

## City of Springfield September 20, 2010 Flooding Meeting Report

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On Monday, September 20, Mike Norris and Tom Fager spoke about recent flooding in Springfield. Also in attendance were Aldermen Gail Simpson, Chris Thielan, Sam Cahnman & Mark Mahoney.

### Background

In many neighborhoods, about 120 miles of storm and sanitary sewers are combined. These sewers were planned to handle a "5-year event", which means the worst rainfall generally expected in an average 5 year period. When rainfall exceeds the capacity of the storm sewers, it backs up into streets by design. The May 24 rain that caused flooding throughout Springfield was considered a 100-year event, and the August 20 rain a 70 year event. The likelihood that a home or area will experience flooding is determined by the amount of rain in a particular period of time, the duration of the downfall, the ground saturation at the time, and other factors such as the amount of non-absorbing surfaces in the area, the condition and size of sewers in the area and the level of a particular basement drain relative to neighboring houses.

The City of Springfield Public Works Department lacks a sufficient budget for repairs & replacement. The Water Usage Charge on CWLP bills generates around \$5m/year. The department received \$4m this year for sewers after requesting \$40m. \$1.5m of that \$4m is being used for maintenance & cleanout. Crews clean sewers every weekday, but with current staffing, there is a 10-12 year cleaning cycle, meaning a typical sewer gets cleaned once every 10 years.

A relatively recent requirement applies to construction projects that increase non-porous surfaces such as parking and roofs. The rate at which water enters storm sewers must be slowed by installing caching systems and releasing storm water into the public storm sewers at no more than the previous rate. The Blessed Sacrament expansion project, for example, provides large drainage areas for holding runoff. Public Works keeps the City informed about effect of development on aging infrastructure and the impact to older residential and business areas, but result has not always been positive.

### What the City can do

- When streets are flooded or multiple calls are received, the Public Works crews are called in and work to clear roadways and investigate flooding.
- The number of people calling is used to assess the severity of the problem, to determine who gets resources first, and to identify where system-wide problems are likely to exist instead of just one homeowner with a blocked drain. As a result, **the message from the City Public Works Department is to CALL even if the dispatcher may not be happy to hear from you.**
- Calls are logged and crews are assigned to flooded areas based on the perceived severity of the problem. Less severe problems may not be addressed until the next day or several days after.
- Crews will initially look in the sewer to determine if the flow is normal or backed up. If the flow is backed up, then crews will look downstream with video cameras to identify possible blockages or collapses and correct them.
- If no acute problem is found with the system, then it's likely that the event was caused by sanitary and/or storm sewers being overfilled during a particular period of time.
- While there is a 10-year plan to rehabilitate or replace old sewers, it is not funded.
- Even if old sewers are replaced, they would not be able to handle a 100-year event and some areas will still experience flooding.
- Funding for replacement would need to be approved by Springfield Alderman and would most likely require a tax increase or an increase in the water usage charge on CWLP bills.

- Alderman Simpson commented that Springfield home and property owners have enjoyed one of the lowest tax rates in Illinois. As a result of the lack of funding, infrastructure maintenance and improvements have not been done. The current flooding is one example, and we can expect more problems in the future until we choose to begin funding improvements.
- The Public Works Department regularly receives information on federal grants for infrastructure improvements such as sewers and would apply for any such grants. Mike Norris indicated that currently there are none available.
- Springfield Metro Sanitary District study by CMT will be complete in 2012, and may force the City to address problems with combined sewer overflows sending contaminated runoff into waterways feeding the Sangamon River. See Rachel Wells' Illinois Times article for more information at <http://www.illinoistimes.com/Springfield/article-7773-storm-over-sewers.html>.
- Attendees requested information on the results of video camera tests already conducted on areas flooded in May and August. Aldermen Thielan suggested posting the test results and other flooding information on the City website. An attendee noted that the after-hours phone number to contact the department in case of flooding is not on the City website. City representatives will follow up with letters to those in attendance.

#### **What homeowners can do to help themselves**

- Homeowners with lower basements are more likely to have water and/or sewage back up.
- Homeowners who have experienced flooding have several options to prevent water from entering their home and causing damage:
- Identify the source of the flooding. This is important in determining the solution.
- If water is entering through seepage or because of blockages in the line running from the house to the sewer connection, you must hire a contractor to correct the problem.
- **If water or sewage is coming up through your basement drain or basement fixtures, call the Public Works Department even if someone else near you has already called. The daytime number (before 3pm) is 217-789-2244, and the after-hours number is 217-789-2246.**
- **Plug the basement drain**
- **Install a standpipe**
- **Install a sewage ejection system.** The City of Springfield will pay for 15% or \$600 for approved sewage ejection systems. Call Public Works at 217-789-2244 for more information.

#### **What everyone can do to help**

Everyone in areas prone to flooding can help. Here's how:

- **Remove all connections between storm water systems and sanitary sewers.** Downspouts and footing tile should not be connected to the sewer. This significantly increases the possibility of sewer backups during rains that exceed the current 5-year event capacity in many neighborhoods.
- **Keep street intakes clean so water can flow freely into storm sewers.**
- **Slow water from entering storm sewers by using rain barrels and water gardens and limiting paved areas.**
- **Elect & support public officials who are willing to maintain and repair infrastructure and to embrace innovative solutions to longstanding problems.**