APPENDIX I

Metropolitan St. Louis Sewer District
Statement of Policy
for
Maintenance of Stormwater Sewer Systems

1.0 Introduction

Adequate drainage in the Metropolitan St. Louis area is necessary to preserve and promote the general health, welfare and economic wellbeing of the region. Stormwater drainage is a regional feature that affects all governmental jurisdictions and all parcels of property. This characteristic of drainage makes it necessary to formulate a program that includes public and private involvement both from the master planning of new improvements and the costs associated with maintenance and replacement of existing improvements.

2.0 Definitions

Stormwater infrastructure consists of the following Systems:

Public Stormwater Systems – Stormwater infrastructure that is located in easements with rights to MSD. Stormwater infrastructure that has been formally dedicated to MSD for maintenance.

Private Stormwater Systems -- Stormwater infrastructure that is not located in easements with rights to MSD, and is typically designed to serve an individual property prior to connection to a public stormwater system. Stormwater Infrastructure not dedicated to MSD for maintenance.

Non-Dedicated Stormwater Systems – Stormwater infrastructure that provides a public service and serves more than one property. Typically systems not built per MSD standards, not in dedicated easements, and undedicated to the District. Examples may include a system built in a subdivision without permits or District approval, or as-built drawings were not received.

Stormwater infrastructure consists of the following Assets and features:

Inlets – A stormwater structure that has a curb inlet, area inlet, or road grate that allows stormwater runoff to enter the stormwater system. Inlets are interconnected to the stormwater system via storm sewer piping. Inlets typically need regular cleaning due to the accumulation of debris that is washed in off of streets.

Stormwater sewers – Enclosed and typically underground piping that transports stormwater runoff from properties and streets to streams.

Improved Channels – Improved stormwater channels are open trapezoidal or vertical walled channels designed to certain standards and typically constructed from man-made structural materials, such as poured concrete, concrete block, placed stone, or gabion baskets.

Unimproved Channels – Stormwater channels that have not been improved as described above, such as natural streams, stone revetments, and grade controls.

Sinkholes – Natural depressions or collapsed areas formed by dissolution of carbonate bedrock. Stormwater typically drains into the subsurface.

Improved Sinkholes – A sinkhole with an MSD approved drainage structure on top.

Driveway Culverts – Storm pipes incorporated into driveways to allow storm flows to travel through roadside ditches and gutters.

Road Culverts and Bridges – Engineered bridges and culverts designed to allow roads to span rivers, streams and stormwater channels.

Roadside ditches or Gutters – Earthen or paved stormwater channels alongside roads or curbed gutters alongside roads.

Swales – Shallow trough-like depressions designed to divert or channel stormwater flows. Examples include ditches and other grading to direct flow to specific areas, including MSD infrastructure.

Detention and Retention Basins – Stormwater basins often designed into neighborhoods to capture stormwater drainage from the neighborhood stormwater systems. They are designed to capture runoff for a limited period of time and discharge into a larger public stormwater system or stormwater channel.

Stormwater BMP (best management practice) – a constructed stormwater feature intended to reduce pollutants from stormwater discharges and improve surface water quality.

Municipal Separate Storm Sewer System (MS4) – As defined in 10 CSR 20-6.200: a MS4 is a conveyance or system of conveyances including roads and highways with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, paved or unpaved channels, or storm drains designated and utilized for routing of stormwater which, does not include any waters of the state; is contained within the municipal corporate limits or is owned and operated by the state, city, town, village, county, district, association, or other public body created by or pursuant to the laws of Missouri having jurisdiction over disposal of sewage, industrial waste, stormwater, or other liquid wastes; is not a part or portion of a combined sewer system; and is not a part of a publicly owned treatment works as defined in 40 CFR 122.2.

Rivers and Streams – Natural waterways that drain watersheds.

3.0 Services

The following provisions summarize the District's current policies and service levels on Stormwater System Maintenance.:

3.1 Regulatory Authority and Oversight: Consists of work required to meet Federal, State and local stormwater regulations and includes the following:

3.1.a Engineering Services: MSD's Engineering Department provides services to ensure the proper design, construction and functionality of existing and new stormwater systems. These services include:

- Plan review and permitting – All public or private sewerage and drainage works proposed to be constructed, altered or reconstructed by an person or corporation, public or private within the District Boundaries will require review and approval by the District. This includes any altering of storm drainage channel, site drainage or floodplain within the District;
- Ensuring that all new sewage and drainage facilities are designed in accordance with "Rules and Regulations and Engineering Design Requirements for Sanitary Sewage and Stormwater Drainage Facilities"; Ensuring that all new sewage and drainage facilities are constructed in accordance with "MSD Standard Construction Specification for Sewers and Drainage Facilities."

3.1.b Environmental Services: MSD's Engineering Department provides services to ensure compliance with federal and state stormwater regulations. These services include:

- Overall service area oversight and coordination with St. Louis County and municipalities within the District boundary, the Missouri Department of Natural Resources, and the U.S. Environmental Protection Agency;
- Activities required for compliance with the MS4 operating permit, including stormwater management plan (SWMP) development, implementation, and enforcement activities required for MSD to comply with the following minimum control measures:
    - Public Education and Outreach;
    - Public Involvement and Participation;
    - Illicit Discharge Detection & Elimination;
    - Construction Site Stormwater Runoff Control;
    - Post-construction Stormwater Management; and
    - Pollution Prevention/Good Housekeeping for Municipal Operations;
- Development, implementation and enforcement of plan(s) necessary to address the assumptions, requirements, waste load allocation, and load allocation of any applicable total maximum daily load (TMDL);
- All monitoring, recordkeeping, reporting, and applications necessary for compliance with a MS4 Operating Permit.

