

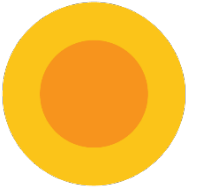
RESILIENT TOGETHER

One Climate, One Community



Agenda

- Resilient Together Refresher
- Climate Resilience Cohort
- Where We've Been
- Where We're Going
- Questions



Local Hazards & Risks Refresher



Extreme Heat



Heavy Rainfall & Flooding



Drought



Wildfire Smoke



Shifting Seasons & Pests



Search NOAA sites



Topping the charts: September 2023 was Earth's warmest September in 174-year record

2023 shaping up to be warmest year in NOAA's global climate record

Several roads in Albemarle County damaged by heavy rain, flooding

by Elizabeth Tyree | Thu, May 31st 2018, 12:19 PM EDT



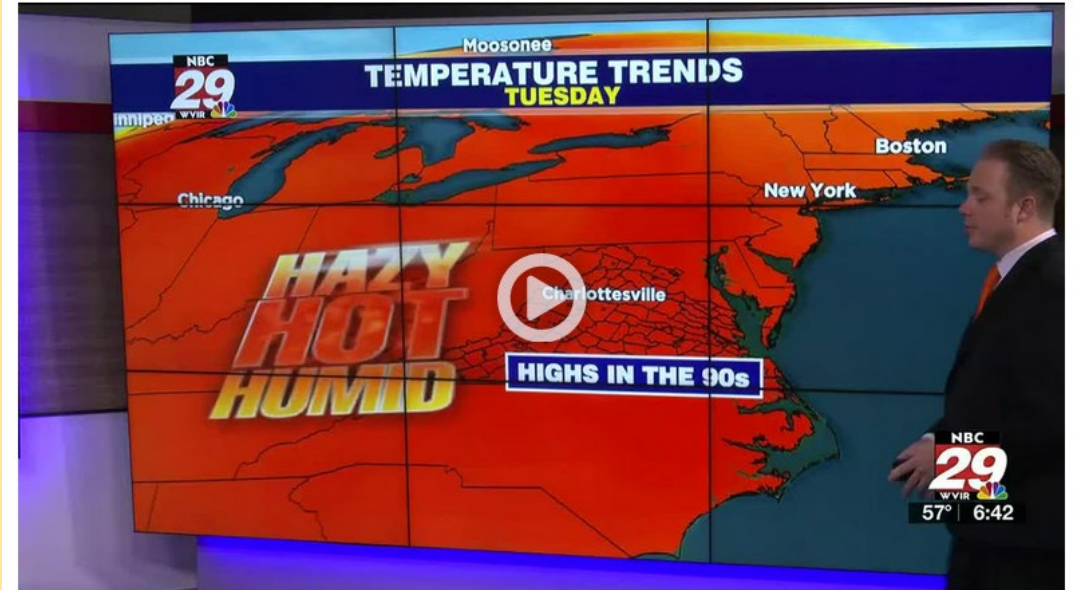
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VIEW ALL PHOTOS

ABC13 News 05/31/18

Building September heat wave

Nearing 100 degrees



Nearing 100 degrees

NBC29 News, Charlottesville 09/02/23

Smoke from another wildfire impacting Central Virginia region

Thursday, November 16th 2023, 11:57 AM EST

CBS19 News 11/16/23

Project Summary

Resilient Together is a joint planning and community engagement process to help our community prepare for the more intense and frequent severe weather events that we face.

Albemarle County, the **City of Charlottesville**, and the **University of Virginia** have partnered in this work. The project will engage staff, partner institutions, community-based organizations, and the public.

