# APPENDIX 29-24. FRESHET MANAGEMENT PLAN



**MELIADINE GOLD MINE** 

# Freshet Management Plan

FEBRUARY 2025 VERSION 10

# **TABLE OF CONTENTS**

Table of	f Contents	
Figures	and Tables	ii
Docume	ent Control	ii
Acronyr	ms	v
Units		v
SECTION	N 1 • INTRODUCTION	1
SECTION	N 2 • AREAS OF RISK DURING FRESHET	2
2.1	P-Area	4
2.2	Portal 1 Sump 1 (LV50 SUMP)	4
2.3	Portal 2 Sump 1 (LV50 SUMP)	4
2.4	Ore Pad 2	4
2.5	Landfarm	4
2.6	Infrastructure Areas	5
2.7	Water Collection Ponds	5
2.8	Tailings Storage Facility	6
2.9	All Weather Access Road (AWAR)	6
2.10	Bypass Road	7
2.11	Itivia	8
2.12	Dewatered Lakes and Ponds	8
SECTION	N 3 • FRESHET RISK MANAGEMENT	10
3.1	P-Area Risk Management	10
3.2	Portal 1 Sump 1 Risk Management	10
3.3	Portal 2 Sump 1 Risk Management	10
3.4	Landfarm Risk Management	11
3.5	AWAR, Bypass Road and Site access roads Risk Management	11
3.6	Infrastructure Areas	11
3.6.	.1 Camp Pads and Surroundings	12
3.6.	.2 Industrial Pad and Access Road	12

## **MELIADINE GOLD MINE**

## **FRESHET MANAGEMENT PLAN**

3.6	Water Collection Ponds
3.7	Itivia
3.8	Tailings Storage Facility
3.9	Dewatered Lakes and Ponds
3.10	Temporary Water Management Structures
SECTION	I 4 • SNOW MANAGEMENT
Referen	ces20
FIGUR	ES AND TABLES
_	Site plan view with identified areas of risk at Site during freshet. (Existing Conditions)
Figure 2	AWAR Map Showing Water Crossing Locations
Figure 3	Bypass Road and Culvert Location
Figure 4	Snow Management Plan on Site
Figure 5	Pump Area Snow Management for Existing Conditions
Figure 6	: Itivia Snow Management Areas



# **DOCUMENT CONTROL**

Version	Date	Section	Page	Revision	Author
1	March 2016	ALL	-	Comprehensive plan	
2	March 2017	ALL	-		
3	March 2018	ALL	-		
4	December 2018	ALL	-		
5	March 2019	ALL	All	Update to reflect transitional changes to Operations phase	
			2	Include DCP-1 and DCP-5 in areas of risk during Fresh	
			3	Update section 2.1.2/2.1.3 noting 5 evaporators and discuss SP3.	
			5-6	Update Section 2.8, discuss time of pond construction.	
			9-10	Update Section 3.1, discussion of SP3 and update on inspections.	
			13	Update Section 3.6., 3.7, 4 to reflect changes in freshet management.	
			Figure 1	Updated to include structure names	
			Figure 2	Updated to include SP3	
			Appendix A	Update to include emulsion pad to inspection list	
6	March 2020	ALL	All	Document formatting to match common style	
		2	2	Risk areas to include CP6 and TSF	
			Figure 1	Include TSF	
			4	P-Area volumes, source of inflows	
			6-7	Portal sump wording & grammar; include CP6	
			7	Itivia wording & grammar	
		3	10	Update to P-Area management for 2020	



Version	Date	Section	Page	Revision	Author
			10	Addition of P-Area emergency	
				pumping strategy	
			13	Remove downstream D-CP5 risk mitigation; Add TSF	
			13	Addition of temporary water management structure section	
		4	15	Update Snow Management information	
			Figure 5	Update Site snow management figure	
			Figure 6	Update Itivia snow management figure	
7	April 2022	ALL	All	General Plan Update	
8	March 2023	ALL	ALL	Minor text edits	
		2.4	6	Addition of Ore Storage Pad 2 monitoring at Freshet	
		4	13-14	Updates of figures 4 and 5.	
			Appendix	Removed Appendices	
9_NWB	January 2024	All	All	Submitted with Meliadine Mine Water Licence Amendment	Permitting Department
10	February	Figure 1	3	Update to include all areas	Environment
	2025	2.1	4	Modification in P-Area	Department
		2.7	5	Inclusion of CP9	
		2.12	8	Details on dewatered lakes and ponds locations	
		3.1	10	Modification of risk management for P-Area	
		3.6	12-13	Inclusion of details on collection ponds risk management and CP9 risk management	
		3.9	14	Dewatered lakes and ponds risk management updates	
		Section 4	16	Text edits, inclusion of Pump Area	
		Figure 5	18	Addition of Pump Area snow management layout	



