

FLOOD RISK 101

OCTOBER 2021

RECENT METRO AREA EVENTS: SEPT 1, 2021



Pete Piringer

@mcfrsPIO



Water Rescues @MontgomeryCoMD (9/1) Flooded roads, power outages, many apartment(s) in Rockville (Twinbrook Parkway) flooded & people rescued



Pete Piringer @mcfrsPIO

~430a Water/Technical Rescues (Rockville) @MontgomeryCoMD
13200blk Twinbrook Pkwy & 200blk Congressional La - multiple basement level apts flooding w/ occupants stuck in apt due to water level in hallway, etc, multiple @mcfrs units on scene(s) breaking apt windows/doors to rescue



The basement floor of Congressional Towers Apartments in Rockville, MD was severely damaged by flooding on September 1, 2021.

Photo by DAN SCHERE

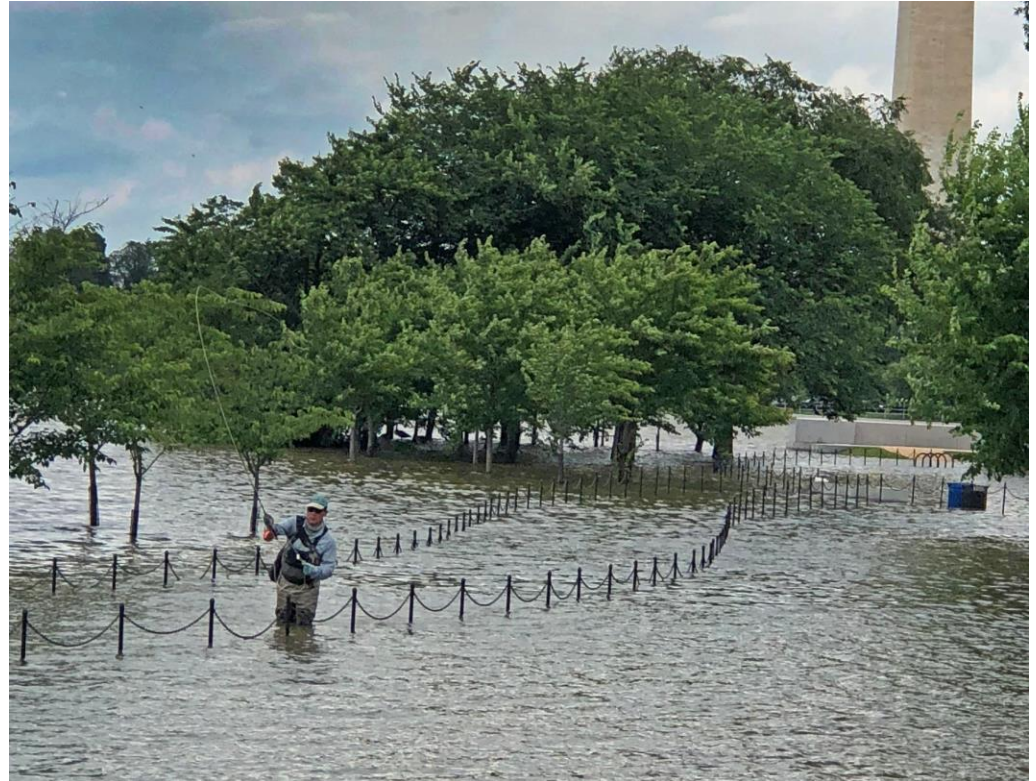
**WHERE IS THE WATER
COMING FROM?**

TIDAL FLOODING

Tidal Flooding is caused by storm surge and wind activity.

Some of the tidal areas are:

- Georgetown Waterfront
- Buzzard Point
- Haines Point
- The Tidal Basin



RIVERINE FLOODING

Riverine flooding is caused by the overflow of riverbanks from excessive rainfall, or blockages within the watershed.

Some of these waterways are:

- Watts Branch
- Oxon Run
- Anacostia River
- Potomac River



INTERIOR FLOODING

Interior flooding occurs when human-made drainage systems are overwhelmed and backup onto nearby areas. Sometimes this occurs due to blockages in the system.



