

Chapter 3. Stormwater Management and Development

3.0 Introduction

Stormwater management is an integral component of overall development planning and site design that must be addressed in the earliest planning stages. Initial feasibility studies or preliminary site analyses can not be properly performed without a clear understanding of stormwater management regulatory requirements and criteria, site design practices which lead to more effective management of stormwater, existing site characteristics or features which affect stormwater management concepts, and the fact that stormwater can not be properly managed by allocating minimal space in a portion of a site or development which is convenient or “out of site”. Incorporating stormwater management planning in the initial stages and designing stormwater management facilities as site amenities can lead to reduced infrastructure construction and maintenance costs, better long term function of facilities and increased property values. Initiating stormwater management independently, after development planning or site layout has been accomplished, may lead to inadequate space being allocated for stormwater management and other design challenges. Often, this results in an increase in infrastructure costs and difficulty meeting regulatory requirements and criteria. SEMSWA will not accept designs that compromise long term function and maintainability.

3.1 Planning for Stormwater Management

The following sections provide some general discussion regarding impacts of urbanization and factors to consider when planning for stormwater management in the site design or development layout processes. Additional guidance for planning of the urban storm runoff system is provided in the Planning section of the UDFCD Manual.

3.1.1 Impacts of Development. The increased runoff rates and volumes, associated with urbanization and development, can significantly impact downstream properties, existing infrastructure, and natural drainageways and other resources. Flooding of downstream properties can result if existing drainage facilities are not adequate to handle the increased runoff peak flows. Drainageways are subject to increased peak discharges, runoff volumes, and more frequent runoff events. Channel bank erosion and degradation occur, if channel stabilization measures are not implemented as development occurs.

In addition to challenges presented by increased runoff quantities, changes in stormwater runoff quality, associated with urbanization, can have significant impacts on rivers, streams, and lakes. Some of the urban stormwater pollutants are sediments, nutrients, microbes, organic matter, toxic pollutants, and trash and debris.

3.1.2 Multi-purpose Resource. Although sometimes considered a liability to urbanization, stormwater runoff is an urban resource, having many potential beneficial uses that are compatible with adjacent land uses and Colorado Water Law. When treated as a resource, aesthetic and water quality aspects become increasingly important. The stormwater urban sub-system should be multi-

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purpose to satisfy the competing demands for land within the City. For example, stormwater management facilities can be designed to fulfill recreational purposes and open space requirements along with stormwater runoff conveyance or storage. In addition, facilities not intended primarily for stormwater management, may be designed to incorporate water quantity and quality benefits.

- 3.1.3 Allocation of Space.** The stormwater management system is an integral part of the total urban system and therefore, planning of drainage facilities must be included in the urbanization process. Stormwater management facilities, such as channels and storm sewers, may serve conveyance, storage, and water quality functions. When the space requirements are considered, the provision for adequate drainage becomes a competing use for space along with other land uses. If adequate provision is not made in a land use plan for the drainage requirements, storm water runoff will conflict with other land uses and will impair or even disrupt the functioning of other urban systems. SEMSWA requires storm drainage planning for all developments to include the allocation of space for drainage facility construction and maintenance.
- 3.1.4 Regional and Local Master Planning.** In recognition that drainage boundaries are non-jurisdictional, SEMSWA, in cooperation with the UDFCD and other local jurisdictions, has participated in preparing regional, basin-wide master plans to define the major drainageway stabilization improvements and other stormwater management improvements that are needed to mitigate drainage problems or impacts associated with development. SEMSWA will also encourage, and may choose to participate in, preparation of such future master plans. In the absence of regional master plans, the developer will be responsible for providing additional information as necessary, and may be required to participate in master planning efforts to ensure that the proposed development and associated stormwater runoff system will be compatible with the surrounding properties in the drainage basin. SEMSWA may choose to undertake preparation of such plans in unplanned basins. SEMSWA will require that stormwater management facilities be designed in conformance with approved regional flood control or water quality master plans.
- 3.1.5 Site Design and Layout.** Good site planning and development layout is the key to effective stormwater management. Initial planning must identify important natural features or environmentally sensitive areas, such as floodplains or wetlands. Protection of those areas should be incorporated into the site plan or development plan concept. Other existing site characteristics such as topography, geologic features, or soils may also present unique challenges when developing the stormwater management plan for a site or development. Generally, there are significant benefits to implementing practices that reduce runoff volumes, slow runoff velocities, and provide water quality treatment close to the source. The incorporation of infiltration, detention and stormwater conveyance into landscaped areas furthers the concept of developing stormwater management facilities that are amenities, which are aesthetically pleasing and effective.

