Town Council

DECEMBER 17, 2024

Consent Agenda

Public Comment

Presentations & Reports

French Broad River Watershed: The Challenges & Opportunities Post Helene

LISA RALEIGH, RIVERLINK EXECUTIVE DIRECTOR

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French Broad river watershed
The challenges + Opportunities post-Helene

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RiverLink

- **Introduction:** Lisa Raleigh, Executive Director
- **Reverence:** For all that was tragically lost including lives, homes, businesses and habitat. It is truly beyond comprehension. 🙏
- **Gratitude:** Opportunity to share 30,000 ft views of the extreme impact and potential opportunities in Helene's wake – from the FBR watershed + flooding perspective.

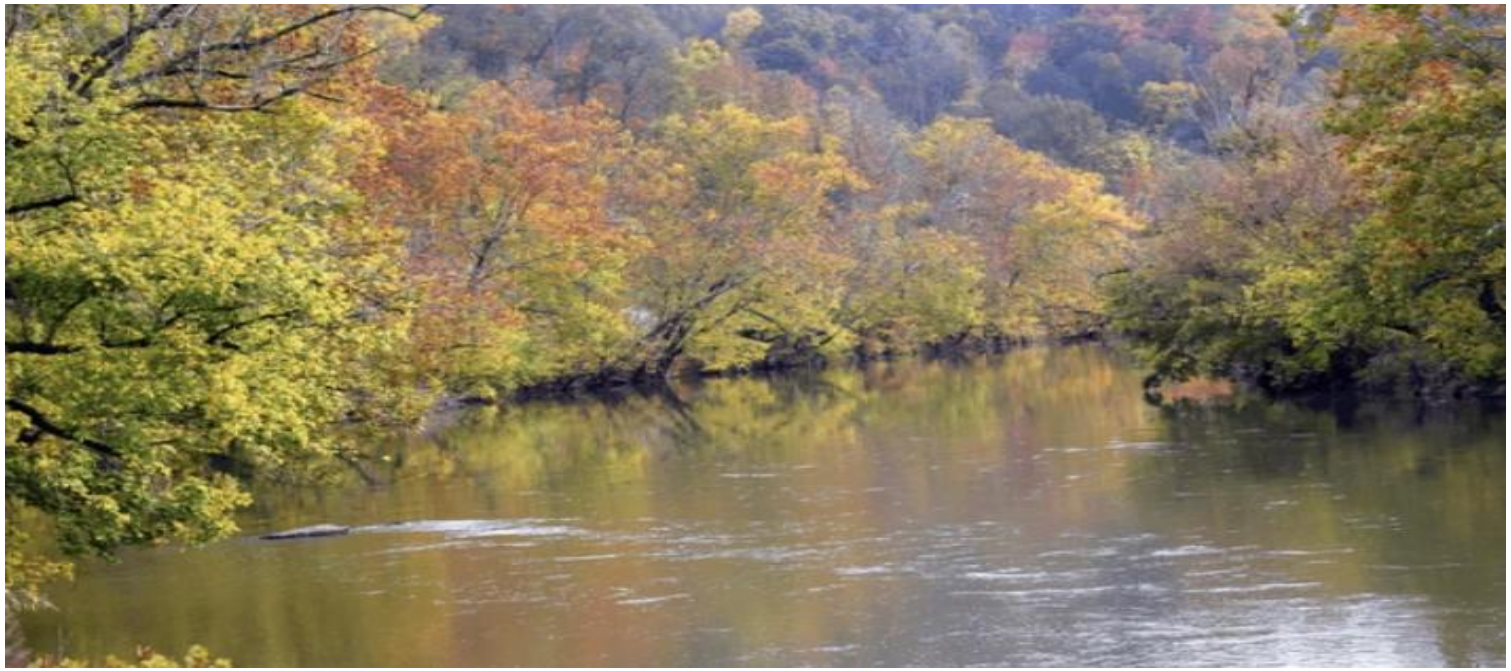
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Riverlink's mission

To promote the environmental and economic vitality of the French Broad River watershed for all.



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Riverlink's history with asheville

Our visionary founder, Karen Cragnolin, launched RiverLink over **35 years ago** to **champion the French Broad River** as it rolled through Asheville, when the river was **defined by heavy industry, dilapidation, neglect, and chronic pollution**. Thanks to the efforts of many over the decades, the river has been treated with **more care**, and abandoned warehouses and other structures became home to hundreds of artists, breweries, restaurants, and river businesses flanked by a ribbon of parks and greenways—all **anchoring the vitality and creativity** that defines Asheville. Unfortunately, the sequence of unrelenting rain followed by the massive inland Hurricane Helene **tested all human inventions** throughout the region. And so we begin our next 35-year journey.

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The Great Flood of 1916 (FBR Peaked at 23.1 feet)

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Hurricane Helene 2024 (FBR Peaked at 24.67 feet)

