



**City of Grosse Pointe Farms
Public Informational Meeting
September 15, 2011**

- ❖ **Introductory Statement**
Mayor James Farquhar
- ❖ **Overview of Storm and Sanitary System**
Tom Biehl, City Engineer, Hubbell, Roth & Clark, Inc.
- ❖ **Review of Flooding Events**
City Engineer Tom Biehl, Hubbell, Roth & Clark, Inc.
- ❖ **City Response to Flooding Events**
City Manager Shane Reeside
- ❖ **Citizen Submitted Questions**
- ❖ **Public Questions**



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Overview of Storm and Sanitary System

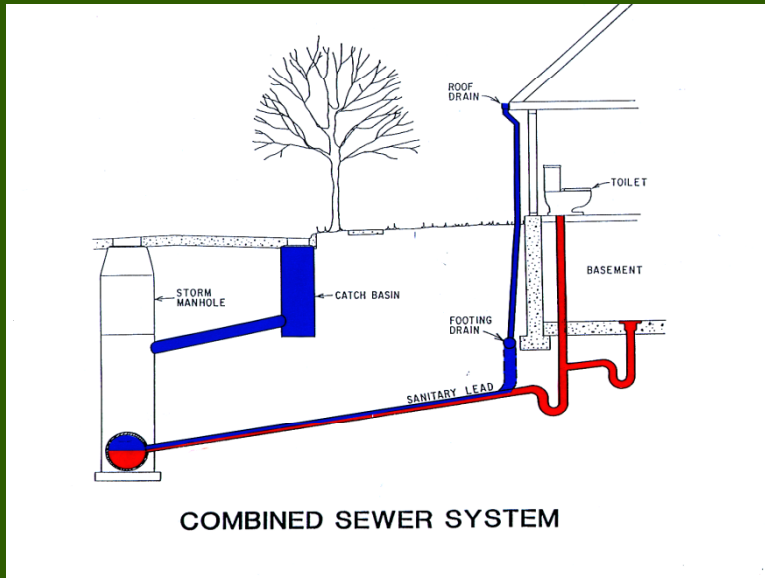
- ❖ The System has been in continuous operation since its inception in the 1920's
- ❖ There were basement flooding episodes in 1947 and again in 1954 which prompted the addition of Storm Pumps No. 7 and No. 8 to attempt to avoid future flooding in the Inland District
- ❖ There was a relief sewer constructed in 1954 near Fisher Road
- ❖ There were no major system basement flooding issues between the late 1960's and 2011; however, this year there have been two (2) incidents
 - May 25th as a result of record rainfall on saturated ground and power fluctuations due to storm conditions.
 - September 10th as a result of the apparent failure of a city transfer/relay switch for unknown reasons which are being investigated.



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Combined Sewer System Schematic

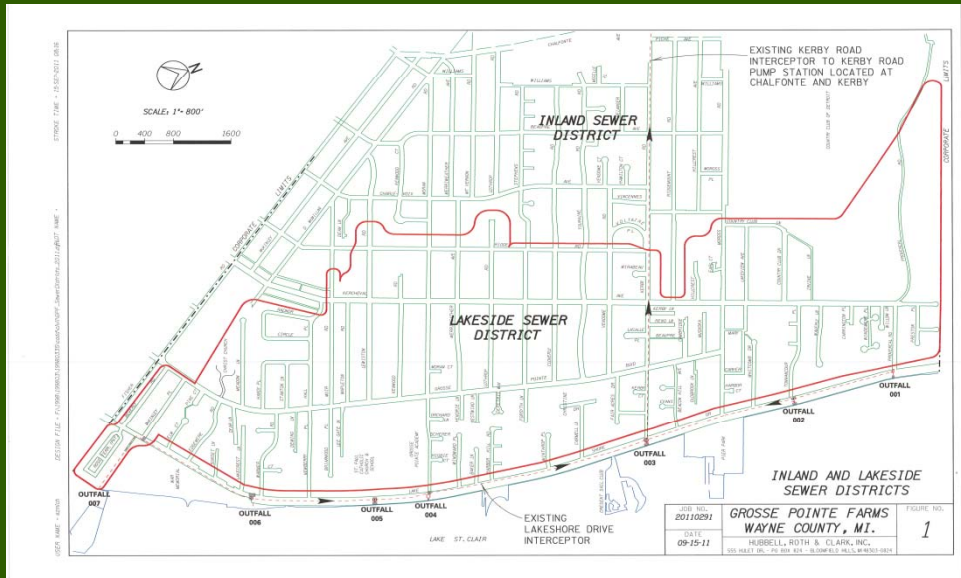




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Inland/Lakeside Sewer Districts

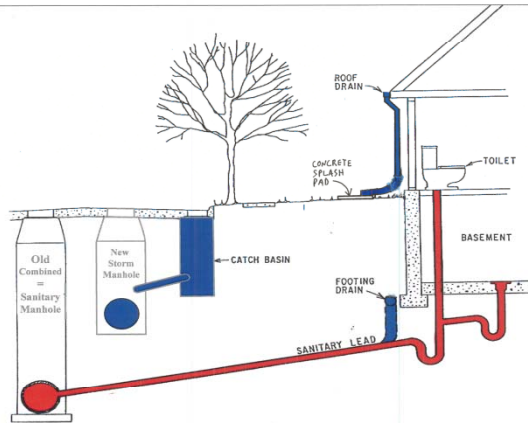




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Separate Sewer System Schematic



Old Combined = Sanitary
New = Storm



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City of Grosse Pointe Farms Pump Station History

- | | |
|---|---------------|
| ➤ Kerby Road Pump Station on line | 1929 |
| ➤ Alterations to the Pump Station (Wayne Cty.) | 1942 |
| ➤ Storm Pumps No. 7 and 8 added at Kerby Pump Station | 1954 |
| ➤ Pumps Nos. 1, 2 and 3 Replaced | 1960's |
| ➤ Pump Station Electrical Upgrades | 1992 |
| ➤ Generator for Pump Nos. 1, 2 and 3 (after regional power grid failure) | 2003 |



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**Rainfall Event
May 25, 2011**

- **One Hour Peak Rainfall.....2.70 inches**
- **Eighteen (18) Hour Total Rainfall.....4.20 inches**

(As recorded at nearest Rainfall Gauge at the Country Club of Detroit)

- **Average Monthly Rainfall – MAY.....3.05 inches**
- **Actual Total Rainfall – MAY, 2011.....7.90 inches**

Records indicate that over three (3) inches of rainfall fell in the ten (10) days prior to the May 25, 2011 event. Thus, the ground was saturated, increasing the storm runoff from this event.



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Action Taken After May 25th

- ❖ Met with DTE
- ❖ Follow-up on downspout inspection program
- ❖ Inspect catch basin covers in the inland district to verify that restricted covers are in place.
- ❖ Videod and cleaned 10,000 linear feet of sewer Lines
- ❖ The City and City Engineer met with DEQ regarding a study of the pump station capacity and applied for (S-2 Grant)



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Action Taken After September 10th

- ❖ Met with DTE
- ❖ DTE is performing a capacity study (Lines 32T and 191T)
- ❖ DTE crews are surveying all trees along the two primary lines (Lines 32T and 191T)
- ❖ Installing electrical monitors at the pump station to test consistency and quality of power
- ❖ Commitment to performing a comprehensive study of the Pump Station
- ❖ Coordinating with DTE the installation of a temporary generator for pumps No. 7 and No. 8
- ❖ Pump Station manned 24/7