Credit: @dcfireems

by: [Allie Mannheimer](#)

Posted: Sep 10, 2020 / 02:27 PM EDT / Updated: Sep 10, 2020 / 03:49 PM EDT

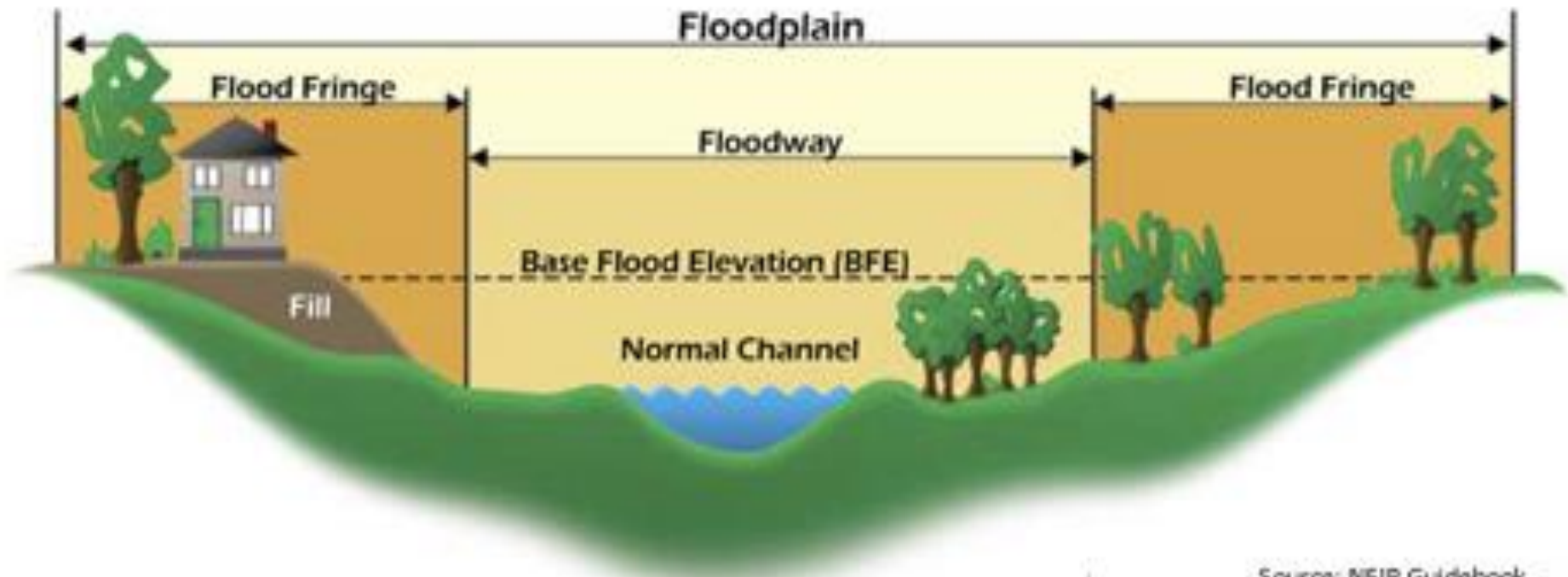
"DC Fire & EMS rescued at least one person Thursday afternoon when flooded roads left two vehicles in high water. First responders were called to Mount Olivet Road NE and Capitol Avenue NE around 2 p.m. Everyone involved was safely rescued." ~Washington Post

**WHERE WILL THE
NEXT FLOOD HAPPEN?**

A FLOODPLAIN

Floodplain: any area susceptible to inundation by water from any source (ex. Tidal or riverine).

