

FEMA Floodplain Changes in Alexandria

PRELIMINARY Map Revisions Available

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FOUR MILE RUN – May 19th, 2021



FEMA Floodplain Changes in Alexandria

City outreach meetings:

- May 19, 2021 Four Mile Run
- May 24, 2021 Potomac River / Old Town
- June 4, 2021 Hooff's Run
- June 7, 20201 Cameron Run, Backlick Run, Strawberry Run, Taylor Run
- June 15, 2021 Holmes Run



National Flood Insurance Program

Quick Facts:

- Established in 1968
- Alexandria began participation in 1969
- Alexandria's first Flood Insurance Rate Map (FIRM) was published in 1969
- Mandatory Flood Insurance began in 1973
- Alexandria began participation in the Community Rating System (CRS) in 1992 (Flood Insurance discounts)
- Last update to Alexandria's maps became effective on June 16, 2011

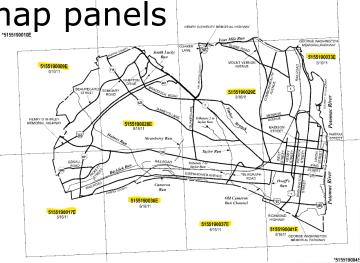


What are the FEMA Flood Maps?

The regulatory FEMA floodplain, is officially shown on FEMA's published maps, also known as:

FLOOD INSURANCE RATE MAPs (FIRMs)

Alexandria has 10 FEMA map panels



What are the FEMA Flood Maps?

NOTES TO USERS

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MS8 Information Services NGAA, NINGS12 National Geoletic Survey 55MC-3, MS282

12/15 East-Vest Highway Silver Spring, Maryland 20010-3282

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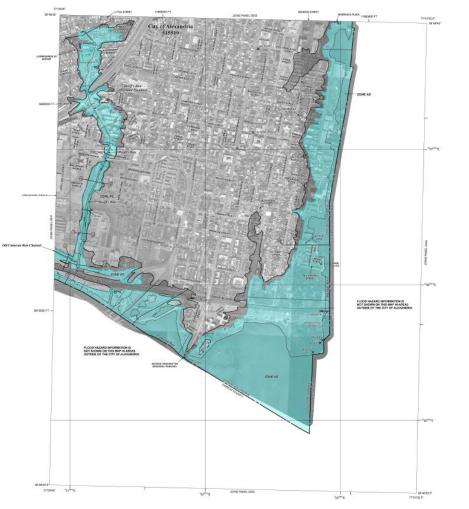
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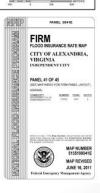
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What is the FEMA Floodplain?

The regulatory FEMA floodplain, as shown on the maps, is known as:

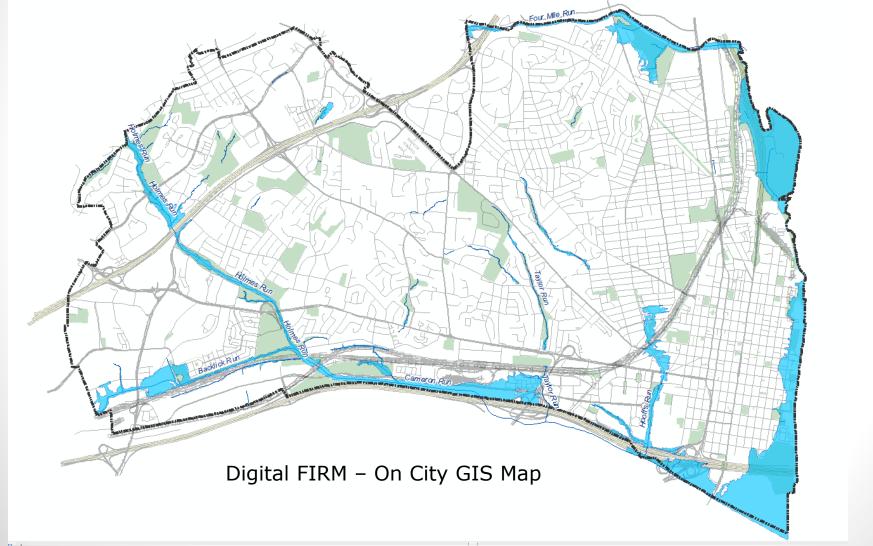
Zone AE: An area inundated by 1% annual chance flood, for which Base Flood Elevations (BFEs) have been determined by detailed methods (H&H). Other zones defined by flooding source.

