

Stormwater Management

Goals

The City will:

- Provide adequate public facilities and services for all services which the City provides.
- Coordinate the location and design of all City public facilities with the goals and policies of the Comprehensive Plan.



Overview

Chesapeake's existing stormwater management program is a comprehensive program that identifies structural and nonstructural control measures to reduce the discharge of pollutants as well as provide adequate drainage. The management program includes provisions for improving water quality and drainage through construction and maintenance of structural controls such as culverts, ditches, and detention ponds. The program also includes the stormwater management ordinance which contains site design requirements for drainage and stormwater management controls. By incorporating drainage and stormwater management considerations into the City's long-range land use planning and community design, the City can better ensure both public and private drainage facilities are adequately sized and maintained to meet future growth needs as well as protect water quality and private property.

Flood and infrastructure damage, such as washed-out culverts and bridges, are two potential results from inadequate drainage management planning. Increasing amounts of impervious area from new development impact the size and types of drainage facilities needed to handle the amount of stormwater runoff from future development. This is especially a concern for low density areas which are experiencing a high rate of growth.

To best prevent flooding and consequent property damage, stormwater management requires extensive planning in advance of development activity and should include a comprehensive, regional approach. To best accomplish this goal, the City's Master Drainage Plan should be coordinated

with the 2026 Land Use Plan. Finalized in 1987, the City's current master drainage plan is similar in age to the City's 1988 Land Use Plan.

Chesapeake was issued its stormwater permit in April 1996. As part of the permit, the City adopted a Stormwater Ordinance. The City's Stormwater Management Ordinance is found in Chapter 26, Article VIII, of the *City Code*. The Ordinance applies to all development greater than 10,000 square feet. Development exceeding this threshold must prepare a stormwater management plan, which describes how existing runoff characteristics will be maintained or improved and comply with the requirements of the local program. Requirements for stormwater management plans are contained in the City's Public Facilities manual. This ordinance also defines substances which are prohibited from entering into the municipal storm water management system, unless permitted by a Virginia Pollutant Discharge Elimination System (VPDES) permit.



Since the Master Drainage Plan's adoption, the City has experienced a tremendous rate of growth – approximately 30% since 1990. As such, the City's Master Drainage Plan should be revised to reflect the City's changing land use characteristics as well as any future land use patterns set out in the Comprehensive Plan in order to ensure that public drainage facilities are of adequate capacity to handle future runoff requirements.

The revised Master Drainage Plan should look at opportunities for improvements. An example of such an improvement is including drainage as a preliminary consideration in development site design as well as the City's own long-range planning. The City's Master Drainage Plan should also include individual watersheds for each of the City's forty study areas in its 25 watersheds. By comprehensively assessing each of the City's watersheds, these plans would provide an accurate assessment of the surrounding land use and could provide the City with a logical basis for assessing future planning efforts. Currently, Public Works is doing a watershed plan for Milldam Creek with the US Army Corps of Engineers which uses a stream restoration grant from the Virginia Department of Environmental Quality.

Regional detention or on-site storage should also be implemented wherever possible. One aspect of the Milldam Creek Watershed study will be assessing the feasibility of regional facility around either side of Military Highway on Milldam Creek.

Issue One: Stormwater Management

Inadequate drainage facilities can present flooding problems as well as pose a water quality threat due to insufficient capacity to store and control stormwater runoff.

The City will continue to implement a stormwater management program to protect the health, safety, and welfare of Chesapeake residents and to ensure that public drainage facilities are of adequate capacity to handle future runoff requirements.

Strategies:

- The City will revise its Master Drainage Plan to reflect the City's changing land use characteristics as well as any future land use patterns set out in the Comprehensive Plan.
- Alternative means of managing stormwater will be considered when developing stormwater management plan such as wetland preservation and low impact design techniques.
- Regional stormwater management facilities will be incorporated into community design as prominent landmark features and will be treated as multi-use facilities with such uses as hiking trails, parks, fishing areas, wildlife habitat, or other passive recreational uses.
- In order to provide passive recreational opportunities for City residents as well as enhance the area's water quality benefits through preservation of floodplains, wetlands, and adjacent buffer areas, funding for purchasing and establishing riparian corridors will be considered when available. One implementation strategy could include nominating one or more corridors for acquisition by the City's open space preservation program or non-profit conservation organization.
- A periodic progress report on these efforts should be included as a component of an environmental report to City Council.
- Strategies to provide enhanced stormwater management to older neighborhoods, especially those with chronic drainage problems, will be developed by the Public Works Department and funded in the Capital Improvement Budget.