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today's conversation

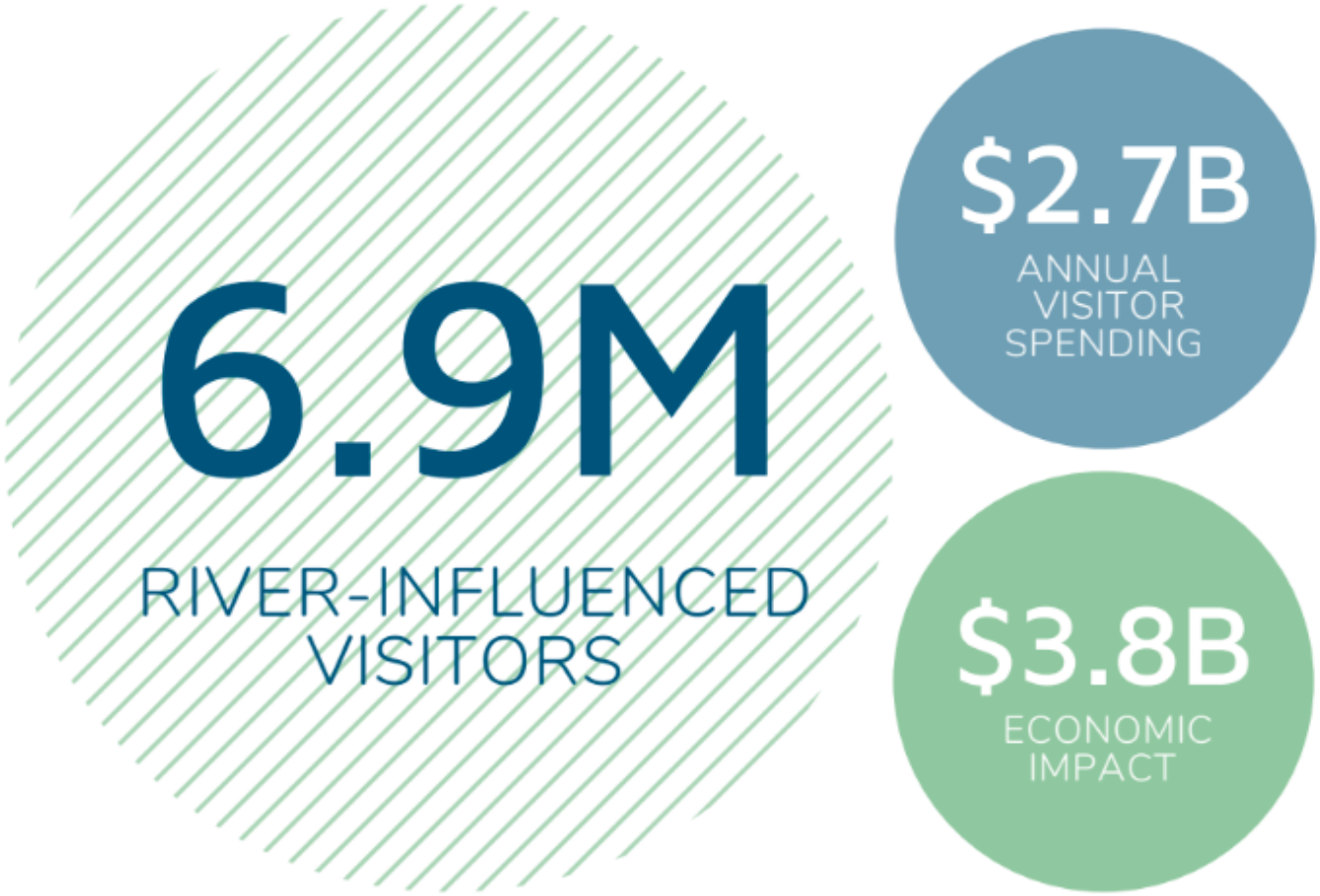
- Economy built on the watershed
- Geology, geography + hydrology
- Resources + previous studies
- Tangible resilient outcomes
- Living in a water rich area
- Takeaways from RiverLink's perspective



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FBR = Economic engine



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Our region's identities

Residents, tourism and assets are intertwined with highly flood prone areas including:

- River Arts District
- Biltmore Village
- East Asheville :: Swannanoa Corridor
- Marshall/Hot Springs
- Bat Cave/Lake Lure

Representing entire economies (the arts, outdoor recreation, tourism, retail, restaurant, lodging etc.)

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geology, geography + hydrology

BIODIVERSITY :: The Southern Appalachians are a global biodiversity hotspot — **one of the most biologically diverse places in the temperate world.** In our rivers and streams, there are more species of freshwater fish, mussels, and crayfish than anywhere else on the planet. (Sierra Club)



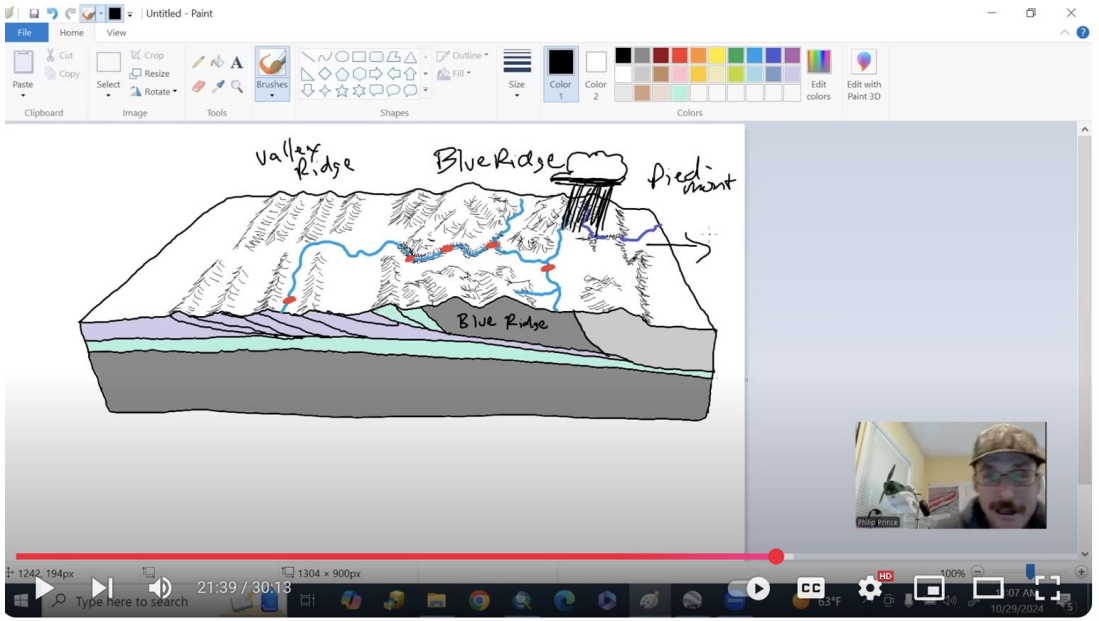
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geology, geography + hydrology

TheGeoModels on YouTube :: *Why did Asheville and Swannanoa flood so badly during Helene?*



