, BC

RE: Protect our fish and water. BC cannot afford another Mount Polley disaster

Dear Ministers,

I am writing to ask you to do the following:

- Reject the application to re-open the Mount Polley mine.
- Enact regulations that prohibit BC mines from storing tailings in large ponds mixed with water, and instead require companies to use the “dry stack” method to store mine tailings.

As decision makers, you are personally responsible for ensuring that BC's precious water and fish resources aren't compromised by industrial extraction. Please do your job to ensure that the Mount Polley disaster is cleaned up, and that mines can no longer put fish and water at risk in this province. Until this can be assured, no mine should be allowed to operate, especially not Mount Polley! Don't pass the buck onto industry - this is your chance to show your vision and leadership on this issue.

Denny Island, British Columbia

This letter was sent via WildernessCommittee.org

From:
Sent: April-29-15 11:12 PM
To: MtPolley MinePermit MEM:EX
Subject: Reopening of Mt. Polley Mine

s.22

To whom it may concern:

I am strongly opposed to the reopening of the Mount Polley Mine for these reasons:

- 1 - The Indigenous people who live in the area directly affected (as well as the people who live in the town of Likely) have not been consulted about the reopening of the mine. This must be done as per the Supreme Tsilhqot'in court ruling of 2014/06/26. The Secwepemc people must also give their free, prior and informed consent to this project before it is allowed to proceed.
- 2 - The mining company is under investigation for criminal negligence for the tailings dam breach. Consideration as to the reopening of the mine can not proceed unless the company is found not to be culpable in this regard.
- 3 – The clean up of the Mount Polley breach is still undergoing and should be completely finished before any consideration is given to the reopening of the mine.

Sincerely yours,

s.22

From:
Sent: April-29-15 11:25 PM
To: MtPolley MinePermit MEM:EX
Subject: BC cannot afford another Mount Polley mine disaster

s.22

BC Ministry of Energy and Mines
BC Ministry of Environment
Victoria, BC

RE: BC cannot afford another Mount Polley disaster

My parents taught me to clean up my mess before moving on to anything else..
It would be seriously irresponsible and dangerous to not completely deal with the mess that has already been made. Reopen info the mine before having cleaned up and made things right.. Well that would be just..
The worst thing to do to locals, indigenous peoples and everyone else who is aware of what's going on.
Grow up and tell imperial metals to clean their mess before they're allowed to do any more work. Anywhere.

s.22

North van, Bc

This letter was sent via WildernessCommittee.org

From:
Sent: April-29-15 11:51 PM
To: MtPolley MinePermit MEM:EX
Subject: BC cannot afford another Mount Polley mine disaster

s.22

BC Ministry of Energy and Mines
BC Ministry of Environment
Victoria, BC

RE: BC cannot afford another Mount Polley disaster

I am writing in opposition to the re-opening of the Mount Polley mine.
Imperial Metals should clean up their mess first.

And it is only out of greed and ignorance as far as I can tell that the recommendations of the independent panel would be disregarded and the same dangerous system of holding tailings would be employed. Mexico uses dry stack tailings for heaven's sakes.

Finally, I am beginning to wonder if it is worth my time to write to this government asking for more responsible stewardship of BC. I am starting to think I should just concentrate on getting more progressive people elected.

Burnaby, British Columbia

s.22

This letter was sent via WildernessCommittee.org

From:
Sent: April-30-15 12:18 AM
To: MtPolley MinePermit MEM:EX
Subject: my 2 cents...

to whom it may concern

if one is to look at the big picture, they would see that clean water is more important than any mineral in the ground.
i used to live in likely and have many friends that work at the mine, i understand the need for jobs.
however it is short sited.
let's start valuing what is really important, a clean functioning environment.
mt polly should not re-open

thank you

From:
Sent: April-30-15 12:58 AM
To: MtPolley MinePermit MEM:EX
Subject: BC cannot afford another Mount Polley mine disaster

BC Ministry of Energy and Mines
BC Ministry of Environment
Victoria, BC

RE: BC cannot afford another Mount Polley disaster

I must add my voice to the crisis that is the Polley Mine disaster of all time in Canada, and hope that better ways will prevail. I do not agree at all with Imperial Metal's assumption it may go ahead with mining again in the very wake of this tragedy for the region. It should not even think of proceeding as usual, and especially after recommendations that tailings ponds be discontinued and shifted to the 'dry stacking' of mine waste...and this to be done with due diligence to not allowing leaching to affect any water body used by fish or humankind. It is imperative that Imperial Metals not force itself upon this valuable region, and must with due diligence abide by commonsense integrity that will not allow this kind of tragedy to happen again. I believe the Polley Mine should rightfully remain closed--certainly until it has cleaned up its mess over the next decade. Give it time to think about the rights of nature and better outcomes than gross profit, power and control.

Port Hardy, BC

This letter was sent via WildernessCommittee.org

From:
Sent: April-30-15 3:22 AM
To: MtPolley MinePermit MEM:EX
Subject: Mt Polley Mine pemit

s.22

Don't reveal your disrespect of First Nations and community rights yet again. Democratic process must come before the power and assumptions of money. Human and planet health must come before corporate profits. Time to teach wide-spread conservation and learn to recycle and reuse what we have rather than having unlimited mining support the production of so many objects we don't require in the first place. Stop this permit process. Carry on with a significant cleanup to help reduce the impact of the massive spill.

s.22

Vancouver

From:
Sent: April-30-15 6:21 AM
To: MtPolley MinePermit MEM:EX
Subject: concerned citizen

s.22

PUBLIC STATEMENT - 29 April 2015

British Columbia must reject the reopening of Imperial Metals' Mount Polley mine without their consent of communities impacted by the tailings disaster.

The Government of British Columbia is failing the indigenous people of Secwepemc territories, the residents of Likely, BC and those living on the Quesnel and Fraser River watersheds. This is a matter of urgent concern for all our organizations.

On 04 August 2014, the tailings storage facility at the Mount Polley Mine, near Likely, BC, and owned by Imperial Metals Corporation (IMC), had a catastrophic failure, allowing approximately 25 millions of cubic metres of toxic sludge and contaminated water to rush into nearby Polley Lake and seven kilometers down Hazeltine Creek to Quesnel Lake. This spill is one of the biggest environmental disasters in modern Canadian history.

The BC Government initially denied it was an environmental disaster, has downplayed the damage and has taken little to no action to assure that such a disaster would not happen again. Now, Imperial Metals Corporation has submitted an application to provincial regulators to return to operations. Our organizations strongly urge that this application be rejected for the following reasons:

Continuing Ecological Destruction: In the eight months since the 04 August 2014 failure of the tailings storage facility IMC's wholly-owned subsidiary Mount Polley Mining Corporation (MPMC) has demonstrated greater effort to ready the tailings storage facility for imminent production than to remediate the land and prevent further pollution of Quesnel Lake and the downstream rivers. Now the company plans to release "treated" mining waste water back into the watershed and potentially use Quesnel Lake as the site of discharge.

Criminal Investigation: The company remains under criminal investigation for gross negligence leading up to the massive failure of the tailings storage facility at the Mount Polley mine.

Consent of Communities: The lands to which Imperial Metals Corporation (IMC) has acquired access through provincial and federal permitting are the contested, occupied, traditional, ancestral, and unceded territories of the Secwepemc people. The Secwepemc people have not given their unanimous free, prior, and informed consent to the projects on their territories. Neither have the people of Likely, BC.

Until all communities impacted have unanimously given their explicit free, prior, and informed consent to any and all project plans, timelines, and methods, with caveats, special requirements, and timelines that are on their own terms, and until a third-party team of observers, individually

selected by the ancestral authorities of the area and with full access to all areas of the Mount Polley Mine site and all areas of the area affected by the tailings failure, has reported that IMC/MPMC has fulfilled their duty to clean up the affected area, this permit should be rejected.

Neglect and Greed: MPMC has, demonstrated a pattern of opting to maximize profits at the expense of the land and ecosystems their operations threaten. The managers of MPMC ignored repeated warnings from consultants and employees regarding the unsafe condition of the tailings storage facility, workplace health and safety, and other environmental discharges.

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There is still time for the provincial government to do the right thing. The Premier needs to act now to demonstrate her government's commitment to respecting and upholding the rights of Indigenous peoples and the people of B.C.

Signed:

s.22

From:
Sent: April-30-15 6:24 AM
To: MtPolley MinePermit MEM:EX
Subject: Reject the Reopening of the Mount Polley Mine!

British Columbia must reject the reopening of Imperial Metals' Mount Polley mine without their consent of communities impacted by the tailings disaster.

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Signed:

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Building Bridges - Human Rights Vancouver
Café Rebelde
Council of Canadians
E-Tech International
Forest Action Network
Fraser Riverkeeper
Indigenous Network on Economies and Trade
Leadnow
Mining Justice Alliance
Mining Injustice Solidarity Network
MiningWatch Canada
Native Youth Movement
No One Is Illegal - Toronto
No One Is Illegal - Vancouver, Coast Salish Territories
Rising Tide - Vancouver, Coast Salish Territories
Secwepemc Nation Youth Network
Secwepemc Woman Warrior Society
Streams of Justice
Vancouver Ecosocialist Group
Water Wealth Project

From:
Sent: April-30-15 6:38 AM
To: MtPolley MinePermit MEM:EX
Subject: DO NOT PERMIT RE_OPENING!

Minister Bennett

British Columbia must reject the reopening of Imperial Metals' Mount Polley mine without their consent of communities impacted by the tailings disaster.

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Until all communities impacted have unanimously given their explicit free, prior, and informed consent to any and all project plans, timelines, and methods, with caveats, special requirements, and timelines that are on their own terms, and until a third-party team of observers, individually selected by the ancestral authorities of the area and with full access to all areas of the Mount Polley Mine site and all areas of the area affected by the tailings failure, has reported that IMC/MPMC has fulfilled their duty to clean up the affected area, this permit should be rejected.

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There is still time for the provincial government to do the right thing. The Premier needs to act now to demonstrate her government's commitment to respecting and upholding the rights of Indigenous peoples and the people of B.C.

s22

West Vancouver, BC

From: s22
Sent: April-30-15 6:46 AM
To: MtPolley MinePermit MEM:EX
Subject: re-activate the mine now.... what... that's nuts

PUBLIC STATEMENT - 29 April 2015

British Columbia must reject the reopening of Imperial Metals' Mount Polley mine without their consent of communities impacted by the tailings disaster.

