

HOW DO STORMWATER PROJECTS BENEFIT THE COMMUNITY?

PROTECT PROPERTY AND PUBLIC SAFETY

This criterion relates to the basic function of containing stormwater in storm drains, channels and/or basins to minimize or reduce the risk of flooding related property damages or endangering people's lives. Examples would be increasing channel capacity, stabilizing a channel embankment to prevent further erosion, or increasing the size of a stormwater detention basin. The DCM includes guidance on appropriate levels of protection for different drainage basin sizes and types of drainage infrastructure.

REPAIR/REPLACE FAILING INFRASTRUCTURE

This criterion applies to Infrastructure that has reached the end of its useful life either due to age or damage, and must be repaired or replaced in order for the facility to continue to perform its intended function. An example would be a lined concrete channel where the concrete has deteriorated thereby allowing erosion of the subgrade materials.

IMPROVE APPEARANCE AND/OR ENHANCE THE COMMUNITY

Stormwater channels, detention/retention basins, and floodplains are often designed to be multiuse creating public amenities, providing visual enhancement, wildlife habitat and recreational opportunities. An example would be a stream that is kept in a relatively natural state and has a recreational trail next to it.

DISTRIBUTE PROJECTS WITHIN THE CITY

Stormwater improvement needs exist throughout the City of Colorado Springs. It is important that capital improvements be made throughout the City, in order to provide stormwater protection benefits and a similar level of service to all areas within the City boundaries. This will enhance public support of stormwater control efforts. As such, the City must advance a program of stormwater capital improvements that achieve goals while providing improvements over time throughout the City.

ENHANCE SEDIMENT/DEBRIS CAPTURE AND CONTROL

Proposed sediment capture and control projects must facilitate settling of sediment and debris (e.g., downed vegetation) from channels that have elevated sediment and debris loads, or to watershed areas that contribute to those channels. The project must also provide a means for routine maintenance and removal of sediment



captured and stored in the facility or drainage feature. The objective is to minimize the excess volume of sediment transported downstream.

REDUCE SEDIMENT GENERATION/ENHANCE SOIL STEWARDSHIP

One key method to reduce sediment generation is through bank stabilization. The goal is to stabilize channel banks that are currently actively eroding and contributing additional sediment load to the channel. Eroding channel reaches where bank erosion is worsening, as documented with historic photographs, aerial imagery, or topographic data, will receive higher priority.

A second key method to reduce sediment generation is through channel grade control. Proposed channel grade control projects must stabilize and/or reduce the gradient of channels that are currently degrading. The proposed channel grade control features must take into consideration the geomorphology of the channel and its equilibrium channel slope. Eroding channel reaches where channel incision is worsening, and/or where a substantial inventory of sediment is readily available to be mobilized, as documented with historic photographs, aerial imagery, or topographic data, will receive higher priority.

Another key method to reduce sediment generation is to provide for channel restoration and/or floodplain preservation. To do so, proposed projects must preserve, expand, or otherwise enhance existing floodplains.

A final key method to reduce sediment generation is to implement soil stewardship measures throughout the watershed to reduce soil erosion and the volume of sediment transported in the Fountain Creek channel.

IMPROVE WATER QUALITY

Stormwater mobilizes and transports pollutants from the watershed surface and from the drainage system itself, and can adversely affect receiving water quality. Water quality improvement benefits are typically associated with projects such as stormwater basins with Water Quality Capture Volume (WQCV) features, Low impact Development (LID) strategies such as bioretention and grass swales, preservation of riparian and wetland vegetation in drainage ways to filter runoff and induce sediment deposition and other specific approaches where transport of pollutants in stormwater is reduced by facilitating the capture and removal of sediment and associated pollutants prior to being discharged downstream.

PROVIDE DETENTION

Detention provides a method for reducing downstream peak flow rates such that post-development flows more closely resemble pre-development conditions in basins where detention is provided. Proposed detention projects will provide full spectrum detention as defined in the City of Colorado Springs Drainage Criteria Manual. Within the Fountain Creek watershed, proposed projects located in basins that have channels with active bed or bank erosion will receive higher priority.

