

The City *of* Worcester

Wetlands & Floodplains

What Homeowners Need to Know

2026 Homeowner Summit

Presentation Overview

Wetlands

What are they and why are they important?

Wetland Regulations and Permitting

Floodplains

FEMA Flood Maps

Flood Insurance

Regulatory Requirements

Flood Map Updates

Q&A



WETLANDS

Why Are Wetlands Important?

- Protection of public & private water supply
- Protection of groundwater supply
- Flood control
- Storm damage prevention
- Prevention of pollution
- Protection of land containing shellfish
- Protection of fisheries
- Protection of wildlife habitat



Wetland Regulations

MA Wetlands Protection Act
City of Worcester Wetlands Protection Ordinance

"**Except as permitted by the Conservation Commission** or as provided in this ordinance, **no person shall remove, dredge, build upon, or alter** the following areas: within one hundred (100) feet of any freshwater wetland, bordering vegetated wetland, marsh, wet meadow, bog or swamp; within one hundred (100) feet of any bank; any lake, river, pond, or stream; any land under said waters; any land subject to flooding…"

(Section 2 of the Worcester Wetlands Protection Ordinance)

Jurisdictional Wetland Resource Areas

Within or within 100’ of:

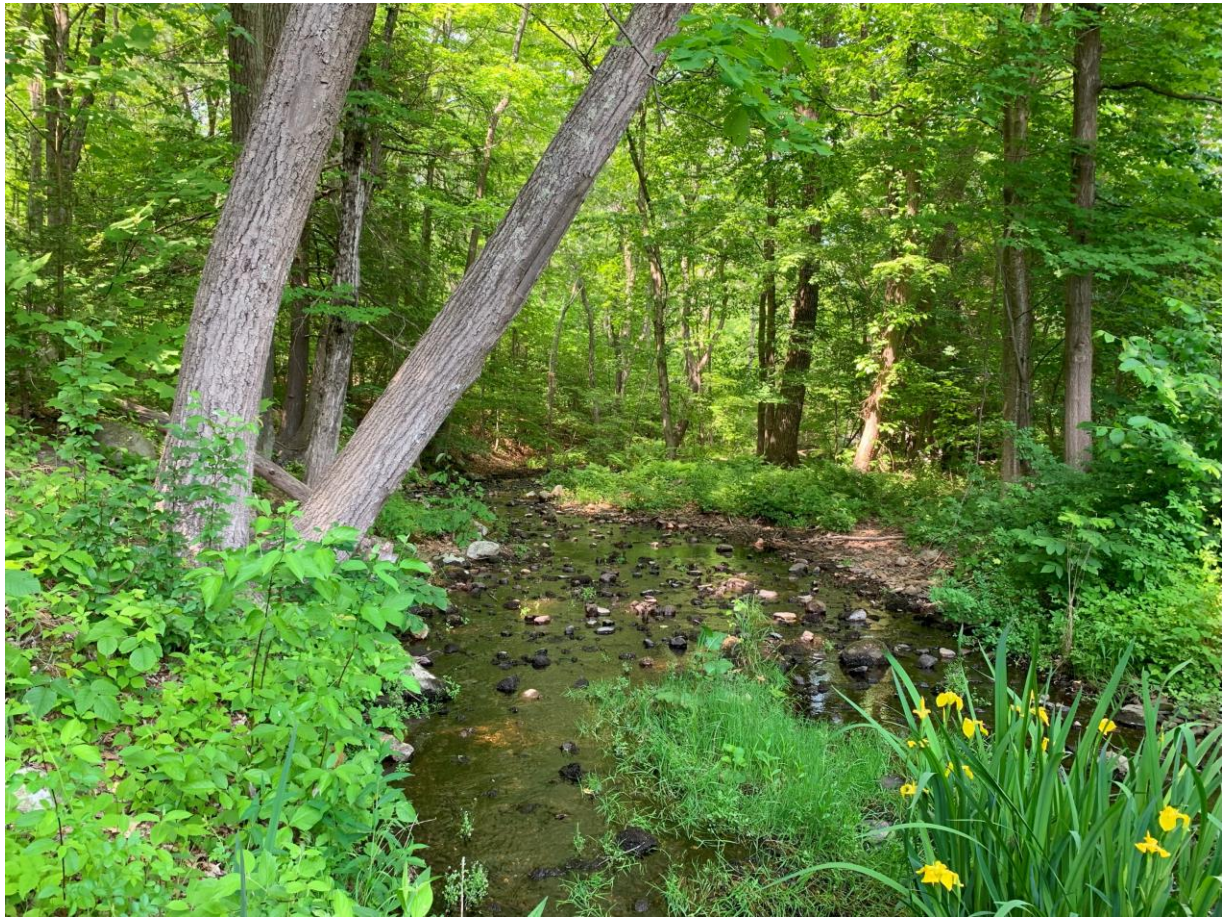
- Banks (Rivers, Streams, Lakes)
- Bordering Vegetated Wetlands
- Land Under Water Bodies

Or:

- Land Subject to Flooding
  - 100-year Floodplain
  - Isolated

Also:

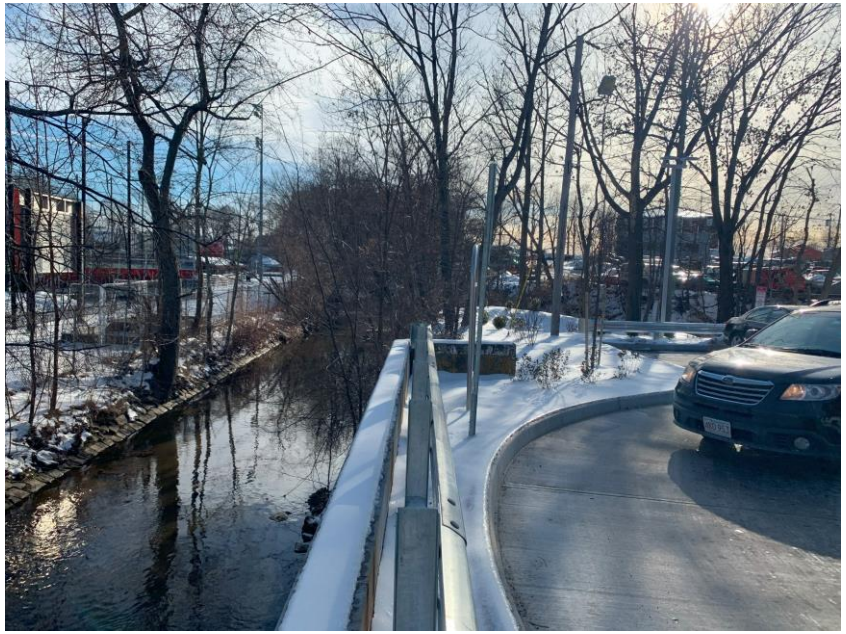
- Larger projects close to catch basins that discharge to wetlands















Online Mapping Resources



Wetland Delineation





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(Section 2 of the Worcester Wetlands Protection Ordinance)

What Type of Work Requires a Permit?

