City of Grosse Pointe Park
June 2021
Flooding Townhall

July 8, 2021
6:00 PM
Meeting Agenda

Introductions and Meeting Overview

Key Information for Residents
- Community Updates
- Claims and Documentation
- FAQ

Status Update
- Damage Report
- Cleanup Response

What we know about the event
- Sewer System Performance and GLWA Update

Public Comments and Questions
Introductions

**Elected Officials**
- Mayor Bob Denner
- City of Grosse Pointe Park City Council

**City Administration**
- City Manager Nick Sizeland
- DPW: Patrick Thomas and Tom Jenny
- Public Safety: Jim Bostick and Bryan Jarrell

**Consultant Staff**
- Jake Howlett - City Attorney
- Tom Landa – McGraw Morris
- Patrick Droze – Engineering Consultant (OHM Advisors)
Meeting Protocols

• **Cameras and Microphones:** We have a large group, cameras and microphones will be turned off for non-presenters.

• **Facebook Live:** Comments received on facebook live will not be responded to.

• **Question and Answer Section:** Chat feature or “raise hand” can be used to gain attention of Moderators.
  • Keep to one question or comment. 3 minutes per person.
  • Written comments may be submitted to clerk@grossepointepark.org
  • Answers will be posted to a FAQ document
Information for Residents

Grosse Pointe Park - Flooding Town Hall
Frequently Asked Questions

Available after the meeting at www.grossepointepark.org
Assistance and Claims

• Complete the PA 222 Damage Assessment claim form and return with 45 days of event. Use form from [www.grossepointepark.org](http://www.grossepointepark.org) (not DWSD or GLWA).
  - Document damaged materials with photographs
  - Keep receipts of repairs and damages
• Federal Disaster Designation pending (Officials visiting communities this week)
• City will learn in coming days about FEMA Disaster Declaration and continues to advocate on behalf of the Community.
Status Report
Federal and State Assistance

- State of Michigan declared a State of Emergency on 6/26
- FEMA on site this week to evaluate damage and considering declaring a Federal Disaster Area.
- City Administration has been in contact with Wayne County, State Officials and Federal Officials since 6/26 and will continue to provide reports.
- These disaster declarations can assist Communities by providing support with damage claims and improvements to reduce future risk.
Cleanup Report

Flooding reports for over 3,000 homes

50+ vehicles working daily to remove bulk waste

156 Tons of waste removed daily (normal conditions 23 tons)
Bulk Waste Pickup

Streets completed as of 7/8/2021

Phasing for Next Round of Pickups
June 25/26
Event Summary
Event Summary

• Rainfall Information
• Sewer System Overview
• GLWA Performance
June 25/26 Event

- 8.19” of rain over 24-hour period (GPP Rain Gage)
- 7.33” during a ~5-hour period (10:50 pm to 4:00 am)
- Nearly continuous rainfall (intensities at times exceeding 1” in 15 minutes)
- 25% of annual precipitation received in one day
- Intense periods of storm register as greater than a 1,000-year storm events.
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Precipitation Volume over Time Compared to Atlas 14 Frequency Estimates for Grosse Pointe Park

COE = chance of exceedance

Duration (hours)

Precipitation Volume

0.25 hr, 0.25 in
0.5 hr, 0.82 in
1 hr, 1.56 in
3 hr, 6.89 in
6 hr, 7.33 in
12 hr, 7.88 in
24 hr, 8.19 in
0.5 hr, 2.23 in
0.5 hr, 2.16 in
1 hr, 3.60 in
2 hr, 5.83 in
6 hr, 4.38 in
12 hrs, 4.99 in
24 hrs, 5.78 in
3 hr, 2.81 in
3 hrs, 2.81 in
6 hrs, 4.29 in
6 hrs, 4.38 in
12 hrs, 4.45 in
0.25 yr, 1.33 in
1 hr, 2.27 in
1 hr, 2.24 in
2 hr, 2.46 in
3 hr, 3.16 in
6 hrs, 4.49 in
10 yr, 10% COE
1 yr, 99% COE
2-yr, 50% COE
5-yr, 20% COE
10-yr, 1% COE
25-yr, 4% COE
50-yr, 2% COE
200-yr, 0.5% COE
500-yr, 0.2% COE
1,000-yr, 0.1% COE
Grosse Pointe Park Sewer Systems

