



***FINAL-CONFIDENTIAL***

**Water Quality Management Zones for Nutrients:  
A Proposed Regulation under the Water Protection Act**

POSITION PAPER

BY

**MANITOBA'S AGRICULTURAL COMMODITY GROUPS**

**MAY 17, 2006**

**This document is endorsed by:**

(signed on)  
David Rolfe, President  
Keystone Agricultural Producers

(signed on)  
Karl Kynoch, Chairman  
Manitoba Pork Council

(signed on)  
Ken Crockatt, President  
Manitoba Cattle Producers Assoc.

(signed on)  
John Preun, President  
Manitoba Pork Marketing Co-op Ltd.

(signed on)  
Waldie Klassen, Chairman  
Manitoba Chicken Producers

(signed on)  
Kurt Siemens, Chairman  
Manitoba Egg Producers

(signed on)  
Bill Swan, Chairman  
Dairy Farmers of Manitoba

(signed on)  
Bill Uruski, Chairman  
Manitoba Turkey Producers

Sarah Lewis, President  
Manitoba Sheep Producers Assoc.

(signed on)  
Linda McCaskill, President  
Manitoba Equine Ranching Assoc.

Don Green, Chair  
Manitoba Forage Council

(signed on)  
Les Jacobson, President  
Manitoba Forage Seed Assoc.

(signed on)  
Brian Chorney, President  
Manitoba Canola Growers Assoc.

(signed on)  
Nick Heide, President  
Keystone Vegetable Producers Assoc.

(signed on)  
Ken Overby, President  
Manitoba Bison Assoc.

(signed on)  
Gary Unrau, President  
Manitoba Corn Growers Assoc.

(signed on)  
Lincoln Wolfe, President  
Manitoba Pulse Growers Assoc. Ltd.

(signed on)  
Todd Giffin, President  
Vegetable Growers Assoc. of Manitoba

## **Introductory Remarks:**

As signatories to this position paper, the aforementioned Manitoba agricultural commodity groups commend the Manitoba Government for its efforts to consult with the public on its proposed Water Quality Management Zone for Nutrients and Phosphorus regulations. Government had indicated that it would prepare summaries of public input for each of the nine public meetings held in February and March 2006. These meetings were important and we would appreciate and request copies of these summaries for our review.

We thank the Province of Manitoba for its willingness to work with us to achieve our common water quality protection objectives. We appreciate the recent modifications that the Province has proposed that addresses many of the concerns expressed by producers, municipalities, business representatives and public.

As key agricultural stakeholders, we have the most to offer in terms of adopting on-farm beneficial management practices and advancing environmental farm stewardship. Conversely, we have the most to lose - that being our farms, investments and way of life - should regulations be adopted that are not practical, efficient or cost-effective.

We have carefully considered the “Suggested Modifications to the Water Quality Management Zones for Nutrients: A Proposed Regulation under The Water Protection Act, March 29, 2006”. We trust that the Manitoba Government will accept the following comments and recommendations in the collaborative and constructive spirit in which it is intended.

## **Our Commitment:**

We commit to our “best efforts” to work in partnership with the Manitoba Government to jointly develop and implement a practical, efficient and cost effective nutrient management strategy to protect water quality, the environment, our livelihoods and rural society. As generally proposed by Manitoba Water Stewardship, this will encompass site-specific nutrient management and through the environmental farm plan process, public research on beneficial management practices. It will also increase education, technology transfer and farm adaptation in concert with targeted funding incentives and regulations, where required, can serve to augment these initiatives.

We commit to monitoring the progress and outcomes of these initiatives to protect our precious water resources in concert with Manitoba Water Stewardship and Manitoba Conservation and further, to assist in the five year review of any new nutrient regulations under The Water Protection Act and/or The Environment Act.

## **Our Position:**

It is within this partnership that we offer the following comments, questions and recommendations. There are 11 key issues we need to work through.

## **Issue 1: Invest time to work together**

We are sensitive to the Manitoba government's desire to move ahead as quickly as possible with its nutrient management strategy and regulations but we need assurance that key elements will be included and we need further clarification on some critical technical details.

### **Consequences:**

While we want to expedite resolution of a few important issues together, we must also take sufficient time to fully understand the scope, significance and implications of the proposed nutrient regulations and strategy on the environment, our producers, industries and economy.

### **Recommendation:**

We need more time to work with government to get the regulations, incentives and initiatives right but this need not take much more time as we remain focused. The public policy package needs to be well constructed, thorough and complete.