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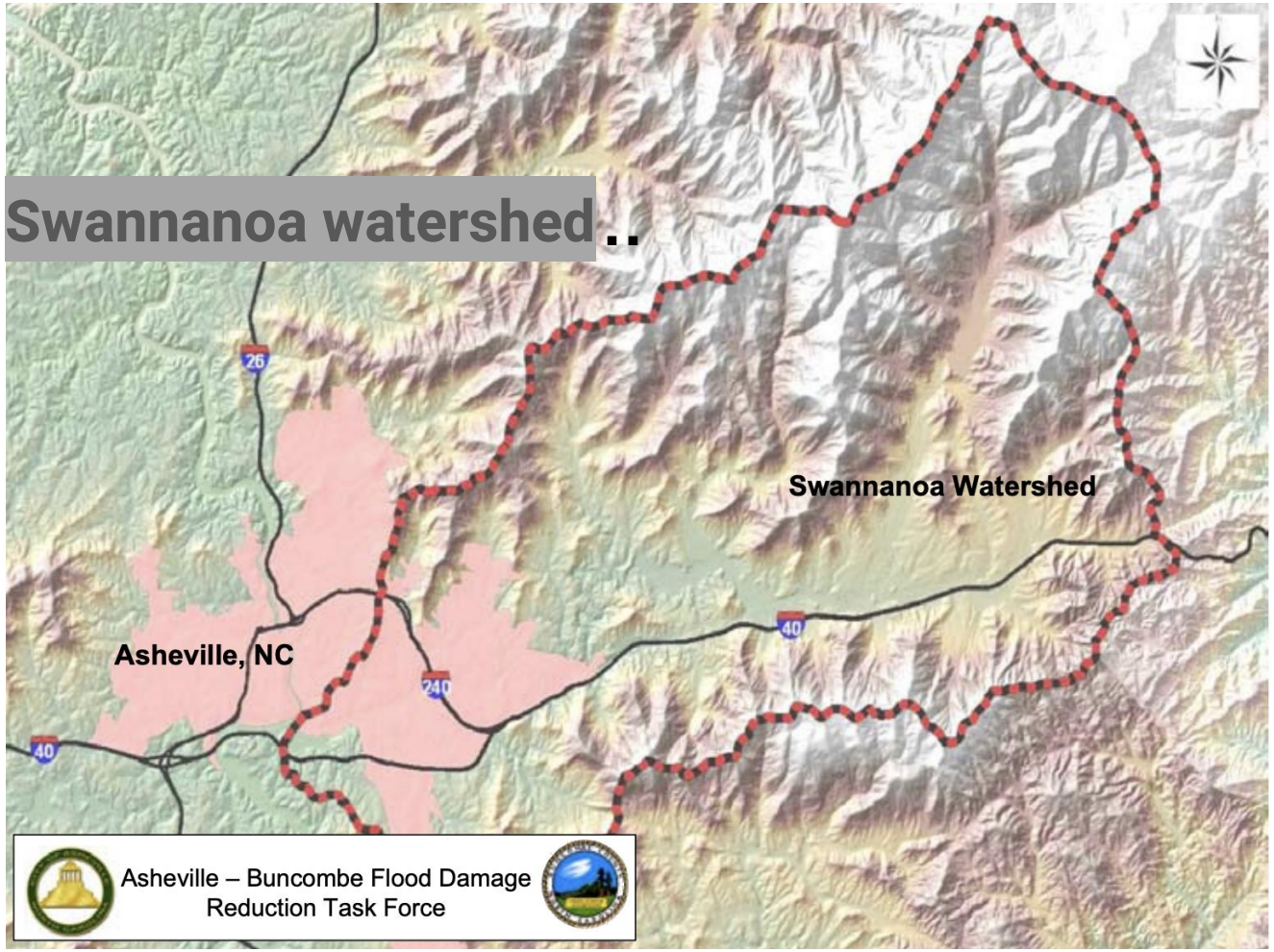
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warming oceans

- A key factor in Helene's intensity was **extraordinarily high water** temperatures in the Gulf of Mexico. Sea surface temperatures reached about **85 degrees F.**
- Sea surface temperatures have been rising since 1901. The **past three decades have seen the highest sea surface temperatures** since reliable observations began in 1880.
- **2024 is seeing record-high** average global ocean surface temperatures.

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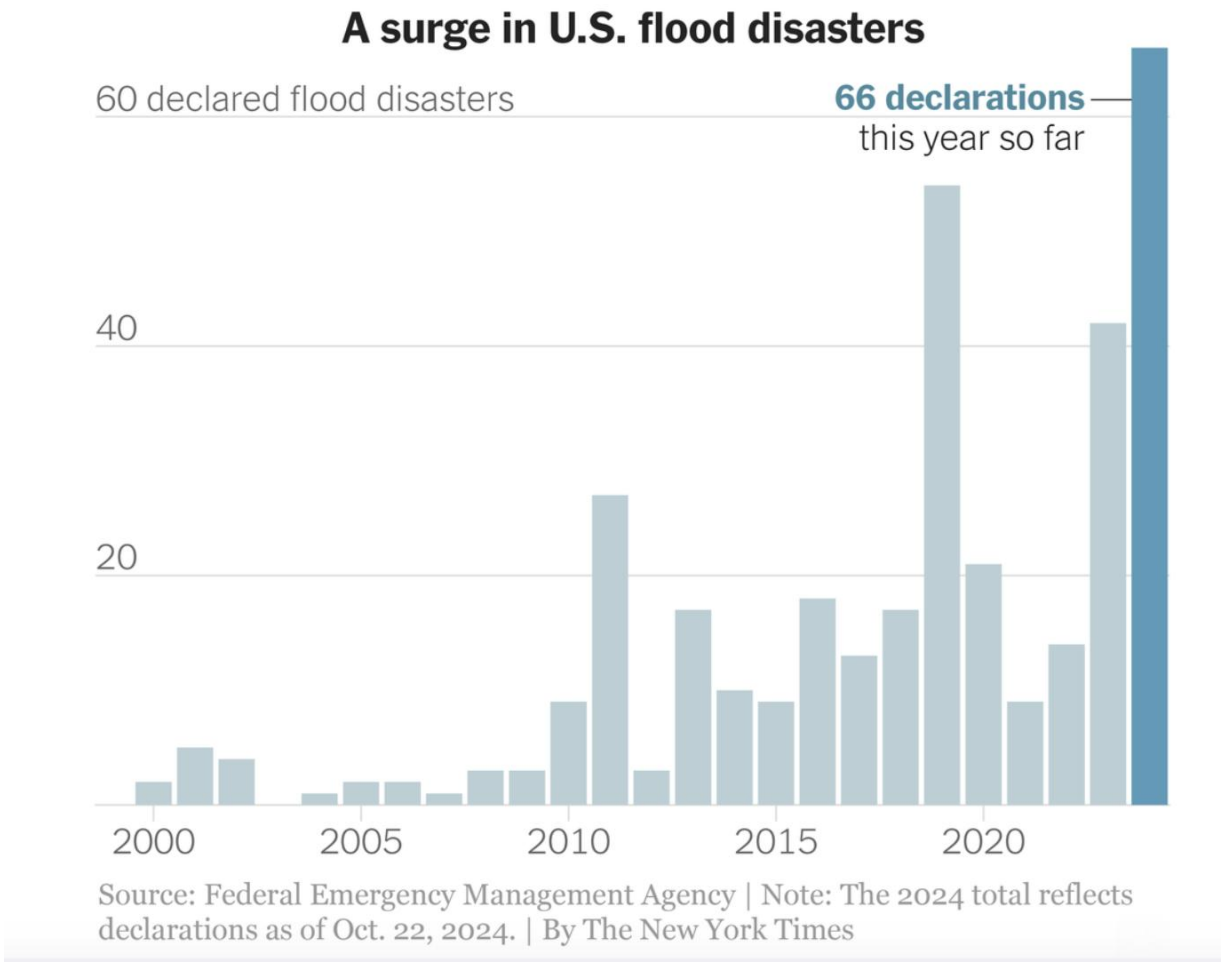
- Hurricanes are moving farther north, bringing their destructive power to areas that were previously considered safe.

