

## City of Colorado Springs Provides Training on Stormwater Management

**El Paso County, CO** – Stormwater Management has traditionally been the responsibility of local governments. However, with management practices becoming more complex, it has warranted the attention and involvement of both the State and Federal governments.

“The state has indicated that as part of our role in assuring stormwater quality is to provide training,” said Steve Gardner, a certified floodplain manager. Gardner works for the Colorado Springs Department of Public Works.

The city provides guidance on local, State, and Federal requirements for those responsible for operations and stormwater practices within the city. Stormwater is defined as rainwater and melted snow that runs off streets, lawns, and other sites. When it’s absorbed into the ground, the water is naturally filtered, and ultimately flows into streams and rivers.

However, in developed areas impervious surfaces such as pavement and roofs prevent precipitation from naturally soaking into the ground. Instead, the water runs rapidly into storm drains, sewer systems, and drainage ditches. This can cause problems like downstream flooding, stream bank erosion, infrastructure damage, and contaminated waterways along with overflowing sewers.

“We not only provide training for our city staff but also for anybody who is interested in land development or who might be disturbing land within the city limits,” said Gardner. “They all are encouraged to attend our twice a year training.”

“We have three brochures that were put together as part of our Municipal Separate Storm Sewer System (MS4) permit,” said Gardner. Colorado Springs was issued a MS4 permit from the Colorado Department of Public Health and Environment. A requirement of the permit is for the city to ensure that stormwater best practices are occurring on private and public areas such as ponds and porous landscape detention basins.

“We developed two brochures: Grading & Erosion Control Seminar and Developing & Implementing Stormwater Plans Training Class. These are used in teaching by an outside consultant,” he said. “The Operations & Maintenance of Stormwater Best Management Practices Training is taught by someone in-house. The cost varies for each of the courses. ”

Most land-disturbing activities in Colorado Springs require that grading, erosion, and stormwater quality control-plans be developed and submitted to the city.

The Grading and Erosion Control Seminar provides in depth instructions on the installation requirements for best management practices (BMPs). The seminar also provides up to date information on the current regulatory requirements, products, and materials for erosion and sediment control at construction sites. The course presents the legal requirements under the Colorado Stormwater Program with a focus on the Stormwater Management Plan. It also highlights the changes and updates to the Colorado Department of Transportation (CDOT) erosion control specification and permit conditions for water quality.

After completing the class, students are expected to:

- List the permit requirements under the Stormwater Program;
- Describe the impacts to water quality caused by erosion and sedimentation;
- Describe the CDOT water quality program requirements;
- List the duties of the Erosion Control Supervisor;
- Describe the installation and maintenance requirements for BMPs used during construction; and
- Pass a 25 question certification examination with a score of 75 percent or better.

The development and implementation of Stormwater Management Plans (SWMP) requires a carefully planned approach accompanied by close follow-up. The Developing & Implementing Stormwater Management Plans Training Class is designed to provide information about how to prepare and implement these plans. The plans help comply with the requirements of the Colorado Department of Public Health and Environment's Water Quality Control Division.

Learning objectives of the plans training class include:

- Describe contents of a SWMP;
- Select BMPs for the control of erosion and sedimentation;
- Describe requirements for amendments to the SWMP;
- Describe procedures for development, revision, and implementation of the SWMP; and
- Describe procedures for conducting routine inspections of BMPs.

The Operations and Maintenance of Stormwater Best Management Practices Training Class is designed for personnel responsible for ensuring the proper functioning of permanent stormwater structures, features and BMPs as they relate to city requirements and the MS4 permit. The class covers all the different types of stormwater BMPs used within the City and explains how they are meant to function. The class also identifies the associated maintenance requirement for each type of BMP used within the city.

At facilities across the country, the Environmental Protection Agency (EPA) has long employed a full spectrum of stormwater management practices to reduce the impact of EPA activities on the hydrology of local watersheds. EPA's stormwater-management efforts continue in accordance with the new paradigms and requirements set out in Executive Order (EO) 13514 - signed in October 2009 - the Energy Independence and Security Act of 2007 (EISA), and EO 13423.

EPA's approach to stormwater management is driven by internal goals and Federal requirements. EPA has developed strategies that guide the stormwater-related actions EPA takes and help produce results such as reductions in site runoff volumes and improved stormwater quality.

"It's beneficial to get the word out to the folks who are in the field doing the work so that they understand what our requirements are," said Gardner. "They need to know what the EPA, through the state of Colorado, is requiring us to do. By attending these classes, the students will better understand why we are requiring them to do certain things."

"Then, too, the classes also enable them to communicate back with us regarding things that are too



difficult to comply with or things that need more explanation,” he said.

Managing stormwater runoff in terms of both water quantity and quality is crucial to protecting lives and property. Good Stormwater Management practices has environmental, economic, and land value benefits.

Benefits include:

- Controlling runoff pollutants and volume;
- Promoting stormwater reuse;
- Minimizing erosion and protecting downstream waterways;
- Reducing the need for storm pipes, curbs, and large ponds which can maximize open space and save on construction costs;
- Reducing the potential for downstream flooding and combined sewer overflows and increasing real estate value and site aesthetics.

For additional, visit: [www.springsgov.com](http://www.springsgov.com) and [www.epa.gov/oaintrnt/stormwater/results.htm](http://www.epa.gov/oaintrnt/stormwater/results.htm)