CITY OF WHEATON Illinois

ENGINEERING DEPARTMENT
303 W WESLEY STREET, WHEATON, IL, 60187
630.260.2065 | www.wheaton.il.us

MEMORANDUM

TO: The Honorable Mayor and City Council

FROM: Joseph E. Tebrugge, Senior Project Engineer

DATE: March 6, 2020

SUBJECT: **City of Wheaton Flood Resiliency Investigation - Flood Protection Program Discussion**

In 2016 City Council approved moving forward with performing Flood Studies in the remaining 14 of 17 Flood Prone Areas and surveying in the Floodplain to determine what primary structures receive overland flooding. This work was done in accordance with the 2012 Overland Flooding Mitigation Action Plan and was in direct response to moving forward with the City Council's Strategic Goal 2C as can be seen below.

<table>
<tr><td colspan="2">Strategic Priority: QUALITY INFRASTRUCTURE
Maintain reliable infrastructure systems that support the high level of community expectations. Systems are delivered equitably and appropriately.</td></tr>
<tr><td colspan="2">Desired Outcome: Policy statement addressing levels of flood protection sought for structures</td></tr>
<tr><td colspan="2">Key Outcome Indicator (KOI): The number of flood protected structures after a rain event

Target: 100% of structures are flood protected after an established rain event</td></tr>
<tr><td>Plan to Achieve Target: Continue to progress through the studies on flood prone areas and complete a Benefit Cost Analysis (BCA) on affected areas. Provide recommendation/options to the City Council for determining degree of flood protection desired.</td><td>Lead Dept: Engineering

Support Dept: All Departments</td></tr>
</table>

The Flood Prone Area studies and Floodplain surveying are now complete as per the standards set in 2010 and I am pleased to bring to City Council the first of a two-part presentation on the results of that work.

The First Presentation (March 9th, 2020) will focus on two major items:

1) Provide important background information on storm water throughout the history of the City of Wheaton
2) Show results on where Overland Flooding is occurring in the City

The Second Presentation (March 23rd, 2020) will focus on two additional major items:

1) Show results on what projects were proven to be most cost effective in each area
2) Provide project cost approximations for various storm events to aid City Council in developing a target flood protection level as set in Strategic Goal 2C.

CITY OF WHEATON
FLOOD RESILIENCY INVESTIGATION

Flood Protection Program Discussion Part 1

Joseph Tebrugge – Senior Project Engineer Development/Stormwater

Kris Dunn – Project Engineer Stormwater

Department of Engineering

March 9th, 2020

CITY OF WHEATON
FLOOD RESILIENCY INVESTIGATION

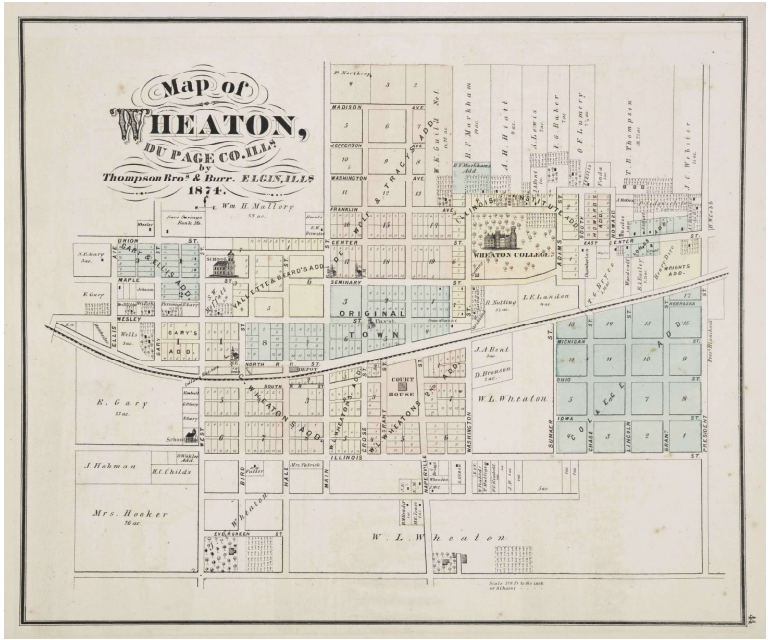
- Why does Wheaton FLOOD
- Where is the FLOODING

WHY DOES WHEATON FLOOD?

The City was founded in 1859 and has expanded, improved, and renewed every year up until current day. Throughout a vast majority of that time there were no stormwater ordinances to guide and regulate that development to ensure proper stormwater runoff control. This resulted in development occurring in areas where stormwater has no choice but to collect. These areas are currently known as Floodplains and Flood Prone Areas.

1859

The City of Wheaton was founded in 1859. At that time, the area that would become the City was a headwater land mass with numerous swampy depressional areas and no defined creeks or watercourses



1869

Natural Drainage Law of Illinois

The right of the owner of the superior heritage to drainage is based simply on the principle that nature has ordained such drainage, and it is but plain and natural justice that the individual ownership arising from social laws should be held in accordance with pre-existing laws and arrangements of nature. As water must flow, and some rule in regard to it must be established where land as held under artificial titles created by human law, there can clearly be no other rule at once so equitable and so easy of application as that which enforces natural laws. There is no surprise or hardship in this, for each successive owner takes with whatever advantages or inconveniences nature has stamped upon his land.

1879

<u>Farm Drainage Act</u>

Established the authority to create drainage districts “to create drainage for sanitary and agricultural purposes…”. This allowed for the eventual creation of the Union Drainage District #1 and #2 which were taxing bodies used to generate funds for drainage

1890-1900

Union Drainage Ditch #1 and Union Drainage Ditch #2 were constructed by men and mules through the City to provide many areas the means to drain in order to create additional farmable land. These Drainage Ditches are now known as Springbook#1 and Winfield Creek and are the major drainage routes in the City of Wheaton.

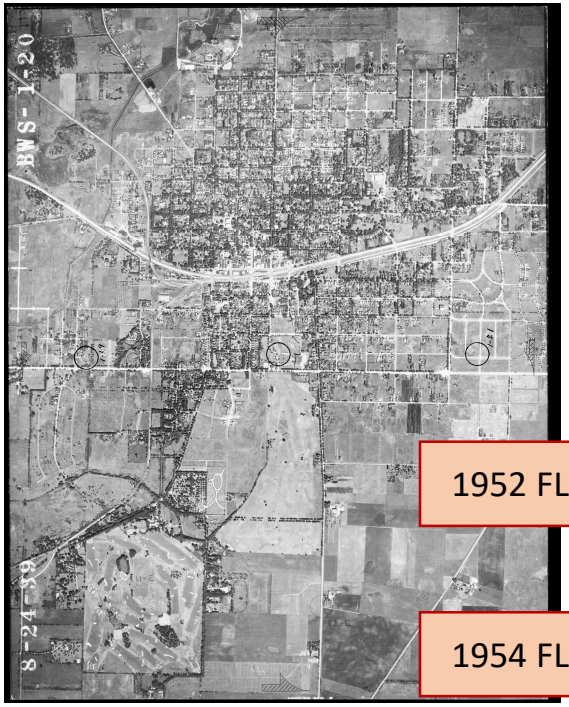
Once the Union Drainage Ditches were constructed it allowed farmers to install drain tiles on their property to the drainage ditches which also created additional farmable land. However, it also created the false sense of security that these depressions were dry lands. Since all pipes are easily overwhelmed by intense rainfalls this sense of security was proven false with many rainstorms.

