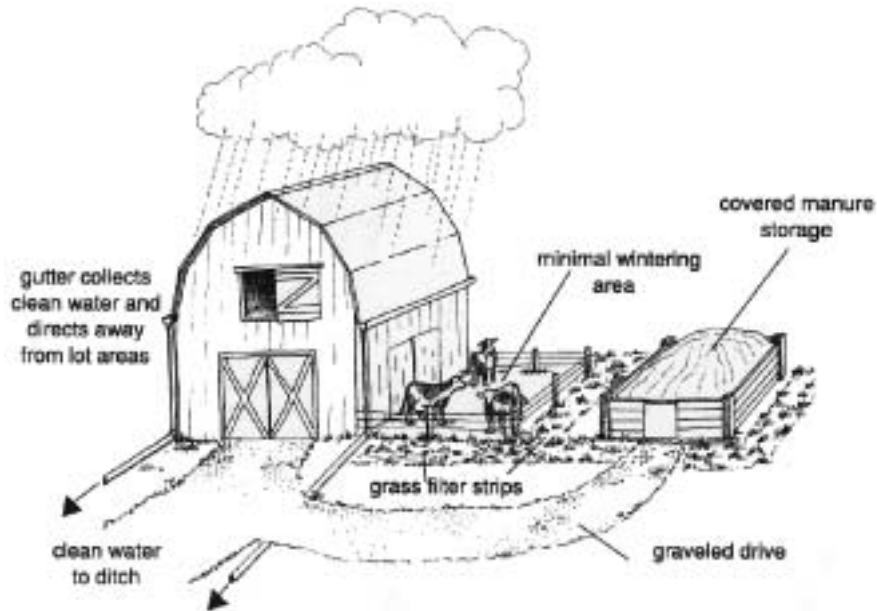


Nutrient Management

Fact Sheet



- ♣ Careful management of animal grazing, manure storage, and clean water runoff can protect surface and groundwater from contamination during wet weather.
- ♣ Manure and urine, when deposited by livestock, should be managed so that it is deposited on land that can break it down into useable components.
- ♣ When manure or other fertilizers are considered as valuable soil amendments rather than waste products, as the case with manure, it becomes beneficial as well as financially rewarding.
- ♣ Manure should not be allowed to enter the waterways through runoff as it has many detrimental effects on aquatic life.
- ♣ Properly managed buffers can significantly reduce the transport of most nutrients, harmful bacteria and sediment that would otherwise pollute nearby waterways.



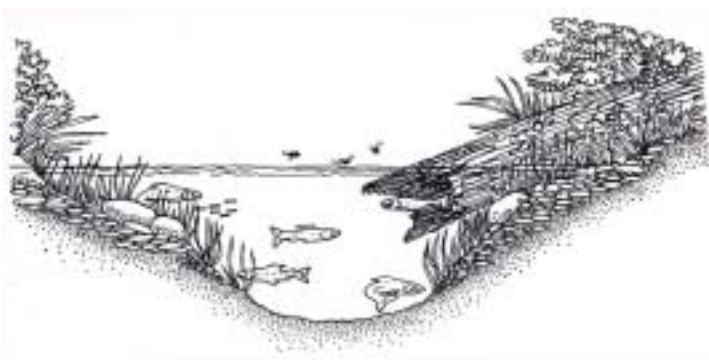
This fact sheet was produced by the Coos Soil & Water Conservation District in conjunction with the Coos & Coquille Agricultural Water Quality Management Area Plan and in partnership with the Oregon Department of Agriculture and the Natural Resources Conservation Service.

Fact sheet 2 of 7

Animal waste runoff pollutes water and can lead to significant fish kills.

- Biochemical oxygen demand (BOD) increases as manure decomposes in water.
- As BOD increases, dissolved oxygen decreases and ammonia is released.

These changes are very stressful to fish and other aquatic organisms.



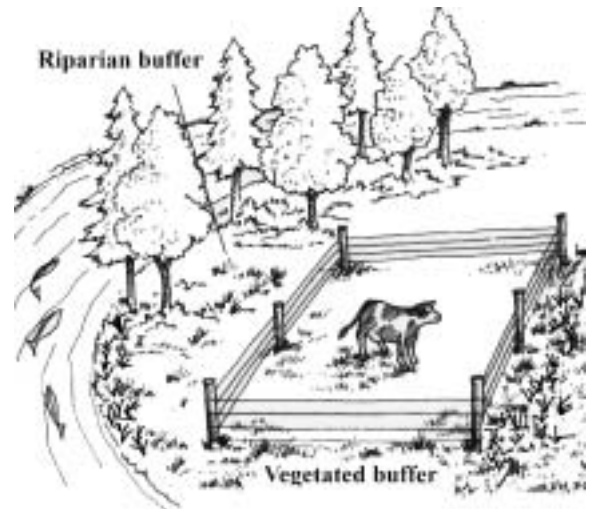
Waste treatment and control facilities (such as manure lagoons) and manure (slurry or solid) improperly applied near riparian areas are concentrated sources of pollution and disease bearing organisms.

Improperly managed pastures may become major sources of pollution by the sheer volume of urine and feces deposited in or near a stream.

Buffers are strips of vegetation that are planted near or surrounding an area with potential waste runoff, such as a feeding area or other bare ground. Buffers catch and filter runoff before it enters a waterbody. Vegetated buffers serve many of the same purposes as riparian vegetation, however, vegetated buffers are usually planted with grass and strategically placed.

Vegetated buffers serve a multitude of purposes.

