

Phosphorus requirements of the  
*Livestock Manure and Mortalities  
Management Regulation*

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# *Outline*

Background

Key concepts

- Regulatory P Thresholds
- Manure Application in Regularly Inundated Areas
- Manure Application adjacent to Surface Water

Clean Environment Commission

## *Background*

- Regulation under The Environment Act
- Background:
  - Registered Mar. 1998
    - Amended **Mar. 2004**; Dec. 2005; **Nov. 2006**;  
Dec. 2006...Aug. 2008
- Preceded by Livestock Waste Regulation
  - Registered Mar. 30, 1994
    - Required Permits for construction of earthen manure storage facilities

# *Background*

Science: Manitoba Phosphorus Expert Committee (MPEC)

Procedure: Section 18 required the Minister to review recommendations from MPEC and consult with the public.

Consultation: Jan – Mar 2006: mailouts, 12 public sessions & meetings with stakeholder

Registration: MR219/2006

## *MPEC Recommendations*

- Adopt a soil test P Regulatory Threshold to encourage environmentally beneficial manure management practices
- Special requirements for regularly inundated areas
- Setbacks from near surface water features

# Phosphorus Regulatory Thresholds



Soil Test P Threshold (Olsen P)	Manure P <sub>2</sub> O <sub>5</sub> Application
Less than <b>60 ppm P</b>	<b>No restriction</b> on P <sub>2</sub> O <sub>5</sub> application.
<b>60 ppm P</b> or more but less than <b>120 ppm P</b>	Apply P up to <b>2 times the crop removal</b> rate of P <sub>2</sub> O <sub>5</sub>
<b>120 ppm P</b> or more but less than <b>180 ppm P</b>	Apply P up to <b>the crop removal</b> rate of P <sub>2</sub> O <sub>5</sub>
<b>180 ppm P</b> or greater	<b>No manure application</b> without written consent of the Director



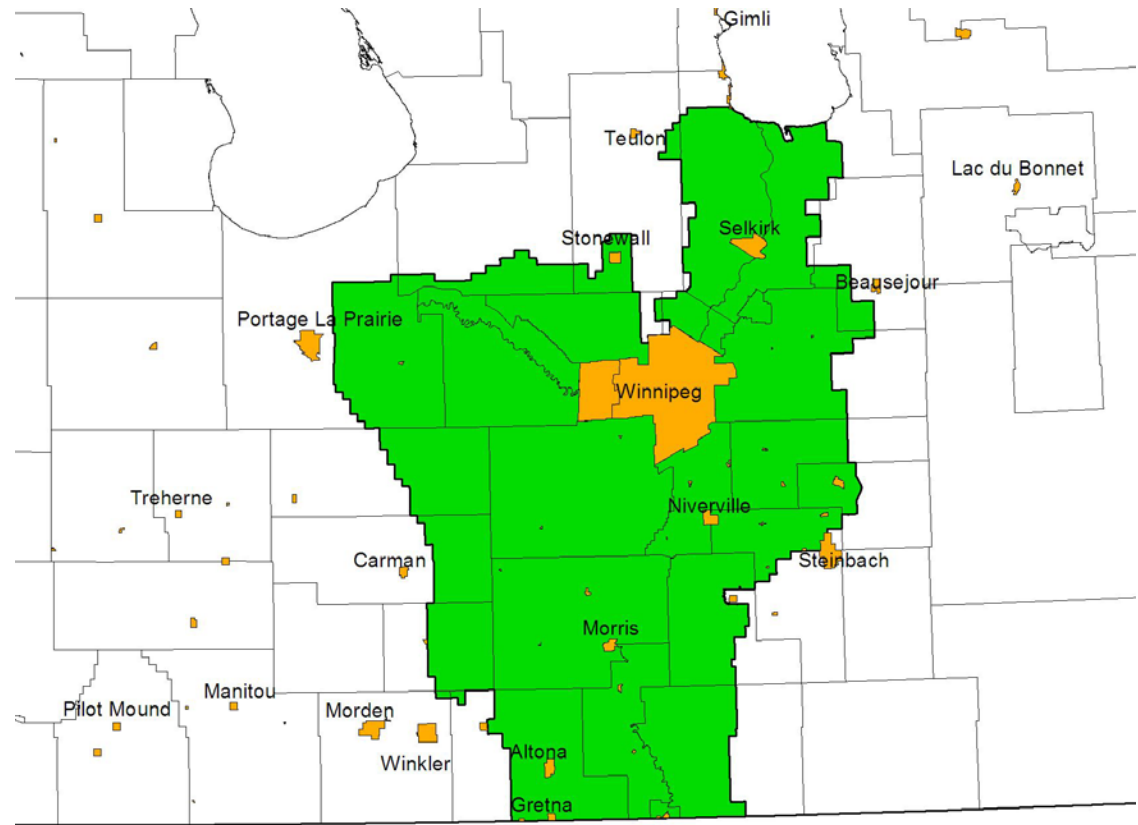
# *Phosphorus Regulatory Thresholds*

- Apply immediately to all new and expanding operations.
- Differing implementation dates for existing operations.

# *Regularly Inundated Areas*

## Includes

- Red River Valley Special Management Area; or
- Subject to flooding on avg. basis once every 5 years



## *Regularly Inundated Areas*

Winter (between Nov 10-Apr 10 of following year):

- Future prohibition on manure application for <300 AU operations

Fall (between Sept 10 – Nov 10):

- Injection or incorporation within 48 hours for manure applied to tilled fields after September 10 (unless perennial forage or no till systems)

# *Manure Applications near Surface Water Features*

MPEC recommended setbacks dependent on

- Surface water feature
- Method of application
- Vegetated buffer strip

Surface water or surface watercourse <b>feature</b>	<b>Setback requirements</b>			
	With <b>permanently vegetated buffer</b> (1)		With <b>no permanently vegetated buffer</b>	
	<b>Injection or low-level application followed by immediate incorporation</b>	High-level <b>broadcast</b> or low-level application <b>without incorporation</b>	<b>Injection or low-level application followed by immediate incorporation</b>	High-level <b>broadcast</b> or low-level application <b>without incorporation</b>
<b>Lakes</b>	<b>15 m</b> (consisting of <b>15 m permanently vegetated buffer</b> )	<b>30 m</b> (consisting of <b>15 m permanently vegetated buffer</b> )	<b>20 m</b>	<b>35 m</b>
<b>Rivers, creeks and large unbermed drains, designated as Order 3 or greater</b>	<b>3 m</b> (consisting of <b>3 m permanently vegetated buffer</b> )	<b>10 m</b> (consisting of <b>3 m permanently vegetated buffer</b> )	<b>8 m</b>	<b>15 m</b>
<b>All other types of surface water or surface watercourses</b>	<b>No manure application allowed</b>			

# *Clean Environment Commission*

- Assigned to review environmental sustainability of pig operations in MB
- Report released to the public March 2008
- Minister of Conservation accepted the 48 recommendations in principal

# *Clean Environment Commission*

ADM Ag-Environment Committee:

- WS, MC, MAFRI & IAF

Regulatory amendments as follows:

- Adjust phase in dates for P thresholds so operators are compliant by 2013
- Adjust phase in on prohibition on winter manure application so operators are compliant by 2013

MR 172/2009 is in effect

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*Thanks for your attention*