

Site Stabilization in Times of Drought

The good side to a drought is less sediment loss from construction sites. The bad side: getting sites stabilized! It is particularly critical to stabilize exposed soil areas with a continuous positive slope that are within 200 lineal feet of a surface water, either through temporary erosion protection or permanent cover. In addition to flowing water, this distance must be measured from ephemeral drainage ways and constructed drainage ways, which includes curb and gutter, catch basins, and other inlets and outlets that connect to storm sewers and drainageways. The MPCA construction storm water permit requires that such areas be stabilized according to the following table of slopes and time frames:

<u>Type of Slope</u>	<u>Time</u> (Maximum time an inactive area can remain open)
Steeper than 3:1	7 days
10:1 to 3:1	14 days
Flatter than 10:1	21 days

So what's a builder to do? Try some of these approaches:

- **Phase construction** to disturb smaller areas and **preserve as much existing vegetation as possible**, wherever feasible. This will reduce the need for new vegetation and to shade new vegetation from excess heat. It is common practice to grade areas where there won't be any construction. By identifying these areas ahead of time and leaving them in tact, there will be fewer stabilization (and erosion) issues.
- Slightly **roughen the soil surface** to increase infiltration and to shade the seed. Running heavy equipment tracks perpendicular to slopes can be especially helpful at catching and holding moisture.
- Apply **mulch or tackifiers** with seed to retain moisture and insulate the soil and seed from heat.
- **Preserve existing topsoil or augment topsoil** with compost to increase water-holding capacity. Never mix topsoil with soils excavated from foundation areas. City standards require a minimum of 4 inches of topsoil before residential lots are sodded; don't skimp.
- Purchase **drought tolerant seed** and avoid drought intolerant species like Kentucky Bluegrass, Annual Rye Grass, and White Clover.
- Add a **nurse crop** of rapidly growing annuals to permanent seed mixes so the quickly germinating nurse crop can hold and shade the soil until the slower-growing perennial seed becomes established.
- **Maintain the vegetation** after seeding: water, re-seed, and re-mulch as needed within 30 days of planting.
- **Conserve water** when watering newly seeded or planted areas by not watering in windy weather and during the heat of the day.
- Each grass species has a preferential season for germination. Only seed within times that are suitable for germination or for dormant seeding. If vegetative establishment is especially difficult due to timing or lack of rain, **anchor mulch to disturbed areas or install soil stabilization blankets** until the permanent cover can be established.
- Installing sod is by far the preferred stabilization method on residential lots. If you plan on sodding in hot, dry weather, be sure you can follow up with sufficient watering. If not, delay sod installation and seed the lot with a temporary cover crop.

When all else fails, organize a rain dance!