

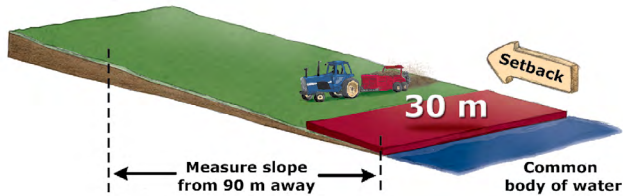
Minimum Setbacks for Manure Application

Based on the Agricultural Operation Practices Act (AOPA)

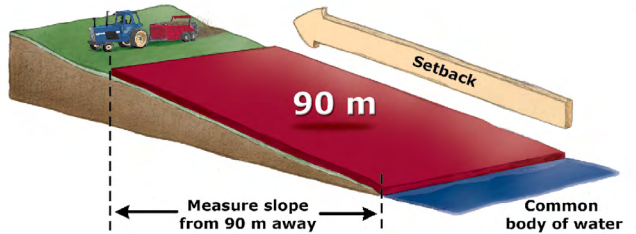
If the land slopes towards a common body of water, a person who applies manure on forage, direct-seeded crops, or frozen or snow-covered* land must meet the setbacks for manure application based on the average slope of the terrain.

Setbacks distances for manure application based on land with various slopes (on forage, direct-seeded crops, frozen or snow-covered land)

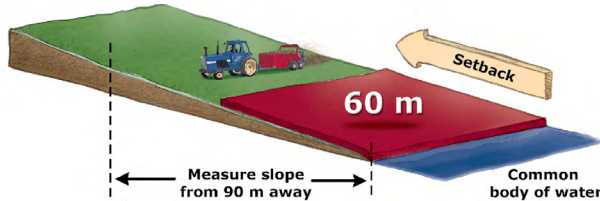
4% slope or less



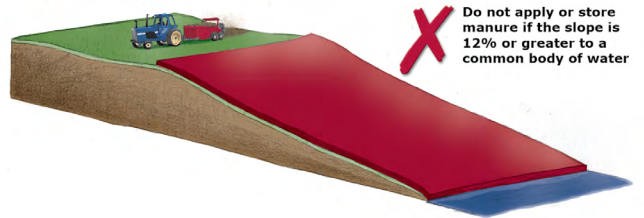
6 - 12% slope



4 - 6% slope



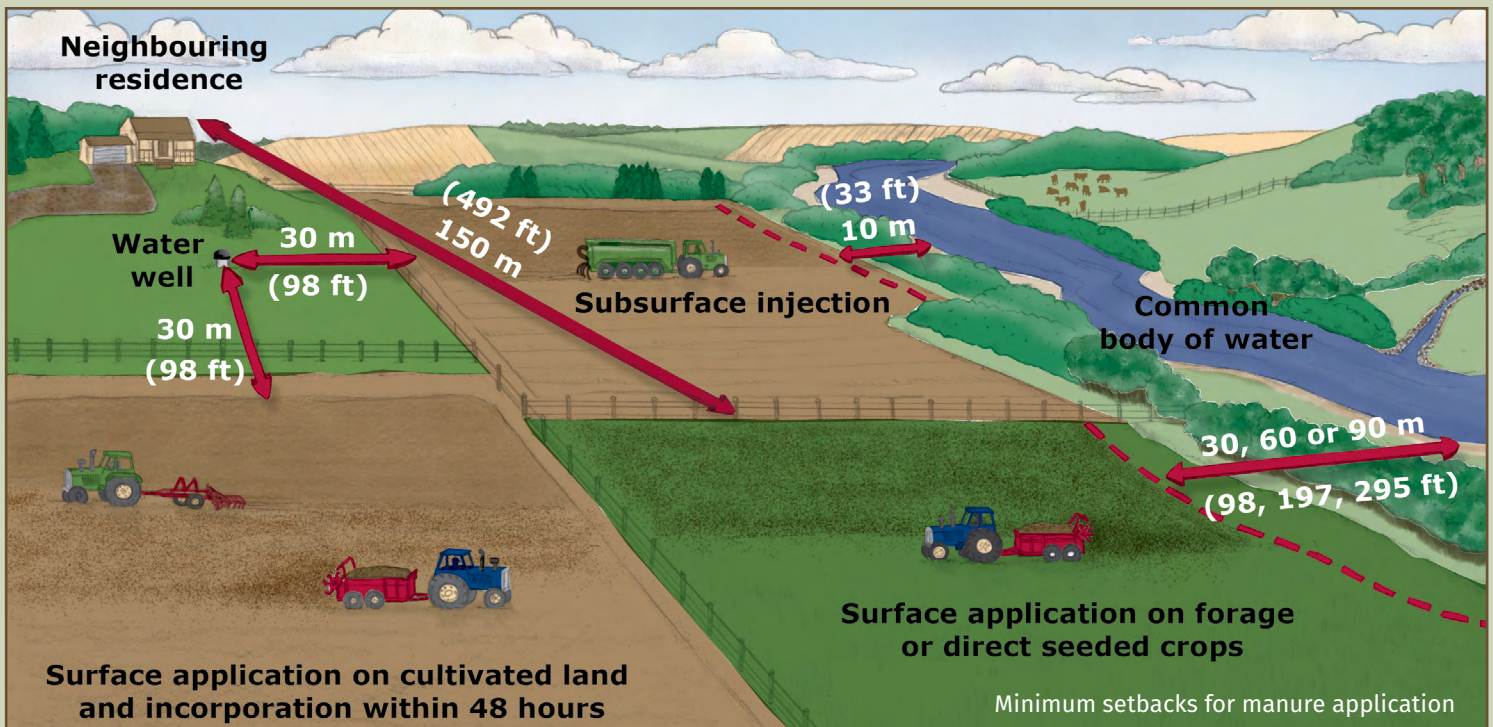
Manure can only be applied or stored once the slope to a common body of water is less than 12%



*Spreading manure on snow-covered or frozen ground is prohibited by the Agricultural Operation Practices Act unless specifically authorized on a case by case basis by the NRCB.