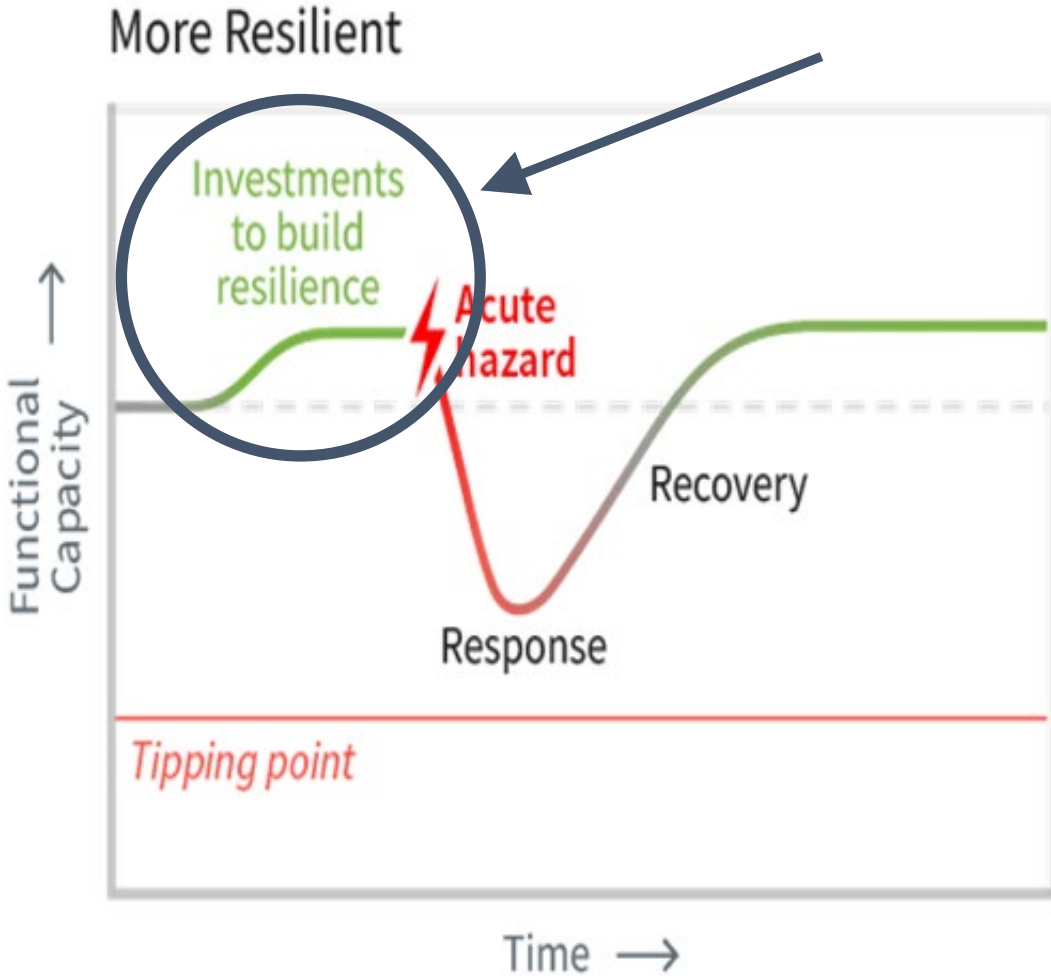