3.2 Preventative Stormwater Maintenance: Stormwater infrastructure needs periodic maintenance and inspection to assure it functions as intended and needed improvements are identified. The following are maintenance service goals of the District with respect to the Public Stormwater System:

- Clean combined sewer inlets in the City of St. Louis and near County on a two-year cycle;
- CCTV inspection of storm sewers on a 10-year cycle;
- Cleaning and repair of storm sewers as identified in inspections;
- Visual inspection and maintenance of improved sinkholes as needed;
- Visual inspection of storm inlets on a 10-year cycle;
- Cleaning and repair of storm inlets as identified in inspections;
- Inspection of improved channels and bridge culvert openings on a 2-year cycle;
- Cleaning of improved channels including bridge and culvert openings as identified in inspections. Areas under bridges and culverts are not MSD's responsibility;
- Maintenance of public stormwater BMP's constructed by MSD or dedicated to MSD for maintenance, including:
    - Green infrastructure and basins (mowing; plantings; trash);
    - Cleaning of hydro dynamic separators that were installed as part of public street improvements;
- Monthly inspection and maintenance of floodwall pump stations and gate structures.

3.3 Customer and Emergency Calls: The District maintains a 24/7 call center and responds to a number of stormwater problem calls. Response times range from four (4) hours for emergency calls, to up to 30 days for less critical investigations. MSD will respond to calls on both Public Stormwater Systems and Non-Dedicated Stormwater Systems. MSD will not typically respond to calls on Private Stormwater Systems. Response includes:

- Stormwater problem investigation (i.e. local ponding or flooding) – District engineers investigate localized or individual stormwater problems. Some water solutions may be offered by the District if it involves reasonable improvements to the Public Stormwater System. Some solutions may be the property owner's responsibility, such as grading or swales. In these cases the District will work to help identify the solution.
- Erosion Investigation – District engineers will investigate erosion issues. Erosion is a natural phenomenon, and due to funding constraints, MSD is usually unable to resolve these issues. If an MSD System is determined to be the cause of the issue, MSD will work to mitigate the problem. Engineers will give advice to the property owner.
- Cave-in (yard sinkhole) investigations – MSD personnel will investigate the cause of cave-ins. The hole is typically flooded with dye and the Public Stormwater System is checked to see if the dye is entering through a defect in the public infrastructure. If so, MSD will make necessary repairs.
- Street flooding - The District will respond and alleviate maintenance-related street flooding as soon as possible.

- Blocked inlets – The District will respond to blocked inlet calls and clean inlets as necessary.
- Broken or dislodged inlet tops - The District will typically respond within four hours of call.
- Blocked Creek Investigations - MSD will investigate blocked creek calls. MSD will contract to remove debris if it is deemed a flooding threat such as a fallen tree in public right of way. MSD will not be responsible to remove typical debris or branches that are not considered a flooding hazard.
- No Response Calls - MSD will not respond to some stormwater calls as they are not considered part of the Public Stormwater System, and therefore, MSD will not maintain these items. These include:
    - Detention and Retention Basins – these are considered private and their maintenance is the responsibility of the subdivision or neighborhood.
    - Maintenance and/or Cleaning of roadside ditches, bridges and roadway or driveway culverts - These structures are not MSD's responsibility and typically fall to the municipality or private homeowner.
    - Sink Holes - MSD will not clean natural sinkholes, sinkholes improved with non-standard structures, or portions of improved sinkholes below the public structure.
    - Missouri State Highway Department - MSD will not maintain any storm sewers located on State right-of-way unless they are integral parts of the Public Stormwater System.
    - Swales- MSD will not maintain swales.
    - Trench Drains – MSD will not maintain trench drains.
    - Weeds – MSD only cuts weeds on property owned by MSD, and not on easements.

3.4 System Renewal and Repair: Continued system renewal and repair is an essential part of keeping the Public Stormwater System functioning properly. Many system improvements and repairs are identified as a result of MSD preventative inspection program as well as customer investigations. These may include pipe renewal, inlet repair or rehabilitation, small system additions as well as improved channel repairs. Some jobs may be performed internally with District Staff and others contracted through the MSD Engineering Department's Infrastructure/Repair program. Engineering has a number of engineers and field crews that manage and inspect these repairs.

MSD will renew and repair Public Stormwater Systems. Private Stormwater Systems are the responsibility of the property owner. Non-dedicated Stormwater Systems may be eligible for improvement if the property owners are willing to give easements and dedicate the stormwater system to the District. Repair and Renewal monies are limited and repairs are performed on a priority basis, based on need, cost and public benefit.

3.5 Capital Improvement Projects: MSD does not collect a District-wide source of funding for stormwater capital improvement projects.

4.0 Disputes

In the event a dispute arises as to whether a particular stormwater sewer system, facility, structure, asset or feature or any part thereof should be maintained, repaired, or replaced by the District pursuant to this Policy, the decision of the District’s Executive Director shall be final. Any person or persons jointly or severally aggrieved by such decision may appeal such decision in the manner provided for in Section 12.110 of the District's Plan.