



# **PINE POINT PROJECT**

## **NORTHWEST TERRITORIES**

**Confirmation and Exploration Program (CEP)**

**MV2020L8-0012 MV2020C0017**

**Public Hearing**

15-17 June 2021

# Overview



- PPML would like to thank all parties for their thoughtful review of documents and responses associated with the Confirmation and Exploration Program (CEP)
  - We have made good progress on working with interveners on resolving issues
- PPML would like to remind reviewers that this Water Licence and Land Use Permit application process with the Mackenzie Valley Land and Water Board is for an exploration program
  - Although PPML is considering a mine at Pine Point in the future, the activities associated with mining and milling are not part of this process
  - The information being collected as part of the CEP will help inform the design of the mining project and will feed into future engineering work to be completed
  - PPML is in the early stages of the environmental assessment for the mining project (submitted an EA Initiation Package and scoping sessions with the Mackenzie Valley Environmental Impact Review Board)
- This presentation discusses recommendations from interveners and PPML's responses
  - Where the responses are similar, the recommendations have been grouped

# GMP – Compatibility Criteria



## Monitoring parameters and compatibility criteria (ECCC-2, GNWT-3, GNWT-7, FRMG-4, FRMG-7)

- Compatibility criteria and process will be included in the Groundwater Management Plan to be submitted to the MVLWB for approval
- PPML committed to monitoring a comprehensive suite of parameters and will obtain confirmation that transfers are acceptable prior to any transfer taking place
- Compatibility assessment and two-step threshold approach for water transfers will limit amount of change in receiver pit water quality and therefore risk to aquatic life
  1. initially comparing TDS concentrations between source and receiver waters (30% threshold)
  2. if compatible for TDS, comparing concentrations for parameters with guidelines; if these guideline parameters are compatible, source water deemed acceptable for transfer
- Where fish are present in pit waters, PPML will include acute toxicity testing of source pit water once water passes the screening process pre-transfer

# GMP - Fish Presence in Pits



## **Fish presence determinations in a pit prior to water being transferred into it (GNWT-4)**

- PPML agrees to conduct fish presence surveys in pits prior to water transfers
- As per response to ECCC-4, this determination will be included in the compatibility decision trees to be added in the Groundwater Management Plan to be submitted to the MVLWB for approval

## **Pits with fish present should have parameter concentrations equal to, or lower than concentrations in receiving pit, or concentrations below CCME guidelines for Protection of Aquatic Life (GNWT-5, GNWT-7)**

- PPML disagrees with this recommendation; the screening process combined with the acute toxicity testing is considered protective
- Some parameters (fluoride and some metals) have been measured above guidelines in pits (consistent with surface water quality within and downstream of Project area)
- PPML will include acute toxicity testing of the source water as part of the compatibility assessment for water transfers

# GMP - Uncertainties



## Groundwater Management Plan be updated to clarify and resolve uncertainties (GNWT-3)

- PPML responded in the intervention responses and provided clarification on:
  - how chemoclines will be incorporated into the compatibility assessment (also FRMG-8)
  - methods to determine the specific conductivity-total dissolved solids (TDS) relationship and depth-averaged TDS concentration
  - water quality guidelines (approved and interim CCME Protection of Aquatic Life, and BC ENV for sulphate) and use of guidelines in the compatibility assessment
  - calculation of the upper bound
- PPML believes that using all available data will strengthen the compatibility assessment; using all available data provides a stronger basis for decision-making rather than relying on a single set of data

# GMP – Protection of Receiving Environment



## Definition of the receiving environment and protection (ECCC-5, GNWT-6)

- The compatibility assessment approach developed for water transfers (see response to ECCC-2, GNWT-3, GNWT-7, FRMG-4, FRMG-7) has been designed to limit the amount of change in the receiver pit water quality
- This will be protective of pit water quality and nearby waterbodies
- Acute toxicity testing of the source pit water will also be used to confirm that there is no deleterious risk to aquatic biota in the pit

## GMP - Approval Timeline and Compliance Monitoring



### **Groundwater Management Plan and the locations for groundwater testing be submitted 60 days in advance of hydrogeological investigations (GNWT-2, GNWT-15)**

- PPML proposes that the plan and locations be submitted 30 days in advance of conducting any hydrogeological investigations, recognizing that the plan framework is being finalized through this permitting review process, except for testing locations which would be submitted 30 days in advance of conducting any hydrogeological assessments

