

April 2, 2019

10-10786

Manitoba Sustainable Development
1007 Century Street
Winnipeg, Manitoba
R3H 0W4

Attention: Mr. Warren Rospad, Contaminated Sites Program Specialist

Dear Mr. Rospad:

Re: Risk Management Plan
Manitoba Infrastructure Maintenance Yard
NW ¼ 16-10-26-WPM
RM of Wallace
Provincial Road 257
Virden, Manitoba

The following Risk Management Plan (RMP) is presented on behalf of Manitoba Infrastructure (MI). The proposed plan includes the implementation of periodic risk management activities and reporting, as outlined below, for the above referenced property (the Site).

BACKGROUND

An environmental site assessment (ESA) was completed in 2018 by Parsons (report dated March 8, 2019). During the ESA a total of 14 boreholes (nine completed with monitoring wells) were advanced on-Site. Soil and groundwater samples were collected and submitted for analysis of a suite of salinity and petroleum hydrocarbon-related parameters. Concentrations above the applicable criteria were identified for salinity and petroleum hydrocarbon-related parameters in select soil and groundwater samples.



RISK MANAGEMENT PLAN (RMP)

The potential exposure risks are proposed to be managed through the following key actions:

- Semi-annual groundwater monitoring and sampling program for three years (conditions will be re-evaluated after three years).

1. MONITORING AND SAMPLING PROGRAM

A groundwater monitoring and sampling program, as described below, is proposed to be implemented to maintain an audit of groundwater conditions and to assess the potential migration of impacted groundwater. The following work would be implemented on a semi-annual basis for three years beginning in 2019:

- monitor all wells for water levels during the sampling event;
- collect groundwater samples from all monitoring wells for laboratory analysis of salinity and petroleum hydrocarbon-related parameters;
- maintain and repair monitoring wells, as required; and,
- compare the groundwater analytical results to the applicable criteria.

Monitoring and sampling frequency may be modified depending on findings such as permeability, distance to receptors, concentration trends and the presence or absence of applicable receptors over time; MI will notify Manitoba Sustainable Development (MSD) if changes to the RMP are proposed (see below).

2. REPORTING

Reports will be prepared and submitted to MSD upon completion of the work. A summary of monitoring and sampling results will be provided. Reporting and the development of additional risk management actions will be implemented if contaminants of concern are shown to pose a risk of impacting identified receptors. This may include additional Site work or modelling of contaminant travel time/fate and transport model results, etc. (see below).

3. FURTHER WORK

Additional work may be completed over time, such as, for example, additional groundwater monitoring and sampling events or increased sampling frequency, or the addition of investigation(s) for the purposes of evaluating the RMP strategy or replacing/repairing existing wells. After completion of such works, reports will be submitted to MSD. Proposed decreases to the groundwater monitoring and sampling frequency would be submitted for approval (as a revised RMP plan or addendum) and a remedial action plan (RAP) would be submitted for approval if active Site remediation (for example, the excavation of impacted soil and entrained groundwater or the installation of a contaminant recovery system) were to be implemented.

CLOSURE

This remediation plan report has been prepared and the work referred to in this report has been undertaken by Parsons Inc. (Parsons) for Manitoba Infrastructure (MI). It is intended for the sole and exclusive use of MI, its affiliated companies and partners and their respective insurers, agents, employees and advisors (collectively, "MI"). Any use, reliance on or decision made by any person other than MI based on this report is the sole responsibility of such other person. MI and Parsons make no representation or warranty to any other person with regard to this report and the work referred to in this report and they accept no duty of care to any other person or any liability or responsibility whatsoever for any losses, expenses, damages, fines, penalties or other harm that may be suffered or incurred by any other person as a result of the use of, reliance on, any decision made or any action taken based on this report or the work referred to in this report.

The investigations undertaken by Parsons with respect to this report and any conclusions or recommendations made in this report reflect Parsons' judgment based on the Site conditions observed at the time of the Site inspection on the date(s) set out or noted in this report and on information examined at the time of preparation of this report. This report has been prepared for specific application to this Site and it is based, in part, upon visual observation of the Site, subsurface investigation at discrete locations and depths, and specific analysis of specific chemical parameters and materials during a specific time interval, all as described in this report. Unless otherwise stated, the findings cannot be extended to previous or future Site conditions, portions of the Site which were unavailable for direct investigation, subsurface locations which were not investigated directly, or chemical parameters, materials or analysis which were not addressed. Substances other than those addressed by the investigation described in this report may exist within the Site, substances addressed by this investigation may exist in areas of the Site not investigated and concentrations of substances addressed which are different than those reported may exist in areas other than the locations from which samples were taken.

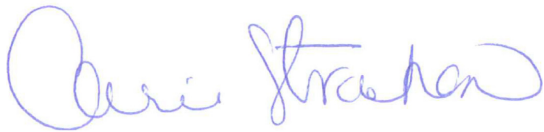
If Site conditions or applicable standards change or if any additional information becomes available at a future date, modifications to the findings, conclusions and recommendations in this report may be necessary.

Other than by MI, copying or distribution of this report or use of or reliance on the information contained herein, in whole or in part, is not permitted without the express written permission of Parsons. Nothing in this report is intended to constitute or provide a legal opinion.

We trust that this information is satisfactory for your present requirements. If you have any questions or concerns, please do not hesitate to contact the undersigned.

Respectfully submitted,

PARSONS INC.,



Carrie D. Strachan, B.Sc., C.E.T., A.Sc.T.



Gary S. Karp, P.Geo.

