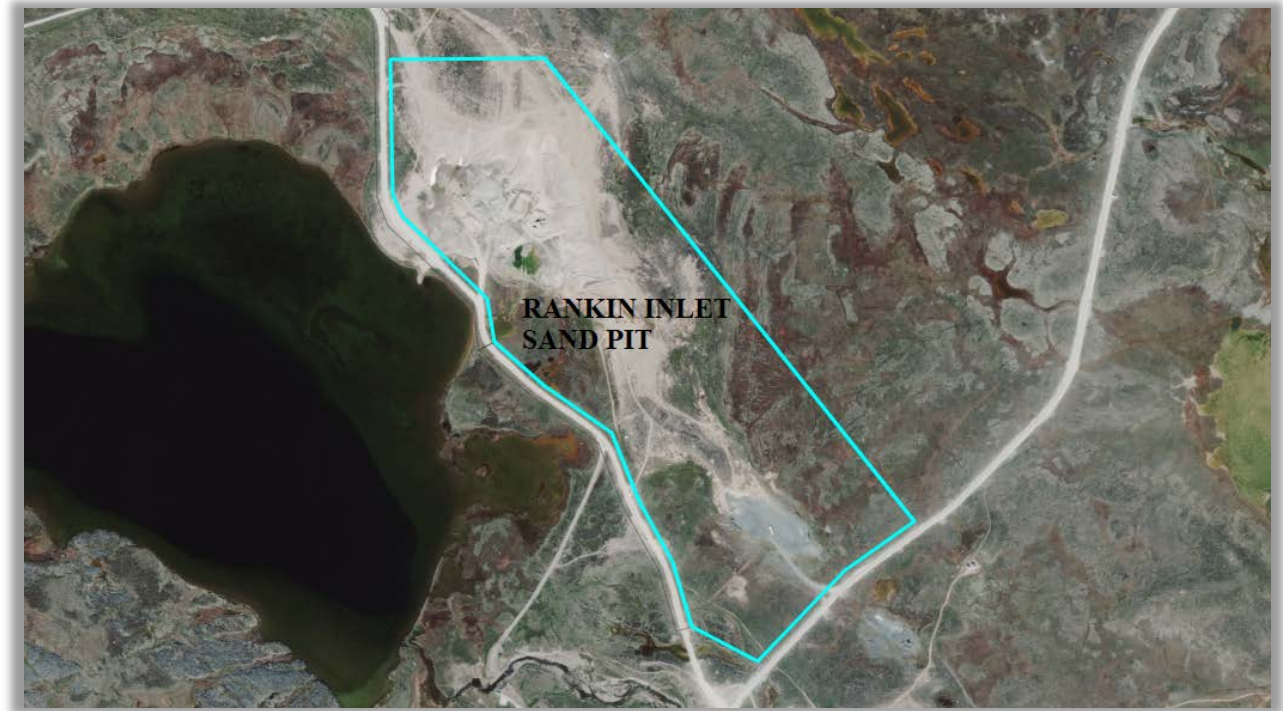


DUST MANAGEMENT PLAN

Rankin Inlet Sand Pit

Lot 968 plan 4742



Prepared for:
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SUMMARY

This document is a Dust Management Plan (DMP) prepared for the proposed Rankin Inlet Sand Pit, located on lot 968 plan 4742 in Rankin Inlet, Nunavut. This plan was produced at the request of the Nunavut Impact Review Board (NIRB) to minimize dust emissions and identify potential sources of dust emissions generated from the quarry operations. Furthermore, the DMP details procedures and practices that will be implemented to reduce the release of atmospheric dust.

INTRODUCTION

The primary air emission associated with quarry operations is particulate matter released in the form of dust. Sources of dust can include traffic from on-site movement of mobile equipment, aggregate extraction and hauling, and natural release from exposed stockpiles and rock faces.

To limit dust emissions, the Hamlet, or contractors who obtain a quarry permit from the Hamlet, will take all reasonable measures to minimize dust emission using techniques outlined in this DMP.

The objectives of this DMP are to:

- Provide an overview of the operations at the sand pit and identify potential sources of dust.
- Discuss dust control measures.
- Outline maintenance, complaint, and inspection procedures.