### **An SNP with water quality monitoring locations, sampling parameters, and frequency for inclusion in the Water Licence (GNWT-16)**

- Surveillance Network Program (SNP) sampling is typically applied for long-term monitoring at fixed locations
- The groundwater testing locations are as-yet undetermined, and testing will be short-term (<14 days per site)
- PPML believes that compliance monitoring for groundwater testing should be provided in an approved Groundwater Management Plan rather than an SNP
- PPML has committed to visual monitoring of nearby waterbodies for changes in surface water level during pump tests

## PPML to provide information on water quality monitoring related to source pit recharge during testing (GNWT-9)

- In the response to GNWT's intervention, PPML provided proposed monitoring methods, recognizing that the groundwater tests are short-term in nature (<14 days), and included:
  - Proposed schedule for field physico-chemical (specific conductivity, pH, temperature) measurements and laboratory analysis in source and receiver waters
  - Proposed threshold based on the site-specific TDS:specific conductivity relationship that would allow PPML to verify measurements and pause to evaluate the situation, or cease pumping



# GMP - Monitoring and Reporting



## Visual monitoring (GNWT-7)

- PPML agrees to manage water transfers through visual observations so that temporary flooding from pit or well overflows or drying up of nearby natural waterbodies does not occur
- Mitigation for water withdrawal for groundwater tests in Water Withdrawal Plan (section 3)

## Reporting in the WL Annual Report (GNWT-1)

- PPML agrees to this recommendation

# Water - Sumps

## Construction, post-construction tracking, and identification of sumps in the field until decommissioning (DKFN-9, -10, -11)

- As described in the Project Description, if suitable ground is present, drill cuttings will be placed in the nearest natural sump, existing human-made depression or pit, interred in a completed drill hole within the overburden zone, and/or above a plugged/cemented casing; in addition, if necessary, a shallow sump may be required, located near the drill site, and will be prepared using earth moving equipment to create a sump ~ 1 m wide, 2 m long, and up to 1 m deep
- If suitable ground is not present at the drilling location, the cuttings will be collected and transported for disposal in disturbed areas with suitable ground; each drill hole results in less than 30 litres of dry cuttings
- PPML documents the location of all sumps, and can provide this information on request

# Water Withdrawal



## Methods to determine minimum flow rates in watercourses below which will likely cause adverse effects to fish populations, and “cut-off” limit for water-withdrawals (FRMG-12)

- PPML will use standard methods to measure flow rates, and is completing the second year of hydrological studies
- DFO recommends that a withdrawal rate of 10% is protective of fish and aquatic ecosystems, during winter when aquatic systems are most sensitive to withdrawal; the Water Withdrawal Plan proposes to use the 10% limit throughout the year

## Additional criteria, in collaboration with DKFN, on selection of suitable waterbodies to be used for water extraction (DKFN-8)

- PPML applying *MVLWB Method for Determining Winter Water Source Capacity for Small-Scale Developments* throughout the year.
- Plan excludes waterbodies with known traditional uses; PPML will continue to work with DKFN to identify other waterbodies that are traditionally used

# Wastewater



**Water Licence include conditions for a modular wastewater treatment plant for the treatment of camp sewage (GNWT-10) and recommended EQC for the discharge from the wastewater treatment plant (GNWT-11)**

- PPML agrees to these recommendations

## **Specific plans for wastewater management (DKFN-12)**

- Management of non-mineral liquid waste from the camp is described in Section 4.4 of the Waste Management Plan

# Waste Management



**Not include authorization for a landfarm in Water Licence at this time (GNWT-12)**

**Submission of a revised Waste Management Plan 30 days after Water Licence issuance specifying that hydrocarbon-impacted material and associated contact water (GNWT-13) and runoff water from the vehicle wash station (GNWT-14) will be shipped offsite to an appropriate disposal facility**

- PPML agrees to these recommendations

**Any soils contaminated by fuels or chemicals identified in the Spill Contingency Plan should be properly handled and disposed of in accordance with applicable legislation (FRMG-14)**

- PPML agrees; these measures are incorporated into the Spill Contingency Plan

# Wildlife - Caribou



**Provision of updated plan prior to WL and LUP being issued (DKN-5); opportunity for interveners to review the revised plan (ECCC-7); collaboration with FRMG, DKFN, GNWT, and other Indigenous governments (FRMG-24, DKFN-2)**