The Government of British Columbia is failing the indigenous people of Secwepemc territories, the residents of Likely, BC and those living on the Quesnel and Fraser River watersheds. This is a matter of urgent concern for all our organizations.

On 04 August 2014, the tailings storage facility at the Mount Polley Mine, near Likely, BC, and owned by Imperial Metals Corporation (IMC), had a catastrophic failure, allowing approximately 25 millions of cubic metres of toxic sludge and contaminated water to rush into nearby Polley Lake and seven kilometers down Hazeltine Creek to Quesnel Lake. This spill is one of the biggest environmental disasters in modern Canadian history.

The BC Government initially denied it was an environmental disaster, has downplayed the damage and has taken little to no action to assure that such a disaster would not happen again. Now, Imperial Metals Corporation has submitted an application to provincial regulators to return to operations. Our organizations strongly urge that this application be rejected for the following reasons:

Continuing Ecological Destruction: In the eight months since the 04 August 2014 failure of the tailings storage facility IMC's wholly-owned subsidiary Mount Polley Mining Corporation (MPMC) has demonstrated greater effort to ready the tailings storage facility for imminent production than to remediate the land and prevent further pollution of Quesnel Lake and the downstream rivers. Now the company plans to release "treated" mining waste water back into the watershed and potentially use Quesnel Lake as the site of discharge.

Criminal Investigation: The company remains under criminal investigation for gross negligence leading up to the massive failure of the tailings storage facility at the Mount Polley mine.

Consent of Communities: The lands to which Imperial Metals Corporation (IMC) has acquired access through provincial and federal permitting are the contested, occupied, traditional, ancestral, and unceded territories of the Secwepemc people. The Secwepemc people have not given their unanimous free, prior, and informed consent to the projects on their territories. Neither have the people of Likely, BC.

Until all communities impacted have unanimously given their explicit free, prior, and informed consent to any and all project plans, timelines, and methods, with caveats, special requirements, and timelines that are on their own terms, and until a third-party team of observers, individually selected by the ancestral authorities of the area and with full access to all areas of the Mount Polley Mine site and all areas of the area affected by the tailings failure, has reported that IMC/MPMC has fulfilled their duty to clean up the affected area, this permit should be rejected.

Neglect and Greed: MPMC has, demonstrated a pattern of opting to maximize profits at the expense of the land and ecosystems their operations threaten. The managers of MPMC ignored repeated warnings from consultants and employees regarding the unsafe condition of the tailings storage facility, workplace health and safety, and other environmental discharges.

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There is still time for the provincial government to do the right thing. The Premier needs to act now to demonstrate her government's commitment to respecting and upholding the rights of Indigenous peoples and the people of B.C.

Signed

s.22

--
our lives improve only when we take chances, and the first and most difficult chance we can take is to be honest with ourselves.
walter anderson

From: s:22
Sent: April-30-15 7:26 AM
To: MtPolley MinePermit MEM:EX
Subject: Mount Polley

Please do not reopen Mount Polley. You are helping destroy our planet. We only have one so let's keep it clean.

THE WORLD IS WATCHING. PLEASE DO THE RIGHT THING.

s:22
Toronto, Ontario

From:
Sent: April-30-15 8:13 AM
To: MtPolley MinePermit MEM:EX
Subject: Mt. Polley Mine

s.22

I am writing because I am very concerned about the complete lack of action to clean up the disastrous breach and contamination of waterways below this mine. It must not be reopened until and unless there is total clean up of the destruction, full consultation with indigenous land claims, and conclusion of the extant criminal charges against the mine.

s.22

Kaslo,
BC

From:
Sent: April-30-15 8:17 AM
To: MtPolley MinePermit MEM:EX
Subject: comments about restart.

s.22

To whom it may concern

I am in support of the restart and water discharge application for Mt Polly.

There is no doubt that what happened was a disaster. And I don't think anybody would want this to happen again. We do however need the jobs this industry provides for our region and the need for copper is not going to diminish. Everyone owning a cell phone, a car, a house , a TV, a computer is making use of copper.

So looking at the reality that mining is going to happen no matter what, I want the jobs To stay here in our community. At least here we have safety restrictions and regulations through government bodies for both the environment and the workers. If mines are relocating to third world countries which they will if we don't enable them to function here in Canada and British Columbia those restrictions are not in place.

Having said that I want the mine to restart, but I also want it done right so a disaster like last August will not happen again.

I am calling on the government and Imperial Metal to make sure that it is done right. Many businesses and families depend on the health of our mining sector in Williams Lake.

Thank you

s.22

From:
Sent: April-30-15 8:26 AM
To: MtPolley MinePermit MEM:EX
Subject: Surely a \$1 Million election donation isn't enough!

\$22

Dear Sir/Madame:

I am more than a bit perplexed that the paltry sum of \$1 million (BC Liberal Party election campaign contribution from IMC) might secure IMC an operating permit from the BC Government after the Mt. Polley tailing pond dam failure!

That's the optics in this case.

British Columbia must reject the reopening of Imperial Metals' Mount Polley mine without their consent of communities impacted by the tailings disaster.

The Government of British Columbia is failing the indigenous people of Secwepemc territories, the residents of Likely, BC and those living on the Quesnel and Fraser River watersheds. This is a matter of urgent concern for all our organizations.

On 04 August 2014, the tailings storage facility at the Mount Polley Mine, near Likely, BC, and owned by Imperial Metals Corporation (IMC), had a catastrophic failure, allowing approximately 25 millions of cubic metres of toxic sludge and contaminated water to rush into nearby Polley Lake and seven kilometers down Hazeltine Creek to Quesnel Lake. This spill is one of the biggest environmental disasters in modern Canadian history.

The BC Government initially denied it was an environmental disaster, has downplayed the damage and has taken little to no action to assure that such a disaster would not happen again. Now, Imperial Metals Corporation has submitted an application to provincial regulators to return to operations. Our organizations strongly urge that this application be rejected for the following reasons:

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Criminal Investigation: The company remains under criminal investigation for gross negligence leading up to the massive failure of the tailings storage facility at the Mount Polley mine.

Consent of Communities: The lands to which Imperial Metals Corporation (IMC) has acquired access through provincial and federal permitting are the contested, occupied, traditional, ancestral, and unceded territories of the Secwepemc people. The Secwepemc people have not given their unanimous free, prior, and informed consent to the projects on their territories. Neither have the people of Likely, BC.

Until all communities impacted have unanimously given their explicit free, prior, and informed consent to any and all project plans, timelines, and methods, with caveats, special requirements, and timelines that are on their own terms, and until a third-party team of observers, individually selected by the ancestral authorities of the area and with full access to all areas of the Mount Polley Mine site and all areas of the area affected by the tailings failure, has reported that IMC/MPMC has fulfilled their duty to clean up the affected area, this permit should be rejected.

Neglect and Greed: MPMC has, demonstrated a pattern of opting to maximize profits at the expense of the land and ecosystems their operations threaten. The managers of MPMC ignored repeated warnings from consultants and employees regarding the unsafe condition of the tailings storage facility, workplace health and safety, and other environmental discharges.

Clean Up and Remediation: Until the IMC has removed every cubic meter of spilled tailings waste to the tailings storage facility, has returned the destroyed land to its original condition, and has returned the water and bed conditions of Polley Lake, Hazeltine Creek, Etney Creek, and Quesnel Lake to their pre-spill conditions, the re-opening of this mine would be furthering an ongoing catastrophe.

There is still time for the provincial government to do the right thing. The Premier needs to act now to demonstrate her government's commitment to respecting and upholding the rights of Indigenous peoples and the people of B.C.

Signed:

From:
Sent: April-30-15 8:30 AM
To: MtPolley MinePermit MEM:EX
Subject: BC cannot afford another Mount Polley mine disaster

s.22

BC Ministry of Energy and Mines
BC Ministry of Environment
Victoria, BC

RE: BC cannot afford another Mount Polley disaster

Imperial should not be granted this permit to reopen the Mount Polley mine until the tailings pond is replaced with the dry stack method to store the tailings; and not before the court case against Imperial for criminal negligence has been settled.

I have recently seen a jar of the water from Hazeltine Creek and it looked disgusting and was not drinkable. This environment needs time to begin to repair the damage that has been done.

If companies like Imperial are allowed to continue business as usual after such disasters, there will be no incentive at all to improve their practices.

Please deny this permit.

s.22

Vancouver, B.C.

This letter was sent via WildernessCommittee.org

From: s.22
Sent: April-30-15 8:47 AM
To: MtPolley MinePermit MEM:EX
Subject: Stop the approval for reopening the Mount Polley Mine

Dear Sir:

I urgently demand that you not allow the Mount Polley mine to be reopened. Enough environmental damage has already been done by this mining operation. They have not even

s.22

From: s.22
Sent: April-30-15 9:12 AM
To: MtPolley MinePermit MEM:EX
Subject: Mt. Polley reopening permit

Ms.Christy Clark, British Columbia must reject the reopening of Imperial Metals Mount Polley mine without the consent of communities impacted by the tailings disaster.The BC government is failing the indigenous peoples of Secwepemc territories, the residents of Likely, BC and those living on the Quesnel and Fraser rivers watersheds. The impact of this monumental disaster on the eco system, peoples lives has been devastating. This type of thing should never happen again. Please show respect to the people , communities and to our most precious resource, Water. Imperial Metals has shown all of us that it is not fit to be trusted, as it has been incompetent and callous.please do not reopen that mine. Let us not reflect their incompetence and recklessnss, but do the right thing. Ask the people, ask for their consent.

Thankyou for reading this email. Sincerely, s.22 Armstrong, BC

From:
Sent: April-30-15 9:39 AM
To: MtPolley MinePermit MEM:EX
Subject: Imperial Metals - Please Stop Mount Polley Mine Reopening

s.22

s.22

I am opposed to an renewal of mining operations at Mount Polley.

s.22

From:
Sent: April-30-15 10:00 AM
To: MtPolley MinePermit MEM:EX
Subject: Reject application!

I understand that an application for a restricted re-opening of the Mt Polley mine has been recently accepted by the Ministry of Energy and Mines and Ministry of Environment and that the application has now gone to the Cariboo Region Mine Development Review Committee for review.

Reject this application to re-open the mine in any format, restricted or otherwise, for these reasons:

Continuing Ecological Destruction: In the eight months since the 04 August 2014 failure of the tailings storage facility IMC's wholly-owned subsidiary Mount Polley Mining Corporation (MPMC) has demonstrated greater effort to ready the tailings storage facility for imminent production than to remediate the land and prevent further pollution of Quesnel Lake and the downstream rivers. Now the company plans to release "treated" mining waste water back into the watershed and potentially use Quesnel Lake as the site of discharge.