Once implemented, the DMP will serve to minimize all dust emissions from quarry operations thereby reducing risks to human health and the potential for offsite nuisance.

OVERVIEW OF QUARRY OPERATIONS

The sand pit will primarily produce sand and other fine aggregate material used for a wide range of construction and maintenance purposes. Quarried product is a primary component of construction materials used in municipal road maintenance or landscaping. The Hamlet does not have specified operating times for quarries. Operations including loading, hauling, and excavating may occur late in the evenings, but usually cease at approximately 9:00 PM. This allows for maximum extraction during the limited season. Use and frequency of the sand pit is sporadic because the demand of sand and other fine aggregate depends on the maintenance and construction schedule for that particular year. When in use, activities will include:

Aggregate Extraction

The sand pit is composed of high-elevation natural sand eskers approximately 15 metres in height from the base of the quarry. A Track Excavator will be used to dig through these eskers. The Excavator will then stockpile sand in a designated area within the quarry.

Aggregate Processing

The natural sand eskers contain minimal amounts of undesirable aggregate and boulders. Use of a Screener will be infrequent.

Aggregate hauling and access road

A CAT loader will load sand into a dump truck. These dump trucks will then transport the sand to its desired location, usually for use within the community of Rankin Inlet. The haul distance from the sand pit to Rankin Inlet is an estimated 7.3 kilometres using an existing road. A portion of that road that stretches from Rankin Inlet to the Agnico Eagle “By-pass road” is maintained by the Hamlet. The portion from the By-Pass road to Char River Bridge is maintained by Agnico Eagle. The rest of the portion from Char River Bridge to the Sand Pit is maintained by the Hamlet. An image of these portions of road are shown in FIGURE 1.

