Manitoba
Environment and Climate
Environmental Approvals Branch
14 Fultz Boulevard (Box 35)
Winnipeg MB R3Y 0L6
T 204 945-8321 F 204 945-5229
EABDirector@gov.mb.ca

Public Registry File Number: 6000.00
File Number: 11158

June 2, 2023

Lyn Brown
Interim Chief Administrative Officer
City of Flin Flon
20 – First Avenue
Flin Flon MB R8A 0T7
LBrown@FlinFlon.ca

Dear Lyn Brown:

Re: City of Flin Flon Landfill Permit No. 41137 P1

Please find enclosed Permit No. 41137 P1 in response to your proposal dated February 28, 2023. You wish to operate the Flin Flon Landfill on portions of SW 32 and NW 29-66-29 WPM within the City of Flin Flon.

The City of Flin Flon must follow all permit requirements and federal, provincial, and municipal regulations and by-laws.

Anyone affected by this decision may appeal, in writing, to the Minister of Environment and Climate at minec@leg.gov.mb.ca by July 4, 2023. The permit is available on the public registry at https://www.gov.mb.ca/sd/eal/registries/6000wmfpermits/index.html

For clauses 15 -22, the designated environment officer of the Environmental Approvals Branch is Edwin Yazon, who may be contacted at Edwin.Yazon@gov.mb.ca or 431-335-2554. If you have any questions about this approval, please contact Cristal Huculak, Regional Supervisor, Environmental Compliance and Enforcement Branch at EnvCENorth@gov.mb.ca or 204-620-5797.

Sincerely,

Original Signed By

Siobhan Burland Ross
Director
The Environment Act

Enclosure

c. James Reitlo
Edwin Yazon
Cristal Huculak

Waste Disposal Ground Operating Permit

Manitoba
Environment and Climate

File No. : 11158

Permit No.: 41137 P1
Issue Date: June 2, 2023

Following the Waste Management Facilities Regulation under The Environment Act, the City of Flin Flon is hereby permitted to run the Flin Flon Landfill (facility) on portions of SW 32 and NW 29-66-29 WPM within the City of Flin Flon, Manitoba. Schedule A of this permit identifies the facility.

This permit is subject to being amended, suspended, or revoked under sections 7 and 9 of the Waste Management Facilities Regulation.

General Terms and Operating Conditions

1. This permit expires on June 2, 2028.

2. The operator must maintain and operate the facility following the Waste Management Facilities Regulation and any future amendments, and this permit.

3. The operator must have legal control, by ownership or by rental, lease, or other agreement, of the lands on which the additional construction activities will take place.

4. The operator must obtain approval in writing from the director before altering the facility.

Materials Acceptance and Handling

5. The operator must not deposit or store waste on the west side of the existing property boundary towards Schist Lake as described in Schedule B of this permit.

6. The operator must keep the following waste within the footprint of the existing property boundary:
   a) household hazardous waste;
   b) waste oil;
   c) propane tanks;
   d) refrigerators;
   e) metals;
   f) glass; and
   g) other general debris.

   Schedule A of this permit also identifies the location of the waste.

7. The operator must segregate materials collected for recycling or reuse, and must temporarily stockpile these materials in clearly signed designated areas. The operator must maintain these areas to control weeds, vectors, and the quality of the materials.

8. The operator must remove the materials identified in clause 7 of this permit regularly or upon the request of an environment officer, within the timeframe specified.

9. The operator must dispose of asbestos or asbestos containing material following the most current version of Guideline for Asbestos Disposal at a Landfill.

10. The operator must keep a record, by Global Positioning System (GPS), of the locations, the amount of deposition, and burial depth of buried asbestos.

Hazardous Waste

11. The operator must collect and dispose of any hazardous waste following The Dangerous Goods Handling and Transportation Act, and other federal, provincial, and municipal regulations.

Placement and Cover

12. The operator may use material other than soil to cover the active area upon receiving written approval from the director or environment officer.

Surface Water Management

13. The operator must construct the facility such that all uncontaminated surface water flows to the perimeter ditch and impacted water from all material storage areas is contained within the facility boundaries.