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3.1.6 Volume Reduction Practices. Runoff volume and peak reduction, through the implementation of the Minimizing Directly Connected Impervious Areas (MDCIA) concept should be considered as an important component in effective stormwater management planning. The goals of implementing this practice are to reduce impervious areas or the effective imperviousness of the site and to slow down runoff and promote infiltration. Reduction in size and cost of downstream stormwater management infrastructure is another potential benefit of implementing MDCIA. Reduction of paved or impervious areas and the use of porous pavement, grass buffers, and grass swales are several of the approaches that are part of implementing MDCIA. The New Development Planning chapter of UDFCD Volume 3 and Chapter 14 of these Criteria should be consulted for more detailed discussion regarding the implementation of MDCIA.

3.1.7 Design of Stormwater Quantity Management Improvements. Detention storage facilities and improvements that convey stormwater runoff must be carefully planned and integrated into the first stages of site planning. Sufficient space must be allocated to allow designs that meet all technical requirements and that ensure long-term function and maintainability. Conveyance facilities that are aesthetic and promote infiltration of stormwater runoff should be considered where feasible. Inlets, when needed to collect stormwater runoff at points of concentration, shall be located and designed to maximize collection or interception efficiency and with consideration of the proposed use in the vicinity of the inlet locations.

Inlets, when needed to collect stormwater runoff, shall be located and designed to maximize collection or interception efficiency and with consideration of the proposed use in the vicinity of the inlet locations. Inlets in vehicular traffic or parking areas are much different than inlets in landscaped or pedestrian traffic areas. Inlet types and grate designs must be chosen with those considerations in mind. Potential inundation depths and limits at inlets must also be acceptable when considering the adjacent property use.

Underground storm sewer systems, required to convey stormwater runoff collected at inlets, must be integrated and located within the site, to facilitate proper function and ease of maintenance. Issues to be considered when developing preliminary storm sewer locations include, but are not limited to, proximity to proposed structures, other utilities, and adjacent properties, depth of cover, traffic loading, proposed surface improvements, and accessibility for future maintenance.

Detention storage facilities have special design considerations and space allocation requirements. These facilities should not be designed based on minimum required volume calculations, by assuming that retaining walls or steep slopes can be used to minimize the land area needed for the improvements. Generally, aesthetics and long-term operation and ease of maintenance are severely compromised when detailed design criteria and maintenance access requirements are not considered in the earliest planning stages. Detention pond

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designs that incorporate detention storage into the overall landscape plan can lead to detention ponds that are viewed as site amenities.

- 3.1.8 Water Quality Treatment.** Post construction water quality best management practices (Permanent BMPs) are required with all new development or redevelopment within the City. SEMSWA strongly *recommends* stormwater quality and peak flow reduction practices associated with minimizing directly connected impervious area (MDCIA) and will require that applicants address opportunities for providing MDCIA in the drainage report for the project. Best management practices that provide water quality capture volume (WQCV) will be required for the excess runoff that remains after the volume reduction practices are accounted for. BMPs that include water quality capture volume drain slowly which results in sedimentation of particles and removal of pollutants. Common WQCV BMPs are porous pavement detention, porous landscape detention, extended detention basins, sand filter extended detention basins, and constructed wetland basins. Incorporation of these BMPs into a site or development must be addressed in the initial planning stages and requires a well coordinated effort between the land planners, landscape architect, and the engineers responsible for stormwater management design. Underground water quality BMPs are not allowed within the city. Issues associated with the long-term maintenance of permanent BMPs must be considered when selecting appropriate BMPs for a site. Implementation of water quality BMPs must be addressed hand in hand with the stormwater conveyance and detention storage facilities. Consult UDFCD Volume 3 and the criteria in this manual for detailed design requirements, considerations, limitations, and information regarding proper implementation.
- 3.1.9 Channel Stabilization.** Drainageways experience more frequent runoff events as watersheds develop. These runoff events increase in rate and volume as the imperviousness in the basin changes. Channel bank erosion and degradation can occur with changes in hydrology, if channel stabilization measures are not implemented with development. There has been a common misconception that providing on-site detention mitigates impacts to downstream drainageways for all storm events. Typical detention facilities often do not provide mitigation for the more frequent runoff volumes or events. Drainageway stabilization within or adjacent to a development must be addressed in the overall stormwater management plan. Many watershed specific Outfall Systems Planning Studies (OSPs) and Master Plans have been developed, through cooperative efforts of SEMSWA, the City UDFCD, and other local governments. These studies provide conceptual or preliminary design information regarding stabilization of many major drainageways within the County. The overall stormwater management plan for any development must address the recommendations contained within the OSP or Master Plan.
- 3.1.10 Maintenance Considerations.** Maintenance activities, including routine maintenance, restorative maintenance, and rehabilitation are required to ensure the long-term function and effectiveness of stormwater management facilities and infrastructure. Initial site planning must incorporate provisions for adequate