### **Benefits & Rationale:**

For the most part, what is lacking is sufficient detail and some of the issues are also technical in nature. It is absolutely fundamental to our joint understanding and consensus that the issues be clarified. This *framework of understanding* is necessary so that we can achieve our objectives. Otherwise needless confusion, uncertainty and costs for all would expend good will and we would lose meaningful opportunities to accelerate farm and water stewardship across agricultural Manitoba. Let's ensure that this doesn't happen.

We hope that through a "process of discovery" that we can jointly understand how the various aspects of the proposed regulations, initiatives, and land use and water planning systems would work. The little extra time we invest now will prove extremely beneficial when it is time for implementation.

## **Issue 2: Timelines for Transition and Compliance**

Government and industry need a reasonable period of time to develop and adjust to any new and more stringent environmental protection standards. Existing production operations will require reasonable and flexible time frames to implement new requirements for manure storage facilities and nutrient management practices. Substantial public funding incentives would help to shorten timelines for producers to transition to full implementation and compliance to new nutrient requirements.

### **Consequences:**

Changing the “rules” without adequate time to come into compliance will challenge producers with very serious consequences for the rural economy and farm families. Farm operations located on class 6, 7 and unimproved organic soils (proposed zone 4 lands) that cannot expand or apply nutrients on the land will experience a significant drop in land values. This will be devastating. This would also ripple into the financial community placing existing and future loans at risk, result in loan losses and lost equity in their agricultural portfolios. It may also erode access to annual operating capital for affected producers. One estimate is that land values could drop over \$1 billion. Municipal tax and education revenues would also be negatively affected due to decreased property values upon reassessment.

### **Recommendation:**

It is paramount that producers have sufficient time to make the necessary adjustments to their farm operations.

For livestock operations 300 AU and over:

- We generally agree with the Province’s phosphorus proposal that producers should wherever possible comply with the new regulations by November 2008 or where they are unable to with respect to current practices, submit a plan to the Province that will show how they will incrementally comply by November 2013. However, more time is needed for land-locked producers in livestock dense areas. A minimum of 15 years to 2021 in conjunction with special funding assistance to adopt improved technology nutrient management is required in these areas.

For livestock operations less than 300 AU and for farms using commercial fertilizers:

- We would agree that producers should, wherever possible, comply with the new phosphorus regulations by November 2008 or where they cannot comply, be given up to Nov. 2013 to comply through education and support. However, small producers in special management areas which may be subject to a ban on winter spreading must be given additional time up to November 2021 to adjust and be able to access special funding assistance to construct manure storage or adopt nutrient management technology. If funding is not made available to offset the cost of new storage facilities, many of these smaller farms will be forced to cease operation. Ministers are committed to not bringing in regulations which would close down small operations. It is critical that this financial assistance be announced at the same time as the changes to the regulations.

**Benefits & Rationale:**

Manitoba's producers have developed and expanded their farms in compliance with all existing municipal and provincial laws and environmental requirements. Permits and licenses have been obtained, engineers and contractors hired, significant human and capital investments made and jobs, families, communities and economies created. This needs to be protected and maintained. It should also be noted that technology to reduce or remove phosphorus is prototype and many family farm operations will not have the resources to put the technology in place.

For example, to adopt some of the current prototype phosphorus treatment systems for commercial farm operations, producers would have to expend at least \$200,000 per site. It is estimated that in south-east Manitoba over 100 operations that are land-locked may have to adopt such technology.

### **Issue 3: Do Not Use WQMZ Maps**

There are still very strong concerns regarding any “regulatory reference to” or the “potential use of” broadly interpreted **water quality management zone maps**. We are not only concerned about the maps being “embedded” in the WQMZ regulation but also very concerned about the reliance on such generalized maps in any of the administrative practices of the regulatory bodies to make final decisions with respect to agricultural management or development. Examples include the Livestock Manure and Mortalities Management Regulation, development plans, the Technical Review Committee process or zoning by-laws.

It was clearly demonstrated to the Province at public consultation meetings that producers, municipalities and the public do not want the WQMZ maps to be used as a regulatory tool for nutrient management. The maps do not accurately reflect improvements made on neither the landscape nor the wide variations in soil and ground conditions field to field. This concern over possible use of the WQMZ maps also extends to land use planning and local land use policy and regulation.

The use of existing resource maps identifying Canada Land Inventory, agriculture soil capability, topographic slope and aquifer recharge areas, can and should continue to be used for general land use and watershed planning purposes.

