

Chapter 13 Surface Water and Storm Water

1. Section 13.03(4) is amended to read:

(4) “Development” means the construction of buildings, roads, parking lots, and paved or unpaved storage areas, ~~including redevelopment.~~

2. Section 13.03(15) is renumbered (16) and amended to read:

(16) “Ultimate sewer service area” means the maximum geographic area that may receive sanitary sewer service from the District within the foreseeable future, as shown in the current 2010 Facilities Plan, ~~page 2-6 and figure 2-4.~~

3. Sections 13.03(10) to (14) are renumbered (11) to (15).

4. Section 13.03(10) is created to read:

(10) “Redevelopment” means new development that replaces older development.

5. Section 13.10 is amended to read:

13.10 Applicability of Runoff Management Requirements

(1) Type of governmental unit

The following types of governmental units are required to implement the runoff management requirements of this chapter:

(a) cities,

(b) villages, and

(c) any other governmental unit, including counties, special districts, and state agencies, if the governmental unit asserts exemption from local land development requirements and receives sewer service from the District.

(2) Characteristics requiring runoff management ~~Development where runoff management is required~~

~~Runoff management according to this chapter~~ is required for any development or redevelopment that meets all of the following criteria, except as provided in subs. (3) to (9).

~~(a) Area of new impervious surface~~

~~Runoff management is required for development that involves an increase of one-half acre or more of impervious surface~~

~~(a) (b) Location~~

~~The development or redevelopment is~~ Runoff management is required for development within the ultimate sewer service area.

~~(b) (e) Local Date of approval~~

~~The development or redevelopment~~ Runoff management is required for development that receives full and final approval from a governmental unit after the effective date of the applicable District requirements this chapter for all details relevant to runoff management.

~~(c) Affected area~~

1. The development or redevelopment involves an increase of one-half acre or more of impervious surface, porous pavement, or vegetated roof; or

2. Demolition or construction during redevelopment will disturb an area larger than 2 acres.

~~(3) Development where runoff management is not required~~

~~Runoff management according to this chapter is not required when development meets any one of the following criteria.~~

~~(3) (a) Riparian land~~

Runoff management is not required for sites riparian to the following watercourses:

~~(a) 1. Lake Michigan;~~

~~(b) 2. the Kinnickinnic River, downstream of Chase Avenue;~~

~~(c) 3. the Menomonee River, downstream of 27th Street; or~~

(d) 4. the Milwaukee River, downstream of North Avenue.

(4) ~~(b)~~ Residential infill

Runoff management is not required if:

- ~~1. The site is five acres or less;~~
- ~~2. The development is exclusively residential;~~
- ~~3. The net increase in the area of impervious surface is less than 20% of the area of the site; and~~
- ~~4. Each boundary of the site is contiguous to:
 - ~~a. sites that contain earlier development served by sanitary sewers, streets, or public water supply when the governmental unit receives the plans for the new development; or~~
 - ~~b. parkland, other public land, a utility right-of-way, or a watercourse.~~~~

~~(e)~~ Minimal impervious area

Runoff management is not required if the area of impervious surface after development or redevelopment will be 5% or less of the total area of the site.

(5) ~~(d)~~ Previously approved projects ~~Development approved before the effective date of this chapter~~

Runoff management is not required if:

1. a governmental unit approved a development or redevelopment before the effective date of the applicable requirements ~~this chapter~~ and
2. this approval had sufficient finality to create a vested right to proceed with the development.

(6) ~~(e)~~ Recreational trails

Runoff management is not required for recreational trails if:

- (a) ~~1.~~ the trail is less than or equal to 10 feet in width and
- (b) ~~2.~~ has a continuous pervious buffer at least 5 feet wide on each side, disregarding interruption by streets, driveways, or other impervious surfaces crossing the trail.

(7) (b) Residential infill

Runoff management is not required if:

(a) The site is five acres or less;

(b) The development is exclusively residential;

(c) The net increase in the area of impervious surface is less than 20% of the area of the site; and

(d) Each boundary of the site is contiguous to:

a. sites that contain earlier development served by sanitary sewers, streets, or public water supply when the governmental unit receives the plans for the new development; or

b. parkland, other public land, a utility right-of-way, or a watercourse.

(8) Road construction

If the construction or reconstruction of a public road will increase impervious surface by one-half acre or more, then runoff management is necessary for the net increase in impervious surface. The requirements of sec. 13.11(2)(a) shall apply. Runoff management is not required for the reconstruction of public roads when the area of impervious surface is not changing.

(9) Parking lots

Runoff management is required for the reconstruction of parking lots only when the parking lot will be reconfigured or re-contoured. The runoff management requirements do not apply to pavement maintenance activities, such as sealing, milling and overlaying, or pulverizing and compacting.