Site Construction and Upgrading

14. The operator must have all waste disposal cells, modifications, or alterations designed by and construction overseen by an engineer.

15. The operator must, before beginning any construction at the facility, submit an electronic copy of final engineering design plans, sealed by an engineer, to the designated environment officer. The plans will show the engineering details of each new or altered component and the location of each new or altered component with respect to other components.

16. The operator must construct the facility following the design plans submitted to the designated environment officer following clause 15 of this permit and any terms and conditions set by the designated environment officer.

17. Notwithstanding clause 16 of this permit, construction must be subject to the following conditions:
    a) the operator must provide for testing of all clay liners and cut-off walls by a qualified consultant to confirm that compaction is 95% Standard Proctor Density on maximum lifts of 0.15 m (150 mm); and
    b) all active areas or leachate containment developed from or with clay must be constructed to achieve a hydraulic conductivity of not more than $1x10^{-7}$ cm/s with a minimum thickness of one metre perpendicular to the surface. If appropriate or sufficient clay is not available an alternative proposal must be submitted to the designated environment officer for written approval before construction.

18. The operator must, unless otherwise approved by the designated environment officer, arrange with the environment officer a mutually acceptable time and date for any required soil sampling between the 15th day of May and the 15th day of October of any year.

19. The operator must take and test undisturbed soil samples from the following:
    a) the clay of new waste disposal cell(s);
    b) leachate ponds; and
    c) any clay component of the facility requiring testing by the designated environment officer**.**

20. The number and location of samples and test methods will be specified by the designated environment officer up to a maximum of 20 samples per cell or clay component of the facility.

21. The operator must, before using any area tested following clause 19 of this permit, receive the approval of the designated environment officer for the results of the tests carried out following clause 19 of this permit.

22. The operator must:
    a) prepare record drawings of the facility and must label the drawings “record drawings”; and
    b) submit "record drawings" along with a construction report to the designated environment officer within 120 days of the completion of construction of the facility. The construction report must include the following:
        (i) the engineer’s inspection dates and notes;
        (ii) density measurements (for clay lined facility); and
        (iii) updated site plan showing the new cell, monitoring well installation logs, locations, and background water samples (if applicable).

Burning of Specified Waste

23. The operator must only burn:
    a) separated and readily combustible materials such as boughs, leaves, loose straw, paper products, cardboard, non-salvageable untreated wood, and packing materials derived from wood; and

b) only when there is an appropriate volume of materials as identified in clause 23 (a) of this permit.

Composting

24. The operator must not allow composting at the facility.

Monitoring and Reporting Requirements

25. The operator must collect, store, and analyze groundwater monitoring well samples using approved field and laboratory techniques for dissolved analysis. The analytical results must be retained in a format acceptable to the environment officer.

26. The operator must sample the groundwater monitoring wells for those parameters identified in Schedule C of this permit once per year, or at a frequency approved by the environment officer.

27. The operator must develop and maintain a surface water monitoring program that includes, but not limited to the following:
    a) sample points from the runoff control system at the facility;
    b) identification of potential sources of contamination, leaks, or spills at the facility;
    c) identification of any receiving surface water bodies at the boundary of the facility that could be impacted by release of surface water from the facility; and
    d) sample points in the receiving surface water bodies both upstream and downstream from the facility.

28. The licensee must sample the surface water body including Schist Lake for those parameters identified in Schedule D of this permit twice per year, or at a frequency approved by the environment officer.

29. The operator must submit an annual report, in a format acceptable to the environment officer, detailing the sampling methodology, field observations, and results of groundwater and surface water sampling analyses, complete with previous results and trends. The report must be submitted annually to an environment officer no later than December 31 of each year.