Examples include:

- Construction
- Fill, excavation, regrading, work requiring ground disturbance
- Installation of structures, sheds, decks, docks, fences, patios, hardscaping
- Vegetation removal (not including routine maintenance of landscaped areas)



Permitting Pathways

Request for Determination of Applicability (RDA):

- Appropriate for minor projects in the 100' Buffer Zone
- Simple four-page application form
- Generally, does not require bringing in a consultant
- Outcome: Commission either determines that the work can proceed as proposed, or that a Notice of Intent is required

Notice of Intent (NOI):

- Required for work within wetland resource areas or larger Buffer Zone projects
- More complicated application process
- Typically requires hiring consultant(s), which could include wetland scientists, engineers, surveyors, etc.
- Outcome: Commission issues an Order of Conditions approving or denying the work

Every case is different, when in doubt reach out to us! planning@worcesterma.gov

Examples – Does this need a permit from the Conservation Commission?

Installation of a shed (within yellow box) behind a house?



Examples – Does this need a permit from the Conservation Commission?

Installation of a rear deck?



Examples – Does this need a permit from the Conservation Commission?

Window replacement for all windows in an existing house?





FLOODPLAINS

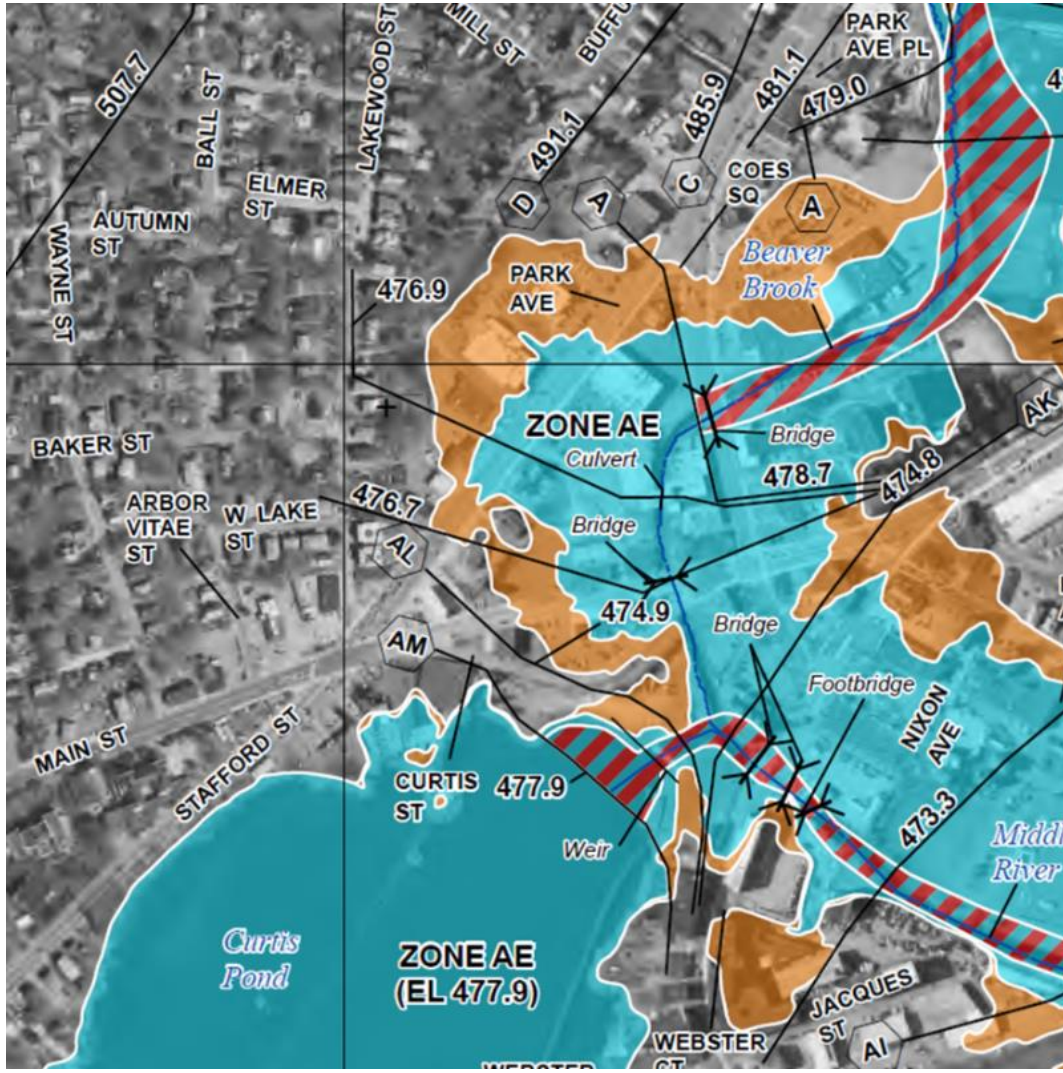
Defining “Floodplain”

The **Special Flood Hazard Area (SFHA)**, also known as:

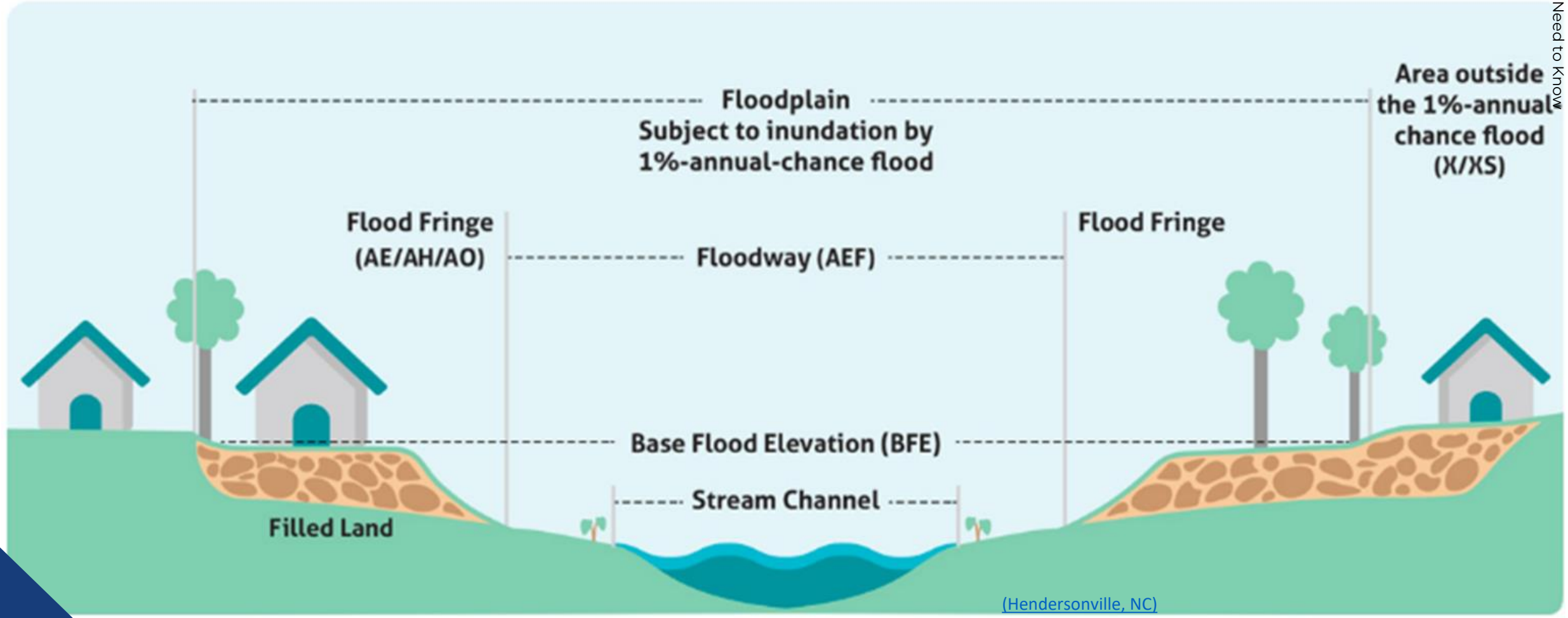
- Floodplain
- **1% annual chance floodplain**
- Zone A, AE, AH, AO, floodways
- Bordering land subject to flooding

Defined by FEMA as *“the area that will be **inundated** by the flood event having a 1% chance of being equaled or exceeded in any given year”*. This 1% change flood is also commonly referred to as the “base flood”, the height of flooding is called “base flood elevation” (BFE).

