

Ministry of Environment, March 2018

MT POLLEY – CURRENT STATUS (ENV)

Key Messages:

- A disaster like this should never have happened in B.C., and it must never happen again
- While full environmental remediation will take years, significant progress has been made in the remediation efforts done to-date.
- Ongoing work is focused on completion of an ecological risk assessment, development of a long term remediation plan, and monitoring of the success of the stream restoration work done on the affected waterways.
- Actions completed so far include assessing the extent of impacts from the breach (including impacts on fish and fish habitat), determining risks to human health, and revising long-term monitoring plans.
- Mount Polley Mining Corporation (MPMC) conducts sampling weekly for the effluent discharge permit. Monitoring of the waterways downstream of the mine continues.
- The Province, with First Nation participation, has overseen all environmental remediation and monitoring work done by MPMC and will continue to do so.
- The ministry has a monitoring and auditing plan in place. MPMC's comprehensive environmental monitoring plan is currently under revision in consultation with ENV and FNs.
- Government will continue to share information with the public as it becomes available.

If asked about long-term Water Management Plan:

- An independent statutory decision-maker from the Ministry of Environment approved Mount Polley's permit application for continued discharge in accordance with the long-term water management plan for the mine site.
- The permit application underwent extensive public consultation, including First Nations and local communities, as well as a full technical review from the Cariboo Mine Development Review Committee.
- The permit requires the company to meet all water quality and aquatic health quality guidelines in Quesnel Lake after effluent mixing.
- The permit conditions require that the discharge into Quesnel Lake will preserve the lake water quality and protect water uses and aquatic life.
- The discharge to Quesnel Lake is viewed to be the best option for current operational water management based on various factors including environmental, technical, social and economic criteria.

If asked about First Nations engagement:

- First Nations remain important partners in the next phase of addressing the remediation of the site.
- Soda Creek and Williams Lake Indian Bands (Xat'sull and T'exelceme First Nations) will continue to be fully engaged on permitting decisions related to Mount Polley mine.
- To-date, the two Bands have had substantial technical involvement in the water discharge permit review and the update to the Pollution

Abatement Order, as well as in the review of impact and risk assessments, and the development of comprehensive environmental monitoring plans.

- Information is also being shared with the TNG and Lhtako who use downstream waters during aboriginal fisheries.

If asked about COS Investigation:

- This is an ongoing investigation between the B.C. Conservation Officer Service, the Department of Fisheries and Oceans, and Environment and Climate Change Canada.
- All of the information gathered during the course of this investigation will be considered by the Public Prosecution Service of Canada should charges be recommended.
- While the statute of limitations on provincial charges expired in 2017, potential charges under the federal fisheries act remain very much in play - and are, in fact, much more significant.
- B.C.'s Conservation Officer Service will continue to actively work alongside federal agencies on this complex and thorough investigation.
- We need to allow them to conduct the investigation without interference or prejudging the outcome.
- I have full confidence in the work of these law enforcement officials and I know that many concerned British Columbians join me in looking forward to the outcome of this important investigation.

Background:

GCPE ENV – CONFIDENTIAL ISSUES NOTE

- To meet the requirements outlined in the Pollution Abatement Order (PAO), Mount Polley Mining Corporation is executing the long-term mitigation and remediation plan in two phases:
 - Phase one ended in June 2015 and focused on public safety and restoration of the stream channel and riparian areas of Hazeltine Creek.
 - Phase two focuses on detailed site investigation, long-term remediation and restoration monitoring.
- All deliverables for phase one were completed by the end of June 2015, which included successfully implementing measures to ensure the increased water flow in Hazeltine Creek did not result in additional environmental or human health impacts.
- To-date, the ministry considers the following activities complete or substantively initiated:
 - Public Safety (e.g. woody debris removed from Quesnel Lake)
 - Repair to infrastructure (e.g. bridge and Forest Service Road)
 - Containment of tailings
 - Monitoring, risk assessment and detailed site investigation
 - Protection of archaeological resources
 - Protection of fish
 - Erosion mitigation
 - Water treatment
 - Reporting
- Phase two will continue to focus on remediating the impacts of the tailings materials lost through the breach and includes development of a conceptual remediation plan. Ongoing impact assessment, monitoring and mitigation activities will also occur.
- Remediation and restoration work done over the past two years includes:
 - Reconstruction of the Hazeltine Creek channel has restored the water channel, and Quesnel Lake foreshore has been restored at the mouth of Hazeltine Creek.
 - Creation of fish habitat between Polley Lake and the mine discharge point.
 - Removal of spilled tailings from both sides of the Upper Hazeltine Creek.
 - Erosion control including re-vegetation, re-sloping, placement of large woody debris, mammal habitat has been installed along the Hazeltine Creek corridor.
 - Trees “suffocated” by the spilled materials along Hazeltine Creek have been removed and the spilled materials in the area has either been removed or renovated and replanted.
 - Relocation of 80,000 toads in spring 2016 was required to enable the restoration of Upper Hazeltine Creek
- A series of reports and assessments are required under the PAO to inform long-term remediation and restoration plans:
 - A Post-Event Environmental Impact Assessment Report was completed which reports out on the physical, chemical and biological impacts of the spill,
 - A Detailed Site Investigation was completed which reports out on the contaminants of potential concern informing the risk assessments, and
 - A Human Health Risk Assessment was finalized and approved on June 28, 2017.
 - An Ecological Risk Assessment was conditionally accepted in January 2018, ongoing monitoring of risks will be ongoing.
- The company was also required to submit a Comprehensive Environmental Monitoring Plan (including fish monitoring) to the Province by March 31, 2016. This was approved by the ministry and is being implemented. An update to the Comprehensive Environmental