"It was close to a worst-case scenario for western North Carolina as **seemingly limitless tropical moisture**, enhanced by interactions with the **high terrain**, yielded some of the **highest rainfall totals** – followed by some of the **highest river levels**, and the **most severe flooding** – **ever observed** across the region." – NC Extension

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we are not alone



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"we have a flooding problem"

Fight the water

But thanks to a changing climate, this approach means ever-more-epic and expensive fortifications.

Live with it

Accept water will get in and design to get wet or reduce what's in harm's way

Pack your bag

An intentional retreat from the flood prone areas.

Note: Flood insurance rates will soar in some areas, FEMA says
premiums will increase by thousands of dollars in the riskiest areas. — Politico 2023

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Resources

A silver lining to an event of this magnitude is the resources + funding available, for example:

- Hiring Recovery Specialist Teams
- Dedicated FEMA personnel
- NC Office of Recovery + Resilience :: Rebuild NC
- Land of Sky :: Council of Governments
- Extensive FEMA funding :: Public Assistance + Hazard Mitigation + BRIC (Building Resilient Infrastructure + Communities)
- State funding across all standard agencies
- American Flood Coalition political advocacy + lobbying
- Unprecedented foundation and private funding

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prior studies + recommendations

Several key local and regional studies have addressed our inherent flood risks including:

- Tennessee Valley Authority :: *Floods on the French Broad and Swannanoa Rivers Vicinity of Asheville, NC* (1960)
- City of Asheville :: *Planning for Climate Resilience Report* (2018)
  - Done by: National Environmental Modeling and Analysis Center
  - Building a Climate-Resilient Asheville PERSONAL ACTION GUIDE

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planning for climate resilience report