Example: The 1 % annual-chance storm in Worcester means 7.64” of rain in 24 hours (NOAA)

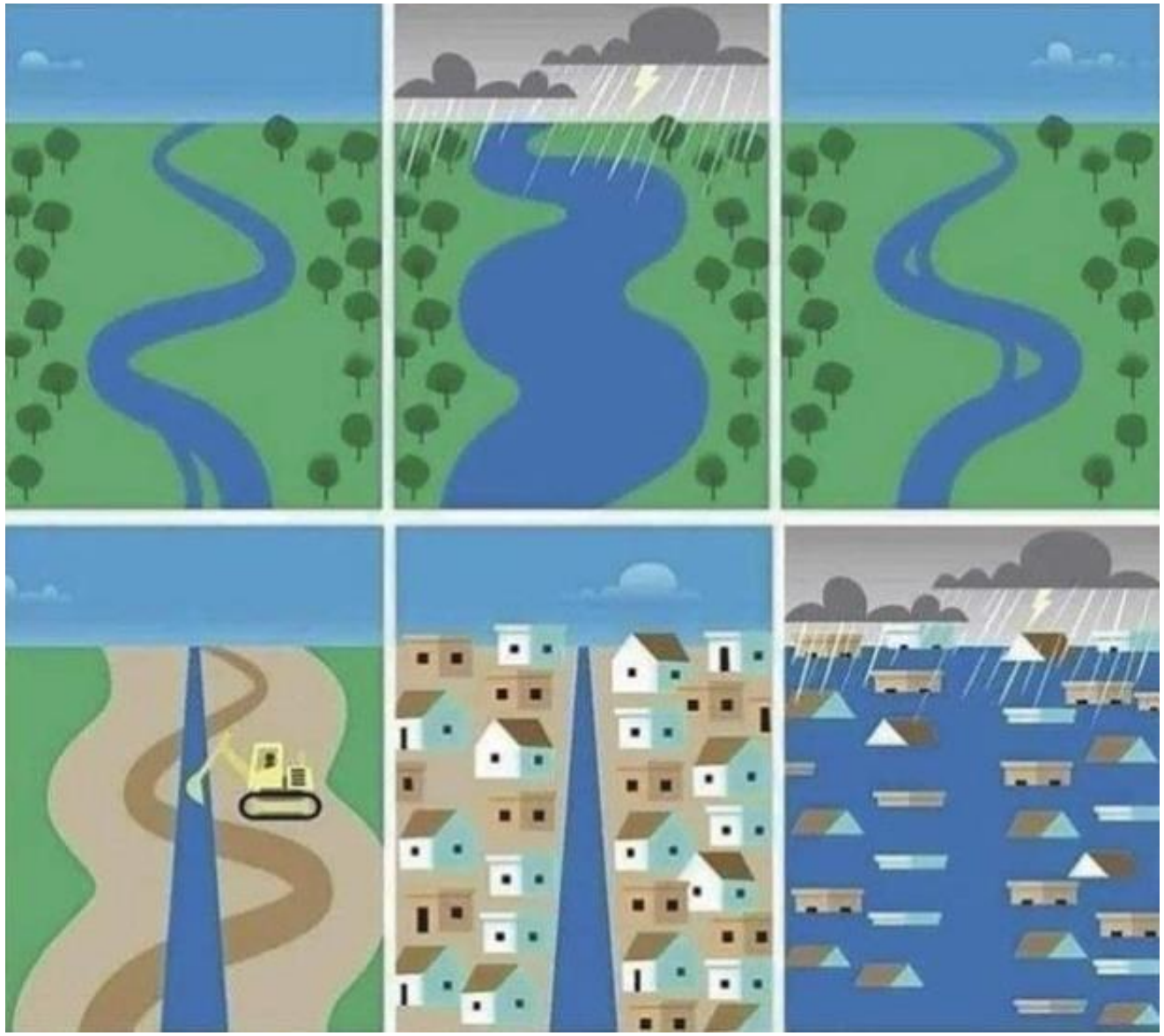


Riverine Floodplain



(Hendersonville, NC)

Riverine Floodplain



Flooding - Leominster, MA 2023


(Sean Whigham, MassLive)


(Josh Reynolds, AP)


(Dave Thompson, MassLive)



(Michael Casey, AP)


(Dave Thompson, MassLive)


FEMA Flood Maps
ZONE AE
Coes Pond
482.3
C
BEAVER ST
479.0
MILL ST
BUFFUM ST
PARK AVE PL
481.1
485.9
491.1
D
A
C
COES SQ
A
479.0
B
MARBLE ST
CLEMENT ST
MAIN ST
FREELAND TER
LOWELL CT
RICHARDS ST
AGAWAM ST
LUCIAN ST
ELMER ST
AUTUMN ST
WAYNE ST
SEVILLE
PARK AVE
476.9
Beaver Brook
IRENE ST
TIRRELL ST
LOWELL ST
ZONE AE
Culvert
Bridge
478.7
474.8
AK
STONELAND RD
HAYNES ST
BAKER ST
MONTAGUE ST
ARBOR VITAE ST
W LAKE ST
476.7
AL
Bridge
474.9
AM
KNOWLTON AVE
AJ
HITCHCOCK RD
IVES ST
FREELAND ST
Bridge
Footbridge
NIXON AVE
CAMBRIDGE ST
SAUGUS PL
MAIN ST
STAFFORD ST
CURTIS ST
477.9
Weir
473.3
Middle River
WALLER AVE
DUNCAN AVE
DUNCAN PL
472.0
Bridge
EXETER ST
RAILROAD
FREMONT ST
Curtis Pond
ZONE AE
(EL 477.9)
JACQUES ST
WEBSTER

Implications of Owning a Property in the Floodplain

1) Flood insurance is mandatory for any structure mapped in the SFHA when a property has a federally backed mortgage. (Note: most conventional mortgages are federally backed)

   - Flood insurance is generally *not* included in standard homeowners' insurance policy.

2) New construction or substantial improvement/damage of/to existing structures within the SFHA must meet the state building code requirements for flood resistant construction (e.g., removing basements and elevating your first floor and utilities for residential structures and/or floodproofing for non-residential structures).

3) Construction activities (e.g., tree removal, earth disturbance, decks or patios, etc.) in the SHFA require a permit from the Conservation Commission under state and local wetlands protection laws.

Insurance - Mandatory Purchase Requirement

- If you have a **federally backed mortgage**, look out for a letter from your lender notifying you of the **mandatory requirement to purchase flood insurance for the duration of your loan**.
- Most homeowners insurance does **not** cover flood damage
- A property in the regulatory floodplain (1% Chance Annual Flood) has a 26% chance of being flooded during the life of a 30-year mortgage. **That's 1 in 4.**
- Flooding can still happen anywhere. ~32% of NFIP flood insurance claims occur *outside* of the SFHA.