- They can:
- ♣ Eliminate most nutrients and harmful bacteria.
 - ♣ Trap sediment.
 - ♣ Help to protect the aquatic environment by providing shade, food, and shelter.



Pasture application and composting of manure is a good way to turn waste into a valuable soil amendment. Check with OSU Extension or the Natural Resources Conservation Service (NRCS) for soil nutrient testing information and plant nutrient uptake rates.

To implement Senate Bill 502, the Oregon Department of Agriculture is incorporating ORS 468.025 and or ORS 468B.050 into all basin Agricultural Water Quality Management Area Administrative Rules in the state.

Oregon Administrative Rule 603-095-1540

(8) Waste Management

(a) Effective upon adoption, no person subject to these rules shall violate any provision of ORS 468B.025 or ORS 468B.050¹.

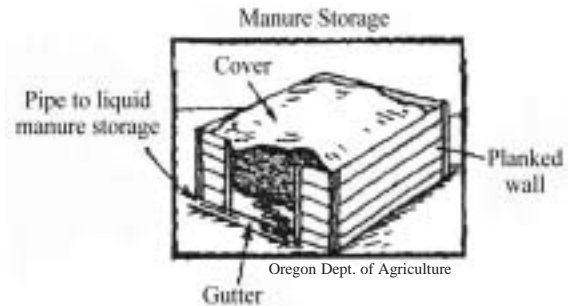
¹ ORS 468B.025(1) states: ...no person shall: (a) Cause pollution of any waters of the state or place or cause to be placed any wastes in a location where such wastes are likely to escape or be carried into the waters of the state by any means. (b) Discharge any wastes into the waters of the state if the discharge reduces the quality of such waters below the water quality standards established by rule for such waters by the Environmental Quality Commission.

ORS 468B.050 identifies the condition when a permit is required. In agriculture under state rules these are referred to as Confined Animal Feeding Operations (CAFO) and are operations that confine animals for more than 4 months per year and have a wastewater treatment facility.

The following management practices have been recommended by the Coos and Coquille Local Advisory Committee and the Oregon Department of Agriculture as a means to avoid water quality problems.

Positive Management Practices

- ◆ Protect manure storage from flood water inundation.
- ◆ Divert water away from manure storage.
- ◆ Use of buffer and filter strips that are adequate to the site.
- ◆ Composting of manure is encouraged.
- ◆ Controlling access to waterways and crossings by livestock to minimize waste deposition in or near a waterway is encouraged.
- ◆ Spread manure at appropriate times, in appropriate places, at agronomic rates as suggested by OSU Extension Service or other sources.
- ◆ Livestock operators can follow CAFO regulations where practical, which work toward minimizing nonpoint source pollution.
- ◆ Determine and utilize proper stocking rates for all livestock.
- ◆ Manage for healthy pasture growth, proper rotation, and good pasture conditions. Pastures can serve as a buffer zone if properly managed.
- ◆ Confine fertilizer application to the area fertilized. Apply fertilizer at proper rates, and at proper times, with favorable weather conditions when possible.
- ◆ Any agricultural operation can develop and utilize a nutrient management plan.



Conditions That May Lead to a Water Quality Problem

- ◆ Uncovered manure piles, fertilizer piles, or agricultural wastes which produce runoff that enter waterways.
- ◆ Broadcasting fertilizer, either chemical or manure, in a waterway.
- ◆ Applying fertilizer above agronomic rates.
- ◆ Location of new feed barns and feeding areas in stream side areas without proper planning for control of wastes.

Unacceptable Condition

- ◆ Excessive amounts of manure or fertilizer that enter waterways.

The following OAR concerning nutrient management was developed from the Coos and Coquille Agricultural Water Quality Management Area Plan which was adopted in March 2002.

Oregon Administrative Rule (OAR) 603-095-1540

(3) Nutrient Management

(a) Upon rule adoption, application and storage of manure, commercial fertilizer, and other added nutrient inputs to agricultural lands will be done in a manner that minimizes the introduction of nutrients into waterways.

Conservation practices addressed here, such as the Positive Management Practices, may be eligible for USDA's Natural Resources Programs, such as the Environmental Quality Incentives Program (EQIP) and the Conservation Reserve Enhancement Program (CREP). These programs provide producers with financial, technical, and educational assistance for implementing conservation practices. Contact NRCS or FSA (below) for more information.

Development of an individual conservation plan for your operation may help you comply with the SB 1010 Coos & Coquille Agricultural Water Quality Management Area Plan. Contact the Coos SWCD Watershed Technical Specialist for assistance.

For More Help Contact...

Coos Soil and Water
Conservation District (SWCD)
382 N. Central Blvd.
Coquille, OR 97423
(541) 396-6879
www: <http://or.nacdn.net/org/coosswcd/>

Oregon Dept. of Agriculture
Natural Resources Division
635 Capitol Street NE
Salem, OR 97301
(503) 986-4700

Natural Resources Conservation
Service (NRCS)
382 N Central Blvd
Coquille, OR 97423
(541) 396-2841

Farm Services Agency (FSA)
380 N Central Blvd
Coquille OR 97423
(541) 396-4323

Oregon Dept. of Environmental Quality
340 N Front Street
Coos Bay OR 97420
(541) 269-2721 ext 27

OSU Extension Service
Coos County Office
290 N Central Blvd
Coquille OR 97423
(541) 396-3121 ext 240

Information in this fact sheet was gathered from the Coos and Coquille Agricultural Water Quality Management Plan, the Natural Resources Conservation Service, and the Washington County Soil and Water Conservation District.

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Produced by Bessie Joyce, 2002.

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