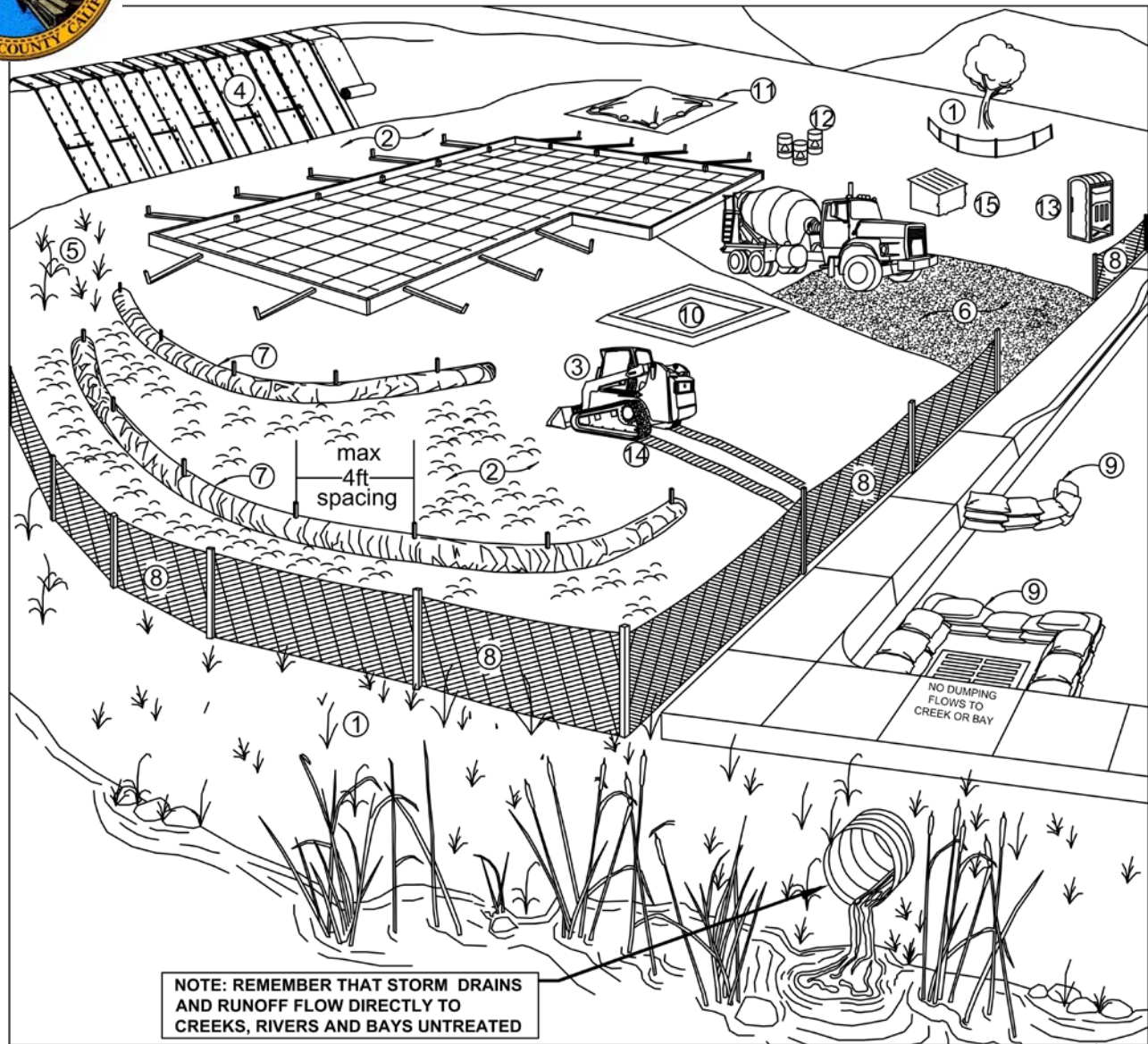




# CONTRA COSTA COUNTY STORMWATER POLLUTION PREVENTION PROGRAM

## Minimum Control Measures For Small Construction Projects

Department of Conservation and Development, 30 Muir Rd., Martinez, CA 94553 (925) 674-7200