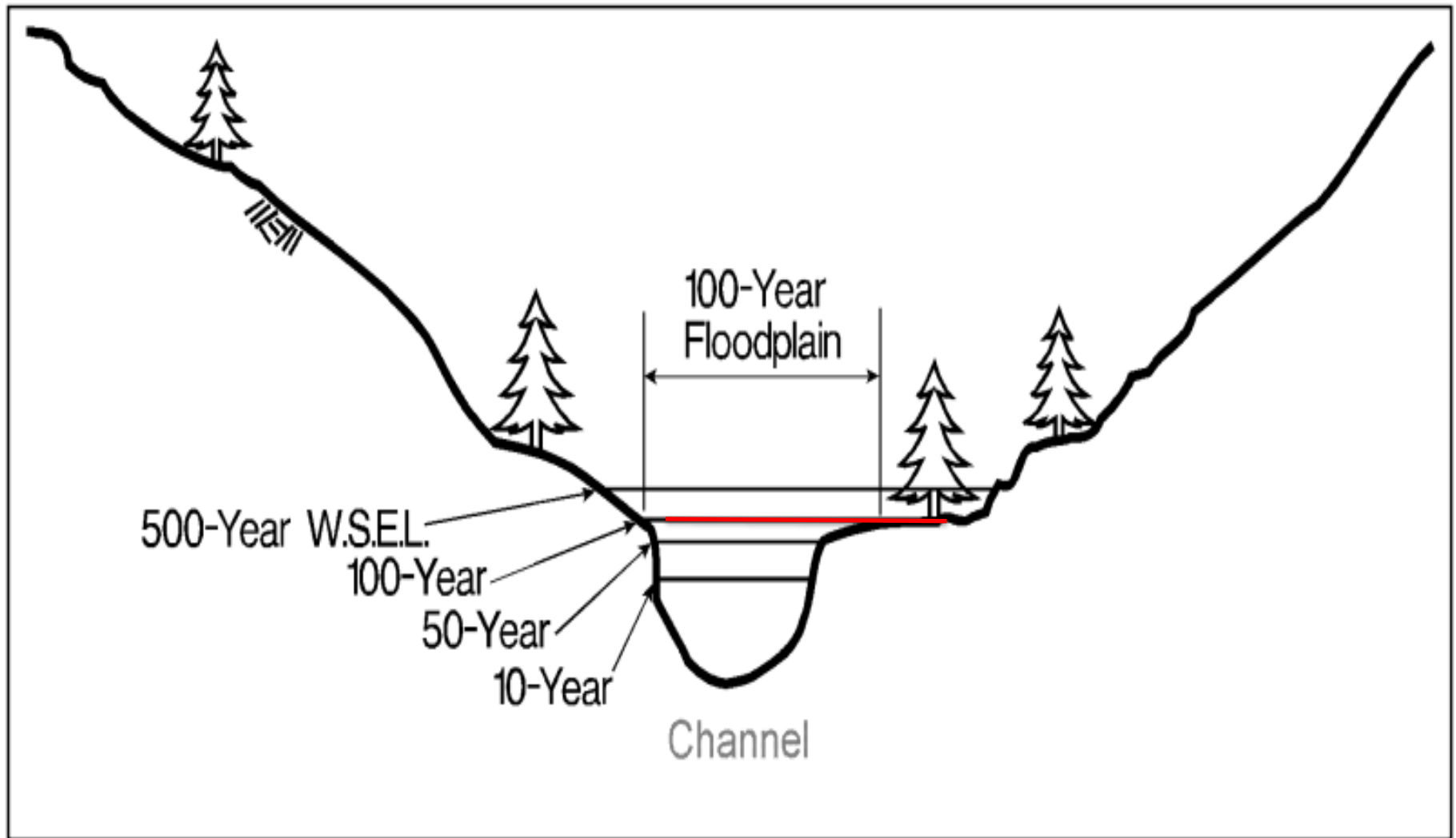
Characteristics of a Floodplain



Source: NFIP Guidebook

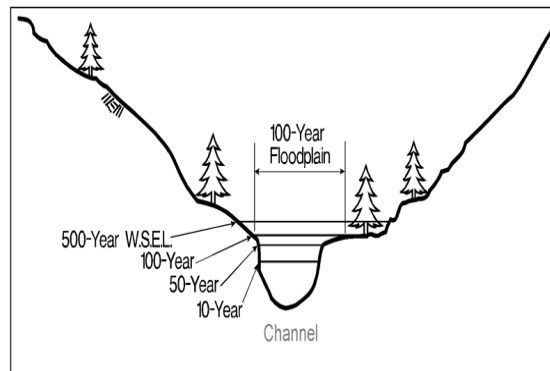
DO YOU LIVE IN A FLOODPLAIN?

YES, MOST OF US LIVE IN A FLOODPLAIN, BUT WHICH ONE?



Each floodplain has a different chance of flooding and is a different size event

Annual Chance of Occurring in Any Year	Recurrence Interval in Years	Probability of Occurring in Any Year
0.2%	500	1 in 500
1%	100	1 in 100
2%	50	1 in 50
4%	25	1 in 25
10%	10	1 in 10
20%	5	1 in 5
50%	2	1 in 2



**100 YEAR FLOODS DO NOT JUST
HAPPEN EVERY 100 YEARS**

PROBABILITY INCREASES OVER TIME

ANNUAL FREQUENCY - RECURRENCE INTERVAL						
		10% (10-YEAR)	4% (25-YEAR)	2% (50-YEAR)	1% (100-YEAR)	.2% (500-YEAR)
PERIOD OF TIME (YEARS)	1 ¹	10%	4%	2%	1%	0.2%
	10	65%	34%	18%	10% ²	2%
	20	88%	56%	33%	18% ³	4%
	25	93%	64%	40%	22%	5%
	30	96%	71%	45%	26%	6%
	50	99.5%	87%	64%	39% ⁴	10%
	70	99.94%	94%	76%	51%	13%
	100	99.997%	98%	87%	63%	18%

100-year floods DO NOT only happen every 100 years

[DCFLOODRISK.ORG](https://dcfloodrisk.org)

ACTIONS YOU CAN TAKE NOW

EMERGENCY PREPAREDNESS

- Register for AlertDC
- Make a plan
- Build a kit
- Go to readydc.gov

BUY FLOOD INSURANCE

Renters

- Contents coverage

Owners

- Building coverage
- Contents coverage

INSURANCE RATES ARE LOWER THAN EVER!