Nearly 1 in 3 claims is outside of the floodplain.





Pelham Street, Worcester.
Not mapped in a regulatory floodplain.

(Pelham Street - 2018 Photos by Scott J. Croteau | masslive.com)

National Flood Insurance Program (NFIP)

- Administered by **FEMA** to participating communities in order to ensure property owners, renters, and businesses ***can*** **obtain flood insurance** in exchange for communities committing to uphold federal minimum floodplain management standards
- 97% of Massachusetts communities participate
- Participating communities - like Worcester - must maintain compliance with NFIP requirements (federal regulations) or risk suspension or removal from the program
    - **Worcester** also elects to participate in the Community Rating System (CRS) program, which gives policyholders up to a **15% discount** on their flood insurance premiums for properties in the City.

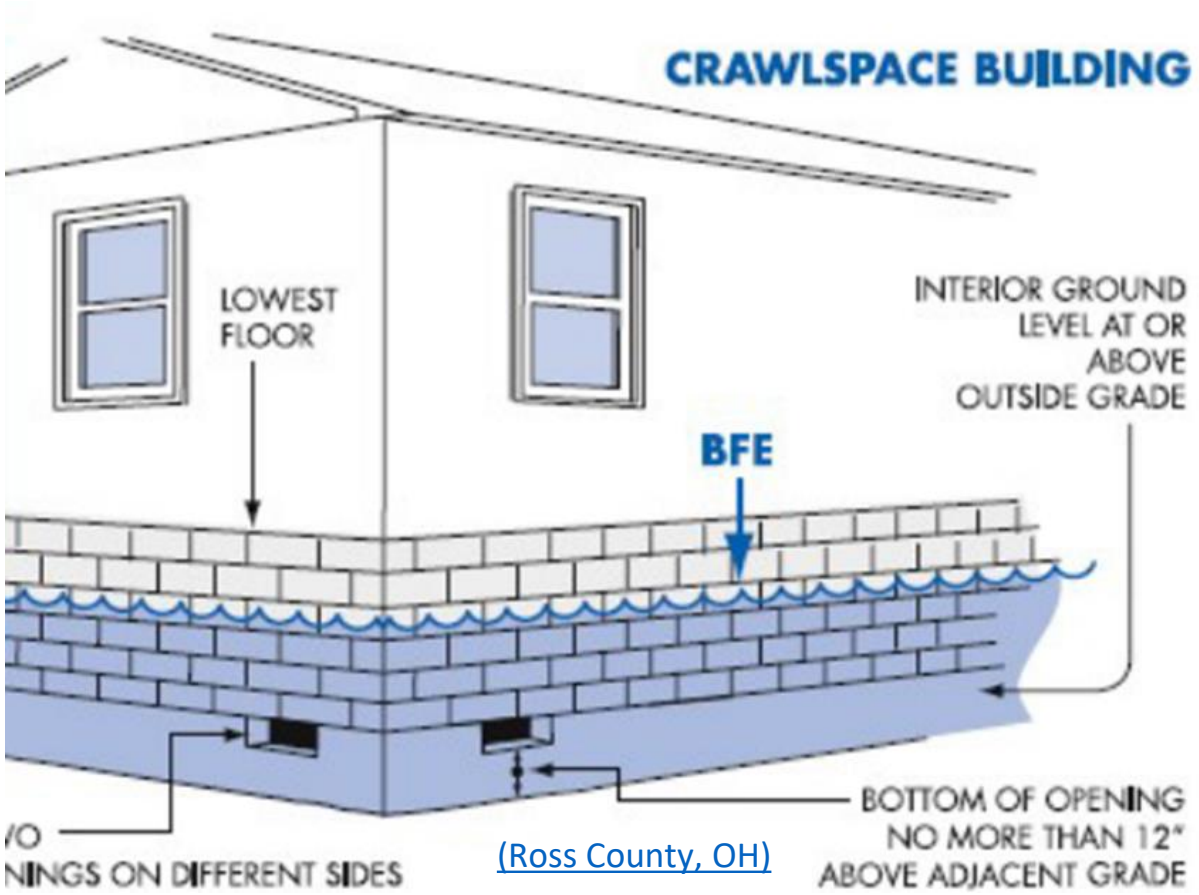


Flood insurance can also be obtained from private companies, but private insurers might elect <u>not</u> to ensure high-risk properties

Building Code Standards

For New Construction or Substantial Improvement/Damage:

- Freeboard: elevation of lowest floor and utilities 1’ (2’ as of July 1, 2025) above the Base Flood Elevation (BFE)
- Floodproofing (non-residential structures only) to 1’ (2’ as of July 1, 2025) above the BFE



(Ross County, OH)

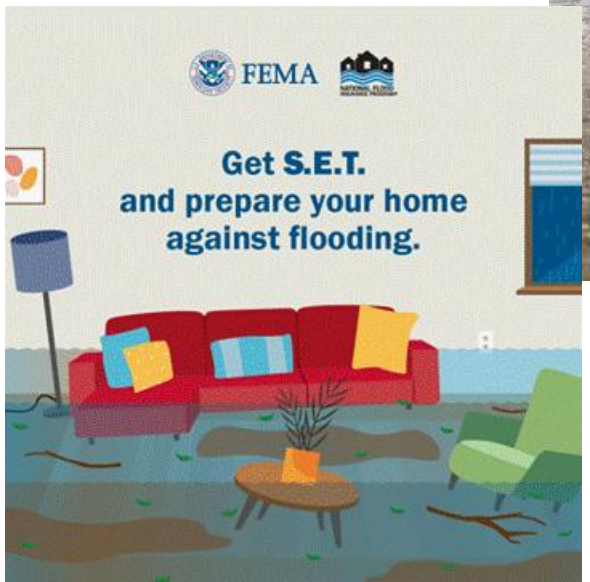
MA Wetlands Protection Act

- The SFHA is regulated under the WPA as **Bordering Land Subject to Flooding (BLSF).** Treated similar to wetlands.
    - **BLSF = Floodplain.**
- Work that involves earth disturbance, excavation, re-grading, construction, vegetation removal, etc. located within BLSF requires <u>prior</u> review and approval of the **Conservation Commission**
- Compensatory storage must be provided for any fill within BLSF that would displace flood waters.