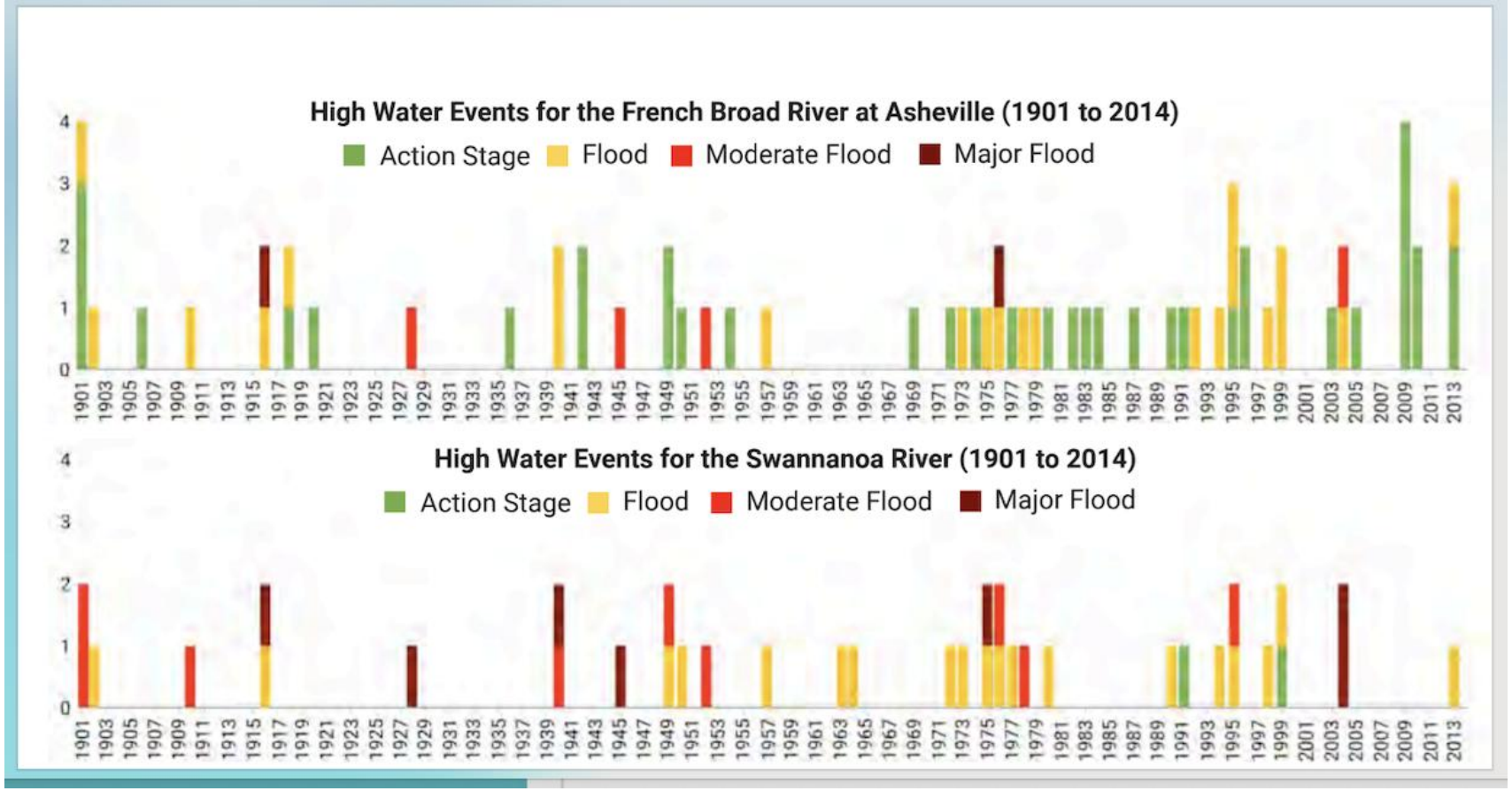
Flooding, Landslides + Wildfire

- Step One: Explore Climate Threats + Community Assets
- Step Two: Potential Impact, Vulnerability and Risk Assessment
- Step Three: Options to Build Resilience
- Step Four: Prioritized Actions

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"The City of Asheville is in the process of implementing actions to build resilience to impacts from flooding. Since 2004, the city **has reduced exposure** through property **buyouts** and has implemented **flood control** measures along the **Swannanoa** River in East Asheville. Still, a major challenge Asheville continues to face is **increasing risk of flooding** due to **more development** and **impervious surfaces** that contribute to flood events."

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Flood damage reduction task force

- Buncombe County :: *Flood Damage Reduction Task Force* (2007)

Mission :: Establish a regional approach and long-range plan for flood damage reduction, floodplain protection and watershed management. Base the approach and plan on best management models, which integrate objectives of flood control, transportation, economic development, land use and community planning, recreation and environmental preservation.

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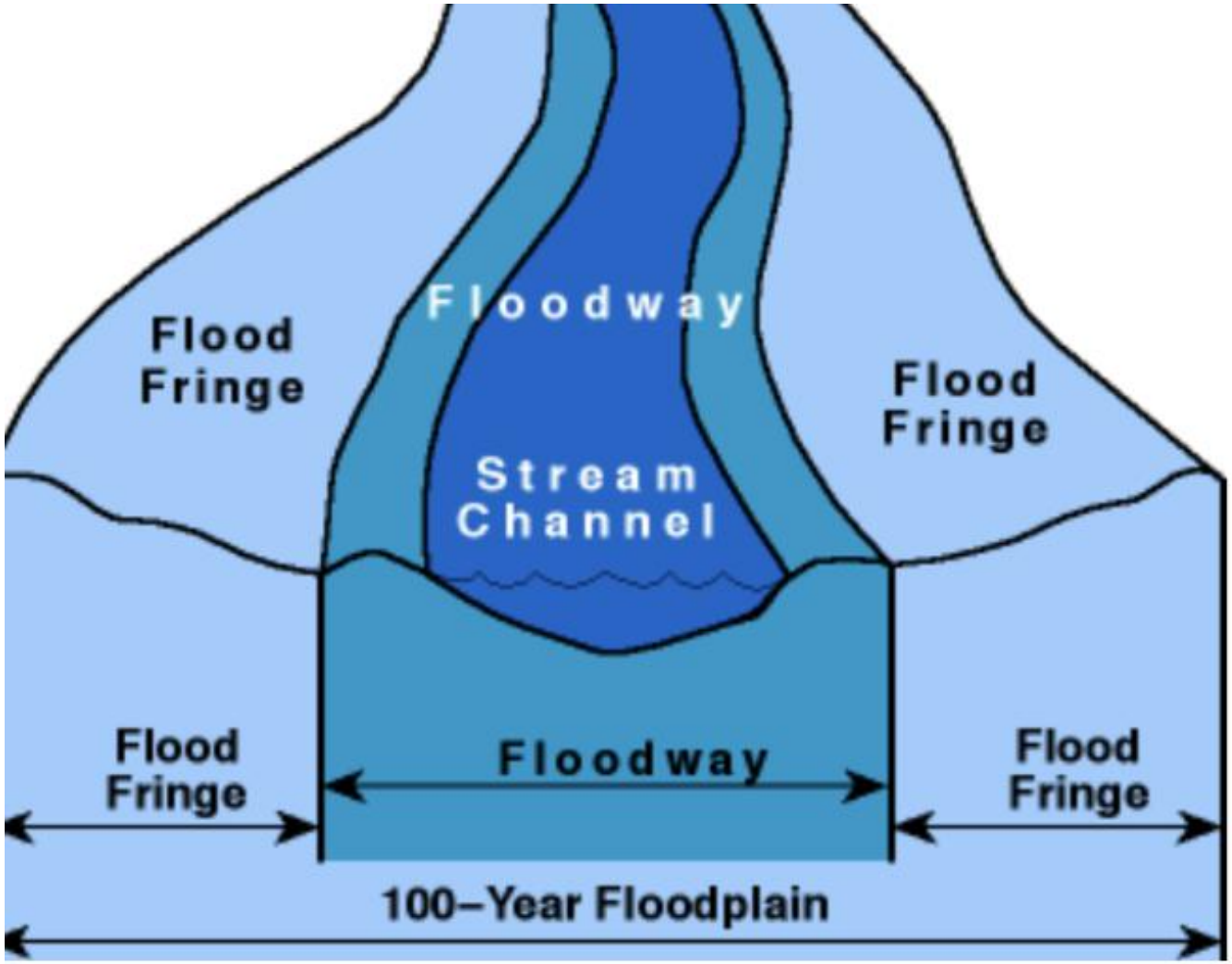
To plan and implement physical measures to reduce flooding ...