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access and space to perform maintenance activities for all stormwater management facilities. Proper design is also critical to the long-term function and can help to reduce required maintenance activities. SEMSWA will not approve stormwater management facilities, if adequate space is not allocated or designs are proposed which limit access and proper function. All facility designs will be held to the same standards, regardless of the organization or entity that has accepted responsibility for maintenance. Maintenance responsibilities and access issues are discussed in more detail in Section 3.5 of this chapter.

3.1.11 SEMSWA Permits. The construction of stormwater management facilities within the City may require coordination with several SEMSWA permits. These include:

1. Floodplain Development Permit. Projects that include work within designated 100-year floodplain limits of major drainageways require a Floodplain Development Permit. Additional information on the floodplain permit can be found in Chapter 5 of these Criteria.
2. Stormwater Public Improvement Permit (SPIP). Projects that include work within and/or use of the right-of-way and/or drainage easements must obtain a SPIP.
3. GESC Permit. SEMSWA requires that a GESC (Grading, Erosion, and Sedimentation Control) Permit be obtained prior to the start of land disturbing activities within the City. Information on SEMSWA's GESC permit requirements can be obtained in the SEMSWA GESC Manual. This document is available on the SEMSWA website at www.semswa.org.

3.1.12 Environmental Permitting. In addition to SEMSWA permitting processes, the construction of stormwater management facilities must be coordinated through the Colorado Department of Public Health and Environment with regard to the Stormwater Construction permitting requirements, and through the United States Army Corps of Engineers (USACE), relative to Section 404 of the Clean Water Act, and compliance with the requirements of Sections 7 and 9 of the Endangered Species Act of 1973. It is strongly recommended that initial project planning incorporate input from the appropriate agencies to determine permitting process requirements, if applicable, as these processes can be complex and time consuming.

Compliance with state or federal permitting requirements does not obviate the need to fully comply with SEMSWA regulations, standards, or criteria. If necessary, joint discussions between all regulatory agencies shall be initiated in project planning stages and continued, as needed, through the various project phases, to ensure that the requirements of all regulatory agencies are fully satisfied.

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3.2 Special Planning Areas and Districts

There are Special Planning Areas or Districts within the City where additional or unique considerations affect stormwater management planning or design. Special policies or recommendations may be implemented for these areas, as discussed in the following sections.

3.2.1 Cherry Creek Basin Water Quality Authority (CCBWQA). A State Stormwater Quality Control Cherry Creek Reservoir Control Regulation No. 72 is in effect for this watershed. The CCBWQA was formed to protect and enhance the overall quality of the water within Cherry Creek Reservoir, and therefore for all development within the Cherry Creek Basin, including tributaries, the CCBWQA will be a referral. The CCBWQA will review development proposals and land use applications for conformance with the control regulation requirements and will provide comments and recommendations to SEMSWA.

3.2.2 Denver Highline Canal. The Highline Canal is a large irrigation ditch that runs throughout various areas of the City, and is owned and operated by the Denver Water Board. Developments which are adjacent or tributary to the Highline Canal must be reviewed and coordinated with the Denver Water Board. Several master planning studies have been or are being completed to address the interaction between stormwater drainage and irrigation flows in the canal and should be consulted prior to planning drainage facilities that may be tributary to the Highline Canal.

3.2.3 Areas with Existing Drainage Problems. General principles regarding the management of stormwater, engineering expertise and methodologies, accepted design practices, local government oversight, and the development of minimum design standards of criteria have evolved over time. There are areas of the City that developed during the earlier stages of this evolution, when there may not have been a thorough understanding of how to properly convey stormwater or mitigate the potential adverse impacts associated with increased peak flow rates and volumes. As a result, some of the areas experience drainage problems and lack adequate infrastructure to properly convey stormwater runoff. In these areas, additional analysis and improvements may be required by SEMSWA in order to ensure that the existing problems are not exacerbated by new development or redevelopment.