## **ACRONYMS**

Agnico Eagle Agnico Eagle Mines Limited
AWAR All Weather Access Road

BTEX Benzene, Toluene, Ethylbenzene and Xylene

CP Collection Pond

Itivia laydown and fuel handling facility

Licence Type A Amended Water Licence 2AM-MEL1631

the Mine or Site Meliadine Mine

NWB Nunavut Water Board

OP Ore Storage Pad

P-Area

Plan Freshet Management Plan

SP Saline Pond

Sump LV50 Portal 1 and 2 Sump 1
TSF Tailings Storage Facility
TSS Total Suspended Solids
WMP Water Management Plan
WRSF Waste Rock Storage Facility

# **UNITS**

m<sup>3</sup> Cubic metre m metre

mbg meters below grade



## **SECTION 1 • INTRODUCTION**

The purpose of the Freshet Management Plan (Plan) is to provide Agnico Eagle Mines Limited (Agnico Eagle) with specific management and mitigation measures to address and manage water associated with the freshet season (Freshet), a response plan, and procedures to prevent and to minimize potential negative impacts to the surrounding environment at the Meliadine Mine (the Mine or Site).

The term Freshet refers to spring snowmelt, that can also be overlapped by rainfall, which can result in inundation of floodplains. Freshet at Meliadine typically takes place between May 15 and July 30. In some years, Freshet-like conditions can also happen in early fall, when freezing re-occurs (mid-October) and then thaws. There are areas at the Site that are vulnerable to excess water produced during Freshet; the objective of this document is to identify those areas, and to develop a plan with defined roles and responsibilities to manage excess water produced on site.

The following guiding principles are applicable to the Plan:

- To ensure that mine surface contact water from runoff or seepage is managed to prevent adverse environmental impacts;
- To ensure the health and safety of Agnico Eagle employees and contractors; and
- To ensure the Site is in compliance with the Nunavut Water Board (NWB) Type A Amended Water Licence 2AM-MEL1631 (Licence).

The Plan identifies areas of risk during Freshet, risk management and the procedures necessary to address potential concerns.



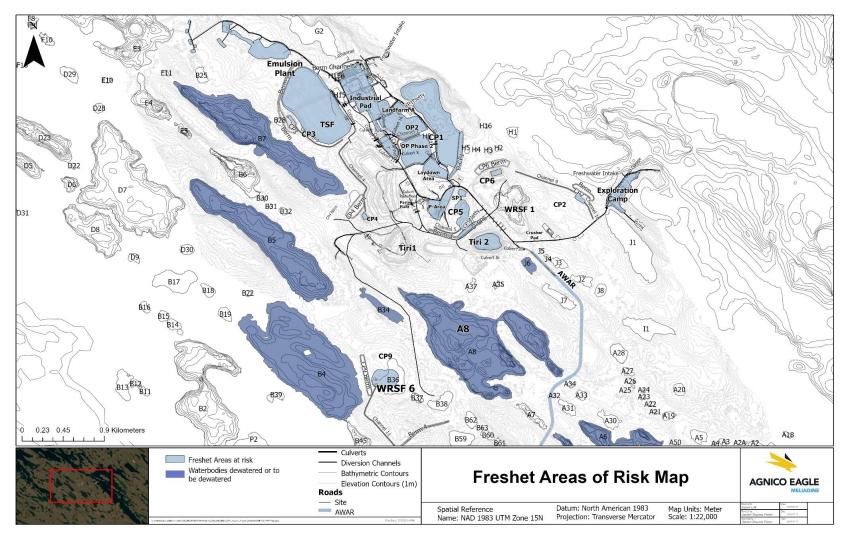
## SECTION 2 • AREAS OF RISK DURING FRESHET

The key areas of risk during Freshet at the Site include the following:

- Pond P3 (remaining component of the P-Area)
- Portal 1 Sump 1 (Sump LV50)
- Portal 2 Sump 1 (Sump LV50)
- Landfarm A
- Landfill
- All Weather Access Road (AWAR)
- Infrastructure Areas; including the Exploration Camp area, Portal 1 & 2 and the Industrial Pad Areas
- Collection Pond 1 (CP1), Collection Pond 2 (CP2), Collection Pond 3 (CP3), Collection Pond 4 (CP4), Collection Pond 5 (CP5), Collection Pond 6 (CP6), and Collection Pond 9 (CP9).
- D-CP1 and D-CP5
- Meliadine Esker Quarry
- Bypass Road
- Itivia laydown and fuel handling facility (Itivia)
- Tailings Storage Facility (TSF)
- Dewatered Lakes and Ponds

Identified areas of risk at Site are shown in Figure 1 and are described in the following section.