#### **Consequences:**

Use of the maps by provincial, regional or local authorities as nutrient management and land use planning tools may lead to inappropriately restricting nutrient application. As well, use of these maps would result in future local plans being based on generalizations, inaccurate interpretations and in many cases erroneous information. It would again place a reverse onus, burden and costs onto producers to prove their land is inappropriately zoned and therefore regulated at local planning by-law hearings. There are better, more reliable sources of information on which to base water and land use planning policy and decision-making particularly site specific information. Local experience and knowledge is much more valuable and a more accurate source for planning purposes.

Agricultural producers have offered to prepare site-specific nutrient management plans (NMPs) as a more practical and better alternative to using the more generalized Water Quality Management Zones and mapping. We are not prepared to adopt and implement NMPs, if at the same time, we are subject to future planning associated with the use of WQMZ mapping for nutrients for watershed and land use planning policy and regulatory purposes. It is not constructive to develop NMPs and not use this information more accurately to reflect risk for nutrient issues for watershed and land use planning.

#### **Recommendation:**

**DO NOT USE WQMZ MAPS.** The Province has already determined that the WQMZ maps will not be embedded or referenced in the proposed WQMZ regulation. Rather than maps, we recommend that the current language for the different soil classes be used by Manitoba Water Stewardship under the WQMZ regulation (i.e. agricultural capability definitions in Schedules A to D and Appendix 1) to guide producers and the various administrative / regulatory authorities. For example, rather than referencing “Zone 4” lands in any regulation or in maps, the use of the more widely accepted and standard agricultural soil capability ratings of “class 6, 7 and unimproved organic soils” is all that is required in regulation to restrict mechanical application of nitrogen and phosphorus.

This legal language identifying soil capability classes already exists and is being successfully used in various provincial regulations such as:

1. by Manitoba Conservation to define the soil nitrate-N limits (under Section 12) of the Livestock Manure and Mortalities Management Regulations under *The Environment Act*; and
2. by Manitoba Intergovernmental Affairs and Trade for Provincial Land Use Policy (PLUP) Regulation Policy #2 (Agriculture) under *The Planning Act* which states that:

“New livestock operations should not be permitted on soils determined by detailed soil survey acceptable to the province of 1:50,000 or better, to have an agricultural capability of class 6, 7 or unimproved organic soils under the Canada Land Inventory.”

In the latter example, the intent of this provincial policy statement is to be included in a local livestock operations policy of a development plan and essentially identifies “NO GO” lands for new livestock development. This simple statement is clear and unequivocal. WQMZ maps should not be used as the basis for policy and regulatory purposes in any statute of zoning by-laws or by any level of government that may lead to prohibitions or restrictions on land use and development options in other regulations. WQMZ maps are not accurate enough and are still open to misinterpretation and misuse despite any possible qualifying statements that the Province may wish to add to the maps.

### **Benefits & Rationale:**

Municipal councilors come from a variety of backgrounds and may not have the necessary background or training to fully understand agriculture or the limitations of the WQMZ maps. As well, there are often membership changes to municipal councils, planning boards and committees and watershed authorities.

Although detailed soil survey (1:50,000 or better) provides a more reliable assessment of the agricultural capability of the land in most instances, reconnaissance-level soil survey is clearly deemed unacceptable in all cases. There is doubt as to the accuracy of any agricultural soil capability class, whether due to map scale or land improvements that were made after the original soil survey was conducted, each site would require site inspection and/or use of crop yield data as the basis to change the agricultural soil capability class for a particular property.

## **Issue 4: Announce a Comprehensive Funding Package**

While the Province has acknowledged that financial and adjustment assistance is needed and indeed has indicated its willingness to help fund the preparation of nutrient management plans and for soil testing, it is simply not enough. There is still a lack of recognition by government regarding the significant financial burden that would be imposed on producers and lack of detail on the scope and level of funding that it is prepared to provide.

### **Consequences:**

Many of the proposed regulations will create substantial new costs for us, as producers, at a time when farm incomes are under tremendous stress. Many farmers are already not making ends meet and future trends appear to be no different. For many, added costs will threaten the very existence of their farm and place their future and farm family succession in jeopardy. At the broader scale, rural communities and the provincial economy would also be at risk. Farmers need financial assistance to make the necessary adjustments over a reasonable period of time. Shorter timeframes for compliance will also require more immediate financial assistance.

### **Recommendation:**

The University of Manitoba (Dr. E. Salvano) is undertaking an economic impact study of the proposed Phosphorus regulation under the Livestock Manure & Mortalities Management Regulation on Manitoba's hog industry. It does not include an analysis of the proposed Water Quality Management Zone regulation. To capture the full economic impact of both regulations, the Province must also identify additional economic impact studies that must include all livestock and crop sectors. It should provide details as to the study terms of reference, scope, who is doing the study and when it will be completed. It should identify costs relative to expected benefits for both proposed regulations.