- **Keep it Out**
  - Initiate incentives or requirements to ensure low impact development
  - Stormwater management
  - Reduction in impervious surface and steep slope development
- **Slow it Down**
  - Retention, reservoir, impoundments
  - Channel and conveyance Improvements
  - Other Engineered and Structural Improvements
- **Get Out of the Way**
  - “Smart” Development, both public and private, in flood hazard zone
  - Encourage removal of flood-prone structures
  - Education and Outreach
  - Emergency Response and Warning System

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Floodway Issues

- **No new structures in the floodway**
  - Current regulations allow buildings with a no rise certificate, but this should not be allowed along the main channel
  - Greenways allowed
  - Parking lots allowed (this is a water quality issue, not flow constriction)
- **Don't constrict channel with bridges, sewer lines, buildings**
  - New bridge on US 25 in Biltmore Village should have larger "throat"
- **Purchase key properties in floodway**
- **Better upkeep of floodway**
  - Keep it cleaned up (debris removal in the floodway in addition to stream channel)
  - Improve conveyance of streams

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Floodplain and Flood Fringe Issues

- **No Net Fill in the Flood Fringe**
  - **Minimum buffer (top of bank) on all streams unless a variance is granted (for example, hardship reasons on single family lots).**
    - 100 ft minimum buffer along Swannanoa and French Broad River
    - 50 ft on primary tributaries
    - 35 ft on secondary tributaries
  - **Proof of no rise studies**
- **Close the 50% improvement rule loophole by using the latest tax valuation of the structure in the floodplain**
- **Cooperate regionally to map future floodplain scenarios**
  - **Base planning and regulation on build out scenarios - the current model will soon be outdated**
  - **Require a certain amount of open space be set aside for every acre that is developed in the floodplain.**
  - **Reward developers who meet high environmental standards with a higher density development**
  - **Ensure that there is a balance between flood mitigation and economic development**

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- Tremendously thoughtful, intelligent, comprehensive + resourceful studies.
- Some measures have been implemented
- But recommendations are vast and extensive and adopting any or all are inherently challenging, long-term, political and expensive.
- River Arts District example, alone
- In and amongst honoring property rights, capitalism and human nature.
- And all the other existing pressures and needs our cities, towns and communities already have.

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Tangible resilient recovery

- City of Asheville, Buncombe County and other impacted communities can utilize zoning, permitting, FEMA funding and many other mechanisms to respond to more resilient recovery.

- In addition to those many levers, can we introduce and emphasize other tangible ideas + solutions to increase resilience as we move forward?



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conversation starters



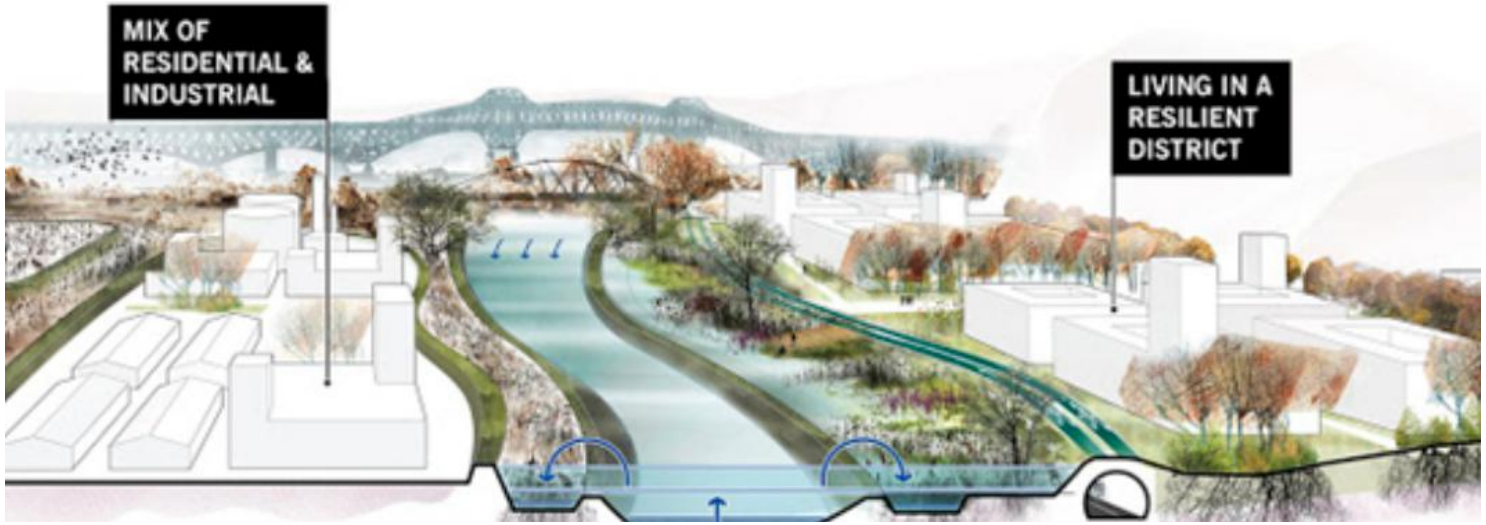
Gain 15%+ more resiliency in our comeback

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Secure + create more open/green space in the RAD + North Thru Woodfin



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include passive, low maintenance green infrastructure



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Rebuild our River Parks back with less infrastructure + go with the flow