Criminal Investigation: The company remains under criminal investigation for gross negligence leading up to the massive failure of the tailings storage facility at the Mount Polley mine.

Consent of Communities: The lands to which Imperial Metals Corporation (IMC) has acquired access through provincial and federal permitting are the contested, occupied, traditional, ancestral, and uncaded territories of the Secwepemc people. The Secwepemc people have not given their unanimous free, prior, and informed consent to the projects on their territories. Neither have the people of Likely, BC.

RECORDS 2-3 Page 423 of 500
Until all communities impacted have unanimously given their explicit free, prior, and informed consent to any and all project plans, timelines, and methods, with caveats, special requirements, and timelines that are on their own terms, and until a third-party team of observers, individually selected by the ancestral authorities of the area and with full access to all areas of the Mount Polley Mine site and all areas of the area affected by the tailings failure, has reported that IMC/MPMC has fulfilled their duty to clean up the affected area, this permit should be rejected.

Neglect and Greed: MPMC has, demonstrated a pattern of opting to maximize profits at the expense of the land and ecosystems their operations threaten. The managers of MPMC ignored repeated warnings from consultants and employees regarding the unsafe condition of the tailings storage facility, workplace health and safety, and other environmental discharges.

Clean Up and Remediation: Until the IMC has removed every cubic meter of spilled tailings waste to the tailings storage facility, has returned the destroyed land to its original condition, and has returned the water and bed conditions of Polley Lake, Hazeltine Creek, Etney Creek, and Quesnel Lake to their pre-spill conditions, the re-opening of this mine would be furthering an ongoing catastrophe.

Act now to demonstrate the government's commitment to respecting and upholding the rights of Indigenous peoples and the people of B.C.!

sincerely,

s.22

From: s.22
Sent: April-30-15 10:42 AM
To: MtPolley MinePermit MEM:EX
Subject: Mount Polley mine re-opening

To Whom It May Concern,

There should be no re-opening of the Imperial Metals Mount Polley mine. In light of their negligence, inappropriate clean-up response and indication that they will further contaminate the land and watershed, Imperial has not demonstrated that they can operate in a responsible manner.

Sincerely,

Victoria, BC

From:
Sent: April-30-15 10:46 AM
To: MtPolley MinePermit MEM:EX
Subject: Mount Polley Mine re-opening application

Imperial Metals' application to re-open the Mount Polley mine must be rejected.

The Corporation has not cleaned up the pollution caused by the tailings pond collapse, nor has it restored the environment to its original state.

The Corporation ignored warnings of an imminent collapse of the tailings pond from both their employees and consultants.

Our land and water are too precious to risk at the hands of corporate people who do not appear to care for the environment.

s.22

From:
Sent: April-30-15 11:11 AM
To: MtPolley MinePermit MEM:EX
Subject: Formal complaint.

s.22

To Whom it May Concern,

I am a concerned BC resident that would like to address the ridiculous notion that Mt Polley mine is going to re-open. After the worst mining disaster in canadian history, with no accountability from Imperial Metals or the federal government, nor any attempts to clean up the destruction, or make amends with the First Nations people whose lives have been directly impacted, it should be the fate of Imperial Metals to close down the mine forever. This irresponsible and neglectful act should be punished, and that would mean closing the mine, cleaning up and paying hefty fines.

Is this what the federal government thinks about its people? The people who pay you? The people you are supposed to serve? Is this what the federal government thinks about the land and water that sustain us? I am disgusted with what has become of Canada under the Harper regime and this specific event is symbolic of the destructive impacts this government has had on the land, water and people it is supposed to serve and protect.

Shut down Mt. Polley. Make Imperial Metals pay. Ensure that something like this never happens again, through vigilance, inspection, care and the rule of law you are supposed to uphold.

With respect,

s.22

Sent from my iPad

From:
Sent: April-30-15 11:40 AM
To: MtPolley MinePermit MEM:EX
Subject: whether to reopen the Mount Polley mine...

To whom it may concern:

First I would like to say that I am not "anti-mining". I lived for many years in the mining town and to get through university, I worked at a mine in the arctic each summer

I like to drive my car, use my computer, use cutlery to eat, so I am indirectly supporting the mine industry on a regular basis.

Back in the 1970's the creek that winds through the entire middle of used to contain bright orange colored tailings contamination. As kids, we thought this was a normal consequence of the mining environment, and we knew to stay away from the water. Over a period of decades, prior to the closure of the mine, Mark Creek was cleared up and although the rocks were stained orange for many more years, the creek is now clear. Times have changed and citizens in 2015 would expect no less.

I don't believe that Imperial Metals/Mount Polley should be permitted to reopen and start up their mine and tailings pond again at this time. Until they have removed all the material from the creeks and lakes, they should not be allowed to resume operations.

Their breach could not have happened at a worse time last summer. Million of Fraser sockeye were going up the rivers in August. Those salmon were already facing long odds due to the high water temperatures. The Polley-Lake watershed comprises one-third of Fraser sockeye spawning habitat. The long-term effects of this disaster on the Fraser sockeye is not yet known.

RECORDS 2-3 p
Lastly, I find it very disappointing that any of the portions of the Mount Polley report continue to be redacted. A full public discussion on this matter would necessitate a full disclosure of the report. This was a preventable disaster and in order to learn how to prevent another similar disaster, all information needs to be made public.

Respectfully,
Bowser, BC

From:
Sent: April-30-15 12:31 PM
To: MtPolley MinePermit MEM:EX
Subject: The re-Opening of Mt Polley Mine

s.22

To whom it may concern,

I've only just discovered that an application has been put forward to re-open in part the Mt. Polley Mine. I find this incredible and would consider the granting of that permission completely unacceptable. In light of the corruption and misdeeds that led to the disaster that unfolded in this last year, the current criminal investigation, the lack of serious work towards remediation and repair of the watershed and local environment, and the utter disregard of local First Nations and resident communities, there is no justification for this mine being re-opened. While not all fault lands at the feet of the company which owns and operates Mt. Polley - this government also deserves harsh criticism for its anemic response - that company has completely failed to demonstrate any genuine concern for its actions and inactions and should be held accountable for its potentially criminal negligence.

Refuse to permit the re-opening of this mine, please.

Sincerely,

s.22

From: s.22
Sent: April-30-15 12:58 PM
To: MtPolley MinePermit MEM:EX
Subject: Opposition to restart mine

I am opposed to the restart water discharge plans for Mt. Polley. That plan is detrimental to the health of Quesnel Lake and the surrounding creeks and land. I have no trust that Mt. Polley officials can continue without the possibility of further breaches and damage to the environment s.22

Sent from my iPhone

From:
Sent: April-30-15 1:16 PM
To: MtPolley MinePermit MEM:EX
Subject: A concerned US citizen

To whom it may concern,

My name is I write to you from Boston, Massachusetts out of grave concern for the future of Clayoquot Sound. I respectfully ask that you do not consider opening Mr. Polley to mining until Imperial Metals has completely cleaned up the mess caused by last year's disaster and restored Polley Lake, Hazeltine Creek, Etney Creek and Quesnel Lake to their healthy pre-spill conditions, I also ask that you do not even consider making any moves toward reopening the mine until you have the **explicit** consent of all of the communities affected by the spill, **including the Secwepemc people.**

I pray every day for our world leaders and politicians, people who make decisions that affect many, people in positions like yours all over the world, to remember the sacredness of all life and to base your decisions from a solid sense of the interconnectedness of us all. I pray that this Earth may be a healthy place for our great-great-great grandchildren and for thousands of generations to come. Our decisions of whether value financial development or the protection of our land and water today will make all the difference.

Respectfully,
Boston, Massachusetts
United States

From:
Sent: April-30-15 1:42 PM
To: MtPolley MinePermit MEM:EX
Subject: Mount Poley Mine

s.22

To The Cariboo Region Mine Development Review Committee,
Please do not accept the application for the re-opening of the Mount Polley Mine.

It is imperative that the impacted communities of Secwepemc Territories, the residents of Likely BC and those living on the Quesnel and Fraser watersheds have a say in this matter.

Even a restricted opening is not acceptable without the consent of the communities impacted by the August 04 tailings disaster. This spill being one of the biggest environmental disasters in modern Canadian history and the damage done to the environment is shocking to say the very least. Until the IMC has removed the spilled tailings waste and has returned the destroyed land to it's original pre spill condition and has returned the water and bed conditions of Polley Lake, Haultine Creek, Etney Creek and Quesnel lake to pre spill conditions and ensured that the current tailings pond has been fortified to a high standard, the reopening of this mine would be furthering this ongoing catastrophe.

sincerely,

s.22

From: s.22
Sent: April-30-15 1:45 PM
To: Kevin.richter@gov.bc.ca; MtPolleyMinePermit@gov.bc.ca; inquiries@imperialmetals.com; greig.bethel@gov.bc.ca; david.karn@gov.bc.ca
Subject: reopening of Mt Polley Mine

As a citizen of British Columbia, as a someone who spent a large swath of my childhood on Quesnel Lake, I would like to voice my grave concern about the possible reopening of the Mt. Polley Mine.

The damage of the tailings breach was catastrophic. We have no idea what the long term effects of the breach will be on the water system and the flora and fauna that depend on it. Between that and the fact that cleanup has been minimal, I have absolutely no faith that Imperial Metals should resume operations at Mt. Polley.

Clean up your mess, Imperial Metals. Give me a reason to believe that you won't let this happen again. As it stands, I can't believe you and do not support you resuming operations at Mt. Polley.

Sincerely,
s.22
Victoria, BC

From:
Sent: April-30-15 1:51 PM
To: MtPolley MinePermit MEM:EX
Subject: The reopening of Imperial Metals' Mount Polley mine

To the government of BC,

I am in total agreement with the letter below. It is not in the best interest of our province to allow this mine to continue.

Thank you,

British Columbia must reject the reopening of Imperial Metals' Mount Polley mine without their consent of communities impacted by the tailings disaster.

The Government of British Columbia is failing the indigenous people of Secwepemc territories, the residents of Likely, BC and those living on the Quesnel and Fraser River watersheds. This is a matter of urgent concern for all our organizations.

