

NUTRIENT MANAGEMENT REGULATION

Nutrient Management Plan – Municipal Wastewater Sludge or Biosolids

Manitoba



Operations in Manitoba applying nutrients such as municipal wastewater sludge or biosolids may be required to register a Nutrient Management Plan to Manitoba Agriculture and Resource Development. The plan must be submitted by July 10th for fertilization programs beginning in the fall, or by February 10th for fertilization programs beginning in the spring.

Section A – Operation Information

Name of Operation _____

Mailing Address _____
_____ Postal Code _____

Legal Land Description _____
Qtr. Sec. Twp. Rge. E/WPM; River Lot/Parish
_____ Latitude: _____ Longitude: _____
Rural Municipality _____ GPS Coordinates in Decimal Degrees (if available)

Name of Contact _____

Contact Numbers

Business	Residence	Cellular	Facsimile
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Email Address _____

Owner (legal name) _____ Corp. File # if applicable

Mailing Address _____
_____ Postal Code _____

Contact Numbers

Business	Residence	Cellular	Facsimile
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Email Address _____

Affiliate (legal name) _____

Did your operation exist prior to November 8, 2006? Yes No

If this Nutrient Management Plan is a requirement of a Director's Order or an Environment Officer Order, please indicate Order number: _____

FOR DEPARTMENT USE ONLY

Received by: _____ Date Received: _____

Follow-up required Yes No

Nature of follow-up _____

Proprietary (confidential) information will be protected in accordance with Manitoba law. Personal information is collected under the authority of The Water Protection Act, the Nutrient Management Regulation, and will be used to issue receipts, for surveys, administration and enforcement purposes. Information collected is protected by the privacy provisions of The Freedom of Information and Protection of Privacy Act. If you have any questions, contact the FIPPA Analyst, Agriculture and Resource Development, 360-1395 Ellice Avenue, Winnipeg, Manitoba, Canada, R3G 3P2, (204)945-4823.

Please complete this form (all sections) and forward to: Water Quality Management Section, Manitoba Agriculture and Resource Development, 200 Saulteaux Cr (box 14), Winnipeg MB, R3J 3W3; Fax: (204) 948-2357 Email: nmr@gov.mb.ca Questions, call: (204) 914-1701

Section B – Fertilizer and Wastewater Sludge or Biosolids Storage Facilities

Are nutrients such as fertilizers or wastewater sludge or biosolids being stored for a period beyond a single cropping season?

Yes

No

Section C – Volume to be Land Applied

Volume of municipal wastewater sludge or biosolids to be land applied (include units)

Section D – Nutrient Buffer Zones

SECTION 3(3) OF THE NUTRIENT MANAGEMENT REGULATION UNDER *THE WATER PROTECTION ACT* STATES THAT 'THE NUTRIENT BUFFER ZONE' CONSISTS OF THE FOLLOWING:

Water Body	Setback if applicable area IS covered with permanent vegetation	Setback if applicable area IS NOT covered with permanent vegetation
<ul style="list-style-type: none"> • a roadside ditch or an Order 1 or 2 drain[†] 	No direct application to ditches and Order 1 and 2 drains	
<ul style="list-style-type: none"> • a groundwater feature 	15 m (49 feet)	20 m (66 feet)
<ul style="list-style-type: none"> • a wetland, bog, marsh or swamp other than a major wetland, bog, marsh or swamp[‡] 	Distance between the water's edge and the high water mark	
<ul style="list-style-type: none"> • a lake or reservoir designated as vulnerable** 	30 m (98 feet)	35 m (115 feet)
<ul style="list-style-type: none"> • a lake or reservoir (not including a constructed stormwater retention pond) not designated as vulnerable** • a river, creek or stream designated as vulnerable** 	15 m (49 feet)	20 m (66 feet)
<ul style="list-style-type: none"> • a river, creek or stream not designated as vulnerable** • an Order 3 or higher drain[†] • a major wetland, bog, marsh or swamp[‡] • a constructed stormwater retention pond 	3 m (10 feet)	8 m (26 feet)

ARE THE ABOVE SETBACKS BEING ADHERED TO?