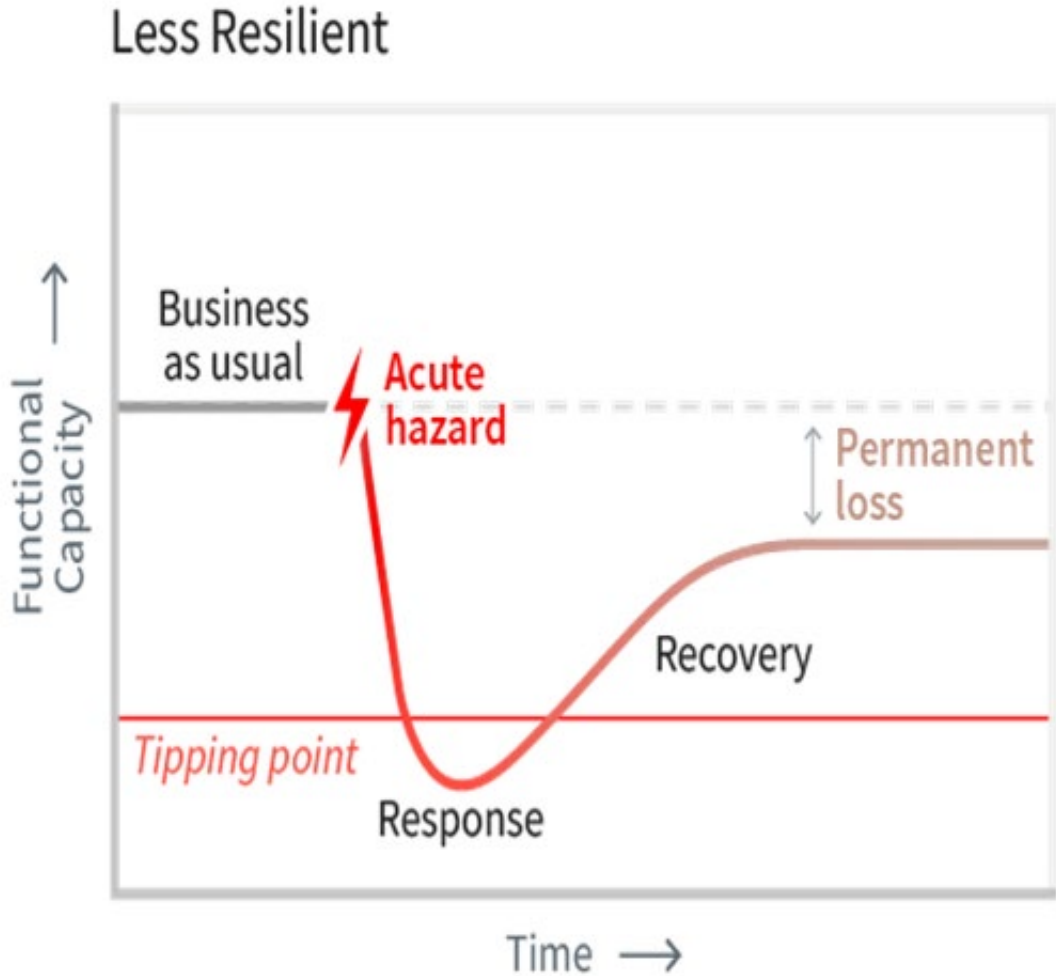
Project Deliverables:

- Climate adaptation and resilience plans
- Framework for community investments
- Increased resilience through community engagement

Project Vision: a strong, safe, and healthy future for all



What is Climate Resilience?



Climate Resilience Cohort

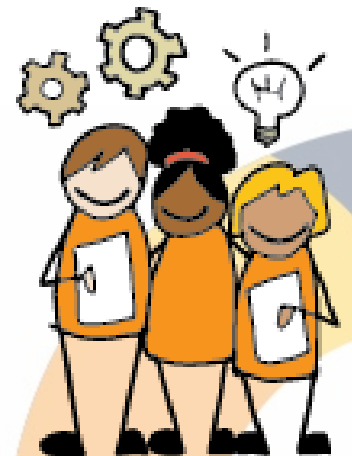
Centering Equity & Community



Climate Resilience Cohort

What is it?

- Project within the Resilient Together Project
- Partnership with CBOs that serve disadvantaged or vulnerable community members ensure those voices are heard throughout the project
- EPA Environmental Justice Government to Government Grant - \$460,000
- Subgrants of \$40k to 10 community-based organizations





EPA EJG2G Grant

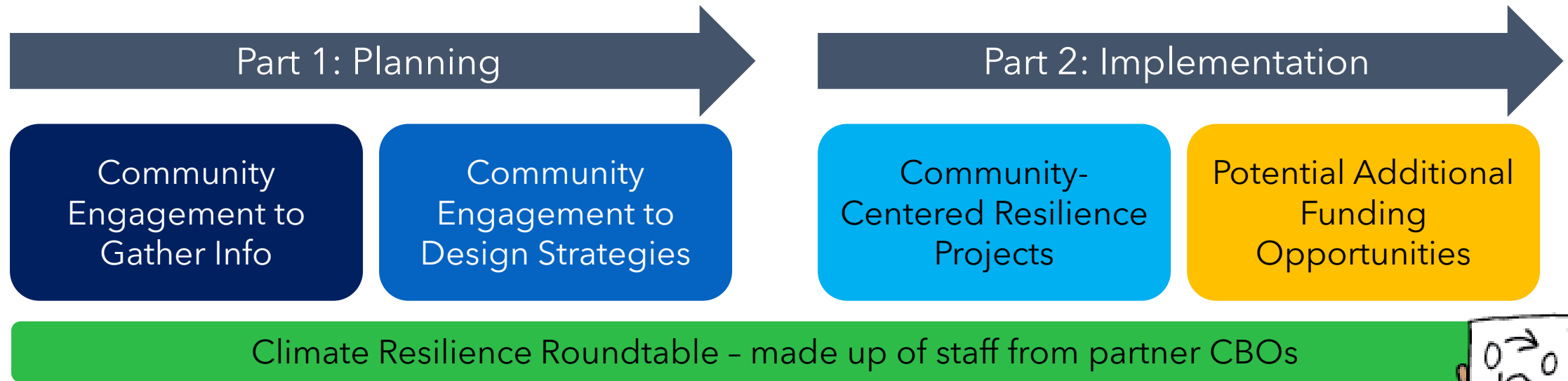
- \$460k Environmental Justice Government-to-Government Grant
- Part of the Inflation Reduction Act
- Primary Recipient: Albemarle Co.
- Pass-thru funds to 10 organizations serving the community
 - \$15k/each for planning
 - \$25k/each for implementation projects
 - Option to pool funds
- Three-year period of performance

Cohort Participant Organizations

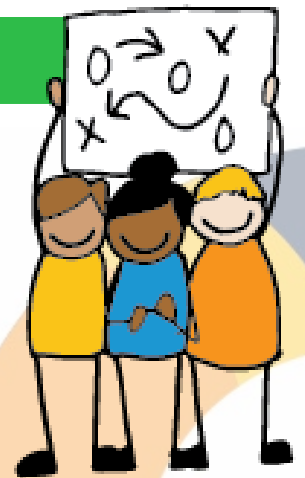


Climate Resilience Cohort

What does it look like?

