

# Nutrient Management in Ontario

Presentation by Paul Smith at  
Managing Shared Waters:  
Towards Sustainable  
Transboundary Coastal  
Ecosystems, 2002,  
Coastal Zone Canada Association





# Today's Presentation

- Policy Context
- Evolution of Ontario's Nutrient Management Policies
  - Environmental Farm Plan
  - Nutrient Management By-laws
  - Healthy Futures funding program
- Proposed Nutrient Management Act - What's in it?
- Possible standards & Implementation Strategy
- Challenges

# What is Nutrient Management?

- ❑ Land application, storage, & transportation of manure, fertilizers, biosolids, & other materials
- ❑ Manage in a sustainable, beneficial manner resulting in environmental protection
- ❑ Satisfy crop nutrient requirements for profitable yield & quality





# Ontario's Clean Water Strategy

- Operation Clean Water began August 2000
- Annual inspections of water plants & inspection blitz
- Drinking Water Protection Regulation for large waterworks - Reg. 459
- Regulation for designated small water systems - Reg. 505
- Infrastructure funding for municipal drinking water
- Groundwater studies & monitoring network
- Full cost accounting for municipal water – Bill 155
- Revisions to well regulations – Reg. 903
- Bill 81, Proposed Nutrient Management Act, introduced June 2001



# Larger Policy Context

- Walkerton Inquiry Phase 1 & 2 Reports
- Great Lakes Water Quality Agreement
  - Canada-Ontario Agreement on Great Lakes
  - Remedial Action Plans / Lake-wide Management Plans
- Federal Agricultural Policy Framework
- Federal & Provincial Environment Commissioners
- Other jurisdictions
  - U.S. Farm Bill Conservation Programs
  - U.S., state, other provincial nutrient management regulations



# Evolution of Nutrient Management Policies in Ontario

- Best Management Practices guides
  - Environmental Farm Plans
  - Nutrient Management By-Laws
  - Healthy Futures funding for rural water quality
  - Proposed Nutrient Management Act
- 1990-Present
  - 1992-Present
  - 1990s-Present
  - 1999-2003
  - 2001

# What is an Environmental Farm Plan?

- Voluntary, Farmer led program
- Workshop training
- Self assessment using detailed manual
- Covers all aspects of farm environment
  - 23 topic areas
- Self developed plan
- Action plan
- Peer review
- Implementation
- \$1500 incentive for implementation