**Figure 1:** Site plan view with identified areas of risk at Site during freshet. (Existing Conditions)



#### 2.1 P-Area

The P-Area formerly consisted of three storage ponds as part of the saline contact water management system from 2016-2018. P3, the last remaining pond was decommissioned and backfilled in fall 2024 to serve as a laydown and storage pad.

As detailed in the Water Management Plan (WMP), the runoff water from P3 catchment is now captured in a ditch and directed toward a sump located within the pad footprint. The sump water-level is managed using an electrical submersible pump equipped with a floating switch or a water-level activation system. Surface contact water collected in P3 sump is managed as per the WMP to ensure the water level remains below the maximum design water elevation (66.8 m).

## 2.2 Portal 1 Sump 1 (LV50 SUMP)

LV50 is located 50 meters below grade (mbg) and is the first sump located down the Portal 1 ramp. Snowmelt and surface run-off that flows down the portal entrance is directed to sump LV50 where it is then pumped to CP5. The overall capacity for Portal 1 Sump 1 is 29 m³. Water pumped from Portal 1 Sump 1 to CP5 is measured with a volumetric flow meter and recorded daily.

## 2.3 Portal 2 Sump 1 (LV50 SUMP)

LV50 is located 50 meters below grade (mbg) and is the first sump located down the Portal 2 ramp. Snowmelt and surface runoff that flows to the portal entrance to sump LV50 is pumped from LV50 to Channel 7. The overall capacity for Portal 2 Sump 1 is 55 m<sup>3</sup>. Water pumped from Portal 2 Sump 1 to Channel 7 is measured with a volumetric flow meter and recorded daily.

## 2.4 Ore Pad 2

Ore Storage Pad 2 (OP2) and OP2 Stage 2 are located on either side of Channel 1 and are designed ore storage facilities. Freshet monitoring of OP2 and OP2 Stage 2 will include occurrences of seepage, and any observed seepages will be monitored for water quality.

## 2.5 Landfarm

The Type A Licence Landfarm is located adjacent and north of the OP2 and is designed to receive soils, rock, snow, and ice contaminated with petroleum hydrocarbons, as per the Landfarm Management Plan. This includes light hydrocarbons such as diesel and gasoline. It was assumed that an annual volume of 500 m³ of contaminated ice and snow would require management and the Landfarm has been designed to account for this volume. Additional details for Landfarm water management are described in the Landfarm Management Plan.



#### 2.6 Infrastructure Areas

Infrastructure Areas represent buildings, pads and towers installed at the Site and include the Industrial Pad, Exploration Camp, and Emulsion Plant (Figure 1).

#### 2.7 Water Collection Ponds

To date, there are six water collection ponds (CP1, CP2, CP3, CP4, CP5, and CP6) constructed as part of the water management infrastructure. CP9 will be commissioned following the construction of the Pump 01 open pit in Q2 of 2025, prior to 2025 freshet.

Engineered water containment dikes constructed in 2017 at lakes A54 and H17 were developed as D-CP5 and D-CP1, respectively. The dikes are designed to contain surface contact water within the footprint of the Site. Both CP1 and CP5 are used for Site surface contact water and snow and ice collection prior to Freshet. CP1 and CP5 are illustrated in Figure 1 and discussed in Section 3 of this plan.

CP3 and CP4 are collection ponds designed to collect runoff from the Tailings Storage Facility (TSF) area and Waste Rock Storage Facility 1 (WRSF1) area, respectively. CP3 construction was completed in Q4 of 2018 and CP4 construction was completed in Q2 2019. CP3 and CP4 design plans implement engineered thermal protection berms. Maximum operating levels within CP3 and CP4 are such that Berm-CP3 and Berm-CP4 will not be required to retain water (see Water Management Plan).