Wastewater (Sanitary)
Former combined system, majority built between 1920s and 1940s. Converted to sanitary in 1990s.
System drains to main pumping station on Jefferson and Maryland
6 pumps (3 sanitary and 3 wet weather)
Discharges to GLWA

Stormwater
Dedicated, citywide stormwater system built in the late 1990s
Manages catch basins that capture roads, driveways, sidewalks, yards and roof tops
6 large stormwater Pumps
Discharges to Lake St. Clair at Patterson Park
Stormwater System

- Catch basins drain streets, parking lots and driveways.
- Separate sewers convey flow to Patterson Park Pumping Station and to Lake St. Claire
- Pipes designed to convey 10-year storm.
- System designed to manage 100-year storm with minor street flooding within curb lines.

Impact of Event

- All 6 pumps were operational through the event duration.
- The sewer pipes were completely overwhelmed during the event due to intensity.
- Widespread street flooding due to system surcharge.
Sanitary Sewer System

• Sanitary system serves building plumbing as well as a foundation/footing drains.
• Small number of rear yard or alley catch basins remaining due to utility conflicts.
• Systems are typically designed to manage the flow for at least the 25-year, 24-hour event.

Impact of Event

• All pumps operated continuously through the event and into Saturday afternoon to dewater the system.
• Wet weather inflow flooded system wet well to maximum depth.
• Downstream receiving GLWA sewer system surcharged.

Surcharging Manhole at Jefferson
Impacts of GLWA Operations

• Grosse Pointe Park discharges sanitary sewerage via pumps to GLWA’s Detroit River Interceptor.

• The City’s ability to dewater the pump station wet wells is affected by water surface elevations within GLWA system.

• Observations during the storm show the downstream sewer system was likely surcharged.

• Size of storm exceeded GLWA system basis of design and overwhelmed east side sewer system. Several pump stations did not pump at maximum capacity.

• GLWA is performing an after-event analysis to quantify system operation.
Key Grosse Pointe Parks Upgrades and Investment after 2016

Pump Station
• Elevating of transformer systems within sanitary pumping station and all non-submersible electric components above possible flood level.
• Modernization of instrumentation, alarm/monitoring, dual operating controls system (remote and manual).
• Upgrade of pumps (1 new and 2 rebuilt) and upgraded backup power systems.

Sewer System
• Smoke testing and system review to identify major inflow/infiltration sources (unknown catch basins, illicit connections and downspouts).
• Evaluation of sewer system and extreme relief concepts.
• Submitting extreme relief concepts to EGLE for review.

*Nearly $1M of investments into system.*
Next Steps
Next Steps

**Short Term (1-3 weeks)**

- Complete cleanup of bulk materials.
- Compile documentation of claims received.
- Work with insurance and Government entities.
- Advocating for a full investigation of GLWA operations.
Next Steps

**Long Term**

**GLWA**

- Request GLWA include provisions for full backup power at pumping stations and improved communication protocols with member communities.
- Collaborate with system resiliency analysis with peer Municipalities and reinforce coordinated emergency response plans in place for future events.

**CITY**

- Work with regulatory agencies to build case for emergency relief points within local systems to prevent basement flooding
- Plan for accommodating increased intensity in infrastructure systems.
- Consider additional requirements for new-build homes to manage stormwater.
- Continue investigations to identify and disconnect illicit connections and downspout discharge to sanitary sewer; specifically alleys and parking lot areas.
- Search for and utilize additional funding opportunities.
Community Comments
Community Comments

• Members of the public wishing to make a comment will need to utilize the raise hand function in the Zoom app or press *9 on their telephone keypad. Public participants will be added to the queue list in the order their hand was raised.

• When the public comment period begins, a staff member will call on public participants by either the last four digits of your phone number or your participant name listed in the Zoom app. Public participants will be called in the order they were added to the queue list. Public participants who do not respond within ten seconds of being called on will be skipped.

• This method will be continued until all public participants have had the opportunity to comment. All comments/questions shall not exceed three minutes.
Raising Hand on Zoom

If dialing in, press *9 to raise your hand
Community Comments