Monitoring Plan is currently under development by MPMC in consultation with ENV and FNs. In the interim, monitoring continues under the approved 2016 plan. Monitoring data is reported monthly, and comprehensive annual reporting and evaluation is provided by MPMC by March 31st of each year. A significant amount of data is available publicly on the ministry's EMS data system.

- A long-term project, led by FLNR, called the Quesnel Lake Acoustic Study is also underway and will track the movements, behaviour and mortality rates of Lake Trout, Rainbow Trout and Bull Trout in Quesnel Lake.
- On April 29, 2016, MEM and ENV authorized an amendment of the restricted operations permits, increasing the mine's allowable production level from four million tonnes to five million tonnes of ore, and allowing the mine to continue restricted operations while its application to return to full production is under review.
- Reports from Mount Polley are being made available to the public via the BC Mine Info website as they become available.

Water management and effluent discharge:

- A consent for material alteration approving the Long Term Water Management Plan was granted on April 6, 2017. On April 7, 2017, a permit for a long-term water management plan was approved by a statutory decision-maker (SMD) and issued to MPMC.
- MPMC submitted its formal permit amendment application which included the long-term water management plan, and supporting Technical Assessment Report in October 2016. The documents were subject to extensive public consultation, including First Nations and local communities. The application also underwent a full technical review from the Cariboo Mine Development Review Committee (CMDRC) which includes representatives from provincial and federal agencies, First Nations, local governments (City of Williams Lake and Cariboo Regional District), and the community of Likely.
- In accordance with the permit, treated water enters a pipeline that discharges approximately 50 metres below the surface of Quesnel Lake (out of range of drinking water intakes).
- Any treated and discharged water is required to meet BC water quality guidelines for aquatic and public health at the edge of a 100 metre dilution zone in Quesnel Lake.
- The permit amendment allows the discharge of up to 0.6 m³/s of treated mine water from Mount Polley directly to Quesnel Lake at depth via a pipeline until the end of 2022. A final water management plan will be required once site reclamation is complete and the mine is closed.
- Those opposed to the permit amendment would prefer the effluent be piped further downstream to Quesnel River. The discharge to Quesnel Lake was selected by MPMC after reviewing alternatives, based on consideration of various factors including environmental, technical, social, economic criteria.
- The permit allows a discharge up to 420 m³/d of treated mine effluent to Bootjack Lake via groundwater from Springer Pit. The permit amendment approved a 10% increase in discharge volume over the previous version and includes adjustments to some permit limits based on existing water quality data.
- MPMC and a local property owner have appealed the amended permit to the Environmental Appeal Board (EAB). MPMC contends that the amended permit is too restrictive given background water quality could exceed limits at the edge of the IDZ, while the local property

owner contends that the permit does not require sufficient treatment of the effluent to protect lake water quality.

- s.13,s.14

Water Sampling and compliance:

- ENV has a monitoring and auditing plan in place and has reviewed and approved MPMC’s water, dust control and fish tissue monitoring plans.
- The Province continues to conduct independent monitoring in Quesnel Lake as well as conduct compliance monitoring to ensure the discharge is compliant with the conditions of the permit.
- The Quesnel River is monitoring at the federal/provincial monitoring station located at Gravelle Ferry and at the Likely bridge.
- The ministry continues to collaborate with researchers undertaking work on Quesnel Lake and an annual forum was held in the spring of 2017.
- Inspection Reports and annual environmental reports are posted to the BC Mine Information website.

Communications Contact:	Victoria Klassen Jeffery	778 698-8162
	Danielle Bell	250 387-9630
Program Area Contact:	Doug Hill	250 398-4542

Ministry of Environment, February, 2018

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Key Messages:

- A disaster like this should never have happened in B.C., and it must never happen again
- While full environmental remediation will take years, significant progress has been made in the remediation efforts done to-date.
- Actions completed so far include assessing the extent of impacts from the breach (including impacts on fish and fish habitat), determining risks to human health, and revising long-term monitoring plans.
- Mount Polley Mining Corporation (MPMC) conducts sampling weekly for the effluent discharge permit. Monitoring of the waterways downstream of the mine continues.
- The Province, with First Nation participation, has overseen all environmental remediation and monitoring work done by MPMC and will continue to do so.
- The ministry has a monitoring and auditing plan in place. MPMC's comprehensive environmental monitoring plan is currently under revision in consultation with the ministry and First Nations.
- Government will continue to share information with the public as it becomes available.