If you need help finding a provider, visit FloodSmart.gov/flood-insurance-provider or call the NFIP at **(877) 336-2627**.

PROTECT YOUR HOME FROM FLOODING

Outside the Home

- Maintain proper water runoff and drainage
- Improve grading and reduce impervious surface
- Install a rain barrel
- Elevate utilities
- Anchor fuel tanks

Inside

- Avoid living in basements
- Seal your foundation and basement walls
- Install flood vents
- Use flood-resistant materials
- Install back flow devices
- Elevate utilities

ACTIONS WE ARE TAKING

NEW REGULATIONS

- Adopting new regulations that account for climate change and sea level rise
- Expanding the regulated area to include the 500-year floodplain
- Preventing increases in flood heights and floodplain area by requiring encroachment analysis
- Put your email address in the chat for more updates

OUTREACH & ENGAGEMENT

- Focusing on engagement with the communities most vulnerable to high-risk flooding
- Seeking partnerships to establish a sustained presence
- Bi-annual Mailers

PARTNERSHIPS & PROJECTS

U.S. Army Corps of Engineers & Silver Jackets

- Watts Branch study
- DC Flood Week
- High water marks



DC Homeland Security & Emergency Management Agency

- Monitoring and warning systems
- Mitigation Planning



Adoption Process - Next Steps

- Spring/Summer 2021: Launch community leader, resident, and single-family homeowner working group.
- Summer 2021: Incorporate feedback into revised draft.
- 2021 and Beyond: DOEE aims to begin the *formal* public rulemaking process, which includes:
 - DC Government internal approval process
 - Publication of proposed rules in the DC Register
 - A formal comment period available to all stakeholders
 - Consideration of formal public comments
 - Ultimately, publication of final rules in the DC Register

QUESTIONS ?

Contact Your Local Floodplain Manager:
Flood.Risk@dc.gov

Ward 7 Community Empowerment Series - FCEC (faunteroycenter.org)



Resilience: Community Empowerment Series

7:00pm-8:15pm

4800 Nannie Helen Burroughs Ave NE

In Partnership with Community Leaders, DOEE, HSEMA and Other Community Focused Organizations.

You are invited to be part of an opportunity to **Engage, Meet and Discuss** on important matters that impact the community directly.

Hosted by DOEE Every
2nd Thursday of Each Month

Next Session: October 14, 2021

*Topic: Flooding and Climate
Change for Renters and
Homeowners*

Hosted by HSEMA Every
3rd Thursday of Each Month

Next Session: October 21, 2021

*Topic: Emergency and Security
Readiness*



Due to COVID, Limited in-person Sitting, **reservation required for all sessions**,
[Click here to register](#)

*Sessions will be live streamed, recorded, and will be made available on the
Faulteroy Website*



Title 20 - Chapter 31 - Flood Hazard Rules | ddoe (dc.gov)

