



# Commission Policy

Subject: MMSD Infrastructure Includes Green Infrastructure		Index: 1-11.05
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Resolution: 12-106-7; 15-139-11; <a href="#">17-086-9</a>		Date Issued: 7/23/12
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## Purpose

The Milwaukee Metropolitan Sewerage District (MMSD) is committed to meeting its water pollution control responsibilities for wastewater it collects, conveys, stores, and reclaims and the watercourses it manages to mitigate out-of-bank flooding. MMSD is committed to meeting conditions of its current and future Wisconsin Pollutant Discharge Elimination System (WPDES) permit, and to reducing pollution loads to area rivers to the maximum extent practicable by supplementing traditional grey infrastructure with more natural approaches such as Green Infrastructure.

Stormwater management through Green Infrastructure reduces the volume of flow into the MMSD system, the amount of pollutant load to area rivers and the volume of flow in area rivers. Stormwater runoff flows by gravity to the lowest point possible. Often the lowest point is an MMSD sewer or MMSD jurisdictional watercourse. Widespread implementation of Green Infrastructure is intended to change that consequence of runoff negatively impacting MMSD's system. Green Infrastructure can provide additional capacity by allowing collection, conveyance, and storage solutions earlier (higher up) in the hydrologic cycle, where stormwater and snow falls on the land.

This Policy is for the purpose of (1) establishing Findings and Determinations regarding the utility of Green Infrastructure in the management of wastewater and flood abatement; (2) defining Green Infrastructure for MMSD; (3) establishing criteria for Capital Budget funding of Green Infrastructure; and (4) directing MMSD staff to pursue acquisition of Green Infrastructure using open, transparent, and competitive procurement procedures.

## (1) Findings and Determinations

The Commission, in the performance of its legislative functions, makes the following Findings and Determinations.



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1. The Commission is directed by statute to “project, plan, design, construct, maintain and operate a sewerage system for the collection, transmission and disposal of all sewage and drainage of the sewerage service area including, either as an integrated or as a separate feature of the system, the collection, transmission, and disposal of storm water and groundwater.” Wis. Stat. § 200.31. Green Infrastructure is part of the District’s sewerage system because:
  - a. Green Infrastructure collects stormwater where it falls. Water may be stored (by cisterns or barrels) for reuse, or it is taken up by plants and subject to evapotranspiration, or it infiltrates through the soil into the groundwater.
  - b. Green Infrastructure reduces wet weather flows into MMSD sewers, which preserves space for sewage thus reducing the volume and frequency of overflows from the sewerage system to surface waters.
  - c. By diverting or delaying stormwater from entering MMSD’s collection and treatment system, Green Infrastructure results in an extension or improvement of the capacity or efficiency of the sewerage system.
  - d. Certain Green Infrastructure types treat stormwater to remove pollutant loadings to surface waters, for example bioswales and green roofs.
  - e. By reducing stormwater runoff, Green Infrastructure complements other practices that reduce the risk of flooding from rivers, thereby helping to protect other District assets from flood damage as well as surrounding neighborhoods.
2. MMSD acquires property interests in certain Green Infrastructure installations. These interests are used by the MMSD and are part of the sewerage system, for example MMSD incorporates the water-holding capacity of these property interests into its determinations for future infrastructure needs.



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## (2) Definition of Green Infrastructure for MMSD

For purposes of this Policy and as per the US Environmental Protection Agency (EPA), Green Infrastructure is defined as an approach to wet weather management that is cost-effective, sustainable, and environmentally friendly, that helps restore natural hydrology and also provides additional non-stormwater benefits. See, for example, “Enhancing Sustainable Communities with Green Infrastructure,” United States Environmental Protection Agency, Oct. 2014, EPA 100-R-14-006.

Specifically at MMSD, Green Infrastructure strategies include the following listed practices; and other practices which may not be listed but that have similar properties for managing stormwater in a cost-effective, sustainable and environmentally beneficial manner:

- **Greenways:** riparian and non-riparian buffer zones and strips that store and drain stormwater runoff into the ground naturally.
- **Rain Gardens:** gardens that are watered by collected or pooled stormwater runoff, slowly infiltrating it into the ground along root pathways.
- **Wetlands:** areas that have soils that are inundated or saturated for part of the year or the entire year.
- **Trees:** trees that can hold rainwater on their leaves and branches, infiltrate it into the ground, absorb it through root systems, and evapotranspire it to the atmosphere.
- **Green Roofs:** partially or completely planted roofs with vegetation growing in soil or other growing media to hold rainwater.
- **Bioswales:** landscape features that capture and infiltrate runoff and can also remove pollutants.



