City of Geneva Comprehensive Stormwater Study



Metropolitan Mayors Caucus 10-19-2021



Geneva Stormwater Study Overview

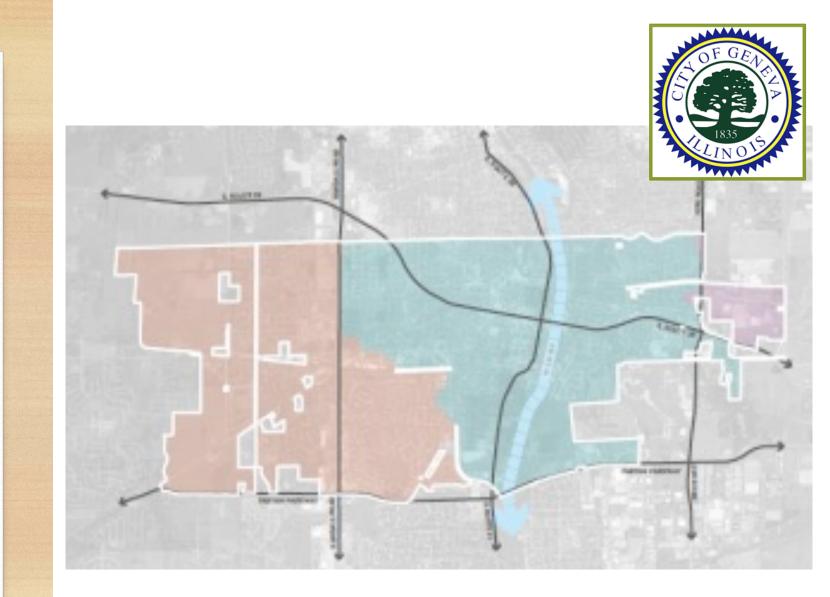
- Study Initiated March 2020 WBK Engineering engaged to collaborate with City staff.
 Completion projected
 December 2021.
- Objectives
 - Public Engagement
 - Citywide Evaluations
 - Capital Plan deliverable
 - Foundational / Baseline
- Improved decision making of resource allocation





Community Drainage Overview

- Kane County
- 9.75 sq.mi.
- Two Primary watersheds
- Fox River
- Growth 1950-1960 & 1990-2000







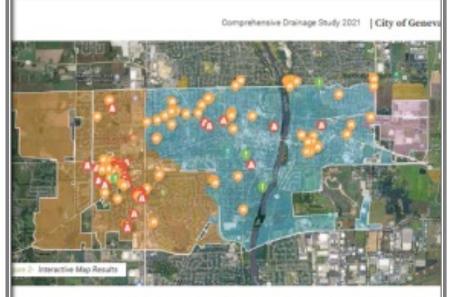
Drainage Evaluation Findings

- No severe stormwater problems compared to other metropolitan municipalities
- Fox River not a significant community concern
- Concerns can be found throughout the City in both mature and newer neighborhoods



Public Outreach and Engagement

- •Web Based Mapping Platform
- •Open House
- •City Work Order System
- •May 20, 2020 Rainfall Event



DATA COLLECTION & ANALYSIS

Public Engagement engagement plays a critical role in documenting process faced by residents and others in the switty. Ultimately, the City's ability to address those ms through an organized capital improvement plan on an effective public outreach process and on the y of feedback received.