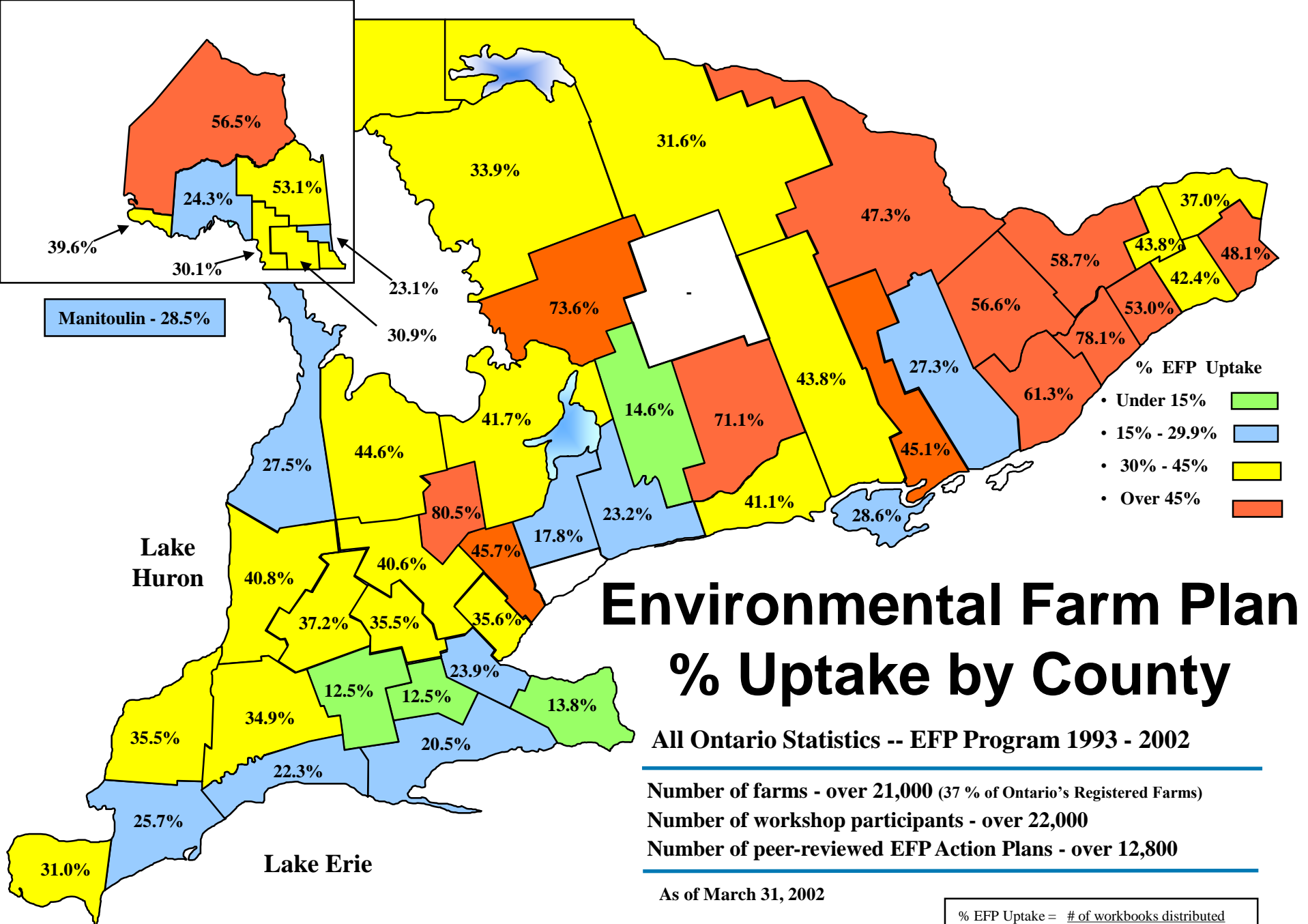


# Environmental Farm Plan Background



- ❑ Ontario Farm Environmental Coalition 1991
- ❑ Represents more than 30 farm groups
- ❑ Federal & provincial assistance
- ❑ 22,000 participants to March 2002
- ❑ 37% of Ontario farmers
- ❑ Estimated to cover > 50% of Ontario farmland
- ❑ \$12.5 million federal incentives for \$51.5 million in project claims
- ❑ Over \$3 farmers' money spent for \$1 grant money
- ❑ New federal funding





Sources: Ontario Soil & Crop Improvement Association, March 31, 2002; May 2000 Ontario farm registration database

