Environmental Management Plan – Slope Stabilization Project

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1 Introduction

Saint John Mail Processing Plant

Primary mail processing operation in New Brunswick

MPP constructed in the late 1960s – early 1970s

Former location of sawmill, lumber yard and creosote wood treatment facility

Contamination from historical use

Timber crib retaining wall located on the bank of Marsh Creek
2 Background

Creosote contamination identified in 1996
2 Background

Creosote contamination found in 1996

Waterloo Barrier sheet pile cutoff wall installed in 1998-1999

Groundwater monitoring and recovery ongoing
2 Background

Creosote contamination found in 1996

Waterloo Barrier sheet pile cutoff wall installed in 1998-1999

Groundwater monitoring and recovery ongoing

Local failure in 2013

Slope stabilization project initiated in 2013-2014
3 Strategies

Environmental Management Plan

Management Goals

- Maintain continuity in mail operations
- Maintain Waterloo Barrier
- Mitigate risks

Management Strategies

- Design
- Construction
3 Strategies

Design

- Establish construction zone and controls
- Maintain function & access to Waterloo Barrier
3 Strategies

Design

- Promote drainage
- Minimize surface water interactions
3 Strategies

Construction - Waste Management Plan

- Waste streams
- Soil sampling and testing program
- Waste classifications
- ~ 9300 MT
3 Strategies

Environmental Protection Plan - Procedures

- Erosion and siltation controls
- Equipment decontamination
- Creosote timbers and excavation management
- Vapour, dust and particulate management
- Dewatering and groundwater management
- Management of waste

Construction - Environmental Protection Plan

- Procedures
- Contingency Plans
- Monitoring Plans
3 Strategies

Environmental Protection Plan – Monitoring Plans

- Surface water
- Groundwater
- Air
- Noise

Air Monitoring Protocol
- Point surveys
- Sample collection

Construction - Environmental Protection Plan
• Procedures
• Contingency Plans
• Monitoring Plans
4 Implementation
4 Implementation
4 Implementation
4 Implementation
4 Implementation
4 Implementation
4 Implementation
5 Conclusions

Strategies

- **Design**
  - Establish construction zone & controls √
  - Maintain function & access to Waterloo Barrier √
  - Promote drainage √
  - Minimize surface water interactions √

- **Construction**
  - Waste management plan √
  - Environmental protection plan √

- **WMP → cost savings**

- **EPP → protection**

- **Monitoring → limited, if any impact**
Figure 3 - 8(a) TPE concentration (mg/kg) in soil to be removed
Figure 4 - Naphthalene concentration (mg/kg) in soil to be removed
Figure 5 - Total PAH concentration (mg/kg) in soil to be removed
Figure B-1  Total Suspended Solids
Graph 1 - Occupational Exposure Monitoring for Benzene

Occupational Exposure Monitoring for Benzene
(Point survey)

Start of baseline monitoring
End of baseline monitoring (start of intermediate, mobilization period)
End of int. mobil., period (start of construction monitoring)
End of construction monitoring (start of clean-up and demolition)
End of clean-up and mobilization (end of post-construction monitoring)

Concentration [ppm]

Date


Stantec
Graph 2 – Occupational Exposure Monitoring for TVOCs

Occupational Exposure Monitoring for TVOCs
(Point survey)

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Legend:
- **Solid line**: Action level (3 ppm)
- **Dashed line**: Maximum Baseline (1.7 ppm)
- **Markers**: Sampling locations and dates

**Graph Notes:**
- **Start of baseline monitoring**
- **End of baseline monitoring/start of intermediate mobilization period**
- **End of int. mobil. period/start of construction monitoring**
- **End of construction monitoring/start of site clean-up and decontamination**
- **End of site clean-up and decontamination/start of post-decontamination monitoring**
6 Extras

Graph 3: Occupational Exposure Monitoring for PM10

Occupational Exposure Monitoring for PM10

(Point survey)

- Start of baseline monitoring
- End of baseline monitoring
- Start of pre-construction period
- End of pre-construction period
- Start of construction period
- End of construction period
- Start of cleanup and deconstruction

Concentration [mg/m³]

Date

Stantec
6 Extras
6 Extras
6 Extras