CP6 and CP2 are designed to collect runoff from Waste Rock Storage Facility 3 (WRSF3) where the water will then be pumped to CP1 for containment prior to treatment at the EWTP-WTC and discharge to the receiving environment (Meliadine Lake). CP2 and CP6 designs implement an engineered thermal protection berm. Maximum operating level within the collection ponds is such that thermal berms will not be required to retain water (further details on these Pond can be found in the Water Management Plan).

CP9 is designed to collect runoff from the Pump area (including Pump 01, Pump 02, Pump 04 Open Pits and WRSF6). Channel 11, Berm 4 and Thermal Berm CP9 are planned to be built in Q1-Q2 2025 to collect and divert runoff water from the WRSF6 catchment area to CP9, to prevent contact water from flowing into the receiving environment, and to limit seepage from Lake B4 to CP9. CP9 will be constructed using the mined-out Pump 01 open pit for water storage. CP9 is designed to store water prior to it being pumped to CP1 and subsequently treated at the EWTP-WTC and discharged to the receiving environment (Meliadine Lake). Maximum operating level in CP9 will be determined so that thermal berms will not be required to retain water.



February 2025 5

## 2.8 Tailings Storage Facility

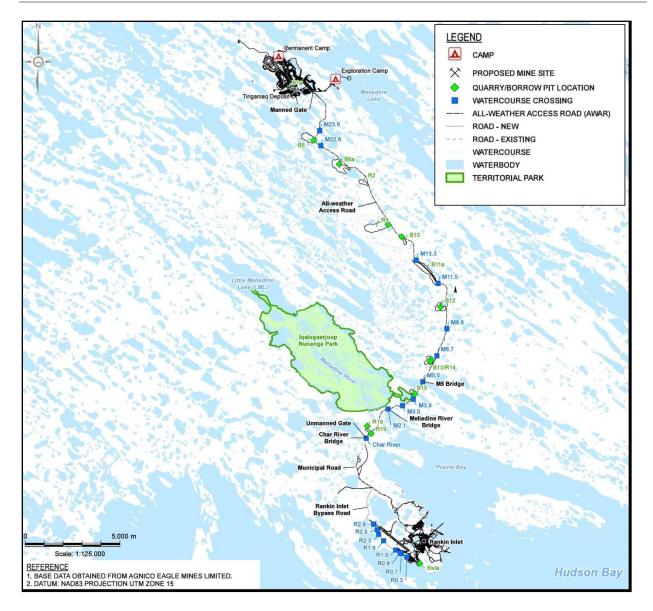
The Tailings Storage Facility (TSF) is a dry stack tailings storage facility. The TSF dry stack is located west of the Industrial Pad as shown in Figure 1. The facility stores compacted tailings that are transported from the process plant by haul truck. The tailings are spread and compacted in the facility. The tailings are deposited within a rockfill berm that is continuously heightened to progressively cover the placed tailings. Culvert 1 is in place to allow passage of water through the TSF haul road and towards CP1 catchment.

## 2.9 All Weather Access Road (AWAR)

The All-Weather Access Road (AWAR) was built in 2013 to connect the Site to the hamlet of Rankin Inlet. The road is approximately 23.8 km long with twenty-two water crossings; three bridge crossings and nineteen culverts installed (Figure 2).



February 2025 6



**Figure 2:** AWAR Map Showing Water Crossing Locations

## 2.10 Bypass Road

The Bypass Road is a 5.9 km access road that provides a means to divert site-related traffic around the community of Rankin Inlet. The Bypass Road spans from the northwest margin of Itivia to km 2.9 on the AWAR (Figure 3) and has 19 culverts installed at 13 locations along the road.





Figure 3: Bypass Road and Culvert Location

#### 2.11 Itivia

Itivia is located in Rankin Inlet and is accessed by the Site from the AWAR and Bypass Road. In combination with the Bypass Road, Itivia is intended to support the Site as a staging point for incoming and outgoing fuel and material handling for barge shipments. Itivia is also the location of the final discharge point for saline effluent generated by the mine. The location of Itivia is shown on Figure 3 and the plan view of the Itivia Site is presented as Figure 5. A culvert is installed to divert upstream runoff around the Itivia Site and to allow passage of runoff from the Itivia laydown area (Figure 5).

#### 2.12 Dewatered Lakes and Ponds

Numerous lakes and ponds are planned to be dewatered to allow the development of the mine plan components. The Water Management Plan details the planned dewatering activities.