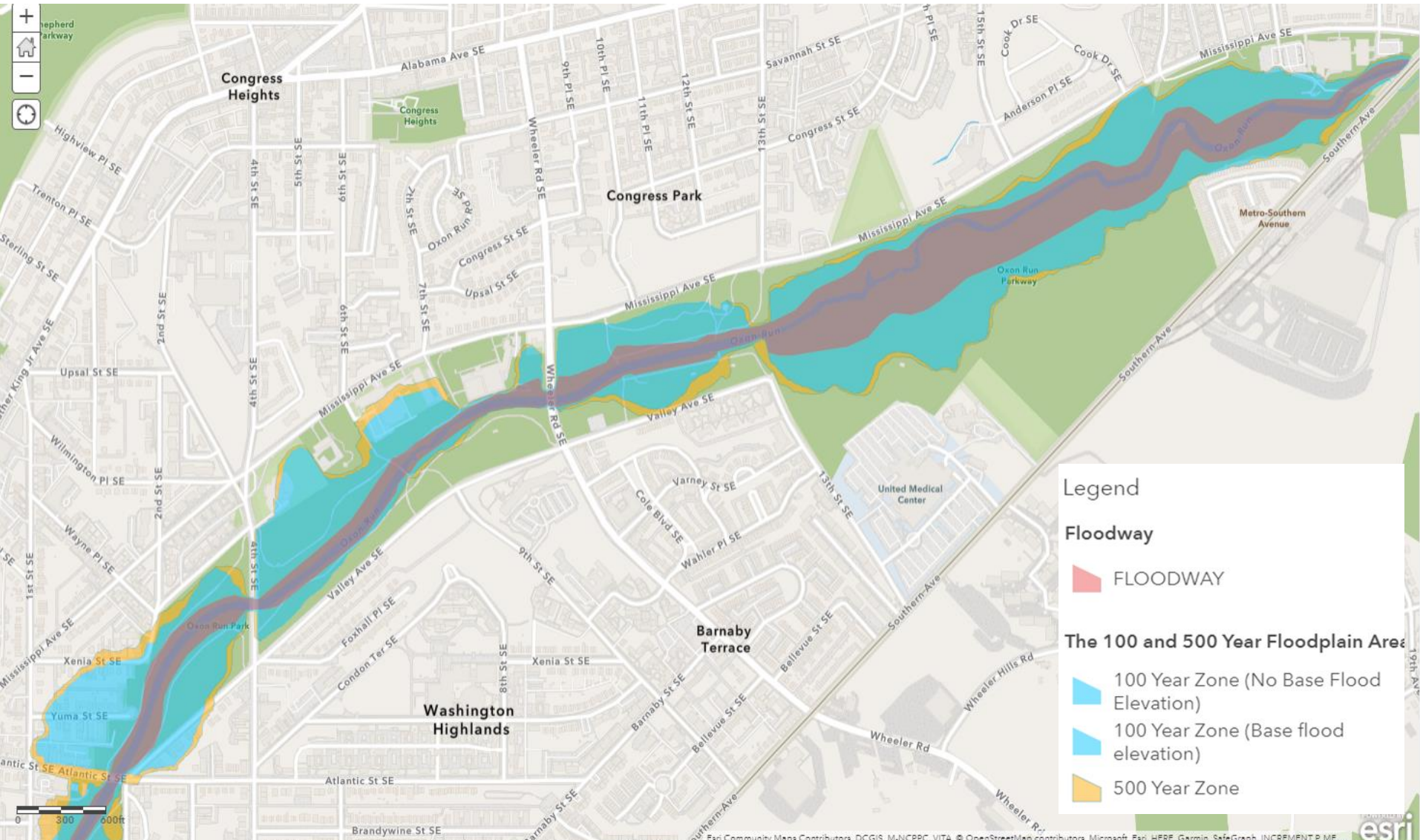


NOTE: 135 residential properties from Ward 8 (mainly Oxon Run Park area) are included in the new regulated area. The previous regulated area included 51 residential properties.