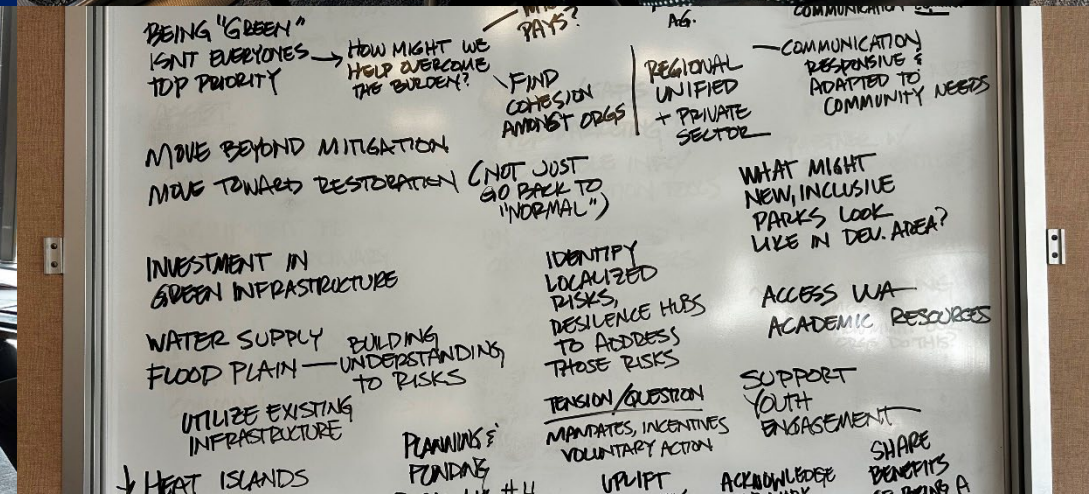


Goal: deep collaboration that fosters community ownership of resilience projects

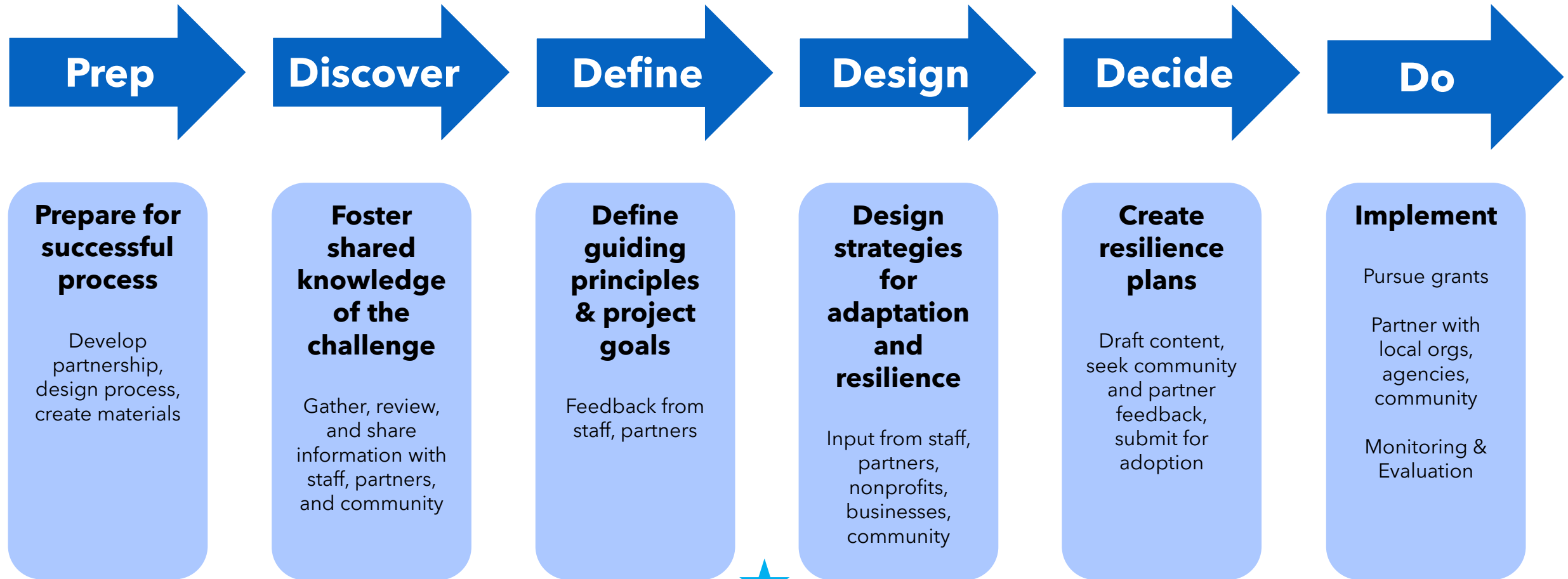


Resilient Together

Where we've been over the past year



Resilient Together: Project Outline



We are here!



Discover Phase Summary

- October 2023 – May 2024
- Discover Workshops
 - Staff from City, County, UVA, & partner agencies
 - Community Organizations
- Tabling at a variety of local community events
- Reviewed and integrated community input from other recent planning processes like AC44 and C'ville Plans Together



Define Phase Summary

- June - October 2024
- Identified themes based on input received during Discover Phase
- Used themes to derive guiding principles and long-term goals
- Began researching and refining potential resilience strategies

To-Do Items:

- Share draft themes, guiding principles, and goals with Cohort members and staff working groups for input and finalization



What We Heard: Themes

Community
Strengths

Engagement &
Communications

Equity &
Inclusion

Emergency
Preparedness &
Safety

Reliable Systems

Healthy
Ecosystems

Public Health &
Wellbeing

Economic Vitality

Rural & Urban
Interdependence



Guiding Principles

Greenhouse Gas Reduction

- Reducing greenhouse gas emissions is a primary resilience strategy that will ultimately reduce the cost and difficulty of adaptation.