1900

1904 – CHANNEL IMPROVEMENT

1910 – CHANNEL IMPROVEMENT

1919 – CHANNEL IMPROVEMENT



1939

DEVELOPING OUTWARD
The City continued to develop and expand outwards. As areas developed infrastructure was installed by developers which for this time period frequently included storm sewers but they were not required by code. At this point the City had spread closer to the Union Drainage Ditches and Flood Prone Areas, but mainly remained away from most areas where flooding develops.

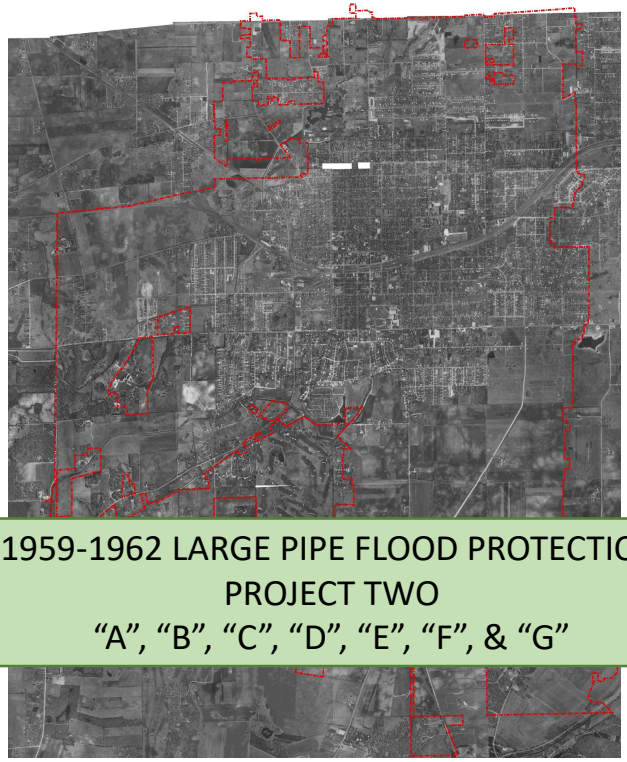
1952 FLOOD

1953-1956 LARGE PIPE FLOOD PROTECTION PROJECT ONE
"A", "B", "C", "D", & "E"

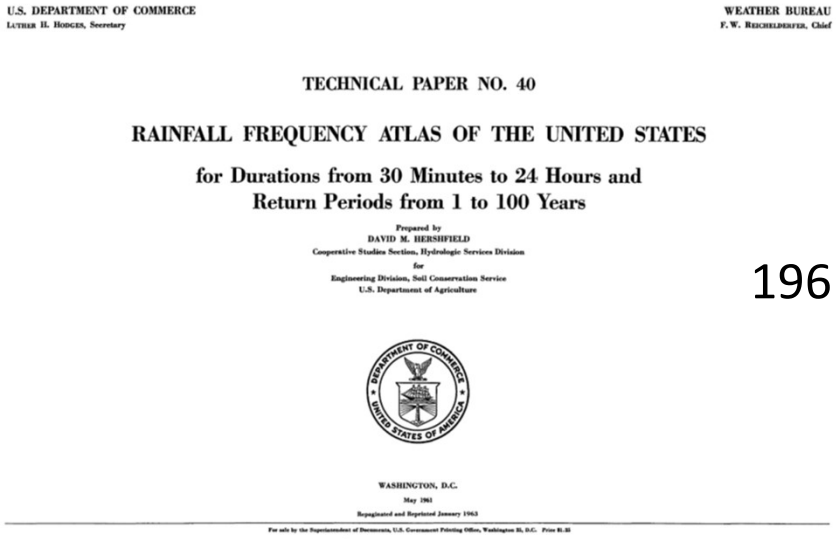
1954 FLOOD

The City continued to develop and expand outwards. The City's subdivision requirements have barely evolved and stormwater requirements still are not present besides providing small convenience drainage storm sewers or roadside ditches. At this point the City has grown to encompassed all of the flood prone areas in the northern half of the City and has developed right up to many locations on Winfield Creek. This development resulted in placing private residences in locations where flooding is guaranteed to occur.

1956



1959-1962 LARGE PIPE FLOOD PROTECTION PROJECT TWO
"A", "B", "C", "D", "E", "F", & "G"



U.S. DEPARTMENT OF COMMERCE
LUTHER H. HODGES, Secretary

WEATHER BUREAU
F. W. REICHELDERFER, Chief

TECHNICAL PAPER NO. 40

RAINFALL FREQUENCY ATLAS OF THE UNITED STATES

for Durations from 30 Minutes to 24 Hours and
Return Periods from 1 to 100 Years

Prepared by
DAVID M. HERSHFIELD
Cooperative Studies Section, Hydrologic Services Division
for
Engineering Division, Soil Conservation Service
U.S. Department of Agriculture

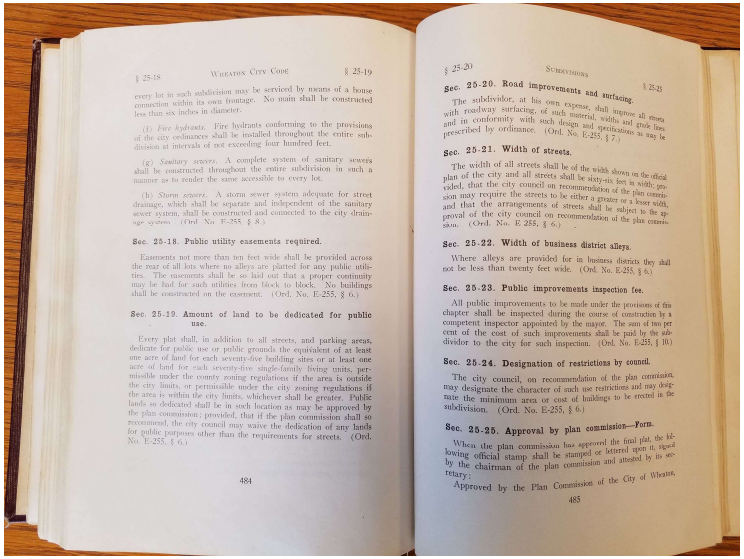
WASHINGTON, D.C.
May 1961
Reorganized and Reprinted January 1963

1961

The U.S. Department of Commerce publishes **Technical Paper No. 40 (TP40)** Titled "Rainfall Frequency Atlas of the United States" which is a study that proves that a 100-year storm rainfall is **5.8 inches in 24 hours**. While in the future this was found to be an incorrect quantity, it did provide communities a benchmark to start thinking about how to control stormwater runoff.

1962

CITY OF WHEATON SUBDIVISON CODE
The City of Wheaton Subdivision Code was updated and first showed signs of the idea of Stormwater Control. Stormwater runoff control was an idea that was starting to be used but only for extremely large subdivisions and there was **no specific requirements on what control had to be provided**. Also in that update storm sewers became required public infrastructure for subdivisions.



§ 25-18 WHEATON CITY CODE § 25-19

every lot in such subdivision may be serviced by means of a house connection within its own frontage. No main shall be constructed less than six inches in diameter.