We cannot emphasize enough, that due to the extreme hardship that any ban on winter spreading would have for small livestock producers in the proposed Red River Valley Special Management Area or regularly inundated areas, the Province must announce a substantial financial assistance program to allow producers to comply by Nov. 2013 and/or to provide additional time to year 2021 to adjust. Otherwise it may force many to exit the industry.

Producers in Quebec for example, can access project funding up to \$200,000 from the federal-provincial governments for manure treatment systems. Ontario provided up to 90% cost-shared funding for different nutrient management projects that were necessary to comply with The Nutrient Management Act including manure storage structures which were funded 90% up to \$90,000. In contrast in Manitoba, producers can only access a maximum of 50% of project costs up to \$30,000 for environmental improvement projects on their farm entity under the Canada-Manitoba Farm Stewardship Program. For multi-barn farms, this level of financial support is almost negligible.

The Manitoba Government needs to specify how it will adequately resource and fund the proposed new regulations. In particular, the Province should announce in detail the full scope and level of funding that it will provide in concert with any new nutrient regulations that affects the agricultural industry.

This should include program funding separate from the Canada-Manitoba Farm Stewardship (environmental farm plan) Program that includes:

1. A **“Young Farmer” Financial Assistance Program** through the Manitoba Agricultural Services Corporation (MASC) to attract and assist new farmers to adjust to an increasingly complex and regulatory agricultural environment;
2. An ongoing program to provide 75% assistance per farm operation for **annual soil testing to support nutrient management planning** and which will also substantially add to the provincial soil survey data base over time; and
3. A **three-year \$100 million program** eligible to all producers but with priority given to producers in special management areas (SMA) that should provide for, but not limited to:
  - i) 90% funding up to \$200,000 per farm operation for **construction of new or improved manure storage facilities** where required due to ban on winter spreading, **relocation assistance** and /or **manure treatment**;
  - ii) 75% assistance per farm operation up to \$2,500 in year 1 and \$1,500 thereafter in year 2 and 3 to **prepare a nutrient management plan or manure management plan**; and
  - iii) Up to \$2,000 per farm operation for **funding incentives for buffers or similar alternatives under the Alternative Land Use Services (ALUS) program** for selected priority watercourses and water bodies that are negotiated with producers.

### **Benefits & Rationale:**

The proposed “Young Farmer” Incentive Program is vital to the future of Manitoba’s agricultural economy. Without it, the looming farm succession-human resource crisis will only worsen with the advent of new and increasing regulations on an already burdened farm sector. It would also help to maintain the confidence of financial lenders in the future of agriculture in Manitoba to continue to provide essential startup and operating capital for both young and existing farmers.

The proposed soil testing and \$100 million financial assistance programs will accelerate implementation of selected beneficial management practices that will have the most impact on protecting water quality and the environment, shorten implementation timelines and provide the support necessary for farmers to achieve public objectives and benefits.

It would also help to ensure that Manitoba farmers are not at a cost of production disadvantage relative to other Provinces which are providing much greater levels of financial support to deal with similar environmental issues.

This funding (adaptation-incentive) program would be offset by provincial tax revenues sustained by a healthy and growing agricultural and rural economy. The Federal Government should also be asked to financially contribute to the program as a key stakeholder in the Lake Winnipeg Water Quality Management Initiative. The recommended program would also provide a cost avoidance strategy associated with future demands on senior governments to support a negatively impacted agricultural economy.

## Issue 5: Clarify Nutrient Management Concepts/Terminology

There is a gap in our understanding and use of nutrient management concepts, practices and terminology. This must be corrected to ensure that the principles that underpin any regulations are sound and that correct terminology is used in any regulatory requirement. There are important distinctions in how the nutrients nitrogen “N” and phosphorus “P” must be managed to meet both the needs of the crop to be grown and to protect the environment. (This is illustrated in Appendix A).

It is very important to establish “**when and how**” producers will be expected to manage manure and inorganic nutrients. The approach must be flexible enough (and inclusive enough) to cover a broad range of cropping systems, equipment options, soil types, fertility levels, weather variables and restrictions, availability of land, etc.

### Consequences:

Different nutrient management terms have significantly different meanings and therefore .... serious regulatory, agronomic and farm management consequences. We need to be clear about what the regulations are actually doing as compared to their original intent.

