



**Targeted Constituents**

● Significant Benefit      ▸ Partial Benefit      ○ Low or Unknown Benefit

● Sediment	▸ Heavy Metals	▸ Floatable Materials	▸ Oxygen Demanding Substances
▸ Nutrients	▸ Toxic Materials	▸ Oil & Grease	○ Bacteria & Viruses
			○ Construction Wastes

**Implementation Requirements**

● High      ▸ Medium      ○ Low

○ Capital Costs	○ O & M Costs	○ Maintenance	○ Suitability for Slopes >5%	○ Training
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**Description**

Prevent or reduce the discharge of pollutants to the storm drain system or to watercourses as a result of construction activity by utilizing vegetation to protect soils from erosion and to slow the velocity of runoff to allow the removal of sediment and other pollutants through filtering and settling. This management practice is likely to create a significant reduction in sediment as well as partial reductions in the impacts due to nutrients, heavy metals, toxic materials, floatable materials, oxygen demanding substances, and oil and grease.

**Suitable Applications**

- Buffer zones are effective along stream banks, grassed dikes, swales, slopes, outlets, level spreaders, and filter strips.
- Vegetative buffer strips may be used on any site that will support vegetation.
- Buffer strips are particularly effective on flood plains, adjacent to wetlands or other sensitive water bodies, and on steep, unstable slopes.

**Installation/ Application Criteria**

These systems should be designed by a licensed professional civil engineer.  
 Many of the measures presented in TCP-04: Buffer Zones and TCP-23: Filter Strips are applicable for establishing and maintaining permanent buffer zones.

**Maintenance**

- Inspect buffer zones monthly for the first year after construction and annually thereafter.
- Maintenance shall consist of mowing, weeding, and ensuring that the irrigation system is operating properly and as designed to sustain growth.
- Inspect buffer strips after significant storm events (10-year storm event or larger). Repair eroded or damaged areas as needed to maintain original purpose and effectiveness of the buffer strip.

**Additional Information**

- Sodding and plugging is the placement of permanent grass cover that has been grown elsewhere and brought to the site. Sodding stabilizes an area by immediately covering the soil surface with grass, thereby protecting the soil from erosion, enhancing infiltration, filtering sediment and other pollutants, and slowing runoff velocities.
- Plugging stabilizes an area by planting clumps of grass material, which then grow and spread to provide complete covers. Plugging is generally used for hybrid grasses that cannot be established from seed.

**Primary References**

*Caltrans Storm Water Quality Handbooks, Construction Contractor's Guide and Specifications*, April 1997.

*California Storm Water Best Management Practice Handbooks, Construction Handbook*, CDM et.al. for the California SWQTF, 1993.