Be Ready - Flood Preparedness

- Talk to your **insurance** agent about your coverage
- Prepare a list of emergency telephone numbers
- Assemble cleanup and recovery supplies
- Make a record of all of your personal property
- Identify two places where family members can meet if you are split up
- **Store** photocopies of important documents at a location away from your house
- **Elevate** utilities & valuables
- **Toss** debris from gutters
- Shut off the gas and electricity
- Prepare a flood response plan





Kansas Street & Cambridge Street (Ashley Green, Telegram & Gazette, 2021)

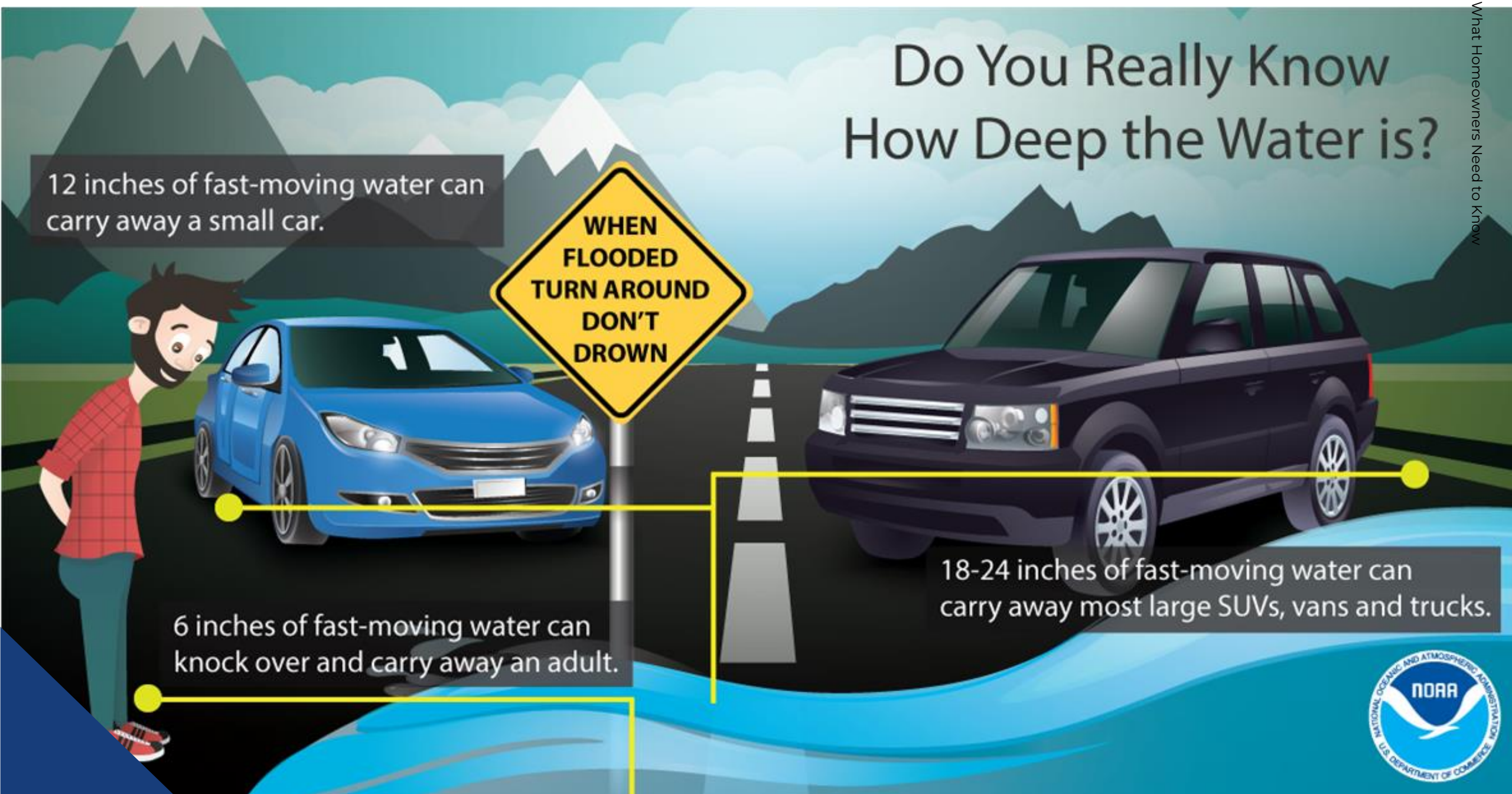
Flood Safety - Staying Safe

- Do not walk through flowing water
- Do not drive through a flooded area
- Look before you step
- Stay away from power lines and electrical wires
- Have your electricity turned off by the Power Company
- Look out for small wild animals
- Be alert for gas leaks
- Carbon monoxide exhaust kills
- Clean & disinfect everything that got wet



(Ashley Green, Telegram & Gazette, 2021)

Southgate Street underpass
Not in the regulatory floodplain


Do You Really Know
How Deep the Water is?
12 inches of fast-moving water can carry away a small car.
WHEN FLOODED TURN AROUND DON'T DROWN
18-24 inches of fast-moving water can carry away most large SUVs, vans and trucks.
6 inches of fast-moving water can knock over and carry away an adult.
NOAA
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
U.S. DEPARTMENT OF COMMERCE

Blackstone River Watershed Map Update Timeline

November 26, 2024

Preliminary Maps

FEMA released the preliminary maps for the Blackstone River Watershed on November 26, 2024

December 2026 (expected)

Letter of Final Determination

FEMA is expected to issue Letter of Final Determination for the Preliminary Maps in December 2026 once all appears and comments have been addressed

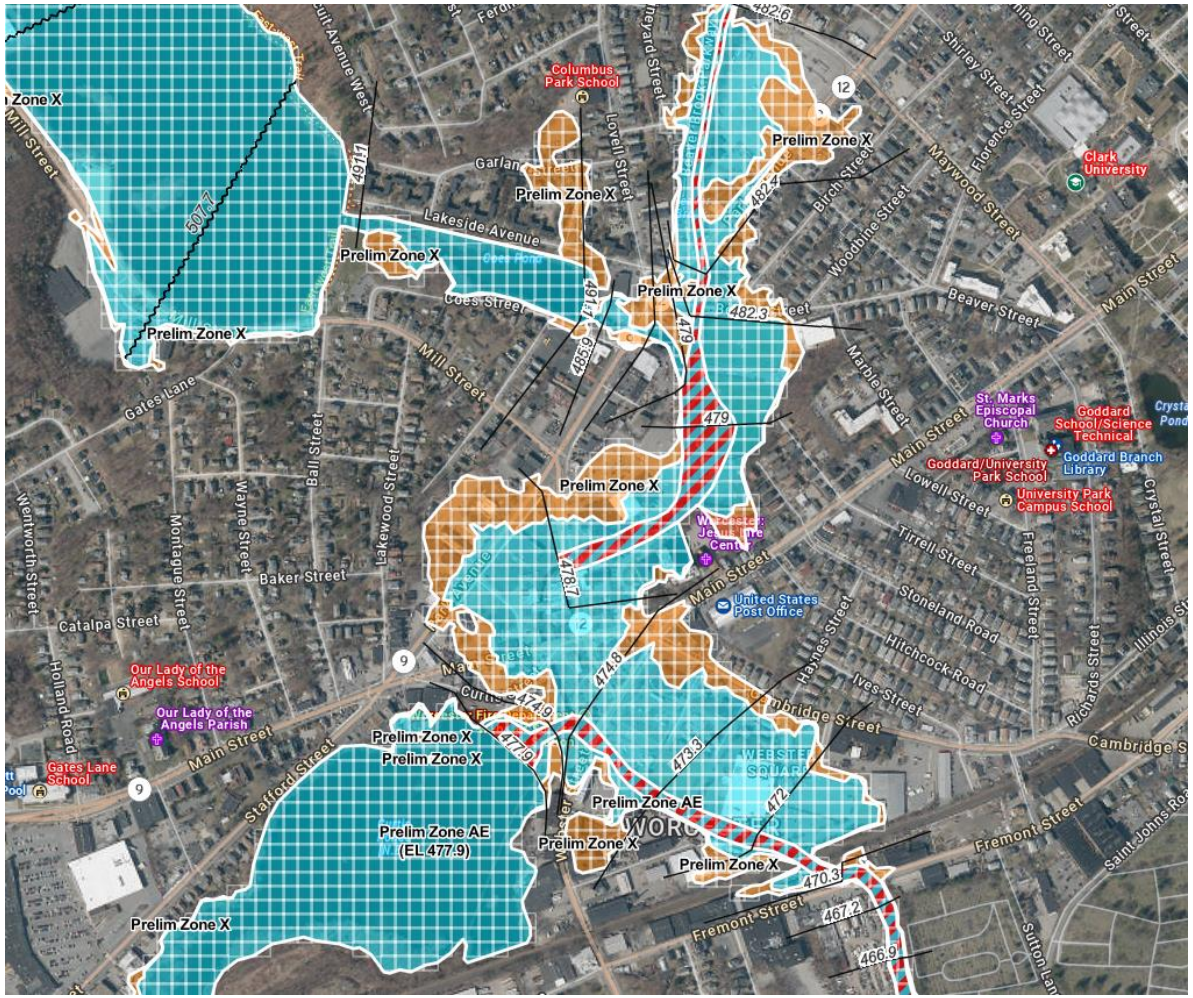
Summer of 2027 (expected)

