
REPORT ON PUBLIC CONSULTATIONS

PROPOSED REGULATION DEFINING WATER QUALITY MANAGEMENT ZONES FOR NUTRIENTS

and

PROPOSED AMENDMENTS TO THE LIVESTOCK MANURE AND MORTALITIES MANAGEMENT REGULATION

Manitoba Water Stewardship
and
Manitoba Conservation

November 2006



Manitoba 

EXECUTIVE SUMMARY

When nitrogen and phosphorus are applied to land surfaces in greater amounts than can be used by growing plants, excess nutrients can leach into ground water or run-off into surface water with heavy rainfall, floods, and melting snow. Excessive levels of phosphorus and nitrogen fuel the production of algae and aquatic plants. Extensive algal blooms can cause changes to aquatic life habitat, reduce essential levels of oxygen, clog fisher's commercial nets, interfere with drinking water treatment facilities, and cause taste and odour problems in drinking water. In addition, some forms of blue-green algae can produce highly potent toxins. Studies have shown that since the early 1970s, phosphorus loading has increased by about 10 per cent to Lake Winnipeg and nitrogen loading has increased by about 13 per cent. A similar phenomenon has also occurred in many other Manitoba streams, rivers, and lakes.

During February and March 2006, Manitoba Water Stewardship and Manitoba Conservation jointly consulted with the public through a series of workshops and meetings on a proposed regulation under *The Water Protection Act* respecting Water Quality Management Zones for Nutrients and amendments to the *Livestock Manure and Mortalities Management Regulation* under *The Environment Act*. The proposed amendments to the *Livestock Manure and Mortalities Management Regulation* are based on the recommendations of the Manitoba Phosphorous Expert Committee.

In total, over 875 Manitobans attended the nine public meetings and workshops held in eight locations across Manitoba. Open houses, presentations by Manitoba Water Stewardship, Manitoba Conservation, Manitoba Agriculture, Food and Rural Initiatives, and Manitoba Intergovernmental Affairs and Trade, question and answer sessions, and focused discussions on issues and options provided an opportunity for Manitobans to learn about the proposed regulations and to provide comments and suggestions. About 550 comments and suggestions were provided in 19 general areas and are listed in the accompanying report from Richard Sawchuk and Associates (Appendix One).

Although support for improving and maintaining water quality across Manitoba was widespread, participants voiced many concerns regarding the proposed regulatory approaches. Manitobans remain concerned about the potential costs associated with the proposed regulations. Comments regarding the need for an economic analysis were heard at every meeting. Incentives and assistance programs were seen by many as a way of alleviating potential costs and hastening compliance. Participants also questioned the science on which the proposed regulations were based. Many suggested that the agricultural sector is being unfairly targeted and that nutrient reductions should be directed to other sectors across Manitoba. Concerns and questions were also raised by participants about how the proposed regulation would be implemented and enforced. Some suggested that a non-regulatory approach involving best management practices and incentive programs could better achieve reductions in nutrient loads to surface waters from land.

Comments regarding specific aspects of the proposed regulations were heard at each meeting. In general, participants were comfortable with the proposed phosphorus limits. Participants supported the concept of removing application caps for nitrogen from the proposed

regulation for Water Quality Management Zones for Nutrients and leaving residual nitrate limits. Application rates would then be based on soil testing and crop nutrient requirements. The maps outlining Water Quality Management Zones continued to be a major source of discussion at the public meetings and workshops. Although some agreed that the maps provide a valuable resource for planning purposes, the concept of not embedding the maps in the regulation was favourably received. Some participants suggested that the Canada Land Inventory information is out-dated while others recognized that factors such as topography would not have changed since the soil classification was completed. It was recommended that a process to update the maps in areas with reconnaissance level data and in areas where modification by producers may have altered the Canada Land Inventory classification should be articulated. It was thought that education programs might be required to inform the general public and agricultural producers about the buffer requirements and what best management practices could be employed to manage buffer zones. It was also apparent that better communication regarding the intent of Zone 4 is required.

Specific feedback was also received on each of the proposed clauses with respect to the length of the phase-in period. In general, participants were supportive of the concept of treating all nutrient sources to land (municipal wastewater sludge, inorganic fertilizer in parklands, golf courses, private lands, agricultural areas, livestock manure, etc.) in the same manner. Some participants supported the concept of an urban area called Zone 5 while others suggested that urban areas should be treated as a Zone 4 with no mechanical application of nutrients permitted. Participants were supportive of the concept of prohibiting septic fields from Zone 4 areas and applying the proposed regulation for Water Quality Management Zones for nutrients to golf course and parklands. For livestock operations, of particular concern was a lack of capacity to store manure over the winter and how existing operations with insufficient land for manure application would be considered. Application of the proposed regulation to inorganic fertilizer on agricultural lands received less attention.

Finally, at each of the public meetings and workshops, additional matters such as drainage, watershed planning, and water quality monitoring were raised by members of the public. Discussion of these additional ideas and comments will provide further guidance in the development of the proposed regulations as well as aid other programs underway across the province.

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INTRODUCTION

As part of a number of initiatives to address the issue of nutrients in surface and ground waters, the Manitoba Government through Manitoba Water Stewardship, has proposed a nutrient management regulation for Water Quality Management Zones as identified in Section 4 of *The Water Protection Act*. The goal of the proposed regulation is to protect water quality by preventing the over-application of nutrients to the landscape and by minimizing the risk of loss to sensitive areas. Concurrently, Manitoba Conservation is proposing an amendment to include phosphorus in *The Livestock Manure and Mortalities Management Regulation* under *The Environment Act*. Given the many common issues and to ensure that valuable input from the public and stakeholder groups was incorporated, a joint public consultation process for both proposed regulations was undertaken.

BACKGROUND

The Livestock Manure and Mortalities Management Regulation requires the Minister of Conservation to 1) review the recommendations of the Manitoba Phosphorus Expert Committee, 2) consider the effectiveness of regulating manure application to land on the basis of nitrate nitrogen in the soil, and 3) consult with the public and stakeholders that would be impacted by amendments to the regulation. The Manitoba Phosphorus Expert Committee was tasked with developing recommendations for regulating manure application on the basis of phosphorus. The Committee reviewed current scientific literature, consulted with Canadian and international experts, hosted a workshop with internationally recognized speakers, and sought advice from neighbouring jurisdictions to develop recommendations to the Minister of Conservation. The final report was released in January 2006 and is available on the Manitoba Conservation web site at <http://www.gov.mb.ca/conservation/regoperations/livestock>. Based on the advice of the Manitoba Phosphorus Expert Committee, amendments to include phosphorus in *The Livestock Manure and Mortalities Management Regulation* have been proposed. Public consultation on the proposed amendments began in May 2005.

On July 20, 2005, Manitoba Water Stewardship initiated public consultation on Water Quality Management Zones for Nutrients by releasing a discussion paper outlining the proposed regulatory framework. During the first phase of consultations undertaken from July 20, 2005 to November 15, 2005, Manitobans showed a high level of agreement with the need to better protect water quality from the increasing contribution of nitrogen and phosphorus. Many comments were provided on ways in which the proposed regulation could be improved and questions and concerns were raised regarding its intended implementation. Over 200 unique comments were provided by members of the public and stakeholder groups in 16 different general areas. The initial discussion paper, a paper describing the five main issues and options identified during the first phase of consultation, and an associated appendix containing all comments received were made available to facilitate consultations.

FORMAT FOR PUBLIC MEETINGS AND WORKSHOPS

The joint public consultation process for the two proposed regulations consisted of nine public meetings and workshops held between February 16 and March 13, 2006 at eight locations across Manitoba (see schedule below in Table 1). The sessions were facilitated and recorded by Richard Sawchuk and Associates. Each session began with an open house where participants had the opportunity to view information posters prepared for each of the proposed regulations and to ask questions of representatives from Manitoba Water Stewardship, Manitoba Conservation, Manitoba Agriculture, Food and Rural Initiatives, and Manitoba Intergovernmental Affairs and Trade. After the open house, representatives from each of the four Manitoba Government departments listed above provided presentations for a total of about one hour. An overview was provided along with information on the context of the proposed regulations within other initiatives and legislation in place in Manitoba. A question and answer session followed the formal presentations by the Manitoba Government. Members of the public and stakeholder groups asked questions of clarification and provided perspectives on the proposed regulations. Where time permitted, five main issues and options identified during the first phase of consultation were discussed in a more focused format within smaller groups. Main discussion points identified by each group on each of the five main issues and options were then presented back to the entire audience. Some written submissions were received during, and in the period immediately following, the public meetings and workshops. Comments were also received on the comment cards provided at each meeting. Oral and written feedback received and compiled by Richard Sawchuk and Associates in their report back to the Manitoba Government can be found in Appendix One of this report.

Table 1. Dates and locations for public meetings and workshops.

Date	Community	Location
February 16, 2006	Gimli	Waterfront Centre (94 1st Avenue)
February 22, 2006	Brandon	Royal Oak Inn (3130 Victoria Avenue)
February 23, 2006	Winkler	Winkler Recreation Centre (600 Park Street)
February 28, 2006	Swan River	Westwood Inn (427 Westwood Road)
March 1, 2006	Dauphin	Park and Recreation Complex - Banquet Hall (200 1st Street SE)
March 2, 2006	Winnipeg	Canad Inn Polo Park (1405 St. Matthews Avenue)
March 8, 2006	Lac du Bonnet	Lac du Bonnet Community Centre (25 McArthur Avenue)
March 9, 2006	Steinbach	Legion Community Hall (294 Lumber Avenue)
March 13, 2006	Steinbach	Friedensfeld Community Centre

SUMMARY OF MAIN COMMENTS AND SUGGESTIONS IDENTIFIED DURING THE PUBLIC CONSULTATION

About 550 comments were provided during the workshops and as written submissions between February 16 and March 13, 2006 (Appendix One). Comments were provided in 19 general areas and while most of the comments relate to the proposed nutrient management regulation defining Water Quality Management Zones, suggestions and comments were also received on the proposed amendments to *The Livestock Manure and Mortalities Management Regulation*. Some of the comments recorded by Richard Sawchuk and Associates were really questions of clarification and many were answered by technical staff during the public meetings and workshops. However, the questions of clarification asked by the public and interested stakeholders provide information on where aspects of the proposed regulations will require better communication.

Concept and Underlying Principle

As in the first phase of public consultation, discussion continued in the public meetings and workshops regarding the concept of map-based Water Quality Management Zones for Nutrients. However, support for improving and maintaining water quality across Manitoba was ubiquitous. Support for the regulatory concepts was heard from some participants while others suggested that a non-regulatory approach could also achieve reductions in nutrient loads to surface waters from land. Suggestions for alternative approaches included focusing on local knowledge and an “on farm approach” to nutrient management. In general, agricultural producers indicated that they wanted to work with the Manitoba Government to improve farm practices and technology and reduce nutrient loads to surface waters. Some agricultural producer stakeholder groups suggested an industry and government implementation committee could work to develop a comprehensive nutrient management strategy. It was not clear how non-agricultural sources of nutrients to land such as golf courses, parklands, municipal wastewater sludge, and urban areas would be dealt with in an agriculture-based implementation committee. Some participants urged the Manitoba Government to consider strategies to reduce nutrient runoff from land to water that are in place in other jurisdictions.

Several valuable suggestions were received regarding specific aspects of the proposed regulations such as applications rates, crops to be included in each zone, special irrigated crops, and permanent forage. Participants supported the concept of removing application caps for nitrogen from the proposed regulation for Water Quality Management Zones for Nutrients and leaving residual nitrate limits. Application rates would then be based on soil testing and crop nutrient requirements. In particular, many found the numerical system (1, 2, 3, etc.) assigned to the Water Quality Management Zones confusing given the similar system used for the Canada Land Inventory soil classification and suggested a change to for example an alphabetical system (A, B, C, etc.).

Comments were also received on the consultation process underway to discuss the proposed regulations. Many Manitobans took the opportunity to attend the public meetings and workshops and considerable feedback was received both during the meetings and in writing. However, some clearly felt that decisions regarding the regulations had been made prior to the meetings and workshop, and questioned the value of their comments. Manitoba Government

representatives explained that feedback was important and that given the many proposed changes that occurred after the first phase of consultation, it was certain that feedback from the second round would be significant in shaping the final approach.