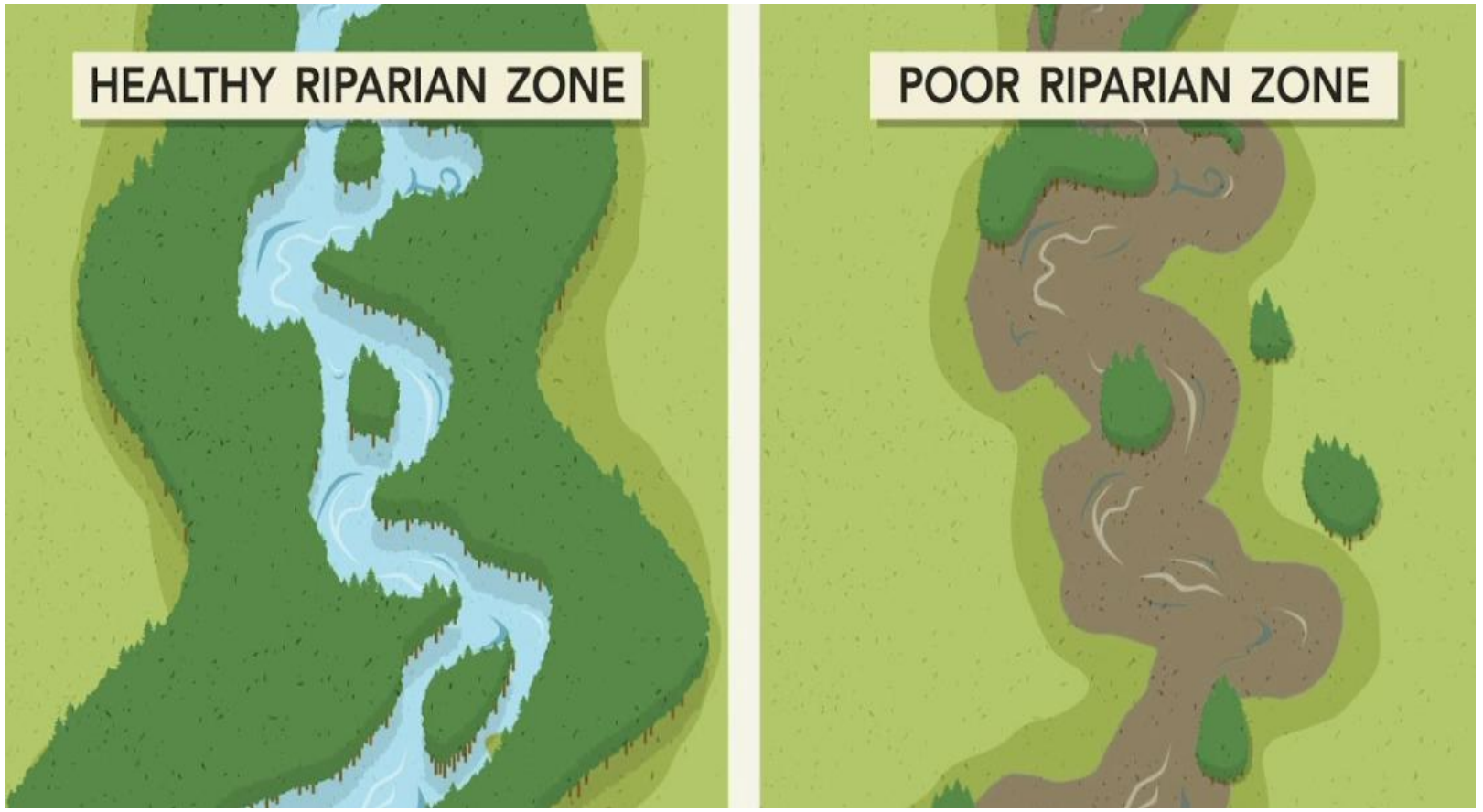


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riparian zones. riparian zones. riparian zones.



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Future greenways and their proximity to rivers + streams

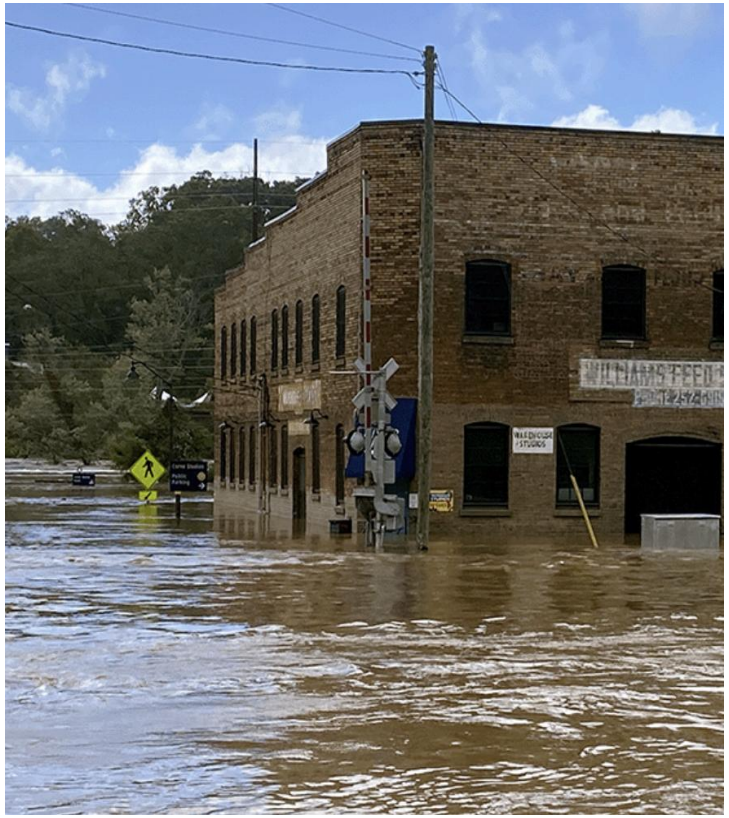


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Can we learn from what survived by asking why?





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Less is more in our floodplains



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Advocate for ecological restoration to be a priority in the ongoing recovery.



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all community leaders + jurisdictions

- Share your information
- Collaborate and work together
- Community members please participate in P+Z, Commission and Council meetings
- Please give us the opportunity to understand the choices, decisions and next steps and can appreciate the complexity and tough calls
- Please have the political will to advance resiliency
- Try not to take the path of least resistance
- Invite your partners and other stakeholders to the table – hold public sessions to learn and for others to be heard.
- This is hard, “but we can do hard”

what does it truly mean to live in a water ricH environment?

- The magnitude of this event is – hopefully statistically far and few between – yet requires tremendous response and resources.
- But we know we routinely have **nuisance**, **medium**, **moderate** and **large** scale **flooding** given our landscape.
- Our **resiliency efforts** need to continue to focus here as our **tertiary, secondary and primary waterways** can be “part of the solution or the problem” and will contribute to outcomes.

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we are flood prone

The biggest recorded floods in ~100 years of WNC history:

1916, 1928, 1940, 1946, 1973, 2004, 2021, 2024

In between, endless incidents of nuisance to medium flood events resulting in property + habitat damage.



