Background
The NYSDEC General Permit for Stormwater Discharges from Municipal* Separate Storm Sewer Systems (MS4s), GP-02-02, states that “An MS4 must, at a minimum…develop and maintain a map, showing the location of all outfalls and the names and locations of all waters of the United States that receive discharges from those outfalls.” MS4s are also required to map stormwater discharges to other regulated MS4s. There are no requirements at this time to map the Department’s entire system of closed drainage.

* As stated in SPDES General Permit GP-02-02, “The term “municipal” referred to in the federal rule which describes the Phase II stormwater program includes not only the State’s municipal governments (cities, towns, villages and counties), but any publicly funded entity that owns or operates a separate stormwater sewer system. Examples of other public entities that are included in this program include the State Department of Transportation, State University Campuses, federal and State prisons, State and federal hospitals, Thruway and Dormitory Authorities, public housing authorities, school and other special districts.”

What is an Outfall?
The SPDES General Permit GP-02-02 defines an “outfall” as “any point where a separate storm sewer system discharges to either the Waters of the United States or to another MS4. Outfalls include discharges from pipes, ditches, swales, and other points of concentrated flow.”

The permit does not require overland flows to be mapped, but rather channeled conveyances. The general permit states “…areas of non-concentrated (sheet) flow which drain to the Waters of the United States or to another MS4’s system are not considered outfalls and should not be identified as such on the system map.”.

“Waters of the United States” are considered surface waters only. Discharges to groundwater are not considered outfalls.

Although isolated wetlands are not technically “Waters of the United States” (at this time), it is suggested, unless it is clear that a hydrologic connection does not exist to a known Water of the US, that outfalls to all wetlands be mapped.

Types of outfalls to map
The types of outfalls include, but are not limited to:

- Pipes
- Gutters
- Swales
- Ditches
• Scuppers
• Surface and subsurface drainage connections from the state Right-of-Way to the jurisdiction of another regulated MS4.

Most pipes that discharge stormwater from the highway “daylight” in the highway embankment in close proximity to the waterbody. Be aware that some pipes may discharge to a waterbody through a bridge abutment or wall of a cross-culvert that conveys a stream. Similarly, stormwater in ditches, swales, or gutters may discharge stormwater by dropping the stormwater through a grate directly into a waterbody.

Culverts that convey a stream or other waterbody considered a Water of the US is not an outfall. Daylighted underdrains are not to be counted as stormwater outfalls.

A bridge will likely have multiple scuppers. As long as the stormwater is discharged from these scuppers to the same waterbody, all of the scuppers shall be mapped as one outfall. Conversely, each swale, ditch, or gutter shall be mapped as separate outfalls, even when they are in close proximity to each other, such as around bridges. For example, if there are ditches that discharge to a stream in four quadrants of a bridge, each ditch outlet to the stream should be mapped as an outfall.

If the discharge from a potential outfall is delivered to a waterbody as concentrated flow, whether directly or by end section, stone apron, or if the earth beyond the discharge point is eroded such that it is reasonable that the water discharges to the waterbody in concentrated flow, that discharge point shall be considered an outfall.

**Areas of Data Collection**
The Department is considered a regulated MS4 in the “Designated Urbanized Areas”, as designated by NYSDEC. Most of these areas are based on the 2000 Census, although other areas, such as the New York City Watershed East of the Hudson River, have been added. Outfalls should only be mapped within the boundaries of the Designated Urbanized Areas. All outfalls in these areas should be mapped, regardless of whether the discharge is directly to a waterbody or to another regulated MS4.

For a list of the regulated MS4s in New York State, see the “Final Designation Criteria for Identifying Regulated Municipal Separate Storm Sewer Systems (MS4s)”, January 2003, at [http://www.dec.state.ny.us/website/dow/MS4crit.pdf](http://www.dec.state.ny.us/website/dow/MS4crit.pdf).

**Data to be collected**
Attribute Table Codes can be found in the manual “Stormwater Outfall Mapping & Inventory: GPS Data Collection & Data Management Using A GeoXT 2005 Series” (This document is continuously updated in:
P:\GIS\Environmental\StormwaterOutfall\Manuals).