

Wastewater Nutrient Storage & Recovery

Milkhouse, Greenhouse Leachate, Vegetable/Fruit Wastewater

Grant Rate	Maximum Grant
50%	\$2,500

Rationale:

- Nutrient enriched waste water from greenhouses, milking parlors and fruit/vegetable washing contain high concentrations of nutrients. This waste stream can be collected, recycled or treated to remove nutrients thereby reducing risks of contamination to surface or ground water.

Eligible Projects:

- Treatment trench for Milkhouse wash water waste
- Greenhouse recycling tray systems
- Livestock truck wash water collection tanks
- Engineering design work

Conditions:

- Must meet or exceed legal requirements.
- Suitable storage systems for waste effluents, if using a combined manure storage, must provide at least 240 days of capacity for wastewater and other wastes.
- Minimum Separation Distances:
 - >0.9m to bedrock or groundwater (upper-level)
 - >15m from surface water and drilled wells
 - >30m dug/sandpoint wells
 - >100m municipal wells
- The project will be protected for at least 10 years.
- Projects need to be designed to improve water quality and overall stream health.
- Written permission of the landowner(s), where the project will take place, must be given on the grant application and a landowner agreement signed if the grant is approved.

Eligible Costs

- Purchased materials and supplies
- Contract labour (from registered company)
- Profession fees (consulting) for design, construction and supervision.
- Materials for permanent transfer from milkhouse or parlour to a suitable existing storage.
- Permanent pumping equipment.

Ineligible Costs:

- Cost of milkhouse and/or parlour.
- Portable sump pump
- Labour and machinery use of the applicant, or the applicants business.



Milkhouse wash water has an average phosphorus concentration of 120.4 ± 94.9 mg/L.

This is over a thousand times greater than Ontario's Provincial Water Quality Objectives!

In streams levels over 0.03 mg/L encourage algal blooms, which deplete oxygen, and can harm fish.

MILKING CENTRE WASHWATER REGULATION – UPDATE (SOURCE: OMFRA, 2010)

On January 1, 2011, the General Nutrient Management Regulation (O. Reg. 267/03) under the *Nutrient Management Act, 2002 (NMA)* will be amended and come into effect changing how milking centre washwater can be disposed. The intent of the regulation is to stop milking centre washwater from entering water sources by not allowing the washwater to be emptied directly into drainage ditches, streams, or field drainage tiles. **What this will mean to the dairy producer?**

The first thing to know is that the part of the regulation that deals with milking centre washwater will come into effect on January 1, 2011. How soon after January 1, 2011 you have to comply with this regulation depends on whether:

- you are currently required to have a nutrient management strategy by O. Reg. 267/03 and
- you make changes to your milking parlour or your milking parlour washwater treatment system.

If you currently are not required to have a nutrient management strategy, this new regulation will only apply if you:

- build or replace a milking parlour or milkroom, where the milkroom is defined as the room where the bulk tank is located
- expand an existing milking parlour or milkroom if the permit also includes an increase in the size of the bulk tank
- build a new, replace an existing, or undertake any other construction for which a building permit is required in relation to a sediment tank, treatment trench system or milking centre washwater storage facility.

If you currently are required to have a nutrient management strategy under O. Reg. 267/03 then there are two ways you can be phased-in to the new milking centre requirements. You will be phased in based on whichever event happens first:

- you apply for a building permit for any of the three situations outlined above or
- it is January 1, 2016.

If you are phased-in without any new construction and your existing sediment tank and treatment trench system were constructed before April 6, 1998 then the existing system may be sufficient to satisfy the regulatory requirement if the following two conditions apply:

- the system treats the first rinse separately and
- there are no liquids escaping or seeping or improper discharge.

Once you are phased into this part of the Regulation then you will be required to store the washwater and either land apply it according to the Regulation or you must treat the washwater. The new standards for treatment will permit any of the following:

- appropriate treatment approved under the Building Code
- appropriate treatment approved under the *Ontario Water Resources Act (OWRA)* or
- a mixed anaerobic digestion facility that is regulated under the NMA.

Milking centre washwater can be either stored in:

- A liquid manure storage or
- A solid manure storage meeting with a runoff management system, as long as the addition of the washwater does not result in a liquid mixture and the amount does not exceed 250 litres per day.

If you are an existing dairy producer, not required to prepare a nutrient management strategy under the regulation and do not apply for a building permit as outlined above, then you are not affected by the new regulation. However, you should always follow best management practices and dispose of your milking centre washwater safely. This infosheet is intended for information purposes only and you should refer to Part VII.1 of the General Regulation (O.Reg. 267/03) under the *Nutrient Management Act, 2002* for full detail on how you could meet the requirements to store or treat the washwater. This infosheet may be amended from time to time. Learn More www.omafra.gov.on.ca/english/nm/nasm.html - information on new regulatory requirements.