Most of the waterbodies planned for dewatering in the mine plan will become part of the water management infrastructure as future water collection ponds. Water collected by these facilities will be stored and subsequently pumped to CP1 for treatment at the WTC and discharged to Meliadine Lake or through the Waterline to Itivia Harbour, per the Adaptive Management Plan (Agnico Eagle, 2024).

Table 1 below details the waterbodies planned to be dewatered that will become part of the water management system.



February 2025 8

Table 1 Waterbodies to be dewatered that will become part of the water management system

Waterbodi es	Maximum Water Depth (m)	Average Water Depth (m)	Existing Water Surface Area (m²)	Dewatering Schedule	Total Volume (m³)	Proportion of Waterbody to be Dewatered (%)	Planned infrastruct ures
A52*	8.8	1.8	68,430	2026	124,774	100%	CP7
A6	4.4	1.5	537,847	2026	780,527	100%	D-A6
							D-A8 North
A8	4.1	1.6	885,245	2025	1,239,371	100%	and South
							Dewatered
B34*	4.7	0.6	38,844	2027	21,773	20%	Lake
B4	2.3	0.9	844,131	2027	263,900	100%	CP8
							D-B5 North
B5	3.4	1.5	553,802	2027	473,085	100%	and South
В7	5.1	1.5	563,478	2026	666,073	100%	SP6
							Dewatered
J6*	1.8	0.4	15,675	2025	1,871	100%	Pond

<sup>\*</sup>No bathymetric data available. Waterbody volumes are estimated from an extrapolation of the surrounding waterbody topography (Messager et al., 2016)

In Q3 2024, dewatering of pond B36 and partial dewatering of ponds B37, B38, B60, B61 and B62 to CP1 took place to allow mining within the Pump area. Thermal Berm CP9, Berm 4 and Channel 11 are planned to be built in Q1-Q2 2025 to allow the collection of the runoff from the Pump area into the future CP9 collection pond that encompass the PUMP 01 pit footprint.



## SECTION 3 • FRESHET RISK MANAGEMENT

Managing the risks prior to Freshet is a primary objective at Site. Planning and preparing before Freshet alleviates some of the risk from excess water that may suddenly occur and helps to ensure compliance with applicable regulations.

This is managed by removing water (pumping) at collection pond areas prior to winter freeze (fall) to allow sufficient storage capacity from precipitation, snow and ice melt during freshet. For road water crossings, culverts, ditches, and select collection ponds, snow or ice removal after winter freeze and before Freshet (winter and spring) ensure these infrastructure function properly throughout Freshet.

Risk management practices for the Site areas during Freshet are described below. Section 4 describes snow management at Site.

#### 3.1 P-Area Risk Management

Following changes to the P3 design made in 2024 (i.e., the backfilling of a large portion of P3 and the construction of a new ditch and sump), the management practices during Freshet are as follows:

- Water that accumulates in the P3 sump is automatically pumped to CP5 by activation
  of an electric trigger-controlled pump, which will provide a freeboard greater than 0.5
  m below (66.8 m) the core elevation in the DP3-A berm (67.5 m) and the crest of the
  P3 laydown pad.
- Agnico Eagle will conduct weekly Freshet structural inspections of berm DP3 and note
  any observed seepage. Inspections will also include monitoring the base of SP3 for
  settling, slumping and cracking.
- Weekly water quality monitoring during Freshet and monthly during the open water season.

## 3.2 Portal 1 Sump 1 Risk Management

Until temperatures are consistently above freezing, flow from the Portal 1 LV50 sump will be pumped down ramp where it will be managed by the underground mine water management system. Once temperatures remain above freezing water will be pumped to CP5.

#### 3.3 Portal 2 Sump 1 Risk Management

Until temperatures are consistently above freezing flow from the Portal 2 LV50 sump will be pumped down ramp where it will be managed by the underground mine water management system. Once temperatures remain above freezing water will be pumped to surface and into Channel 7.



## 3.4 Landfarm Risk Management

An oil-water separator is installed at Landfarm A. The oil-water separator is used to treat both direct precipitation to the landfarm footprint and melt from snow containing hydrocarbons (i.e., snow on which spills occur) that is stored in the landfarm and contaminated snow cell over winter. Treated water is analyzed for benzene, toluene, ethylbenzene and xylene (BTEX), lead, and oil and grease prior to discharge to CP1 or used on the windrows to increase moisture content, as required. Hydrocarbons removed from water are stored and managed as hazmat.

