



Filter Strips

Conservation Practice Job Sheet

393

Natural Resources Conservation Service (NRCS)

April 1997

Landowner _____



Definition

A filter strip is an area of grass or other permanent vegetation used to reduce sediment, organics, nutrients, pesticides, and other contaminants from runoff and to maintain or improve water quality.

Purpose

Filter strips intercept undesirable contaminants from runoff before they enter a waterbody. They provide a buffer between contaminant source, such as crop fields, and waterbodies, such as streams and ponds. Filter

strips slow the velocity of water, allowing the settling out of suspended soil particles, infiltration of runoff and soluble pollutants, adsorption of pollutants on soil and plant surfaces, and uptake of soluble pollutants by plants.

Secondary benefits:

- Forage—onfarm use or cash crop
- Field borders
- Turnrows and headlands
- Access
- Aesthetics

Where used

- At the lower edge of crop fields or in conjunction with other conservation practices.
- On fields along streams, ponds, lakes, and drainageways.
- As part of a riparian forest buffer system.
- Where there is sheet or uniform shallow flow (avoid concentrated flow).
- As part of an agricultural waste management system.
- When they can be installed on the approximate contour.
- Where conservation practices reduce soil losses to acceptable level.
- In conjunction with conservation practices on the contributing area to reduce sources of contaminants.
- On slopes less than 10 percent.

Conservation management system

Filter strips are normally established as part of a conservation management system to address the soil, water, air, plant, and animal needs and the owner's objectives. It is important to plan the conservation crop rotation, nutrient and pest management, crop residue management, and other cropland practices. Filter strips can also provide forage production and improve farm aesthetics. They are most effective when used in combination with other agronomic or structural practices to provide conservation benefits.

Wildlife

Filter strips can enhance wildlife objectives depending on the vegetative species used and management practiced. Consider using native or adapted vegetative species that can provide food and cover for important wildlife. Delay mowing of filter area until after the nesting season.

Specifications

Site-specific requirements are listed on the specifications sheet. Additional provisions are entered on the job sketch sheet. Specifications are prepared in accordance with the NRCS Field Office Technical Guide. See practice standard Filter Strip (393).

Operation and maintenance

- Mow (and harvest if possible) filter strip grasses several times a year to encourage dense vegetative growth. For ground nesting wildlife, care should be taken to avoid mowing during nesting periods.
- Control undesirable weed species.
- Inspect and repair after storm events to fill in gullies, remove flow disrupting sediment accumulation, reseed disturbed areas, and take other measures to prevent concentrated flow in the filter strip.
- Lime and fertilize to soil test recommendations.
- Exclude livestock and vehicular traffic from filter strip during wet periods of the year since filter strips rely on infiltration for reducing contaminants. It is recommended that this type of traffic be excluded at all times to the extent that is practical.
- Restoration is required once the filter strip has accumulated so much sediment that it is no longer effective.