(f) *Fire hydrants.* Fire hydrants conforming to the provisions of the city ordinances shall be installed throughout the entire subdivision at intervals of not exceeding four hundred feet.

(g) *Sanitary sewers.* A complete system of sanitary sewers shall be constructed throughout the entire subdivision in such a manner as to render the same accessible to every lot.

(h) *Storm sewers.* A storm sewer system adequate for street drainage, which shall be separate and independent of the sanitary sewer system, shall be constructed and connected to the city drainage system. (Ord. No. E-255, § 8.)

Sec. 25-18. Public utility easements required.

Easements not more than ten feet wide shall be provided across the rear of all lots where no alleys are platted for any public utilities. The easements shall be so laid out that a proper continuity may be had for such utilities from block to block. No buildings shall be constructed on the easement. (Ord. No. E-255, § 6.)

Sec. 25-19. Amount of land to be dedicated for public use.

Every plat shall, in addition to all streets, and parking areas, dedicate for public use or public grounds the equivalent of at least one acre of land for each seventy-five building sites or at least one acre of land for each seventy-five single-family living units, permissible under the county zoning regulations if the area is outside the city limits, or permissible under the city zoning regulations if the area is within the city limits, whichever shall be greater. Public lands so dedicated shall be in such location as may be approved by the plan commission; provided, that if the plan commission shall so recommend, the city council may waive the dedication of any lands for public purposes other than the requirements for streets. (Ord. No. E-255, § 6.)

484

§ 25-20 SUBDIVISIONS § 25-23

Sec. 25-20. Road improvements and surfacing.

The subdivider, at his own expense, shall improve all streets with roadway surfacing, of such material, widths and grade lines and in conformity with such design and specifications as may be prescribed by ordinance. (Ord. No. E-255, § 7.)

Sec. 25-21. Width of streets.

The width of all streets shall be of the width shown on the official plan of the city and all streets shall be sixty-six feet in width; provided, that the city council on recommendation of the plan commission may require the streets to be either a greater or a lesser width, and that the arrangements of streets shall be subject to the approval of the city council on recommendation of the plan commission. (Ord. No. E-255, § 6.)

Sec. 25-22. Width of business district alleys.

Where alleys are provided for in business districts they shall not be less than twenty feet wide. (Ord. No. E-255, § 6.)

Sec. 25-23. Public improvements inspection fee.

All public improvements to be made under the provisions of this chapter shall be inspected during the course of construction by a competent inspector appointed by the mayor. The sum of two per cent of the cost of such improvements shall be paid by the subdivider to the city for such inspection. (Ord. No. E-255, § 10.)

Sec. 25-24. Designation of restrictions by council.

The city council, on recommendation of the plan commission, may designate the character of such use restrictions and may designate the minimum area or cost of buildings to be erected in the subdivision. (Ord. No. E-255, § 6.)

Sec. 25-25. Approval by plan commission—Form.

When the plan commission has approved the final plat, the following official stamp shall be stamped or lettered upon it, signed by the chairman of the plan commission and attested by its secretary:

Approved by the Plan Commission of the City of Wheaton,

485

NATIONAL FLOOD INSURANCE PROGRAM

1967 FLOOD

1968

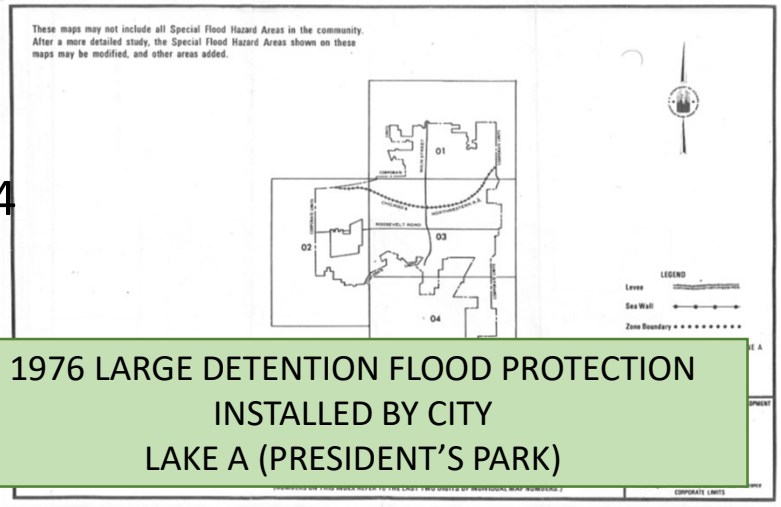
The National Flood Insurance Act of 1968 is a piece of legislation passed in the United States that led to the creation of the National Flood Insurance Program. This program was originally housed in the Department of Housing and Urban Development's Federal Insurance Administration.

1969 LARGE DETENTION FLOOD PROTECTION REQUIRED FROM PRIVATE DEVELOPER
LAKES 1, 2, 3 & 4

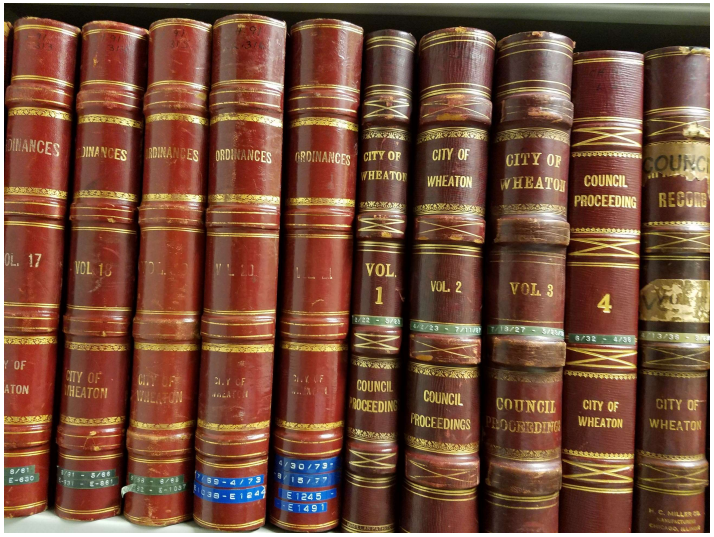
1972 FLOOD

The City of Wheaton receives its first PRELIMINARY floodplain maps from the Department of Housing and Urban Development's Federal Insurance Administration as they attempt to delineate where additional floodplain regulations should be located.

