

Why Stormwater is Important



5/18/2015



Armitage and Villa



East Madison Street



Sugar Creek - S Villa Ave



Willowbrook HS - Sugar Creek

What is Stormwater?

- Runoff that results from precipitation
- Discharges directly or indirectly to local water bodies
- Increasing impervious areas (driveways, parking lots, etc.) decrease the ability of water to soak into the ground, thus increasing the potential for flooding

Sewer System Background

- Significantly developed in the 1920-50's, and originally built with a combined sewer system
- In the late 1970's, the Village began to separate the sanitary and storm sewer systems
- The Village is still separating the sanitary and storm sewer systems

Drainage Overview

- Village area = 3,000 acres (ac)
- Southern portion of the Village drains to Sugar Creek (870 ac)
- Northern portion of the Village drains to Salt Creek (2,130 ac)
- Combined Sewer Area = 900 ac
- Separate Sewer Area = 2,100 ac



Stormwater Facilities

- 59.7 miles of Village maintained storm sewer pipes
- 1,387 manholes
- 2,808 inlets/catch basins
- 9 miles ditches/culverts
- 4 detention basins
- 2 riverine floodplains
- 1 wet weather flow treatment facility



Why does stormwater have to be managed?

- To protect homes, properties, the environment, streams, and rivers from damage due to flooding, pooling, erosion and harmful pollutants
- Even if your property hasn't flooded, the stormwater must be managed so it does not contribute to flooding in other areas

Recent Storm Events



- **September 12-14, 2008**
 - 7.5 inches in 24 hours
- **July 23-24, 2010**
 - 6.84 inches in 12 hours
- **April 17-18, 2013**
 - 9.41 inches in 24 hours

Why Stormwater Issues are Difficult to Solve

- What is a practical level of flood protection
 - Cost of larger pipes
 - Physical constraints (soil, grades, existing utilities)
 - Lack of space for surface detention
 - Prohibitive cost of underground detention
 - Proximity to bodies of water

Long Term Solutions

- Determine optimal level of protection
- Identify cost effective mitigation projects
 - Regional storm detention areas
 - Provide/improve storm outlets
 - Improved overland flood routing

Recent Flood Mitigation Projects

- Projects
 - Division Street Sewer Separation
 - South Villa, St. Charles Road to Madison
 - South Villa, Madison to Roosevelt
 - Madison Storm Sewer
 - Cornell Avenue Project
 - Pleasant Avenue Project
 - Station Area Detention Basin
- Cost
 - Over \$13 million

Current Studies

- **The DuPage County performed a study of the Sugar Creek Basin**
- **The Village just completed 2 studies**
 - Sugar Creek Basin
 - 4 proposed projects
 - Total cost upwards of \$11 million
 - Salt Creek Basin
 - 13 proposed projects
 - Total cost upwards of \$46 million

Questions?

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