

# Site Construction

What was a meadow yesterday can be a graded and devegetated swath of open soil today. Soil stripped of vegetation moves easily with rainfall, allowing erosion and sediment transport. Loss of soil from erosion can be costly, and excess sediment or “dirt” in waterways can clog drainages and be **harmful to water quality**. Minimizing soil erosion and transport from construction sites is critical. **Permitting** and “**Best Management Practices**” (or **BMP’s**) are important tools for controlling erosion and keeping sediment out of our waterways.

## Permits:

Land Disturbance permits are a regulatory measure that stem from the Clean Water Act of 1972. In Missouri, land disturbance permits must be obtained through the Missouri Department of Natural Resources prior to the start of any earth-moving operation.

## Best Management Practices (BMP’s):

- ▶ **Construction Entrances** are places for muddy equipment to enter and exit the site where **mud** can be **consolidated** and **contained**.
- ▶ “**Silt Fences**” or Perimeter Barriers can **catch** or **contain** sediment as water carries it downhill; often installed along the base of raw earth slopes or along property boundaries—often incorrectly installed and fail—useful only on gentle slopes without concentrated flow.
- ▶ **Vegetation** is nature’s erosion control. Roots **hold soil**, and stems and leaves **slow water flow**. Leaving as much vegetation as possible and establishing vegetation quickly in graded areas are important to controlling erosion.
- ▶ **Erosion “check” devices** are placed at intervals within drainage channels to **slow the water**, minimizing erosion until vegetation is established within the channels.
- ▶ **Detention basins** help prevent flooding by **storing** water and **reducing discharge** rates, and if designed appropriately, can help improve water quality by allowing sediment to **settle** in the basin.

Construction Entrance



Erosion Check Device



Vegetation



Silt Fence



Silt Sock