NOTE: REMEMBER THAT STORM DRAINS AND RUNOFF FLOW DIRECTLY TO CREEKS, RIVERS AND BAYS UNTREATED

| Erosion Controls                         | Sediment Controls         | Good Housekeeping                     |
|--|---------------------------|---------------------------------------|
| NS Scheduling                            | 6. Tracking Controls      | 10. Concrete Washout                  |
| 1. Preserve Vegetation & Creek Set Backs | 7. Fiber Rolls            | 11. Stockpile Management              |
| 2. Soil Cover                            | 8. Silt Fence             | 12. Hazardous Material Management     |
| 3. Soil Preparation/ Roughening          | 9. Drain Inlet Protection | 13. Sanitary Waste Management         |
| 4. Erosion Control Blankets              | NS Trench Dewatering      | 14. Equipment and Vehicle Maintenance |
| 5. Revegetation                          |                           | 15. Litter and Waste Management       |

NS=not shown on graphic

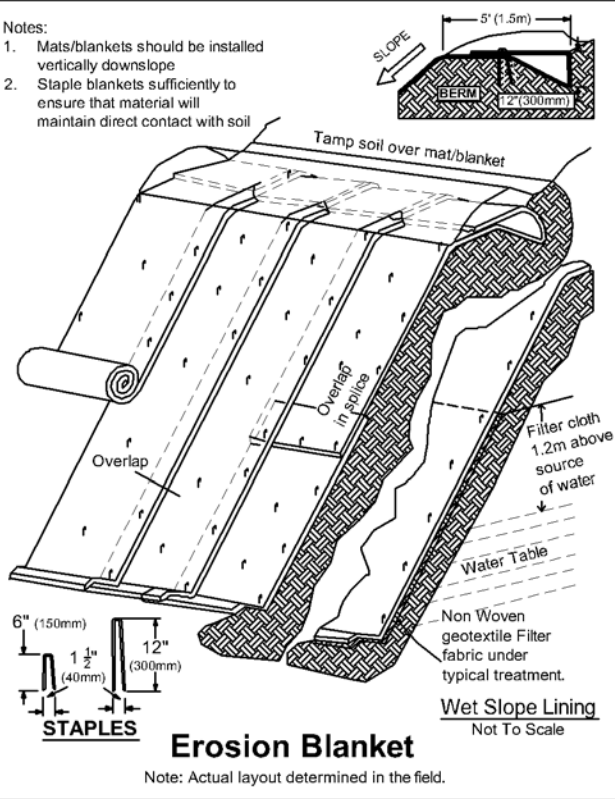
**Note:** Select an **effective combination of control measures from each category**, Erosion Control, Sediment Control, and Good Housekeeping. Control measures shall be **continually implemented and maintained throughout the project** until activities are complete, disturbed areas are stabilized with permanent erosion controls, and the local agency has signed off on permits that may have been required for the project. **Inspect and maintain the control measures** before and after rain events, and as required by the local agency or state permit.

More detailed information on the BMPs can be found in the related California Stormwater Quality Association (CASQA) and California Department of Transportation (Caltrans) BMP Factsheets. CASQA factsheets are available by subscription in the *California Best Management Practices Handbook Portal: Construction* at <http://www.casqa.org>. Caltrans factsheets are available in the *Construction Site BMP Manual May 2017* at <http://www.dot.ca.gov/hq/construc/stormwater/CSBMP-May-2017-Final.pdf>.

