

MWRD Stormwater Management Needs an Equity Fix

April 2024 by Richard Lanyon

It has been alleged by some that the Metropolitan Water Reclamation District of Greater Chicago's Stormwater Management Program is not serving all communities. Setting aside that debate, what has the MWRD's program accomplished? The Watershed Management Ordinance has held a tight rein on development to assure that development will not exacerbate flooding.

Where flood protection capital improvements are needed, administration of Phases 1 and 2 of the MWRD's Stormwater Management Program reached out to serve all municipalities. Phase 1 involved preparation of watershed plans and implementation of projects to address regional flooding problems. Phase 2 served all municipalities that requested assistance to address local flooding problems. Phase 2 included working with municipalities to purchase homes that cannot be economically protected from flooding.

"Requested" is a key word. Communities in Phase 2 had to request assistance; they had to ask.

A community might not ask if they didn't know of their flooding potential, or if they didn't have the resources for local support of a MWRD funded flood protection project, or if they thought their flooding problem was caused by someone else.

Yet flooding persists. September 2023 flooding in Calumet City brought forth news that some of the city's pumping stations were not performing properly. July 2023 flooding in the Austin neighborhood of Chicago and the suburbs of Berwyn and Cicero raised questions about the adequacy of local sewer systems to handle more intense storms and deliver excess stormwater to MWRD's Deep Tunnel. Excess stormwater was filling basements and standing in local streets rather than filling MWRD's McCook Reservoir.

Have municipalities, including the City of Chicago, paid attention to the adequacy of their local sewers? Planning is needed at the municipal level to improve local sewers to safely handle intense rainfall events and deliver excess stormwater to MWRD stormwater facilities. What can MWRD do to assist? As the regional stormwater management authority, MWRD needs to guide municipalities to properly care for local stormwater management infrastructure.

MWRD should launch Phase 3, Municipal Stormwater Management Planning (MSMP) to assure that each municipality has assessed their local combined, relief, and storm sewers and plan for needed improvements. MWRD should offer guidance and assistance in conducting assessments, planning for system improvements, and finding financial resources for hiring consultants and constructing improvements. Improvements to manage excess stormwater can be for conveyance and/or local detention storage.

Basic elements for municipal stormwater management planning include definition of stormwater infrastructure in a geographical information system, and creation of a hydrological and hydraulic mathematical model to calculate rainfall runoff inflow into and through the sewer infrastructure.

A requirement for MSMP can be added to the Watershed Management Ordinance to allow for enforcement of the requirement for municipalities that choose not to participate. However,

enforcement action should only be taken as a last resort for recalcitrant municipalities. Participation in the MSMP program can be contingent on receiving any MWRD assistance or funding to address local flooding.

The institutional infrastructure is already in place to implement Phase 3 through the MWRD's Engineering Department, Watershed Planning Councils, and support of other agencies, including US Army Corps of Engineers, Illinois Office of Water Resources, Chicago Metropolitan Agency for Planning, etc.

Besides municipalities, homeowners whose homes need flood proofing need assistance. Contingent upon a municipality's participation in the MSMP, the MWRD, in cooperation with a municipality, should offer guidance and financial assistance to homeowners who need overhead sewers, sealing leaking foundation walls, securing low-level entryways, etc. Funding assistance can be sought from the USEPA, US Army Corps of Engineers, Department of Housing and Urban Development, Illinois EPA, Illinois Department of Commerce and Economic Opportunity, etc.

An example is the replacement of potable water lead service lines. Federal and state funding is available to protect homeowners' drinking water. Protection against sanitary sewer backup is just as important and should receive equivalent attention. It is more cost efficient to keep a basement dry than it is for FEMA to reimburse homeowners the cost to replace appliances, carpeting, furniture, heating systems, walls, etc.

Municipal stormwater management planning does work and the City of Evanston and Village of Skokie are good examples. Both have recently completed updates to their stormwater management plans. Evanston completed their Stormwater Master Plan in June 2023 and posted it on their website. A synopsis is on the dicklanyon.com website. Skokie's plan will be finalized in 2024. All municipalities should have stormwater management plans updated every 20 years.