AKA: Special Flood Hazard Area (SFHA), 100-year floodplain.











Alexandria's Floodplain Administration by Ordinance

- Alexandria's Floodplain District
 - Zoning Ordinance: ARTICLE VI SPECIAL AND OVERLAY ZONES, Section 6-300 Floodplain District
- Regulation of Development
 - Development:

"Any man-made change to improved or unimproved real estate, including, but not limited to, the construction of buildings or other structures, the placement of manufactured homes, the construction of streets, the installation of utilities and other activities or operations involving paving, filling, grading, excavating, mining, dredging or drilling, the storage of equipment or materials."



Regulation of Development

When does the Ordinance apply?

- New Construction in Floodplain
 - Always
- Existing Buildings in Floodplain
 - Substantial Improvement:
 - Any repair, reconstruction, rehabilitation, addition or other improvement of a building or structure, the cost of which equals or exceeds 50% of the market value of the building or structure.
 - Any improvements to Substantially Damaged buildings or structures.
 - Historic buildings are exempt.



Regulation of Development

Three Major Uses:

Residential Building

 Any single-family dwelling, two-family dwelling, row or townhouse dwelling, or multi-family dwelling, and any accessory building or structure. Floodproofing underground spaces (basement/parking) is not permitted.

Nonresidential Building

 Any building or structure which is not a residential building or a mixeduse building. Floodproofing underground spaces (basement/parking) is permitted.

Mixed-Use Building

Any building or structure that is used or intended for use in a mixture
of nonresidential and residential uses in the same building or
structure. For floodplain management purposes, a mixed-use
building is subject to the same rules and conditions as a
residential building unless all of the provisions set forth more
specifically in Section 6-305(K) are met. Floodproofing is conditional.



How often are the maps updated?

• **Depends!** Alexandria's maps were last updated in June 2011.

- Previous map dates:
 - 1991
 - 1983
 - 1981
 - First mapped in 1969



NEW MAPS ARE COMING

Schedule:



Citywide Impacts

Based on PRELIMINARY maps (FEMA)

Significant Impacts

City of Alexandria, VA - Citywide



local planning, improve outreach through risk communications, and increase local resilience to natural hazards. Below is an overview of some key items identified during the

The information presented below are estimates as of March 2020.



Flood insurance is available to the entire City

The city participates in the Community Rating System (CRS), receiving flood insurance savings of up to twenty percent





Of the population is in the draft flood high hazard area





\$6.5M Total paid losses2

362

Total paid claims²

Average premium

38%

Higher than the national

average



Paid claims outside of the effective flood high hazard area²



\$2M

Repetitive Loss (RL) paid losses2

RL properties²



1,174

Flood insurance policies in force

947

For Single Family Residential Structures



Policies in the effective flood high hazard area



33,700

Estimated structures³ in the community

Estimated structures³ in the draft flood high hazard area

Estimated structures^a mapped in

Estimated structures^a newly mapped out

+350





Properties New to the Floodplain:

- Insurance is mandatory for government backed mortgages.
 - Average annual premium in Alexandria is \$1,180/yr.
- Elevation certificates may be required by mortgage holders.
 - \$400-\$600 One-time expense.
- Any development of property (including additions, interior work) now subject to Substantial Improvement floodplain regulations.
- Nonresidential redevelopment may dryfloodproof.
- Won't be impacted until maps become Effective in Fall 2022.

