

7.0 Maintenance and Inspection of BMPs

The need for continual maintenance of temporary erosion and sediment controls is as important, if not more important, than the initial installation. Maintenance of temporary devices consists of two basic requirements. The first requirement is the frequent and periodic cleanout of accumulated sediment. Devices involved include silt fence, sediment traps and basins, and filter dams. As a general rule, any device that has a capacity of 50% of the original should be cleaned and accumulated silt and sediment removed. The judgement as to maintaining and/or replacing devices should be based on the type of device, type of soil, and expected runoff characteristics. The influence of seasonal changes may necessitate continued adjustment of the frequency of maintenance. The accessibility of a device after a rainfall event must also be taken into account in the frequency of cleaning. The sediment removed from the devices should be properly disposed into controlled areas and prevented from returning to the control device upon subsequent rain events. Areas that pose troublesome maintenance requirements should be re-evaluated and consideration should be given to the selection and use of alternate measures.

The second maintenance requirement includes the repair and replacement of deteriorated materials within the device (i.e. silt fence fabrics and restoring grade of sediment traps). Devices that are continually damaged may indicate the need for additional or alternate devices.

It is also essential that borrow areas, waste areas, contractor work areas, and material storage areas within the right-of-way and easements be routinely inspected. It is often easy to overlook these areas because of their locale, but the same diligence must be afforded these areas.

Within 24 hours after a significant rainfall event, (> 0.5-inch), the contractor and engineer should inspect the entire project to determine the condition of the BMPs. Sediment should be removed from the devices and damaged devices should be repaired as soon as practical.

“As soon as practical” is defined as follows: The surrounding exposed ground has dried sufficiently to prevent further damage from heavy equipment. In the event of continuous rainfall over a 24-hour period, the contractor will be required to hand carry and install additional backup devices as determined by the engineer. The contractor should remove silt accumulations and deposit the spoil in an area designated by the engineer as soon as practical.

Repeatedly troublesome areas should be analyzed, modified, and reconstructed to minimize maintenance and provide maximum protection. Prior to forecasted heavy rain predictions, the entire area should be inspected to ensure the best possible protection.

The contractor should be required to clean paved surfaces as soon as possible, but no later than seven calendar days after the surrounding exposed ground will have dried sufficiently to prevent further damage from heavy equipment. The areas adjacent to creeks and drainageways shall have priority followed by devices protecting storm sewer inlets.

Qualified personnel should inspect the construction site at least once every fourteen calendar days and within 24 hours of the end of a rainfall event that is 0.5-inch or greater. Where sites have been finally stabilized, or during seasonal arid periods in arid areas (with an average annual rainfall of 0-10 inches) and semi-arid (with an average annual rainfall of 10-20 inches) such inspection shall be conducted at least once every month. The inspection of the device should include an evaluation of the condition of the device, maintenance requirements, an indication of whether the device is functioning correctly, and any corrective measures needed.

- Disturbed areas and areas used for storage of materials that are exposed to precipitation shall be inspected for evidence of, or the potential for, pollutants entering the drainage system. BMPs identified in the plan shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether BMPs are effective in preventing significant impacts to receiving waters. Locations where vehicles enter or exit the site shall be inspected for evidence of offsite sediment tracking.
- Based on the results of the inspection, the site description identified in the plan and BMPs identified in the plan shall be revised as appropriate, but in not case later than 7 calendar days following the inspection. Such modifications shall provide for timely implementation of any changes to the plan within 7 calendar days following the inspection.
- A report summarizing the scope of the inspection shall include the following:
 - Name(s) and qualifications of personnel making the inspection
 - The date of the inspection
 - Major observations relating to the implementation of the storm water pollution prevention plan and actions taken

The report shall be made and retained as part of the Storm Water Pollution Prevention Plan for at least three years from the date that the site is stabilized. The report should be signed by the District Engineer or by the person or position designated in writing by the District Engineer.

The inspection form to be used by TxDOT field inspections is included as Appendix J. Each drainage system or critical discharge area can be noted by code as to its performance and/or maintenance requirements.

The TxDOT project inspector should keep a rain gauge on site and check the functional level on a daily basis, recording, if necessary, the amount of rain received. A place is

provided on the inspection form for the recording of rainfall in inches from the last 24-hour period.

Priority maintenance items should be numbered in sequence by the TxDOT inspector. Under no circumstances is the contractor to deviate from this plan without written permission from the engineer. This form provides:

- An easy and effective inspection report
- The contractor with updates for the work required
- A track record of troublesome areas so that they can be identified, analyzed, and modified to minimize maintenance and maximize performance
- A weekly report of activities