- An updated version of the Wildlife Management and Monitoring Plan (WMMP) has been submitted (v. 1.0), incorporating comments from FRMG, DKFN, KFN, ENR, and ECCC
- GNWT will approve the WMMP under Section 95 of the *Wildlife Act*
- PPML will continue to engage DKFN, FRMG, and KFN on mitigation for caribou habitat

**Work together to understand structure and function of local boreal caribou population before more habitat is altered by proposed mine-related activities (DKFN-2)**

- PPML agrees and looks forward to working collaboratively with GNWT, DKFN, and other Indigenous groups
- PPML would like to remind reviewers that this is an exploration program, not a mine development
- PPML will contact DKFN to discuss site visit to tour exploration areas; avoidance of caribou habitat

TSX V: OMI will be discussed during this visit

# Wildlife - Caribou



**Completion of a WMMP that includes information on potential caribou habitat loss and effects to winter and calving habitat, as well inclusion of a Dene-centric perspective, and adaptive management (KFN-2)**

- PPML agrees with the recommendations, and has updated the WMMP to incorporate recommendations from KFN, other Indigenous groups, ECCC, and GNWT-ENR; GNWT will approve the WMMP under Section 95 of the *Wildlife Act*
- PPML has provided an updated version of the WMMP (Version 1.0)

**Fulsome assessment of potential impacts to boreal caribou from the proposed Project, and implications for boreal caribou in the Pine Point herd, and more information on locations, timing and frequency of activities (FRMG-17)**

- PPML provided an assessment of impacts in the Screening-Level Environmental Assessment, submitted with the application
- Further information on mitigation and monitoring is provided in the WMMP

# Wildlife - Caribou



**Reconnaissance of proposed investigation sites and access to confirm presence of biophysical attributes important to boreal caribou in collaboration with DKFN, such that where present, alternate investigation sites and/or access can be explored (DKFN-3)**

- PPML looks forward to a visit of the Pine Point exploration areas by DKFN
- The WMMP shows that most exploration activity will be within existing disturbances at Pine Point, and the Resource Selection Function map provided by GNWT-ENR indicates that these areas are low quality caribou habitat
- Also, the WMMP describes a procedure to check for caribou presence prior to initiating any new disturbances; if caribou are present, work cannot proceed

**Work with the GNWT to conduct a population survey to determine how many boreal caribou occur within Project area and include KFN member in any population survey that occurs within KFN Traditional Territory (KFN-1)**

- GNWT-ENR will lead the caribou survey
- PPML looks forward to working with KFN and other groups to assist GNWT with survey



## Wildlife - Caribou



**Inclusion of specific habitat mitigation measures for direct and indirect habitat loss, including habitat offsetting to address impacts to boreal caribou habitat resulting from proposed exploration within the Project area (FRMG-18)**

- PPML agrees and notes that mitigation to avoid impacts to caribou and caribou habitat, both direct and indirect, is provided in the WMMP
- As per mitigation hierarchy, avoidance and mitigation (use of existing access) are preferred approaches, rather than offsetting
- PPML is updating the WMMP to implement additional measures to avoid and mitigate impacts to caribou, so that offsetting is not required for the CEP

**Additional information on noise suppression activities and mitigations (FRMG-22)**

- Avoidance is the first step in the mitigation hierarchy
- Updated WMMP includes additional measures to avoid caribou and caribou habitat (e.g., development of a new drill hole cannot proceed if caribou are detected in the area)

## Provision of additional information on “Cautionary Zones” (DKFN-4)

- Details of the Cautionary Zones and how they are used to avoid interactions with caribou are provided in Section 6.1 of the WMMP

## Avoidance of damage and disturbance to boreal caribou habitat to greatest extent possible, and consideration of the Boreal Caribou Habitat Restoration Toolkit for roads that are developed but will not be used in the future (KFN-5)

- PPML agrees that avoidance of caribou and caribou habitat is the first method of protection, and is a pillar of the updated WMMP
- PPML has incorporated the toolkit into the updated version of the plan, as well as exploration methods to encourage natural revegetation recovery following exploration
- Immediate restoration is not proposed in areas where further development is anticipated

## Wildlife - Caribou



### **Support for KFN and community members to collaborate on the monitoring plan and standards and conditions for minimizing Project activities (KFN-4)**