Equity

- RT will ensure resilience strategies and implementation plans promote environmental justice and that the benefits are equitably distributed across the community.

Communication & Collaboration

- Local climate adaptation and resilience work will grow and improve communication, partnerships, and collaboration across the community.

Thriving Community

- Local climate adaptation and resilience work will prioritize strategies that have a positive impact on public health, local ecosystems, and economic vitality.

Actionable Strategies

- Resilience strategies will be actionable and lead to tangible, real-world results.

Heal People & Planet

- Resilience strategies will help heal people and the planet.



Long-Term Goals



Community members, businesses, and organizations are empowered to take part in building climate resilience within the community.



The community has the tools and resources to anticipate and effectively adapt to climate change.



Low-income and rural communities are included in climate action and resilience efforts.



Infrastructure is capable of withstanding climate hazards and providing reliable service during emergencies.



Collaboration and communication among people, community organizations, government entities, and educational institutions are improved & strengthened.



Health and safety impacts related to climate hazards are reduced, particularly for vulnerable populations.



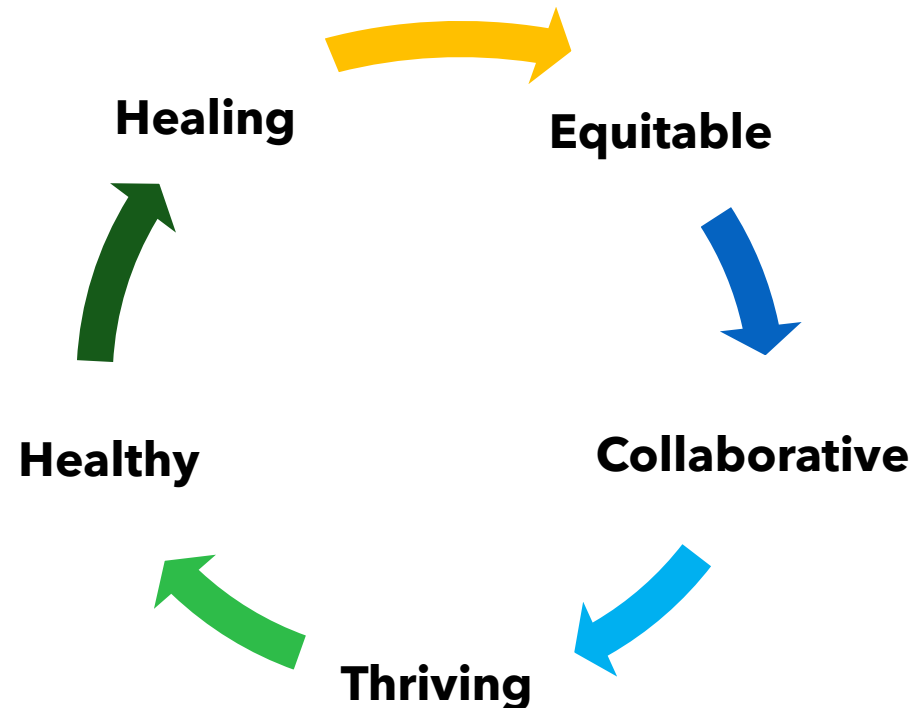
Economic vitality is enhanced through effective climate resilience.



Addressing Root Causes

Climate change is a symptom of deep imbalances and systems of harm, built on **extraction** and **exploitation** of people and ecosystems.

- Climate Adaptation can be a tool for addressing these underlying causes.
- Embodying the **Guiding Principles** and achieving the **Long-Term Goals** will help us create a resilient community.



Strategy Development

We are here!



