Issue #3 June 1, 2014 Jason Van Nice, P.E. Stormwater Compliance Engineer

STORMWATER UPDATE

In This Issue

- Hydraulic Erosion Control Products
- Sequencing and Scheduling
- 2013 Annual Report
- Stockpile Management

EIT / EMT Training Upcoming Dates

Wichita, KS June 16-17 June 18-19

http://citksu.com

WPCMs are required to have completed both the EIT and the EMT courses within the 12 months prior to beginning work on a project.

INSPECTION REPORTING

Remember, all completed inspection reports must be submitted to the responsible Area Engineer and the contractor's WPCM within 24 hours of each inspection.

The reports should signed within 3 calendar days by the responsible Area Engineer and submitted to stormwaterinspection@ksdot.org

Failure to complete inspection reports and submit them on time will result in penalties

Hydraulic Erosion Control Products

Hydraulic erosion control products (HECPs) are a valuable tool for rapid, short-term stabilization of difficult to access areas. There are a wide variety of products available on the market, each with its own performance characteristics and application requirements. Common types used on KDOT projects include mulch tacking slurry, hydromulch, and bonded fiber matrix (BFM). Once a product has been selected for use, it is imperative to obtain and review the manufacturer's recommended placement procedure. The placement procedures and product information should be included with the SWPPP documentation for easy reference.

The following steps should be followed when a HECP is selected:

- **1. Site evaluation -** The area to be covered should be carefully measured and marked such that the area to be covered by each tank-load can be readily verified. Hydromulches are not suited for channels, ditches or other areas of concentrated flow so those areas should be excluded and alternate measures such as erosion control blankets should be considered.
- **2. Determine the desired spread rate -** Obtaining a uniform spread at the recommended rate is the objective. A light application will not provide the required protection, whereas an overly heavy placement may inhibit vegetation establishment. Application rates may vary based on soil conditions and degree of slope. The manufacturer's recommendations should always be consulted.
- **3. Determine the application procedure -** Hydromulches should be placed in two applications from opposing directions (e.g. from the top and bottom of a slope). This is intended to reduce "shadowing" and obtain 100% coverage. Use of the hose rather than the cannon may be required to accomplish this. The manufacturer may have specific recommendations regarding application angles and equipment.
- **4. Site preparation -** Before applying hydromulch, the ground should be prepped, fertilized and seeded according to KDOT specifications. Combining the seed and fertilizer with the mulch in a one step process is not acceptable on KDOT projects.
- **5. Application of HECP -** As with any mulch or erosion control product, HECPs are required to be placed within 24 hours of seeding.
- **6. Monitor and Maintain -** Treated areas should be monitored for performance. If the material washes away or the slope erodes the areas should be repaired and restabilized. The site should be evaluated to determine if the HECP should be re-applied or an alternative selected. Concerns with product quality or performance should be reported to the Stormwater Compliance Engineer.

Sequencing and Scheduling

Building erosion and sediment control into the construction schedule can be one of our most cost-effective best management practices. Every operation undertaken on a construction project has the potential to impact the SWPPP. A well defined schedule eases communication and helps all of the project partners be prepared to carry out their portion of the work.

Good schedule development can reduce erosion and sediment discharge by facilitating coordination of land disturbing activities with implementation of erosion and sediment controls. Coordination of construction operations and stabilization practices minimizes idle time and reduces the risk of permit compliance failures.

When possible, work in environmentaly sensitive or critical areas should be scheduled to take advantage of prevailing weather conditions or to avoid prohibited wildlife impacts.

Incorporating erosion and sediment control practices into every phase of the project minimizes erosion, reduces sediment discharge, facilitates early vegetation establishment and saves money spent on erosion related repairs, maintenance, and penalties.



2013 Annual Report

KDOT's 2013 Annual Report on Stormwater Compliance was published on March 30, 2014. The report details actions taken during the year to improve statewide compliance with the KDHE general permit and the Consent Decree. The report was submitted to the EPA and is currently available on KDOT's Stormwater website (http://www.ksdot.org/burconsmain/Connections/swppp.asp).

Stormwater Update #3 June 1, 2014 Page 2 of 3



Stockpile Management

Managing soil stockpiles on construction projects is a frequent area of concern. BMPs for stockpile protection typically include erosion control measures such as mulching, hydromulching or covering with plastic/geotextile and sediment control measures downstream of the pile to capture any sediment runoff. Every situation is unique, but there are some basic items to consider when selecting BMPs for stockpiles in your SWPPP.

- 1. For how long is the stockpile needed?
 - For longer durations, practices such as seeding should be used to minimize the need to restabilize stockpiles. For extremely short durations, little or no protection may be required depending on site and weather conditions.
- 2. Where will the stockpile be located?
 - Stockpiles should be located at least 50 feet away from water bodies or drainage ways whenever feasible. This space provides additional protection to minimize sediment loss. Locating the pile closer to a discharge location requires additional protective measures.
- 3. How much area is available for the stockpile?
 - Taking best advantage of available space can facilitate stabilization. Low, flat piles are generally less erosive than tall, steep piles and are easy to seed and mulch. Steeper piles may need to be protected by covering with plastic, geotextile, erosion control blanket or with a hydraulic product.