At some public meetings and workshops, discussion on the sustainability of the agricultural industry in Manitoba was initiated. Some participants wondered where agriculture in Manitoba is headed given the proposed regulations and the challenges experienced by the industry over the past few years.

Timing

Considerable discussion occurred on the timing of implementation of the proposed regulations, in part due to specific questions aimed at participants in the workshops. Specific feedback was received on the phase-in periods for each of the proposed clauses:

- municipal wastewater sludge;
- inorganic fertilizers applied to agricultural lands;
- inorganic fertilizers applied to parklands and golf courses;
- livestock manure;
- cosmetic applications of inorganic fertilizers (to private properties);
- siting of municipal wastewater lagoons, manure storage facilities, and septic fields.

While some felt that the proposed phase-in periods were appropriate, other participants stressed the need for additional time to comply. In general, most participants felt that all clauses should be implemented at the same time. In addition, it was indicated that phase-in times for the proposed regulations should be consistent with timelines proposed for other nutrient removal strategies such as improvements in wastewater treatment.

Fairness

Some participants at the public meetings and workshop indicated that agriculture appeared to be a target for nutrient removal initiatives and questioned what was being done in other sectors. Other participants indicated that it is time to stop pointing fingers and that everyone needs to do their part to reduce nutrients. At each of the public meetings and workshops, nutrient contributions from other sources throughout Manitoba and neighbouring jurisdictions were discussed. Participants overwhelmingly expressed a need for fairness and equity with respect to nutrient reductions across the various contributing sectors. Sources of nutrients such as storm sewers, wastewater treatment effluent, the City of Winnipeg, Manitoba Hydro, and neighbouring jurisdictions in the United States and Canada were referred to by participants. Presentations, reports, and information posters provided by Manitoba Government representatives provided some information on what is being undertaken in other sectors such as the City of Winnipeg and in upstream jurisdictions.

Of particular concern to some participants was the concept that while other sectors such as the City of Winnipeg can access public funding to initiate nutrient reduction projects, costs for funding nutrient reductions in the agricultural industry are born directly by producers without

access to public dollars. Similarly, costs associated with converting septic fields to holding tanks could be borne directly by homeowners.

Maps

While many participants expressed support for the concept of Water Quality Management Zones, the maps continued to be a major source of discussion at the public meetings and workshops. Although some agreed that the maps provide a valuable resource for planning purposes, the concept of not embedding the maps in the regulation was favourably received. However, others were adamant that the maps should not be part of the proposed regulation. Rationale varied from a lack of confidence in reconnaissance data to a fear as to how the maps would be used by municipalities, financial institutions, and the public. Some suggested that farming and water management practices such as contour cropping, minimum or zero till, one-pass seeding and fertilizing systems, split fertilizer applications, variable rate technology, soil testing, spring vs. fall fertilizer application, proper field drainage, crop rotations and others, can allow producers to sustainably crop soils while preventing soil erosion and maintaining water quality.

Additional map layers such as Agriculture and Agri-Food Canada data, Manitoba Agriculture, Food, and Rural Initiatives' soil suitability, and Manitoba Water Stewardship's groundwater pollution hazard zones were presented on large maps that were printed and mounted for viewing at the meetings. Although discussion of the additional layers was limited, in general the concept of adding additional information to the maps was supported. Participants were supportive of enhancing the maps with information from the Manitoba Agricultural Services Corporation to provide additional information on crop production and update the Water Quality Management Zones. However, producers suggested that the Manitoba Government should be aware that advances in technology such as global positioning systems (GPS) have allowed producers to move beyond reconnaissance maps.

In general, it was observed that a process for updating the maps would need to be part of the regulation. While some participants suggested that the Canada Land Inventory information is out-dated, others recognized that factors such as topography would not have changed since the soil classification was completed. A process to update the maps in areas with reconnaissance level data and in areas where modification by producers may have altered the Canada Land Inventory classification should be articulated. Of concern was how additional soil testing and surveys to support updating the maps would be funded. Although the Manitoba Government identified a process to update soil surveys and develop detailed level maps, some producers suggested that the timelines are too long.

Soil Testing

Many questions were raised at the public meetings and workshops about soil testing. Participants had questions about who would be required to soil test and who would cover the costs of soil testing. Some participants recognized that soil testing, in conjunction with information on crop requirements, provides the best available technology for determining nutrient application rates. Support was offered for the Lake Winnipeg Stewardship Board's

recommendation for provision of a program to expand soil testing to ensure appropriate fertilizer application in both rural and urban settings. It was suggested by some that soil testing should be mandatory. Others questioned the reliability of soil testing and wondered if there was capacity within Manitoba and Canada for additional soil test analysis at credible laboratory facilities. One suggestion to address the perceived issue of capacity was to equip mobile soil test labs that could travel across Manitoba and provide soil testing services.

Buffers

Logistics associated with buffer zones were discussed at each of the nine public meetings and workshops. In general, the specific widths proposed for different water features were not discussed. The implications and maintenance requirements of buffer zones was the main focus of the consultation. Although agricultural producers recognized the need to protect water features, they were concerned about the amount of land that might be taken out of production. Producers felt that buffers could be a source of weeds, insects, and disease, and worried that pesticides to control these nuisances could also be detrimental to water quality. Producers were apprehensive about how to manage buffer strips (removal of vegetation) and discussed methods of seeding and spraying in narrow strips along waterways. Education programs might be required to inform the general public and agricultural producers about the buffer requirements and what best management practices could be employed to manage buffer zones.

Similar to the first round of consultation, participants expressed confusion regarding where buffer strips were required. The wording in the initial July 2005 consultation document (Manitoba Water Stewardship 2005) lead some to understand that buffers only applied to water features in areas described as Zone 4 based on Canada Land Inventory classification. In fact, buffers themselves have been considered Zone 4 and it was proposed that mechanical application of nutrients would be prohibited similar to Canada Land Inventory Class 6, 7, and unimproved organics.

Zone Four

Much of the discussion regarding the proposed Water Quality Management Zones for Nutrients focused on the concept of Zone 4 or areas where the mechanical application of nitrogen and phosphorus would be prohibited. The concept of prohibition of mechanical application appeared to create some confusion among participants as many wondered if this meant that cattle or other livestock could no longer graze on lands classified as Zone 4. However, it was the intent of the proposed regulation to only prohibit mechanical application of nutrients. Therefore, grazing would be allowed in Zone 4 areas subject to prohibitions under other *Acts* and *Regulations* in place in Manitoba.

Some agricultural producers also suggested that productive cropping is occurring on lands classified as Zone 4 in the initial discussion document. However, Manitoba Government representatives indicated that with the exception of buffer strips, it is not the intent of the regulation to limit production on lands that are currently able to support a crop and therefore remove nutrients that may be applied. Therefore, Zone 4 areas that are able to support a productive crop are likely misclassified. Canada Land Inventory classification in some areas

such as those with reconnaissance level data may require updating. It was apparent that better communication regarding the intent of Zone 4 is required.

Given the proposal to prohibit manure storage facilities, wastewater treatment lagoons, and septic fields in areas classified as Zone 4, participants discussed how existing operations located in these areas would be considered. Manitoba Government representatives received some feedback in this area and will consider these valuable suggestions as an implementation plan for existing operations is developed. It was stressed that it is not the intent of the proposed regulation to cause undo economic hardship and participants agreed that this must be considered during the implementation.

Urban Areas and Zone Five

Focused workshop discussions on the concept of urban areas and the proposed Zone 5 under the Water Quality Management Zones for Nutrients generated some feedback. Some participants supported the concept of an urban area called Zone 5 while others suggested that urban areas should be treated as a Zone 4 with no mechanical application of nutrients permitted. While some suggested that it may be appropriate to have the City of Winnipeg initiate a program related to Zone 5, clearly other urban centres such as Brandon, Portage la Prairie, Steinbach, Morden and Winkler have relatively large urban areas that would need to be considered.

Parklands and Golf Courses

Participants expressed their support for applying the proposed regulation for Water Quality Management Zones for nutrients to golf course and parklands. It was observed that to ensure a fair and equitable approach, all sources of nitrogen and phosphorus to land should be treated the same.

Livestock Manure

Participants raised several issues and provided specific suggestions for the proposed regulation related to the application of livestock manure to land. Some suggested that different types of manure should not be treated equal with respect to application rates due to different release rates. However, given the suggestions to base the proposed regulation on soil residual phosphorus and nitrate limits, and crop nutrient requirements, including specifics on nutrient availability in different manure types in the regulation would be unnecessary. Others suggested that manure management planning provided a more effective method of managing nutrient applications to land. Of particular concern was lack of capacity to store manure over the winter and how existing operations with insufficient land for manure application would be considered.

Municipal Wastewater Sludge

In general, participants were supportive of the concept of treating municipal wastewater sludge application to land the same as for livestock manure, inorganic fertilizers, etc. In particular, participants suggested that winter application of municipal wastewater sludge should be prohibited in the same areas where application of livestock manure would be prohibited.

Some participants stressed that heavy metals and pharmaceuticals in municipal wastewater sludge were also of significant concern.

Septic Fields

In general, participants were supportive of restricting septic fields in Zone 4. Some suggested that this potential clause in the regulation was obvious as Zone 4 areas would be unfavourable for residential developments. However, some expressed concern that wastewater treatment may be difficult and costly in municipalities characterized by large areas of Zone 4. Although no specific suggestions were received, it was recognized that many recreational and cottage areas exist in Zone 4 (buffer zones) and transitioning to holding tanks or regional systems from septic fields may be costly. A similar concern was expressed by a municipal official in whose area large numbers of residences were located on Zone 4 lands.

Groundwater

Although few specific suggestions were received, participants stressed that ground water requires the same level of protection as surface water. Some commented that the maps should include provisions for groundwater protection that would overlap the Water Quality Management Zones.

Phosphorus

Given the proposal to amend *The Livestock Manure and Mortalities Management Regulation* to include phosphorus and the phosphorus requirements in the proposed regulation for Water Quality Management Zones for Nutrients, phosphorus was frequently discussed at the public meetings and workshops. In particular, questions arose regarding the science around phosphorus availability in soil, uptake by crops, runoff from land, and technologies available to reduce phosphorus concentrations in livestock manure. Although there was initially some confusion regarding the proposed phosphorus thresholds and the concept that the thresholds applied to mechanical application, once the correct information was communicated at the public meetings and workshops, participants were generally comfortable with the proposed limits.

Economic Analysis

Comments regarding the need for an economic analysis of the proposed regulations were heard at every meeting. Manitobans remain concerned about the potential costs associated with the proposed regulations. Costs associated with upgrading septic fields, removing land from production, developing additional manure storage capacity, and testing soil were frequently discussed. Many wondered if potential economic impacts of the proposed regulation would affect not only producers but also industry, government and the general public in urban and rural areas. Participants at the meetings and workshops also expressed a commitment to protecting water quality and wondered if the benefits associated with the proposed regulation could be assigned a dollar value.

The Need for Incentives, Assistance Programs, and Education

While participants frequently mentioned potential costs to Manitobans associated with the proposed regulations, incentives and assistance programs were seen by many as a way of alleviating these potential costs. In some cases, participants expressed support for the proposed regulations but were concerned about a lack of incentives and assistance programs to make complying with the regulation cost effective for producers. Requests for incentives and assistance programs to offset basic costs associated with the proposed regulations, to develop new best management practices, and to conduct research and test new technologies were brought forward. Producers indicated that choice and flexibility for incentives and assistance programs is preferred over regulation.

Producers expressed concerns about increasing costs associated with soil testing to measure residual values and to confirm or dispute Canada Land Inventory classifications. The Manitoba Government was encouraged to identify who would pay for additional soil testing required as part of routine production and to determine soil classification in cases of a difference between local knowledge and existing Canada Land Inventory information.

