



# EROSION AND SEDIMENT CONTROL

## A Guide For Individual Lot Construction

### Best Management Practices for Individual Lot Construction

When Best Management Practices (BMPs) are installed and maintained correctly, they can help ensure that sediment generated from construction activity remains on site. The following BMPs are commonly used for individual lot construction.

#### Construction Entrance

- Use large stone
- Install during clearing phase
- Use to prevent tracking soil onto road
- Maintain throughout construction
- Avoid streams, creeks, and wetlands



#### Sediment Barriers

- Use to filter sheet flow runoff
- Install during clearing phase
- Use combination barriers when necessary
- Make sure it is installed correctly by entrenching a portion of barrier in the ground so it can trap sediment efficiently and intercept runoff
- Maintain until vegetation is established
- Do not use on steep slopes or concentrated flow areas



**Do!**



**Don't!**



#### Sediment Cleanup

- At the end of each work day sweep or scrape soil tracked onto roads
- After storm events inspection for off-site sediment movement and repair damage to barriers
- Remove sediment that penetrated barriers and clean buildup

### Erosion and Sediment Control: The Key to Clean Water

Sediment is the product of erosion and it is the largest pollutant in Ohio streams and rivers. Construction and other earth disturbing activities contribute large quantities of sediment to streams and this sediment is carried through ditches and other conveyances throughout a watershed.

Sediment negatively impacts water quality by degrading the habitat of aquatic organisms and fish, impeding recreational opportunities, decreasing property value, and promoting the growth of weeds and algae. Sediment accumulation in ditches, streams, and lakes reduces their capacity therefore increasing the chance of frequent flooding.

The Geauga Soil and Water Conservation District (SWCD) has the authority through the Geauga County Water Management and Sediment Control (WMSC) Regulations to regulate construction sites to ensure sediment remains on site. Whether or not a township requires an erosion and sediment control plan for individual lot construction, all homeowners on any size lot are required to comply with the provisions outlined in the WMSC Regulations. The homeowner is ultimately responsible if these measures are not properly in place.

A complete set of regulations can be found online at [geaugaswcd.com](http://geaugaswcd.com) that outline all the necessary measures to be taken to prevent sediment from leaving a site and entering natural water sources.

### **Rock Outlet Protection**

- Use to dissipate energy from concentrated flows
- Helps prevent eroded channels downstream
- Use oversized stone appropriate for design velocities



### **Revegetating and Surface Protection**

Ground cover is the most effective way to control sediment runoff, whether it be temporary or permanent.

- Use seed or sod to cover exposed soils after final grade completed
- Seed critical areas such as drainage swales, right-of-way areas, areas near curb inlets, and buffer areas along streams and wetlands
- Mulching (straw) can be used when temporary seeding is not practical and can be done in any weather situation
- Mulching shall also be applied in combination with grass seed to ensure seeds are covered and ensure successful germination



### **Inlet Protection**

- Protect all storm sewer inlets as they are a direct conveyance to streams and rivers
- Reinforced filter fabric with a 2'x4' wood frames or storm inlet inserts are commonly used



### **Stockpile Placement and Protection**

- Build stockpiles away from critical areas such as streams, drainageways, and storm sewer inlets
- Temporarily seed and mulch immediately to protect against erosion
- Protect stockpiles by surrounding them with barriers such as filter sock or silt fence

### **Construction Checklist**

When building a new home or adding on to your current home, there are a few important things to keep in mind. The following checklist will assist you in ensuring that the appropriate factors have been considered:

- **Evaluate the Site:** Before construction begins, evaluate the entire site; marking for protection of any important trees and associated rooting zones, unique areas to be preserved, streams, wetlands, potential hydric soils, and vegetation suitable for filter strips, especially in perimeter areas. Remember to call the Ohio Utilities Protection Service (OUPS) at 800-862-2764 48 hours before you dig, as well as the Oil and Gas Producers Underground Protection Service at 800-925-0988.
- **Install Perimeter Controls:** Identify the areas where sediment runoff could leave the construction site and install perimeter controls to minimize the potential for off-site sedimentation. This could include leaving a buffer strip, using silt fence, and protection of storm sewer inlets.
- **Build the Structures and Install Utilities:** Construct the home or addition and install utilities, as well as the sewage disposal system and well, if applicable.
- **Maintenance:** Maintain all erosion and sediment control measures until construction is complete and the lot is stabilized. Inspect at least once per week and after a storm event. Sweep or scrape soil tracked onto roadways.
- **Revegetate the Site:** Immediately after all outside activities are complete, stabilize the lot with seed, sod, and mulch. Redistribute the stockpiled soil and spread to a depth of 4-6 inches over rough graded areas. Spread mulch on newly seeded areas.
- **Remove Remaining Temporary Control Measures:** Once the sod and/or vegetation is established, remove any temporary erosion and sediment control measures.