1974



1976 LARGE DETENTION FLOOD PROTECTION INSTALLED BY CITY
LAKE A (PRESIDENT'S PARK)

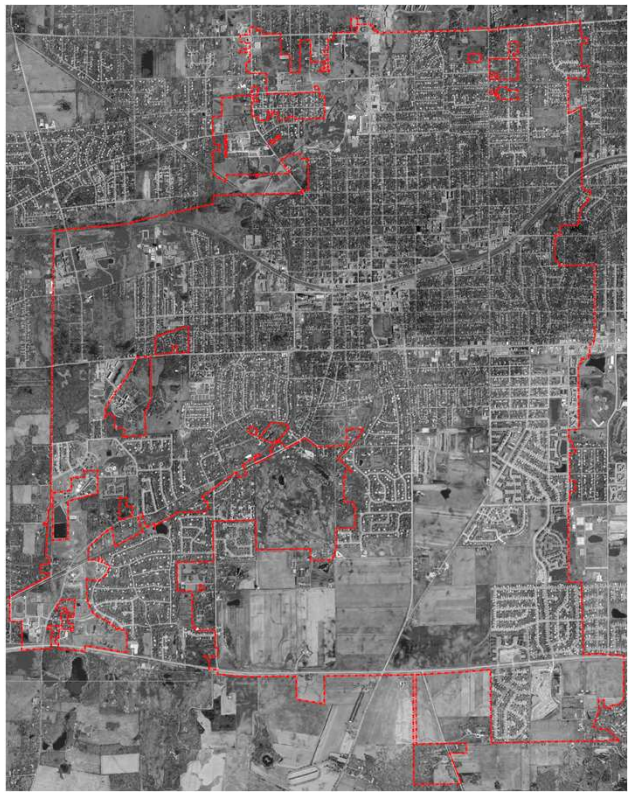


1977

Chapter 12 ½ titled “Floodplains, Stormwater Runoff, and Erosion Control” was adopted June 6th,1977 which provided the City of Wheaton its first **Stormwater Ordinance**. The ordinance required subdivisions and other development to have detention, safe stormwater routing, and acknowledged many new regulations for floodplain areas.

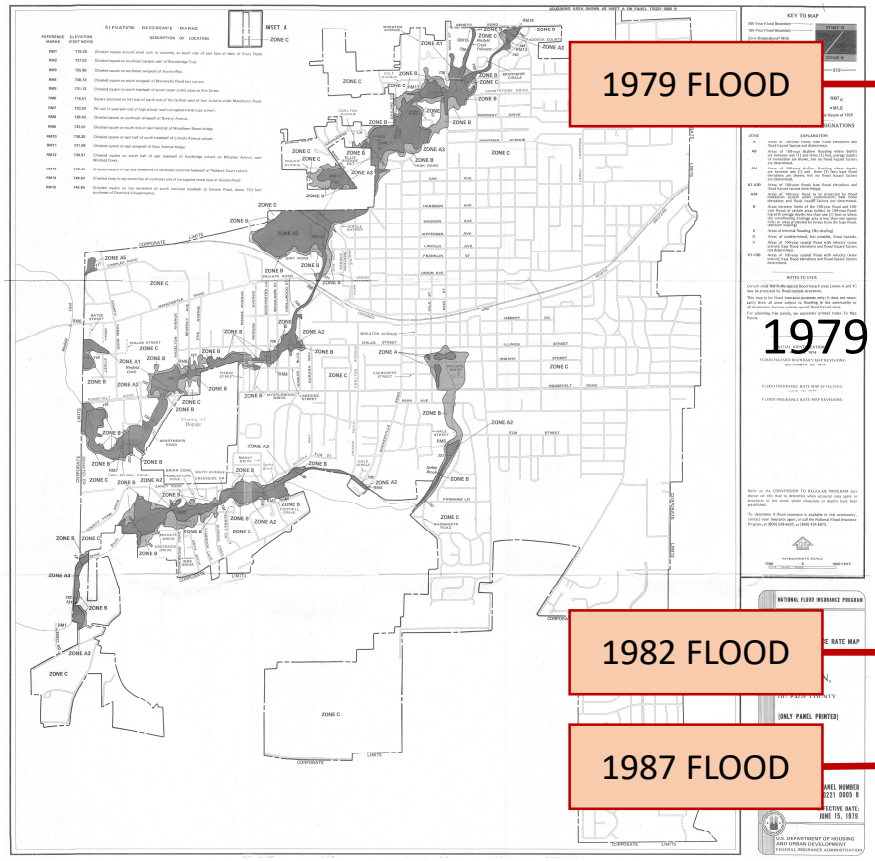
Note: Detention was to be provided for the 100-year storm, which was known to be 5.8 inches of rainfall over 24 hours.

1978



DEVELOPING OUTWARD

The City continued to develop and expand outwards. The subdivision requirements have increased and stormwater requirements have just been implemented requiring detention. At this point the City has grown to encompassed 14/17 of the current flood prone areas, has completely developed right up Winfield Creek, and has developed right up to Springbrook#1 as well. This development resulted in placing private residences in locations where flooding is guaranteed to occur.



1979 FLOOD

1979

FEMA is first created as a federal department in 1979 taking over duties from the Department of Housing and Urban Development. The preliminary floodplain maps of 1974 finally go active on June 15, 1979 and the City can now regulate development in floodplain areas.

1979 LARGE FLOOD PROTECTION BERM
INSTALLED BY CITY
THOMPSON BERM (NORTHSIDE PARK)

1982 FLOOD

1987 FLOOD

1989 LARGE PIPE FLOOD PROTECTION
INSTALLED BY CITY
BRIARCLIFFE FLOOD CONTROL / RICE LAKE

DuPage County passes the DuPage County Stormwater Ordinance and the City of Wheaton adopts the ordinance into its City Code which increases requirements for stormwater regulations. As such additional detention is required; providing more protection in large rainfalls.

1991

DuPage County
Countywide Stormwater
And Flood Plain Ordinance

Adopted by the County Board of the County of DuPage, Illinois on the 24th day of September 1991.

Table 1. Sectional Mean Frequency Distributions for Storm Periods of 5 Minutes to 10 Days and Recurrence Intervals of 2 Months to 100 Years in Illinois. Units are in inches.

Sectional code

01 - Northwest
02 - Northeast
03 - West
04 - Central
05 - East
06 - West Southwest
07 - East Southeast
08 - Southwest
09 - Southeast
10 - South