Revocation

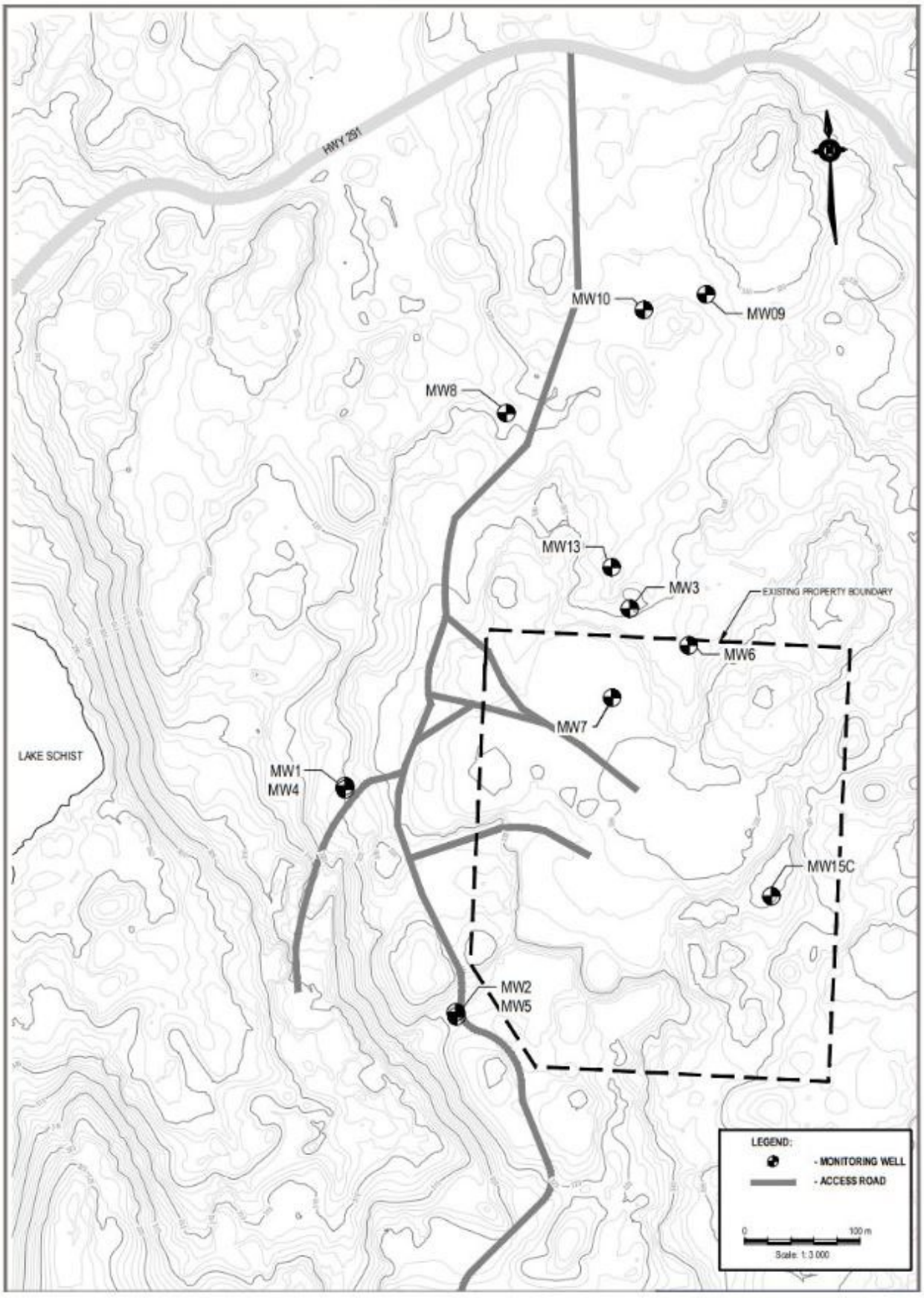
30. This permit replaces Permit No. 41137, which is expired.