On 04 August 2014, the tailings storage facility at the Mount Polley Mine, near Likely, BC, and owned by Imperial Metals Corporation (IMC), had a catastrophic failure, allowing approximately 25 millions of cubic metres of toxic sludge and contaminated water to rush into nearby Polley Lake and seven kilometers down Hazeltine Creek to Quesnel Lake. This spill is one of the biggest environmental disasters in modern Canadian history.

The BC Government initially denied it was an environmental disaster, has downplayed the damage and has taken little to no action to assure that such a disaster would not happen again. Now, Imperial Metals Corporation has submitted an application to provincial regulators to return to operations. Our organizations strongly urge that this application be rejected for the following reasons:

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Criminal Investigation: The company remains under criminal investigation for gross negligence leading up to the massive failure of the tailings storage facility at the Mount Polley mine.

Consent of Communities: The lands to which Imperial Metals Corporation (IMC) has acquired access through provincial and federal permitting are the contested, occupied, traditional, ancestral, and unceded territories of the Secwepemc people. The Secwepemc people have not given their unanimous free, prior, and informed consent to the projects on their territories. Neither have the people of Likely, BC.

Until all communities impacted have unanimously given their explicit free, prior, and informed consent to any and all project plans, timelines, and methods, with caveats, special requirements, and timelines that are on their own terms, and until a third-party team of observers, individually selected by the ancestral authorities of the area and with full access to all areas of the Mount Polley Mine site and all areas of the area affected by the tailings failure, has reported that IMC/MPMC has fulfilled their duty to clean up the affected area, this permit should be rejected.

Neglect and Greed: MPMC has, demonstrated a pattern of opting to maximize profits at the expense of the land and ecosystems their operations threaten. The managers of MPMC ignored repeated warnings from consultants and employees regarding the unsafe condition of the tailings storage facility, workplace health and safety, and other environmental discharges.

Clean Up and Remediation: Until the IMC has removed every cubic meter of spilled tailings waste to the tailings storage facility, has returned the destroyed land to its original condition, and has returned the water and bed conditions of Polley Lake, Hazeltine Creek, Etney Creek, and Quesnel Lake to their pre-spill conditions, the re-opening of this mine would be furthering an ongoing catastrophe.

There is still time for the provincial government to do the right thing. The Premier needs to act now to demonstrate her government's commitment to respecting and upholding the rights of Indigenous peoples and the people of B.C.

From: s22
Sent: April-30-15 2:19 PM
To: MtPolley MinePermit MEM:EX
Cc: s22
Subject: Re: Mount Polley Mine Re-opening

Re: Mount Polley Mine Re-opening

Hi -

The Council of Canadians chapter in Port Alberni, B.C. opposes re-opening of the Mt. Polley mine.

Until the company has shown a completely new and better approach to tailings safety, this mine must be considered a disaster waiting to happen again.

It should be incumbent on any mining company using open tailings filtration to prove the safety of same rather than the reverse. The consequences of such failures as happened at Mt. Polley are just too dire.

Quesnel watershed cleanup should also be complete and thorough before Imperial Metals would receive serious consideration as responsible operator in B.C. .

Thank you for your attention.

s22 Pt. Alberni Council of Canadians.

From:
Sent: April-30-15 2:31 PM
To: MtPolley MinePermit MEM:EX
Subject: Do not re-open Mount Polley

In my younger years, I wandered B.C. seeking the presence of gold. Never in my life did any of us cloud a stream with crap from our pans. As a teen, I fished the Divide lakes which is now a disgusting tailing pond near Merritt. When the poorly engineered containment burst at Polly I was shocked at what responsible humans are doing to our once beautiful province. In the I awed at the massive hole which hydraulic mining did near Likley which the tailing went into the Quesnel river .Brittania Beach where the poisoned water drained from the abandoned mine leaving the citizens of B.C. to pay the clean up costs. Out side B.C.up in Yellowknife the poisoned mining tailings are costing millions of dollars to contain. Enough said.. Be responsible .We have only one planet Earth to live on and enjoy pristine water

s.22

From:
Sent: April-30-15 2:34 PM
To: MtPolley MinePermit MEM:EX
Subject: Mount Polley mine

s.22

Until there is a comprehensive study done as to why the levee broke and if it is save to even consider opening the mine again please err on the side of caution. It is a waste of environment, time money, resources both human and natural if this mine has another break. Please think with your head and not the wallet.

Thank you,

s.22

From:
Sent: April-30-15 2:41 PM
To: MtPolley MinePermit MEM:EX
Subject: Polly Mine

s22

To Whom it May Concern,

I am very opposed to allowing Imperial Metals to re-open the Mount Polley Mine. Based on my discussions with many indigenous peoples, I do not believe that the re-opening of the mine has the support of the majority of peoples of the Secwepemc Nation, nor the general (indigenous and not) populace off reserve. Williams Lake Band council may appear to support this endeavour, but that does not mean that the majority of Williams Lake Band members do support it. Also, Williams Lake Band does not speak for all Secwepemc peoples. The only way to really understand the interests of the Secwepemc and settler peoples of the regions affected, in my opinion, is to create a poll or referendum. Imperial Metals states that they fulfilled their obligation to have community meetings but in no way reports on how they were responded to by the communities. The BC Conservation Service inquiry, in conjunction with the RCMP, Environment Canada and Fisheries and Oceans Canada, is investigating the impacts of the Mt Polley Breach on the environment and their report is not due out until June. Will the results of that investigation be available for the Ministry of Energy and Mines and Ministry of Environment to use in their decision about this re-opening permit application? Why is the deadline for public comment so soon, meaning that we will not have these BC Conservation Service inquiry results available to us by your May 2 deadline for public comment?

It states in the Water Management Plan (WMP) document (Golder 2015) that the current permit allows 1.4 million cubic mm of water discharge, while at the same time stating that the current discharge could be 3 times that. It also states that onsite levels of Nitrate, Copper, Sulphate, Aluminum, Iron, Selenium and Suspended Solids are above accepted concentrations. The report implies that if the WMP is not pushed through then previously unaffected areas like Bootjack Lake will potentially be impacted. This feels like the threat of contamination of Bootjack Lake is being used to push through the latest permit application. The Return to Restricted Operations permit application implies that they will be working at reduced capacities, although the work suggested is at half load, which is still very substantial. I feel strongly that pushing this Return to Restricted Operations Permit through before the results from the BC Conservation et al inquiry, and a fuller understanding of the actual individual First Nations and settler support or rejection of this permit is unacceptable. Scientists in the area reported a substantial diatom dieoff in the fall of 2014 in Quesnel Lake. Diatoms feed zooplankton that salmon fry consume. Until we better understand the long term impacts of the disaster on the environment, we cannot justify putting any more people, animals and flora in jeopardy by re-opening the mine. The clean-up that has occurred (minimal) barely begins to address the impacts on the environment. I suggest that more time is spent getting an understanding of the long term impacts especially on salmon before any re-opening at any capacity will be considered. The WMP

could be put into place without starting up the mine again.

Sincerely,

s
N

I am not in favour of this mine ever opening , the land is tooo unstable as that has been stated many times. it should never have been built there and should be dismantled and cleaned up. it is still poisoning Quesnel Lake to this day.. You have lied saying it would be cleaned [up.It](#) is not.



From:
Sent: April-30-15 3:54 PM
To: MtPolley MinePermit MEM:EX
Subject: Do not re-open Mount Polley

I am opposed to the re-opening of Imperial Metals Mt Polley mine, the site of one of the biggest environmental disasters in Canadian history.

The company remains under criminal investigation for gross negligence leading up to the massive failure of the tailings storage facility at the Mount Polley mine.

The Secwepemc people have not given their unanimous free, prior, and informed consent to Imperial Metals Corporation projects on their territories. Neither have the people of Likely, BC.

Insufficient effort has been made by Mt Polley Mining Corporation to remediate the land affected by the release of 25 million cubic metres of toxic sludge.

The company's plans to release "treated" mining wastewater back into the watershed and potentially use Quesnel Lake as the site of discharge is unacceptable.

The re-opening of this mine would be furthering an ongoing catastrophe.

Sincerely,

s.22

From:
Sent: April-30-15 4:12 PM
To: MtPolley MinePermit MEM:EX
Subject: Mount Polley

s.22

Count me in for direct action if you attempt the unthinkable

From:
Sent: April-30-15 4:41 PM
To: MtPolley MinePermit MEM:EX
Subject: Reopening of Imperial Metals' Mount Polley mine

To the BC Government:

In the eight months since the August 4, 2014 failure of the tailings storage facility IMC's wholly-owned subsidiary Mount Polley Mining Corporation (MPMC) has demonstrated greater effort to ready the tailings storage facility for imminent production than to remediate the land and prevent further pollution of Quesnel Lake and the downstream rivers. Now the company plans to release "treated" mining waste water back into the watershed and potentially use Quesnel Lake as the site of discharge.

It is shocking that the provincial government would even consider issuing a permit while the company remains under criminal investigation for gross negligence leading up to the massive failure of the tailings storage facility.

The lands to which Imperial Metals Corporation (IMC) has acquired access through provincial and federal permitting are the contested, occupied, traditional, ancestral, and unceded territories of the Secwepemc people. The Secwepemc people have not given their unanimous free, prior, and informed consent to the projects on their territories. Neither have the people of Likely, BC.

Until all communities impacted have unanimously given their explicit free, prior, and informed consent to any and all project plans, timelines, and methods, with caveats, special requirements, and timelines that are on their own terms, and until a third-party team of observers, individually selected by the ancestral authorities of the area and with full access to all areas of the Mount Polley Mine site and all areas of the area affected by the tailings failure, has reported that IMC/MPMC has fulfilled their duty to clean up the affected area, this permit should be rejected.

MPMC has, demonstrated a pattern of maximizing profits at the expense of the land and ecosystems their operations threaten. The managers of MPMC ignored repeated warnings from consultants and employees regarding the unsafe condition of the tailings storage facility, workplace health and safety, and other environmental discharges.

Until the IMC has removed every cubic meter of spilled tailings waste to the tailings storage facility, has returned the destroyed land to its original condition, and has returned the water and bed conditions of Polley Lake, Hazeltine Creek, Etney Creek, and Quesnel Lake to their pre-spill conditions, the re-opening of this mine would be furthering an ongoing catastrophe.

There is still time for the provincial government to do the right thing. The Premier needs to act now to demonstrate her government's commitment to respecting and upholding the rights of Indigenous peoples and the people of B.C.