A common concern raised at several meetings was that Zone 4 lands currently producing crops would be removed from production resulting in a cost to producers. Producers wondered what compensation would be available. Manitoba Government representatives indicated that with the exception of buffer strips, it is not the intent of the regulation to limit production on lands that are currently able to support a crop and therefore remove nutrients that may be applied. Therefore, Zone 4 areas that are able to support a productive crop are likely misclassified. Canada Land Inventory classification in some areas (in particular areas with reconnaissance level data) may require updating. In addition, it was apparent that better communication regarding the intent of Zone 4 is required.

In general, participants were aware that productive land located in buffer strips, represents an additional risk to surface and ground waters and may be removed from production. Participants requested that consideration be given to compensation for these buffer lands that would be removed from production. It was suggested that since buffer strips provide an ecological benefit to society, compensation could be provided to producers.

Existing programs available to producers such as the Agricultural Policy Framework, Riparian Tax Credit, Sustainable Development Innovations Fund, the Water Stewardship Fund, etc. were briefly discussed at some meetings. The general consensus was that although these programs are available, they may not be sufficient to meet the perceived costs associated with the proposed regulation. It was also noted that in some cases producers lacked the funds to participate in cost-sharing programs.

Funding programs in neighbouring jurisdictions were also referenced by the participants. Participants indicated a need to remain competitive with other jurisdictions and expressed concern that incentive and assistance programs be structured so that they are not perceived as subsidies by the United States resulting in tariffs for Manitoba's agricultural products.

Although discussion of potential programs to educate sectors responsible for nutrient application to land (municipal wastewater sludge; inorganic fertilizers applied to agricultural lands, parklands, golf courses and private properties; livestock manure) was limited, in general participants support enhanced education.

Compliance and Enforcement

Questions were raised by participants about how the proposed regulation would be implemented and enforced. In some instances, detailed questions on specific situations were asked and discussed at the public meetings. In addition, the process for appealing and the possibility for exemptions were discussed at some of the meetings. Some participants also expressed concerns regarding how the proposed regulations would be enforced given a perceived lack of enforcement on existing regulations. Some were also concerned about potential financial costs associated with enforcement such as legal soil samples, testimony, and legal fees.

Comments Specific to *The Livestock Manure and Mortalities Management Regulation*

Some of the comments provided in the public meetings and workshop related directly to the proposed amendments to *The Livestock Manure and Mortalities Management Regulation*. Agricultural producers asked many questions about the current regulation and the proposed changes to include phosphorus. Dates for application of manure, timeline for incorporation, winter storage and the special management areas, and timelines for implementation were frequently discussed and feedback was provided. Some questions also referred to the work of the Manitoba Phosphorus Expert Committee and how it had influenced the proposed amendments.

Additional Matters

At each of the public meetings and workshops, additional matters were raised by members of the public. For example, some participants suggested that nutrient management could best be achieved through improvements to the drainage network that would reduce overland flooding. Others suggested that slowing the flow of water off the land would reduce the movement of nutrients. The science behind nutrient management in Manitoba was a common topic of discussion as was other aspects of water quality such as monitoring programs across the province. Advice was provided on approaches to nutrient management in other sectors and the need for watershed planning was emphasized. Discussion of these additional ideas and comments will certainly provide further guidance in the development of the proposed regulations as well as aid in other programs underway across the province.

APPENDIX ONE

Report to Manitoba Water Stewardship and Manitoba Conservation
from Richard Sawchuk and Associates

SUMMARY OF INPUT AT PUBLIC CONSULTATIONS ON

**Proposed regulation defining Water Quality Management
Zones for Nutrients**

and

**Proposed amendments to *The Livestock Manure and
Mortalities Management Regulation***

Prepared for
Manitoba Water Stewardship
And Manitoba Conservation

by
Richard Sawchuk & Associates

April 13, 2006

Public Meeting and Workshop Format

As part of a public consultation process to obtain feedback on the proposed nutrient management regulation for Water Quality Management Zones and the proposed amendments to include phosphorus in *The Livestock Manure and Mortalities Management Regulation*, nine public meetings and workshops were held between February 16 and March 13, 2006 at eight locations across Manitoba (see schedule below in Table 1). In total, about 875 people attended the nine sessions.

Each public session began with an open house where participants had the opportunity to view information posters prepared for each of the proposed regulations and to ask questions of representatives from Manitoba Water Stewardship, Manitoba Conservation, Manitoba Agricultural, Food and Rural Initiatives, and Manitoba Intergovernmental Affairs and Trade. After the open house, representatives from each of the four Manitoba Government departments listed above provided presentations for a total of about one hour. An overview was provided along with information on the context of the proposed regulations within other initiatives and legislation in place in Manitoba. A question and answer session followed the formal presentations by the Manitoba Government. Members of the public and stakeholder groups asked questions of clarification and provided perspectives on the proposed regulations. Where time permitted, five main issues and options identified during the first phase of consultation were discussed in a more focused manner within smaller groups. Main discussion points identified by each group on each of the five main issues and options were then presented back to the entire audience. Richard Sawchuk and Associates facilitated the sessions and recorded the feedback received during the question and answer session and the more focused discussions on the five main issues. Some written submissions were received during, and in the period immediately following, the public meetings and workshops. Some comments were also received on the comment cards provided at each meeting. Oral and written feedback received and compiled by Richard Sawchuk and Associates can be found in Table 2 of this report back to the Manitoba Government through Manitoba Water Stewardship and Manitoba Conservation.

Table 1. Dates and locations for public meetings and workshops.

Date	Community	Location
February 16, 2006	Gimli	Waterfront Centre (94 1st Avenue)
February 22, 2006	Brandon	Royal Oak Inn (3130 Victoria Avenue)
February 23, 2006	Winkler	Winkler Recreation Centre (600 Park Street)
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Table 2. Itemized list of oral and written comments provided by the public and interested stakeholder groups at public meetings and workshops held between February 16 and March 13, 2006.

Comment Number	Input
1	What is a special irrigated crop? Does it include solid-seeded crops?
2	Alfalfa uses more nutrients than most crops. Is alfalfa going to stay as an irrigated crop?
3	Agrees with removing application rate caps: residual, not capping amount of nutrient going on the field.
4	Do you take soil type into account? If you set a base limit for everything, it varies between soils. Red River Valley clays need higher levels than Carberry sands. Has this been taken into consideration?
5	In certain zones, with no nitrogen or phosphorus application allowed, will we increase the erosion due to not encouraging growth?
6	Some of the regulations are not sustainable, such as the amount of nutrients limited in the soils for livestock operations. Corn crop may need more than allowed nutrients some years.
7	All here want clean, pure water. Nutrients loading on Red River by U of M over 21 years shows decrease. But North of Winnipeg is a different story. Why does the map (satellite images) of Lake Winnipeg show greener in the North Basin?
8	Growing potatoes on soil like shown in the pictures. Lots of new technology. Why do we make assumptions that no one can grow anything on that? Too many assumptions.
9	15% of phosphorus is associated with agriculture – what is the targeted reduction with the new regulation?
10	Phosphorus 15%, nitrogen 6%: focus is mainly on agriculture.
11	In the late 1960s, early 1970s, we put on a bag of fertilizer. Then along came a cheap food policy and educated agriculture reps that promoted growth by fertilizer and chemical use and increased debt. We moved over time to high yields and built a system. We need to be careful not to use nutrients too aggressively.
12	Buffer zone – how much land out of production? What kind of impact will the buffers have on productive capacity, and what compensation will be provided?
13	Buffer strips – will producers be required to harvest the vegetation on them?
14	Buffer strips – will government provide financial assistance for loss of crop lands due to buffer strips?
15	Buffer widths – weeds and other vegetation feeds into the waterway, adding to the problem.
16	The removal of biomass from buffer strips and drainage system – who will be required to do that?
17	Having a 3 m buffer strip is impractical with today's large equipment. Must fertilize the buffer strip.
18	Confidence that vegetated buffer zone will not contribute more nutrients from decay, etc, than a 1 m non-vegetated zone?
19	Can a municipality allow road/drain allowances to be used by a producer, and can that land be fertilized? Some producers fertilize the ditch to reduce maintenance costs: is this practice being eliminated?
20	If the phosphorus coming off our land is lower than that in Lake Winnipeg, can I apply for an exemption?

Comment Number	Input
21	Buffer strips: apply to all cropland. The farmers would take 3' of grass over 15 feet of no fertilizer. Average farm in Manitoba would have 21 miles of 3' buffers, 160,000 miles (+60,000 acres) taken out of production.
22	Understand the need for buffer strips along waterways – not along ditches. Land out of production, 22 miles to mow. Need to do a lot more work on this.
23	Buffer strips – still allowed to spread commercial fertilizer on them?
24	Buffer strips should be variable in size, if needed.
25	In terms of setback distances, the buffers would be considered Zone 4 (no fertilizer). The presentation says no manure application. The regulations need to harmonize. So set backs do not differ whether commercial fertilizer or manure.
26	Buffer strips: what happens to those lands that go under during summer flooding? Can the buffer area be increased to ½ mile from the rivers?
27	If you have land with a lot of small pot holes that don't drain off well, will you need buffer strips? Land gets small, more snow cover by the buffer strip....
28	Slope is variable over a half-mile, for example. How effective can a buffer strip be if runoff at only 2 spots?
29	As mentioned earlier, the removal of biomass from buffer strips and drainage systems is required to reduce nitrogen and phosphorus from leaching into the water. Will the province and municipalities remove this biomass from drains and buffer strips that are in the areas under their jurisdiction or on an annual basis?
30	If no nitrogen and phosphorus can be applied to crops in buffer strips or sensitive areas, the risk of soil erosion is increased due to a reduction of plant growth material resulting from, a lack of fertilizer. If soil is allowed to erode, it could potentially cause more P to move into the water system than overland water flooding on soils that are protected from eroding.
31	Buffer widths are like ecological goods and services. Pay the farmers for it.
32	This is the government and people's opportunity to pay respect to all landowners and farmers and pay them to restore wetlands, buffer zones as environmental filters that our Canadian land and water needs. Restore Mother nature's lungs.
33	Buffer zones: where did idea come from? What data to determine if it is effective to accomplish this goal? On all cropped land in the province? How would you measure success?
34	Tech Paper Issue 4: Options under 3a: Choice and flexibility is good. There are alternatives through the Environmental Farm Program.
35	Managing a 3' wide buffer strip would be a problem and a nuisance. Going to the alternate 15 m of buffer is cutting out a lot of land. Vegetated or non-vegetated strip?
36	Buffer widths: should have buffer strips around all ditches and edges of the fields.
37	How do you legislate stewardship of the land and water? Maybe buffer strips should be wider. If land is taken out of production, there should be compensation. But do we have to pay a farmer to not spread manure within a metre of the river?
38	Soil testing is needed, but who pays?
39	If we need to put up buffer strips, the government should pay us for the land.

Comment Number	Input
40	Application of nitrogen: I understand we can now apply nitrogen as long as the corn crop brings the level down to the threshold.
41	Balance phosphorus with removal rates: must use residual limits; we'd agree with it.
42	ppm is important in Class 6 and 7 – why not set a residual level on that land? Do you acknowledge that productive farming is taking place on those lands?
43	Science needs to be the basis of the regulations. Ontario changed their 60 ppm to 100 ppm since they couldn't back it up. Does Manitoba have different science to back up the 60 ppm? Is Manitoba prepared for the liability if wrong? Specialty crops – 60 ppm could limit the crop potential.
44	The technology for the removal of phosphorus doesn't currently exist.
45	If an operation doesn't import nutrients, should be no loading problem. If so, why would a farmer exceed 60 ppm?
46	If manure mechanically applied in Zone 4 and not over 60 ppm, would you be in violation?
47	Manitoba Phosphorus Expert Committee – only one producer on it. Why? Should have involved producers earlier.
48	Phosphorus removal – how do we achieve this?
49	Summerfallow should not be treated the same as permanent forage cover.
50	Soil testing is the correct way to understand the nutrients in the soils. Below 200 ppm is not really a loading problem, based on some research (Dr. Sharpely).
51	Exposed to recent research in Winnipeg in last couple of weeks – are you going to sit down with researchers and producers to see the implications of this on the work of the Phosphorus Expert Committee?
52	There are lands out there that have more phosphorus than they need, so land will be eliminated. Phosphorus may not be available to the crop until it breaks down?
53	A lot of soils have been depleted of phosphorus over the past few years. Those soils need to be enhanced.
54	Is the department planning at looking at all strategies for phosphorus removal from Lake Winnipeg? Immediate removal? Then give those in agriculture time to implement other projects? Or wait 'til some other best management practices are evaluated?
55	There are a few companies out there that are interested in removing the phosphorus from the lake. Will the government look at it? 368 tons/year removal, approaching 400 tons/year or 11% of the phosphorus getting into the lake.
56	Benchmarking to allow the tracing of phosphorus levels in fields?
57	Phosphorus values are acceptable but may be a problem in Zones 4 and 5
58	On the phosphorus ratios and 60 ppm – if alfalfa, are we allowed to apply manure?
59	Has work been done or will work be done on an ongoing basis to study how different farming practices (grain or livestock) affect nutrient uptake/leaching/runoff and residual nitrogen and phosphorus levels, so that sound science-based decisions that are both environmentally and economically sustainable can be made?

