#### **Town of Carefree Stormwater Management Program**

The Town of Carefree operates a Stormwater Management Program (SWMP) as part of the Arizona Pollutant Discharge Elimination System (AzPDES) General Permit for Discharge from Small Municipal Separate Storm Sewer System (MS4), administered by the Arizona Department of Environmental Quality (ADEQ) (A.A.C. R18-9-A9).

The SWMP addresses issues related to nonpoint source pollution from urban areas that negatively impact water quality.

This program encompasses public education and involvement, illicit discharge detection and elimination, construction site stormwater controls, post construction stormwater management for new development and pollution prevention for municipal operations.

#### **Erosion and Sediment Control Plan**

For Single Family Residential construction sites, an Erosion and Sediment Control Site Plan is required as part of Grading and Building permits. The site plan should illustrate what measures will be taken to prevent erosion and sediment from leaving the site. All BMPs must be in place and approved by an inspector prior to the commencement of soil disturbing activities.

## **State Construction Regulations**

For construction sites one acre or greater in size, or less than one acre but part of a common plan of development, you must apply for coverage under the AzPDES Construction General Permit (CGP) for Stormwater Discharges.

- Apply for coverage using ADEQ's Smart NOI system online: https://az.gov/app/smartnoi.
- Develop and implement a Stormwater Pollution Prevention Plan (SWPPP).
- Common plan of development a contiguous area where multiple lots will be constructed at different times, on different schedules, but under one plan.

# The Town of Carefree Construction Site Erosion and Sediment Control Requirements

The Town requires any soil disturbing activity to implement Best Management Practices (BMPs) to prevent erosion and control sediment from leaving the construction site. BMPs are operational activities or physical controls that reduce the discharge of stormwater and pollutants, including sediment, and minimize potential impacts upon the municipal storm sewer or receiving waters. This code is for compliance with the AzPDES General Permit for Discharge from Small MS4s.

#### **Erosion and Sediment Control Code Violations**

#### • 1st Notice

Verbal notice to correct.

#### • 2nd Notice

Written notice of violation.

#### • 3rd Notice

A Stop Work Order will be issued for the site/possible fine.

For additional BMP information and installation details, see: Arizona Department of Transportation Erosion and Pollution Control Manual for Highway Design and Construction, 2020

https://apps.azdot.gov/files/roadway-engineering/erosion-pollution-control/2020-epcm-complete.pdf

Maricopa County Drainage Design Manual: Erosion Control, 2013

https://www.maricopa.gov/DocumentCenter/ View/6603/Drainage-Design-Manual-for-Maricopa-County-Volume-III-Erosion-Control-PDF



Have Questions? Contact us at (480) 488-3686

# Erosion & Sediment Control Measures for Construction Activities





#### Why Do We Care?

Sediment is the most common stormwater pollutant from construction sites. Sediment entering stormwater degrades the quality of water for wildlife, aquatic life, recreation, and drinking. Sediment can also clog storm drains and damage infrastructure, causing costly repairs.

"During a short period of time, construction sites can contribute more sediment to streams than can be deposited naturally during several decades." – EPA Fact Sheet 2.6 (833-F-00-008)

#### 1/8" soil loss over 1 acre approximates 25 tons of soil!

Control Measures, or Best Management Practices (BMPs) are operational activities or physical controls that reduce the discharge of stormwater and pollutants, including sediment, and minimize potential impacts upon the municipal storm sewer or receiving waters.

#### **Be A Good Neighbor**

Erosion and sediment controls are only as good as their installation and maintenance. Regularly inspect the BMPs (especially before and after rain events) and perform any necessary repairs and maintenance immediately.

# **CONTROL MEASURES**

#### **GOOD HOUSEKEEPING**









#### **Prevent Stormwater Contamination**

Store materials off the ground, under cover and protected from the elements. Clean up spills immediately and dispose of all solid and fluid wastes immediately.

#### PERIMETER PROTECTION





#### **Keep Sediment on Site**

Use wattles, silt fence, soil or rock berms, gravel bags, and/or sediment basins to intercept and slow or detain the ow of stormwater to allow sediment to be trapped and settle.

#### **DUST SUPPRESSION**

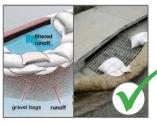




# **Minimize Airborne Sediment and Protect Air Quality**

Use water trucks and soil binders to reduce airborne soil particles from entering the stormwater system. Phase construction activity during dry, windy seasons to reduce the amount and duration of soil exposed to erosion by construction activities.

#### **INLET PROTECTION**





## **Prevent Sediment and Debris from Entering the Storm**

**Sewer** - Use temporary filter devices such as gravel bags, wattles, filter fabric or inlets inserts at storm drains and curb inlets to prevent sediment and debris from entering the storm sewer by filtering runoff. With proper erosion and sediment controls on the construction site, inlet protection is a your last line of defense to keep sediment out of the stormwater system.

#### STOCKPILE MANAGEMENT





# Reduce or Eliminate Stormwater Contact with Material Piles

Protect stockpiled materials from contact with stormwater with perimeter controls and covers such as secured tarps, silt fences and wattles.

#### **SLOPE STABILIZATION**





#### **Protect Sensitive Slopes from Erosion**

Prevent erosion from cut and II slopes by stabilizing with rip rap, geotextiles, vegetation, mulching, seeding or a combination of methods. Protect the slope from run-on using crown ditches and slow run-o by creating minibenches or terraces.

## **ENTRANCE/EXIT STABILIZATION**





#### **Use Track Out Pads and Sweep Paved Areas**

Stabilize construction entrances and exits with 2-3" gravel rock to remove mud and sediment from tires and minimize sediment tracking into public or private paved roads. Conduct regular sweeping at entrances and exits to remove sediment tracked from the project site.