Yes

No

* The Nutrient Buffer Zone is measured out from the water body's high water mark or the top of the outermost bank on that side of the water body, whichever is further from the water.

† Designated on a Government of Manitoba plan that shows the designation of drains.

‡ As defined in section 1(2) in the Nutrient Management Regulation under the *Water Protection Act*.

"For the purposes of this regulation, a wetland, bog, marsh or swamp is major if

- (a) it has an area greater than 2 ha (4.94 acres)
- (b) it is connected to one or more downstream water bodies or groundwater features; and
- (c) it contains standing water or saturated soils for periods of time sufficient to support the development of hydrophytic vegetation."

** Designated as vulnerable if listed in the Schedule in the Nutrient Management Regulation under *The Water Protection Act*.

Drain order maps may be accessed in Google Earth (kmz) format via the MLI website under "Soil Classification" - "SoilAID" or as shapefiles under "Hydrography" at the following link: <https://mli2.gov.mb.ca/> (Registration for the site is required but it is free). PDF maps can be accessed at: https://www.gov.mb.ca/sd/waste_management/livestock_program/livestockmap.html.

Individuals who are unable to access the maps online and wishing a copy of a drain order map, may call 204-801-8368.

Section E – Field Information

Legal Land Description										
GPS Coordinates (4 corners of the field) Coordinates in decimal degrees (if available)										
Field Size (provide units)										
Agriculture capability* (CLI class and limitation (subclass))										
Nitrate-N (include units) 0-24" (60 cm) depth (Include soil test report)										
Olsen P (include units) 0-6" (15 cm) depth (Include soil test report)										
Date(s) of Anticipated Nutrient Application(s)										
Irrigated (Indicate by entering 'Yes' or 'No')										

List the agriculture capability class and subclass as determined by published Manitoba Soil Survey report or electronic data in both Google Earth format (kmz) and as shapefiles (for GIS software) distributed by the Manitoba Land Initiative at: <http://mli2.gov.mb.ca> Photocopy additional pages as required.

Section F – Certification of Nutrient Management Plan

Note: The plan must be certified or it is VOID. Mark the appropriate box.

I certify that the information contained in this plan is true and that no relevant information has been withheld.

Date _____ Signature of Operator _____

Crop year referenced under Nutrient Management Plan (specify year): _____

Plan Prepared by: Operator Other

If other than operator:

I certify that the information contained in this plan is true and that no relevant information has been withheld.

Date _____ Signature of person preparing plan on behalf of operator _____

Address and phone number of person preparing plan: _____

Manitoba Institute of Agrologists #¹/Certified Crop Adviser # _____

¹if exempt from registration to Manitoba Institute of Agrologists as per Section 23 of M.R. 62/2008 enter 0000.

**To report environmental emergencies call toll free
1-855-944-4888 (24 hours)**

Appendix - Nutrient Budget (Imperial Units)

To be completed for all fields that: (A) exceed 60 ppm soil test phosphorus and you cannot meet the phosphorus application rates listed in section 8(2) of the Nutrient Management Regulation OR (B) nitrogen will be applied to any field that exceeds the soil nitrate-nitrogen limits for Nutrient Management Zones referenced in Section 7 of the Nutrient Management Regulation OR (C) you intend to apply nutrients to Nutrient Management Zone N4 soils. Photocopy additional pages as necessary. Complete Appendix in either metric or imperial units.