Comment Number	Input
60	If farmers are expected to comply with nutrient regulations, data showing the escape of phosphorus to surface water from specific agriculture practices, from urban sources, and from natural sources must be provided and the effectiveness of buffer zones must be demonstrated.
61	When regulations come into place, when will we see an improvement in the levels?
62	Monitoring phosphorus at the Floodway Gates: if you move this monitoring station to St. Adolphe, will the phosphorus levels be monitored twice – once when the water flows North and the second time when it bounces back from the Gates?
63	The nutrient limits for zone 3 and 4 soils are being questioned by people who have been successfully farming them for years, and evidence must be provided that the proposed nutrient limits have credibility.
64	The water quality monitoring site at the floodway gates: why is this no longer an acceptable water monitoring site? Legislation says that the regulations have to be based on science.
65	What if your current science is wrong? How will you swing the pendulum back?
66	Dishwasher formula: 2lb of phosphorus makes 1000 lbs of blue/green algae.
67	The real reason we're all here – nitrogen and phosphorus loading. No chart or data showing year-by-year levels.
68	Lots of nutrient contribution of western sources – are your calculations right for what is contribution by Manitoba? Are they estimates or calculations? Why are you targeting farmers without facts? Why has there been nothing addressed during the presentations regarding sewage, parks, etc.?
69	The numbers on who is responsible for the loading of phosphorus in Lake Winnipeg – the Minnesota and North Dakota people are not as concerned about our water as they say they are. Believe farmers are being blamed for the increase in nutrients, even though there are lots of lagoons along the LaSalle. Are the numbers accurate?
70	Confidence with estimates of where nutrients are coming from?
71	Question the accuracy of the contribution of agriculture.
72	Question confidence in numbers – some concern as to how the percentages are calculated.
73	How much does the nutrient level have to be dropped in Lake Winnipeg for problem to be under control?
74	Have there been any studies done concerning the 15% contribution of agriculture - is the increase due to natural causes, such as '97 flood and recent heavy rains? What effect do dry years have – a reduction?
75	Very intense cottage areas – are they included in point source numbers or lumped into the agriculture number?
76	1988 was driest year in western Canada's history. Manitoba produced 4 times the products in 1988 than 1937 (second driest year). No government regulations. The best place to store your phosphate in the olden days was on the ground – not today.

Comment Number	Input
77	Province has been taking readings for the past 3 decades. Have you taken into account the high water levels in this area over the last 15 years? How good is the science? The level of nutrients in the Red between the United States border and South is flat – why? Does the phosphate just disappear? Table of contributors/sources: nature is 22%; agriculture is only 15%. Should be talking to Mother Nature. What is the margin of error in your scientific studies?
78	If all this discussion is based on science, where did the science come from?
79	Agriculture at 15% - it's an estimate, should have been between 10 and 15 % - why not use 10 %? LaSalle River – was dirty back in the days of settlement. Lots of city sludge being dumped there in the winter. Is it being analyzed?
80	Can't address issues since we haven't sat down and discussed them. What scientific background did Keystone Agricultural Producers rep have on Manitoba Phosphorus Expert Committee? Why was he not included in these meetings to explain why and what the committee did? Can the producers provide a technical representative?
81	What contribution does fertilizer applied urban areas parkland/golf courses add to our water?
82	Require soil testing for lands where inorganic fertilizer is applied; what is the contribution of urban areas and golf courses to water? Understanding needed before proceeding...
83	Inorganic fertilizer application to golf courses and parklands (non-point sources) – reduction is not a costly adjustment, like producers.
84	The way the urban areas load the watershed is really non-sustainable and not in synch with nature, and therefore should be targeted first; and once the results from their clean-up kicks-in in 5 to 10 years, look at your broad regulations for agriculture.
85	Limit the fertilizers on the lawns in the cities, such as with our Zone 4.
86	Not talking about applied fertilizers – natural occurrences. Freeze/thaw of grass adds nutrients to the environment.
87	Lawns are usually over fertilized and with slopes, lots to wash off into the water system. Need buffer zones for riparian areas.
88	Prohibition on inorganic fertilizer will work like prohibition in the 1930s.
89	Also need to look for heavy metals and pathogens in the sludge.
90	Southern and central Manitoba have been addressed in the literature. Northern Manitoba has urban sewer infrastructure and industries that probably fall into WQMZ Zone 4. What is the plan for Northern Manitoba keeping in mind the principles equal treatment of all Manitobans?
91	No comment about slurry in municipal wastewater lagoons that gets dumped into the ditches and waterways.
92	Sludge: concept of having regulations for application is definitely needed. Regulations should also address what the sludge brings into the environmental (heavy metals, etc.). Some of these things may come back to haunt us if they're not dealt with early.
93	Municipal wastewater sludge should follow Intensive Livestock Operations regulations. What about heavy metals? Our recommendation is based on 'if sludge has same composition as manure'.

Comment Number	Input
94	Phosphorus and nitrogen must come into picture when spreading sludge on the land – metals and pathogens. Need total analysis of that before spreading. Has to be a better way to deal with sludge. No winter application, period.
95	Farmer in Rural Municipality of Macdonald: lots of hog operations, and they're doing a good job. Yet City of Winnipeg spreading sludge on the fields. Seems like 2 sets of rules.
96	Municipal wastewater sludge should be treated fairly, as farmers should be treated. Spreading times for the year, amounts per acre.
97	What are the contaminants in the snow piled on the river banks by urban areas?
98	Reference to sludge from urban lagoons but there has been no mention of storm sewers. Evidence is that it is an important source of nutrients into the bodies of water. Is there a baseline for nutrients from the storm sewers? Are they included in the City of Winnipeg guidelines? Is there any assistance for small communities?
99	Towns and villages dump effluent into the river twice a year. They're dumping at the wrong time of the year – July. Should be doing it in when the water flow is higher, rather than lower.
100	Difference in expectations between municipalities and agriculture: \$751M will reduce City of Winnipeg annual sewage overflows to 4 from 10. Just under \$3,000 per resident. Will you promise that the capital cost to farmers will not exceed \$3,000 over 25-years?
101	Comment about nutrient load in the Seine River. 9 municipal lagoons including the City of Steinbach dump their lagoons into the Seine River Diversion. Atop the Seine, there are residences that dump their waste into the river under a grandfather clause that allows them to do so.
102	A lot of mention about municipal sludge, the solids from the lagoons. What about the water? Does it not contain nutrients? I don't see that addressed in the documents.
103	Municipal sludge should be composted and then checked for heavy metals, etc.
104	Application in the fall needs to be incorporated or put on hay fields.
105	Why Winnipeg given 20 years and P La P only given 2 years to upgrade their combined sewer systems? No feeling of co-operation.
106	Is the City of Winnipeg considered a municipality? Is it treated the same as rural people? For the City of Winnipeg, how do you measure/monitor and who enforces the 10% reduction?
107	Are you missing all the data on nitrogen and phosphorus from the storm sewers if you just capture data at the City of Winnipeg treatment plant? So the 10% reduction doesn't include storm sewers, then?
108	City of Winnipeg discharge of untreated wastewater; votes are urban-based; increase dollars from consumers, probably not very popular; farmers tapped out.
109	If the City of Winnipeg and others don't meet the reductions in their licenses, etc, what happens?
110	If City of Winnipeg can defer sewage treatment, why can't producers defer any new regulations?

Comment Number	Input
111	"No new livestock operations on unimproved organic soils" – does that mean cattle can't go in the bush for shelter? Can the producer go into that area and feed his livestock? What about moving the livestock further down the ravine for new, better shelter?
112	'Extensive' livestock operation as opposed to 'intensive': how about considering it a small animal units operation due to small amount of manure as most animals are not confined over the winter?
113	Swath grazing – will it still be allowed?
114	Inter-municipal manure spreading is a must with the new regulations.
115	For new operations, does a producer have to demonstrate that he has sufficient land to deal with manure and nutrient levels? Do you have to have signed agreements in-place? Phosphorus reduction/removal technologies coming slowly – new regulation shouldn't be onerous.
116	Incorporate manure within 48 hours: if it rains and can't get back to incorporate it for a week, what happens?
117	Incorporate fall manure application: how do you define a regularly inundated area? How do you determine 'adjacent'?
118	Spreading manure 5 times the rate? Never. Winter spreading has greatly diminished.
119	I believe these issues are due to errors made by allowing large corporate farming in generally poor agricultural areas to improve municipal revenue. If these +300 animal unit farms stop winter spreading, these small farms will have little effect if proper soil testing is done.
120	By adding enzymes to hog feed, we have reduced the phosphorus content in manure by 30 – 40%. New barley is being developed to reduce phosphorus in manure by 60%
121	Association of Manitoba Municipalities meeting last year – feeling like second-class citizens. I feel like one today. Not enough farmers on the Phosphorus Expert Committee. It appears government feels threatened and some of their answers are adversarial.
122	Riparian areas – Alberta program of fencing is a detriment. Research from the US says the same things. The regulations must be based on sound and accurate scientific data. Why then, include fencing off riparian areas?
123	As far as winter spreading for small operations goes, it is not affordable to build storage for a year. We know where to spread, where there is no overland flooding in the spring.
124	Dairy farmer: not enough money in agriculture to go back on the land and work in the fall application of manure.
125	What is the break on 'small' vs. 'large' operations?
126	November results on manure study, after Manitoba Phosphorus Expert study: vegetated buffer strips – some work well, some don't. Can you revisit with that committee and look at the phosphorus regulation?
127	Banning winter spreading will increase cost for dairy producers. East coast is trying composting.
128	Zone 4 – what will happen to larger livestock operations that cannot spread manure?
129	'No' to winter application, except under special conditions.
130	Same rules for everybody. Prohibit winter application, except in dire circumstances.

Comment Number	Input
131	Manure application within 48 hours – good management tool and proper application standards. Industry standards are done for all businesses.
132	No winter spreading – how many small, family farms will be left? How many of the older farmers will step out when it becomes too expensive? Isn't there leaching from manure if we spread too much? We as farmers are innovative.
133	Manure management: very little info a few years ago.
134	Manure regulation is the biggest impact.
135	Would the 60 ppm apply to both new and existing operations, and all Zones? We think it should apply to all producers.
136	Explain no-spread zone.
137	Different release rates from different types of manure? How is this being addressed?
138	Regarding manure storage, what happens in areas with regular spring flooding? Limit winter spreading?
139	Any known benefit in exceeding 60 ppm of phosphorus?
140	My land is in Class 6 and 7 (Zone 4): how do we handle no application of manure? Sell out?
141	60 ppm: If I increase my soil capacity for nutrients through good management practices, do I get recognized for that?
142	Segregate manure types, since they're different. Are there different release rates for the different types? Need more support to implement.
143	Segregation of manure types: hog manure, cattle manure, composting, liquid.
144	What are the ramifications for a 40-head dairy herd, for example? For instance, 40 cows on 200 acres and 100 cows on 200 acres are treated as equal.
145	What can be done with manure from existing operations when they're restricted from spreading?
146	If a producer has a manure management plan, use that and throw out the Zones altogether.
147	Re: livestock manure – existing regulations not being enforced; will agriculture reign over environment again and these new regulations not be enforced?
148	Where does the September 10 date come from, regarding the prohibition of manure spreading? But freeze-up not until Oct or Nov.....
149	Date of September 10 for application timing – why?
150	September 10 for winter spreading – does it apply to forage crops?
151	Phosphorus regulation may double the cost of manure application for some hog producers. 2013 may be too soon to come up with new technology.
152	Nov 10, 2013: very important to get manure out of the artificially flooded areas for health of the residents and for the health of the aquifers, drinking water and groundwater supplies.
153	Will existing manure storages located in Zone 4 have to be moved? How will this be addressed? Where will they move if they only have Zone 4 land available?
154	Manure storage facility wouldn't be granted licence. Who would be the decision-maker?