Manure or compost may be applied without incorporation on forage or directly seeded crops and frozen or snow-covered land if it is applied at least 150 m from any residence or other building occupied by people.

Short term solid manure storage sites must be located at least 150 m from a residence or occupied building that is not owned by the operator. "Short term" means an accumulated total of not more than 7 months over a period of 3 years.



Manure Management Regulations

Manure Application Limits

Under AOPA, anyone who applies manure or compost (including composting material) must incorporate within 48 hours of application, except those who are applying manure to forage, direct-seeded crops, frozen or snow-covered ground. Manure or compost may be applied without incorporation in these situations, provided that application is at least 150 m from a residence or regularly occupied building.

Producers without NRCB permission may not apply manure or compost to a piece of land if:

- * Soil salinity (0-15 cm) exceeds 4 deciSeimens/m (dS/m)
- * Application will increase soil salinity by more than 1 dS/m
- * Application will result in soil nitrate-nitrogen (0-60 cm) levels greater than those specified below:

Nitrate-Nitrogen Limits in Soil

Soil	Sandy (>45% sand & water table <4)	Sandy (>45% sand & water table <4)	Medium and Fine Textured Soils
Brown	80 kg/ha (75 lbs/ac)	110 kg/ha (100 lbs/ac)	140 kg/ha (125 lbs/ac)
Dark Brown	110 kg/ha (100 lbs/ac)	140 kg/ha (125 lbs/ac)	170 kg/ha (150 lbs/ac)
Black	140 kg/ha (125 lbs/ac)	170 kg/ha (150 lbs/ac)	225 kg/ha (200 lbs/ac)
Grey wooded	110 kg/ha (100 lbs/ac)	140 kg/ha (125 lbs/ac)	170 kg/ha (150 lbs/ac)
Irrigated	180 kg/ha (160 lbs/ac)	225 kg/ha (200 lbs/ac)	270 kg/ha (240 lbs/ac)

Soil Testing and Analysis

Anyone applying over **500 tonnes** per year of manure or compost must have a soil test that is no older than 3 years before manure can be applied to the land. Producers applying less than **500 tonnes** annually are not required to soil test prior to land application of manure or compost.

Estimated Population for Different Livestock to Produce 500 tonnes of Manure

Category/ Type	Yearly Solid Manure Production (tonnes/year)	Assumed Length of Confinement (years)	Estimated Number of Animals to Produce 500 t of Manure
Beef			
Beef Feeders (<900 lb)	1.4	1	357
Feeders Calves (<550 lb)	0.54	1	926
Dairy			
Cows, Loose Housing	24.2	1	21
Swine			
Farrow-to-finish (per sow basis)	14.3	1	35
Grower/Roaster	0.8	1	625
Poultry (per 100 birds)			
Layers, Belt Cage	1.6	1	31,250
Broilers	1.0	1	50,000

Record Keeping Requirements

AOPA requires that records relating to manure application be kept for a minimum of 5 years.

Anyone applying at least 500 tonnes of manure or compost to land under their control must record:

- ✓ The name and address of the person from whom manure or compost was received, the date it was received and the volume or weight received
- ✓ The legal description of the land and the total land area to which the manure or compost is applied
- ✓ The date of application and incorporation along with the methods used for each field
- ✓ The application rates of manure, compost and fertilizer by field and year
- ✓ The weight or volume applied
- ✓ Soil test results by field for the nutrients specified in Schedule 3 of the Standards and Administration Regulation

All confined feeding operations (CFOs) must record:

- ✓ The name and address of the person to/from whom control of at least 500 tonnes of manure or compost was transferred, the date control was transferred and the volume or weight transferred
- ✓ The weight or volume of manure or compost produced by the operation

Anyone who transfers control or receives at least 500 tonnes of manure or compost must record:

- ✓ The name and address of the person to/from whom control of at least 500 tonnes of manure or compost was transferred, the date control was transferred and the volume or weight transferred

For more information regarding the legislation contact:

Alberta Agriculture and Forestry

Ag-Info Centre: 310-FARM Email: aginfocentre@gov.ab.ca
 Toll free: 310-FARM (3276) Phone: 403-742-7901 (outside Alberta)
 Website: <https://www.alberta.ca/manure-management.aspx>

Natural Resources Conservation Board

Toll free: 310-0000 Email: info@nrcb.ca
NRCB Regional Offices: **NRCB 24 hour reporting line:**
 Morinville: (780) 939-1212 1-866-383-6722
 Red Deer: (403) 340-5241
 Lethbridge: (403) 381-5166
 Website: www.nrcb.ca

