

# DRAINAGE SYSTEM MAINTENANCE

The purpose of this chapter is to establish general policies for maintenance of stormwater management systems in Knox County, and to define the maintenance responsibilities of Knox County Engineering and private property owners.

## 5.1 Level of Service

### 5.1.1 Background

Each local government must make decisions concerning the maintenance of the stormwater infrastructure so maintenance activities can be applied to all components of the stormwater system within their jurisdiction consistently. What defines the public stormwater system versus private stormwater systems? For which parts of the stormwater system should a local government be responsible? What services should a local government provide to various parts of a stormwater system? What responsibilities do private property owners have?

To answer these questions, a local government must define its “extent of service” and “level of service”. When combined, these two concepts provide the framework for regulations and/or policies for the local stormwater system maintenance program. These concepts are defined in italics below:

*Extent of Service (EOS): The extent of service is a policy decision that defines the stormwater structures for which a local government provides services. Knox County performs construction, inspection and maintenance of the stormwater system in the public right-of-way along public streets. As a matter of general policy, Knox County does not perform stormwater maintenance on private property.*

*Level of Service (LOS): The maintenance level of service is defined by the types of services a local government provides to different parts of the drainage system. For example, a local government may perform maintenance for residential drainage systems, but only provide inspection and enforcement of maintenance agreements for systems located on non-residential parcels. Within right-of-way areas that are highly susceptible to flood damages, Knox County’s level of service includes the periodic inspection, priority cleaning and emergency response. Conversely, the level of service for maintenance in right-of-ways that are not susceptible to flooding might consist of inspections and maintenance on an infrequent, or complaint-driven, basis.*

### 5.1.2 Knox County’s Responsibilities

With respect to maintenance of the stormwater management system after its construction, the Knox County Department of Engineering and Public Works has the following responsibilities:

- Maintenance of the stormwater system located in public right-of-ways and on other public lands;
- Administration and enforcement of stormwater management regulations and associated inspections;

- Administration and enforcement of floodplain management regulations and associated inspections, in accordance with the requirements of the National Flood Insurance Program (NFIP) and in order to secure the County's participation in the Community Rating System (CRS) program.
- Administration and enforcement of the "Covenants for Permanent Maintenance of Stormwater Facilities and Best Management Practices" for stormwater facilities and best management practices (BMPs) located on private property. This responsibility includes periodic or routine inspections by Knox County Engineering staff and may also include issuing Notices of Violations, and ordering or performing corrective actions.

### 5.1.3 Private Property Owner Responsibilities

The owner(s) of stormwater management facilities and/or BMPs shall ensure the proper operation of the stormwater system. The owner must further maintain all facilities, system components (and related appurtenances), and all BMPs in such a manner as to maintain the full functionality of the facility, component, or BMP. Maintenance of privately-owned facilities and BMPs shall be performed at the sole cost and expense of the owner(s) of such facilities or BMPs.

Stormwater management facilities and BMPs located on private property that have been designed and installed since adoption of this manual must be included in the Operations and Maintenance (O&M) Plan that is recorded with the property's deed. The O&M Plan serves two purposes. First, it is considered a legal statement of responsibility with regards to the stormwater BMPs located on the property and binds the property owner (and subsequent property owners) to the long-term proper operation and maintenance of such BMPs. Second, the plan is intended to provide the property owner with information to accurately locate BMPs on the property, and guidance to adequately inspect and maintain the BMPs. O&M Plan requirements are presented in detail in Volume 1, Chapter 4 of this manual. Included in the O&M Plan are:

1. the "Covenants for Permanent Maintenance of Stormwater Facilities and Best Management Practices" (also called the "Maintenance Covenants").
2. an "Inspection Checklist and Maintenance Guidance" for each type of stormwater BMP that is located on the property.
3. a map that accurately identifies the location of the stormwater system and the type of each BMP located on the property. This map also clearly identifies drainage and access easements.

Maintenance Covenants bind the property owner(s) to the maintenance of stormwater facilities and BMPs located on the property. It should be noted that the Maintenance Covenants grant Knox County employees right-of-entry to inspect the facilities and BMPs, and/or perform any corrective actions that may be required to ensure the long-term proper operation of the facilities. The Maintenance Covenants also contain provisions for legal repercussions and expense reimbursement for corrective actions that must be performed by Knox County if the BMP owner fails to perform the maintenance or corrective actions.

The inspection and maintenance of stormwater BMPs shall be performed in accordance with the guidance provided in the Inspection Checklist and Maintenance Guidance sheets that are included in the O&M Plan. Property owners are strongly encouraged to document inspection and maintenance activities. The checklists that are provided with the property's O&M Plan (which have been recorded with the property), can be utilized for this purpose.

The Director of Engineering and Public Works (the Director) may require a property owner to document BMP inspections and maintenance activities in order to monitor compliance with applicable rules and regulations, where needed to satisfy local, or State NPDES, TMDL, or other regulatory water quality requirements, or when deemed in the best interest of the County. Where



such documentation is required, it shall be made available for review by the Director immediately upon his/her request.

Revisions to a recorded O&M Plan must be requested in writing by the property owner, and must be approved by the Director. Note that the Director has the authority to require a modification to a recorded O&M Plan in the event that the existing Plan does not function as intended. When revisions of the O&M Plan are required, a new Maintenance Covenants document shall be executed after the Director has approved the O&M Plan. Revisions to an existing O&M Plan must be brought into conformance with the stormwater management regulations, policies, and design standards that are current at the time the revisions are made.



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