**Evaluation of Potential Impacts from Implementing Stormwater Management Practices in Holmes Avenue Creek and Villa Mann Creek on Wilson Park Creek**

**Quarterly Status Report**

Reporting Period: 2/12/2010 to 3/31/2010

**Overall Project Status**

The Milwaukee Metropolitan Sewerage District (MMSD) issued the Notice to Proceed to HNTB on February 15, 2010. A kickoff discussion was held on March 5, 2010 between HNTB, Tetra Tech, and MMSD to discuss the project tasks and which stormwater best management practices (BMPs) should be used in the proposed water quantity and quality modeling of the Villa Mann Creek and the Holmes Ave Creek subwatersheds. The BMPs selected and the scenarios developed are summarized below in Task 1. The scenarios will be run for both the Holmes Ave Creek and the Villa Mann Creek subwatersheds.

Task 1. Develop Scenarios to Evaluate Flood Flow and/or Water Quality Impacts

After a review of the land use within the Holmes Avenue Creek subwatershed east of S. 13th Street, it was determined that the BMPs that would have the greatest impact on water quantity were parking lot storage and roof storage on commercial/industrial buildings. Therefore, the following three scenarios were developed:

1. 25% of parking lot areas with storage –apply to 50% of parking lots and use 50% of the area in each for storage. A depth of 4 inch was considered acceptable for the parking lot storage
2. 25% of commercial/industrial roofs with storage.  A 6 inch depth is used for the roof storage based on the 2020 Facilities Plan State of the Art Report.
3. Combine 1 and 2.

Parking lot storage and roof storage primarily (or only) affect flow, while the Extreme Measures run from the Southeastern Wisconsin Regional Planning Commission’s (SEWRPC) Regional Water Quality Management Plan Update (RWQMPU) primarily affect water quality in this watershed (where there is almost no new development).  Therefore, the scenarios are based on the Extreme Measures run, so (1) we can show both water quality and flow benefits and (2) the flow benefits are separable from the Extreme Measures because they derive entirely from the new BMPs.

Surface storage (e.g. inlet restrictors) is used in the scenarios rather than subsurface storage (e.g. pervious pavement). This is due to the fact that subsurface is vastly more expensive to implement in an area that is already developed. Also, surface storage is more efficient to model for this task with basically the same flow reduction results. The results can be used to determine the requirements for subsurface storage in the future.

In addition, simple rooftop storage, not green roofs, will be modeled because it is more efficient to model for this task and green roofs are more expensive to implement. The results of this analysis can be used to determine the requirements for a green roof design in the future.

Task 2. Run Scenarios

This task has not been started. This work is scheduled to be completed during the second quarter of 2010.

Task 3. Process and Interpret Results

This task has not been started. This work is scheduled to be completed during the second quarter of 2010.

**Project Issues**No issues to date.

MMSD File Code: M03002P01.P3500