

DRINKING WATER SOURCE PROTECTION

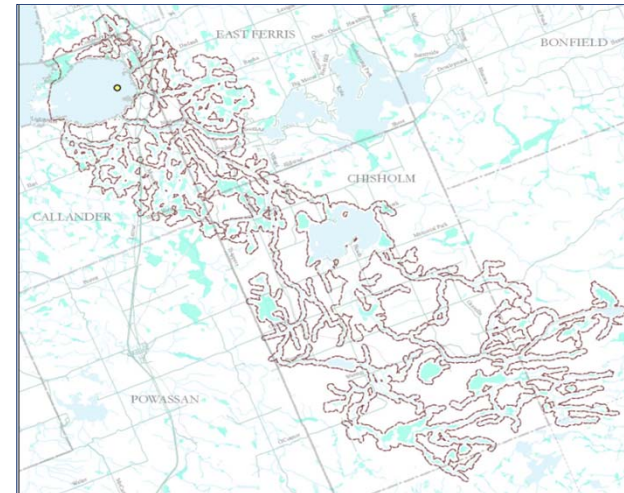
ACT FOR CLEAN WATER

An Assessment of Agricultural Operations and Best Management Practices in the Callander Bay Issue Contributing Area (ICA)

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The Callander ICA



Why Agriculture?

- Phosphorous-related agricultural activities include:
 - Agricultural Source Material (manure); application and storage
 - Commercial fertilizer; application and storage
 - Non-Agricultural Source Material (biosolids); application and storage
 - Livestock grazing or pasturing land (outdoor confinement areas or a farm-animal yard)

Assessment of Agricultural Operations

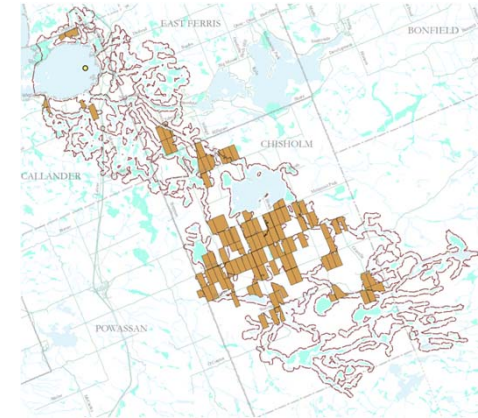
- Identified and verified agricultural properties in ICA
- Created an inventory of all agricultural practices
 - size, activity, intensity and operation type



Assessment of Agricultural Operations

- GIS Analysis 143 Land Parcels
- Roadside Analysis ↓
- Site visits 105 Land Parcels

Properties Visited



Assessment of Agricultural Operations

- ICA covers 30,000 acres
- Active agricultural land represents 6% of the ICA (1800 acres)

Agricultural Activity	% of ICA	Acres
Pasture	1.6%	480
Cropland	4.5%	1350
ASM Application	2.0%	600
Commercial Fertilizer Application	0.7%	210

Agricultural Operation Assessment

Type of Facility	# of Facilities
Feedlot Operations	0
Dairy Operations	0
Row Cropping Operations	0
Animal Confinement Areas	0
Commercial Fertilizer Storage	1
Manure Storage Facilities	6

Best Management Practices (BMPs)

- Goal
 - Reduce economic and environmental impact
- Framework
 - OMAFRA publications "Best Management Practices"



BMP Assessment

- Site visits assessed existing BMPs and barriers to implementation
- BMPs observed:
 - Buffers
 - Soil testing
 - Livestock watercourse access
 - Environmental management plans

BMP Assessment

Adoption of BMPs in the ICA

- 90% do not allow direct access of livestock to watercourse
- 26% perform soil testing
- 21% have a recognized management plan in place
- 75% of properties have a natural buffer strip along watercourses or drainages.

BMP Assessment

Barriers to Adopting BMPs

- Cost
 - Lack profit for large-scale investments
- Time
 - Farming often not sole occupation



BMP Assessment

Concluding Thoughts

- BMP adoption is widespread in the ICA
- Environmentally conscious planning is widely practiced
- Areas for improvement
 - Livestock restriction
 - Riparian buffers



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