3.3 Special Considerations

3.3.1 Irrigation Ditches. There are irrigation ditches and reservoirs in the City. The ditches and reservoirs have historically intercepted the storm runoff from rural and agricultural basins. Urbanization of the basins, however, has increased the rate, quantity and frequency of stormwater runoff, and has had negative effects on water quality. Irrigation ditches are designed with flat slopes and have limited carrying capacity, decreasing in the downstream direction. As a general rule, irrigation ditches cannot be used as an outfall point for the storm drainage system because of these physical limitations. In addition, certain ditches are

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abandoned after urbanization and, therefore, could not be successfully utilized for storm drainage.

In certain instances, however, irrigation ditches have been successfully utilized as outfall points for the drainage system, but only after a thorough hydrological and hydraulic analysis. Since the owner's liability from ditch failure increases with the acceptance of storm runoff, the responsibility must be clearly defined before a combined system is approved.

Irrigation facilities shall not be utilized indiscriminately as drainage facilities and, therefore, policies have been established to achieve compatibility between urbanization and the irrigation facilities. The primary irrigation ditch within the urbanized area of the City of Centennial is the Highline Canal. Several master planning studies are underway or have been completed for the Highline Canal, and should be referenced for all work near or adjacent to the Highline Canal.

In general, stormwater runoff generated by urbanization or development shall be directed into historic flow paths and drainageways, thus avoiding discharging into irrigation canals or ditches, except as required by water rights. The engineer or developer shall coordinate with the ditch owner when specific site characteristics or circumstances present challenges relative to separation of irrigation and stormwater flow paths or conveyance facilities.

SEMSWA will require drainage analysis to verify that an irrigation ditch does not intercept the storm runoff from the upper basin and that the upper basin remains tributary to the basin area downstream of the ditch.

Whenever new development or improvements will alter patterns of the storm drainage into irrigation ditches by increasing flow rate volumes, or changing points of concentration, the written consent from the ditch company shall be submitted with the development application. The discharge of runoff into the irrigation ditch shall be approved only if such discharge is consistent with an adopted master drainage plan.

Whenever irrigation ditches cross major drainageways, appropriate structures to separate storm runoff from ditch flows shall be provided.

3.3.2 Jurisdictional Dams and Reservoirs. The creation of jurisdictional dams shall not be allowed unless otherwise approved by the Office of the State Engineer.

3.3.3 Groundwater Investigations. Groundwater can affect the function of stormwater management facilities, and other infrastructure. It is the engineer's responsibility to perform investigations and analyses to quantify potential impacts and to develop designs, which mitigate any potential impacts.

There are also cases where groundwater or sub-surface flows seem to increase with development and urbanization. Foundation drains and sump pumps collect and discharge these flows to the surface. If quantities are excessive, icing and

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algae nuisances can result, which affect the quality of life of residents. Mitigation of these problems typically requires an additional collection system, which must ultimately discharge into the storm sewer system. The function or capacity of the storm sewer system may be compromised and stormwater runoff can surcharge the subsurface drainage collection system. There are likely many factors, including increased irrigation, introduction of non-native soils during grading operations, varying levels of compaction adjacent to structures, etc. that lead to excessive sub-surface flows being discharged to the surface.

To the extent possible, efforts need to be made during the development process to identify potential problems and provide the appropriate mitigation so that the function of storm sewer facilities and other public and/or private infrastructure is not impacted in the future.

SEMSWA currently does not have specific design criteria or standards to address the potential impacts of groundwater. It is anticipated that these will be developed in the future. In the interim, SEMSWA will require all developers to provide an appropriate analysis and discussion of potential groundwater impacts within their development and identify potential solutions to address the impacts. SEMSWA may require additional information and analysis based on the information provided by the Developer, and ultimately may require additional improvements to address potential impacts.

3.4 Construction of Improvements and Fees

When Drainage Reports, Drainage Master Plans, UDFCD Outfall Systems Planning Studies, or other applicable reports or studies prepared in conformance with these Criteria identify that public improvements are necessary to properly manage stormwater runoff, mechanisms for funding the improvements are required. In accordance with the Regulations, subdividers and developers are required to construct, or guarantee to construct stormwater management improvements. These include improvements that are necessary to serve the subdivision or development, convey off-site flows through the property, convey runoff from the site to the major drainageway, and to stabilize or improve the major drainageway system.