| Control Measure                                    |   | General Description   |
|--|---|---|
| <b>Erosion Control Best Management Practices</b>   |   |   |
| N/A  | Scheduling                                      | Plan the project and develop a schedule showing each phase of construction. Schedule construction activities to reduce erosion potential, such as scheduling ground disturbing activities during the summer and phasing projects to minimize the amount of area disturbed. <i>For more info see the following factsheets: CASQA: EC-1; or Caltrans: SS-1.</i>   |
| 1  | Preserve Existing Vegetation and Creek Setbacks | Preserve existing vegetation to the extent possible, especially along creek buffers. Show creek buffers on maps and identify areas to be preserved in the field with temporary fencing. Check with the local Planning and Public Works Departments for specific creek set back requirements. <i>For more info see the following factsheets: CASQA: EC-2; or Caltrans: SS-2.</i>   |
| 2  | Soil Cover                                      | Cover exposed soil with straw mulch and tackifier (or equivalent). <i>For more info see the following factsheets: CASQA: EC-3, EC-5, EC-6, EC-7, EC-8, EC-14, EC-16; or Caltrans: SS-2, SS-4, SS-5, SS-6, SS-7, SS-8.</i>   |
| 3  | Soil Preparation/Roughening                     | Soil preparation is essential to vegetation establishment and BMP installation. It includes soil testing and amendments to promote vegetation growth as well as roughening surface soils by mechanical methods (decompacting, scarifying, stair stepping, etc.). <i>For more info see the following factsheets: CASQA: EC-15.</i>   |
| 4  | Erosion Control Blankets                        | Install erosion control blankets (or equivalent) on disturbed sites with 3:1 slopes or steeper. Use wildlife-friendly blankets made of biodegradable natural materials. Avoid using blankets made with plastic netting or fixed aperture netting. See: <a href="http://www.coastal.ca.gov/nps/Wildlife-Friendly_Products.pdf">http://www.coastal.ca.gov/nps/Wildlife-Friendly_Products.pdf</a> . <i>For more info see the following factsheets: CASQA: EC-7; or Caltrans: SS-7.</i>   |
| 5  | Revegetation                                    | Re-vegetate areas of disturbed soil or vegetation as soon as practical. <i>For more info see the following factsheets: CASQA: EC-4; or Caltrans: SS-4.</i>  |
| <b>Sediment Control Best Management Practices</b>  |   |   |
| 6  | Tracking Controls                               | Stabilize site entrance to prevent tracking soil offsite. Inspect streets daily and sweep street as needed. Require vehicles and workers to use stabilized entrance. Place crushed rock 12-inches deep over a geotextile, using angular rock between 4 and 6-in. Make the entrance as long as can be accommodated on the site, ideally long enough for 2 revolutions of the maximum tire size (16-20 feet long for most light trucks). Make the entrance wide enough to accommodate the largest vehicle that will access the site, ideally 10 feet wide with sufficient radii for turning in and out of the site. Rumble pads or rumble racks can be used in lieu of or in conjunction with rock entrances. Wheel washes may be needed where space is limited or where the site entrance and sweeping is not effective. <i>For more info see the following factsheets: CASQA: TC-1; TC-3; or Caltrans: TC-1; TC-3.</i>  |
| 7  | Fiber Rolls                                     | Use fiber rolls as a perimeter control measure, along contours of slopes, and around soil stockpiles. On slopes space rolls 10 to 20 feet apart (using closer spacing on steeper slopes). Install parallel to contour. If more than one roll is used in a row overlap roll do not abut. J-hook end of roll upslope. Install rolls per either Type 1 (stake rolls into shallow trenches) or Type 2 (stake in front and behind roll and lash with rope). Use wildlife-friendly fiber rolls made of biodegradable natural materials. Avoid using fiber rolls made with plastic netting or fixed aperture netting. See: <a href="http://www.coastal.ca.gov/nps/Wildlife-Friendly_Products.pdf">http://www.coastal.ca.gov/nps/Wildlife-Friendly_Products.pdf</a> . Manufactured linear sediment control or compost socks can be used in lieu of fiber rolls. <i>For more info see the following factsheets: CASQA: SE-5 (Type 1); SE-12, SE-13; or Caltrans: SC-5 (Type 1 and Type 2).</i> |
| 8  | Silt Fence                                      | Use silt fence as a perimeter control measure, and around soil stockpiles. Install silt fence along contours. Key silt fence into the soil and stake. Do not use silt fence for concentrated water flows. Install fence at least 3 feet back from the slope to allow for sediment storage. Wire backed fence can be used for extra strength. Avoid installing silt fence on slopes because they are hard to maintain. Manufactured linear sediment control can be used in lieu of silt fences. <i>For more info see the following factsheets: CASQA: SE-1; SE-12; or Caltrans: SC-1.</i>  |
| 9  | Drain Inlet Protection                          | Use gravel bags, (or similar product) around drain inlets located both onsite and in gutter as a last line of defense. Bags should be made of a woven fabric resistant to photo-degradation filled with 0.5-1-in washed crushed rock. Do not use sand bags or silt fence fabric for drain inlet protection. <i>For more info see the following factsheets: CASQA: SE-10; or Caltrans: SC-10.</i>  |
| <b>Good Housekeeping Best Management Practices</b> |   |   |
| 10   | Concrete Washout                                | Construct a lined concrete washout site away from storm drains, waterbodies, or other drainages. Ideally, place adjacent to stabilized entrance. Clean as needed and remove at end of project. <i>For more info see the following factsheets: CASQA: WM-8; or Caltrans: WM-8.</i>   |
| 11   | Stockpile Management                            | Cover all stockpiles and landscape material and berm properly with fiber rolls or sand bags. Keep behind the site perimeter control and away from waterbodies. <i>For more info see the following factsheets: CASQA: WM-3 or Caltrans: WM-3.</i>  |
| 12   | Hazardous Material Management                   | Hazardous materials must be kept in closed containers that are covered and within secondary containment; do not place containers directly on soil. <i>For more info see the following factsheets: CASQA: WM-6; or Caltrans: WM-6.</i>   |
| 13   | Sanitary Waste Management                       | Place portable toilets near stabilized site entrance, behind the curb and away from gutters, storm drain inlets, and waterbodies. Tie or stake portable toilets to prevent tipping and equip units with overflow pan/tray (most vendors provide these). <i>For more info see the following factsheets: CASQA: WM-9; or Caltrans: WM-9.</i>  |
| 14   | Equipment and Vehicle Maintenance               | Prevent equipment fluid leaks onto ground by placing drip pans or plastic tarps under equipment. Immediately clean up any spills or drips. <i>For more info see the following factsheets: CASQA: NS-8, NS-9, and NS-10; or Caltrans: NS-8, NS-9, and NS-10.</i>   |
| 15   | Litter and Waste Management                     | Designate waste collection areas on site. Use watertight dumpsters and trash cans; inspect for leaks. Cover at the end of each work day and when it is raining or windy. Arrange for regular waste collection. Pick up site litter daily. <i>For more info see the following factsheets: CASQA: WM-5; or Caltrans: WM-5.</i>  |