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Our routine rainfall

- On average, Asheville receives ~45 inches and Brevard receives ~67 inches of rain annually in a mountainous setting.
- We are going to be even more vulnerable to future rains post-Helene:
  - Blown out stream banks
  - New drainage patterns
  - Stormwater creating ongoing havoc
  - More runoff from new mountain sources
  - Massive sediment generation
  - Ongoing landslides

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reduce rain runoff

- Human infrastructure introduces **many impervious** surfaces.
- The same mantra applies as before Helene: **slow it down**, **keep it onsite,** let it **return naturally**.
- It is critical we continue to adopt individual, neighborhood and community-level practices **to reduce runoff.**
- **Disconnect downspouts; utilize rain barrels; create rain gardens**.



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- Adopt a Stream Program
- Reinforce + **restore damaged stream banks** at the local level through workshops and live staking.
- We must **strengthen our resilience** throughout the system.
- These are our **front lines** of defense against flooding.

takeaways for the path forward

- Individually and as communities, we must understand our risk tolerance for loss of life, homes, businesses, and overall economic and habitat destruction.
- Must remember how inequitable those choices are for many.
- The simple fact of our geography and bigger/wetter storms dictate our future.



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- Can't "engineer" our way out of this, we have to also learn to live in and amongst flood water.
- Need tangible, measurable resilience gains that are nature based (green infrastructure).
- Recognize the extreme human-induced impact – too much infrastructure in floodplains. We can't keeping doing this to our environment.



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- Choices for building actionable resiliency include*:
  - reducing exposure (removing assets from harm's way),
  - increasing adaptive capacity (the asset's ability to cope with impacts), or
  - supporting response and recovery.

Cost/benefit analysis shows **one dollar** invested in hazard mitigation yields **six dollars** in benefits over time.



cont . . .

- The watershed doesn’t recognize jurisdictional boundaries.
- Much like RiverLink’s founding 35-years ago, we need **ALL** the stakeholders to work collaboratively to move our needle forward on becoming more resilient and reimagining our relationship with our watershed.
- Factoring in: cost/benefit, political + financial feasibility and will.



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- We cannot let Helene become the sole focus of our response + recovery.
- Prior to this event we already had many river + stream “impairments” and sediment issues.
- We must also simultaneously invest in creating resilience by reducing the human impact on runoff.



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In closing, I believe the responsibility is fully ours to learn how to dance with this watershed – an extraordinary economic, recreational and environmental treasure – as our lives and livelihoods truly depend on it.



Thank you. 🙏

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Town Manager Report

SHANNON TUCH, TOWN MANAGER

Tropical Storm Helene - Recovery

FEMA Public Assistance

- Preparing Invitation for Bids for road and stormwater repair
- Cost detail submitted to FEMA re: RSP Expansion
- RSP Expansion construction re-initiated
- Emergency Repair to RSP Improvement initiated

Tropical Storm Helene - Recovery

Debris Removal

- Public Road debris collection continues (2nd pass)
- Private Property Debris Removal (PPDR) Intake Dec. 9-13th & Dec. 18th
  - Private parcels (when public safety is threatened)
  - Smaller waterways (creeks, streams, etc.) up to water's edge
- Private Road Debris Removal
  - Collection frequency increased to two passes
  - ROE required for HOA managed roads
  - Location for all others
- French Broad River – winter/spring

Tropical Storm Helene - Recovery

Data

- Aggregated by county, region, state
- Manually pulled data for Woodfin Re: Residential Structure Damage
  - 23 structures damaged
  - 1 apartment/condo, 4 manufactured homes, 18 single-family
  - 6 affected, 12 minor, 4 major, 1 destroyed

Statewide damage estimate revised to $59.6B

Administration

- Contracts: November - December.

Key Surveying $10,250 (Parks)	Equinox On Call – Hourly (Helene Addendum)	ABCCM $50,000 (Em. Assistance)

- Building Resilient Infrastructure & Communities Grant LOI
- Retreat planning – Jan. 22
- Budget planning begins – Finance report in January

Planning & PW/Facilities

- Recruiting for PBOA Board Vacancy
- CZ Application - December PBOA, January Town Council
- Code Update RFP - Feb. 7th Deadline

- Data Collection for PW (work logs)

Stormwater & Parks

- Administrative program work + permitting
- Small drain repair/enhancement – River Run Rd.

- Geneva Maney Community Garden work to resume in later winter/spring – water line installation & light grading

Police

- New Police Chief to begin work Jan. 6th
- BLET candidates graduate 12/18 & begin work in Jan.

Remembering Wayne Britt

New Business

Disaster Planning Policy Discussion *(Cont'd. from 11/19)*

COUNCIL MEMBER KEN KAHN

A Safe, Happy Hometown: Woodfin

Disaster Policy Planning Discussion, Part 2

Recap

See and position Woodfin as an opportunity for Demonstration Projects that:

- Improve the lives of Woodfin residents
- Boost our town's resilience
- Attract external partners and resources for these projects
- Point the way for others

Initial (November Presentation) Retreat Goal:

Identify and prioritize "possibles" in Retreat Planning

Today's Objectives



- Discuss and approve Retreat planners' proposal for including research findings (optionally) done by Council and Mayor
- Confirm "homework" assignments
- Confirm Goal: Identify and prioritize "possibles" as part of Retreat work
- Discussion Topics

”Homework” topics

HANDS RAISED SO FAR:

Betsy – External Activities and Planning Underway

Johanna – Housing, Housing in the Floodplain, Zoning

Phil - Partnerships

Ken – Resilience Lens, Community Engagement, Arts, Demonstration Projects, Lyons CO Plan

UP FOR GRABS:

Regulatory Constraints (SB382 Impact, et.al.)

Environment

Stormwater/Soil Erosion

Business Development

Recreation

Transportation

Energy

Discussion

- What can be ruled out due to existing constraints or external and regional efforts?
- Brainstorming rules – How to collaborate?
- Timing: When do the planners need our info?
- Template for sharing info with Retreat planners?
- Presentations at Retreat: How to manage?

Draft Template
Proposals for inclusion in Retreat discussion:

- Description
- How will it help Woodfin residents?
- What outside resources/collaborations can it draw on?
- What are the primary risks and challenges?
- TBD: What pre-defined criteria does it meet?

Adjournment