Comment Number	Input
155	Issues and Options paper: septic tank owners – look at keeping them on a site-specific operation in Zone 4? Same for producers?
156	Zone 4 – septic fields: ‘phase-in’ on site-specific development plans – what does ‘phase-in’ mean? We could do the same with industry and government working together.
157	Define ‘septic field’ in regulations.
158	Eliminate septic fields immediately if located in Zone 4.
159	Septic fields in Zone 4: development plans should preclude people from building homes there in the first place. Lots of cottage development in Zone 4 and septic fields. Need government to do something quick.
160	Rural Municipality of Reynolds: No septic fields in our area? No sewage injection systems? Are you going to move us all out? Public does not understand the potential impact on their residences.
161	What might the other options be for no septic fields in Zone 4?
162	It would appear to be fairly critical to be able to demonstrate the effectiveness of individual programs in terms of actual nutrient reduction. Consider selected ‘demonstration farms’ to establish program effectiveness.
163	Need up-front planning, believe in Water Quality Management Zones, but don’t believe in the maps. Look at erodability and slopes, protect groundwater. Reconnaissance-level mapped areas will create a lot of confusion for planning and development.
164	Issues and Options paper purportedly included all Issues and Options – two options put forth by producers not included. Industry and government could work co-operatively to develop a comprehensive nutrients management strategy first and to balance implementation approach, cost-effective co-operation, not a hard regulation. Minister Ashton talked about forming a joint agricultural commodity industry-government implementation committee to work together to find solutions to meet. Why were they not in Issues and Options paper? Will those two options be included in this workshop?
165	Benchmarking: if we don’t know the benchmarks, how can we tell the effects, if it is cost-effective and is it assisting the water quality? How effective are these environmental initiatives if we don’t know where we started?
166	Ensure the rights and livelihoods of rural Manitobans are not needlessly sacrificed without any meaningful improvement to water quality, due to lack of sufficient review and research into current agricultural farm practices and possible alternative solutions.
167	Believe these proposed regulations are totally premature, poorly researched, and based on outdated data.
168	How can you bring in these proposed regulations that will cost lots and cause more paperwork, etc.? The report of the Manitoba Phosphorus Expert Committee: “Best available science; little data for Manitoba.” You haven’t done your homework, such as checking with the other provinces.
169	How do these regulations compare to those of other provinces?
170	New operation – if existing ranch is the buyer a “new operation”? If you purchase someone’s ranch, are you then a “new operation”? What if you buy your neighbour’s operation?

Comment Number	Input
171	A minor expansion should not be a problem under the new regulation, such as when a farmer is land-locked. Needs to be a threshold, a percentage, perhaps 20%, and in conjunction with land arability.
172	Should existing producers be allowed some expansion before requiring compliance immediately under the new regulations?
173	Address the point sources in agriculture – large, intensive livestock operations with little or no land to spread on.
174	Want a more farm-focused approach on this regulation. Expand environmental farm plans and funding for best management practices. Encourage manure management plans. Need more research, and then 10 – 15 years to implement. Work collaboratively with agriculture. Developed an Agriculture Plan 5-10, with targets, actions, details and benefits.
175	Don't like word 'regulation' to start with – like 'guidelines'. No recognition to the progress producers have made in the last 5 years. Would need to spend lots of time doing new paperwork, etc. If they screw up and over-manure some land, they won't do it again next year since they won't get a crop.
176	Ag issues in urban areas are of no concern. Ag is an easy, visible target. Votes are urban and therefore politicians are unwilling to allocate blame for phosphorus/nitrogen sources.
177	Agricultural industry is weak and is under 'attack' for environmental issues.
178	Concern for farm value because of environmental laws. Individual farms will pay huge economic cost for small percentage of phosphorus/nitrogen.
179	Regulation includes buffer zones. Are there zero nutrients in liquid effluent and OK for discharge? If not, why are municipalities allowed to spread and producers not allowed?
180	300 animal units: recommendation was 400 first time; Manitoba cabinet made the arbitrary decision to set it at 300, not based on science. Too many hog barns in too few spaces in the Red River Valley but government is addressing issue to everyone across the province.
181	We're chasing 15% phosphorus from Manitoba agriculture: with everything being foisted on the rural people, what will the reduction be? No figure mentioned. Is the increase larger for the urban or rural areas?
182	Not sure if all regulations can actually be implemented – going to very expensive and unmanageable. Why not just follow the environment act? If you pollute, you pay.
183	Seems to be an attack with a big wide brush with the increase in nutrients over the past 30 years. None of the sites are identified specifically, just generally. Not a very scientific approach. Our small group did research on Roseau River for a couple of years.
184	We're trying to solve 99% of the problem with 15% of the solutions. The impact to agriculture is huge. It's not a 1% increase in costs – it's taking the profit out. What kind of help or subsidies?
185	Who will be responsible for enforcement?
186	Alluded to process that has been agreed to by other jurisdictions (lowering their contribution by 10%): what occurs if non-compliance?
187	What will be the approach to enforcement? How many infractions before offenders are fined? What is the appeal process for offenders?
188	What is the onus of proof when caution zones are identified? Who pays for the cost of testing (soil survey collection)?

Comment Number	Input
189	The government has removed control of manure from the municipalities – we had stricter regulations on setbacks and if there was an issue of non-compliance, the conditional use was pulled.
190	Enforcement?
191	Once everything gets going, who is going to monitor and enforce these regulations? Who is going to pay for it?
192	Few people to monitor and enforce existing regulations, how will you enforce these new regulations?
193	If there are regulations, there must be compliance. How many enforcers have been hired to accommodate this new work load?
194	You will need incentives to get voluntary compliance – buffers and riparian areas.
195	Conviction for over-application of nutrients whether on city lots or agricultural fields will require extensive soil samples obtained under warrant, expert testimony and of course much court time and legal expense. What is the estimate for what these costs might be?
196	Enforcement of phosphorus regulation will be very difficult – no time or money to check on a farmer's fields. Keep an eye on the intensive livestock operations, then.
197	Current regulations need to be enforced so that new regulations really aren't necessary (e.g.: City of Winnipeg).
198	Maps: understand they won't be embedded, but what kind of assurance that the government will develop accurate maps? Will they not be legally binding?
199	Guidelines tie into our way of thinking. Who else will use the maps and who will use them against us? With all the technology, why are we using antiquated methods to create maps?
200	Print and publicize inundated areas.
201	Aquifer recharge zones should drive mapping, not land class. Descriptive language should be used, not maps.
202	Water infiltration potential should be incorporated into soil map advancements. On-line map data is best.
203	Zoning should be farm-specific as opposed to the outdated aerial maps.
204	If we can raise stock or crops on Zone 3, will the maps be updated? Use Crop Insurance data.
205	The issue is one of nutrient loading – problems with Zones and maps. Could the process be simplified if soil testing classifies the soil and nutrients be applied based on those results? Why not just apply the nutrients to meet the crops needs?
206	Maps: you mentioned the government will update them based on available info – when and how?
207	Use maps for reference only. Current technology of satellites, etc. and practices have changed and much better info available. Update accordingly. Has to be an arbitrary appeal process.

Comment Number	Input
208	Soil reconnaissance and detailed maps should not be the foundation of the regulation. Rather they should be used as reference along with other instruments that stakeholders may have, such as soil tests, yield maps, infrared imagery, crop insurance data, and others to allow flexibility in developing individual farm management strategies that will work on an individual farmer's operation and land while still achieving the objectives of the legislation.
209	Reconnaissance-level maps: inadequate. Since no time for a total soil survey, crop insurance has data and once in groups of 3, data should be available to share.
210	Maps and soil classifications don't take into consideration producer improvements to soils, via picking stones, improvements to permeability by growing legumes, improvements from manure applications and increased plant matter returned to soil. Also, improved crop varieties continue to increase the range of crops we can grow in the northern Interlake.
211	Is an inaccurate map-based approach better than a soil test-based approach, as in other jurisdictions?
212	Maps: are these the same maps that are being used to guide land-use planning?
213	Maps - what is the legal effect of them?
214	Maps – know they're not going to be embedded in the regulation, but know they won't work. Reduce value of the farm, won't be able to sell a farm in Class 7 (Zone 4) – why not throw the maps in the garbage? Will bankrupt some farmers.
215	Maps – the more you hear about them, the more you know it is wrong. No septic field, no lagoon in Zone 4. Small community, little land, cannot move the lagoon. Could we line the lagoon and have it pass? Are sewage ejectors legal?
216	Maps – how do we deal with the problem? Not enough consultation of the industry. Haven't thought this all through. Nutrients must be managed on a field-by-field basis. Being very confrontational with farmers. Should be working with the sectors, since you don't understand the issue enough.
217	Appears we'll have to use more detailed mapping at the municipal level. Where are we going to get them from? Deadline too tight.
218	That amplifies the point that the zoning and maps concept is wrong – soil testing would have worked.
219	Maps: wants an assurance that maps are not accurate and we want the maps out.
220	Don't want to have the inaccurate maps used against us.
221	The maps should not be used for reference, either. They are too inaccurate. At least give us accurate information to work with.
222	Some soils maps are 50-year-old data. Some stony fields have been cleared and should be reclassified.
223	Yes, updated maps are an improvement.
224	When map data is strong, it could be used. However, local in-situ data must be updated when required.

Comment Number	Input
225	Not a whole lot of confidence in the maps. Most have just reconnaissance-level detail and have lots of colours (zones) on them. They must be just guidelines. Need to base maps on soil test data. Not accurate. Must look at updating them. Government should have some timelines to get better detailed information.
226	What mechanism is in place to update and improve the WQMZ maps and data? I think it is important to only use these maps as a reference guide rather than the foundation of the regulation. Farming/soil and water management practices that farmers use can have a huge positive impact on the landscape. Things such as contour cropping, min or zero till, one-pass seeding and fertilizing systems, split fertilizer applications, variable rate technology, soil testing, spring applying fertilizer versus fall application, proper field drainage, crop rotations and others can allow producers to sustainably crop soils Zones 1 – 4 even areas that are subject to flooding or erosion while still preventing soil erosion and maintaining water quality.
227	Reconnaissance-level vs. detailed surveys: How do you propose to deal with Zone 4 using reconnaissance-level surveys?
228	Agree: crop production records would assist in land evaluation and must also include forage crops. Local knowledge and experience should be used.
229	Use the maps just as a guideline, more study and testing, especially where there are many soil types. Incorporate aquifers in maps.
230	Biggest challenge in implementation is trying to keep producers on side. We'll carry our share of the load. Regulations based on nitrates and now phosphates, 70% of maps based on reconnaissance. There must be someone that can take the data from Manitoba crop insurance and update the maps. Need to work on science-based information.
231	60-day appeal period – lots of costs on producers.
232	Maps need to be removed – they're inaccurate and not current. Don't waste time on maps – work on individual nutrients plan.
233	Soil test expert's opinions differ.
234	Maps not accurate enough – 40-50 years old. Consult with the land owner. 3 rd party testing. Access through Internet or agriculture office.
235	Decision must include producer. PIPEDA implications?
236	Updated soils maps will devalue some land in some areas. Resulting effects on assessment of land and tax issues?
237	Producer must agree with the final results of the map and soil types for his farm.
238	Being in Zone 4 is like being dealt "the black hammer".
239	Maps must be an on-going process, continually updated. Cannot be in regulation – need to be more flexible. Call in expert to review a specific situation.
240	Agree with not embedding maps and using as a guideline only. We need what is actually in the ground, not what the map shows.
241	Targets for Lake Winnipeg? If there has been no increase over time, will you then allow more nutrients on the land? If we do a better job than you're anticipating, will you relax the regulation?
242	There has been no assessment of the best management practices now being used. A phase-in time of 10-15 years is needed to get some proper science that producers will have confidence in.