Maps Become Effective

6 months after the issuance of a Letter of Final Determination, the preliminary maps will become effective. At this point, the maps will be used for purposes of the mandatory purchase requirement and building code provisions for constructions in the floodplain

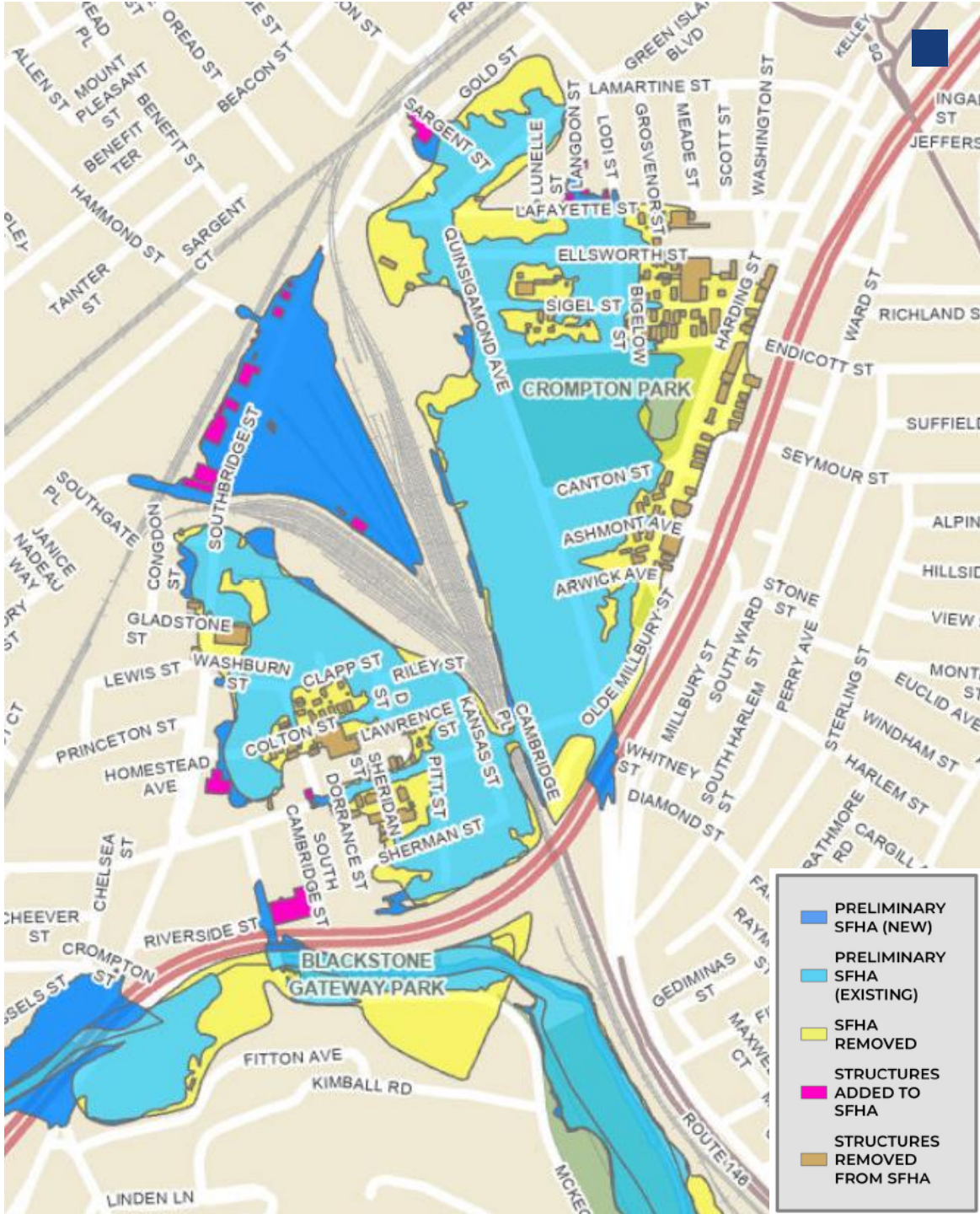
What's Changing for the City of Worcester

- Properties:
  - 318 added to the SFHA
  - 215 removed from the SFHA
  - Net Change: +103
- Structures:
  - 327 added to SFHA
  - 412 removed from SFHA
  - Net Change: - 81
- Acreage of SFHA
  - Existing maps: 1,475 acres
  - Proposed maps: 1,412 acres
  - Net Change: -63 acres