- Support from KFN, DKFN, NWTMN, and FRMG are key to Project success
- All Project authorizations (land use permit, water licence, management plans, and WMMP) have been made available to parties for review; PPML will continue to incorporate feedback, and share updated versions of the plans for review

### **Update on drill sites, roads/trails, boreholes, sumps, and other disturbance in the Annual Report, and update on amount of reclamation occurred onsite compared to total disturbance, which includes photos of the sites and their recovery (KFN-6)**

- PPML agrees with this recommendation; this is standard information for WL annual report
- It is premature to document recovery, as exploration is focused on areas where further development is anticipated

## Wildlife - Caribou



**Road location and where sited on linear disturbances (not revegetated), including how kilometres on previous linear disturbances versus new access (KFN-3)**

- PPML agrees with the recommendation, but clarifies that new roads are not proposed to access drill sites; access will preferentially use the many unvegetated roads and trails at Pine Point
- New linear disturbances will be minimized by using existing access roads and trails to get as close to the drill site; short (measured in metres or tens of metres, not kilometres) new access trail may be required
- Exploration activity will be limited to the areas indicated in the WMMP, and PPML will implement the mitigation and monitoring indicated in the WMMP

### **Provision of information related to the *Species at Risk Act* for the Project, including what species are covered under the permit (DKFN-6)**

- Section 73 of the *Species at Risk Act* is triggered by boreal caribou and the federal land at Pine Point
- PPML has initiated an application with ECCC

### **Mitigation, surveys/observations, and inclusion of whooping cranes into a management plan (ECCC-6)**

- PPML agrees with this recommendation, and the requirements have been incorporated into Version 1.0 of the WMMP

## **Justification for the listing of observed Species of Concern (FRMG-16)**

- The updated WMMP now includes the information sources for the observations of species of concern

## **Methods on the pre-clearing survey, and use of FRMG and other Indigenous monitors for conducting pre-clearing monitoring (FRMG-19)**

- Additional detail on the pre-clearing survey has been provided in the WMMP
- PPML looks forward to involving FRMG, KFN, and DKFN members in monitoring

## **Clear approach to monitoring dust fall and application of dust mitigation, based on an adaptive management approach (FRMG-21)**

- PPML is willing to discuss concerns related to dust with FRMG
- PPML has included dust suppression in the Water Use Plan for road watering to minimize road dust; however, during exploration phase, traffic will be limited to occasional pickup trucks, similar to current recreational use of Pine Point roads

# Engagement



## **Engage FRMG for all license and permit activities (FRMG-1) and work directly with FRMG to revise the engagement plan (FRMG-2)**

- PPML agrees to update the Engagement Plan to include the FRMG, in addition to the NWT Métis Nation
- The Engagement Plan was provided to the NWT Métis Nation on 26 October 2020 for review, before it was submitted to the MVLWB a month later on 27 November 2020
- No comments on the Engagement Plan were received, either prior to or since submission
- As all Parties have had over six months to comment on the Engagement Plan, there is no reason to delay approval of the Water Licence

# Land Use and Health and Safety



## **No disturbance within 500 m of the Ejie Tue Dehe (Buffalo River) as per Condition 52 of the draft Land Use Permit (KFN-7)**

- PPML agrees with this recommendation

## **Coordination of exploration activities with DKFN land users (DKFN-7)**

- The Engagement Plan outlines the triggers where PPML will inform DKFN of Project activities
  - 30 days written communication prior to initiation of exploration activities

## **Update health and safety management plan for larger camp (DKFN-13)**

- The *Mine Health and Safety Act* requires that a Health and Safety Plan be submitted to, and approved by, the Chief Mine Inspector
- PPML has done so and the Plan has been approved
- The Chief Mine Inspector will require updates to the Plan as operations expand



# Closure and Reclamation



## **PPML to confirm that previously disturbed areas will not be reclaimed to a natural state (DKFN-15)**

- Areas that have been previously disturbed through historical mining activities will be reclaimed to state prior to the Project

## **Description of how residual impacts of the project will be assessed following closure activities (DKFN-14) and criteria for reclaimed areas (DKFN-16)**

- Closure and Reclamation Plan to be submitted to the MVLWB for approval within 24 months of the effective date of the Water Licence
- Criteria to determine if closure goals have been met will be presented in future versions of the Closure and Reclamation Plan

Thank you