If asked about the private prosecution:

- The Public Prosecution Service of Canada will consider all of the information gathered during the course of this investigation, should charges be recommended under the *Fisheries Act* or other legislation.

Background:

Long-term Water Management Plan:

- On April 7, 2017, a permit for a long-term water management plan was approved by a statutory decision-maker (SDM) and issued to Mount Polley Mining Corporation (MPMC).
- The permit application underwent extensive public consultation, including First Nations and local communities, as well as a full technical review from the Cariboo Mine Development Review Committee.
- The permit requires the company to meet all water quality and aquatic health quality guidelines in Quesnel Lake after effluent mixing.
- The permit conditions require that the discharge into Quesnel Lake will preserve the lake water quality and protect water uses and aquatic life.
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General info:

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- The ministry continues to collaborate with researchers undertaking work on Quesnel Lake and an annual forum was held in the spring of 2017.
- Inspection Reports and annual environmental reports are posted to the BC Mine Information website.

Private Prosecution:

- On August 4, 2017, ^{s.22} swore a private information alleging that the Mount Polley Mining Corporation (MPMC) had committed various offences contrary to the provincial Environmental Management Act and Mines Act.
- In January 2018, the BC Prosecution Service (BCPS) announced that it has directed a stay of proceedings in the private prosecution relating to the dam failure at Mt. Polley Mines.
- BCPS news release can be found here: <https://www2.gov.bc.ca/assets/gov/law-crime-and-justice/criminal-justice/prosecution-service/media-statements/2018/18-02-sop-mt-polley-mines.pdf>

Communications Contact:	Danielle Bell	250 387-9630
Program Area Contact:	Doug Hill	250 398-4542

From: [Hill, Douglas J ENV:EX](#)
To: [Morel, David P ENV:EX](#); [Robb, Peter L. EMPR:EX](#)
Cc: [Graham, Tessa ENV:EX](#)
Subject: RE: Call From Bryan Kynok at Imperial
Date: Monday, January 29, 2018 1:39:16 PM

Hi,

Don and I spoke this morning about the discharge to Quesnel Lake.

The pipeline to the lake was ready to go several weeks ago, but the discharge did not proceed due to an elevated copper concentration measured in a lake sample. Resampling now indicates lower concentrations of copper in the lake, closer to what is expected.

Based on data from samples collected on January 18th, it is estimated that the water quality targets that must be met at the edge of the initial mixing zone can be achieved, so MPMC intends to commence the discharge.

I have asked ministry staff to collect a sample at the lake outlet so that we have some independent data to compliment what MPMC has collected.

MPMC is attempting to release about 1.2 Mm³ of mine water over the next 6 months, so that they can continue mine operations and stay within the maximum volume that may be contained in the TSF. Having to curtail the discharge due to elevated copper in the lake is a concern.

We are working with the mine to finalize a discharge plan and trigger-response plan, to provide clear direction regarding how the discharge will be managed and how MPMC is expected to respond to monitoring data as it comes in.

Douglas Hill, P.Eng.

Regional Operations Branch

Environmental Protection Division

Ph: 250-398-4542

From: Hill, Douglas J ENV:EX
Sent: Monday, January 29, 2018 9:53 AM
To: Morel, David P ENV:EX; Robb, Peter L. EMPR:EX
Cc: Graham, Tessa ENV:EX
Subject: RE: Call From Bryan Kynok at Imperial
Don Parsons is calling me at 10 this morning. I can provide some bullets after his call.
djh

From: Morel, David P ENV:EX
Sent: Monday, January 29, 2018 9:47 AM
To: Robb, Peter L. EMPR:EX
Cc: Hill, Douglas J ENV:EX; Graham, Tessa ENV:EX
Subject: RE: Call From Bryan Kynok at Imperial
I have not heard from them at all. Doug may have.
David

From: Robb, Peter L. EMPR:EX
Sent: Monday, January 29, 2018 9:43 AM
To: Morel, David P ENV:EX
Cc: Hill, Douglas J ENV:EX
Subject: Call From Bryan Kynok at Imperial
Good morning,

I had a call from Bryan and some of his senior staff at Mt Polley wanting to give me a heads up on some permitting/compliance questions they had. I suggested they reach directly out to Doug if they were concerned but might be good to have quick call this week. David had you heard from them

recently?

Cheers,

Peter Robb

Assistant Deputy Minister

Ministry of Energy, Mines and Petroleum Resources

Cell: 250 812 7392