Original Signed By

Siobhan Burland Ross
Director
The Environment Act

Schedule A to Permit No. 41137 P1
Facility layout following clause 6 of this permit

Schedule B to Permit No. 41137 P1
Facility layout boundary following clause 5 of this permit



Schedule C to Permit No. 41137 P1 following clause 26 of this permit
Groundwater Chemistry Parameters

Chemical Parameters		
Inorganics		
Alkalinity – Total		Magnesium – Dissolved
Ammonia – Total		Manganese – Dissolved
Arsenic – Total		Mercury – Dissolved
Barium – Dissolved		Nitrate - Reported as N
Boron – Dissolved		Nitrite - Reported as N
Cadmium – Dissolved		Total Kjeldahl Nitrogen – Reported as N
Calcium – Dissolved		Total Phosphorous
Calcium Carbonate		Potassium – Dissolved
Chloride		Silicon – Dissolved
Chromium – Dissolved		Sodium – Dissolved
Conductivity		Total Dissolved Solids (TDS)
Copper – Dissolved		Sulphate
Iron – Dissolved		Uranium – Dissolved
Lead – Dissolved		Zinc – Dissolved
Volatile Organic Compounds (VOC's)		
BTEX		
Other Organics		
Biological Oxygen Demand (BOD)		Chemical Oxygen Demand (COD)
Dissolved Organic Carbon (DOC)		
Field Parameters		
pH		Groundwater Elevation
Conductivity		Dissolved Oxygen
Temperature		

Note: The director may revise this schedule. All dissolved samples should be filtered in the field and preserved in the field at time of sampling. The operator must notify the director and the laboratory for dissolved samples not filtered and preserved in the field.

Schedule D to Permit No. 41137 P1 following clause 28 of this permit

Surface Water Parameters

Alkalinity (as $CaCO_3$) - Total
Aluminum (Al) - Dissolved
Ammonia (as N) - Total
Antimony (Sb) - Dissolved
Arsenic (As) - Total
Barium (Ba) - Dissolved
Benzene - Total
Beryllium (Be) - Dissolved
Bicarbonate (HCO_3) - Total
Biochemical Oxygen Demand (BOD)
Bismuth (Bi) - Dissolved
Boron (B) - Dissolved
Cadmium (Cd) - Dissolved
Calcium (Ca) - Dissolved
Carbon - Total
Carbonate (CO_3) - Total
Cesium (Cs) - Dissolved
Chloride (Cl) - Dissolved
Chromium (Cr) - Dissolved
Cobalt (Co) - Dissolved
Colour, True
Conductivity
Copper (Cu) - Dissolved
Cyanide (free) - Total
Dissolved Solids - Total
Ethylbenzene - Total
Fluoride - Dissolved
Hardness (as $CaCO_3$) - Total
Inorganic Carbon - Total
Iron (Fe) - Dissolved
Kjeldahl Nitrogen - Total
Lead (Pb) - Dissolved
Lithium (Li) - Dissolved
Magnesium (Mg) - Dissolved
Manganese (Mn) - Dissolved
Mercury (Hg) - Dissolved
Molybdenum (Mo) - Dissolved
Nickel (Ni) - Dissolved
Nitrate (as N) - Total
Nitrite (as N) - Total
Nitrogen - Total

Odour
Organic Carbon - Dissolved
Oxygen - Dissolved
PHC - F1 (C6-10)
PHC - F2 (C10-16)
PHC - F3 (C16-34)
PHC - F4 (C34-50)
pH
Phosphorus - Dissolved
Phosphorus - Total
Potassium (K) - Dissolved
Rubidium (Rb) - Dissolved
Selenium (Se) - Dissolved
Silicon (Si) - Dissolved
Silver (Ag) - Dissolved
Sodium (Na) - Dissolved
Strontium (Sr) - Dissolved
Sulfate (SO_4)- Dissolved
Suspended Solids - Total
Tellurium (Te) - Dissolved
Temperature
Thallium (Tl) - Dissolved
Thorium (Th) - Dissolved
Tin (Sn) - Dissolved
Titanium (Ti) - Dissolved
Toluene - Total
Total Hydrocarbons (C6-C50)
Tungsten (W) - Dissolved
Turbidity
Uranium (U) - Dissolved
Vanadium (V) - Dissolved
Xylene - Total
Zinc (Zn) - Dissolved
Zirconium (Zr) - Dissolved

Note: The director may revise this schedule. Dissolved samples should be filtered in the field and preserved in the field at the time of sampling. The licensee must notify the director and the laboratory for dissolved samples not filtered and preserved in the field.