

Erosion Control Inspector Training
Inspector Quality Assurance Program

BMP
Specific Installation Mistakes and
Maintenance Problems

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QA
WATERWAYS &
INSPECTION

Why Do BMPs Fail?


- The most frequent cause of BMP failure is **poor maintenance**
- However, some common **installation mistakes** can impair BMP performance

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Soil Roughening

Mistakes

Roughening in the wrong direction can increase erosion rather than reduce it.




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Vegetation

Mistakes

- Improper calculation of seed rate
- Improper application of soil amendments




Inspect frequently to verify vegetation is growing. Reseed if necessary. Soil analysis may be required. ⁴

Hydraulic and Straw Mulch

Mistakes

- Inadequate coverage
- Underestimated slope area or roughness
- Improper application technique (i.e., evidence of shadowing with BFM application)




Monitor short-term performance; repair through reapplication. ⁵

Wood/Bark Chips

Mistakes

Placed on steep slopes where easily conveyed by runoff




Maintain mulch long enough to achieve erosion control objectives. ⁶

Erosion Control Blankets and Mats

Mistakes

- Not enough staples
- RECP stretched across soil
- Overlaps in wrong direction
- Not trenching at to top of slope




Check for erosion and undermining. Repair slope if washout or breakage occurs and reinstall material. ⁷

Soil Stabilizers

Mistakes

- Insufficient drying time before rainfall
- Product selection
- Application rate





Maintain by reapplying in high traffic areas, after storm events or after degradation period. ⁸

Wind Erosion Control

Mistakes

Plastic, geotextile covers and soil binders must be routinely inspected and replaced if effectiveness degraded




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Fiber Rolls

Mistakes

- Not trenched in
- Not placed on contour
- Inadequately staked
- Inappropriate spacing



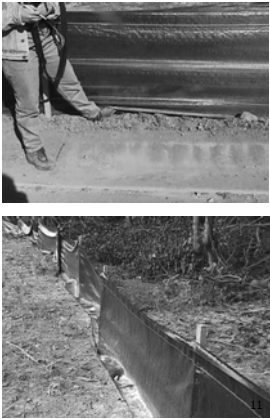
Follow manufacturer's recommendations on installation, spacing and applications.

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Silt Fence


Mistakes

- Inadequately sized
- Improperly installed
- In the wrong location
- Not maintained



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Silt Fence


- Don't use in waterways
- Place on contour
- Limit drainage area
- Inspect frequently
- Examples to trigger silt fence maintenance:
 - height or volume of accumulation
 - storm events

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Sediment Traps

Mistakes

Undersized and not maintained




Design for the peak, not the average. 13

Sand Bags

Mistakes

Sand-filled geotextile bags sometimes used when burlap bags are more appropriate




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Gravel-Filled Burlap Bags

Mistakes

Used when sand bags are more appropriate (e.g., to block or divert flow)




Must be inspected regularly and repaired or replaced. 15

Check Dams

Mistakes

- Adequately sized
- Appropriate spacing
- Low point in center of flow
- Maintained





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Storm Drain Inlet Protection

Mistakes

- Diverting flow, rather than filtering it
- Flooding
- Maintenance and replacement




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Tracking Controls


Mistakes

- Short cuts around device
- Length of gravel and/or plates inadequate
- Not backed up by road sweeping (maintenance)




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Acts of Omission



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Inspection Guidelines

- The performance of BMPs depends on how the measures are operated and maintained and the severity of weather conditions for the first 1-5 years following implementation
- BMPs should be monitored before, during and after significant rainfall events
- During grading and construction the owner and Contractor(s) are responsible for maintaining storm water pollution control measures.

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Inspection Points

- All disturbed areas of the site
- Areas for material storage
- Access and egress points
- All the erosion and sediment controls that are part of the plan must be inspected regularly

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Inspection Points

- Problem areas must be documented
- Repairs identified and implemented immediately
- Effort continues until site finally stabilized and permanent measures are in place and performing adequately

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Site Inspections

Site inspections conducted to ascertain:

- All measures completed in field
- Erosion is being controlled
- Sediment not transported off-site

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Walkthroughs

Walkthroughs help identify critical inspection locations:

- All disturbed areas of the site
- Material storage areas
- Vehicle entrance and exit points
- All erosion and sediment control measures

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