### Recommendations:

1. We recommend the use of these Definitions / Principles which are clear and concise and used in scientific literature:

***balance:*** matching inputs with removals generally in reference to phosphorus (i.e. “phosphorus balance”)

***residual nitrate:*** nitrogen in the form of nitrate ( $\text{NO}_3^-$ ) that is in the soil after the crop has been harvested but before N fertilization of the next crop; 0-24 inch depth; required to establish field-specific crop N requirements; expressed in lb/acre

***nitrogen requirement:*** the additional fertilizer nitrogen (N) that is required to achieve a realistic target crop yield after taking into account the available nitrogen in the soil (residual nitrate); **basis for establishing N-based manure application rates (with the exception of established perennial legumes)**

***nitrogen removal:*** the amount of N removed in the *harvested portion* of the crop; generally not used to develop manure application rates with the exception of perennial legumes

***nitrogen uptake:*** the amount of N the crop consumes (including N in the seed, straw, roots etc.); generally not used to develop manure application rates

***soil test phosphorus (P):*** amount of plant available phosphorus (P) in the soil after the crop has been harvested but before  $\text{P}_2\text{O}_5$  fertilization of the next crop; 0-6 inch depth; used to establish additional  $\text{P}_2\text{O}_5$  requirements; expressed in ppm P

***P<sub>2</sub>O<sub>5</sub> requirement:*** the additional fertilizer phosphorus (expressed as P<sub>2</sub>O<sub>5</sub>) that is required to achieve a realistic target crop yield after taking into account the available phosphorus (ppm P) in the soil; very low to 0 at high soil test P levels

***P<sub>2</sub>O<sub>5</sub>:*** the phosphorus fertilizer equivalent (often incorrectly called “phosphate”)

***phosphorus removal:*** the amount of phosphorus removed in the *harvested portion* of the crop (often expressed as P<sub>2</sub>O<sub>5</sub>); **basis for establishing P-based manure application rates on high soil test P soils (greater than 120 ppm.)**

***multi-year P<sub>2</sub>O<sub>5</sub> application rate:*** application rates that supply more P<sub>2</sub>O<sub>5</sub> than the crop can remove in one year

## 2. Nutrient Management Concepts:

**Do Not Use.** Be careful. The terms “*balance based on crop removal*” and “*balancing nutrient inputs with removal*” do not specify which nutrient is being balanced and are too generic for regulation. Balancing nutrient inputs with crop removal is inappropriate in reference to Nitrogen (N) management, but is appropriate for Phosphorus (P) management. Rather than basing N inputs on crop removal, N management is normally based on soil testing for residual nitrate, realistic crop yield targets and target N application rates. Exceptions to this include the N fertilization of perennial legumes.

We agree with Manitoba Water Stewardship that nitrogen application limits or caps (in terms of kg available/ha) are inappropriate and should not be used in the proposed WQMZ regulation. (Issues and Options Appendices: Issue 8 (b)(i) Nitrogen).

### **Do Use.**

#### i) For Nitrogen (N) management:

We agree with Manitoba Conservation to continue to use the same residual soil nitrate-nitrogen limits at the end of the growing season currently regulated under the Livestock Manure & Mortalities Management Regulation (Livestock Regulation) under The Environment Act for livestock producers.

We agree with Manitoba Water Stewardship’s original WQMZ proposal to use accepted agronomic practices (i.e. soil testing and realistic crop yield targets) to establish nitrogen application rates and maximum soil residual limits for 3 non-descript agricultural class ratings (proposed Zones 1 to 3 or in other words class 1 to 5). Accordingly, the following wording should be retained:

*“annual application rate of available N (kg/ha) to be based upon soil testing and only the additional amount needed to achieve a realistic crop yield or removal capability for nitrogen.”*

#### ii) For Phosphorus (P) management:

In many jurisdictions, phosphorus management based on crop removal only applies to manure at high soil test P values. This is because manure is a heterogeneous mix of nutrients that are most often not in balance with crop requirements. Application rates that target one nutrient will result in the over or under application of another. Manure application based on N often results in over application of phosphorus and a build-up of soil test P. By contrast, producers that rely solely on commercial fertilizer can optimize their nutrient applications for N and P through the purchase of specific blends of fertilizers that meet their needs.

iii) Nutrient Management Plan Exempts from WQMZ regulatory requirements:

We agree with Manitoba Water Stewardship's recent proposal to exempt producers from most WQMZ regulatory requirements if they file a nutrient management plan, provided the WQMZ maps are not used in other regulatory processes outside of the WQMZ regulation. Where a NMP proves that nutrients may be applied on a farm in an environmentally sustainable manner, it will qualify for and apply nutrients on a site specific basis in accordance with the filed NMP. While Water Stewardship believes that the maps are needed for high-level discussion, the department must ensure that the maps are printed in such a manner to avoid their usage for site-specific decisions where detailed information is needed.