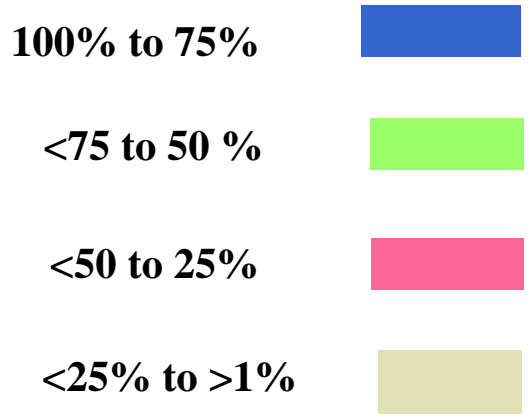
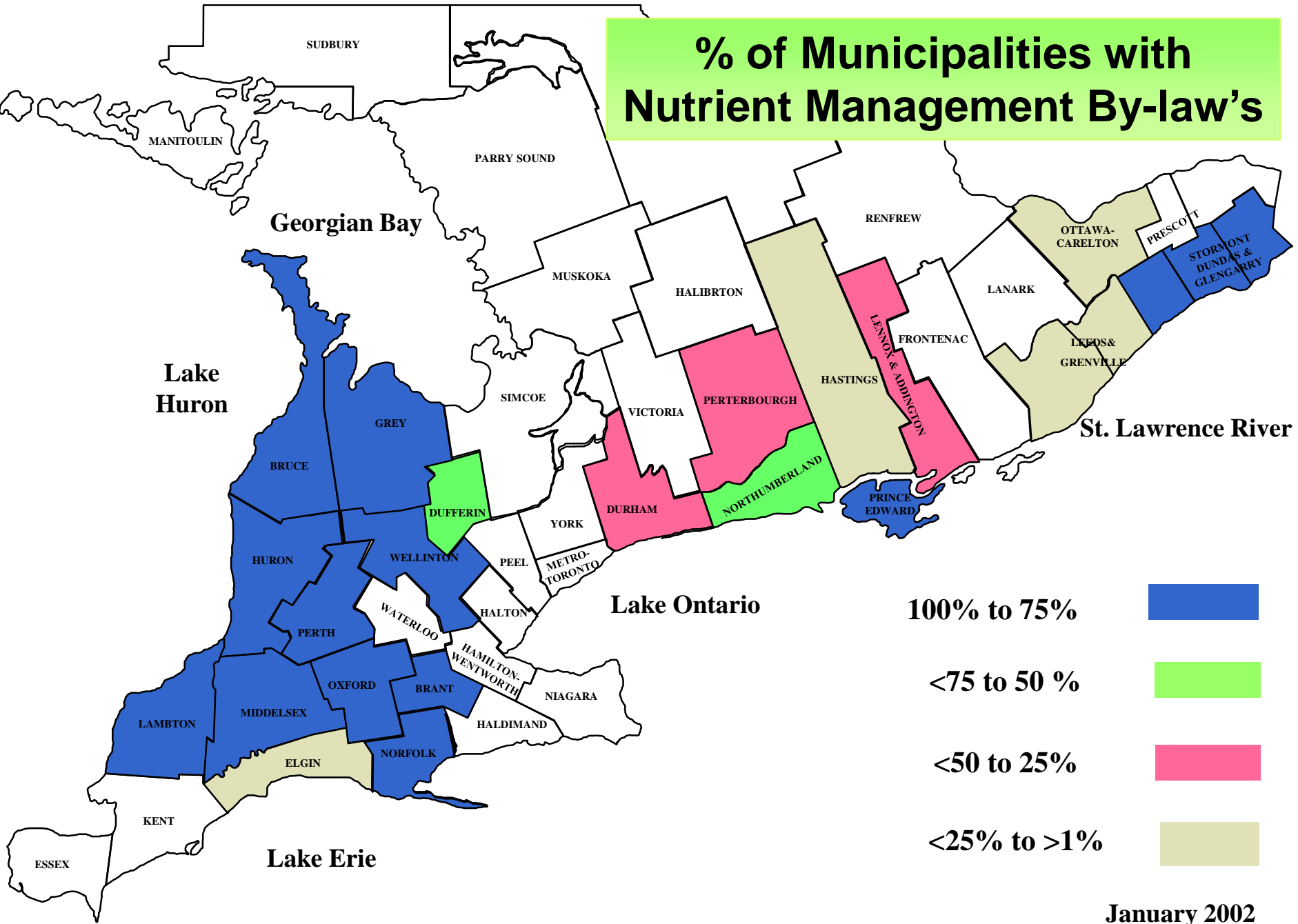
% EFP Uptake = # of workbooks distributed  
by County # of registered farm businesses



# Nutrient Management By-Laws

- 1990s Municipalities started to regulate manure management
- 1998 Model nutrient management by-law
- Regulate livestock operations over certain size
  - e.g. > 150 livestock units (600 feeder hogs; 100 milking cows)
  - Require nutrient management plans
  - Sufficient land for application
  - Manure storage
- Triggered by Building Permit application

# % of Municipalities with Nutrient Management By-law's



January 2002



# healthy futures

FOR ONTARIO AGRICULTURE

## Clean Water Theme

- 1999-2003 funding program
- Implementing best management practices or technologies to safeguard water quality and quantity in rural Ontario
- 34 approved projects
- \$30.9 million funding
- Total Investment: \$58.6 million