OXON RUN



OXON RUN: NORTH OF ATLANTIC STREET



OXON RUN: SOUTH OF ATLANTIC STREET




Legend

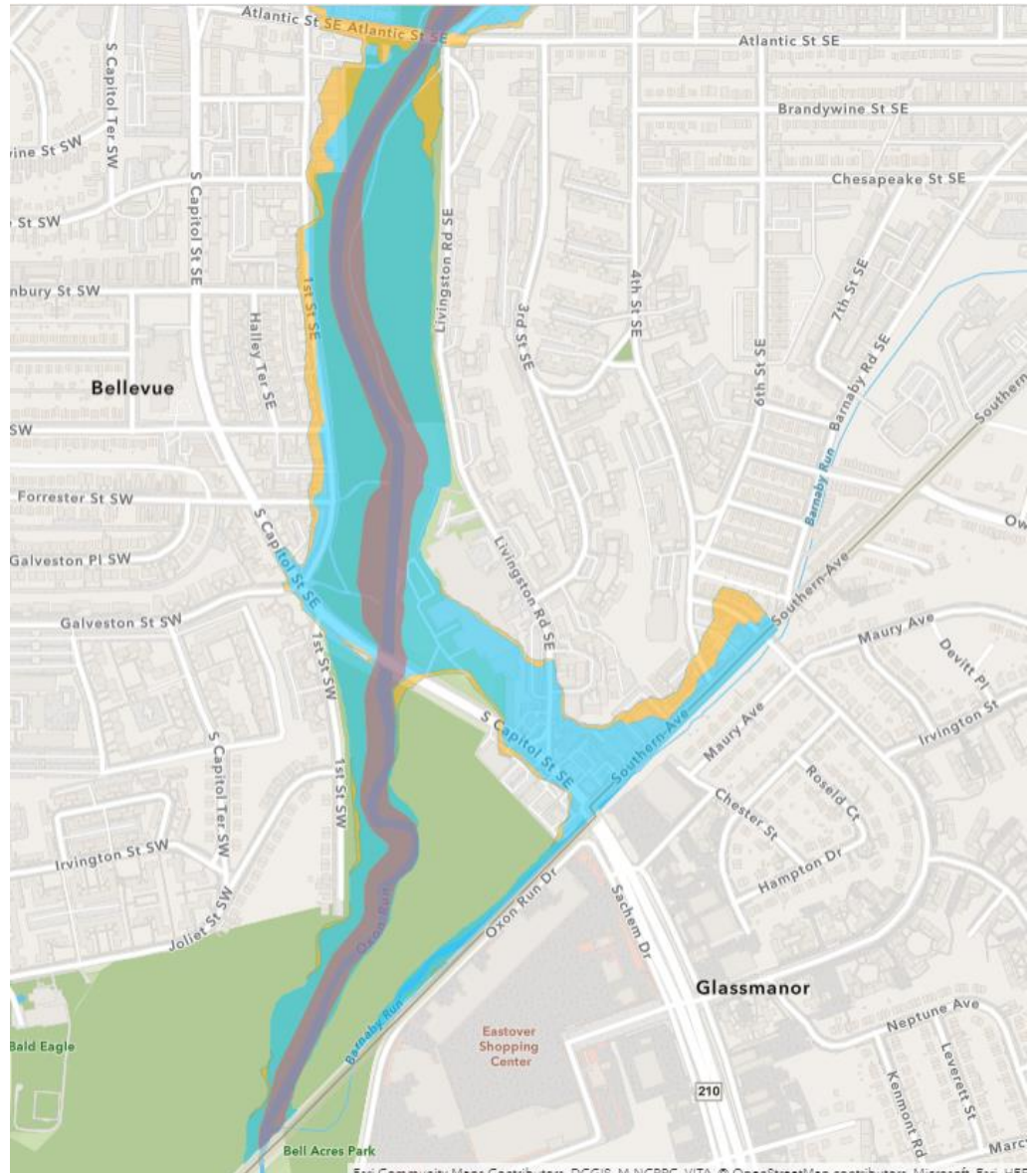
Floodway



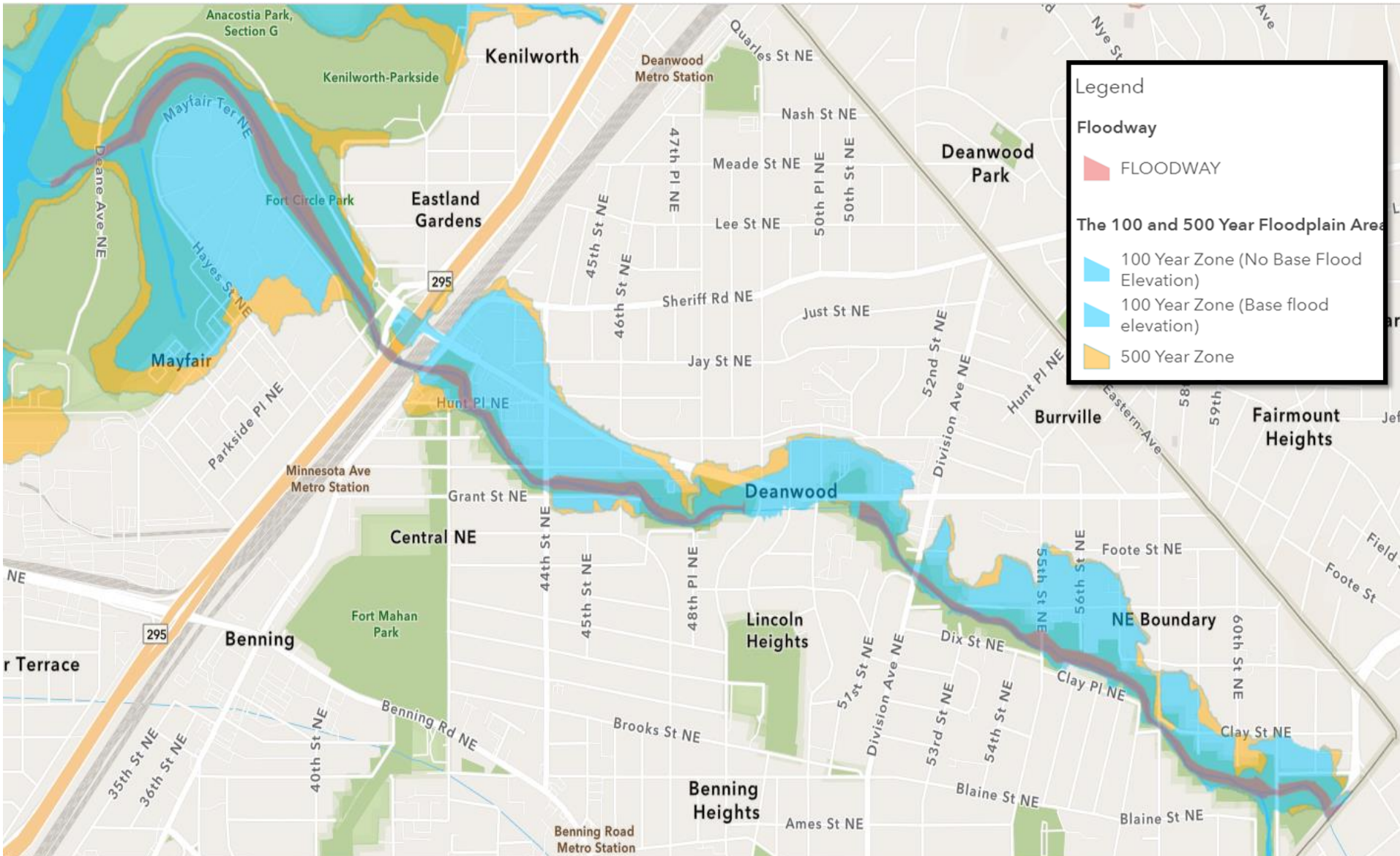