**Benefits & Rationale:**

We must use the correct nutrient management concept and terminology in any proposed regulation. This will avoid setting impractical requirements and creating unintended conflicts in "when and how" both nitrogen (N) and phosphorus (P) will be agronomically and environmentally managed.

## Issue 6: Soil Test P Balance at 120 ppm

There has been a suggestion that there is no need for “new” or expanding operations to exceed 60 ppm soil test P which, in theory, is the level at which plants normally do not respond to additional fertilizer P.

### Consequences:

Balancing P inputs with crop phosphorus removal at 60 ppm soil test P thresholds will create significant hardship and onerous restrictions on livestock producers who will be attempting to adjust for the first time to a totally new nutrient management regime. Manure application based on crop removal of P will be more costly for all producers as they will either have to apply manure at lower rates, drive over more land, burn more fuel, take more time or access more land that is further away for multi-year application rates.

### Recommendations:

We agree with and accept the recommendations of the Phosphorus Expert Committee regarding soil test P thresholds which would require livestock producers to switch to P-based management in accordance to Schedule E of the original WQMZ proposal. In particular, we believe that the 120 ppm soils test P be the threshold to balance P inputs with P removal. We believe that the target levels for P residuals as recommended by the Phosphorus Expert Committee are appropriate for our soils in Manitoba.

For clarity, based on soil testing for residual phosphorus, Schedule E proposes:

Soil Test P Threshold (Olsen P)	Manure / Bio-Solids	Commercial Fertilizer P
Less than 60 ppm	Apply based on N crop requirements	Apply additional P2O5 based on crop P2O5 requirements
60 – 119 ppm	Apply P2O5 @ 2X crop removal rate (to achieve P slowdown)	Apply no additional P2O5 than starter P2O5 requirements
120 – 179 ppm	Apply P2O5 @ 1X crop removal rate (to achieve P balance)	Apply no additional P2O5 than starter P2O5 requirements
180 or over ppm	No application unless approved by Director (to achieve P drawdown)	Apply no additional P2O5 than starter P2O5 requirements

### Benefits & Rationale:

We do not accept 60 ppm as the balance threshold for the following reasons:

1. Manitoba’s own Phosphorus Expert Committee recommended balance starting at 120 ppm after an extensive 2 to 3 year study and similar to Quebec, Ontario, Minnesota and Alberta.
2. Dr. Andrew Sharpley, noted world expert of phosphorus, also indicated that the P thresholds were in the right range for Manitoba’s unique conditions.
3. Phosphorus regulation is being proposed for the first time. It has not even been “test driven”.
4. There is no scientific data to warrant this stringent degree of phosphorus regulation in Manitoba.
5. It will be difficult enough to implement by producers who will need time to adapt from “N” to both “N and P” management.

6. A 60 ppm threshold instead of 120 ppm for balancing soil test “P” would have a huge detrimental impact for livestock producers and small family farms that may not be able to expand to survive.
7. The proposed phosphorus regulations will slow down any increase in phosphorus levels over 60ppm. It will take a significant amount of time to reach or exceed 120ppm level with good management practices.

## Issue 7: Identify What's In a Nutrient Management Plan

Intensive livestock operations 300 animal units (AU) and over are already required under *The Environment Act's* Livestock Manure and Mortalities Management Regulation to register an annual manure management plan. The manure management plan has evolved since 1998 and is now well defined and used and is equivalent to a nutrient management plan.

In recent discussions, Manitoba Water Stewardship has proposed that they will revise the WQMZ regulation to exempt producers from most WQMZ regulatory requirements if they file a “*nutrient management plan*” to cover a normal 3 to 4 year crop cycle. Since livestock operations that are >300 AU are already required to submit a manure management plan under the Livestock Manure and Mortalities Management Regulation, this manure management plan should be deemed equivalent to a nutrient management plan. The option to submit a nutrient management plan under the WQMZ regulation would apply to all livestock operations < 300 AU and farms that apply chemical fertilizers.

There is a need to specify what constitutes a nutrient management plan under the WQMZ regulation. We believe that MAFRI should administer the NMP and do so in a manner that will give us cumulative useful information.

### Consequences:

A nutrient management plan (NMP) may mean different things to different people. For clarity of all parties concerned, a NMP will require the following details.

### Recommendations:

For those plans that must be submitted to Government, the NMP application form should be similar to Manitoba Conservation's current manure management plan application form. A manure management plan registered under The Livestock Manure & Mortalities Regulation should be deemed equivalent to a nutrient management plan. Therefore, where a manure management plan is registered with the Province, it will not require preparation and registration of a nutrient management plan under a regulation under *The Water Protection Act* as long as it covers the entire farming operation. It is also recommended that MAFRI administer NMP registration and in concert with extension activities to producers.