Section	Duration	2-month	3-month	4-month	6-month	9-month	1-year	2-year	5-year	10-year	25-year	50-year	100-year
01	10-day	2.14	2.60	2.97	3.50	4.02	4.37	5.23	6.30	7.14	8.39	9.64	11.09
01	5-day	1.76	2.12	2.38	2.76	3.17	3.45	4.13	5.10	5.91	7.21	8.36	9.97
01	72-hr	1.58	1.90	2.11	2.45	2.82	3.06	3.73	4.67	5.42	6.59	7.64	8.87
01	48-hr	1.47	1.74	1.93	2.24	2.58	2.80	3.42	4.28	4.96	6.07	7.02	8.07
01	24-hr	1.40	1.64	1.80	2.08	2.36	2.57	3.11	3.95	4.63	5.60	6.53	7.36
01	18-hr	1.30	1.52	1.66	1.92	2.18	2.37	2.86	3.63	4.26	5.15	6.01	6.92
01	12-hr	1.23	1.43	1.57	1.81	2.06	2.24	2.71	3.43	4.03	4.88	5.66	6.51
01	6-hr	1.06	1.24	1.37	1.56	1.77	1.93	2.33	2.96	3.48	4.20	4.90	5.69
01	3-hr	0.91	1.06	1.16	1.33	1.52	1.65	1.99	2.53	2.97	3.59	4.18	4.90
01	2-hr	0.84	0.97	1.06	1.23	1.40	1.52	1.83	2.33	2.74	3.31	3.86	4.47
01	1-hr	0.67	0.78	0.86	0.98	1.11	1.21	1.46	1.86	2.18	2.63	3.07	3.51
01	30-min	0.52	0.61	0.68	0.77	0.87	0.95	1.15	1.46	1.71	2.07	2.42	2.77
01	15-min	0.38	0.45	0.50	0.57	0.64	0.70	0.84	1.07	1.25	1.51	1.76	1.99
01	10-min	0.31	0.36	0.40	0.46	0.52	0.57	0.68	0.87	1.02	1.23	1.44	1.62
01	5-min	0.17	0.20	0.22	0.25	0.29	0.31	0.37	0.47	0.56	0.67	0.78	0.89
02	10-day	2.02	2.48	2.80	3.30	3.79	4.12	4.95	6.04	6.89	8.18	9.38	11.14
02	5-day	1.66	1.98	2.24	2.60	2.99	3.25	3.93	4.91	5.70	6.93	8.04	9.96
02	72-hr	1.53	1.83	2.02	2.34	2.70	2.93	3.55	4.44	5.18	6.32	7.41	8.78
02	48-hr	1.44	1.70	1.90	2.18	2.49	2.70	3.30	4.09	4.81	5.88	6.84	8.16
02	24-hr	1.38	1.61	1.76	2.03	2.31	2.51	3.04	3.80	4.47	5.51	6.46	7.58
02	18-hr	1.26	1.47	1.61	1.86	2.12	2.30	2.79	3.50				
02	12-hr	1.20	1.40	1.53	1.77	2.01	2.18	2.64	3.31				
02	6-hr	1.03	1.21	1.32	1.52	1.74	1.88	2.28	2.85				
02	3-hr	0.88	1.02	1.13	1.30	1.47	1.60	1.94	2.43				
02	2-hr	0.81	0.95	1.05	1.20	1.36	1.48	1.79	2.24				
02	1-hr	0.65	0.76	0.84	0.96	1.09	1.18	1.43	1.79				
02	30-min	0.51	0.60	0.65	0.75	0.86	0.93	1.12	1.41				
02	15-min	0.37	0.44	0.48	0.55	0.63	0.68	0.82	1.03	1.21	1.49	1.75	2.05
02	10-min	0.30	0.35	0.39	0.45	0.51	0.55	0.67	0.84	0.98	1.21	1.42	1.67
02	5-min	0.17	0.19	0.21	0.24	0.28	0.30	0.36	0.46	0.54	0.66	0.78	0.91

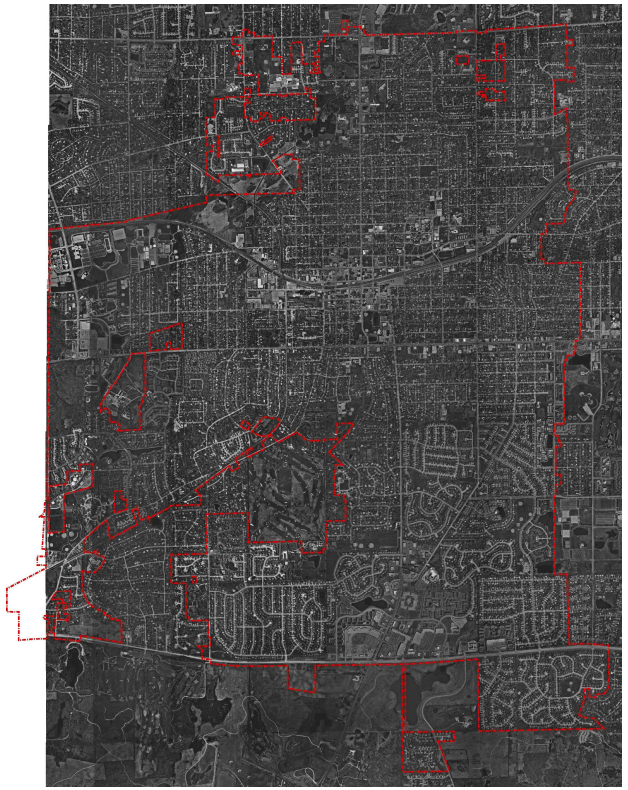
1992

A new rainfall study was published that had the benefit of an extra 31 years of rainfall data to make better predictions about what total rainfall creates a 100-year storm. For Wheaton this resulted in the 100-year storm now being known as 7.58 inches of rainfall over 24 hours. Detention requirements were increased in light of this new information, however all previous detention now only provided protection to approximately 30-year storm levels instead of the 100-year storm level previously thought!

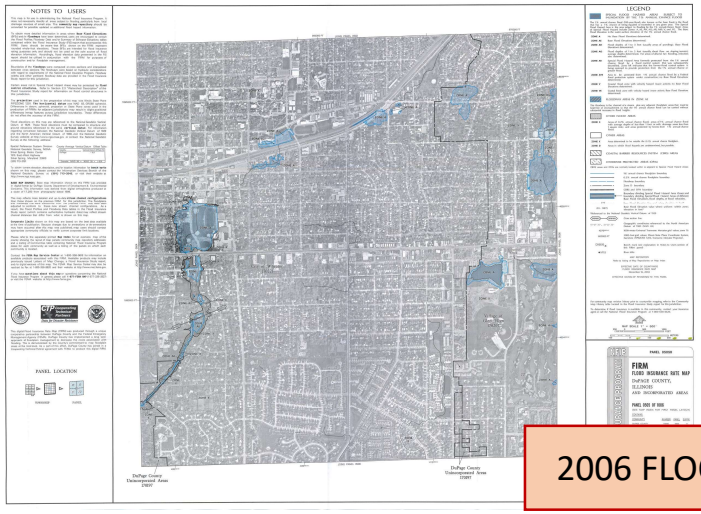
1996 FLOOD

1998

The City continued to develop and expand outwards. The subdivision requirements have increased greatly and stormwater requirements are now generally modern standards. Unfortunately, at this time the City is mostly built out and although detention has been implemented in the new areas in Southern Wheaton, it has been provided at what is now known as a 30 year storm level. At this point the City has grown to encompass All of the Flood Prone Areas and right up to the bank of both creeks.



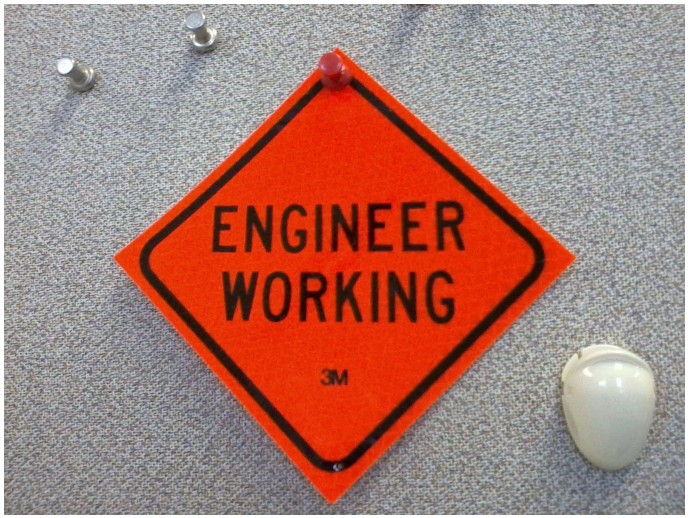
2001 FLOOD



2004

FEMA Floodplain maps were updated throughout the City of Wheaton however the creeks were not restudied using new rainfall information. The existing study was simply updated using better aerial topographic ground information. Part of this update also added more floodplain zones in well known flooding areas near downtown.

2006 FLOOD



2008

Wheaton fills a newly created Stormwater Engineer position to focus solely on the City's stormwater issues created by development that occurred before regulations were in place to prevent it.

