**Stormwater Master Plan Phase 1**

The Village of Orland Park (Village) has an extensive and comprehensive stormwater management system that collects stormwater runoff and conveys it to local waterways. The stormwater management system encompasses more than 22 square miles of the Village and 7 different watersheds. The stormwater system includes storm sewers, swales and ditches, detention basins (wet and dry), wetlands and local creeks that convey the stormwater runoff to larger rivers and/or waterways, among other infrastructure. Various portions of the stormwater system are aging and developing maintenance and other related issues that will require attention and substantial investment from the Village. As a result, the Village would like to develop a proactive approach to plan to the impending maintenance needs of the stormwater management system. The Village intends to issue the Stormwater Master Plan in multiple phases over several years to allow for budgeting and reduce the scope into manageable projects.

**Municipal Detention Basin Evaluation**

The first phase of the Stormwater Master Plan to be issued is the evaluation of all Village-owned stormwater detention basins. These basins were specifically designed and/or permitted for the purpose of storing and slowing the release of stormwater runoff. This evaluation will not include natural wetlands or riparian areas that also store stormwater runoff, but will include both dry and wet basins. There are 88 dry bottom basins and 90 wet bottoms basins and a detailed list with each of their addresses is attached along with a map showing each location.

The Village is seeking proposals from qualified professional engineering consultants to perform a site inspection of each municipal detention basin and provide a summary report detailing the condition of each basin.

The evaluation of each detention basin and associated Village owned property will include the following:

1) Inlets pipes – Inspect and identify any issues or concerns related to settling, joint connections, erosion, grates, etc.

2) Outlet pipes - Inspect and identify any issues or concerns related to settling, joint connections, erosion, grates, etc.

3) Overland flow inlets - Identify any issues related to the swales, ditches, etc. that convey stormwater into the detention basin including settling, erosion, etc.

4) Overland flow outlet – Identify any issues related to the swales, ditches, etc. that convey stormwater out of the detention basin including settling, erosion, etc.

5) Outlet control structure – Identify any concerns related to the restrictor plate, pipe, weir or other appurtenance associated with the basin.

6) Emergency weir – Identify any issues related to the overflow weir. Specifically note the type of weir (turf, riprap, concrete, other).

7) Other village utilities – Any other Village utilities located on the parcel should be inspected including water, sanitary, irrigation, aeration, etc.

8) Shoreline or other erosion – Identify any issues related to the loss or movement of soil due to erosion along the shoreline or any other area in the basin and associated property.

9) Energy dissipation (specifically at inlets) – Identify any issues related to the slowing or mitigating of flow velocities.

10) Settling – Identify any issues related to settlement in the basin, slopes, inlet/outlet pipes or other areas.

11) Water Quality – Identify concerns related to the quality of the water in the basin.

12) Sedimentation/Siltation – Identify issues related to excess sediment in the basin.

13) Volume/Capacity – Confirm the detention capacity of the basin relative to the permitted volume and/or identify concerns if issues are observed.

14) Encroachment – Identify any issues in the basin or property related to encroachment by neighboring residents or others. Examples include gardens, playsets, etc, among others.

15) Vegetation assessment – Provide a detailed evaluation of the vegetation on the site including the basin slopes, trees and all other vegetation.

16) Wildlife management (Geese, muskrats, beavers, etc.) – Identify any issues related to wildlife impacts to the basin or related property.

17) Design – Identify the safety shelf or lack thereof of features that may be a concern for the Village.

18) Adjacent land use – Identify any issues related adjacent land uses and their impact on Village-owned property.

The summary report will include all of the detailed information for each of the detention basins evaluated based on the above criteria. The evaluation will extend to the surrounding property associated with each basin.

**Engineering Scope of Services**

Review of available data

Site inspection

Identification of deficiencies based on criteria provided above

Deficiency resolution alternatives - Erosion alternatives should be soft scape and natural in nature unless structural intervention is absolutely necessary based on input from the Village

Ranking of basin issues and repairs based on urgency relative to flooding and/or failure

Estimate of Costs

Summary Report

**Stormwater Master Plan Future Phase**

Future phases of the Stormwater Master Plan will include evaluation of the underground storm sewer network and creeks for existing condition and maintenance needs similar to the current RFP. Based on the location of the basins provided, the Village would like the selected consultant to provide budget level estimates of the effort required to perform similar service for storm sewer and creek network. The storm sewer network and creek locations will be provided by the Village.

* Long Run Creek
* Hickory Creek
* Spring Creek
* Midlothian Creek
* Tinley Creek
* Mill Creek
* Marley Creek