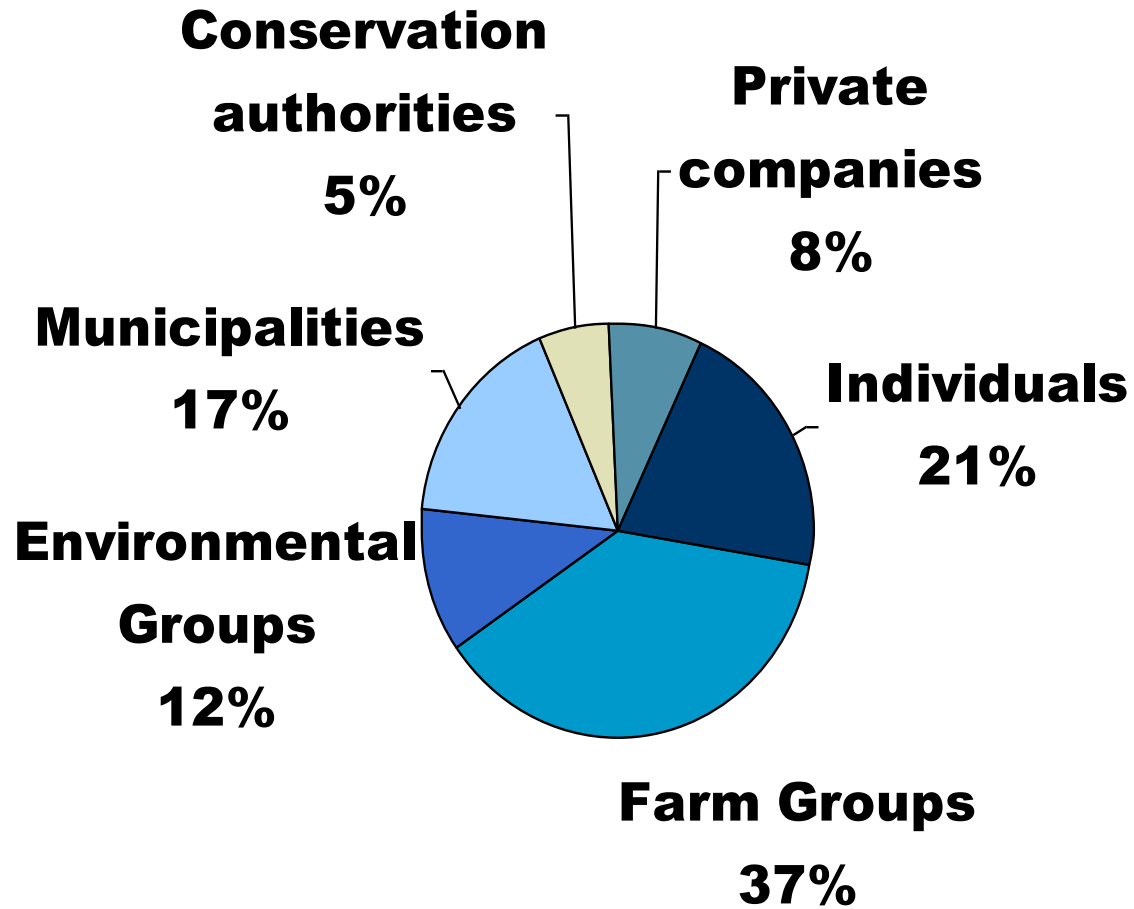


# Nutrient Management Act, 2001

- Goals of Act
  - comprehensive and integrated approach to all land-applied nutrient rich materials
  - all land applied nutrients are managed in a sustainable, beneficial manner which results in environmental protection
- Builds on current best management practices & approval requirements
- Introduced June 2001
- Committee Hearings, Sept. 2001 across province
- > 200 briefs & presentations
- Amendments
- 2nd reading complete
- Awaiting 3rd reading (final)



# Stakeholder Consultations





# Parts of the Act

- Part I: Definitions, administration
- Part II: Regulation Making Authority
  - Broad authority for regulations on array of issues
- Part III: Appeal
  - Appeal to Environmental Review Tribunal
- Part IV: Inspections & Orders
  - Provides entry, inspection, compliance orders powers
- Part V: Remedial Work
  - Authority for province to take corrective action
- Part VI: Enforcement
  - Similar to current EPA powers
- Part VII: General
- Part VIII: Amend Other Acts



# Potential Policy Framework

- Regulations and Approvals
- Enforcement
- Education, training and certification
  - applicators, farmers, consultants
- Electronic Tracking Registry
- Research
  - standards development, continuous improvement
- Financial Assistance
  - Recommended by Walkerton Inquiry Part 2





# Possible Standards

- Nutrient Management Plans
  - mandatory requirement, to be phased in by categories
  - determines site-specific nutrient application
- Construction & On Farm Improvements
  - Construction requirements for livestock facilities
  - Size of required manure storage
  - Setbacks from sensitive features, e.g. streams
  - Restricting livestock access to watercourses
- Land Application
  - Mandatory certification of commercial land applicators
  - Timing of application e.g. not on frozen or saturated ground
  - Setbacks from sensitive features
  - Banning of application of untreated septage over 5 years



# Proposed Implementation Strategy

- **Livestock operations > 450 Livestock Units:**
  - Provincial approval of NMP & other requirements
  - Apply to all new operations after passage of regulations
  - Apply to existing operations within 3 years
- **Livestock operations 150-450 Livestock Units:**
  - Provincial review for new & expanding operations
  - Apply to all new operations after passage of regulations
  - Apply to existing operations within 3-5 years
- **Other agricultural operations**
  - NMPs required on-site; apply within 5 years
- **Other generators of land-applied materials - upon passage**
- **Municipal & industrial approvals continue under EPA (e.g. for biosolids, septage, sludge)**



# Challenges

- Capacity building
  - Province
  - Municipalities
  - Farm community & agri-food industry
  - Research community
- Transition issues
- Capital investment
  - On-farm projects e.g. manure storage, runoff containment
  - Municipal sewage treatment plants
- Policy linkages
  - Acting on Walkerton Inquiry Part 2 recommendations