Sincerely,

s22

s22

From:
Sent: April-30-15 4:53 PM
To: MtPolley MinePermit MEM:EX
Subject: re Imperial Metals permit

As a former resident of BC I take a keen interest in the future of the Province, which will be severely endangered if the Mt. Polley mine is allowed to re-open. The land cannot stand the kind of assault it has suffered as a result of the utterly predictable tailings spill. Please ensure that this cannot be repeated.

Thank you,

From:
Sent: April-30-15 4:50 PM
To: MtPolley MinePermit MEM:EX
Subject: Do not re-open Mount Polley

Hello,
I fully understand the potential need for certain mining expeditions and the resources this vast world needs, yet the irresponsible undertakings that caused this disaster at Mt. Polley could and should have been prevented. I firmly believe the management of this facility was to blame for not adhering to proper safety guidelines and rules as a mega giant mining company. THERE WAS NO EXCUSE FOR THE DISASTER! Greed and lazy undertakings allowed it to happen. PLEASE HAVE SOME CONSIDERATION FOR WHAT THE EARTH GIVES US!! Take care of her or her milk may run out! DO YOU UNDERSTAND? LADIES AND GENTLEMEN?? Re-open should not be an option, clean this whole area up!!

Thank You!

Sincerely
United States Citizen

Sincerely,

From:
Sent: April-30-15 5:14 PM
To: MtPolley MinePermit MEM:EX
Subject: Mt. Polly Mine
Attachments: Heather Schamehorn.vcf

522

To whom it may concern, British Columbia must reject the reopening of Imperial Metals' Mount Polley mine without their consent of communities impacted by the tailings disaster.

The Government of British Columbia is failing the indigenous people of Secwepemc territories, the residents of Likely, BC and those living on the Quesnel and Fraser River watersheds. This is a matter of urgent concern for all our organizations.

On 04 August 2014, the tailings storage facility at the Mount Polley Mine, near Likely, BC, and owned by Imperial Metals Corporation (IMC), had a catastrophic failure, allowing approximately 25 millions of cubic metres of toxic sludge and contaminated water to rush into nearby Polley Lake and seven kilometers down Hazeltine Creek to Quesnel Lake. This spill is one of the biggest environmental disasters in modern Canadian history.

The BC Government initially denied it was an environmental disaster, has downplayed the damage and has taken little to no action to assure that such a disaster would not happen again. Now, Imperial Metals Corporation has submitted an application to provincial regulators to return to operations. Our organizations strongly urge that this application be rejected for the following reasons:

Continuing Ecological Destruction: In the eight months since the 04 August 2014 failure of the tailings storage facility IMC's wholly-owned subsidiary Mount Polley Mining Corporation (MPMC) has demonstrated greater effort to ready the tailings storage facility for imminent production than to remediate the land and prevent further pollution of Quesnel Lake and the downstream rivers. Now the company plans to release "treated" mining waste water back into the watershed and potentially use Quesnel Lake as the site of discharge.

Criminal Investigation: The company remains under criminal investigation for gross negligence leading up to the massive failure of the tailings storage facility at the Mount Polley mine.

Consent of Communities: The lands to which Imperial Metals Corporation (IMC) has acquired access through provincial and federal permitting are the contested, occupied, traditional, ancestral, and unceded territories of the Secwepemc people. The Secwepemc people have not given their unanimous free, prior, and informed consent to the projects on their territories. Neither have the people of Likely, BC.

Until all communities impacted have unanimously given their explicit free, prior, and informed consent to any and all project plans, timelines, and methods, with caveats, special requirements, and timelines that are on their own terms, and until a third-party team of observers, individually

selected by the ancestral authorities of the area and with full access to all areas of the Mount Polley Mine site and all areas of the area affected by the tailings failure, has reported that IMC/MPMC has fulfilled their duty to clean up the affected area, this permit should be rejected.

Neglect and Greed: MPMC has, demonstrated a pattern of opting to maximize profits at the expense of the land and ecosystems their operations threaten. The managers of MPMC ignored repeated warnings from consultants and employees regarding the unsafe condition of the tailings storage facility, workplace health and safety, and other environmental discharges.

Clean Up and Remediation: Until the IMC has removed every cubic meter of spilled tailings waste to the tailings storage facility, has returned the destroyed land to its original condition, and has returned the water and bed conditions of Polley Lake, Hazeltine Creek, Etney Creek, and Quesnel Lake to their pre-spill conditions, the re-opening of this mine would be furthering an ongoing catastrophe.

There is still time for the provincial government to do the right thing. The Premier needs to act now to demonstrate her government's commitment to respecting and upholding the rights of Indigenous peoples and the people of B.C.

From: s.22
Sent: April-30-15 5:14 PM
To: MtPolley MinePermit MEM:EX
Subject: Do not re-open Mount Polley

The planet cannot sustain anymore pollution and to even consider reopening this project is beyond belief.

Please do not under any circumstances allow this company to continue releasing deadly pollutants into our environment.

Sincerely,

s.22

From:
Sent: April-30-15 5:37 PM
To: MtPolley MinePermit MEM:EX
Subject: Mount Polley

I stand in solidarity with the Secwepemc people
Our Message to the Gouvernement,

British Columbia must reject the reopening of Imperial Metals' Mount Polley mine without their consent of communities impacted by the tailings disaster. I demand that Mount Polley not be Re-Opened

The Government of British Columbia is failing the Indigenous people of Secwepemc territories, the residents of Likely, BC and those living on the Quesnel and Fraser River watersheds. This is a matter of urgent concern for all of their organizations.

On 04 August 2014, the tailings storage facility at the Mount Polley Mine, near Likely, BC, and owned by Imperial Metals Corporation (IMC), had a catastrophic failure, allowing approximately 25 millions of cubic metres of toxic sludge and contaminated water to rush into nearby Polley Lake and seven kilometers down Hazeltine Creek to Quesnel Lake. This spill is one of the biggest environmental disasters in modern Canadian history.

What has been done by way of clean up of the affected areas?

So many species, land and water, are being drastically affected by the extraction of minerals and non-renewable resources. When are the people we trust to protect the human, animal, plant, water, sea species going to stand up and do what they should do? This is a matter of the heart, nothing else.

Please consider not re-opening Mount Polley

Yours truly,

RECORD

From:
Sent: April-30-15 7:47 PM
To: MtPolley MinePermit MEM:EX
Subject: Do not re-open Mount Polley

I fully support all the staements put forward by the signatories to the public letter opposing the re-opening of Mount Polley mine by Imperial Metals.

No company or individual should be given rights to exploit any natural resource or undertake any work that may pollute or interfere with water sources, forests or other natural ecosystems if they have been culpable in previous environmental pollution incidents.

They should not be authorised to do so on lands without the express agreement of local communities.

They should not be authorised to do so while there are outstanding ecological and environmental pollution or safety issues.

I oppose the re-opening of the Mount Polley mine, and the operation of Imperial Metals as a whole, in this area and others, while there are serious unresolved concerns for their ability to operate safely.

Sincerely,

s.22

From: s.22
Sent: April-30-15 7:51 PM
To: MtPolley MinePermit MEM:EX
Subject: Mount Polley permit

My name is s.22 I have been an employee of Mount Polley Mine since s.22 In that time Imperial Metals have been an excellent Employer. They however have surpassed even my opinion of them, by managing keep so many of us employed through this devastating event. My reason for writing is clear, as I would be unemployed if the mine is not permitted to go back into production. But I also think of the ramifications for this area in general if the mine closed permanently. s.22
s.22 ince the breach we have gone into a holding pattern, only ordering the bare necessities. Our vendors have already expressed concern about the lack of revenue coming their way. As I'm sure you are aware this has a devastating snow ball effect. To close the mine would have a huge impact on Williams Lake and areas economy.

There are a lot of employees at Mount Polley who have worked there for years and are getting older. s.22

s.22
s.22 worked at Mount Polley since it was in construction. He was there the day they opened the gate. We both hope you will issue the permit so we can get back into production and STOP the devastation.

Thank you for your consideration

s.22

From: s.22
Sent: April-30-15 8:33 PM
To: MtPolley MinePermit MEM:EX
Subject: Do not re-open Mount Polley

Cannot see the sense in re-opening Mt Polley. This was an engineering disaster and the mechanisms are not place provincially or federally to prevent further disaster at this site. this was proven by the first breakage of the pond in that had everything been taken care of it would not have happened. Nothing has been done to change the situation by the provincial govt. to make it safe.

Sincerely,

s.22

From: § 22
Sent: April-30-15 10:44 PM
To: MtPolley MinePermit MEM:EX
Subject: Do not re-open Mount Polley

this is our planet, the people's planet
it has been bruised and battered too much for too long we need healing not more risk of injuries As a government it is your duty to look after the people,not just cater to companies for business We urge you : Do NOT allow a reopening of the Mt Polley Mine

Sincerely,

§ 22

From:
Sent: April-30-15 11:32 PM
To: MtPolley MinePermit MEM:EX
Subject: Mount Polley mine

s.22

Do not allow the Mount Polley mine to re-open; clean up the spill and restore the mine site, as best as is possible, to its natural state.

s.22

From: s.22
Sent: May-01-15 12:02 AM
To: MtPolley MinePermit MEM:EX
Subject: Do not re-open Mount Polley

The province of BC and Imperial Metals have been extremely irresponsible and should not be given a second chance. Let's just forget about s/h profit and think about a future with clean water and salmon.

Sincerely, s.22

s.22

From:
Sent: May-01-15 12:27 AM
To: MtPolley MinePermit MEM:EX
Subject: Respect Citizens please.

s.22

Mount Polly clean up is not finished. People who are directly paying the price with their lives, health and future are saying "NO" Please listen!

Before new mines are approved this one needs to be addressed and the people who have been betrayed by regulation and trust that they and the environment was/is safe. The consequence is now to those who push profit before people, and those who extract benefit and exploit our environment's skin, for profit. Please do not permit Mt Polly mine to to reopen. Time to listen to the people of BC.

s.22

From: s.22
Sent: May-01-15 3:07 AM
To: MtPolley MinePermit MEM:EX
Subject: Do not re-open Mount Polley

This affects all peoples, animal, fish, vegetation everything all the way out to the ocean. No! Absolutely no more mining! Protect the water!

