




Oak Park Conservancy District Stormwater Best Management Practices (BMPs) Erosion Prevention Practices (EPPs)		EPP-04
Activity: Buffer Zones		
PLANNING CONSIDERATIONS: Design Life: Permanent Acreage Needed: Minimal Estimated Unit Cost: Est. from Existing Vegetation: \$0 Est. from Sod: Avg: \$11,000 Acre Range: \$4500 - \$48000/Acre Monthly Maintenance: 60% of Installation		
		
		Target Pollutants
		Significant ♦ Partial ♦ Low or Unknown ◇ Sediment ♦ Heavy Metals ♦ Nutrients ♦ Oxygen Demanding Substances ♦ Toxic Materials ◇ Oil & Grease ♦ Bacteria & Viruses ◇ Floatable Materials ♦ Construction Waste ◇
Description	Buffer Zones allow the utilization of vegetation to protect soils from erosion as well as decelerate the velocity of sediment runoff. This BMP allows the removal of sediment through filtering and settling. Temporary relief, permanent placement or buffer requirements may be needed for a no construction activity site to warrant the need for this BMP. This management practice is likely to create a significant reduction in sediment by reducing erosion and retaining plant vegetation along waterways.	
Suitable Applications	<ul style="list-style-type: none"> ➤ A buffer must at least include the floodway plus 50 feet (15.2 m) perpendicular to the floodway. If a floodway has not been determined, the buffer must be at least 25 feet (7.6 m) perpendicular from each side of the stream bank, creek, or unnamed waterway under "bank-full conditions." ➤ Utilization or reinforcement of existing vegetation is preferred. However, where improvements are required; sodding, plugging, use of stockpiled vegetation or seeding is acceptable. ➤ Sodding is appropriate if it is part of the no construction activity area required by the Public Works Agency for areas that contained turf prior to construction, or for any graded or cleared areas that might erode and where a robust plant cover is needed immediately. 	

Approach***Sodding and Grass Plugging***

- Sod shall be protected with tarps or other protective covers during delivery and shall not be allowed to dry out between harvesting and placement.
- All weeds and debris shall be removed before cultivation of the area to be planted and shall be disposed in accordance with local waste management ordinances.
- After cultivation, installation of irrigation systems, and excavation and backfilling of plant holes are completed, areas to be planted with sod shall be fine graded and rolled. Topsoil may be needed in areas where the soil textures are inadequate. Areas to be planted with sod shall be smooth and uniform prior to placing sod. Areas to be planted with sod adjacent to sidewalks, concrete headers, header boards, and other paved borders and surface areas shall be 1.5 in.-0.25 in. (38 mm-6 mm) below the top grade of such facilities after fine grading, rolling, and settlement of the soil. Sod shall be placed so that ends of adjacent strips of sod are staggered by half the width. All edges and ends of sod shall be placed firmly against adjacent sod and against sidewalks, concrete headers, header boards, and other paved borders and surfaced areas.
- After placement of the sod, the entire sodded area shall be lightly rolled to eliminate air pockets and to ensure close contact with the soil. After rolling, the sodded areas shall be watered so that the soil is moistened to a minimum depth of 4 in. (100 mm). Sod shall not be allowed to dry out. Sod should not be planted during very hot or wet weather. Sod should not be placed on slopes that are greater than 3:1 (H:V) if they are to be mowed.
- If irregular or uneven areas appear before or during the plant establishment period, such areas shall be restored to a smooth and even appearance.
- Sod shall be healthy, field-grown sod containing not more than 0.5-in. (13-mm) thick thatch. The sod shall be free from disease, weeds, insects, and undesirable types of grasses and clovers. Sod shall be machine cut at a uniform soil thickness of 0.625 in.-0.25 in. (16 mm-6 mm), not including top growth and thatch.

Vegetative Buffer Strips

For development of a vegetative buffer strip from new vegetation, the following steps shall be followed:

- Strip and stockpile good topsoil during construction. Use stockpiled topsoil for surface preparation prior to seeding operations.

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Approach	<ul style="list-style-type: none"> ➤ Prepare a good, firm seedbed by adding soil amendments such as fertilizer as needed. After seeding, apply mulch (straw layer, etc.) to protect the vegetation during establishment. Select a seed mixture appropriate to the site conditions, remembering that dense grasses are the most effective in slowing flow velocities and removing pollutants such as sediment. A thick root structure is needed to control erosion. ➤ Plant during the best time for the particular grass or vegetation selected. ➤ Use planting equipment and methods that provide uniform distribution and proper placement of seed. ➤ Water or irrigate the vegetation as needed to supplement rainfall until established. ➤ Fertilize in accordance with label instructions and the needs of the grass and soil as indicated by soil tests. ➤ Overseed, repair bare spots, or apply additional mulch as necessary. ➤ Avoid using the buffer strip for vehicular traffic as it will damage the vegetation and reduce its effectiveness as a buffer.
Maintenance	<ul style="list-style-type: none"> ➤ Inspect sod installations weekly and after significant storm events, until the turf is established, and routinely 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 weekly and after significant storm events until vegetation is established, and routinely thereafter. Repair eroded or damaged areas as needed to maintain original purpose and effectiveness of the buffer strip.
Inspection Checklist	<ul style="list-style-type: none"> <input type="checkbox"/> Flagging and fencing are kept in repair as needed. <input type="checkbox"/> Sod is properly maintained and watered. <input type="checkbox"/> Buffer strips are properly maintained. <input type="checkbox"/> Significant rainstorm events have not deteriorated Buffer Zone.