The Manitoba Environmental Farm Plan workbook includes commercial fertilizer management guidelines for crop production (Section B11) and can be used as a guide. The following considerations are recommended for good nutrient planning:

<i>Locate facilities and fields</i>	- legal descriptions and include map for all fields
<i>ID application setbacks</i>	- as per regulations / guidelines from water features, agricultural soil capability class 6 & 7 and unimproved organic soils
<i>Soil Samples/ Testing</i>	- soil test all field to get a baseline starting point - determine frequency/ extent/ protocol of testing
<i>Fertilizer Use</i>	- crop selection / crop rotation/ irrigated crops - determine target yield - assess nutrient credits from previous (pulses/ forage legume) crops and manure - time of application /form and method of application - recommended rate of application for each field

<i>Information Management - record keeping of nutrient inputs including dates and methods of application, crop yields and soil fertility levels field by field.</i>
---

For clarity, based on soil testing for residual phosphorus, Schedule E of the original WQMZ proposal proposes:

<b>Soil Test P Threshold (Olsen P)</b>	<b>Manure / Bio-Solids</b>	<b>Commercial Fertilizer P</b>
Less than 60 ppm	Apply based on N crop requirements	Apply additional P2O5 based on crop P2O5 requirements
60 – 119 ppm	Apply P2O5 @ 2X crop removal rate (to achieve P slowdown)	Apply no additional P2O5 than starter P2O5 requirements
120 – 179 ppm	Apply P2O5 @ 1X crop removal rate (to achieve P balance)	Apply no additional P2O5 than starter P2O5 requirements
180 or over ppm	No application unless approved by Director (to achieve P drawdown)	Apply no additional P2O5 than starter P2O5 requirements

Producers should be able to have the option to prepare a nutrient management plan on their own for class 1 to 5 or with the assistance of a professional agrolgist (P.Ag) or certified crop advisor (CCA) for the following reasons:

1. Would be consistent with livestock producers who already have this option under the manure regulation.
2. Limited P.Ag./ CCA in the Province to prepare a NMP for all producers at the same time.
3. The demand for consultant services will drive costs up for NMP preparation and administration diverting funds away from long-term improvements “on-farm”.
4. Most producers can complete the NMP if appropriate forms and guidelines are provided.
5. Province will require producers in class 6, 7 and unimproved organic soils or on a farm where warranted (on a case by case basis) to file a NMP with the assistance of a P.Ag or CCA.
6. Province could do a random NMP audit and if a plan does not meet the creditability criteria than government could require it to be re-filed with the assistance of a P.Ag or CCA.

**Benefits & Rationale:**

Livestock producers < 300 AU should be required to develop a nutrient management plan following the recommendations of the P Expert Committee with P balance at 120 ppm. Our rationale for balancing P at 120 ppm is outlined above.

A requirement to use a P.Ag or CCA for every NMP would be impractical, unwarranted use of limited time and financial resources. There is justification for using consultants in sensitive areas or due to past non-compliant situations.

The level of detail will not only impact future administration, monitoring and enforcement, but will affect the level of financial assistance required to support soil testing and preparation of NMPs as recently proposed by the Province.

## **Issue 8: Re-evaluate Buffers**

We agree with the Province that the proposed establishment of mandatory vegetated buffer strips and setbacks from water course and water bodies need to be re-evaluated from a sound scientific basis. If the Province proposes to continue with buffers as a minimum regulatory requirement, it should regulate organic and inorganic nutrients in the same way.

### **Consequences:**

Permanent buffer strips and setbacks of varying widths for N and P nutrient application will take productive agricultural land out of production or reduce crop yields. Weed and rodent problems may also result from vegetated buffer strips. Buffers along property lines and first and second order drains crossing fields will also pose barriers for normal cropping practices.

### **Recommendation:**

The Province should utilize education and conservation programs including farmer incentives to help establish voluntary buffer strips along water courses. It should only regulate minimum buffer setbacks for nutrient application where it will have the most effect and at the least cost and disruption to producers. The Province also needs to look at this issue from the perspective of the farmer to derive practical alternatives. More research on consequences of buffer strip needs to be undertaken to avoid unintended negative impacts.

We agree with the Province's proposal to replace buffer areas along traditional roadside ditches with a simple requirement for "no nutrient application" to traditional roadside ditches. Producers understand and accept the need to maintain the integrity of the provincial and local drainage system and agree that no nutrient application or tillage should occur in bonafide roadside ditches.

For first and second order drains crossing fields, we recommend the Province allow normal cropping practices with stubble left in the fall.