Legal Description: _____

Past Crop: _____

Crop Year	Crop	Target Yield □ bu/ac □ ton/ac □ cwt/ac	Nitrogen Balance Carry Forward	Nitrogen Additions (lb/ac)			Nitrogen Credits (lb/ac)		Nitrogen Removal (lb/ac)		Nitrogen Balance (lb/ac)
				Fertilizer	Manure (Available)	Wastewater Sludge or Biosolids	Past Legume Crops	Past Manure, Sludge or Biosolids Applications	Nutrient content/unit	Nutrient Removal (Nutrient content/unit * Target Yield)	
			N	N	N	N	N	N	N	N	N
(e.g. 2007)	Wheat	45 bu/ac	0	0	0	50	0	20	1.5	67.5	2.5
Total											

Crop Year	Crop	Average Yield □ bu/ac □ ton/ac □ cwt/ac	P ₂ O ₅ Balance Carry Forward	P ₂ O ₅ Additions (lb/ac)			P ₂ O ₅ Removal (lb/ac)		P ₂ O ₅ Balance (lb/ac)
				Fertilizer	Manure (Available)	Wastewater Sludge or Biosolids	Nutrient content/unit	Nutrient Removal (Nutrient content/unit * Average yield)	
			P ₂ O ₅	P ₂ O ₅	P ₂ O ₅	P ₂ O ₅	P ₂ O ₅	P ₂ O ₅	P ₂ O ₅
(e.g. 2007)	Wheat	40 bu/ac	0	0	0	40	0.6	24	16
Total									

NOTE:
State reason(s) why soil test results exceed soil nitrate-nitrogen limits in Section 7 or why you cannot meet the phosphorus application rates listed in Section 8(2) of the Nutrient Management Regulation (e.g. previous manure applications, drought, frost, weeds, insects or disease) and how results will be brought into compliance over time:

Legume crops include peas, soybeans, dry beans, chickpeas, lupins, clover, vetch, alfalfa, birdsfoot trefoil, sainfoin and lentils.

Appendix - Nutrient Budget (Metric Units)

To be completed for all fields that: (A) exceed 60 ppm soil test phosphorus and you cannot meet the phosphorus application rates listed in section 8(2) of the Nutrient Management Regulation OR (B) nitrogen will be applied to any field that exceeds the soil nitrate-nitrogen limits for Nutrient Management Zones referenced in Section 7 of the Nutrient Management Regulation OR (C) you intend to apply nutrients to Nutrient Management Zone N4 soils. Photocopy additional pages as necessary. Complete Appendix in either metric or imperial units.

Legal Description: _____

Past Crop: _____

Crop Year	Crop	Target Yield □ kg/ha □ t/ha	Nitrogen Balance Carry Forward	Nitrogen Additions (kg/ha)			Nitrogen Credits (kg/ha)		Nitrogen Removal (kg/ha)		Nitrogen Balance (kg/ha)
				Fertilizer	Manure (Available)	Wastewater Sludge or Biosolids	Past Legume Crops	Past Manure, Sludge or Biosolids Applications	Nutrient content/unit	Nutrient Removal (Nutrient content/unit * Target Yield)	
			N	N	N	N	N	N	N	N	N
(e.g. 2007)	Wheat	3.03 t/ha	0	0	0	56	0	22.5	28.2	85.5	7
Total											

Crop Year	Crop	Average Yield □ kg/ha □ t/ha	P ₂ O ₅ Balance Carry Forward	P ₂ O ₅ Additions (kg/ha)			P ₂ O ₅ Removal (kg/ha)		P ₂ O ₅ Balance (kg/ha)
				Fertilizer	Manure (Available)	Wastewater Sludge or Biosolids	Nutrient content/unit	Nutrient Removal (Nutrient content/unit * Average yield)	
			P ₂ O ₅	P ₂ O ₅	P ₂ O ₅	P ₂ O ₅	P ₂ O ₅	P ₂ O ₅	P ₂ O ₅
(e.g. 2007)	Wheat	2.69 t/ha	0	0	0	45	9.8 kg/t	26.4	18.6
Total									

NOTE:
State reason(s) why soil test results exceed soil nitrate-nitrogen limits in Section 7 or why you cannot meet the phosphorus application rates listed in Section 8(2) of the Nutrient Management Regulation (e.g. previous manure applications, drought, frost, weeds, insects or disease) and how results will be brought into compliance over time:

Legume crops include peas, soybeans, dry beans, chickpeas, lupins, clover, vetch, alfalfa, birdsfoot trefoil, sainfoin and lentils.