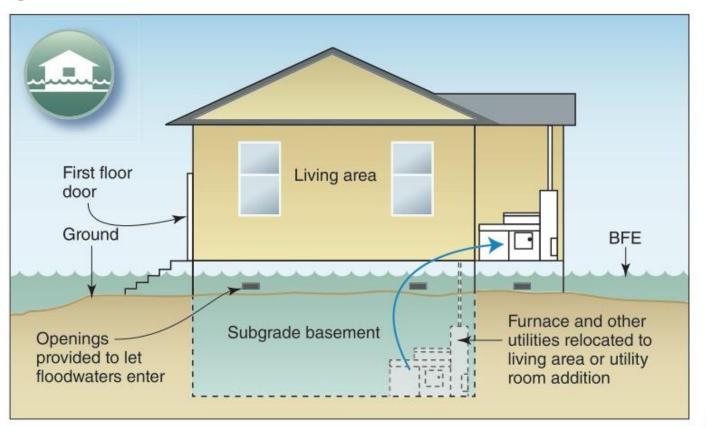


Basic Floodplain Regulations:

- All New and Substantially Improved buildings must have the lowest floor (including basements) at least 1-ft above the Base Flood Elevation (BFE).
- Substantial Improvement means any improvement to a building, the cost of which is 50% or greater than the Value of the building. (city uses tax assessed data)

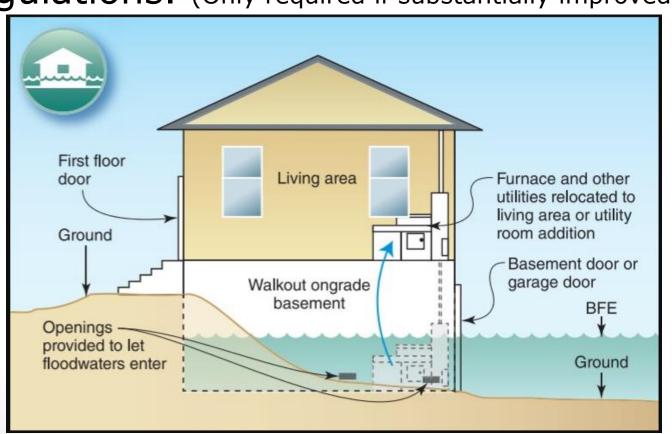


Examples of older buildings with basements made compliant with regulations. (Only required if substantially improved).





Examples of older buildings with basements made compliant with regulations. (Only required if substantially improved).





STALE VALUE

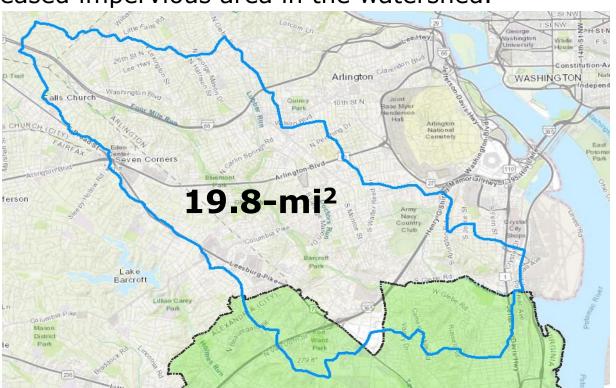
FEMA RE-STUDIED THE FOUR MILE RUN WATERSHED

- New Hydrology Determines the flows from rainfall seen in the Run in cubic-feetper-second. Leads to depth in the channel.
- New Survey of the Run's cross-sections.
- New Hydraulics Model Determines the elevation of water surface through the cross-sections. Most commonly by USACE's Hydraulic Engineering Center (HEC) River Analysis System (RAS), or HEC-RAS program.
- LAST STUDIED in mid 1970's.



How have things changed in Four Mile Run since 1970?

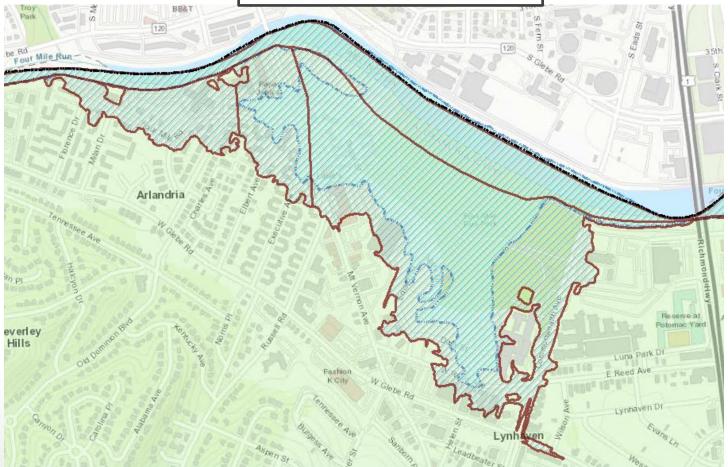
- Changes in the geometry of the channel.
- Updated modeling and mapping information and techniques. (LIDAR, computer modeling)
- Increased impervious area in the watershed.





