CHAPTER 1

Introduction

The Colorado Department of Transportation (CDOT) has the mission to "develop and maintain the best possible transportation system for Colorado." This mission includes the making of decisions "which are compatible with Colorado's quality of life, environmental, and economic goals," and has as one of its goals to "facilitate and support the development of safe and integrated transportation systems throughout the state." Meeting CDOT's mission and goals requires that the maintenance and upgrading of existing highways, as well as the construction of new highways, be integrated with Colorado's environmental goals.

Environmental regulation, in conjunction with Colorado's environmental goals, have encouraged CDOT to apply Best Management Practices (BMPs) for erosion and sediment control and stormwater quality management. These BMPs include the modification and/or creation of construction specifications, and documents such as this guide.

Erosion control is desirable not only for environmental reasons but also for highway safety purposes. Uncontrolled erosion during highway construction, and subsequent sedimentation, could cause adverse impacts on streams, damage to drainage structures and public (or private) lands, and public criticism. Stabilized slopes are desired because they are aesthetically pleasing, are protected against erosion, and yield a smooth roadside surface, which can assist errant vehicles in regaining control. Progressive design and construction techniques, including the use of BMPs, can prevent soil erosion and the resultant water pollution and sedimentation problems along highways. These techniques also can minimize the need for corrective actions during maintenance operations. Preventive measures are more economical and effective than corrective measures.

Pollutants found in highway stormwater runoff can contribute to water quality degradation. While the impacts from highway runoff on receiving waters have yet to be accurately determined, potential impacts can be reduced through the use of stormwater quality BMPs to reduce pollutant loads from highway runoff.

Finally, highway maintenance practices have the potential for creating adverse impacts on water quality. These practices must be evaluated, and BMPs must be applied to minimize those impacts.

This Erosion Control and Stormwater Quality Guide addresses the degradation of water quality and minimization of erosion associated with highway operations, and the prevention or minimization of that degradation through the implementation of planning, proper construction, and proper installation of BMPs.