



Community Meeting

FLOOD RESILIENCE PLAN





GRANT FUNDED PLANNING

- Community Flood Preparedness Fund (CFPF)
- 90/10 grant matching
- Allows for future opportunities



WHAT IS RESILIENCE?

- Urban resilience is the ability to withstand and recover from unexpected shocks associated with natural hazards and climate change.
- Resilience Plan to ensure we will be better **prepared**, ready to **respond**, and able to **recover** from flood events





CHANGES IN PRECIPITATION

- Here in Virginia, average hourly rainfall increased 24% in Norfolk, 15% in Lynchburg, 14% in Richmond and 10% in Roanoke over the last 50 years, and the trend is likely to continue
- Using the EPA CREAT Climate Scenarios Projection Map, the City of Roanoke should expect an estimated 5.4% increase in average annual precipitation by 2035 and a 10.5% increase by 2060.
- Sewers, detention ponds, dams and other structures were often designed decades ago and are in need of an upgrade in capacity

WHAT ARE THE GOALS

- Identify natural hazards and vulnerabilities, especially those for the most at-risk portions of the community.
- Analyze current and future flood risks and propose strategies and solutions.
- Develop a scorecard to rank projects with the most impact highest, with a focus on equitable and inclusive ranking methods.



PLAN DEVELOPMENT TIMELINE

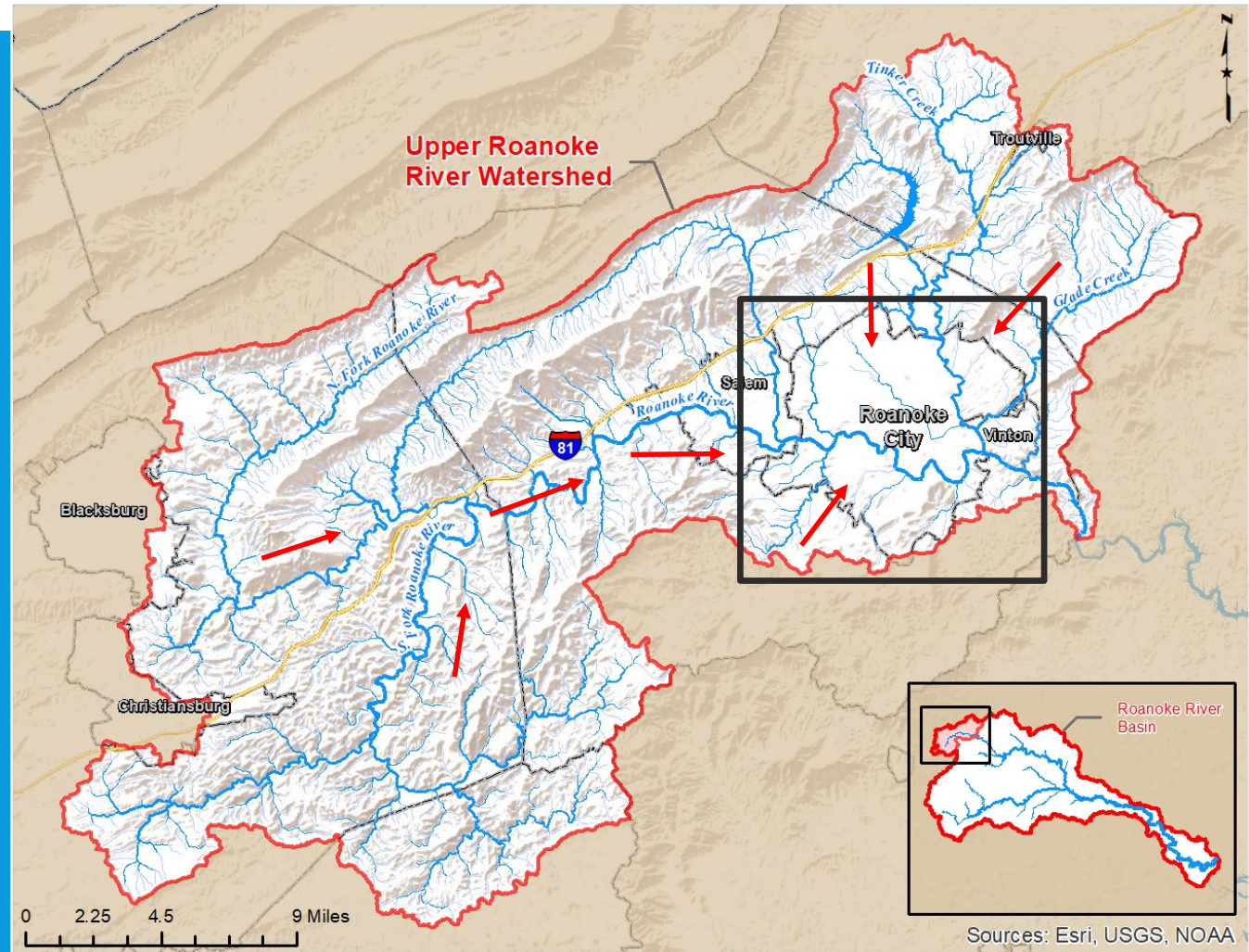
- Public Outreach & Input – Jan. – March 2023
- Drafting Phase – February – May 2023
- Review Phase – May – June 2023
 - Public feedback on draft approx. May 2023
- Final Plan – June/July 2023



