



VILLAGE OF WINNETKA

PRESS RELEASE

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Water Quality Analysis Shows Winnetka's Stormwater "Typical" for the Area— Not Significantly Cleaner, or More Polluted

This past fall, at the suggestion of the Illinois Environmental Protection Agency (IEPA), the Village and its engineers from MWH Global performed testing to gain a better understanding of stormwater characteristics in Winnetka. Gathering and analyzing stormwater better informs our efforts to design the Willow Road Stormwater Tunnel and Area Drainage Improvements (STADI) so that they meet regulatory and environmental standards. The more information and analysis we are able to gather on stormwater quality, the better equipped we are to design a solution that can reduce pervasive flooding in our community in the most environmentally sensitive way possible.

Stormwater flow picks up materials from roadways, sidewalks and other non-permeable surfaces and currently flows into our waterways and Lake Michigan on its own, without any form of treatment. So, by designing, building and implementing a process that captures that water and then treats as much of it as practical, we are meeting our goal of reducing flooding *and* improving the overall quality of stormwater that flows into area waterways and Lake Michigan.

In the fall of 2014, stormwater was sampled using automatic samplers installed at four locations: Elder Lane Park, Hibbard Road (near Willow Road), Birch Street (north of Hill Road), and Provident Avenue/Willow Road. The list of water quality parameters for which samples were tested was based on a list provided by the IEPA. Many of the parameters are regulated under Illinois water quality standards. The results of this study are being used by engineers to determine the characteristics of stormwater runoff from Winnetka, to provide a basis for designing the proposed STADI water quality management systems, and to assess the role that managing the "first flush" runoff will play in the overall water quality management plan.

These results will also be used to present water quality data to the IEPA as part of the permit application and to establish a basis for anticipated future monitoring, if required. While the preliminary data has been collected, a full analysis has not yet been completed. As that analysis proceeds, the Village wants to share high level findings with the public because they provide some direction on steps we can take to improve overall stormwater quality. The data collected show that Winnetka's

stormwater is typical of urban/suburban stormwater in general – not significantly cleaner than runoff from other locations, but also not excessively polluted.

Field technicians successfully collected three dry weather and three wet weather samples during a two-month study period last fall. The analytical results determined that for many parameters (Hexavalent Chromium, Fluoride, Cyanide - Amenable, Arsenic, Barium, Cadmium, Silver, Zinc and Nitrate Nitrogen), concentrations in our stormwater did not exceed even the most stringent Illinois water quality standards for Lake Michigan.

Some parameters had at least one result that exceeded current Illinois water quality standards for Lake Michigan. These included Sulfate, Total Dissolved Solids, Chloride, Mercury, Phenols, Oil & Grease, Copper, Manganese, Lead, nutrients such as Phosphorus and Ammonia Nitrogen, and bacteria such as Fecal Coliform and *Escherichia coli* (*E. coli*). The complete water quality sampling results will be available as part of MWH's Review Point #2 in Village Council agenda materials.

Pollutants in stormwater come from a variety of sources. For example, Chlorides are commonly associated with runoff containing de-icing salts, and nutrients like Phosphorus, Nitrate, and Ammonia are routinely linked with lawn and garden care fertilizing. Bacteria such as fecal coliform and *E. coli* can be attributed to leaking private and public sewer systems, but also to animal and pet waste. Mercury is commonly associated with atmospheric transport and deposition from power plant emissions.

This Winnetka-specific data will be very useful to both the Village and regulatory agencies going forward. MWH will use this information to design BMPs and treatment systems for the proposed STADI project, so that water quality objectives for the project can be met. Identifying pollutants in existing stormwater runoff in the Village's system will also help the Village to determine which activities can be undertaken to improve water quality right now regardless of whether the STADI project is implemented.

But the presence of some materials in stormwater that exceed standards serves as a reminder that there are steps we can all be taking in order to lower the level of potentially harmful materials in stormwater. For example, the data show that Winnetka stormwater contains levels of Phosphorus higher than the water quality standard for Lake Michigan. Lawn fertilizers can be a significant source of Phosphorus, and it is important for the Village to educate residents about fertilizers that don't contain Phosphorus. As a Village, we need to be proactive in confirming local landscape contractors are complying with state law that prohibits the application of phosphorus-containing fertilizers by commercial applicators.

Where we exceed standards with respect to *E. coli* and fecal coliform, we need to remind residents to clean-up after their pets and also to check the integrity of their sanitary sewer services since the presence of *E. coli* and fecal coliform in stormwater indicates the possibility that some sanitary sewers could be leaking.

We are doing an effective job, but we can always do better. We look forward to further analysis and recommendations from our engineers that we anticipate will be part of Review Point #2.

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