



CUYAHOGA COUNTY DEPARTMENT of PUBLIC WORKS

Dear Olmsted Township Resident:

We at the County are sorry to hear you continue to have basement flooding issues. As explained at the April 14, 2011 public meeting, the drainage issues affecting Olmsted Township are substantial and need a regional approach to correct. A detailed drainage study of the entire drainage basin will be performed in the fourth quarter of 2011.

This study will provide answers to help determine where the storm water is coming from, where the problem areas are, and what work has to be performed to reduce and hopefully minimize the flooding issues the township has experienced. The study will be used to develop a storm water master plan to assess flooding issues in Olmsted Township.

The study will involve: a review and assessment of existing drainage infrastructure; surveys and/or interviews with county and township staff concerning previous flood complaints; interviews or surveys of township residents regarding observed flooding problems, hydrologic (rainfall / runoff) modeling of the off-site watersheds contributing surface water runoff to the township and the watersheds within the township; hydraulic modeling of the surface water systems within the township; and the preparation of an Olmsted Township Area Wide Drainage Study report that will summarize the modeling effort; list and prioritize the surface water flooding problems within the township; and list and prioritize potential projects to mitigate the identified surface water flooding problems within the township

This process will take some time to develop and implement. We are trying to balance the costs of this work so the township can receive the maximum return on these investments which are drawn from the limited resources currently available to the township.

While we have been developing the above analysis, we have also made progress to determine causes and identify possible solutions. The soils deposited in this area as the glaciers retreated left us with significant challenges. The "*Soil Survey of Cuyahoga County, Ohio*" developed by the United States Department of Agriculture Soil Conservation Service indicates the majority of the soils within the township are very silty clays with extremely slow permeability which contribute to the flooding problem.

We will work to determine what the source of flooding is, and locate where it is flowing into the sanitary sewer. Our investigation to date indicates that in nearly all instances of the hundreds of field test performed, we have found the sewer mainline is not leaking, the manholes are not leaking, and the laterals within the Right-of-Way are not leaking. This leaves only once source of storm water entry into the system, the connection at the house.

To help us find these specific locations, we will be performing an additional study to identify specific infiltration locations and causes of infiltration through the home owner's connection at each accessible residence in the township. Once an improper storm water infiltration is identified, we will work to develop a solution to the problem.

The second study will be performed by a consultant who will conduct field investigations to identify the source of clean water, not limited to storm, potable, or ground, that is infiltrating the sanitary sewer lines in Olmsted Township. The "Project" area flows to North Olmsted at the east end of Elisabeth Lane. The conclusion of the field investigation shall identify all sources of clean water entering into the sanitary sewers and recommend corrective action.

The flow into your basement may be a separate issue but is a result of, and characteristic of the soil conditions and drainage topography prevalent throughout the township. The depth of your basement being 6 to 8 feet below the water table may also be a contributing factor if the basement waterproofing and foundations drains have failed or were not designed to meet the demands of these conditions.

These are issues that will be investigated further during the comprehensive studies planned to identify and hopefully offer solutions to all locations that have an adverse affect on the overall sewer system located in the township. Additional information will be presented in future public meetings scheduled.

At this juncture, this is the extent of the information that we have to share until we gather further information following the study. We acknowledge the difficulties that you may have been experiencing and are working towards a satisfactory resolution for all concerned.

Bonita G. Teeuwen, P.E.
Director of Public Works