Comment Number	Input
243	What is the process after this meeting for the regulations? The deadlines should be extended by 2 or 3 years.
244	Timelines for the regulations: completely unacceptable to have plans in 2 years. Producers are following the newest technology, but very expensive. Need 10 years for research. No dollars available to meet these timelines. Are you looking at extending these timelines?
245	Like to see an appeal process and a 5-year phase-in. Producers coming out of a pretty tough couple of years.
246	Believe regulation is targeted at agricultural operations;
247	Some areas talk about general phase-in periods over 3 years, with emphasis on education. Asking for shorter or immediate timeframes for agricultural operations. Specific dates – not '3 years from adopting regulation' (rolling timeframe). Equitable.
248	Need coverage for parks, golf courses, sewage systems.
249	The industry needs a longer time – 15 years to phase-in, since technology to remove the phosphorus in manure is not there yet.
250	Consensus in the group: we agree that the new regulation should apply to new operations right away. Want 15 years for existing operations.
251	Phase-in time for regulations: it'll take 10 – 15 years to get technology and to prove its effectiveness.
252	If we are undertaking a 15 year study on Lake Winnipeg, why not allow agriculture industry a longer period to adjust?
253	For existing development – is 5-years long enough, as suggested? If you need to move a new over-wintering site, is the 5-years enough? The best management practice program dollars now top out at \$100k.
254	Limits and timelines for regulations are published for grain and livestock producers in the proposed legislation. What are the proposed limits and implementation timelines for government sewer and waste systems, industries, commercial areas and residential areas? Keep in mind that if this legislation is to have meaningful success, then it must be applied equally to all Manitobans in all areas of the province with the same regulatory conditions. Everybody has to do their share.
255	Implementation date: the 2008 date is very unreasonable. We've built a strong, dynamic industry and the new regulations will harm the industry. 2 years is not enough. Define 'unable' in the phosphorus regulation (to meet the 2008 timeframe, not comfortable with the word).
256	Timeframes – have to start and continue on target dates.
257	2 year implementation time – how will small operations survive, since there is little time for new technology? 10 years, or a plan to get it done by 15 years.
258	50 – 60 cow farms (small mom and pop operations): dealing with food safety and lots of other regulations already – 10 years needed for new regulation.
259	Phosphorus is not a big concern in our area. A minimum of 5 years for the phase-in period for existing operations, some may need even longer.
260	Government finds it easy to single out the producers as a problem. But town dumps sewage into the river. 2013 should be the beginning.
261	Farmers should be paid a decent price for what they produce. Recognize their efforts. 40 years to educate farmers to become chemical farmers – how long to re-educate them to not be? Ban chemical fertilizers, period.
262	Phase-in is dependent upon the amount of money to make it happen.

Comment Number	Input
263	No sludge on farm lands – lots of nasty pathogens in wastewater.
264	10 years min. phase-in. Regulations need to be better defined. New operations need to conform to current regulations. Need dollars on the table to assist.
265	Worst time to bring this up, farmers financially strapped. 10 years min. municipal sludge and inorganic fertilizer
266	1 year phase-in for parklands and golf courses.
267	3 year phase in for urban properties.
268	Agree with 1. Phase-in in 2013, like the City of Winnipeg.
269	Ag needs more time than the City of Winnipeg, since producers cannot tax, and they need time to adapt.
270	Not enough manpower to test much soil.
271	How will the regulations apply to existing operations? Barns may be built for a 20 or 30 year life. We cannot build for hypothesis or questionable science.
272	New/existing operations: built new hog barn to meet 2000 regulations and rules. Then it rains. By mid-summer, thinking about spreading manure. In 2001, got letter about manure and 90% were then told to disregard it. Phoned me in morning they were coming to do an audit. Later found someone driving through my corn field 'doing the audit' in a 4X4, chewing up my field.
273	Grouping of Canada Land Inventory classes are not consistent with the Zones and the numbering is confusing.
274	Zone 5 is vital for this to work. Responsibility should cover the entire province, all Manitobans.
275	Agree with dominant zone for field compliance.
276	Same rules to urban as rural areas. 80 lbs/acre for both. For example, lots of forage producers in our area – crops need to be fertilized in the fall.
277	It seems people are interchanging 'Zone' for 'Class' in the Canada Land Inventory.
278	People in Zone 4 have big problems – maps have devalued property by 1/3. What do I say to the people in my Rural Municipality?
279	Zone 4 lands: how do you tell a farmer that his land is really worth nothing anymore, since he can't apply fertilizer?
280	Zone 5 – have the City of Winnipeg initiate this phase.
281	In Rural Municipality of North Norfolk, it has Zone 1, 2 and 3 lands. In the case of the Hidden Valley Colony, they're getting 49 bushels of canola off Zone 4. Lots of problems with maps. Won't add the maps in the regulation, but why reference at all? How will you actually use these maps? What kinds of decisions will be made – local by-laws, watershed planning purposes?
282	Those Colony lands are at higher risk of run-off. But they've done considerable management of that land. That is another problem with the maps.
283	Class 6 soils need irrigation to support a crop. People out doing soil surveys help farmers with better management, not to form a regulation.
284	Zone 5 is at best an appeasement to include urban.
285	Property management for riparian zone – grazing
286	Yes to Zone 5 – they need to assume some responsibility for nutrients overload.

Comment Number	Input
287	Yes to a regulated Zone 5.
288	Agree with compliance being based on the dominant zone within a field.
289	It is going to affect the producers' livelihoods. Still haven't looked at costs. Don't need to do this year. The objective – everybody agrees with – protect water quality. Need more incentives and support. Minister Ashton talked about a 'fork in the road'.
290	Don't go with the Zone 5 concept. Say urban lawns have no application. Why do we have to go to Zone 5?
291	What are government's plans to sustain this industry?
292	Manitoba government been promoting livestock industry – perhaps 3x the number of hogs in last decade. Need to focus on low-cost production. Additional expense due to regulation will be difficult to handle. Encourage you to be sensitive to the economics. May have to cut amount of fertilizer due to costs.
293	How far can Manitoba Agriculture, Food, and Rural Initiatives go to help producers with new technology?
294	Need to research and encourage the growing of better crops to draw phosphates from the soil, such as alfalfa, corn and canola.
295	Regulation is hard and fast. Not enough info on the kind of support and incentives for producers to use best management practices and new technology to meet the regulation. Why wouldn't government proceed with a simultaneous announcement to provide incentives and funding for producers to use new technology and best management practices to address and work within the new regulation?
296	Huge storage costs looming. If subsidized by the government, would the US view this as a 'subsidy' and slap a tariff on the products?
297	If government believes programs are useful, then compensation should be adequate. Don't want too many programs to be administered – too bureaucratic.
298	Provide incentive funding to get producers on side, rather than forcing new regulations.
299	Educate the stakeholders; facilitate programs such as the Farm Stewardship Program, but don't cripple the whole livestock industry by this hasty proposal.
300	RTC – Riparian Tax Credit – low uptake, not a big program; not adequate
301	APF – Agriculture Policy Framework – heavy in administration and cumbersome
302	The Agriculture Policy Framework has been in place for a couple of years now, for best management practices. Will the government top up that fund?
303	Amount of funding through Water Stewardship programs vis-à-vis Ontario and US jurisdictions?
304	Is this really necessary? Spending millions of dollars will drop nutrient contribution from agriculture from 17% to 16.9%.
305	A lot of problems going to be created. 2,000 acres which cannot have any manure added. Crops producing 3 times what they did in the past. Yield of 70 bushels of barley. Will have to haul manure 3 or 4 miles – who'll help us with the cost? A lot of the land will not be of any value.

Comment Number	Input
306	"Fair and equitable" – we only contribute 15%, but we'll have huge costs for the new storage facilities. City of Winnipeg dumps human sewage into the river and it's "oops, sorry." If it were my operation, I'd be out of business. No studies done.
307	A very small cost to each person in Winnipeg, but a whole lot of money to a few farmers with this new regulation.
308	Regulations will be very costly for farmers. How are we supposed to survive when you dump all these expensive regulations on us? We need plan on how to survive.
309	How does society think farmers can keep paying for these new things?
310	Fairness of urban vs. agriculture: how fair is it to ask an agriculture producer to move his operation away from a river bank when towns and cities are allowed to discharge sewage directly into the waterways.
311	Spread cost over the population of the town or city versus the agriculture producers covering the cost themselves. Producers need financial support.
312	Have the Water Stewardship and Conservation Departments met regularly with Manitoba Finance to address the costs?
313	Are new data and funding being incorporated into the legislation, such as data from nitrogen and phosphorus runoff from the Tobacco Creek studies which shows that significantly more nitrogen and phosphorus is leaching into the water system from areas under permanently vegetated cover compared to areas of cropped or worked land?
314	The producers look at this regulation as another added cost, using a combative approach.
315	How will the cost of implementation be distributed equally among all benefactors? Will a mechanism be in place in the legislation for the producers to recover the costs of implementing this regulation both short- and long-term?
316	For example, this producer would consider creating a wetland if it would help with the phosphorus problem, but at what cost?
317	Funding is required to assist producers comply with new regulations, i.e.: it may cost a beef producer more than \$200,000 to move to a new location. Ag producers cannot pass on these extra costs like the City of Winnipeg.
318	Research and demonstration dollars are required in order to investigate possible technologies for dealing with phosphorus reduction goals/strategies.
319	Will the new regulations and associated costs discourage future growth in agriculture? Margins are very tight already.
320	Increase in \$ for farm produce to pay for environmental practices.
321	Farmers lack the financial resources to participate in cost-sharing programs.
322	Farmers are willing to participate but are expected to create a huge financial contribution without return.
323	Transfer title to Crown – show us the \$\$; we'll have a look at it.
324	Who will buy land that can't be used for any production at all after these new regulations are in place? Who can afford to pay taxes on land made useless by these regulations?

Comment Number	Input
325	Concern with competitors not having to adhere to the environmental regulations. Southern competitors (US) don't have all the taxes, etc.
326	So who's going to end-up paying for all these changes, since the best management practices won't come close to covering them?
327	Rural Municipality of Springfield: qualitative difference in how regulation impacts City of Winnipeg versus producers. Urban will just have to raise taxes, producers could lose their land.
328	From an agriculture point of view, this regulation would be hitting us at our lowest point, worst since the 30's. What is the compensation? Who is going to pay us? Who is going to take care of the grasshoppers? Before you come up with the rules, come up with the compensation.
329	Manure management is not a bad issue – but who is going to pay for it? If the spring is dry vs. wet, I have to spend \$40k more. To get phosphate problem solved, we need to look to the Americans. We have overproduction and we still fertilize. We as farmers should have way more power. You should help the farmers.
330	Government always costs us money. Manure management plan, for example. No money to help us test the land. Fees get added with every move we make. The government needs to pay for some of this testing we're doing. What will the government do to help pay for some of these costs? US labs provide the same services for a cheaper price.
331	Fertilizer dealer: the most common question from his clients: what crop can I grow to make money? How can I get the most for my buck? What should I grow to get the best use of the nutrients? We can't ignore the science in planning cropping or in making regulations. We need to know the economic impact of the regulations. The people here are not producing manure. They are producing pork, beef, and milk.
332	Did you do a cost/benefit analysis for best management practice versus the cost to enforce these regulations?
333	References to Lake Winnipeg Stewardship Board – have the proposed changes been fully costed vis-à-vis the benefits? Dauphin treatment system cost may be \$3–10M.
334	Has there been a cost/benefit analysis done on these regulations? So we'll have no info for a year from now?
335	Have you done a costing for producers to implement these regulations? Maybe hundreds of millions of dollars...
336	Has any cost analysis been done on how a small producer can not do winter spreading? Requiring 1 year of storage will put me out of business. Need funding program to assist.
337	Will the department do an economic impact study? All we've talked about tonight is agriculture.
338	Have you done an impact analysis on the numbers you've given (e.g.: agriculture's contribution to nutrients) (such as the Flood of '97, the City of Winnipeg dumping sewage)?
339	Need to determine economic impact of phosphorus regulation and WQMZ regulation.
340	Before implementation, what will be the costs to the typical producer/farmer?
341	Economic analysis is required (on this regulation).

