



Oregon  
Department  
of Agriculture



## Grassed Waterways & Vegetated Filters

It is well known that water quality is an issue of public concern and that the nursery industry is actively working to address this concern. Agricultural water quality rules, in place throughout the state, provide the nursery industry with a set of expectations regarding its impact on Oregon's waters. Following is some information to assist nursery producers keep their operations in compliance with Oregon's agricultural water quality rules.

### Choosing a practice

Often several different practices may be used to protect water quality. Having options allows producers the flexibility to select practices that fit well with their growing operation. Some practices are quite inexpensive, compared to the cost of losing soil to the county ditch or nearby stream. One such practice is the installation of grassed waterways.

### What is a grassed waterway?

A grassed waterway is a natural or human altered drainage area that has been vegetated, usually with grass.

### Why install a grassed waterway?

In any area where surface water concentrates and flows across a cultivated field there is potential for gully erosion. Active gully erosion is an obvious indication of the need for work, but any wet area in a field should be considered a possible candidate for protection.

Sediment caused by soil erosion is a major source of pollution to our state's waterways. Equally important, soil is a valuable resource to the agricultural producer.

Soil particles that erode from fields—and the contaminants they often carry—threaten water quality. Grassed waterways slow runoff from fields and capture soil, prevent rill and gully erosion, and keep soil from entering streams.



*Example of fields draining to a waterway.*

### Installation suggestions

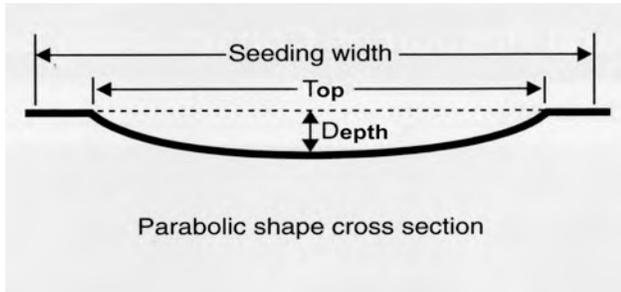
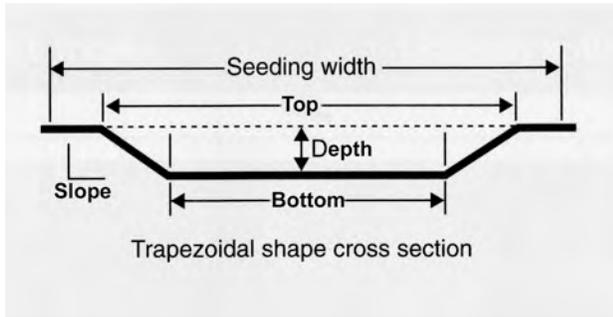
Plant grass species that produce dense foliage to capture eroded soil and that have a deep root system to hold the soil during storm events. A combination of tall and short vegetation in the grassed waterway will trap more sediment

Provide irrigation to newly planted waterways if rainfall is not sufficient for germination and establishment.

Consider using species in your waterway that are tolerant of sediment deposition and chemicals commonly applied to your crop.

Consider the soil type, size of area and the slope of the field when designing the waterway.

The grassed waterway should drain into a vegetated filter that has perennial vegetation like a grassed field border or filter strip.



*Typical cross-section of a grassed waterway*

### Waterway upkeep

Here are a few things to think about when planning the upkeep of your conservation practice.

- ❖ Maintain the original designed shape of the waterway.
- ❖ Repair damage caused by severe storm events.
- ❖ Remove sediment accumulations to maintain waterway capacity.
- ❖ When crossing the waterway, shut off sprayers and raise tillage implements to avoid damage to the vegetation and shape of the waterway.
- ❖ Grassed waterways should not be used as access roads. Vehicle traffic, especially in the winter, will damage the waterway and can increase erosion problems.
- ❖ Areas damaged by chemicals, tillage or occasional equipment traffic need to be repaired and reseeded.
- ❖ Control noxious weeds, fertilize and mow grass to maintain plant vigor.
- ❖ Fill and reseed gullies and rills that develop in the waterway.

- ❖ Maintain herbaceous vegetation so that it provides at least 80% ground cover throughout the year
- ❖ Grass may be harvested in the summer but do not cut shorter than 3-4 inches.

### Where to go for help

Technical assistance is available through your local Soil and Water Conservation District (SWCD), USDA Natural Resources Conservation Service (NRCS), or the Oregon State University Cooperative Extension Service.

Often, grant funds or conservation programs are available to assist producers in financing conservation practices. Contact your local SWCD or NRCS office for more information.

### Local SWCD contact information

Clackamas County	East Multnomah
503-656-3499	503-222-7645
Marion	Tualatin
503-391-9921	503-681-0953
West Multnomah	
503-238-4775	

This information is brought to you by:

- ❖ Oregon Department of Agriculture
- ❖ East Multnomah and Clackamas County Soil and Water Conservation Districts
- ❖ Oregon Association of Nurseries
- ❖ USDA NRCS

References:

- ❖ University of Kentucky, College of Agriculture, Cooperative Extension Service (ENRI-108)
- ❖ USDA NRCS

Graphics:

- ❖ USDA NRCS – Grassed Waterway



*All publications produced by ODA will be made available in alternate formats when needed*

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