2008 FLOOD

2010 FLOOD

VARIOUS RAIN EVENT CHEAT SHEET (STORM FREQUENCY)						
YEAR STORM	100	50	25	10	5	1
CHANCE PER YEAR	1%	2%	4%	10%	20%	100%

2010

2010 STRATEGIC INITIATIVE

"Provide an understanding of the contributing variables causing OVERLAND FLOODING during various rain events of PRINCIPLE STRUCTURES in flood prone and floodplain areas"

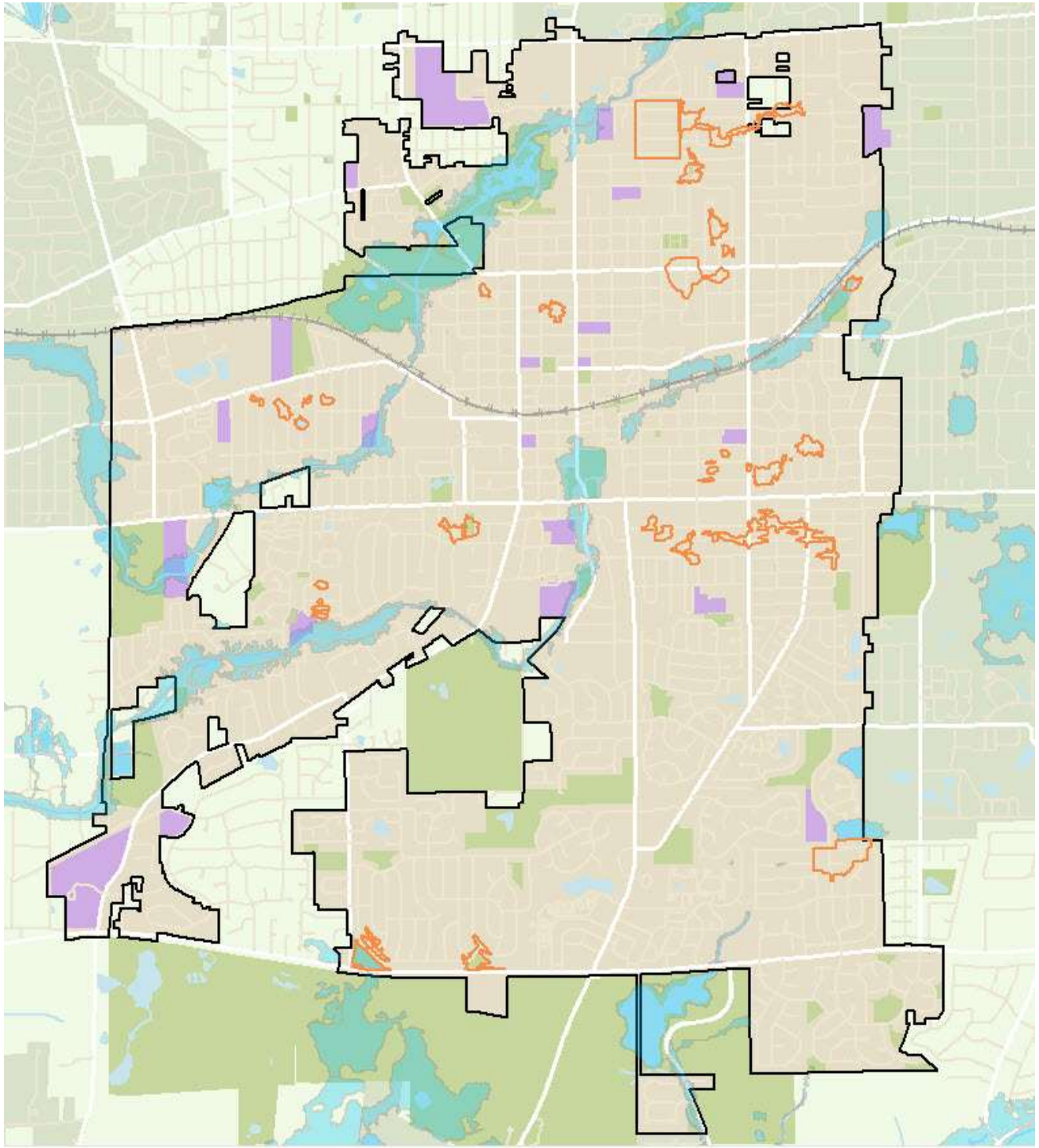
OVERLAND FLOODING: FLOODING THAT OCCURS WHEN WATER DIRECTLY ENTERS A STRUCTURE THROUGH A DOOR, A WINDOW, OVER THE TOP OF FOUNDATION, OR OVER A WINDOW WELL

→ IN ORDER TO DETERMINE **OVERLAND FLOODING** YOU NEED:

1) ELEVATION OF THE WATER
2) ELEVATION OF THE STRUCTURES

→ 1) PROJECTS TO DECREASE OVERLAND FLOODING
2) METRIC TO EQUITABLY WEIGH PROJECTS (Damages)

Floodplain	Flood Prone	Site Specific Flooding
Water Elevation Known	Water Elevation Unknown	Not Applicable
Structure Elevation Unknown	Structure Elevation Unknown	Not Applicable
Damages Unknown	Damages Unknown	Not Applicable



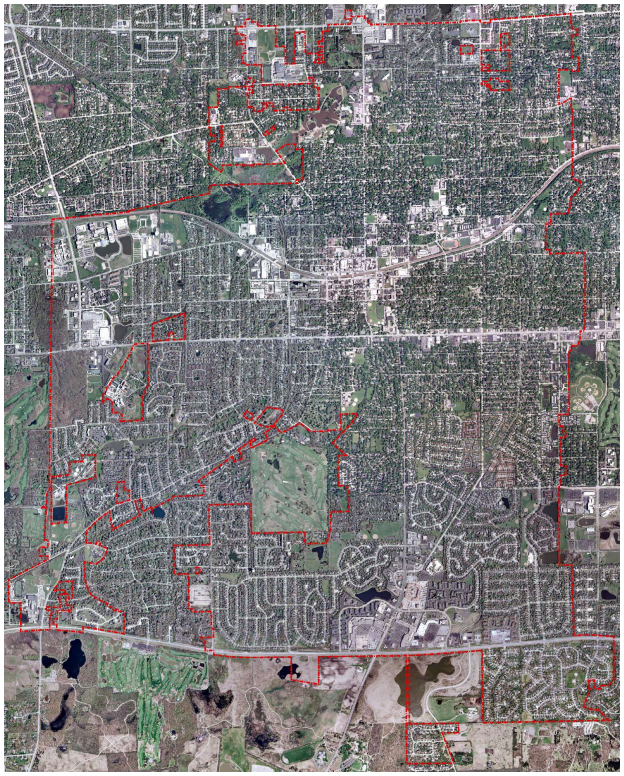
2010 WORK TO DO!