3.4.1 Local Drainage System, Off-Site Conveyance System and the Major Drainageway System. Public improvements typically consist of the Local Drainage System, the Off-site Conveyance System and the Major Drainageway system, further described below.

1. Local Drainage System. The Local Drainage System consists of the drainage facilities within the development or subdivision that are necessary to collect, detain, and provide water quality treatment of the minor and major storm runoff for the development. The Local Drainage System also includes those facilities necessary to convey upstream off-site flows across or through the developing property. The Local Drainage System improvements may include curb and gutter, inlets and storm sewers, culverts, bridges, swales, ditches, channels, detention facilities, and water quality best management practices.

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2. **Off-site Conveyance System.** The Off-site Conveyance System is comprised of the facilities necessary to convey the flow from the Local Drainage System to the Major Drainageway System. It must be analyzed, designed and constructed with all new development and redevelopment. If the Off-site Conveyance System crosses private properties, the developer shall be required to obtain easements and provide improvements as necessary to ensure that the downstream properties are not unreasonably burdened. If the conveyance is provided by an existing drainage system, the engineer must ensure the existing system is adequate to accommodate the intended flows from their development. The developer will be responsible for any necessary improvements to the drainage system to accommodate flows from their site. SEMSWA will require that the Off-site Conveyance System provide capacity to convey not only those flows (including upstream off-site flows) leaving the specific development site, but also any existing, future or master-planned flows. To minimize overall capital costs, SEMSWA encourages adjacent developments to join in designing and constructing off-site drainage systems. The Off-site Conveyance System improvements may include inlets and storm sewers, curb and gutter, culverts, swales, ditches, and channels

3. **The Major Drainageway System.** The Major Drainageway System, as defined by Drainage Master Plans, UDFCD Outfall Systems Planning Studies or other applicable reports or studies consists of the channels, storm sewers, bridges, culverts, regional detention facilities, and water quality best management practices generally serving a tributary area of 130 acres or greater and in many cases, more than one subdivision or development. The Major Drainageway System within or adjacent to the development must be designed and constructed with all new development and redevelopment. Equitable participation in the design and construction of the off-site Major Drainageway System that serves the development may be required. SEMSWA may equitably distribute the major drainage basin improvements by establishing and collecting fees imposed on all new development, redevelopment, expansion, or modifications to existing development, to recover costs for existing or future improvements. It is recognized that major drainageways serve all development in the drainage basin, either directly or indirectly.

3.4.2 System Development Fees. It is recognized that urbanization increases runoff volumes and the frequency of runoff events, and ultimately leads to channel erosion, deterioration of the water quality and the need for improvements. Refer to Chapter 12 for additional information regarding the impacts of development on drainageway systems. In order to equitably distribute the costs of the major drainageway improvements, SEMSWA may impose major drainage basin fees including system development and excess capacity fees.

3.4.3 Major Drainageway Stabilization. All projects within a watershed must participate in the stabilization and improvement of major drainageways. The minimum improvements discussed in Chapter 12 regarding stabilization of

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drainageways shall be constructed with all new development and redevelopment.

3.4.4 Construction of Major Drainageway Improvements. In addition to minimum stabilization improvements, all projects which either contain or are adjacent to a major drainageway may be required to construct major drainageway improvements when it is determined by SEMSWA that such improvements are necessary to serve the public. The major drainageway improvements may be master planned, or may require the preparation of a detailed analysis by the developer's engineer. The Phase III drainage report shall clearly discuss the existing condition of the drainageway within or adjacent to the site and shall identify the need for improvements. It is the responsibility of the design engineer to verify that the site and infrastructure constructed by the development will be protected from minor and major storm flows, flooding, erosion and channel bank degradation.

3.5 Stormwater Facility Maintenance

Stormwater management facilities must be properly maintained to function as designed. SEMSWA will require that all stormwater management facilities be designed to minimize facility maintenance as well as to provide adequate maintenance access. Routine maintenance of facilities may include removal of debris and sediment, trash rack clearing, mowing, noxious weed control, etc. Non-routine restorative maintenance activities include repairs to, or replacement of, structures and other improvements necessary to retain the effectiveness of the system. Such tasks are necessary to preclude the facility from becoming unhealthy and to avoid reduced conveyance capability, unsightliness, and ultimate malfunction.

