

# Nutrient Management Act

## Proposed Amendment to Improve and Protect Aquatic Habitat and Species in Surface Waters

**Objective:** Revise and improve Nutrient Management Act (2002) (and/or supporting Regulations) to implement effective preventive measures and strategies that would afford greater protection to surface waters (streams, rivers, lakes) and aquatic habitat / species from potential nutrient impacts from farm operations.

**Issue:** Improperly managed farming operations have over time contributed to the degradation of water quality in surface waters, aquatic habitat and loss of fish species in rural Ontario. Nutrients from livestock manure enter surface waters from surface runoff or directly from livestock that are allowed to freely access surface waters. Nutrients from fertilizers applied to farm fields also enter surface waters in surface runoff and in tile drainage water.

**Solution:** The following simple measures / improvements should be made mandatory under the Act to improve management of farm livestock and nutrients and to help mitigate impacted surface waters. Incentives can be created to support and offset cost to implement measures. These measures are based on the preventative and cost savings principle (i.e. a dollar spent today will save five dollars tomorrow):

- (a) Roof or canopy over barn yards containing livestock manure or faecal matter to prevent rain and runoff from yards into surface waters. This measure / regulation only would apply to barns with manure yards in high risk areas (i.e. barns located upgradient and within close proximity, such as 500m, to waterbodies - GIS mapping and remote sensing techniques can be used to identify high risk sites).
- (b) No access, and/or at a minimum, controlled / managed livestock access to surface waters (e.g. fence off waterbodies with only controlled access points, solar water pumps, etc.). Hardened non-erosive surfaces should be installed at access points to prevent soil erosion.
- (c) Minimum 3 or 5-meter wide naturally vegetated undisturbed grassland buffers / setbacks from edge of surface waters that currently do not have any vegetated buffer / setback. Any width of buffer is better than none. Research has shown that even narrow vegetated grassed buffers can improve water quality from nutrient runoff. Farmers permitted to manage buffers to remove young trees so that tree shade does not stunt crop growth. Need to be cautious and establish controls that prevent farmers from clearing vegetation that exist next to waterbodies prior to implementing this measure / regulation. Provide land tax incentives (e.g. farmers would receive incentives or be exempt from paying land tax on area maintained as buffer) or receive cash equivalent reimbursement for productive land loss for each meter of buffer / setback established up to a maximum width (i.e. 30m).
- (d) Small cattail treatment wetland / retention cells built at down-gradient sections of farm land adjacent to waterbodies. Tile drainage containing nutrient/pesticide residues from neighbouring farm lands discharged into wetland cells as opposed to direct discharge into waterbodies. Treatment cells could be built along farm property boundaries so can be shared (i.e. communal).