FLOODWAY

The 100 and 500 Year Floodplain Area

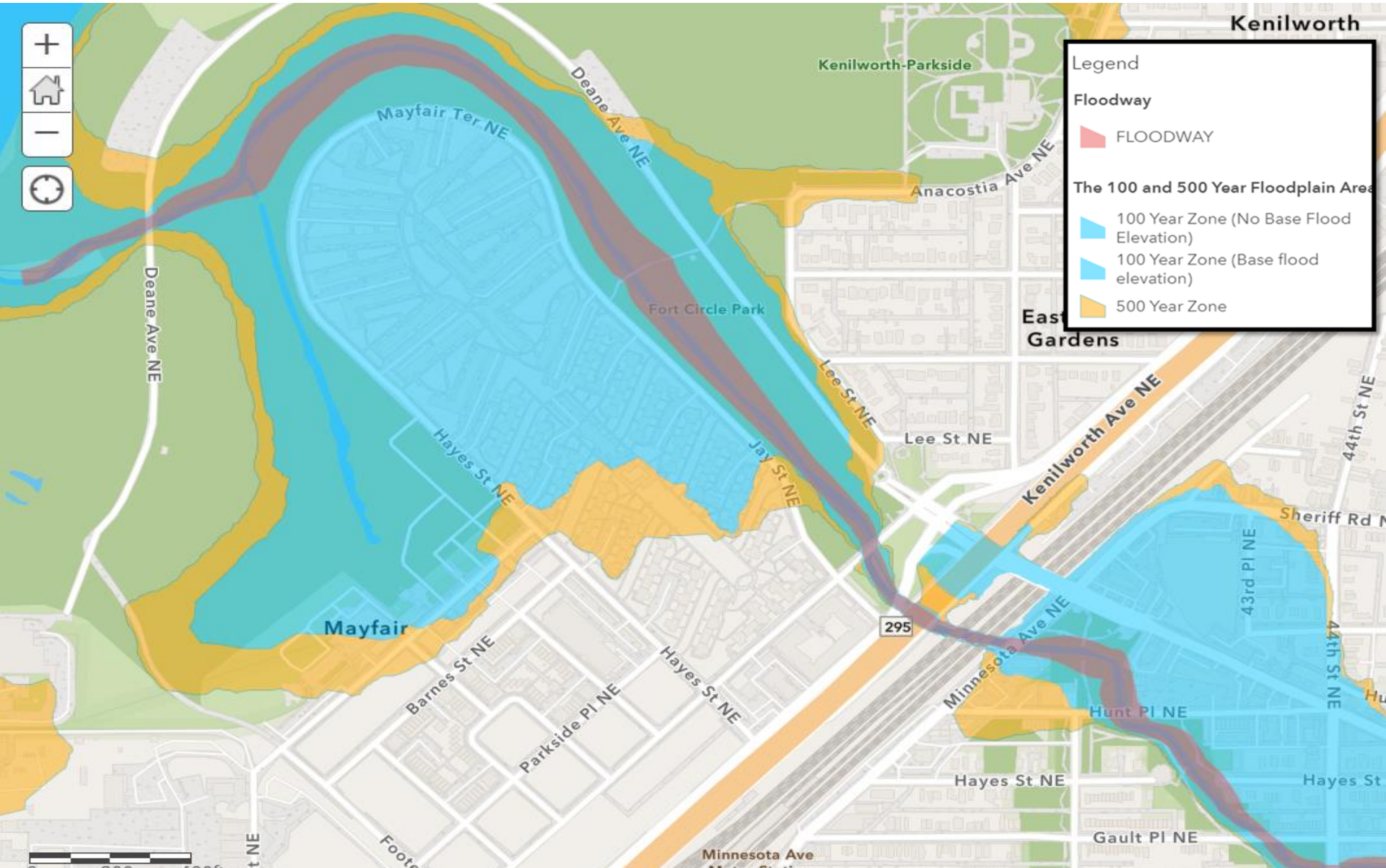
-  100 Year Zone (No Base Flood Elevation)
-  100 Year Zone (Base flood elevation)
-  500 Year Zone