3.5.1 Maintenance Responsibility. Maintenance responsibility lies with the owner of the land, except as modified by specific agreement. Maintenance responsibility shall be defined on Final Plats and Final Development Plans. The property owner or designee shall be responsible for the maintenance of all drainage facilities including inlets, pipes, culverts, channels, ditches, hydraulic structures, and detention basins located on their land unless modified by specific agreement. Maintenance access for all facilities must be adequate for the anticipated maintenance vehicles and equipment and should be shown on the Final Plats and Final Development Plans. Should the owner fail to adequately maintain said facilities, SEMSWA shall seek any remedies available to ensure that the facilities are adequately maintained.

3.5.2 Easements. Drainage easements are required in order to ensure for the proper construction, maintenance, and access to drainage improvements that have the potential to affect the public drainage system and other properties. Drainage easements shall be granted to SEMSWA for inspection and maintenance purposes, and shall be shown on the Drainage Plan, Final Plat and Site Improvement Plan, as applicable. The drainage easement shall state that SEMSWA has the right of access on the easements for inspection and maintenance purposes. In general, easements are required for detention or retention ponds, water quality enhancement ponds and best management

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practices, storm sewers, swales, channels, parking lot areas that convey runoff from adjacent properties (blanket type easements), and major drainageways and floodplains. Easement requirements are specific to the type of stormwater management facility and are discussed in more detail in later chapters.

- 3.5.3 Operation and Maintenance Manual.** An Operation and Maintenance Manual (O&M) shall be required for all permanent stormwater facilities to ensure that they function as designed. The purpose of the O&M is to provide guidance and standard forms for those entities that will be responsible for the long-term inspection and maintenance of the facility. SEMSWA's standard template shall be used as the basis for the O&M. For more information refer to Section 4.8.
- 3.5.4 Easements on Residential Lots.** It is recognized that there are certain liabilities and responsibilities associated with the ownership and maintenance of drainage facilities within drainage easements. It is undesirable to assign this responsibility and liability to single family lots with individual ownership. SEMSWA's policy shall be to require that in residential subdivisions, areas that convey flows from the subdivision, be designated as tracts that are within a common ownership, such as an HOA, a local District or a similar legal entity. A drainage easement shall be provided on the tract for drainage facilities. An exception shall be provided for the drainage of the individual lot, or a maximum of 2 adjacent lots. Drainage easements are allowed at a width of 10 to 20 feet along residential lot lines for swales placed within these easements that accept a limited amount of drainage from no more than two (2) residential lots.
- 3.5.5 UDFCD Maintenance Assistance.** The Urban Drainage and Flood Control District has a Maintenance Program, which, based on a yearly Work Program, provides drainageway and regional stormwater facility routine, restoration, and rehabilitation maintenance services. Routine maintenance generally consists of mowing, trash and debris pickup, weed control and small revegetation projects on major drainageways during the growing season. Restoration maintenance solves small or isolated drainage problems, including addressing local erosion problems, repair of existing erosion protection, detention pond restoration, tree thinning, and removal of sediment from culverts, channels, and detention ponds. Rehabilitation work is applicable where an existing unimproved channel has extensive erosion problems or where existing drainage improvements on a reach of drainageway have deteriorated or failed.

Funds available to be spent through the Work Program are allocated to each of the six counties within the UDFCD in direct proportion to the amount of tax revenue each county generates for the Maintenance Program. The primary purpose of the Maintenance Program is to assist local governments within the UDFCD boundaries in maintaining major drainageways within their jurisdiction. This provides a direct benefit to the entities responsible for maintenance of drainageways or flood control facilities and the citizens of the City of Centennial.

Any major drainageway improvement designed and constructed by, or approved for construction by a local public body, after March 1, 1980, within the UDFCD

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boundaries, must be reviewed and approved by the UDFCD and must be constructed in substantial conformance with the UDFCD approved design before it can be eligible for UDFCD maintenance assistance. UDFCD maintenance funds cannot be spent on facilities that did not meet these requirements. SEMSWA requires that all major drainageway and regional stormwater improvements meeting the guidelines of the UDFCD Maintenance Program, be designed and constructed in conformance with SEMSWA and UDFCD criteria and standards to ensure that those facilities become eligible for UDFCD Maintenance Assistance.

Even though major drainageway improvements may be eligible for UDFCD maintenance assistance, the property owner or other authorized designee is primarily responsible for the maintenance of the improvements. The owner may apply to SEMSWA for UDFCD assistance. SEMSWA will include the maintenance assistance request with all other requests received and will prioritize them as appropriate. The limited funds received for use by SEMSWA do not typically allow for all maintenance assistance requests to be fulfilled.