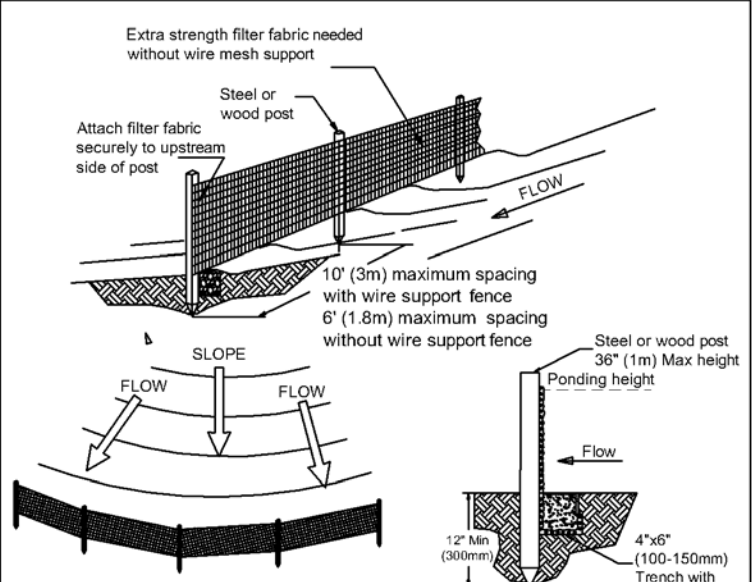
**Notes:**

1. Mats/blankets should be installed vertically downslope
2. Staple blankets sufficiently to ensure that material will maintain direct contact with soil



**Erosion Blanket**

Note: Actual layout determined in the field.