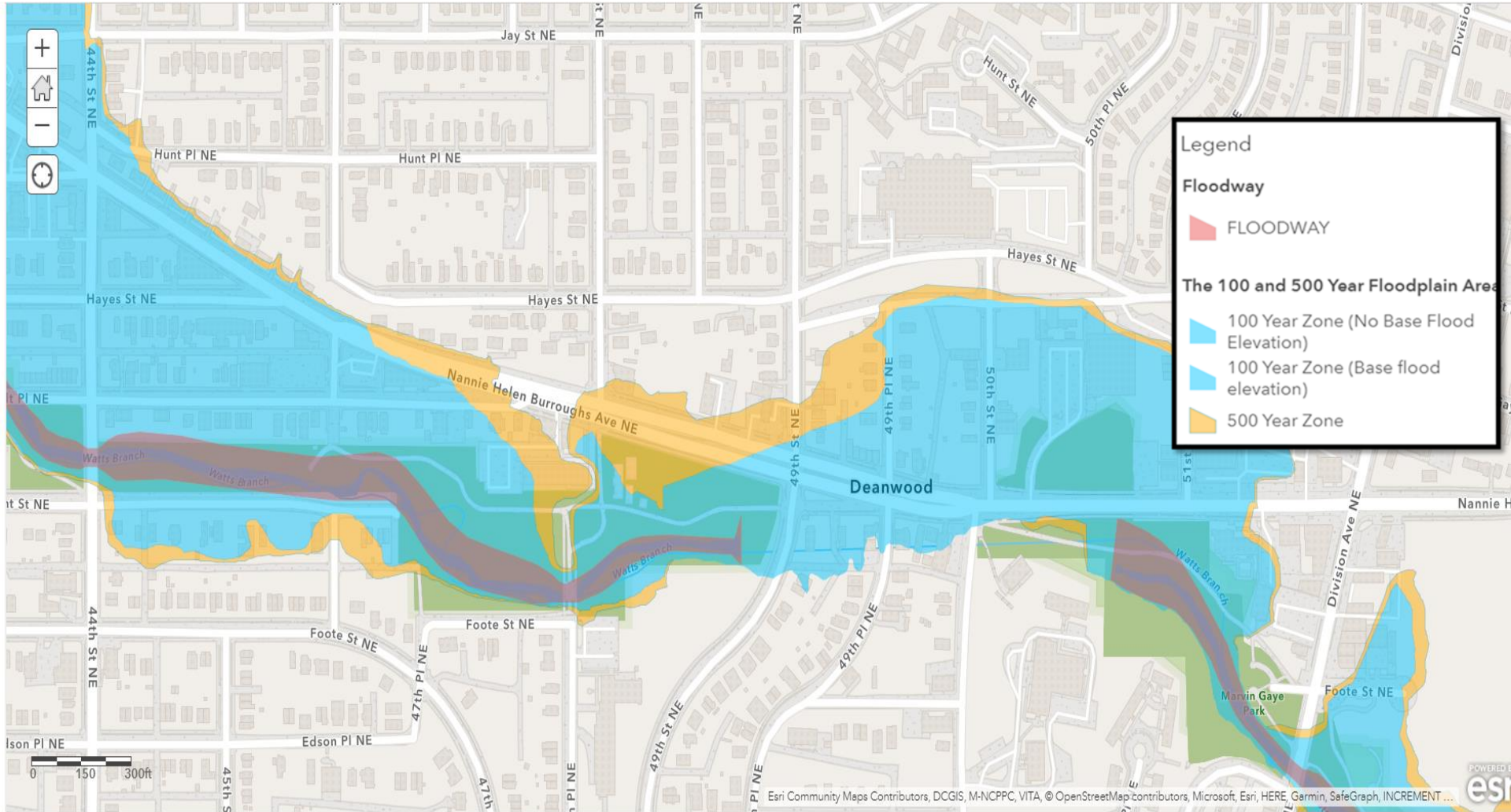
WATTS BRANCH



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