

## NUTRIENT MANAGEMENT STRATEGY REVIEWER'S CHECKLIST

This checklist is a tool used by Nutrient Management Specialist and Engineers to review Nutrient Management Strategy applications using the NMAN software or the Nutrient Management Strategy Application form. This checklist is an aid for reviewers and should not be used as reference for the components required within a Nutrient Management Strategy. Applicants are responsible for ensuring that all aspects of the Nutrient Management Act, 2002 are met for regulated farms. Metric units of measurement are used in this checklist followed, where applicable, by imperial conversions in parentheses. In many cases, these conversions have been rounded up to the next full unit. In all cases, the NM Act, Regulation, and Protocols take precedence over this document. We reserve the right to update or amend this document.

Applicant Name:	Phone: (    )
Facility Description:	Fax: (    )
Prepared By:	Phone: (    )
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Received At:	First Review Date:
Date of Receipt:	
Reviewer:	Final Review Date:

## NUTRIENT MANAGEMENT STRATEGY

- Y (Yes) or NA (Not Applicable) must be checked on all of the following points to achieve an approval for a Nutrient Management Strategy (NMS).

A. Farm Unit Declaration	Y	N	NA	Ref
1. Documentation that shows that the NMS/P was prepared by a certified individual (certification number provided).				Reg. 100- 103
2. A completed <i>Farm Unit Declaration Form</i> has been included.				NM Pro. 5.2.1. 3

<b>B. Overview of the Operation</b>	<b>Y</b>	<b>N</b>	<b>NA</b>	<b>Ref</b>
3. An overview of the operation for the NMS has been included giving a reason for submission, the type and size of the operation, an overview the livestock facilities, the prescribed materials being produced and/or received and cropping and management practices. The description may also provide details for any additional documentation requirements and identify whether or not NASM are used as part of this Farm Unit.				NM Pro. 5.2.1. 2

<b>C. Farm Unit and Farmstead Sketches</b>	<b>Y</b>	<b>N</b>	<b>NA</b>	<b>Ref</b>
4. A location map of the entire landbase declared in Farm Unit has been included. The map includes the land owned or controlled (rented or leased) or otherwise that forms part of the Farm Unit, as well as road names and municipal boundaries.				NM Pro. 5.2.1
5. A layout of the farmstead is included with: <ul style="list-style-type: none"> <li>a) Location of nutrient generation facilities and storage(s), including <ul style="list-style-type: none"> <li>• Permanent, temporary and proposed generating facilities.</li> <li>• Permanent, temporary and proposed storage facilities and sites.</li> <li>• Dimensions of all generating and storage facilities and sites.</li> </ul> </li> </ul> <p>Note: Any building or nutrient storage plans attached will only be reviewed to verify the nutrient storage capacity or livestock and poultry housing capacity.</p>				NM Pro. 5.2.1. 5
b) The location of all known wells, tile inlets and surface water that are present within the scope of the sketch.				
c) The distance of the identified well(s), surface water and tile drain surface inlets to the nearest permanent nutrient storage facility.				NM Pro. 5.2.1. 5
d) The identified well(s) exceed the following setbacks from new or expanding permanent nutrient storage facilities: <ul style="list-style-type: none"> <li>• 100 m (328 ft) from municipal wells;</li> <li>• 15 m (50 ft) from drilled wells with &gt; 6 m (20 ft) watertight casing that are at least 15m (50 ft) deep;</li> <li>• 30 m (98 ft) from any other well, if that facility is designed to store only agricultural source materials; or,</li> <li>• 90 m (295 ft) from any other well, if the facility is designed to store non-agricultural source materials.</li> </ul>				Reg. 63(1)
e) The identified tile inlets and surface water demonstrate a minimum flow path of 50m from the nearest new or expanding nutrient storage facility;				Reg. 63(3)
f) run-off management systems (e.g. vegetated flow paths, vegetated filter strips				