FLOOD HISTORY

Background: Upper Roanoke River

- Steep slopes in headwaters
- Thin mountainside soils
- Urban area at the “bottom of the bathtub”
- Economic development in River Corridor



FLOOD HISTORY

Background: Tributary Watersheds

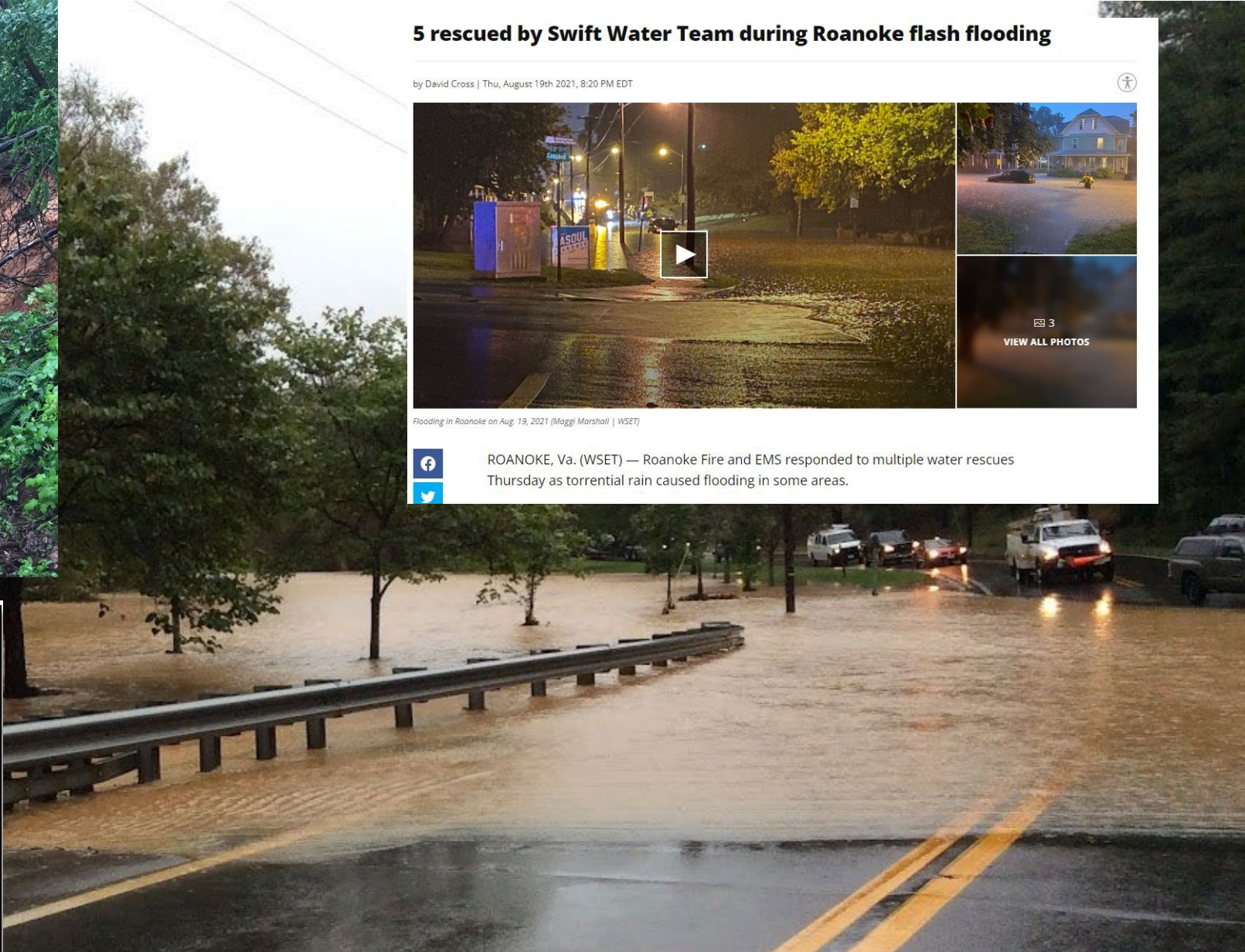
- Moderate to Intense Development
- Very poor mountain soils (except Mill Mountain)
- 1,137 floodplain structures
 - 373 on the Roanoke River
 - 138 in Downtown Roanoke



