

Suggested Structure for Integration of Recommended Agricultural Practices Under the Nutrient Management Act Based on the Proposed Risk-Based Framework

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a). Introduction

At the core of the proposal recently submitted by PNMAC for consideration by both MOE and OMAF regarding an alternative framework for the Nutrient Management Act (NMA), is a hierarchy of activities that are recommended to be implemented on farms across Ontario as the NMA rolls out. Specifically, the approach suggests that a short list of specific activities (or Priority Management Practices, PMP) be required on all farms across Ontario, regardless of size, location or perceived level of risk to water resources, in order to provide a minimum of protection to the environment and public health. This short list would incorporate recommended practices that already exist in the Nutrient Management Act or are contained in the Phase 1, 2 and 3 issues currently under consideration by PNMAC.

Other activities may be deemed necessary at a subset of farms that are located in areas designated as being vulnerable to impacts from surface land management activities through the Source Water Protection evaluation or are at additional environmental risk. These additional activities may be selected from the NMA, the NMA regulations or other best management practices but may also include other specific activities related to pesticides and fuel storages for example that may be considered of concern within the context of Source Protection.

The initial recommendation for the development of the list of activities related to compulsory actions on all farms and those only required in risky areas was based on the suggestion that there would be an assembly of an ad hoc committee of experts who would be charged with the task. At the request of the MOE, we have made a preliminary attempt at constructing these lists and they are submitted here in draft form for consideration.

b). Priority Agricultural Practices to be Applied at all Farms

The following table is a proposed list of the highest priority management activities that could be considered to be mandatory at all farms across Ontario. It is important to note that the recommended activities are intended to provide protection for groundwater, surface water and local private farm wells.

Priority Activity	Example Details	Level of Supporting Science	Status of Regulations
1). Manure and Wash Water Storage Facilities	-regular inspections -appropriate storage size -runoff containment	Very good	Good, in NMA or completed PNMAC Phased Issues

2). Regulated Land Application of Nutrients	-designated based on soil and crop requirements	Very good	Good, in NMA or completed PNMAC Phased Issues
3). Nutrient Application Set Back Distances	-water wells -surface water -related buffer and riparian zone issues	Fair	Fair to poor, in NMA or completed PNMAC Phased Issues
4). Nutrient Application on Tile Drained Lands	-application timing -monitoring	Poor	Weak, interim recommendations.
5). Control of Runoff from Barnyard and Animal Confinement Areas	-drainage construction -vegetated strip/buffering methods	Good	Good, in NMA or completed PNMAC Phased Issues
6). Winter Nutrient Spreading	-biosolids and manure	Fair	Good, in NMA or completed PNMAC Phased Issues

We suggest that the Province proceed now with the existing relevant regulations/ recommendations on each of these topics but develop additional science and refine the regulations / recommendations in a fairly expeditious time frame and certainly by the time the next set of farms are included in the Priority Management Practices.

Two very specific activities that we believe to be significant with respect to the overall reduction of environmental and health risk are:

- 1). Limiting livestock access to surface waters.
- 2). Application of manure on thin overburden over rock situations and where the water table is very shallow.

We are confident that these issues will be captured within the Source Water Protection plans and also consider that they should be implemented on a risk basis.

c). Implementation of the Priority Management Practices

It is proposed that the PMP's be implemented at all farms with >300 NU in the first phase of roll out that is currently planned for Dec. 2005. It is then possible to consider the farms between 200 and 300 NU to be the second group considered, followed by the 100 – 200 NU farms and the 100 NU and under in the final phase.

d). Implementation of Additional Management Practices Based on Local Risk

After the Source water Protection Plan for a given area is complete, farms located in highly vulnerable areas related to municipal well capture zones, surface water intake areas and areas rated highly vulnerable with respect to regional aquifer systems would be subject to consideration for compliance with additional beneficial management practices (BMP) that would be contained in the NMA as deemed necessary by the Source Water Protection Committee. These will be very site specific and it is recommended that significant flexibility be permitted in the approaches taken to achieve compliance.

In areas rate with a medium risk level, the additional BMP's considered appropriate for the given farm operation should be encouraged to be implemented on a voluntary basis with an incentive system provided to motivate progressive adoption of the recommended BMP's.

Finally, in areas considered to be low risk, no additional activity would be required currently although monitoring of nutrient management activities would be encouraged.

In addition, the environmental risk posed by the farm and its activities as a result of its location, geology and other factors would be considered and the relevant aspects of the NMA and its regulations applied in a targeted risk-based manner through a one-plan system that integrates both any additional nutrient management environmental requirements and source water requirements specific to that farm.

e). Recommendations for Prescriptive Activities Within Vulnerable Source Water Protection Zones

In all lands outside of the highly vulnerable areas, the implementation of the Priority Management Practices would likely provide sufficient protection from nutrient management concerns. Within the highly vulnerable areas, recommendations that are made by PNMAC may not be stringent enough and may not cover all significant issues. It is recommended that a different committee, focussed on the objectives of Source Water Protection be struck to develop the appropriate specific activities that will be required in the most vulnerable areas.