<b>D. Ag-source Material Production and Nutrient Storage Size</b>	<b>Y</b>	<b>N</b>	<b>NA</b>	<b>Ref</b>
6. a) Nutrient storage calculations on new and expanding buildings were based on the OMAFRA housing capacity guidelines. If not, adequate information is provided to verify the housing capacity used.				NM Pro. 5.2.1.6
b) Nutrient storage calculations on existing buildings were based on the OMAFRA housing capacity guidelines. If not, a statement about the declared usage is included.				NM Pro. 5.2.1.6
c) Ag-source material production calculations on all buildings were based on the OMAFRA housing capacity. If not, a statement about the declared usage is included.				NM Pro. 5.2.1.6
7. Documentation supporting animal weights is attached when the average animal weight is less than the default value in MSTOR or Table 3.1 of the NM protocol.				NM Pro. 5.2.1.6
8. For incoming prescribed material transfers, proper documentation is included. Proper documentation may include one or more of the following: <ul style="list-style-type: none"> <li>• Broker Agreement</li> <li>• Nutrient Transfer Agreement</li> <li>• Incoming Transfer Summary in NMAN</li> <li>• Table 4.2 in the Nutrient Management Strategy Application form</li> </ul>				NM Pro. 5.2.1.4
9. The nutrient storage meets the following criteria:				Reg. 69(1)
a) A minimum of 240 days of storage for all ag-source materials being produced and/or imported onto the farm; or				69.1 (1)
b) fewer than 240 days and documented by:				Reg. 69(5)
i. broker agreements with a frequency appropriate to the ag-source material volume production in the NMS;				69.1 (5)
ii. transfer agreements with a frequency appropriate to the ag-source material volume production in the NMS;				Reg. 69(2)
iii. period of use (i.e. ag-source material generation period);				69.1 (2)
iv. demonstrating the availability of land for ag-source material application (e.g. Storage Capacity Graph in NMAN or an equivalent calculations). This is not applicable for new or expanding liquid nutrient storages.				Reg. 69(6)
10. The liquid nutrient storage has a minimum freeboard of 30 cm. (1 ft). The only exception is a freeboard of 15 cm (0.5 ft) for a permanently covered non-slatted floor storage.				69.1 (6)
11. The annual ag-source material production volume calculated using MSTOR or other methods, corresponds to the volume entered in NMAN or Table 4.1 of the Nutrient Management Strategy Application Form.				Reg. 69(3)
10. The liquid nutrient storage has a minimum freeboard of 30 cm. (1 ft). The only exception is a freeboard of 15 cm (0.5 ft) for a permanently covered non-slatted floor storage.				NM Pro 5.3.4 3.9

<b>E. Nutrient Storage Design and Siting</b>	<b>Y</b>	<b>N</b>	<b>NA</b>	<b>Ref</b>
12. For operations that are less than 300 NU and using a new earthen based permanent nutrient storage, documentation is provided showing that $\geq 0.5$ m of C or D type soil exists between the floor of the pad and an aquifer or bedrock.				Reg. 80(c)
13. For new or expanding permanent nutrient storages requiring a professional engineer's design, the signed <i>Engineer Commitment Certificate</i> is included. (except new or expanding storages that meet Section 62)				NM Pro Part 12
14. If a runoff management system is specified, the additional criteria outlined in the Runoff Management Appendix of this checklist are satisfied.				
15. When temporary storage is specified, the additional criteria outlined in the Temporary Storage Appendix of this checklist are satisfied.				
16. Documentation showing that new or expanding permanent earthen nutrient storage facilities are not located within existing the regulated flood lines established by the Municipality or Conservation Authority, or a permit issued under Section 28 of the <i>Conservation Authorities Act</i> has been included.				Reg. 63(4)

<b>F. Nutrient Analysis of Prescribed Material</b>	<b>Y</b>	<b>N</b>	<b>NA</b>	<b>Ref</b>
17. The following criteria for nutrient analysis were met:  a) if a nutrient analysis is used, the nutrient content of the tested ag-source material is within 30% of the data bank results for the predicted dry matter range from MSTOR or Table 3.1 of the NM Protocol, or documentation is included justifying the increased or decreased percentage in nutrients;				NM Pro. 5.2.1. 7
b) if the data bank nutrient content was used, the proper DM range was used. <ul style="list-style-type: none"> <li>• +/-2% for liquid ag-source material, and +/- 10% for solid ag-source material from the projected DM content from MSTOR</li> <li>• Range selected Table 3.1 based on projected DM calculated</li> </ul>				
18. Where feed additives change the projected nutrient content of the ag-source material, adequate information is attached to verify the use and effect of these feed additives.				NM Pro. 5.2.1. 7
19. Where non-agricultural source materials are a part of the NMS, documentation shows that sampling and analysis of materials has occurred according to s.94 & 95 of the Regulation.				Reg. 94, 95
20. Where non-agricultural source materials are a part of the NMS, a copy of the site certificate approval has been included.				

<b>G. Destination of Prescribed Material</b>	<b>Y</b>	<b>N</b>	<b>NA</b>	<b>Ref</b>
21. For outgoing prescribed material transfers, proper documentation is included. Proper documentation may include one or more of the following: <ul style="list-style-type: none"> <li>• Broker Agreement</li> <li>• Nutrient Transfer Agreement</li> <li>• Outgoing Transfer Summary in NMAN</li> <li>• Table 4.2 in the Nutrient Management Strategy Application form</li> </ul>				NM Pro. 5.2.1.4
22. Where nutrient loading on the farm unit is a concern, documentation has been provided to demonstrate that the prescribed material generated will not cause an adverse effect.				Reg. 28(4)
23. Where nutrient loading on the transferred location is a concern, documentation has been provided to demonstrate that the prescribed material generated will not cause an adverse effect.				Reg. 28(4)

<b>H. Contingency Plan</b>	<b>Y</b>	<b>N</b>	<b>NA</b>	<b>Ref</b>
24. The applicant has verified in Section 9 of the Nutrient Management Strategy Application form or Appendix J of the NMAN printout that they have a complete contingency plan.				Reg 24(b.1)

<b>I. Sign Off Form</b>	<b>Y</b>	<b>N</b>	<b>NA</b>	<b>Ref</b>
25. A completed <i>Nutrient Management Strategy or Plan Sign Off Form</i> has been included.				NM Pro. 5.2.4.11