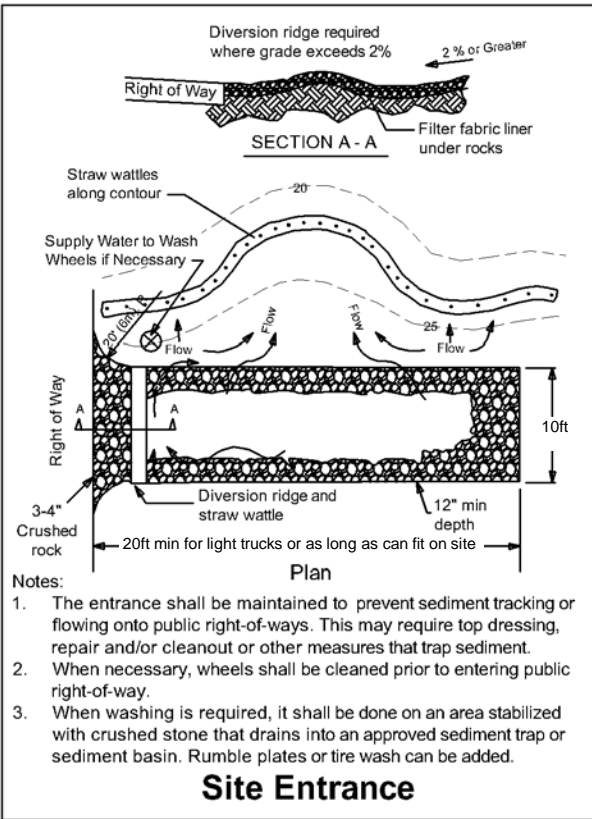


**Notes:**

1. Silt fence shall be placed level along slope contours to maximize ponding efficiency with the ends curved uphill to improve ability to retain water.
2. Inspect and repair fence after each storm event and remove sediment when accumulation reaches 1/3 of the barrier height.
3. Removed sediment shall be deposited to an area that will not contribute sediment off-site and can be permanently stabilized

**Silt Fence**

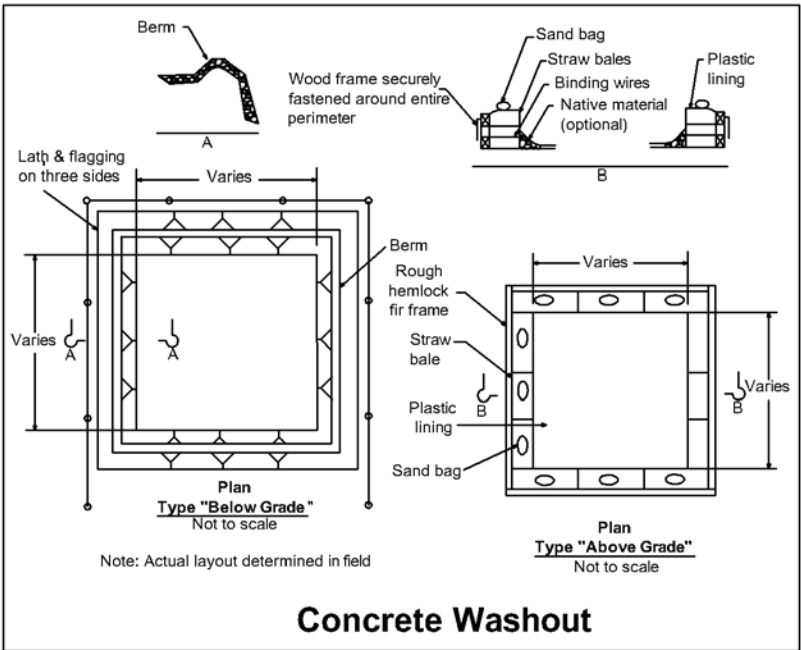
NOT TO SCALE



**Site Entrance**

**Notes:**

1. The entrance shall be maintained to prevent sediment tracking or flowing onto public right-of-ways. This may require top dressing, repair and/or cleanout or other measures that trap sediment.
2. When necessary, wheels shall be cleaned prior to entering public right-of-way.
3. When washing is required, it shall be done on an area stabilized with crushed stone that drains into an approved sediment trap or sediment basin. Rumble plates or tire wash can be added.



**Concrete Washout**



**Catch Basins with Gravel Bags**

(Do not use sand bags near inlets)