Floodplain	Flood Prone	Site Specific Flooding
Water Elevation Known	Water Elevation Unknown	Not Applicable
Structure Elevation Unknown	Structure Elevation Unknown	Not Applicable
Damages Unknown	Damages Unknown	Not Applicable

2010 PROJECT EXPECTATIONS

Floodplain	Flood Prone	Site Specific Flooding

2010 Projected Results	Floodplain	Flood Prone	Site Specific Flooding
Resident Reported Overland Flooding	5	15	93
Estimated Overland Flooding	123	127	No Estimate
Percent of Total Estimated	35.9%	37.0%	27.1%



2011

The City continues to develop and expand outwards into whatever small areas remain. The subdivision and stormwater requirements are now the modern standard and detention has been provided for the 100-year storm for the last twenty years for all new developments.

2011 CHERRY STREET STORMWATER STUDY

2011 WILLISTON STORMWATER STUDY

COUNTYWIDE STORMWATER & FLOOD PLAIN ORDINANCE

DUPAGE COUNTY

Stormwater Management

2013

DuPage County revises the DuPage County Stormwater Ordinance and greatly reduces the detention requirements. The City of Wheaton chooses to keep its own Stormwater Ordinance in place to continue to require detention at a high level for developments.

2013 FLOOD

2013 BRIARCLIFFE LAKES STORMWATER STUDY

Strategic Priority: QUALITY INFRASTRUCTURE Maintain reliable infrastructure systems that support the high level of community expectations. Systems are delivered equitably and appropriately.	
Desired Outcome: Policy statement addressing levels of flood protection sought for structures	
Key Outcome Indicator (KOI): The number of flood protected structures after a rain event **Target:** 100% of structures are flood protected after an established rain event	
Plan to Achieve Target: Continue to progress through the studies on flood prone areas and complete a Benefit Cost Analysis (BCA) on affected areas. Provide recommendation/options to the City Council for determining degree of flood protection desired.	**Lead Dept**: Engineering **Support Dept**: All Departments

2016

The City Council Approves the Remaining 14 Flood Studies and Floodplain Surveying to continue working on STRATEGIC GOAL 2C

2017 TURF, COUNTRYSIDE & RANCH

2017 THOMAS OVERLAND FLOW PATH

2017 WAKEMAN & CADILLAC STORMWATER STUDY

City of Wheaton Enters the CRS Program

2018

How much discount property owners in your community can get

Rate Class	Discount SFHA*	Discount Non-SFHA**	Credit Points Required
1	45%	10%	4,500 +
2	40%	10%	4,000 – 4,499
3	35%	10%	3,500 – 3,999
4	30%	10%	3,000 – 3,499
5	25%	10%	2,500 – 2,999
6	20%	10%	2,000 – 2,499
7	15%	5%	1,500 – 1,999

2018 ERIE STREET

2018 HARRISON STREET

2018 PERSHING EAST

2018 PERSHING WEST

2018 MAYO STORMWATER STUDY

City of Wheaton Receives New Floodplain Maps

2019

* Special Flood Hazard Area

** Preferred Risk Policies are available only in B,C, and X Zones for properties that are shown to have a minimal risk of flood damage. The Preferred Risk Policy does not receive premium rate credits under the CRS because it already has a lower premium than other policies. Although they are in SFHAs, Zones AR and A99 are limited to a 5% discount. Premium reductions are subject to change.

2019 GLENDALE

2019 DORSET AT RIDGE PARK

2019 DORSET AT DORSET PARK

2019 PARK AVE & DELLES

2019 JEFFERSON

2019 MADISON

2019 FLOODPLAIN SURVEYING PHASE I

Updated Bulletin 70 Rainfall Study

Resulted in the 100-year storm now being known as 8.59 inches of rainfall over 24 hours.

2019

2020 FLOODPLAIN SURVEYING PHASE II

2010 WORK TO DO!

Floodplain	Flood Prone	Site Specific Flooding
Water Elevation Known	Water Elevation Unknown	Not Applicable
Structure Elevation Unknown	Structure Elevation Unknown	Not Applicable
Damages Unknown	Damages Unknown	Not Applicable

2010 PROJECT EXPECTATIONS

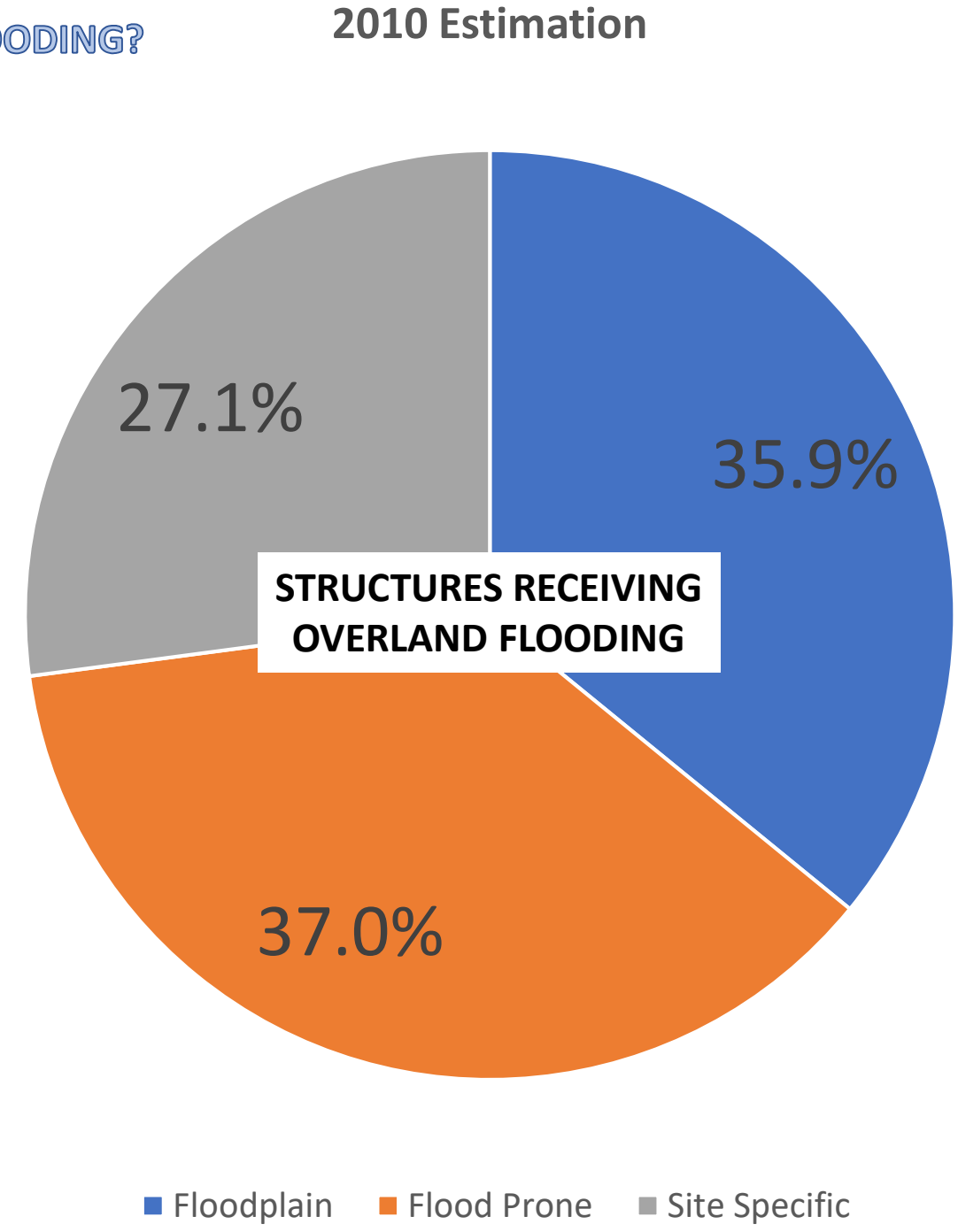
Floodplain	Flood Prone	Site Specific Flooding

2010 Projected Results	Floodplain	Flood Prone	Site Specific Flooding
Resident Reported Overland Flooding	5	15	93
Estimated Overland Flooding	123	127	No Estimate
Percent of Total Estimated	35.9%	37.0%	27.1%

WHERE IS THE FLOODING?