Please specify the facility that requires runoff management:

- A permanent solid nutrient storage facility
- A farm animal yard lined with concrete or other paving material of equal or lesser permeability
- A permanent outdoor confinement area
- A facility that is not prescribed in section 81

<b>Runoff Management Appendix</b>		<b>Y</b>	<b>N</b>	<b>NA</b>	<b>Ref</b>
1.	The above facility has specified one or more of the following runoff management systems:				
	a) a roof over the facility;				Reg. 81 (4.1)
	b) a vegetated filter strip or an equivalent system, both of which are designed by a qualified professional and capable of minimizing the effect of runoff surface water  ( <b>Note:</b> Vegetated filter strip will require a Certificate of Approval (C of A) from the Ministry of Environment)				Reg. 81 (4.2)
	c) runoff collection and storage area sufficient to contain runoff for the period outlined in section 69, or				Reg. 81 (4.3)
	d) a permanently vegetated area (please points 2 through 5 in this appendix)				Reg. 81 (4.4)
2.	A permanently vegetated area must:				
	a) be located on a minimum 0.5 m (20 inches) of soil;				Reg. 81 (5a)
	b) not be located within 3 m (10 ft) of field tile				Reg. 81 (5ai)
	c) not be located within 100 m (328 ft) of a municipal well, 15 m (50 ft) of drilled well, or 30 m (99 ft) from any other well.				Reg. 81 (5ai & iii)
	d) not be located within 90 m (296 ft) of any other well, if permanent storage facility is used for non-agricultural source material.				Reg. 81 (5aii)

Runoff Management Appendix	Y	N	NA	Ref
3. If a permanently vegetated area is to be used for a permanent solid storage. The following parameters have been met:				
a) storage floor area is less than 300 m <sup>2</sup> (3229 ft <sup>2</sup> );				Reg. 81 (6a)
b) the permanently vegetated area has a flow path length that measures at least 150 m (492 ft) from surface water and tile inlets, if the storage facility is for manure with ≥ 30% D.M				Reg. 81 (5ci)
c) the permanently vegetated area has a flow path length that measures at least 50 m (164 ft) from surface water and tile inlets, if the storage facility is for manure with ≥ 50% D.M				Reg. 81 (5cii)
4. If a permanently vegetated area is to be used for a farm animal yard lined with concrete or other paving material. The following parameters have been met:				Reg. 81 (5ci)
a) the permanently vegetated area has a flow path length that measures at least 150 m (492 ft) from surface water and tile inlets, if the storage facility is for manure with ≥ 30% D.M				
b) the permanently vegetated area has a flow path length that measures at least 50 m (164 ft) from surface water and tile inlets, if the storage facility is for manure with ≥ 50% D.M				Reg. 81 (5cii)
5. If a permanently vegetated area is to be used for a permanent outdoor confinement area. The following parameters have been met:				
a) the number animals kept in the area generate less than 150 NU annually				Reg. 81 (6b)
b) the area channeled through a single flow path is less than 2000 sq.m (21, 530 sq.ft)				Reg. 81 (6c)
c) the permanently vegetated area has a flow path that measures at least 100 m (328 ft) from surface water and tile inlets, if the confinement area is less than 500 sq.m (5383 sq.ft)				Reg. 81 (5di)
d) the permanently vegetated area has a flow path that measures at least 150 m (492 ft) from surface water and tile inlets, if the confinement is 500 sq.m (5383 sq.ft) or more.				Reg. 81 (5dii)
6. For facilities that are not prescribed by section 81 must provide documentation of a runoff management system that is capable of preventing, collecting, treating or containing the runoff.				

Temporary Storage Appendix	Y	N	NA	Ref
1. Documentation states that no tile drains are in the area of the temporary storage, or the contingency plan includes management options for potential contaminated liquid in the tile.				Reg. 84.4
2. The calculations in the Temporary Storage Table (s.85) meets or exceeds the proposed days of temporary storage in the NMS.				Reg. 85
3. Each temporary storage site meets the following parameters:				
a) at least 0.3 m (1 ft) of soil to bedrock;				Reg. 83 (1.1)
b) at least 0.9 m (3 ft) above water table;				Reg. 83 (1.2)
c) not on an AA soil series; and				Reg. 83 (1.3)
d) not in a 1 in 100 year flood zone or within regulated flood lines established by the Municipality or Conservation Authority.				Reg. 83 (1.4)
e) Site slope shall not exceed 3%;				Reg. 83 (1.5)
f) Flow path of 50 m (164 ft) to nearest surface water or tile drain surface inlets;				Reg. 83 (1.6)
g) Distance > 45 m (148 ft) to drilled well (> 6 m (20 ft) watertight casing) or > 100 m (328 ft) from municipal or > 90 m (296 ft) from any other well;				Reg. 83 (2a,b &c)
h) 125 m (410 ft) from a single residence;				Reg. 83 (2e)
i) 250 m (820 ft) from a residential area;				Reg. 83 (2d)