Sincerely,

s.22

From:
Sent: May-01-15 6:31 AM
To: MtPolley MinePermit MEM:EX
Subject: oppose mount polley mines
Attachments: 005.JPG; 006.JPG; 001.JPG; 002.JPG; 011.JPG; 012.JPG; 015.JPG; 026.JPG; 031.JPG; 034.JPG; 003.JPG; 010.JPG; 011.JPG; 017.JPG

I sink the water and eat the fish and I am scared.I have been in hell since aug 4 and continue to be with living on a tailings pond now.^{s.22} There is thousands of tonnes of slurry out here in our bay and you wont clean it up.It is bad enough that ^{s.22} ut your going to continue to pollute the lake.What is wrong with you [Mount polley mines]^{s.22}do the right thing and clean up the lake.No substance should be allowed to enter Quesnel lake from the mine EVER.All I hear from mount polley mines is restart restart-restart-what about the clean up clean up clean up.The color of the water in the bay has been greenish gray since aug 4. I am worried about my health and safety now and long term.Mount Polley Mines have no long term plans for my health and safety ^{s.22} and now it's a tailings pond full of toxic heavy metals and no one will clean it up-this is unacceptable for Mount polley mines for local and provincial and federal governments-DO the right thing somebody anybody clean it up.I am ashamed to call myself a Canadian with the way this spill has been dealt with by the mine and the bc government.Here's some pictures of the hell the mine has put me through. ^{s.22}

From:
Sent: May-01-15 6:36 AM
To: MtPolley MinePermit MEM:EX
Subject: Temp permit

On behalf of the United steelworkers who represent the unionized employees at Mount Polley. I encourage you to approve the temporary permit to allow partial start up of the mine.
With this permit it will not only allow the company to generate some income and keep people working, it will allow for a more detailed plan to be developed for the overall startup of the mine.
As you know Mount Polley is a major revenue provider for the entire cariboo.
The temporary permit will allow the time to ensure the proper plans and studies are in place for a total restart.
Thank you

Sent from my I-pad

From:
Sent: May-01-15 7:48 AM
To: MtPolley MinePermit MEM:EX
Subject: Polley Mine
Attachments: TREAT THE WATER Final Lettr2.docx

s.22

Attn:Hubert Bunce

I am using the Free version of [SPAMfighter](#).
SPAMfighter has removed 142 of my spam emails to date.

Do you have a [slow PC?](#) Try a free scan!

April 30, 2015

Mount Polley Mining Corporation
Dale Reimer, General Manager
inquiries@imperialmetals.com

Ministry of Environment
Hubert Bunce, Director of Mining Operation
MtPolleyMinePermit@gov.bc.ca

Ministry of Energy and Mines
Al Hoffman, Chief Inspector
MtPolleyMinePermit@gov.bc.ca

Dear Sir/Madame;

I am required to provide relevant information to show that my family and I are being adversely affected by the proposed amendments / permits;

RE: Permit to Restart Mount Polley Mine
Permit to dump toxins into the Quesnel Lake / Hazeltine Creek

My family and I came ^{s.22} because of the pristine ecosystem; fishing, hunting, water sports, healthy air, healthy water, healthy land. This was to be a place where we could come to rest in our old age. This was to be a place where we could share with our family the beauty of British Columbia

Since the tailings pond failure, we are afraid to drink the water, we are afraid to swim in the water, we will not eat the fish from this water, and we will not eat animals raised around this water. Our friends and families are staying away from this once pristine area.

Our enjoyment ^{s.22} has been taken from us, our land value has been taken from us, and our quality of life has been taken from us!

Imperial Metals has predicted another tailing pond disaster – July 2015. The Springer Pitt tailings and collected mine site water at Mount Polley mine will top its banks. Is this responsible water management by the Mine? Imperial Metals' treatment plan is to use lime to clean 60% of the heavy metals out of the tailings. Is a 40% toxic waste dump into a Fraser River watershed an acceptable risk to the province? It is not an acceptable risk to the residents of Quesnel Lake. Why would we allow this in Imperial Metal's permit request? What will the lime do to the ph level of the water? If this method of processing toxic tailings water with lime works, and is good for our environment and our health, why is this not standard procedure for all Mines across BC and then dump their tailings water directly into the environment?

Mount Polley Mine and Imperial Metals has spent no time or money on an alternative plan – there is NO alternative plan. What will happen if we say NO to the temporary permit to dump more toxic waste into Quesnel Lake? Mount Polley Mine will have 2 months to figure out a different water treatment plan! They have already told us if we do not approve this permit to release 40% toxic water into the Hazeltine or Quesnel Lake directly we will have another tailing ponds disaster in July!

We feel like we have a gun to our heads – the Government and 1st Nations said no to Mount Polley Mine to release toxic tailing pond water into the Hazeltine in 2013 and look what happened –WHAT HAPPENS IF WE SAY NO TO THIS COMPANY AGAIN!!!

This is the company's MO; temporary ideas that become permanent solutions! Responsible would have had the company building a water treatment plant the day they opened the mine. We still don't have any idea what the tailings water and slurry that was released into the lake last August is actually doing to the Lake! Why would the government even consider more toxic water being dumped into the lake?

I would like to see the people put back to work in this area; our small community needs the jobs however there is NO REASON that this company should not be held responsible and accountable to their employees, the community, area residents, and the environment! TREAT THE WATER to 100% before dumping it back into the environment!

This is a direct quote from the company's website about their Environmental Policy's;

....Throughout our operations one of the key commitments is to maintain water quality that sustains aquatic life. Aquatic life is the most sensitive user of water; therefore by protecting aquatic ecosystems other water users (recreational, drinking water and wildlife) are also protected. The long term water quality is closely monitored to ensure the requisite water quality criteria to protect aquatic life are achieved."

At the very least we need to have in place an approved long term water treatment plan, a plan that the community has some input on, as s.22 e have to live with this mine in our back yard for the rest of our lives and our family's lives!

We need answers to our concerns and we need to be allowed to be directly involved in the decision making;

- 1) Dam Report: that dam repairs are described in detail, and that we are provided with the dam design plus the "as-built" drawings and reports.
- 2) Water Management: A new Mill Recycle Water Pond must be constructed, for a location of water volumes to be discharged from the Tailings Impoundment and to enable Mill production. There should be an approved Water Management Plan, reviewed and distributed to everyone. This "plan" and management implementation will be required not only throughout the life of the mine, but into Closure Phase, since water cannot be allowed to accumulate within the tailings impoundment. Weather Pattern and Climate Trend plus groundwater discharges within the impoundment itself will assure that this structure will accumulate water volumes that must be managed, forever.
- 3) Water Treatment Plant; design, operational requirement, discharge dilution requirements/Permit....and treatment plant sludge disposal area. This is absolutely necessary; construction must be completed this year, 2015.
- 4) Open Pit Mine Waste Disposal. A Waste Handling Plan must be approved; we need a copy of that plan.
- 5) Acid Rock Drainage geochemistry –we want the company to distribute their lab work on ARD.

Do NOT approve the opening of the mine until Imperial Metals/ Mount Polley Mine Corp., have an APPROVED water treatment plan and has implemented the plan (installed a water treatment plant.) Imperial can employ the area workers to help build their water treatment plant!

Do NOT approve the temporary dumping of toxic water into Quesnel Lake, what you have and are allowing to be dumped in now and for the last 9 months is ENOUGH. We don't even know if the lake will survive what has already been dumped!

s.22

CC The Honourable Gail Shea
House of Commons
Minister of Fisheries and Oceans
Min@dfo-mpo.gc.ca

Ministry of Energy and Mines
The Honourable Bill Bennett
Mem.Minister@gov.bc.ca

Ministry of Tourism
The Honourable Shirley Bond
JTST.Minister@gov.bc.ca

The Honourable Christy Clark, Premier
premier@gov.bc.ca

Cariboo District MLA Joan Sorley
jsorley@cariboord.ca

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Sent: May-01-15 7:50 AM
To: MtPolley MinePermit MEM:EX
Subject: Polley Mine
Attachments: TREAT THE WATER Final Lettr2.docx

s.22

Attn:Al Hoffman

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Do NOT approve the temporary dumping of toxic water into Quesnel Lake, what you have and are allowing to be dumped in now and for the last 9 months is ENOUGH. We don't even know if the lake will survive what has already been dumped!

s.22

CC The Honourable Gail Shea
House of Commons
Minister of Fisheries and Oceans
Min@dfo-mpo.gc.ca

Ministry of Energy and Mines
The Honourable Bill Bennett
Mem.Minister@gov.bc.ca

Ministry of Tourism
The Honourable Shirley Bond
JTST.Minister@gov.bc.ca

The Honourable Christy Clark, Premier
premier@gov.bc.ca

Cariboo District MLA Joan Sorley
jsorley@cariboord.ca

From:
Sent: May-01-15 8:57 AM
To: MtPolley MinePermit MEM:EX
Subject: Williams Lake, BC

s.22

I think it is time to get the mine going and not wasting more time and money !!!!
People do need jobs to make there
Living and not not collecting from the government
The mine is not only providing jobs
To the employees --there is so much more connection to the Mine and other employment .
THERE ARE FIFTY SHADES OF GREEN

s.22

Sent from my iPhone

From: s.22
Sent: May-01-15 10:08 AM
To: MtPolley MinePermit MEM:EX
Subject: Mount Polley -- why is BC even considering providing permission to re-open?

I am a physician, s.22 I was on environmental impact assessments of mining proposals for many years, so know a little bit about environment impacts of tailings, etc. The situation of Mount Polley was only brought to my attention this morning, so I have not had time to gather and read environmental reports. My knowledge of the specifics comes only from the video I was sent, and the flyers. However, what I do know is that the Supreme Court of Canada has ruled that First Nations have rights, including the right not only to be consulted about what happens on their territory but must give consent. As such, I don't understand how the Province of B.C. could even be considering a request to re-open the Mount Polley mine, given that the people of the territory oppose it. It is a real pity that this issue has not been in the news more prominently. In any case, as a citizen of BC, I wanted to just express my view that this permit should not be granted. Thanks s.22

s.22

From: s.22
Sent: May-01-15 10:23 AM
To: MtPolley MinePermit MEM:EX
Subject: letter of support re: temporary permit
Attachments: Mt Polley support letter.docx

Good morning
Attached is a letter of support from the Williams Lake & District Chamber of Commerce
Thank you

s.22



Williams Lake & District CHAMBER OF COMMERCE

"THE VOICE OF BUSINESS"

Location: 1660 South Broadway
Mailing: PO Box 4878, Williams Lake, BC V2G 2V8
Phone: 250-392-5025 • Fax: 250-392-4214
Email: visitors@telus.net
www.williamslakechamber.com

May 1, 2015

The Honourable Christy Clark
Premier of British Columbia
P.O. Box 9041 STN PROV GOV'T
Victoria, BC
V8W 9E2

Dear Premier Clark

RE: Mount Polley Mine

We are writing in support of the application of a temporary permit for a partial restart of Mount Polley Mine, located near the community of Likely, BC and in the Cariboo region outside of Williams Lake, BC..C. We need to have this mine re-opened and running at full capacity.