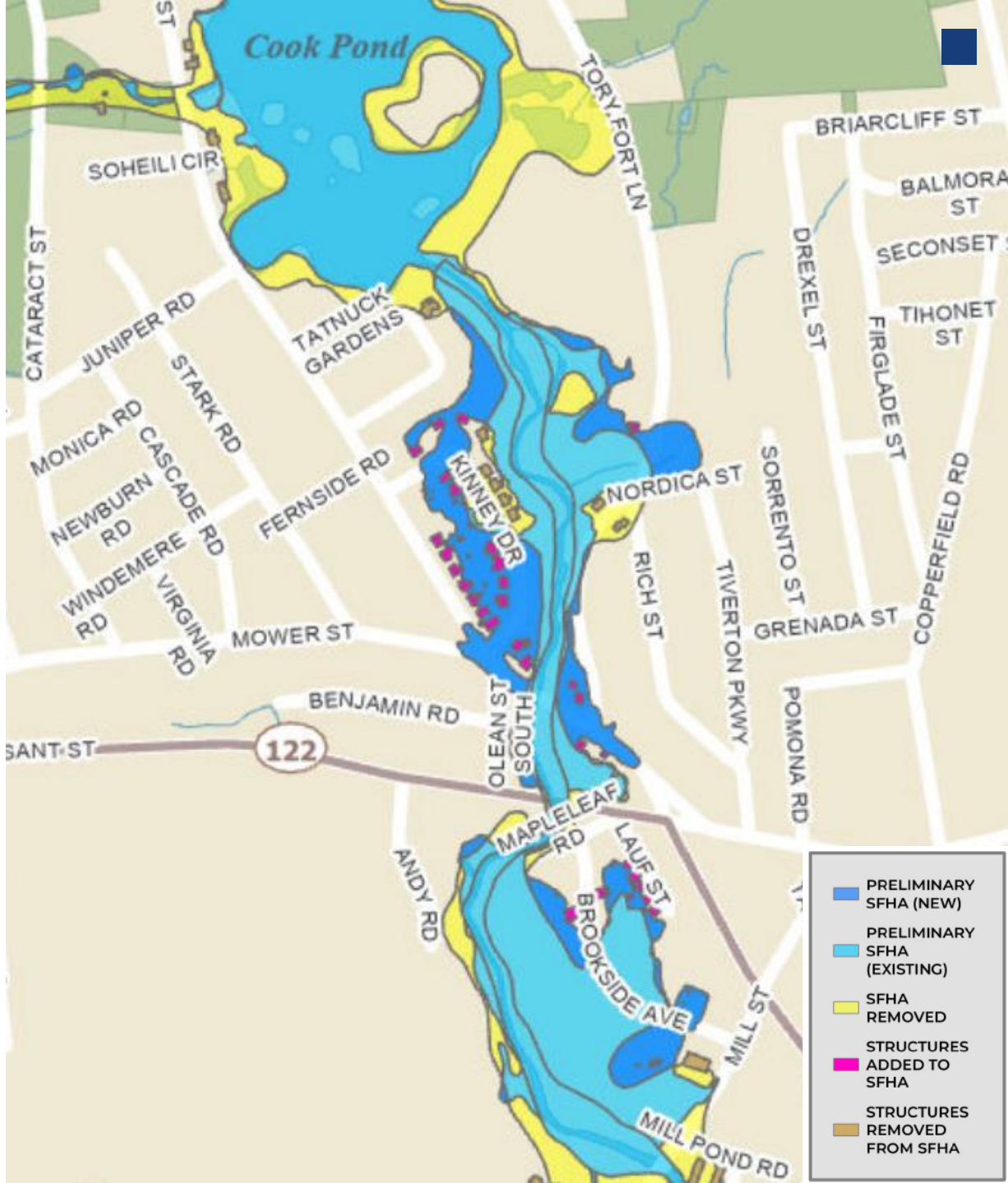
Notable Changes: Green Island

- Detailed re-study of the Middle River (from Webster Sq. to McKeon Rd.), flood elevations are expected to INCREASE by 1.1 Feet



