

Stormwater Best Management Practices (BMPs)



Managing our rain water runoff (i.e. stormwater) is the best way to help keep our surface and groundwater resources clean. Minnesota law requires that counties consider stormwater management when issuing land use permits. In Crow Wing County, if a stormwater plan is required, it should be designed for permanent on-site treatment of 1 inch of stormwater runoff from all impervious surfaces on the lot. Where feasible, Crow Wing County recommends techniques that promote infiltration and use of existing natural areas.

Rain Garden



Gutters / Rain Barrels



Stormwater Pond (Wet Sedimentation Basin)

- Sediment / pollutant removal achieved from settling
- For larger sites
- Engineering Required



Infiltration Basin

- Soils typically amended to allow for infiltration of stormwater
- Inlet / outlets should be stabilized



No Mow Vegetated Buffer

- Prevents nutrients from entering surface water
- Provides fish & wildlife habitat
- Can be enhanced with native flowers for aesthetics



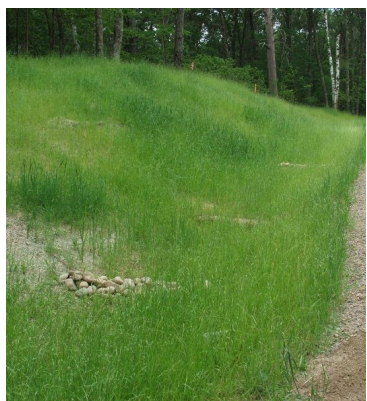
Berms / Ice Ridges

- Captures runoff before entering surface water
- 6 to 12 inches in height for a constructed berm
- Historic ice ridges with vegetation should remain



Vegetated Swale

- Used to convey runoff from impervious surfaces to treatment areas such as rain gardens or basins



Pervious Pavement

- Engineering needed
- Maintenance plan required to get credit as pervious



Temporary Erosion & Sediment Control BMPs



Temporary erosion and sediment control measures are designed to help hold onsite soils in place and protect near-by receiving waters during construction. BMPs are required for all riparian projects in Crow Wing County. They should be removed once vegetation is established and the site is stable. Below are several commonly used BMPs. Contact your supplier for proper installation techniques.

Filter Logs

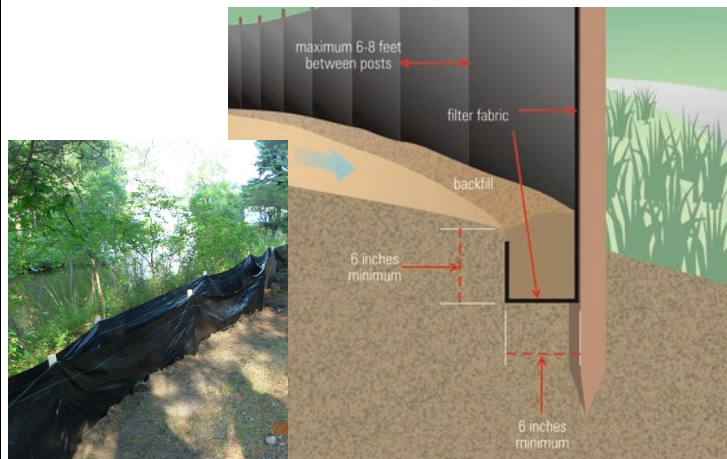


- Captures sediment
- Used in ditches and on slopes to protect down-stream receiving waters



Silt Fence

- Must be installed below grade (see diagram below)
- Clean out when sediment reaches 1/3 height of fence



Straw Mulch

- Disked / anchored to soil
- Can be mixed with tackifier and used in hydro-mulch application



Erosion Control Blanket

- Great for aiding in vegetation establishment on slopes or in drainage areas with low velocity.



Rock

- Entrance / exit pads
- Ditch checks
- Culvert stabilization



Cat Tracking (horizontal slope grading)

- Prevents gully erosion
- Keeps seed / mulch in place



Vegetation (Sod, Seed, Hydro-Seeding, etc.)