It is time for the government to take action, not request more studies. You will never satisfy everyone, someone will always be against projects that do not suit their purposes.

The mine is in jeopardy of losing some very valuable employees, and more delay may see its permanent closure, which will impact all communities.

Yours truly,

Angela Sommer

Angela Sommer
President
Williams Lake & District Chamber of Commerce



From:
Sent: May-01-15 10:24 AM
To: MtPolley MinePermit MEM:EX
Subject: No permit to be issued to the Imperial Metals Corporation

s.22

We think it is extremely insolent that the Imperial Metals Corporation who is under criminal investigation for gross negligence leading to the massive failure of the tailings storage facility at the Mount Polley Mine should have the gall to make plans to continue work at the mine when the clean-up of the spill is in no way complete.

The lands to which Imperial Metals Corporation has acquired access through provincial and federal permits are the contested, occupied, traditional, ancestral and unceded territories of the Secwepemc people who have not given their unanimous free, prior and informed consent to the projects on their territories.

In the eight months since the August 4,'14 failure of the tailings storage facility, IMC' s wholly subsidiary Mount Polley Mining Corporation has demoed greater effort to ready the tailings storage facility for imminent production than to clean up the land and prevent further pollution of Quesnel Lake and the downstream rivers. We know the corporation plans to release "treated" mining waste back to the watershed and potentially use Lake Quesnel as the site of discharge.

The reason why the corporation is under criminal investigation is because the managers ignored repeated warnings from consultants and employees regarding the unsafe conditions of the tailing storage facility, workplace health and safety and other environmental discharges. Were a new permit to be issued to IMC it would signify the BC government is prepared to overlook such gross negligence by the corporation.

The Premier must demonstrate her government's commitment to respecting and upholding the rights of indigenous peoples and the people of BC by refusing to issue a new permit to IMC, a corporation that is under criminal investigation.

s.22

From: s.22
Sent: May-01-15 10:54 AM
To: MtPolley MinePermit MEM:EX
Subject: Public comment from Craig Matsy-Pissot

----- Forwarded message -----

From s.22
Date: Fri, May 1, 2015 at 10:48 AM
Subject: Public comment to stop the reopening of Mount Polley Mine
To s.22

Dear Cariboo Region Mine Development Review Committee,

Please deny Imperial Mining's proposal to reopen Mount Polley mine.

The Mount Polley disaster last August was one of the worst mining spills in Canada's history. Imperials Metals must not be allowed to re-open its flawed mine. I'm calling on the Province of British Columbia to respect and uphold the rights of Indigenous peoples and the people of B.C. by rejecting the application for a restricted re-opening of the Mount Polley mine.

s.22

From: s.22
Sent: May-01-15 11:06 AM
To: MtPolley MinePermit MEM:EX
Subject: Do not re-open Mount Polley

Dear Sir:

I urgently demand that you not allow the Mount Polley mine to be reopened. Enough environmental damage has already been done by this mining operation. They have not even cleaned up the damage done recently.

From: s22
Sent: May-01-15 11:20 AM
To: MtPolley MinePermit MEM:EX
Subject: Please Reject the Mt Polley Mine Permit

Dear BC,

As a risk manager, re-opening this mine under the current demonstrably inadequate regulatory framework makes zero sense. This mine and its tailings are a serious risk to the environment and the people of BC in its current state. The long-term financial consequences of this operation and its eventual cleanup will be borne by future British Columbians.

Thank you,

s22
Nanaimo

From:
Sent: May-01-15 11:37 AM
To: MtPolley MinePermit MEM:EX
Subject: Say No to Reopening the Mine

s.22

Hello,

As a very concerned Canadian and citizen of this world, I urge you to reconsider your stance on opening the mine at Mt Polley. We are literally killing our planet with disasters like the one that occurred last year. With groundwater becoming more scarce by the day, we need to conserve and fiercely protect what natural resources (including wildlife) we still have.

Unfortunate that you'd taken such a huge "donation" and then decided to reopen the Mine because of it. That was a very PC/Stephen Harper thing to do. Again, I urge you to reconsider your position on this issue.

Good day.

s.22

From:
Sent: May-01-15 11:39 AM
To: MtPolley MinePermit MEM:EX
Subject: IMPERIAL NO MORE

\$ 22

IMPERIAL NO MORE!!! THIS INSANITY THAT YOU ARE CONSIDERING TO LET THEM RE-OPEN???? THIS IS ONE OF THE BIGGEST CANADIAN DISASTERS SO LET US LEARN FROM THIS AND NEVER ALLOW IT TO HAPPEN AGAIN. I DO NOT CARE ABOUT THE AMOUNT OF DOLLARS THAT THEY HAVE CONTRIBUTED TO THE LIBERAL GOVERNMENT. MONEY TALKS THAT IS OBVIOUS. YOU ARE ELECTED TO SERVE THE CANADIAN PEOPLE AND CORPORATIONS WITH MONEY.....

From: s.22
Sent: May-01-15 11:40 AM
To: MtPolley MinePermit MEM:EX
Subject: Mount Polley mind should stay closed

Imperial Metals betrayed the citizens of BC with their negligence. They have shown criminal disregard for the environment and the surrounding communities. The government can help to start repairing the harm done showing compassion for its citizens -- and doing what's best in the long term, for the environment and for British Columbians. Please don't let short-term greed overshadow what's right.

s.22

Vancouver, BC

British Columbia must reject the reopening of Imperial Metals' Mount Polley mine without the consent of communities impacted by the tailings disaster.

The Government of British Columbia is failing the indigenous people of Secwepemc territories, the residents of Likely, BC and those living on the Quesnel and Fraser River watersheds. This is a matter of urgent concern for all our organizations.

On 04 August 2014, the tailings storage facility at the Mount Polley Mine, near Likely, BC, and owned by Imperial Metals Corporation (IMC), had a catastrophic failure, allowing approximately 25 millions of cubic metres of toxic sludge and contaminated water to rush into nearby Polley Lake and seven kilometers down Hazeltine Creek to Quesnel Lake. This spill is one of the biggest environmental disasters in modern Canadian history.

The BC Government initially denied it was an environmental disaster, has downplayed the damage and has taken little to no action to assure that such a disaster would not happen again. Now, Imperial Metals Corporation has submitted an application to provincial regulators to return to operations. Our organizations strongly urge that this application be rejected for the following reasons:

Continuing Ecological Destruction: In the eight months since the 04 August 2014 failure of the tailings storage facility IMC's wholly-owned subsidiary Mount Polley Mining Corporation (MPMC) has demonstrated greater effort to ready the tailings storage facility for imminent production than to remediate the land and prevent further pollution of Quesnel Lake and the downstream rivers. Now the company plans to release "treated" mining waste water back into the watershed and potentially use Quesnel Lake as the site of discharge.

Criminal Investigation: The company remains under criminal investigation for gross negligence leading up to the massive failure of the tailings storage facility at the Mount Polley mine.

Consent of Communities: The lands to which Imperial Metals Corporation (IMC) has acquired access through provincial and federal permitting are the contested, occupied, traditional, ancestral, and uncaded territories of the Secwepemc people. The Secwepemc people have not given their unanimous free, prior, and informed consent to the projects on their territories. Neither have the people of Likely, BC.

Until all communities impacted have unanimously given their explicit free, prior, and informed consent to any and all project plans, timelines, and methods, with caveats, special requirements, and timelines that are on their own terms, and until a third-party team of observers, individually selected by the ancestral authorities of the area and with full access to all areas of the Mount Polley Mine site and all areas of the area affected by the tailings failure, has reported that IMC/MPMC has fulfilled their duty to clean up the affected area, this permit should be rejected.

Neglect and Greed: MPMC has, demonstrated a pattern of opting to maximize profits at the expense of the land and ecosystems their operations threaten. The managers of MPMC ignored repeated warnings from consultants and employees regarding the unsafe condition of the tailings storage facility, workplace health and safety, and other environmental discharges.

Clean Up and Remediation: Until the IMC has removed every cubic meter of spilled tailings waste to the tailings storage facility, has returned the destroyed land to its original condition, and has returned the water and bed conditions of Polley Lake, Hazeltine

Creek, Etney Creek, and Quesnel Lake to their pre-spill conditions, the re-opening of this mine would be furthering an ongoing catastrophe.

There is still time for the provincial government to do the right thing. The Premier needs to act now to demonstrate her government's commitment to respecting and upholding the rights of Indigenous peoples and the people of B.C.

From:
Sent: May-01-15 11:40 AM
To: MtPolley MinePermit MEM:EX
Subject: Public Consultation Period

Hello,

My name is [REDACTED] and I am very concerned that the Liberal government is considering allowing the Mount Polley Mine to reopen. Given the monstrous effects of the tailings disaster, I am disgusted that reopening the mine is a consideration, especially given that cleanup has not been completed, and that affected communities are opposed to it.

Putting Imperial Metals before the needs of people that this government supposedly represents is nothing short of appalling. I have consistently voted for the Liberal party in many elections. However, if the Mount Polley Mine reopens, the Liberal party will no longer have my vote or respect.

Please, do not reopen the Mount Polley Mine.

Best,

From: s.22
Sent: May-01-15 11:49 AM
To: MtPolley MinePermit MEM:EX
Subject: Mine reopen

You have got to be kidding about even considering reopening this mine. The largest environmental disaster in Canadian history. If they do get to reopen it will only demonstrate how easily the Liberal Party of BC can be bought.

Sent from my iPhone

From: s22
Sent: May-01-15 11:51 AM
To: MtPolley MinePermit MEM:EX
Subject: Mount Polley Mine Re-opening

Mount Polley Mine Re-opening Must be Rejected!

We need to show the BC Government the vast, broad level of opposition to the possible re-opening of the Mount Polley Mine, the site of one of the most devastating mining disasters in history. Please see the public statement below endorsed by community groups and organizations if you'd like ideas for your own comment submissions.

An application for a restricted re-opening of the mine has been recently accepted by the Ministry of Energy and Mines and Ministry of Environment. The application has now gone to the Cariboo Region Mine Development Review Committee for review and for a 30-day public consultation period which ends on May 2, 2015.

Public comments will be accepted during the consultation period and should be directed to: mtpolleyminepermit@gov.bc.ca

29 April 2015

Public Statement

British Columbia must reject the reopening of Imperial Metals' Mount Polley mine without their consent of communities impacted by the tailings disaster.