Comment Number	Input
342	Does the legislation development process contain a cost/benefit analysis component that evaluates the practicality, sustainability and financial and or productivity impacts that producers, urban residents, industry, government and the public at large will incur?
343	Papers say this issue will only affect a few farmers. Economic impact is huge, for both big and small farmers. And we can't pass that along to others. Have any economic impact studies been done on this?
344	Are you suggesting a regulatory role for Conservation Districts?
345	Are we going to get our knuckles rapped with the nutrient levels we've had due to bad weather?
346	How much has Manitoba Hydro contributed to this problem?
347	Rural Municipality of De Salaberry development plan was created and should have been a model for the province. Everyone could live with it. Why do we need to go to conditional use to allow land that is already properly designated?
348	Considerable variation in capabilities of soils: sandy vs. till; poorly-drained vs. very poorly drained.
349	Need more cultivation to mix in crop residue with the soil, resulting in less losses due to run-off.
350	More fragile soils: what research as to how much land has livestock on it and the impact on the family farms, and the effect on lending institutions backstopping the farms?
351	3 year project about release of nutrients from manure now funded for \$476K. Why not wait the 3 years and get Manitoba data to make regulation?
352	Are you concerned about any other nutrients?
353	Experience is that Manitoba Conservation is heavy-handed and not flexible, not caring what the cost is. There is no option.
354	Big impact on agriculture producers, urban centres and cottage owners. Could create bigger problems trying the address this one. Need measured approach. Feel we're rushing towards something. Too many questions asked with the answer "I don't know".
355	Are you going after the right source? You're blaming agriculture.
356	A poster board of Related Provincial Regulations: Some mentioned, Sustainable Development Act not mentioned. This regulation doesn't address any social or environmental impact assessment. Need to go back to the SD Act and do the test to see if in fact it applies. Dire consequences for the producer and the economy.
357	Raised a lot of tough questions and issues, but want to make a good regulation. Often hear 'fair and equitable'. Need a fair amount of public support. Lots of hidden costs. Producers want to work with government – want to drive the same bus. Retain some of the good features – environmental farm planning and site-specific testing.
358	'Fair and equitable' – thinks that the focus is on agriculture, since most of the discussion in this meeting in Winnipeg is regarding what to do with agriculture.
359	Setback for livestock operations – is there any setback for habitation?
360	Penicillin and other medicines used to treat farm animals and poultry end up in our water supply system. How will this be dealt with?

Comment Number	Input
361	We're making law and we need to abide by law. 'Assumptions' on algae over 30 years. Have we been recognized for the positive changes we've made in the last years? Why are we making residential areas in the country? Farmers are being pushed into these regulations, encroaching on our rights.
362	Need to start enforcing ditching and drainage regulations now out there. Need to have teeth in a regulation and enforce it.
363	The province needs to re-focus on maintaining and upgrading our drainage system. The reduction in overland flooding will decrease our phosphates and nitrates into our lakes.
364	We have to cut down on overland flooding to keep the loose plant debris from washing into the waterways or work the soils more to tie up the debris.
365	Water management is a big problem here. We need to improve the drainage. What will the government do about water management? In '65, you knew the Lake was going up in phosphate.
366	Presentation for a group of rural residents living along the Seine River: in '02 after years of high water, many flooded out. 2 studies done on water quality in Seine River. Found over 20 species of fish. Dillon study found none.
367	Significant portion of the information covers flood zones, etc. As water leaves the river, travels the landscape, and re-enters the river, what data is there about the pick-up of nutrients, etc? Does the nutrient content raise or lower? Tend to agree that the science is weak, and need much more research.
368	Concerned Citizens for Sturgeon Creek Watershed: made recommendations that flows of creeks were restricted to assist the City of Winnipeg. Rural Municipality of Rosser had \$1.5M in losses due to that. There are diversions (e.g.: Hutton drain) that have affected the SC Watershed. These regulations are premature, since there is no drainage problem other than that caused by the Province, and should get out there and fix them. (presentation is available on the Manitoba Intergovernmental Affairs and Trade website.)
369	When Rural Municipalities do development plans, will they have to use Manitoba Water Stewardship water quality management zones?
370	Who or what sector is going to reduce the nutrients in the water coming in from Alberta/Saskatchewan and Ontario?
371	Conservation Agreements Act – more info is required.
372	Minnesota and North Dakota agreement for reducing loading by 10% - what progress have they made?
373	Re-doing soil maps – soil testing is important management tool. Without mapping, how do you know you're adding the proper amount of fertilizer? When will soil testing be increased to improve reconnaissance-level surveys and revise the maps?
374	Will it be mandatory to take soil tests? Will soil need to be tested just for the application of commercial fertilizers?
375	Maps are a little more accurate than soil testing, so need to use them together
376	Keep the confidentiality of the data – OK if aggregated by area/municipality...

Comment Number	Input
377	Before increasing requirements for manure application, at least require that soil be tested where inorganic fertilizers are used.
378	Soil testing: use all fines and regulations to enforce this.
379	Limitation of soil sampling facilities is a concern – backlog of sampling could be a huge problem to producers.
380	Not soil scientists, labs use different tests: say in regulation 80 lbs/acre, too, not just ppm.
381	Grain or vegetable operations don't need to soil test, but a producer with over 300 animal units does. Not equitable.
382	Could the province equip several mobile labs, staff them and do most of the soil tests close to the farmers who would use them?
383	How long to get province done for soil survey activities?
384	Are you saying the government will pay for the soil surveys? Or will the producers be responsible?
385	Why should we have to pay for soil testing? How will the regulation and soil testing benefit us if the results are not accurate?
386	Wants to attack the soil testing issue. Soil testing has not advanced much in the last 20 years. It is imprecise. Farmers are way ahead of the government in this process.
387	Soil sampling requires additional costs that are not necessarily recaptured. If farmers are required to be 'stewards of the land', should these added costs not be distributed over the populace, i.e.: Provincial reimbursement.
388	Natural fertilizer is cost-effective if done properly.
389	1975 Soil Surveys: how much further advanced are the maps today? Huge soil variability in a field.
390	Trans-boundary testing: start at Manitoba/Saskatchewan border to set the baseline, on the Woody and the Swan.
391	Groundwater: very little information and it is something we really desperately need. No one knows the source of the aquifer. Groundwater should be mapped and monitored.
392	Monitoring the groundwater: Intensive livestock operations get slammed for groundwater problems. Can monitoring be done upstream and downstream from the operation, to see the impact, if any? They believe intensive operations don't pollute.
393	The need and importance of watershed management plans was mentioned earlier in the presentation. Will the province undertake the task of developing a proper, meaningful and complete template for watershed management plans as well as funding completion of those plans? We need a consistent, province-wide watershed evaluation process developed so that we can not only properly assess issues within a watershed, but can compare watershed's conditions or issues with other watersheds within the province. This would help government, Conservation District, industry, producers and other stakeholders make sound, sustainable science based water and soil management decisions.
394	Watershed management – is it really coming? It would be a benefit to operations if it is a good program. It should tie closely to this regulation, with a focused and complimentary approach.
395	Consider Ontario's definition of watercourses.

Comment Number	Input
396	Maps on groundwater protection are very important and should overlap the Water Quality Management Zones in order to protect this Nation's and provinces' aquifers and drinking water.
397	A universal template for water quality testing analysis needs to be implemented so that the collected data will reflect an accurate picture across the entire water system of the Province.
398	Will province step up water quality testing? Show some benefit, or target someone else. Is there a map available to show monitoring sites?
399	Streams and small rivers – how long have they been monitored and to what extent?
400	How can we implement regulations for 2020 when we're working with 1980s data? Producers are using GPS and other high-tech processes and the government needs to catch up.
401	Poor water testing data in the Swan River area.
402	Swan River sells 300k gallons of treated water/day. Don't know what the intake water quality is. Saskatchewan tests at no charge. Lagoon system is at capacity. Rural Municipalities just dump sludge into our lagoon. Town is very concerned with what they're doing and we need help. A sewage treatment plant? Expensive for a town of just 4,100. Enjoyed what is happening here tonight – enjoying the interaction. Looking for answers on what is coming in trans-boundary.
403	Groundwater: surface water is purified as it seeps into the ground.
404	Watershed Management Authority – what is this?
405	A commitment to developing integrated watershed management plans is crucial to nutrient regulations.
406	Water Protection Act: watershed management plans...
407	The government is going to raise the water levels in the Shellmouth Dam system in order to supply McCain Foods irrigation for potato farming. This will increase the mercury levels in the water. What is the government putting in place to deal with mercury levels as they increase?
408	Groundwater protection – Walkerton.
409	Vermillion River in '74 to '76: about 6 B-trains of 1148 went down the stream. Do we know how much is coming in sediment form versus off the land?
410	No pollution by agriculture. The family farm is being targeted, versus Intensive Livestock Operations. There should be lots of guidelines, not regulations.
411	There should be an education program, and going to the schools.
412	Who is going to police all of this?
413	About 14 years ago, water quality sampling was done on Lake Dauphin.
414	Proportionately the US portion of the water going into Lake Manitoba and Lake Winnipeg is approximately 10 – 14%, but they are loading the system with 40% of phosphorus. Why? They have no hog farms/livestock units in their Red River watershed.
415	Dillon study on Seine River headwater to Floodway came out late last year.

Comment Number	Input
416	2005 study regarding riparian areas on the Seine River Watershed. How many animal units on one hectare of land? How many acres needed to support one human? In the study, the Seine River watershed has .98 animal units per acre. The land is saturated with livestock. Will the government put regulations in place to say move somewhere else, since the area is loaded?
417	It still seems that agriculture is being blamed. Equality for all. Scientific research needs to be accurate and fair. Inequality between rural and urban areas.
418	We have enough trouble with weeds in the ditches, and buffer zones will cause more problems. Who is going to pay to fix up the mess of buffer zones?
419	Can we apply chemical fertilizer on that strip to control growth? It'll be a haven for grasshoppers and thistle. I'll have to spray and it can't be better than using that strip. I still have to pay taxes on that buffer strip.
420	This is a major impact on the farm. How do I seed it? – I don't have a 3-foot drill.
421	Option 3d: increase buffer strip from 1 m to 10 m to 15 m for nutrients application on second order drain. Where would we find these drains?
422	Why is government sabotaging its own water strategy by inviting Oly West into Manitoba?
423	In the olden days, could catch fish and swim in the Seine River. Dillon says do not even wash vegetables in it.
424	Why can't this regulation be set aside until the Province fixes up some of the problems it has caused with drainage, and then proceed with regulations that would work?
425	Not enough education.
426	How will government enforce buffer strip regulation?
427	Who will enforce these new regulations? Province, Conservation Districts or Rural Municipalities? Municipalities are too democratic to enforce provincial laws (they would vote on whether or not it should be enforced). The Water Rights Act enforcement is a joke.
428	Government should subsidize soil testing particularly if the information is used to increase the accuracy of site-specific resource information.
429	What will you give us for research, for crops that could be planted in the fall?
430	Question how this is to be paid and by whom.
431	3. Programs are 'chicken feed' – nowhere near enough money.
432	There is no benefit in the huge time lapse expected between the new regulation and the new programs.
433	If you use a municipal sewage system as an example, upgrade or implementation costs are covered by federal/provincial and municipal governments, therefore distributing the costs amongst the public at large.
434	If producers pay the cost of implementation then approx. 2% of the population (farmers) pays the cost while the other 98% receives the benefit for free. Programs such as ALUS and funding thru the Agriculture Policy Framework best management practice grants need to be expanded to cover short and long-term costs because all Manitobans benefit from the environmental improvements.
435	Why not identify specifically where the problems are happening? Use rifle approach instead of shotgun approach. You want to saddle everyone with a cost you don't know if they should be.