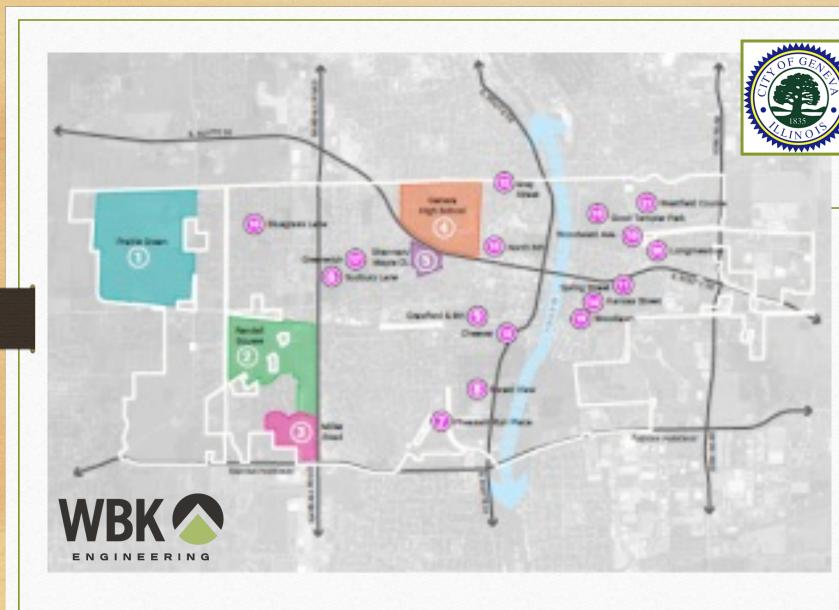
riginal scope of work identified a two-phased ach for public engagement, face-to-face oration between City Staff/Consultant Team with ens and other public stakeholders us a traditional smeeting (i.e. "Workshop") and employment of a assed tooBox to taise awareness about the Plan and it consistent feedback over a predetermined time evia digital mapping and surveys.

rization of the Plan in Pebruary of 2020 occurred at start of the COVID pandemic. At this time, priorities d to initiate the use of the web-based portal versus tional public-meeting to respect public health noe and social distancing protocols required by the Veb-Based Community Engagement VBK utilized "Social Physion", an enline community repagement platform that offlers a outcomicable ange of tools and capabilities to help develop a omprehensive approach to understanding and hanaging existing drainage and inhastructure anditions and the challenges they present within the City's limits. The online tool allowed residents nd project stakeholders an opportunity to share her opinions and feedback in a forum that could not themate each dwe to the origoing pendemic.









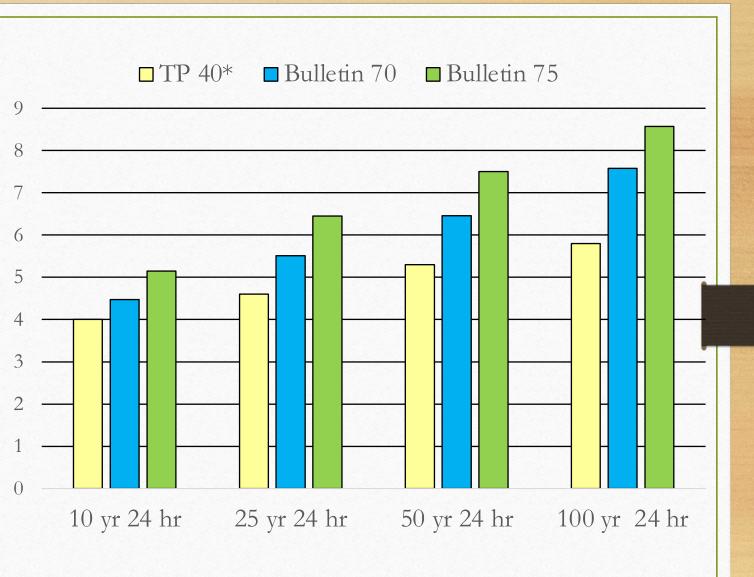
Drainage Study Areas

•21 Specific Drainage Concerns / Areas identified

- •Location Specific and neighborhood
- •Range of complexity
- •Hydrologic & Hydraulic Analyses as needed
- •Alternatives
- •Budget Estimates

Rainfall Data Comparison

- Three Primary sources
- Rainfall Events
- 100 YR 24 Hr +13%, +48%
- 10 YR 1 Hr +15%, +21%





Growth and Development Patterns

Census	Population	Change
1860	997	-
1950	5,139	4,142
1960	7,646	2,507
1970	9,049	1,403
1980	9,881	832
1990	12,617	2,736
2000	19,515	6,898
2010	21,495	1,980
2019 (est)	21,809	314



Bulletin 70 – 1989 Circular 173 – 1990 Bulletin 71 1992

Kane County Stormwater Ordinance 2000-2001

Source: U.S. Decennial Census





Value to the Community



- Improved Decision Making
- Proactive Capital Planning
- Risk Mitigation
- Asset Management
 Approach WB