The Government of British Columbia is failing the indigenous people of Secwepemc territories, the residents of Likely, BC and those living on the Quesnel and Fraser River watersheds. This is a matter of urgent concern for all our organizations.

On 04 August 2014, the tailings storage facility at the Mount Polley Mine, near Likely, BC, and owned by Imperial Metals Corporation (IMC), had a catastrophic failure, allowing approximately 25 millions of cubic metres of toxic sludge and contaminated water to rush into nearby Polley Lake and seven kilometers down Hazeltine Creek to Quesnel Lake. This spill is one of the biggest environmental disasters in modern Canadian history.

The BC Government initially denied it was an environmental disaster, has downplayed the damage and has taken little to no action to assure that such a disaster would not happen again. Now, Imperial Metals Corporation has submitted an application to provincial regulators to return to operations. Our organizations strongly urge that this application be rejected for the following reasons:

Continuing Ecological Destruction: In the eight months since the 04 August 2014 failure of the tailings storage facility IMC's wholly-owned subsidiary Mount Polley Mining Corporation (MPMC) has demonstrated greater effort to ready the tailings storage facility for imminent production than to remediate the land and prevent further pollution of Quesnel Lake and the downstream rivers. Now the company plans to release "treated" mining waste water back into the watershed and potentially use Quesnel Lake as the site of discharge.

Criminal Investigation: The company remains under criminal investigation for gross negligence leading up to the massive failure of the tailings storage facility at the Mount Polley mine.

Consent of Communities: The lands to which Imperial Metals Corporation (IMC) has acquired access through provincial and federal permitting are the contested, occupied, traditional, ancestral, and unceded territories of the Secwepemc people. The Secwepemc people have not given their unanimous free, prior, and informed consent to the projects on their territories. Neither have the people of Likely, BC.

Until all communities impacted have unanimously given their explicit free, prior, and informed consent to any and all project plans, timelines, and methods, with caveats, special requirements, and timelines that are on their own terms, and until a third-party team of observers, individually selected by the ancestral authorities of the area and with full access to all areas of the Mount Polley Mine site and all areas of the area affected by the tailings failure, has reported that IMC/MPMC has fulfilled their duty to clean up the affected area, this permit should be rejected.

Neglect and Greed: MPMC has, demonstrated a pattern of opting to maximize profits at the expense of the land and ecosystems their operations threaten. The managers of MPMC ignored repeated warnings from consultants and employees regarding the unsafe condition of the tailings storage facility, workplace health and safety, and other environmental discharges.

Clean Up and Remediation: Until the IMC has removed every cubic meter of spilled tailings waste to the tailings storage facility, has returned the destroyed land to its original condition, and has returned the water and bed conditions of Polley Lake, Hazeltine Creek, Etney Creek, and Quesnel Lake to their pre-spill conditions, the re-opening of this mine would be furthering an ongoing catastrophe.

There is still time for the provincial government to do the right thing. The Premier needs to act now to demonstrate her government's commitment to respecting and upholding the rights of Indigenous peoples and the people of B.C.

From:
Sent: May-01-15 11:55 AM
To: MtPolley MinePermit MEM:EX
Subject: Re: Mount Polley Mine

Hello.

In regards the Mount Polley Mine reopening:

The Secwepemc people have not given their unanimous free, prior, and informed consent to the projects on their territories. Neither have the people of Likely, BC.

Until all communities impacted have unanimously given their explicit free, prior, and informed consent to any and all project plans, timelines, and methods, with caveats, special requirements, and timelines that are on their own terms, and until a third-party team of observers, individually selected by the ancestral authorities of the area and with full access to all areas of the Mount Polley Mine site and all areas of the area affected by the tailings failure, has reported that IMC/MPMC has fulfilled their duty to clean up the affected area, this permit should be rejected.

Thank you.

Sincerely,

s.22

From:
Sent: May-01-15 11:58 AM
To: MtPolley MinePermit MEM:EX
Subject: Imperial Metals

s.22

British Columbia must reject the reopening of Imperial Metals' Mount Polley mine without their consent of communities impacted by the tailings disaster.

From: § 22
Sent: May-01-15 12:08 PM
To: MtPolley MinePermit MEM:EX
Subject: Keep it Closed

The obviousness of the backdoor dealings in this matter are egregious.

We NEED to do better to protect our lands from uncaring, callous corporations hell bent at making a profit at any cost.

We NEED politicians willing to take a stand against this kind of bribery and underhandedness.

We NEED to put the planet and its inhabitants first.

Do the right thing. The future is GREEN if we want it to be.

§ 22

From: s22
Sent: May-01-15 12:11 PM
To: MtPolley MinePermit MEM:EX
Subject: Mount Polley Mine Re-opening Must be Rejected

Simply put,

Mount Polley Mine Re-opening Must be Rejected

Sincerely,
s22

Live the life you love.
Love the life you live.

From:
Sent: May-01-15 12:34 PM
To: MtPolley MinePermit MEM:EX
Subject: Do not re-open Mount Polley

Do not re-open this mine. Read over the evidence pouring in from various sources, making point of the dangers.

Sincerely,

s.22

From: s.22
Sent: May-01-15 12:44 PM
To: MtPolley MinePermit MEM:EX
Subject: About the Clean Up

I remember reading and viewing this online and on the CBC.

It's a shame that this was forgotten as fast as it happened.

As a country we need to start holding companies accountable for their actions and have them afford us our future.

s.22

From:
Sent: May-01-15 12:46 PM
To: MtPolley MinePermit MEM:EX
Subject: Mount Polley Mine Re-opening Must be Rejected!

The company remains under criminal investigation for gross negligence leading up to the massive failure of the tailings storage facility at the Mount Polley mine.

Consent of Communities: The lands to which Imperial Metals Corporation (IMC) has acquired access through provincial and federal permitting are the contested, occupied, traditional, ancestral, and uncaded territories of the Secwepemc people. The Secwepemc people have not given their unanimous free, prior, and informed consent to the projects on their territories. Neither have the people of Likely, BC.

From: s.22
Sent: May-01-15 1:01 PM
To: MtPolley MinePermit MEM:EX
Subject: Do not re-open Mount Polley

this 'option' is an outrage.

Sincerely,

s.22

From: s22
Sent: May-01-15 1:01 PM
To: MtPolley MinePermit MEM:EX
Subject: NO MOUNT POLLEY MINE!!!

Your jurisdiction is illegal. The territory is unceded and has been governed by the Secwepemc Nation for thousands of years. Respect this. Do not attempt to reopen Mount Polley Mine. Doing so would be short-sighted, dangerous, destructive, and regrettable. Are you part of the problem?

From: s22
Sent: May-01-15 1:26 PM
To: MtPolley MinePermit MEM:EX
Subject: No!

I remind "you" - whoever you are orchestrating the plan to permit the re-opening of Mout Polley Mine - of your trusteeship and fiduciary and duty-of-care obligations!!

Before a resumption of a carelessly and incompetently and negligently run operation which experienced a catastrophic failure and massive release of toxins into the environment and the erosive, sedimentive and collateral side-effect damage can even be seriously CONSIDERED, a forensic audit of the entire Imperial Minerals corporate structure must be undertaken as well as a detailed, possibly criminal investigation into the circumstances of the tailings dam failure - which was presaged by warnings from competent knowledgeable people, and a physical warning overflow event.

Sufficient corporate resources must be pledged as performance and indemnification bonds to not only make full repair and restitution and compensation for the preventable, foreseeable release event!

A full corporate plan to ensure that a repeat of any of the circumstances or behaviours would be impossible must be implemented.

I'm not going to spell out all the details.

Basic stuff.

If you lack the competence, motivation, education, moral/ethical integrity to act on behalf of the PUBLIC,

PAUSE the entire process, resign immediately and arrange for someone qualified.

The whole corporatist attitude of reckless endangerment, of externalization of risk and cost into the commons, the public, the explicit and implicit

subsidization of corporations by the public must END.

NOW

Engage!!

s22

From:
Sent: May-01-15 1:41 PM
To: MtPolley MinePermit MEM:EX
Subject: Mt Polley Mine

s.22

I strongly object to the reopening of Mt Polley mine. It's ridiculous that the company that is responsible for this environmental disaster be rewarded by the government of BC.

You work for us not the mining companies.

Sincerel

s.22

From:
Sent: May-01-15 1:42 PM
To: MtPolley MinePermit MEM:EX
Subject: reject the permit.

s.22

intelligence over profit.

that is all.

From: s.22
Sent: May-01-15 1:45 PM
To: MtPolley MinePermit MEM:EX
Subject: Shame!

Especially after what's already happened it's outrageous that anyone could think of reopening this mine!

s.22

From: s22
Sent: May-01-15 1:48 PM
To: MtPolley MinePermit MEM:EX
Subject: don't reopen the mine!

To whom it may concern,

British Columbia must reject the reopening of Imperial Metals' Mount Polley mine without their consent of communities impacted by the tailings disaster.

The Government of British Columbia is failing the indigenous people of Secwepemc territories, the residents of Likely, BC and those living on the Quesnel and Fraser River watersheds. This is a matter of urgent concern for all our organizations.

On 04 August 2014, the tailings storage facility at the Mount Polley Mine, near Likely, BC, and owned by Imperial Metals Corporation (IMC), had a catastrophic failure, allowing approximately 25 millions of cubic metres of toxic sludge and contaminated water to rush into nearby Polley Lake and seven kilometers down Hazeltine Creek to Quesnel Lake. This spill is one of the biggest environmental disasters in modern Canadian history.

The BC Government initially denied it was an environmental disaster, has downplayed the damage and has taken little to no action to assure that such a disaster would not happen again. Now, Imperial Metals Corporation has submitted an application to provincial regulators to return to operations.

I strongly urge that this application be rejected for the following reasons:

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Criminal Investigation: The company remains under criminal investigation for gross negligence leading up to the massive failure of the tailings storage facility at the Mount Polley mine.

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There is still time for the provincial government to do the right thing. The Premier needs to act now to demonstrate her government's commitment to respecting and upholding the rights of Indigenous peoples and the people of B.C.

Sincerely,

s.22

From: s.22
Sent: May-01-15 1:49 PM
To: MtPolley MinePermit MEM:EX
Subject: Mt. Polley Mining Permit

I and my entire family oppose giving this corporation another permit to mine in BC, especially in the Mt. Polley area.

Don't do it.

s.22