A contaminated snow cell used to store snow containing hydrocarbons (i.e., snow on which spills occur) is located in the northwest corner of the laydown area south of OP2 Stage 2 (Figure 1). Upon snowmelt, water within the contaminated snow cell is transferred to the Landfarm for treatment at the oil-water separator.

If a suitable treatment cannot be completed, the water will be shipped south in totes or bladders for disposal in a certified disposal facility.

## 3.5 AWAR, Bypass Road and Site access roads Risk Management

The following management practices are maintained to ensure the integrity of the AWAR, Bypass Road and site access roads before and during Freshet:

- Large culverts will be heated/steamed as necessary to allow the free flow of Freshet water.
- Prior to Freshet, water crossings and culverts will have snow removed from ice surface on the upstream and downstream sides of the crossing to allow free flow of water as necessary.
- Visual inspections of AWAR and Bypass Road will be undertaken as to the structural integrity of the abutments and road integrity.
- Weekly (minimum) written inspections throughout Freshet and daily during excessive rainfall response will be completed. The following aspects are monitored during visual inspections: total suspended solids (TSS) transport and signs of erosion, culvert/crossing function, flow intensity, and integrity of roads.

If erosion or ground surface scouring are observed, the E&I Department will be notified for repairs. TSS barriers, silt fences, straw logs or other sediment control methods will be implemented as required. Sediment and erosion monitoring and mitigation will be conducted in accordance with the most recent version of the Sediment and Erosion Management Plan.

## 3.6 Infrastructure Areas

Risk management practices for the main Infrastructure Areas at the Site during Freshet are described in the following sections.



February 2025

## 3.6.1 Camp Pads and Surroundings

Risk management practices are maintained at the Exploration Camp, Main Camp and surrounding camp areas as follows:

- Clearing off ice and debris from culverts prior to and during Freshet;
- Visual inspections to ensure flow through culverts and along channels is not impeded;
- Visual inspections for excessive water pooling. If pooled water is observed to flow into a water body outside of the Site's water management infrastructure, a water sample will be collected and monitored for relevant parameters (including TSS) per the Licence.
- Visual inspections for snowmelt runoff. If runoff is observed to flow into a water body outside of the Site's water management infrastructure, a water sample will be collected and monitored for relevant parameters (including TSS) per the Licence.
- TSS transport will also be monitored at the culvert beside the garage at Exploration Camp that flows towards Meliadine Lake. This area will be monitored for TSS, and preventative measures (install straw wattles and/or booms) will be installed to prevent deleterious substances from entering Meliadine Lake. Sediment and erosion monitoring and mitigation will be conducted in accordance with the Sediment and Erosion Management Plan.

#### 3.6.2 Industrial Pad and Access Road

Management practices for runoff produced on the Industrial Pad or Site Access Road within the Site's water management infrastructure may include regrading the road bed or other surfaces to reduce channelized flow and maintain road and pad integrity.

## 3.6 Water Collection Ponds

Risk management practices for the collection ponds include discharging/pumping the water prior to winter freeze to be treated and/or discharged as per the Licence and the Water Management Plan. Pumping operations prior to winter freeze will ensure the respect of the following criteria for Freshet risk management;

- Level in CP1 prior to winter freeze will be lowered enough to allow sufficient storage in CP1 to store the volume of surface contact water from the entire site for a 1:100 wet year spring Freshet;
- Level in CP5 prior to winter freeze will be lowered enough to allow sufficient storage
  in CP5 to store the volume of surface contact water from its catchment for 3:7 of a
  1:100 wet year spring Freshet;
- Level in CP2, CP3, CP4 and CP6 prior to winter freeze will be lowered enough to allow sufficient storage to store the volume of surface contact water from their respective catchments for 3:7 of a 1:100 wet year spring Freshet;



Level in CP9 prior to winter freeze will be lowered enough to allow sufficient storage in CP9 to store the volume of surface contact water from its catchment for a 1:100 wet year spring Freshet inspections of collection ponds and associated water management structures or thermal protection berms will be conducted per Part E Item 18 of the Licence and the Water Management Plan.