6. *Section 13.11 is amended to read:*

13.11 Runoff Management Requirements

(1) Governmental units shall manage the volume, timing, and peak flow rate of runoff from development approved by a governmental unit after the effective date of this chapter. Governmental units may implement runoff management requirements on a watershed basis or at individual sites. This management shall prevent increases in the regional flood and stream bank erosion rates.

~~(2) (a) For development, runoff management shall prevent increases in the regional flood and stream bank erosion rates.~~

~~(b) If demolition or construction during redevelopment will disturb an area larger than 2 acres, then governmental units shall reduce the runoff release rate by the amount listed in the following table for the 1%/100-year and 50%/2-year storms, except as provided in (5).~~

<u>Area Disturbed by Demolition or Construction</u>	<u>Reduction to the Existing Runoff Release Rate as of [the date of adoption]</u>
<u>Between 2 acres and 3.5 acres</u>	<u>10%</u>
<u>From 3.5 to 5 acres</u>	<u>15%</u>
<u>Greater than 5 acres</u>	<u>20%</u>

~~(2) When selecting the runoff management techniques appropriate for a particular development, governmental units shall consider the following techniques, in order of preference:~~

~~(a) Preservation of the natural features of development sites, including natural storage and infiltration characteristics;~~

~~(b) Preservation of existing natural streams, channels, and drainage ways;~~

~~(c) Minimization of new impervious surfaces;~~

~~(d) Conveyance of storm water in open vegetated channels;~~

~~(e) Construction of structures that provide both quantity and quality control, with structures serving multiple sites being preferable to structures serving individual sites; and~~

~~(f) Construction of structures that provide only quantity control, with structures serving multiple sites being preferable to structures serving individual sites.~~

~~(3) To determine the degree of runoff management necessary at a particular development, governmental units shall use either a watershed or an individual development analysis.~~

~~(a) Watershed analysis~~

Governmental units may prepare a watershed or sub-watershed storm water management plan or a local storm water management plan for multiple sites

considered together. These analyses shall show how runoff volume is distributed over the critical time of the watershed sufficient to comply with sub. (2) (4). Governmental units shall analyze runoff and determine the critical time according to guidance provided by the District. When evaluating how a development will affect watercourses ~~the regional flood~~, governmental units shall use models and conditions approved by the District. Governmental units shall use 2020 or later land use conditions. Governmental units shall use pre-project channel conditions. Governmental units shall submit these plans and analyses to the District for review and approval.

(4) (b) Individual development analysis

In the absence of an approved watershed management plan that covers development at a particular site, governmental units shall implement either site-specific maximum runoff release rates that will distribute runoff over the critical time sufficient to comply with sub. (2)(a), calculated according to guidance provided by the District, or the following uniform rates:
~~Governmental units may require analyses of individual developments that either:~~

~~1. Show that runoff release rates are less than or equal to the following rates:~~

Storm (probability/recurrence interval)	Maximum Runoff Release Rate (cubic feet per second per acre)
1%/100-year	0.5
50%/2-year	0.15

~~or~~

~~2. Show that runoff will be distributed over the critical time sufficient to comply with sub. (1), according to guidance provided by the District.~~

(5) Redevelopment may reduce the runoff release rate by an amount less than required by sub. (2)(b) when conditions make compliance unreasonable. Relevant conditions include, but are not limited to: soil contamination, groundwater contamination, land use requirements, land availability, opportunities for off-site management, construction delays, marginal costs, and the availability of financing. In this case, redevelopment shall achieve the greatest practicable reduction.

(6) When selecting runoff management techniques, governmental units shall consider the following techniques, in order of preference:

(a) preservation or restoration of natural features, including natural storage and infiltration characteristics;

(b) preservation or restoration of natural streams, channels, and drainage ways;

(c) minimization of new impervious surfaces;

(d) conveyance of storm water in open vegetated channels;

(e) construction of structures that provide both quantity and quality control, with structures serving multiple sites being preferable to structures serving individual sites; and

(f) construction of structures that provide only quantity control, with structures serving multiple sites being preferable to structures serving individual sites.

(7) (4) If a governmental unit has established maximum runoff release rates before the date of adoption of this chapter and if those rates are more stringent than the rates in this section sub. (3)(b)4, then the governmental unit may either continue to implement its rates or implement the requirements of this section.

(8) (5) If impervious surface is removed after the effective date of this chapter, then governmental units may reduce the degree of runoff management necessary for new impervious surface within the same watershed or sub-watershed, to the extent that the net result complies with sub. (2) (4). Governmental units shall implement this subsection according to guidance provided by the District.

(9) (6) Runoff management systems may be either public or private.

(10) (7) Governmental units shall ensure that facilities constructed to manage runoff are maintained to preserve their effectiveness.

(11) (8) If a runoff management system is not constructed or maintained according to an approved site development storm water management plan or otherwise fails to comply with sub. (1), then the governmental unit shall construct new facilities, expand or correct previously constructed facilities, or implement other remedial action.

