Erosion Control
Best Management Practices

An erosion control plan is important for ensuring topsoil preservation as well as preventing air and water pollution from the spread of dust and sediment. A successful erosion control plan should incorporate some of the following best management practices.

Soil Stabilization (5-35)
Schedule – plan a schedule of all construction activities to ensure a minimum amount of soil is exposed for a minimum amount of time (5-36).

Preserve existing vegetation – plan around trees and other forms of vegetation. Minimizing the disturbance of vegetated space will decrease the amount of exposed soil. Also, vegetated spaces help filter and absorb storm water runoff (5-38).

Slope roughening – roughen and create terraces in exposed soil on slopes to facilitate water infiltration and promote soil stabilization (5-40).

Hydraulic mulch – a temporary soil stabilization technique, hydraulic mulch is a combination of shredded wood fiber and a stabilizing emulsion that is sprayed with a hydro-mulching system. This helps protect exposed soil from erosion caused by rain and wind (5-44).

Hydroseeding – a temporary soil stabilization technique, hydroseeding is a mixture of seeds, fiber, fertilizer, and a stabilizing emulsion that is sprayed with a hydro-mulching system (5-46).

Soil binders – a temporary soil stabilization technique, soil binders are sprayed on exposed soil to aid in dust, wind, and soil stabilization. Soil binders are made of polymeric or lignin sulfonate soil stabilizers or emulsions (5-48).

Straw mulch – a temporary soil stabilization technique, covering exposed soil with straw and working the straw into the soil protects the soil from erosion (5-54).

Geotextiles, Plastic Covers, Erosion Control Blankets/Mats – a temporary soil stabilization technique, these materials are either natural or synthetic and placed over exposed soil. The cover is secured to the ground (5-56).

Compost/wood mulching – compost and wood mulch spread over exposed soil helps stabilize the soil, promotes seed growth, and prevents surface compaction (5-64).

Source:
Arizona Department of Transportation (2005). *ADOT Erosion and Pollution Control Manual*, Chapter 5. Resource available on-line: http://www.azdot.gov/adot_and/storm_water/erosion_pollution_control_manual.asp