

# Sodding



**Grass sod is laid on exposed soil to stabilize the soil and to reduce the velocity of stormwater runoff**  
**(Source: Landscape USA, no date)**

## **Description**

Sodding is a permanent erosion control practice and involves laying a continuous cover of grass sod on exposed soils. Sodding can stabilize disturbed areas and reduce the velocity of stormwater runoff. Sodding can provide immediate vegetative cover for critical areas and stabilize areas that cannot be readily vegetated by seed. It also can stabilize channels or swales that convey concentrated flows and reduce flow velocities.

## **Applicability**

Sodding is appropriate for any graded or cleared area that might erode, requiring immediate vegetative cover. Locations that are well-suited to sod stabilization include:

- Residential or commercial lawns and golf courses where prompt use and aesthetics are important
- Steeply sloped areas
- Waterways and channels carrying intermittent flow
- Areas around drop inlets that require stabilization

## **Siting and Design Considerations**

Sodding eliminates the need for seeding and mulching. Sod can be laid during times of the year when seeded grasses are likely to fail. Water the sod frequently within the first few weeks of installation. Select a type of sod that is composed of plants adapted to the site conditions. Sod composition should reflect environmental conditions and the function of the area where it will be laid. Know the genetic origin of the sod, and make sure it is free of noxious weeds, diseases, and insects. Ensure that the sod is machine cut at a uniform soil thickness of 15 to 25 mm (not including top growth or thatch) at the time of establishment.

If a soil test determines the need, prepare the soil and add lime and fertilizer. Lay the sod in strips perpendicular to the direction of waterflow and stagger it in a brick-like pattern. Staple the corners and middle of each strip firmly. Peg jute or plastic netting over the sod to protect against washout during establishment. In the area to be sodded, clear all trash, debris, roots, branches, stones and clods larger than 2 inches in diameter. Ensure that sod is harvested, delivered, and installed within a period of 36 hours. If it is not transplanted within this period, inspect and approve the sod before its installation.

## **Limitations**

Compared to seed, sod is more expensive and more difficult to obtain, transport, and store. To ensure successful establishment, prepare the soil and provide adequate moisture before, during, and after installation. If sod is laid on poorly prepared soil or an unsuitable surface, the grass will die quickly because it is unable to root. After installation, inadequate irrigation can cause root dieback or cause the sod to dry out.

## **Maintenance Considerations**

To maintain adequate moisture in the root zone and to prevent dormancy, water the sod, especially within the first few weeks of installation. When mowing, do not remove more than one-third of the shoot. Maintain grass height between 2 and 3 inches. After the first growing season, determine if additional fertilization or liming is needed. Permanent, fine turf areas require yearly maintenance fertilization. Fertilize warm-season grass in late spring to early summer; fertilize cool-season grass in late winter and again in early fall.

## **Effectiveness**

Sod removes up to 99 percent of total suspended solids in runoff, but its sediment trapping efficiency is highly variable depending on hydrologic, hydraulic, vegetation, and sediment characteristics.

## **Cost Considerations**

Average construction costs of sod average \$0.20 per square foot and range from \$0.10 to \$1.10 per square foot; maintenance costs are approximately 5 percent of installation costs (USEPA, 1993).

## **References**

FHWA (Federal Highway Administration). 1995. *Best Management Practices for Erosion and Sediment Control*. FHWA-SLP-94-005. Federal Highway Administration, Sterling, VA.

Landscape USA. No date. *Installing Sod for an Instant Lawn*. [[www.landscapeusa.com/tips/turf.htm](http://www.landscapeusa.com/tips/turf.htm) EXIT Disclaimer]. Accessed November 10, 2005.

Smolen, M.D., D.W. Miller, L.C. Wyall, J. Lichhardt, and A.L. Lanier. 1988. *Erosion and Sediment Control Planning and Design Manual*. North Carolina Sedimentation Control Commission; North Carolina Department of Environment, Health, and Natural Resources; and Division of Land Resources, Land Quality Section, Raleigh, NC.

USEPA (U.S. Environmental Protection Agency). 1993. *Guidance Specifying Management Measures for Sources of Nonpoint Pollution in Coastal Waters*. EPA 840-B-92-002. U.S. Environmental Protection Agency, Office of Water, Washington, DC.

USEPA (U.S. Environmental Protection Agency). 1992. *Stormwater Management for Industrial Activities: Developing Pollution Prevention Plans and Best Management Practices*. U.S. Environmental Protection Agency, Office of Water, Washington, DC