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GUIDELINES



CHAPTER 8: STORMWATER AND POLLUTION CONTROL

8.1 CHAPTER GOALS

As described in greater detail in the *ADOT Erosion and Pollution Control Manual*, the goal for erosion control on ADOT projects is to comply with the U.S. Environmental Protection Agency or the Arizona Department of Environmental Quality requirements for control of stormwater quality as described in the National Pollution Discharge Elimination System (NPDES) and the Arizona Pollution Discharge Elimination System (AZPDES). In order to meet the requirements of NPDES or AZPDES and the ADOT Stormwater Management Plan, ADOT must employ permanent and temporary Best Management Practices (BMPs). The term BMP refers to operational or physical controls that reduce the discharge of pollutants and minimize potential impacts upon receiving waters. “Receiving waters” include perennial, intermittent and ephemeral streams in Arizona.

Permanent Pollution Prevention BMPs are intended to improve stormwater quality both during and after construction of the project. They include:

- Minimization of impermeable surfaces.
- Preservation of existing vegetation, *Figure 8.1*, and the re-establishment of vegetation on disturbed soils.
- Evaluation of and response to increased runoff flows.
- Design of concentrated flow structures (refer to Chapter 6).



Figure 8.1 Transplanting existing vegetation.

- Design of measures to protect disturbed slopes (refer to Chapters 4 and 6).

Temporary Pollution Prevention BMPs are intended to improve stormwater quality during the construction process. They include:

- Temporary soil stabilization and sediment control, *Figure 8.2*.
- Management of waste and hazardous materials.

8.2 DESIGN

Plans illustrating BMP installation are typically needed to address NPDES/AZPDES requirements and are required for any project that will disturb lands managed by USFS or BLM. In general, permanent BMPs are described in the roadway and drainage plans; temporary BMPs are described in a separate section of the contract documents. Temporary BMP plans (referred to as Stormwater Pollution Prevention Plans—SWPPP—or as Erosion Control Plans) are typically prepared at Stage III, although an estimate for their cost is included in earlier Stages.

In addition to a SWPPP for the new highway, the design team should be aware that in the event that the project requires the construction of a pioneer road for geotechnical, archaeological or other site investigations, ADOT and BLM/USFS will require a SWPPP for the pioneer road.



Figure 8.2 Temporary sediment control.

8.3 CONSTRUCTION

Prior to earth-disturbing activities, the contractor shall prepare and deliver to ADOT the proposed SWPPP for approval by ADOT in consultation with BLM or USFS.

During the construction process, temporary BMPs require regular maintenance. Field staff should review project contract documents regarding requirements that address BMP maintenance.

8.4 ADDITIONAL RESOURCES

ADOT Stormwater Program:

<http://www.azdot.gov/business/environmental-services-and-planning/water-quality>

ADOT Post-Construction BMP Manual:

[http://www.azdot.gov/docs/planning/post-construction-best-management-practices-\(bmp\)-manual.pdf?sfvrsn=0](http://www.azdot.gov/docs/planning/post-construction-best-management-practices-(bmp)-manual.pdf?sfvrsn=0)