(12) (9) Within 180 days after adoption or amendment of this section, On or before January 1, 2003, cities and villages shall have in effect a storm water management ordinance that implements this section. Within 30 days after adopting or amending the ordinance, cities and villages shall provide a copy of the ordinance submit their ordinances to the District for review and approval. After adoption, cities and villages shall effectively implement and enforce their storm water management ordinances.

7. Section 13.12 is amended to read:

13.12 Site Development Storm Water Management Plans

- (1) For all development or redevelopment subject to sec. 13.10~~(4)~~, the governmental units listed in sec. 13.10(1) shall submit site development storm water management plans to the District.
- (2) Site development storm water management plans are due within 30 days after all relevant design decisions are complete and the governmental unit has concluded that the development or redevelopment meets all local requirements.
- (3) Site development storm water management plans shall include sufficient information to allow the District to independently evaluate compliance with sec. 13.11. The plan shall:
 - (a) describe the site, including maps showing relevant features;
 - (b) describe the proposed storm water conveyance system;
 - (c) provide data relevant to conveyance system analysis and design;
 - (d) if the site will have a site-specific runoff management system or if the site will be the first user of a runoff management system for multiple sites, then provide drawings, design details, design calculations, construction schedule, and a technical analysis showing compliance with sec. 13.11~~(2)~~(3);
 - (e) if the site will be tributary to an existing runoff management system for multiple sites, then discuss the location, design, and the available capacity;
 - (f) if the site is in a watershed covered by a watershed storm water management plan that complies with this chapter, then provide a technical analysis showing that the proposed runoff management system is consistent with the watershed storm water management plan;
 - (g) discuss runoff management system operation, inspection, and maintenance requirements and discuss who will be responsible for these activities;
 - (h) describe any loss of natural storage or infiltration;
 - (i) any other information required by guidance provided by the District.
- (4) For phased developments, the site development storm water management plan shall consider the cumulative effect of all phases. A storm water management plan is required if the cumulative amount of new impervious surface is one-half acre or

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more, even if the individual components of a development each create less than one-half acre of impervious surface.

- (5) If the governmental unit is implementing reduced runoff management requirements in response to the removal of impervious surface at another site, according to sec. 13.11~~(8)(5)~~, then the site development storm water management plan shall include technical analyses showing that the proposed action complies with sec. 13.11~~(2)(4)~~ and ~~(5)~~.
- (6) The District may hold site development storm water management plan approvals in abeyance for any governmental unit subject to enforcement action under Chapter 2, MMSD Rules, *Design and Construction of Local Public and Private Sewers and Ancillary Facilities*, or Chapter 3, MMSD Rules, *Management Operations, and Maintenance of tributary Sewers*.
- (7) During the review of site development storm water management plans, the District shall consider only issues directly related to storm water management. For activities outside of the regional floodplain, the District may not consider other land use, development, redevelopment, or zoning issues.
- (8) A site development storm water management plan is approved if the District has not taken any of the following actions within 10 District work days after receiving the plan: provided notice of disapproval, requested additional information, or provided notice of a need for additional time to review the plan. The maximum additional time for review shall be 20 District work days. A site development storm water management plan is approved if the District has not disapproved the plan within 20 District work days after either the date when complete additional information is received or the date of a notice of a need for additional time for review.
- (9) Site development storm water management plans may consider the reduction to runoff release rates provided by low impact development components as described in District guidance, including, but not limited to, vegetated roofs, porous pavement, rain gardens, and rain barrels.
- (10) If a change in a site development storm water management plan approved by the District would increase runoff release rates for the 1%/100 year or 50%/2-year storms, then governmental units shall re-submit the materials required by sub. (3), along with information describing the reason for the change.

8. Section 13.23 is created to read:

13.23 Watercourse Connections

- (1) Before the commencement of construction of any connection to a watercourse listed in the appendix, a governmental unit shall submit to the District design computations, local storm water conveyance system plans consistent with sec. 2.302, construction plans and specifications consistent with sec. 2.303, and connection plans consistent with sec. 2.304.
- (2) To approve a connection to a watercourse, the District shall issue a connection permit, which may include any specific requirements necessary to ensure structural integrity, ease of maintenance, prevention of erosion, non-interference with flow, or other conditions that promote effective and efficient operation.

9. Appendix, Table 6, is amended and corrected to read:

Table 6
Root River and Tributaries

		Streams in District Jurisdiction		
Watercourse	Municipalities in Watershed	Upstream Terminus	Downstream Terminus	Length (miles) -approximate-
* * *				
Hale Creek	West Allis	W. Montana Avenue, at the confluence with the Root River, North Branch W. Lincoln Avenue, West of State Highway 100	W. Lincoln Avenue, West of State Highway 100 Root River, North Branch, near W. Montana Avenue	1.3
* * *				
<u>Root River, West Branch</u>	<u>New Berlin West Allis</u>	<u>S. 124th Street, south of Cleveland Avenue</u>	<u>Root River, North Branch, South of National Avenue</u>	<u>1.0</u>
* * *				