2010 Projected Results	Floodplain	Flood Prone	Site Specific Flooding
Resident Reported Overland Flooding	5	15	93
Estimated Overland Flooding	123	127	No Estimate
Percent of Total Estimated	35.9%	37.0%	27.1%

WHERE IS THE FLOODING?

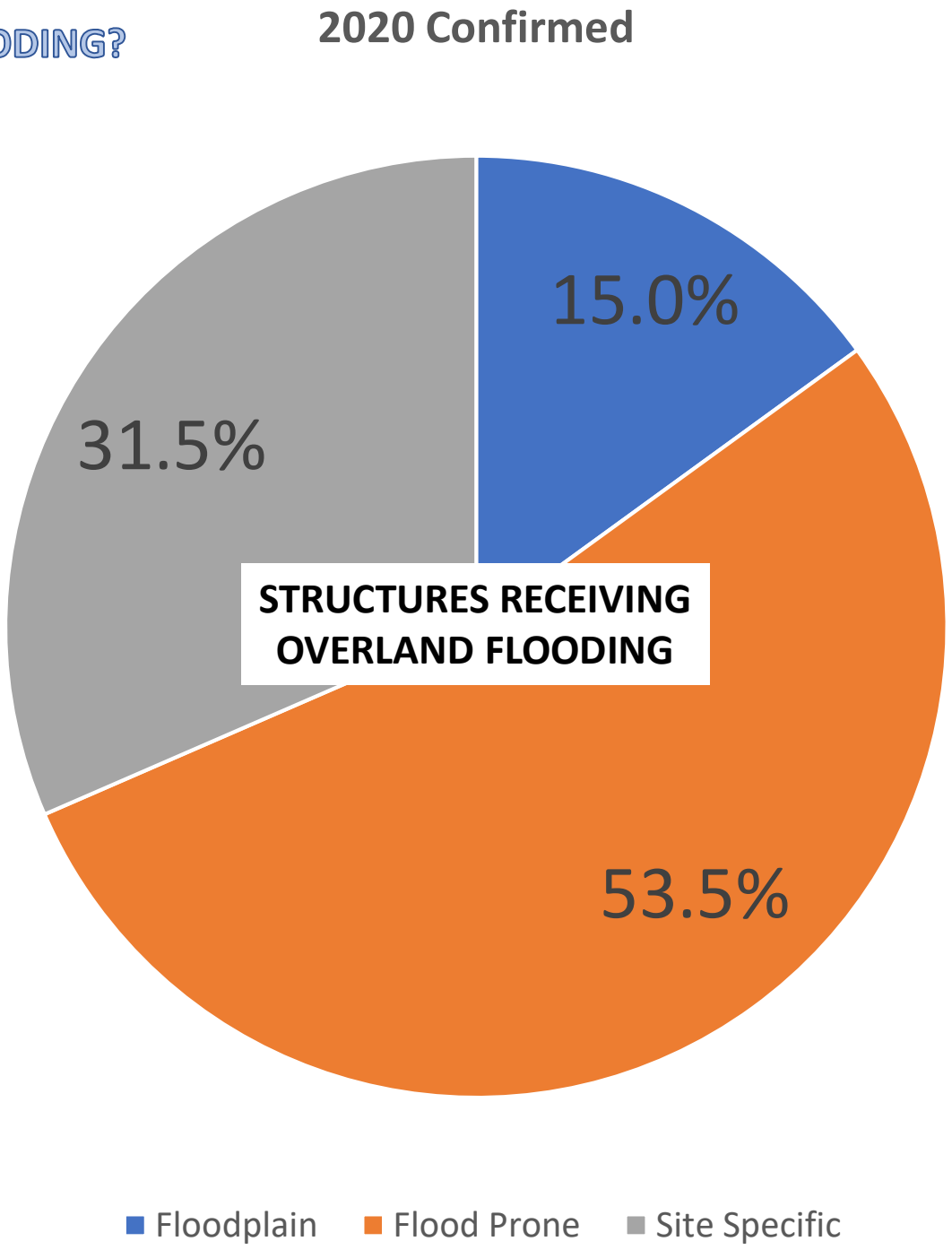


WHERE IS THE FLOODING?

2010 Projected Results	Floodplain	Flood Prone	Site Specific Flooding
Resident Reported Overland Flooding	5	15	93
Estimated Overland Flooding	123	127	No Estimate
Percent of Total Estimated	35.9%	37.0%	27.1%

2020 Confirmed Results	Floodplain	Flood Prone	Site Specific Flooding
Confirmed **Overland** Flooding	69	246	145
Percent of Total	15.0%	53.5%	31.5%

WHERE IS THE FLOODING?



WHERE IS THE FLOODING?

2010 Projected Results	Floodplain	Flood Prone	Site Specific Flooding
Resident Reported Overland Flooding	5	15	93
Estimated Overland Flooding	123	127	No Estimate
Percent of Total Estimated	35.9%	37.0%	27.1%

2020 Confirmed Results	Floodplain	Flood Prone	Site Specific Flooding
Confirmed **Overland** Flooding	69	246	145
Percent of Total	15.0%	53.5%	31.5%

WILL LOCATION DATA CHANGE FURTHER?

FLOODPLAIN : DATA COLLECTION HAS 56 COMMERCIAL, MULTIFAMILY, OR SCHOOL PROPERTIES THAT COULD STILL BE SURVEYED TO COMPLETE

FLOODPRONE : COMPLETE FOR PREVIOUS RAINFALL DATA / NOT COMPLETE FOR NEW 2019 RAINFALL DATA

SITE SPECIFIC : NUMBER WILL CONTINUE TO RISE AS DRAINAGE REVIEW PROGRAM CONTINUES TO BRING THESE PROPERTIES TO LIGHT

Flood Protection Program Discussion Part 1

CONCLUSIONS

- Wheaton has a long history of Flood Protection Projects
- Flood Protection Projects constructed were always Capitol Improvement Projects designed based on the prevailing thought of the times and the known 100 storm of the times
- The 100-year storm keeps increasing!
- Revised 100-year storm does not prevent us from making policy decisions

CITY OF WHEATON
FLOOD RESILIENCY INVESTIGATION

PART 1

- Why does Wheaton FLOOD
- Where is the FLOODING

PART 2

- What can be done to increase FLOOD RESILENCY
- Continue Discussion towards the creation of a FLOOD PROTECTION PROGRAM

CITY OF WHEATON
FLOOD RESILIENCY INVESTIGATION

Flood Protection Program Discussion Part 1

Joseph Tebrugge – Senior Project Engineer Development/Stormwater

Kris Dunn – Project Engineer Stormwater

Department of Engineering

March 9th, 2020

THANK YOU

ANY QUESTIONS?