### **Benefits & Rationale:**

Practical regulation of buffer strips and setbacks from water courses for sustainable crop production along with improved nutrient management practices and education extension would be more effective in getting farmer acceptance and protect water than is currently proposed.

## **Issue 9: Special Designated Areas**

The Province has recently proposed the creation of “special designated areas or townships” for livestock dense areas in which producers’ ability to acquire more land is impractical. e.g. R.Ms. of Hanover & La Broquerie. Producers would be given an extended time up to November 2020 to comply with new nutrient requirements and would be eligible for special funding assistance to reduce soil test P. At the same time, the Province has proposed that there would be a moratorium for further livestock development (new or expanding) in these areas.

### **Consequences:**

The Province is proposing very severe restrictions on any new or major expanding livestock development beyond 5% or 5 animal units. If these restrictions on any significant development are established in special designated areas, it should similarly apply to all other sources of nutrients in the area including new septic fields, municipal lagoons and disposal of municipal bio-solids, nutrients from other industries and cosmetic application of nutrients to golf course, parks, urban lawns, etc.

### **Recommendations:**

Municipalities and producers should be consulted regarding proposed special designated areas and the possible imposition of any severe restrictions on major new livestock (and other) developments in their area. Some existing operations, particularly small family farms continually need to expand in order to survive.

As an alternative to a blanket approach for all new or expanding livestock operations in such areas, we recommend that existing livestock producers be afforded flexibility to apply for an expansion irrespective of size and to prove that expansion can be done in an environmentally sustainable manner. It would also be unfair to farmers who currently are not in livestock production to be denied the opportunity to establish a livestock unit if they have sufficient land base to sustainably manage manure to fertilize their crops. In such special designated areas, the application to expand would undergo extra rigour or due diligence by a PAg. or CCA to demonstrate in a proposed nutrient management plan that nutrients can be managed in a sustainable manner within regulated nutrient limits.

### **Benefits & Rationale:**

Special efforts and assistance is warranted in livestock dense areas to adopt improved nutrient management practices. This will help to overcome nutrient overloading that has historically built up over a long period of time.

From an equity point of view, any severe restriction on development should be equally applied to all nutrient sources in a special designated area.

## **Issue 10: Support Water Sampling**

It is recognized that water quality protection is the “driver” for the proposed new N and P nutrient management regulations. Water source sampling is required for public drinking water systems and for monitoring source water quality for livestock operations with 300 AU or more under the Livestock Manure & Mortalities Management Regulation. Strict protocols and testing by independent certified labs are required. The Province has also provided financial assistance to communities and residents under declared “boil water orders”. The Association of Manitoba Municipalities (AMM) has requested that the Province provide an expanded program and assistance for water sampling and testing including smaller streams.

### **Consequences:**

Lack of oversight in monitoring water quality at appropriate intervals and locations, may jeopardize public health. Without extensive water sampling of our major water bodies and rivers, we cannot accurately track water quality trends which will help us develop a better understanding of causes and effects on Manitoba’s water resources.

### **Recommendation:**

A continuous program of periodic water sampling of communities and watersheds including major water bodies, rivers and selected streams should be expanded and funded by the Province. Sampling should be undertaken locally by Conservation Districts or proposed water authorities with results reported annually to the public.

Agricultural producers are prepared to appoint several representatives to work with the Province, Manitoba Conservation Districts Association and the Association of Manitoba Municipalities to identify appropriate sampling locations.

### **Benefits & Rationale:**

Besides protecting public health, and for general water conservation and planning purposes, expanded water testing would also enable the Province to determine if voluntary conservation and farm stewardship initiatives and regulations are having any significant positive effect on water quality.

## **Issue 11: Review of Final Draft Regulations**

Discussion to date has focused on determining regulatory concepts and soil nutrient thresholds. The Phosphorus and WQMZ regulations have been presented in various formats, tables, maps, narrative-explanatory language and PowerPoint revisions. There is a need to review the final draft of the consolidated regulations.

### **Consequences:**

Due to the complexities and number of issues raised by both the Phosphorus and WQMZ regulations, and because there have been so many versions; it is difficult to ascertain what the Province is now proposing in its entirety.

### **Recommendation:**

After consideration of this position paper by the Province, it is recommended that a consolidated text of both the proposed Phosphorus regulation under *The Environment Act* and the WQMZ regulation under *The Water Protection Act* be prepared and reviewed in its final draft form by the Water Stewardship Working Group.

### **Benefits & Rationale:**

The final draft text of any regulations will provide greater clarity and certainty as to new restrictions and requirements on producers.