#### 3.7 Itivia

The following management practices are maintained to ensure the integrity of Itivia and the Bypass Road:

- The culvert installed between the Itivia laydown and the existing laydown areas (Figure 5) will be cleared of snow and ice prior to Freshet
- Snow will be padded to facilitate a slower melt as per the Snow Management Procedure

## 3.8 Tailings Storage Facility

The following management practices are maintained to ensure the integrity of the Tailings Storage Facility (TSF) and its associated structures:

- Culvert 1 (access road to TSF) will be cleared of snow and ice as applicable prior to Freshet;
- Snow that has accumulated on the TSF deposition surface will be removed prior to Freshet to reduce snowmelt runoff and pooling (Section 4);
- Daily visual inspections for ponding and areas of elevated sediment transport during Freshet;
- Weekly inspections carried out to identify areas of concern including issues of seepage, cracking, and ponding on the TSF and associated structures.

#### 3.9 Dewatered Lakes and Ponds

Freshet risk management for dewatered lakes and ponds is similar to the site water collection ponds risk management. Other key risk management measures for dewatered lakes and ponds are noted below:

 Water accumulated in dewatered lakes and ponds will be pumped down prior to winter freeze-up to ensure they have sufficient capacity for the storage of the following year's Freshet runoff. Water will be directed to CP1 and treated at the EWTP-WTC for TSS prior to discharge to the receiving environment. Similar to the collection ponds, only TSS treatment is expected to be required for water accumulated in dewatered lakes. Dewatered waterbodies that will require management (pumping) are identified in the Water Management Plan.



- Draw-down targets will be determined for each waterbody and will either allow for partial (3/7 days) or full (7/7 days) storage for the runoff volume from a 1:100 wet year, 7-day spring Freshet from each waterbody's catchment area. The requirement for partial storage follows a similar design philosophy of CP2, CP3, CP4, and CP6 whereby, following 3 days of storage, water is actively pumped to a downstream collection pond for the remaining 4 days of a 7-day Freshet. The requirement for full storage follows a similar design philosophy of CP1 whereby the facility is able to store the entirety of the runoff from the lake's catchment area. Detailed information regarding the storage capacities of these facilities will be provided following the detailed design of each facility;
- Dewatered lakes and ponds that will need to be managed will also be added to the water management structure inspections as per Part E Item 18 of the Licence and as per the Water Management Plan;
- Freshet runoff within the former drainage area of dewatered pond B36 will be collected in CP9, formed by the Pump 01 open pit. Overflow from ponds B37 and pond B38 are also naturally directed toward CP9. CP9 Freshet risk management is detailed in the water collection ponds section (3.6).
- Dewatered ponds B60, B61, and B62 naturally flow towards lake B59. These ponds are not currently expected to be impacted by mine development in the area. As such, freshet overflow from these ponds will then follow their natural paths toward lake B59.

## 3.10 Temporary Water Management Structures

Based on anticipated areas of ponding and/or impediment to flow on Site, or in reaction to unexpected ponding and/or impediment to flow on Site, temporary water management structures may be implemented to protect infrastructure by encouraging water movement through the water management system. Temporary water management structures will be constructed as needed and decommissioned when the event invoking the requirement (i.e., ponding) comes to an end. Such structures will be built in a way that they maintain the overall flow direction of waters on site and do not affect the discharge to the receiving environment. No temporary measures would be placed outside the project footprint, nor alter the way water enters into the receiving environment. Temporary water management structures may include:

- Trenching in snow and/or ice;
- Excavation into ice to allow the immediate installation of pumps, avoiding the necessity to wait for ice to thaw; or



• Trenching/spillways across roads on Site or on the AWAR at areas of ponding where pumping rates are unable to match accumulation rates.

## **SECTION 4 • SNOW MANAGEMENT**

Proper snow management during the winter is a key component of the Freshet Management Plan since it contributes to risk mitigation from excess water during Freshet and prevents possible environmental impacts. A Snow Management Procedure was developed to efficiently manage snow at the Site.

Snow that is removed from the Main Camp, Industrial Pad, Ore Pad, 6 Million Liters Fuel Farm, Portal 2 Pad, and Crusher Pad will be transported to a snow dump located at the north margin of CP1. Snow removed from the Tailing Storage Facility (TSF) will be transported to either the northeast side of the TSF or to the northwest side, just north of CP3. Snow removed from the Paste Plant, Batch Plant, and surrounding laydowns will be transported immediately north of the Batch Plant and maintained as a level snow pad. Snow removed from the 3 Million Liters Fuel Farm, Portal 1 Pad, Vent Raise, SWTP/SETP Pad, and associated laydowns will be transported north of the warehouse laydown pad, west of the main access road to the industrial pad (Lake H8 snow pad) and maintained as a level snow pad. Snow from Tiriganiaq Open Pit 1 will be transported to CP4 watershed and maintained as a snow pad east of the Pump 01 pit. Clean snow from snow removal along the road to Pump area will be pushed and padded on the western side of the road.