Comment Number	Input
436	Ag is doing about 35 lbs/acre, so we're all in this together, and we all need to do our part.
437	If the agriculture component was dropped to zero (from 15%), what would be the result on the lake nutrient level?
438	If the process started in 2002 and maybe regulations coming in March 2006, then no time to do an impact study.
439	What are you going to do about the nutrients on the Wpg River system? What do the Manitoba Hydro dams add to the problems?
440	Did you use the study from 2002? And it is a preliminary estimate? And the 2001 study? Let's not make excuses for the City of Winnipeg. Was the largest increase in nutrient levels on the Red in 10 years due to the US or Canada? Do you then disagree with the 30-year study that shows a flat line in the nutrient level in the Red between Emerson and Winnipeg? The government is asking us to foot the extra bill for improving a confusing situation.
441	So there is no baseline established on the urban areas, to determine the amount of nutrients moving through storm sewers? Need baseline to see if we're making progress.
442	Be fair and equitable to all nutrient sources. Why is this not dealt with in the new regulation?
443	Lake Winnipeg has had the best fishing in years – so what is the problem?
444	The Seine River watershed has very intensive livestock operations. Drains from agriculture areas were directed to the Seine River Diversion. Would the increase in the nutrient levels in the Red be due to that? Should there be a test station there?
445	In spite of the amount that went in, what is the ideal nutrient level for Lake Dauphin? How close is it and how good is the data?
446	Can we extend the implementation time? They're too tight. What kind of help or subsidies?
447	The fact of the matter is that I consider it "economic hardship" being unable to meet the timeframe.
448	Should the 5 years of manure management plans not be recognized for something?
449	Problematic when you try to implement a regulation that is fairly broad. Owners will make arguments including it in a special management area.
450	No way to incorporate into forages and grasses.
451	Everything should come on in 2013. New operations should meet the same rules as everyone else.
452	Problem with Special Management Areas.
453	Winter application is not a good practice, except under emergency conditions.
454	Local knowledge is important and must be included in local plans
455	Unimproved and improved organic soils: there should be not distinction between the two. There should be not manure spreading allowed on either.
456	Make maps disappear. Make maps that show water recharge area, steep slopes and soil erodability
457	So based on that, what would you say to the Colony, even on 15° slope, about what they can do to raise 49 bushels/acre?
458	Can we as producers expect to have soil surveys in that 70% of the province (where there is just reconnaissance-level data) before the regulation comes into effect?

Comment Number	Input
459	Need clause in regulation (for golf courses and parklands) so everyone pulls their fair weight.
460	Why was this consultation process (like this) not done before it went to legislation?
461	Why is Seine River not mentioned in your slide for the increase in nutrient loading?
462	Would you like us to do some research around the plots to see how much leeching occurs?
463	Phosphorus levels in the ground: certain amount comes from animal waste, some in the ground; some available to plants, some not. Are these sources taken into account?
464	Lots of assumptions, not much science – the cart before the horse. Impact study coming a year after rules come into place. A lot is addressed to hog farmers.
465	Red River Valley is Zone 1 and some of the worst septic field problems occur there.
466	Anyone with over 400 animal units has done a lot of soil testing and the rain will affect the manure management plans.
467	Do you anticipate that all urban areas will be Zone 4, with no mechanical application of fertilizers?
468	Including urban areas in Zone 5 amounts to 'special treatment', inequitable, just for the voters.
469	Will there be a need to limit cattle access to waterways to prevent added nutrients loading?
470	If Zone 4 lands are true Zone 4, they would be too wet for housing
471	Precautionary areas will create confusion with the general public - they will take them as gospel.
472	See bottom of page one for Issue one in Issues and Options paper – 'phase-in'?
473	A program of incentives must be announced in concert with the adoption of new water quality/nutrient management regulations. For example, the Water Stewardship Fund and the Sustainable Development Innovations Fund.
474	Guidelines find their way into regulations
475	Organic soils (improved or unimproved) should be moved to Zone 4 to stop the development in these areas.
476	On-farm composting provides significant benefits with regards to both practical manure management and nutrient management
477	Why not use manure treatment plants similar to municipal wastewater treatment plants with costs shared by those involved in the industry.
478	Timelines for implementation are appropriate
479	Maps are a credible tool to begin with to ensure Zone 4s are protected
480	Buffers provide ecological goods and services and farmers should receive compensation
481	Maps on groundwater protection are important and should overlay the WQMZ maps
482	Maps should not be included in the regulation
483	What will happen to producers that are located in Zone 4 areas now?
484	September 10th date for manure application does not provide enough time before freeze up
485	Economic studies must be conducted prior to implementation

Comment Number	Input
486	Mechanisms should be in place to pay for, not subsidize, the tremendous potential cost for producers.
487	What is the timeline for converting all septic fields to holding tanks for all cottages on lakes in Manitoba?
488	Is there a specific target for agriculture similar to the targets set for the City of Winnipeg and the United States?
489	Recommend using Environment Canada's Environmental Effects Monitoring program to enable flexibility based on phosphorus levels in the receiving environment.
490	How is water quality and fish production related?
491	Can permanent forage on class 5 soils be granted Zone 1 status?
492	Suggest including cropping management systems as part of soil class/zone designation.
493	Need to work on education, incentives, recognition, etc. for existing regulation prior to initiating new regulation
494	Instead of onerous and detailed regulation, why not highlight and insist on best management practices that reduce the flux of nutrients during spring runoff? Relocate winter cattle feeding systems and areas, ban winter spreading, etc.
495	What is the impact of taking 1 metre buffer strips out of production? Financial, lost acres?
496	Has consideration been given to the potential negative impact of buffer strips? Weeds, insects, disease?
497	Who will provide financial assistance to offset costs associated with the proposed regulations?
498	Support the Lake Winnipeg Stewardship Board recommendation for provision of a program to expand soil testing to ensure appropriate fertilizer application in both rural and urban settings.
499	Little relevance between the Canada Land Inventory maps and water quality.
500	Need to provide tangible financial incentives to attain the common goal.
501	Concerned about the cost of implementing the regulation - cost of soil samples, expert testimony, court time and expense.
502	Other ways of minimizing environmental damage in agriculture include education, nutrient management in our soils, vegetative buffers, training how to make drains that do not cause as much erosion and nutrient loss, etc.
503	We need the cooperation of the United States and our neighbouring provinces.
504	Suggest that farmers add nitrogen to soils, in addition to the manure, to balance the plant requirements.
505	More research has to be done in feed rations that need less phosphorus and more of it being used by the animals.
506	Need more research in new crops that use more phosphorus to grow and more of the phosphorus stays in the grain and is available to livestock.
507	Suggest performing more soil tests to make sure that the manure is applied in nutrient deficient fields.
508	Suggests no winter spreading.
509	Suggests injecting manure.

Comment Number	Input
510	Suggests working down alfalfa/grass fields infested with dandelions earlier this cutting down in spraying in fields and in yards.
511	Suggests municipalities open up the drains filled with snow in the spring so the water can start to run this cutting down with flooding.
512	Build water retention areas to slow the upstream water drainage.
513	Suggests that the government take responsibility for granting permits for hog barns in areas where they should not have been built due to soil types and the need to drain wetlands - this might mean buying out farms or assisting them to develop new plans.
514	The City of Winnipeg needs monetary assistance to remove nitrogen and phosphorus from the sewage flowing into the Red River.
515	Get all Government departments with an interest in water working together.
516	Provide more funding for municipalities to maintain drainage ditches. Need a quicker permitting process for drainage projects.
517	The City of Winnipeg should eliminate use of phosphorus on park areas and golf courses and in private lands.
518	The City of Winnipeg should encourage cut down on phosphorus based cleaning products.
519	The City of Winnipeg should fix river bank erosion problems.
520	The City of Winnipeg should remove nitrogen and phosphorus from sewage before discharging to the Red River.
521	Regulations should be based on science.
522	Additional soil sampling sites must be quickly added to make these data accurate at a quarter-section scale.
523	Due to high costs and poor returns, farmers will not put excessive fertilizers on fields.
524	Particular attention needs to be paid to Zone 4 areas including additional monitoring and data collection of nutrient losses through leaching into the surface water as well as ground water aquifers.
525	Suggest quickly preparing additional discussion documents regulating urban and other sources of nutrients.
526	For loamy sands or sands rated 3M, 4M, and 4MW, there are some cases where moist climate conditions or slightly wetter soil conditions would improve the agricultural capability by one class but also increasing the leaching risk.
527	Could naturally occurring nutrient contents in peat or soil organic matter be above the proposed regulatory limits?
528	Improved drainage can increase agricultural capability but it may also increase the environmental risk.
529	Consider putting classes 5 and 6 soils in Zone 3 as there is not much difference between them in practice.
530	Consider increasing residual nitrate limit for Zone 3 or require nutrient management plans and permits for Zone 3.
531	Need to recognize producer improvements to soils.
532	Targets for nutrient reductions in Manitoba's watershed are realistic.
533	Sampling effort should be made as visible as possible and should carry no more than a nominal fee.

Comment Number	Input
534	Is there a plan for the government to take over these acres for the public good and pay us compensation to help us retire?
535	Concerned that the proposed regulation would be in conflict with existing <i>Environment Act</i> license that already ensures that adequate levels of nitrogen and phosphorus are added to land.
536	The time has come to stop pointing fingers at everyone else and take responsibility for what we can do.
537	The proposed regulation must be amended to establish residual nitrogen limits in the soil that will allow farms to continue producing crops on Class 5 and Class 6 soils while minimizing the risk to water.
538	Rather than using the zone maps, regulating soil nutrient levels is far more effective and practical for both producers and government. Site specific soil testing in fields linked to crop planning tailored to each farm will result in the best nutrient management.
539	A minimum of 15 years is required by those producers that have low returns or are land locked to make necessary adjustments to new regulations that would impose an entirely new phosphorus standard.
540	In the next 1 to 5 years, recommend that within the existing framework of environmental regulations, watershed planning and voluntary water conservation initiatives, establish collaborative strategies, pooled resources and programs to further enhance farm stewardship to protect water quality. Emphasis would be on a staged approach with producer education, voluntary farm planning, and the adoption of best management practices. Develop practical and effective regulations in year 1 or 2.
541	Over the next 5 to 10 years, build on enhanced government and industry partnerships, agro-environmental research results, better acceptance and progress made in the first five years to adopt practical, sustainable best farm practices that would protect both the environment and the economy. Public incentives and implementation of best management practices would continue but emphasis would be to target any additional areas requiring mandatory regulation.
542	Ensure that the nutrient reduction within the City of Winnipeg is addressed.
543	Support was expressed for the recommendations made by stakeholder groups such as the Manitoba Pork Council, Keystone Agricultural Producers, Manitoba Cattle Producers Association, etc.
544	Would winter grazing be allowed?
545	Need to base fertilizer application on the requirements of crop production.
546	Will there be a timeline for cottage owners to replace septic fields along lakes and rivers in Manitoba?
547	Concern was expressed about water quality and the density of hog operations. Encourage additional water testing near hog barns.
548	Concerned that zoning will devalue land.
549	All aspects of the proposed regulation should be costed prior to implementation. Then Manitoba Finance should develop a concrete plan as to how the implementation costs will be funded.
550	Additional data required on nutrient loading from producer sectors and on migration of the loads to streams, rivers, and lakes.
551	Buffer setback distances should be waterway specific.

Comment Number	Input
552	Phase-in periods should vary depending on the sector.
553	Zone 5 should be established to deal with cosmetic fertilizer and should be implemented with one year.
554	Zone 4 areas should be precautionary only with new developments assessed on a site by site basis.
555	Believe that existing and new producer operations input and removal rates of nitrogen and phosphorus are already balanced. Producers do not over apply nitrogen and phosphorus due to cost.
556	Need to consider the substantial cost of implementation, additional soil testing and research.
557	Need to consider the other issues that have plagued the farming community over the last few years.