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- **Porous Pavement:** pavement that can reduce and infiltrate surface runoff through its permeable surface into a stone or filter media below.
- **Native Landscaping:** the use of native plants that can tolerate drought and flooding cycles because of deep roots and climate-specific adaptations.
- **Rainwater Catchment:** the capture and storage of water, potentially for reuse later.
- **Green Alleys, Streets, and Parking Lots:** public infrastructure features that can channel, infiltrate, and evapotranspire water.
- **Soil Amendments:** materials worked into the soil to enhance its ability to infiltrate or absorb water.
- **Removal of Structures/Paving:** removal of structures or paving in order to allow infiltration.

Greenseams<sup>®</sup> parcels are also considered Green Infrastructure because they preserve and protect key lands with hydric soils and buffer waterways. Green Infrastructure is a tool to supplement traditional grey infrastructure and is part of the modern day MMSD wastewater collection system.

### (3) Capital Budget Funding of Green Infrastructure

MMSD may fund Green Infrastructure projects through its Operations and Maintenance Budget or through its Capital Budget. In order for Capital Budget funding to be used, the value of the project must be greater than \$25,000 and one of the following criteria must be satisfied:



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1. MMSD owns the real property where the Green Infrastructure is located and keeps the Green Infrastructure in place for a period of time no shorter than ten years, or acquires a physical asset such as a cistern with a useful life of at least ten years.
2. MMSD obtains a conservation easement from the owner of the real property where the Green Infrastructure is located; the conservation easement must satisfy the requirements of Wis. Stat. §700.40 and be of a term no shorter than ten years.
3. Where the owner of the real property where the Green Infrastructure is located is an agency of the State of Wisconsin, MMSD obtains a covenant running with the land, which requires the continued operation and maintenance of the Green Infrastructure. The covenant must be of a term no shorter than ten years.
4. Where the real property where the Green Infrastructure is located is a public street or other right of way, MMSD obtains a covenant running with the land, which requires the continued operation and maintenance of the Green Infrastructure. The covenant must be of a term no shorter than ten years.

The three general purposes of Green Infrastructure are to improve water quality, reduce infiltration and inflow, and reduce the risk of out-of-bank flooding. Because one purpose of a Green Infrastructure project is to reduce the risk of out-of-bank flooding from a watercourse over which the MMSD has jurisdiction, all or a portion of the funding for said Green Infrastructure project may be treated as a flood management project within the watershed of the particular watercourse, resulting in a credit to non-member communities not tributary to that watercourse. In recognition of the fact that Green Infrastructure projects can have benefits to flood abatement efforts on local watercourses [and improve water quality in a particular watercourse](#), the Executive Director is directed to create and implement an Administrative Policy setting out (1) the [procedure for non-member communities to opt out of the District's Green Infrastructure Programs](#) and (2) the methods of establishing credits for non-member communities consistent with Public Service Commission of Wisconsin Findings of Fact, Conclusions of Law and Order in Investigation of Complaint Concerning the Rates and Practices of the Milwaukee Metropolitan Sewerage District, September 11, 1996, at 40-43, 9308-SR-102.



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## **(4) Pursuit of Green Infrastructure**

It is the Commission Policy that MMSD staff shall pursue implementation of Green Infrastructure through the following activities:

1. MMSD will work to attain the Green Infrastructure goals of the 2035 Vision.
2. MMSD will encourage the use of Green Infrastructure by public and private entities where various benefits may be provided, particularly overlapping benefits related to environmental, social, and economic sustainability.
3. MMSD will consider, pioneer, and make widespread, as appropriate, Green Infrastructure technologies that benefit the MMSD sewer service area.
4. MMSD will continue to support programs of information and education related to Green Infrastructure.
5. MMSD will annually report to the Commission the progress of its Green Infrastructure efforts and the benefits that result.
6. MMSD will coordinate with other groups in the region to provide support for more widespread Green Infrastructure implementation.

In all cases where MMSD is providing funding toward installation or maintenance of Green Infrastructure, it shall do so using practices that are open, transparent and free from any appearance of impropriety. The Executive Director shall create and implement an Administrative Policy to provide direction for funding installation or maintenance of Green Infrastructure.