FLOOD HISTORY: 1927 - 1985

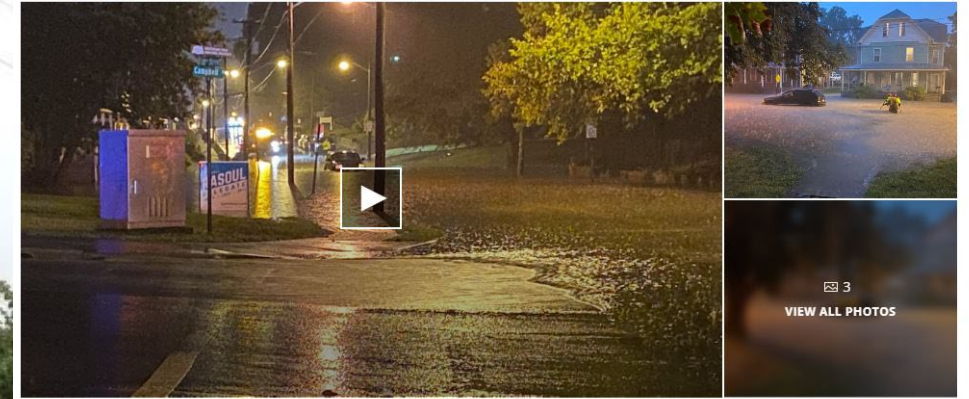


FLOOD HISTORY 1985 - PRESENT



5 rescued by Swift Water Team during Roanoke flash flooding

by David Cross | Thu, August 19th 2021, 8:20 PM EDT



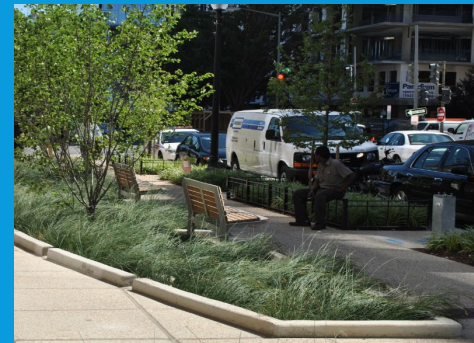
Flooding in Roanoke on Aug. 19, 2021 (Maggi Marshall | WSET)



ROANOKE, Va. (WSET) — Roanoke Fire and EMS responded to multiple water rescues Thursday as torrential rain caused flooding in some areas.