FEMA Floodplain in Four Mile Run

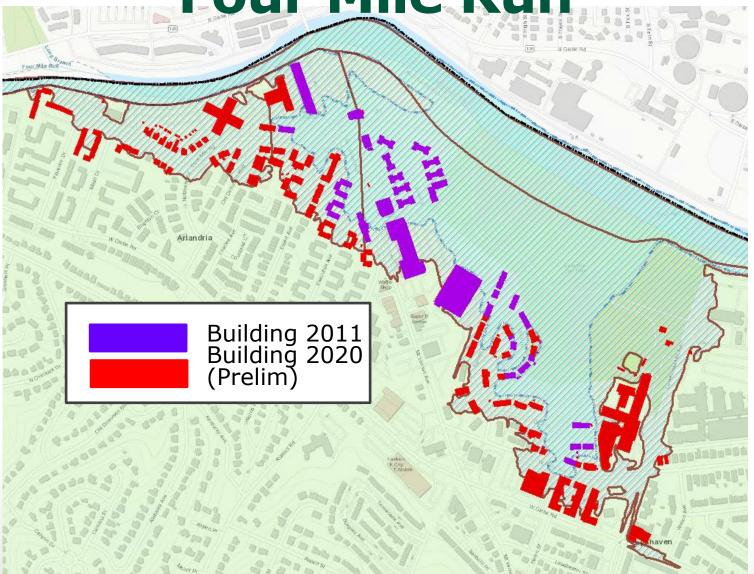
_____ 2011 _____ 2020 (Prelim)





FEMA Floodplain in Four Mile Run







More Information?



Resources for more information:



City Website:

https://alexandriava.gov/floodmap https://alexandriava.gov/933446 (flooding & drainage)



FEMA MAP UPDATE:

https://arcg.is/1L4fXW



Flood Insurance:

- Your Homeowner's Insurance Provider
- FEMA: https://floodsmart.gov
 - Renter's insurance also available for belongings!
 - https://www.floodsmart.gov/flood-insurance/types



FEMA's RISK Rating 2.0:

https://www.fema.gov/flood-insurance/work-with-nfip/risk-rating



COMING SOON: Explore City 50% matching grants for Floodproofing your property! City reimburses up to \$5,000 for qualified projects. https://www.alexandriava.gov/FloodAction



KEY TAKE-AWAYS

- MAP changes are coming!
 - Take steps to protect yourself and your property.
- Get Flood Insurance Now!
 - If you are NOW in Zone X, flood insurance policies prior to map change will be grandfathered in at Zone X rates when the map change becomes effective.
 - Rates will remain if there is continuous coverage by the same owner.
 - 30-day waiting period for policy coverage. Don't wait!
- Floodproofing 50% matching grants up to \$5,000 coming soon from the City. Watch for updates at https://alexandriava.gov/floodaction



What's Next?

City continues community outreach through June 2021.

Appeal Period begins Summer 2021 for 90-days. Dates TBD.

FEMA sends Letter of Final Determination (LFD) in Spring 2022.

FEMA makes new maps effective 6-mo following LFD in Fall 2022. Any previous Letters of Map Change/Amendments will be validated against the new maps at this time, as appropriate by FEMA.



APPEALS PROCESS

FEMA Issues Public Invitation to Appeal or Comment (COMING SOON!)

Residents may submit an appeal if they perceive that modeling or data used to create the map is technically or scientifically incorrect.

- An appeal must include technical information, such as hydraulic or hydrologic data, to support the claim.
- Appeals cannot be based on the effects of proposed projects or projects started after the study is in progress.
- If property owners see incorrect information that does not change the flood hazard information—such as a missing or misspelled road name in the Special Flood Hazard Area or an incorrect corporate boundary—they can submit a written comment.

More information on dates for the appeals period coming soon.



Questions?