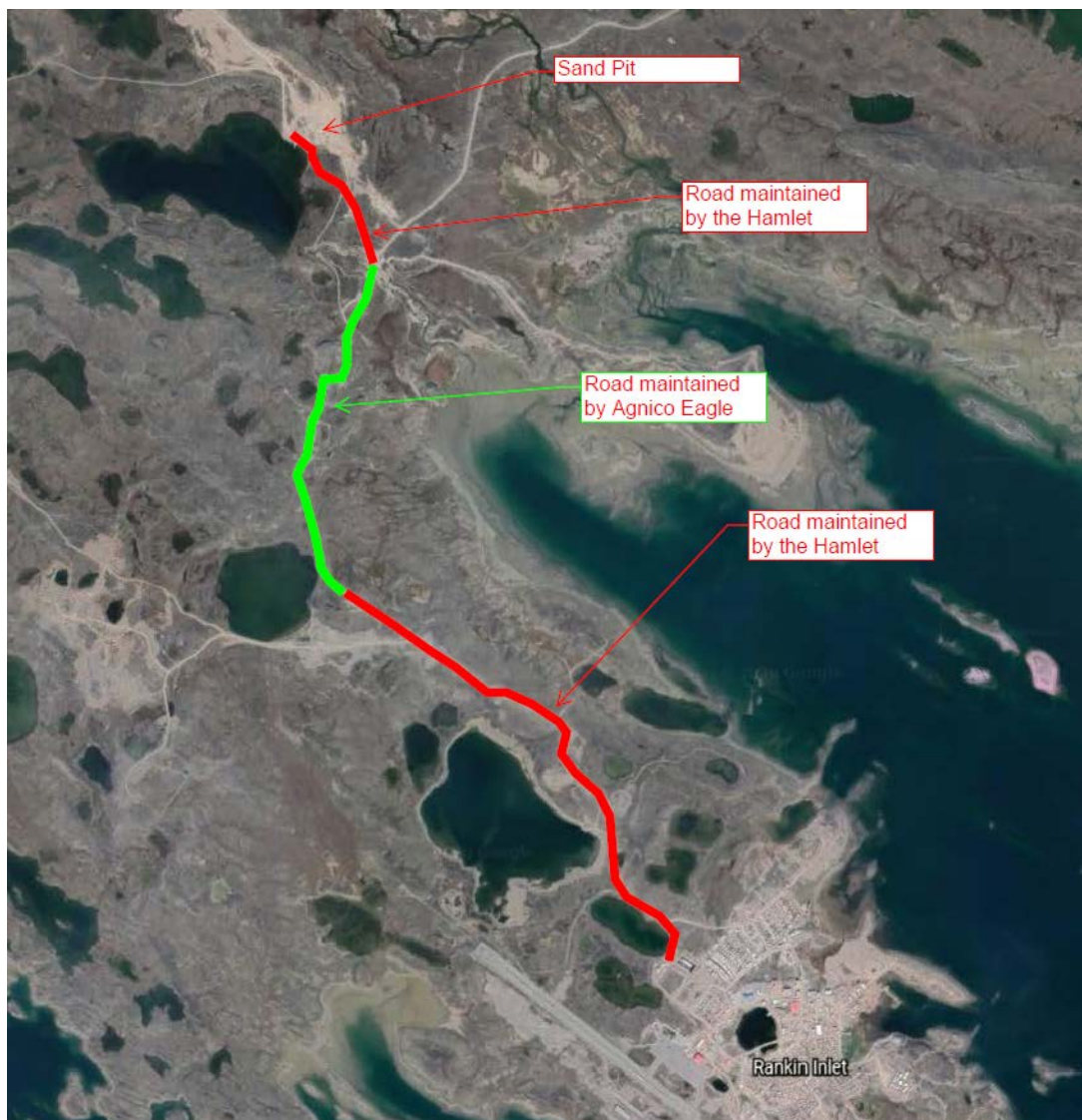


FIGURE 1: showing the portions of road to the Sand Pit that is maintained by either the Hamlet or Agnico Eagle

DUST EMISSIONS SOURCES

The potential sources of dust emissions from the Sand Pit include:

- Wind erosion of exposed stockpiles and faces.
- Release of dust from excavation.
- Mobile equipment traffic and operation.
- Vehicle traffic along the road to the Sand Pit.

DUST CONTROL MEASURES

- Agnico Eagle will maintain their portion of the access road shown in FIGURE 1 using their own Dust Management Plan
- The Hamlet will grade their portion of road seasonally and spray water on the roads at least once a week. An estimated 32,000 litres will be used each spray.
- Stockpiles of sand will observe a maximum 5 metre height to reduce dust generated by wind.
- Haul routes will be re-graded seasonally by the Hamlet or Agnico Eagle, to ensure that loose, fine materials on the haul route surface are kept to a minimum.
- Mobile equipment speed limit will be set at 40 km/hr to reduce trailing dust clouds. Enforcement will be done by occasional site inspections by the Hamlet and using quarry permit conditions.
- Excavation and dump truck loading will be suspended if wind speed exceed 60 km/hr.
- The highest point of loaded aggregate shall not exceed the dump truck tray wall unless covered.
- Aggregate stockpiles will be located on the quarry floor near the extraction face or in the designated stockpile area.

IMPLEMENTATION

All control measures are to be in place prior to extraction. Control measures shall remain in place so long as the sand pit remains in operation.

The following outlines how this DMP will be implemented:

- A copy of this DMP shall be kept at the Hamlet office for public viewing.
- Each quarry permit issued by the Hamlet will require the contractor to adhere to this DMP.
- The Hamlet staff will follow the DMP procedures.

INSPECTION, MAINTENANCE AND COMPLAINTS

Hamlet staff will adhere to the DMP guidelines during extraction, but due to limited personnel and technical capacity; supervision, and inspection of private contractors, may occur less frequently.

Members of the public who have complaints regarding dust emissions can contact the Hamlet's Planning and Lands Administrator (PLA) by phone at (867) 645-2895 or by email at lands@RankinInlet.ca

Once the Hamlet receives a complaint, the Hamlet, within a reasonable timeframe, investigate the nature of the complaint. Remedy will depend on nature of the complaint and observance of the DMP. The Hamlet shall take steps to ensure the Hamlet operator or contractor comply and are aware of the DMP to avoid repeat infractions.

CONCLUSION

Sand pit excavators will implement and fully abide by the DMP to control on-site dust emissions, Record keeping, inspections, and oversight will ensure an effective dust mitigation throughout the lifespan and operation of the sand pit.