STRATEGIES TO REDUCE FLOODING

1. Reduce Impervious Cover.
2. Require Larger Capacity Grey Infrastructure (e.g., Culverts)
3. Acquisition/Demolition/Relocation: Acquire and demolish buildings/houses in Repetitive Loss Areas (RLAs) and restore floodplain.
4. Expand River and Creek Corridors (RCC) zoning protection (50 feet buffer) to more tributaries and smaller streams, especially upstream and at RLAs, so more floodplains are preserved and restored.



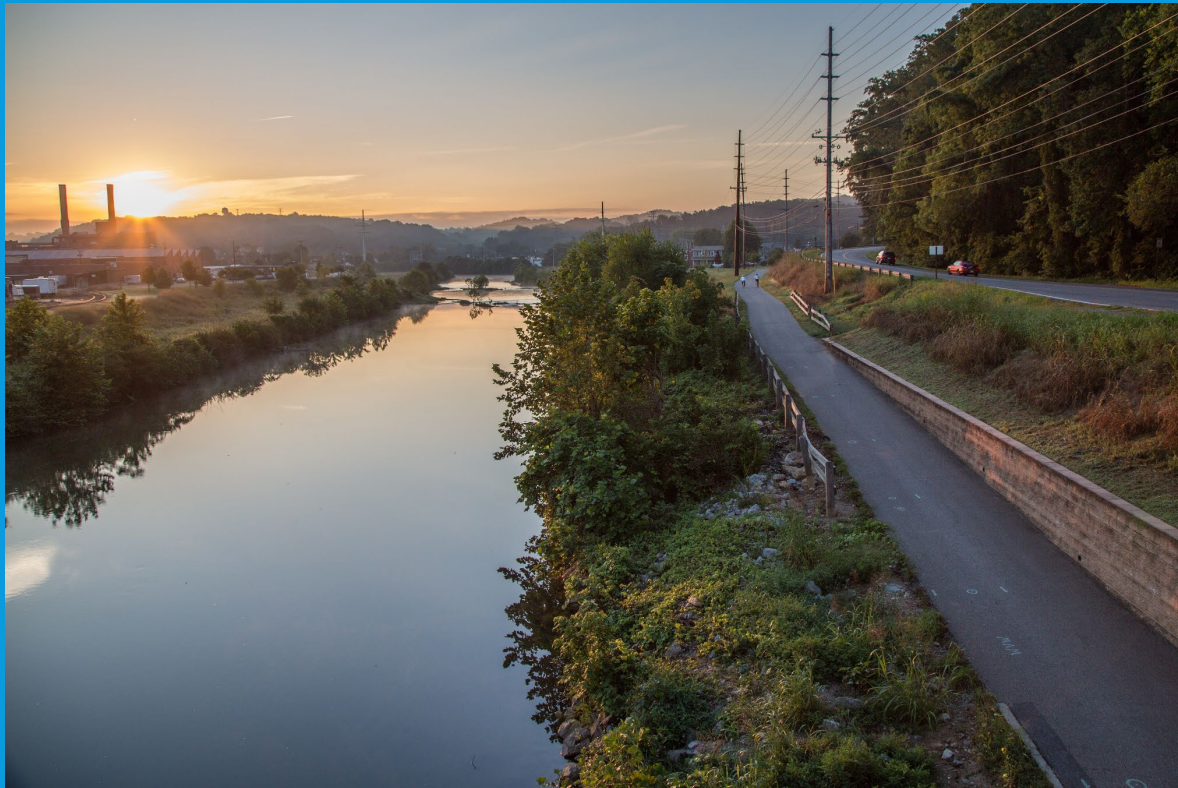
STRATEGIES TO REDUCE FLOODING

5. Prioritize Green Infrastructure (e.g., Bioretention, Grass Swales, Rain Gardens).
6. Prioritize Nature-based solutions (e.g., preserving/planting trees, preserve/conservate undeveloped land, avoid building in floodplains, stream and wetland restoration/protection, daylighting urban water streams).
7. Increase/protect/enhance parks and greenways.



HOW CAN YOU PARTICIPATE?

- Stay up to date on PlanRoanoke.org



- 2 public surveys open NOW!
 - Paper copies available as well as online
 - Spanish & other language options

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