Snow removed from roadways must be blown or maintained as a snow pad next to the road. Snow removal outside of the designated zones is maintained as a clean, level snow pad.

Figure 4 illustrates the locations for snow collection during the winter and prior to Freshet.

Figure 5 illustrates the snow management within the Pump area for existing conditions.

Figure 6 illustrates the snow management and storage areas for Itivia.



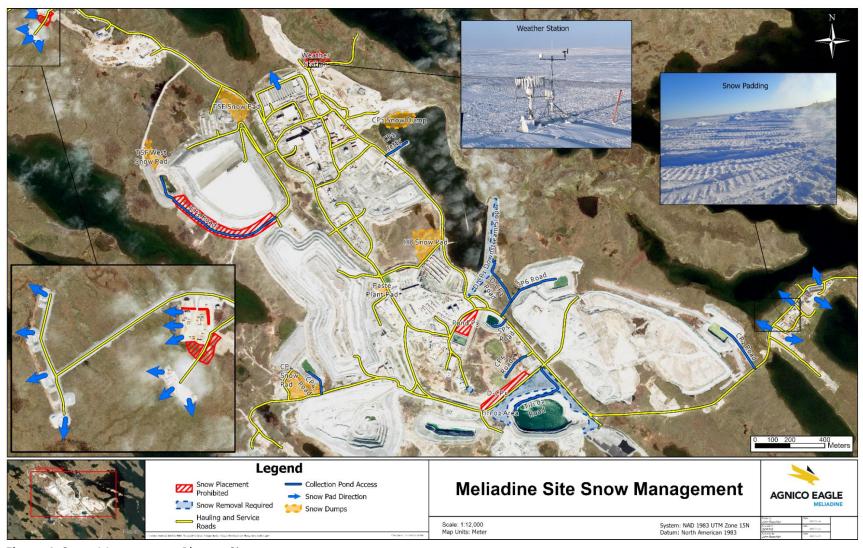


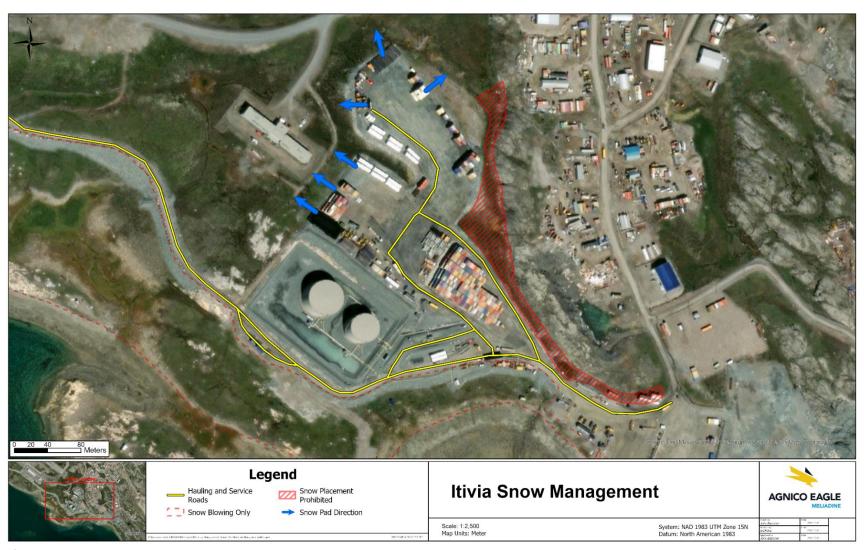
Figure 4: Snow Management Plan on Site.





**Figure 5:** Pump Area Snow Management for Existing Conditions





**Figure 6:** Itivia Snow Management Areas



# **REFERENCES**

- Agnico Eagle. 2022. Meliadine Gold Project: Landfarm Management Plan. Version 4. April 2022. 6513-MPS-15.
- Agnico Eagle, 2024. Adaptive Management Plan for Water Management. Version 2B. August 2024.
- Tetra Tech. 2019. Construction summary (as-built) report for Rankin Inlet Itivia site fuel storage and containment facility Meliadine project, Nunavut. Amendment#01 to 6515-E-132-005-132-REP-015. September 2019.