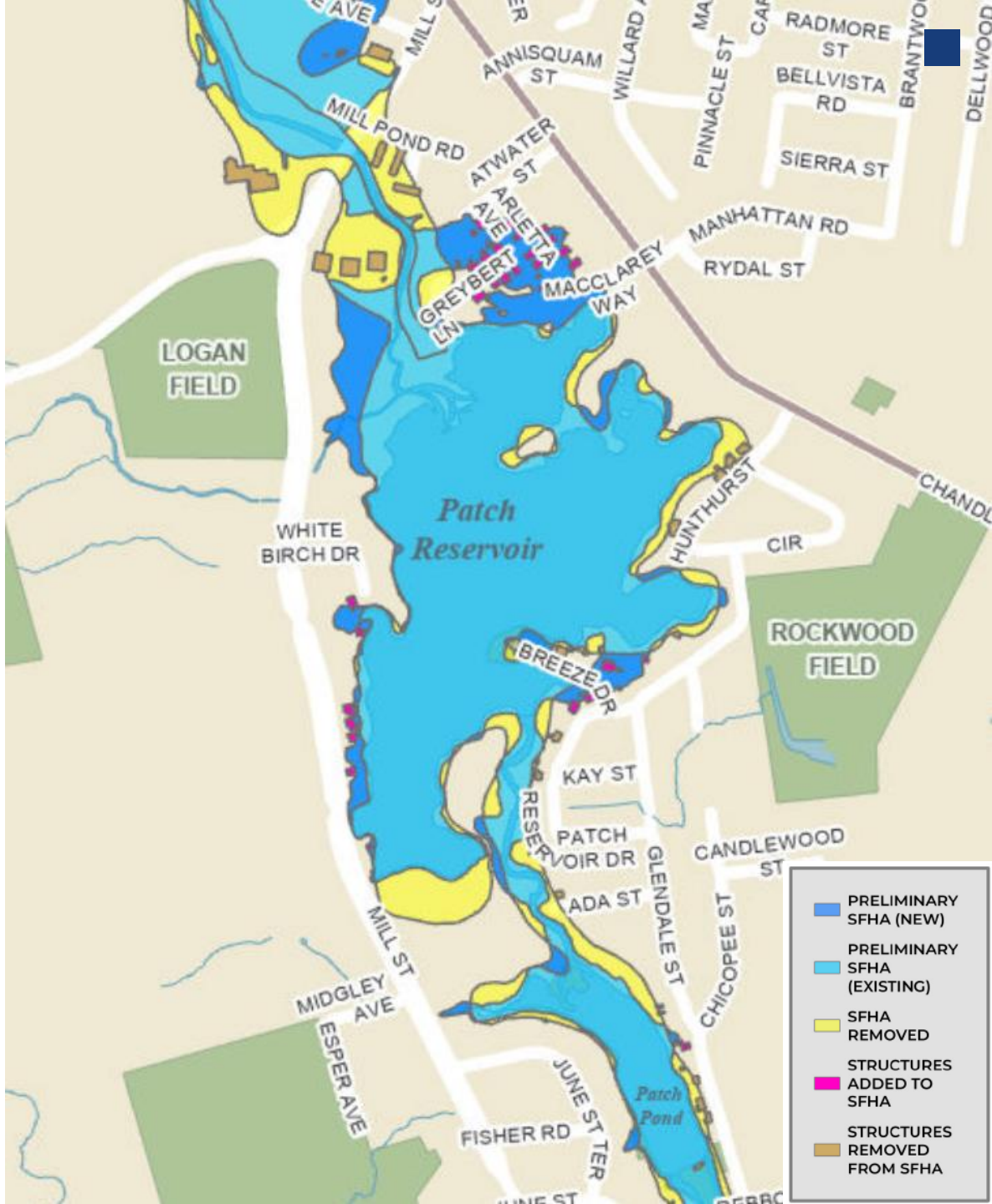
Notable Changes: Tatnuck Square

- Redelineation



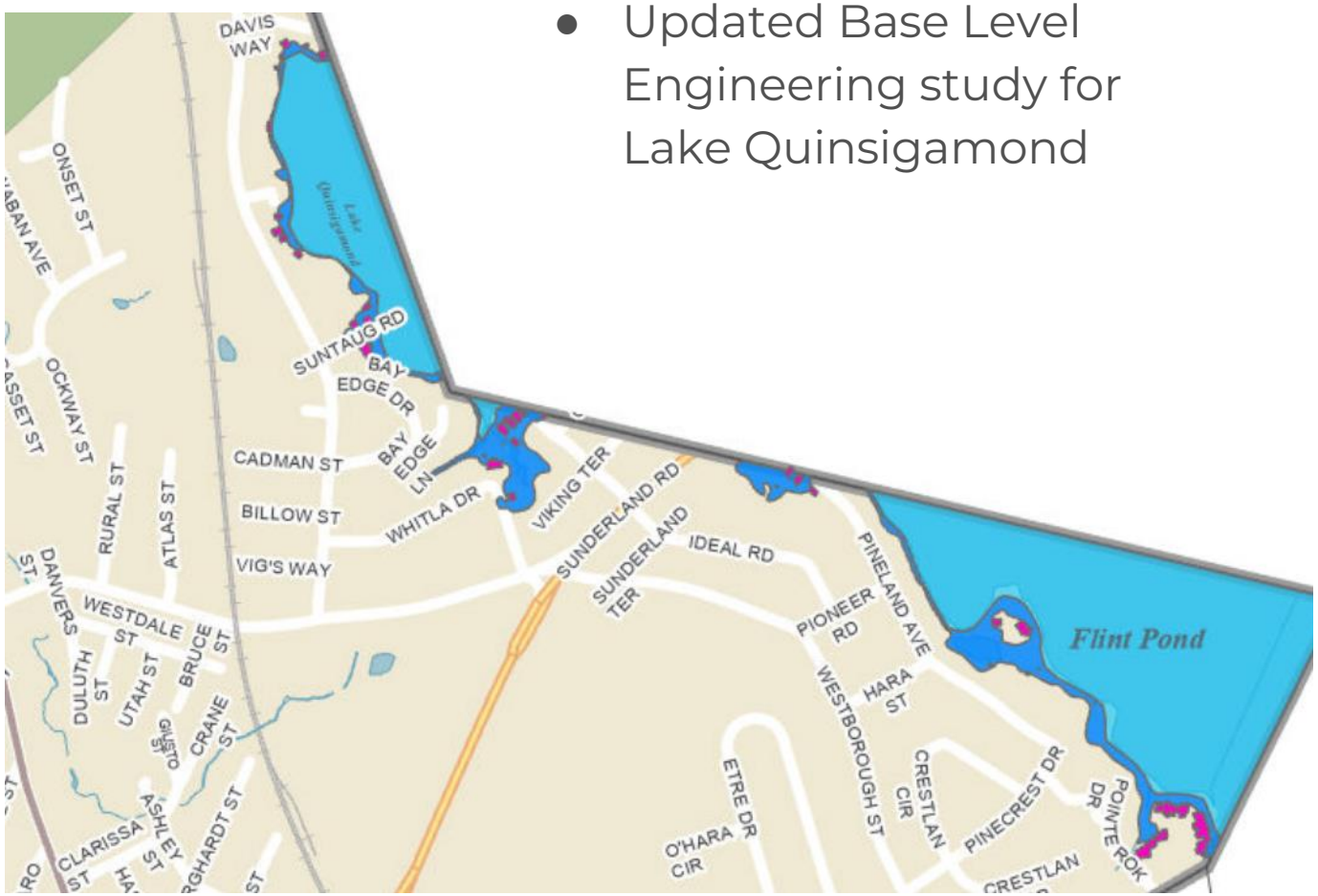
Notable Changes: Patch Reservoir

- Redelineation



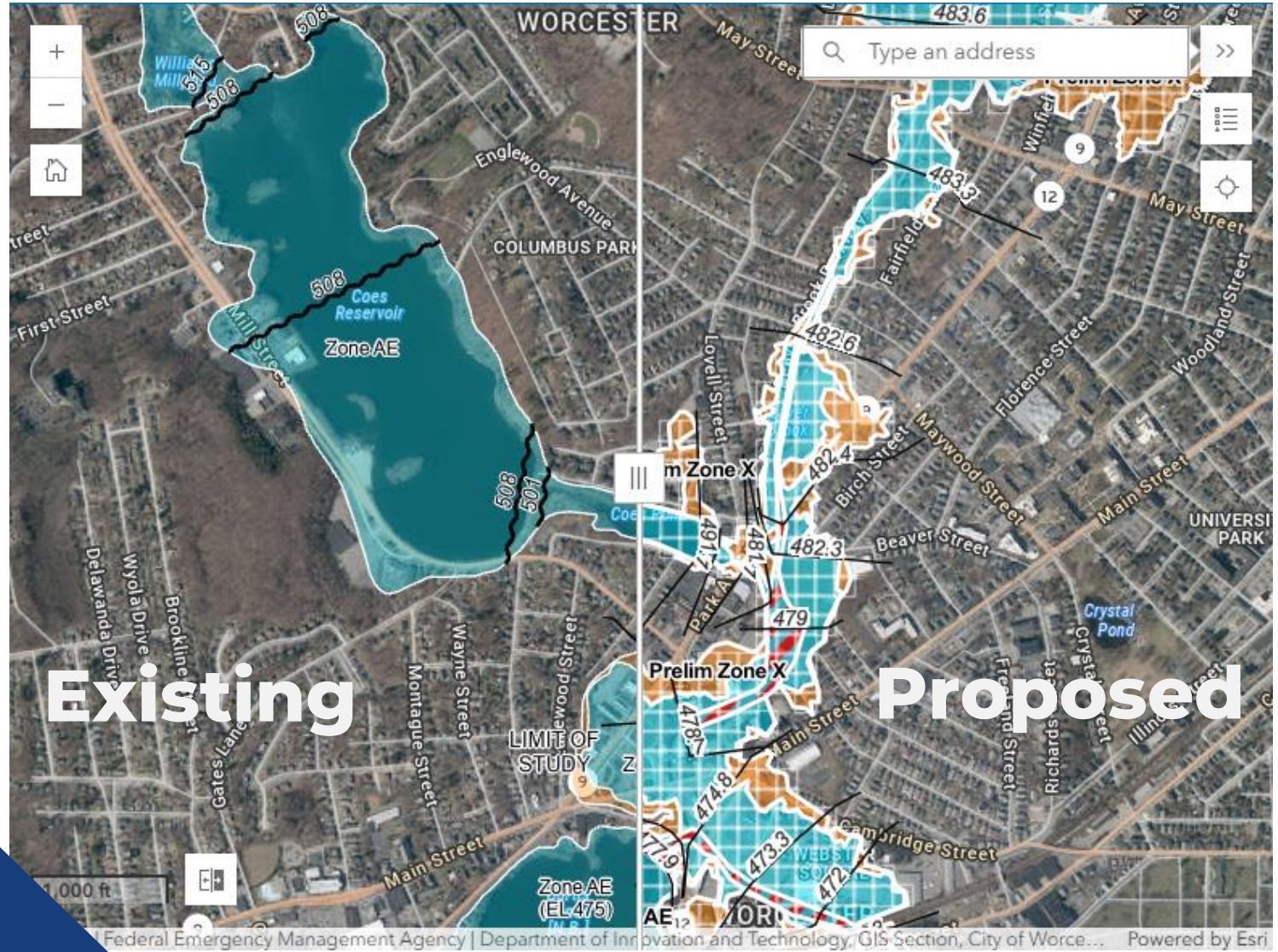
Notable Changes: Lake Quinsigamond & Flint Pond

- Updated Base Level Engineering study for Lake Quinsigamond





Interactive Flood Map Viewer



City of Worcester Flood Map Update Website

https://tinyurl.com/FLDMAPUPD

Questions?

City of Worcester
Planning & Regulatory Services Division (DPRS)

City Hall, 455 Main Street, Room 404
Worcester, MA 01608

Phone

508-799-1400 ext. 31440

Email

planning@worcesterma.gov

City of Worcester Flood Map Update Website

https://tinyurl.com/FLDMAPUPD

Useful Links

- City of Worcester Floodplain Management Webpage
- City of Worcester Flood Map Update Webpage
- Worcester Atlas Viewer
- FloodSmart.gov
- FEMA National Flood Insurance Program
- NFIP Quoting Tool

