

III. The Role of the Livingston County Drain Commissioner

The preferred hierarchy discussed above (summarized in Table 1, page 13), provides a comprehensive framework for evaluating the place and function of individual BMPs within a stormwater management system. The most important BMPs are source controls that preserve and protect the natural environment. We must look to the staff and officials of local governments, as well as to developers and their design engineers and planners, to implement the source reduction approaches described earlier.

The Office of the Drain Commissioner exercises authority over the design and construction of structural facilities that convey and treat stormwater runoff that will be generated from a site as a result of its development. The Drain Commissioner's Rules regulate the design of such management facilities with the following objectives:

- Incorporate design standards that control both water quantity and quality.
- Encourage innovative stormwater management practices that meet the criteria contained within these rules.
- Place an emphasis on the maintenance of facilities.
- Make the safety of facilities a priority.
- Strengthen the protection of natural features.
- Encourage more effective soil erosion and sedimentation control measures.

Regardless of Drain Commissioner or Local Unit review, the developer is responsible for both on-site and off-site impacts associated with earth disturbance activities. The developer should take all precautions necessary to prevent downstream damage due to concentration of flow.

A. Local Unit Review

Typically the Local Unit retains an engineer to perform plan review of the proposed development. The purpose of such a review is to ensure conformance with engineering and design standards as codified in local ordinances applicable to the proposed development. In many cases this review by the local unit does include an analysis of the drainage system.

Historically, this office has accepted the engineering review by the local unit as a valid drainage review, required by this office prior to issuance of a grading permit. We have observed the result of this prior acceptance of local unit review to be as follows:

- Non-uniformity in drainage review between local units.
- Local unit priorities, such as reviewing plans for compliance of water and sewerage systems with local codes, result in drainage review having a lower priority.
- Approval of developments by local units without adherence to the Drain Commissioner's drainage standards and resultant drainage problems, both on the approved property and downstream. These drainage problems then result in the local unit contacting the Drain Commissioner to mediate drainage disputes with little resultant impact, unless the drainage dispute is directly associated with a county drain.

Therefore, the following conditions are provided as a precursor to acceptance of a drainage review from a local unit:

- The drainage system for the development is not proposed to be dedicated to the Drain Commissioner under the applicable provisions of the Drain Code.
- The drainage system for the development does not directly outlet to a County Drain.
- The road system in the development is intended to be private.
- The local unit must have a stormwater management ordinance, and said ordinance must require all developments within the local unit be designed to the standards outlined herein.
- The engineering review letter prepared on behalf of the local unit and submitted to this office must state that a professional engineer reviewed the plans for conformance with these standards, and that the proposed design meets all standards herein.
- Exceptions to the above requirements may be granted for parcel divisions, if the median parcel size in the overall parcel split exceeds two acres, and the developers engineer certifies that:
 - i. The proposed parcel division will not result in a concentration of flow sufficient to require detention, and
 - ii. The outlet for the proposed parcel division is adequate to accept design flows without detriment to other properties in the watershed.

The Drain Commissioner may require a demonstration that the above two conditions are met as a condition of accepting the certification required above.

TABLE 1: Hierarchy of Preferred Best Management Practices

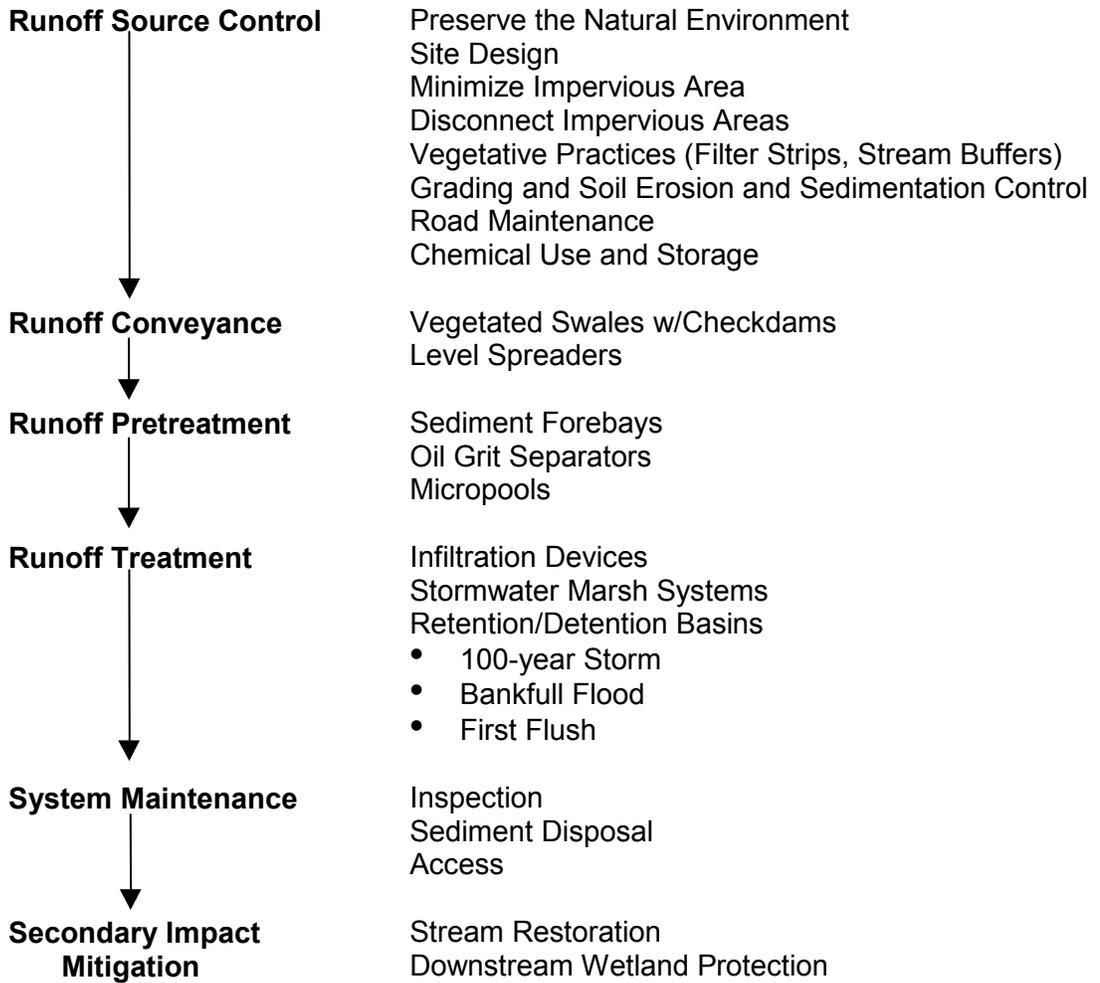
Non-Structural (Source) Controls

- 1) Preservation of the natural environment
- 2) Minimization of impervious surfaces
- 3) Use of vegetated swales and natural storage

Structural (Site) Controls

- 4) Infiltration of runoff on-site (trenches, etc.)
 - 5) Stormwater retention ponds
 - 6) Stormwater detention structures
 - 7) Conveyance off-site
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Components of an Effective Stormwater Management



Source: Adapted from Washtenaw County Drain Commissioner, 1998.