Learning from Peer Communities

USDN

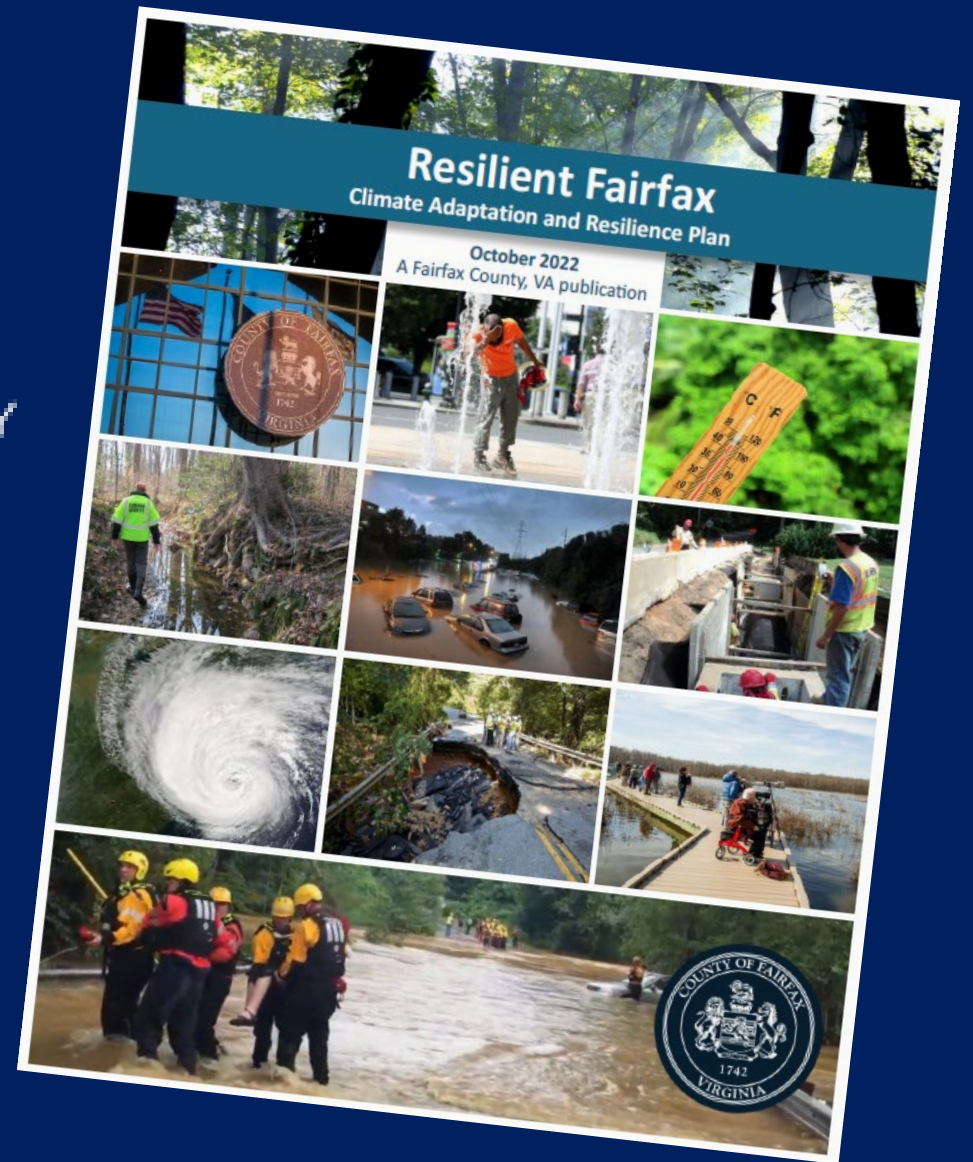
urban sustainability
directors network

SSDN

SOUTHEAST SUSTAINABILITY
DIRECTORS NETWORK



U.S. Climate
Resilience
Toolkit



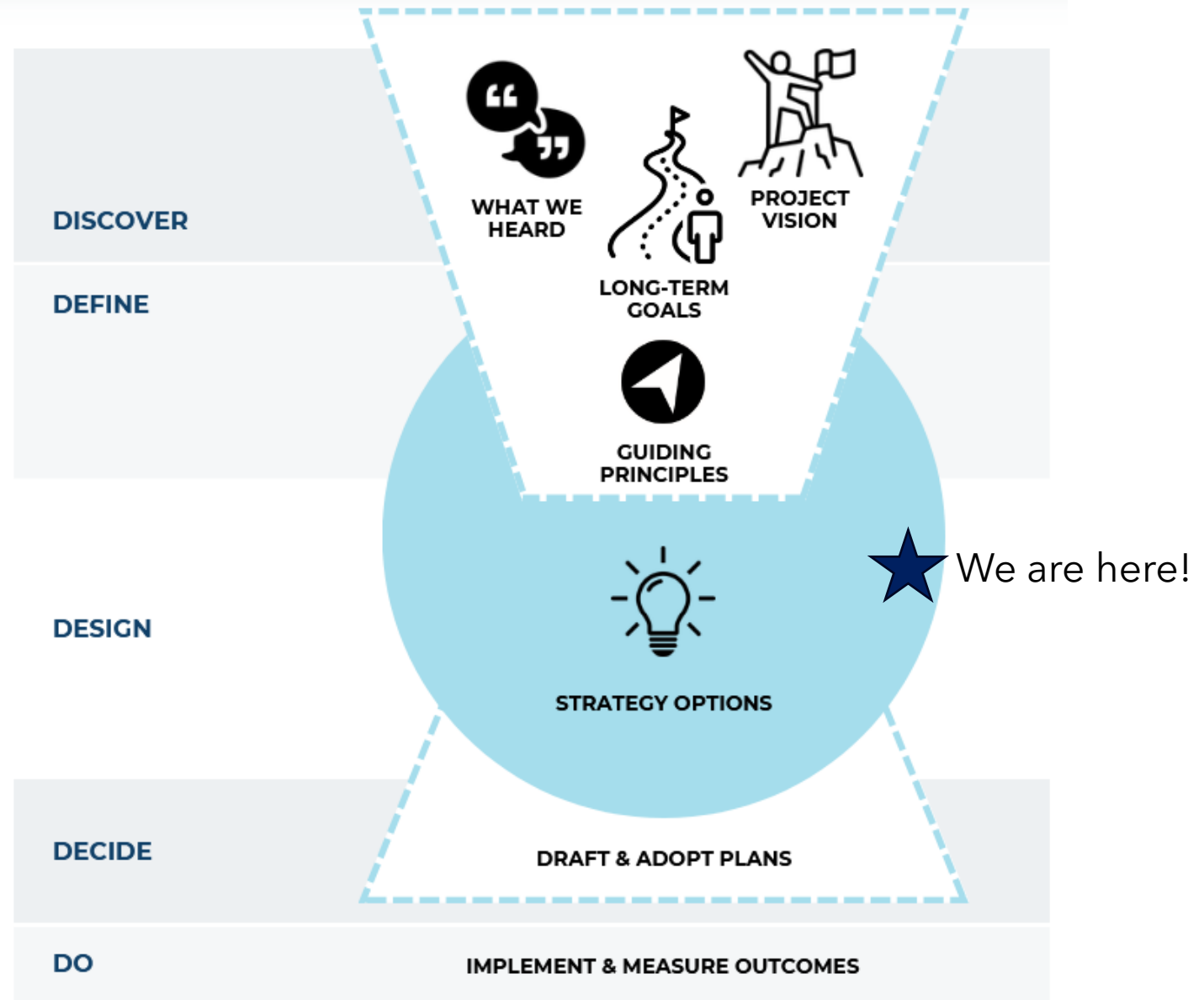
Next Steps

Looking Ahead to Where We're Going



Looking Ahead

- During the Design Phase, we will work to develop and refine strategies, projects, and programs that will meet the defined goals.
- During the Decide Phase, we will draft the plans. Staff, cohort members, and the community will all have an opportunity to review and provide comments.



Design Phase Engagement

RT Project Team

- Complete draft strategy lists & compare with existing local plans
- Support all other groups

Cohort Members

- Plan and conduct engagement events
- Participate in Cohort Working Group to provide input on strategy design and co-develop resilience projects

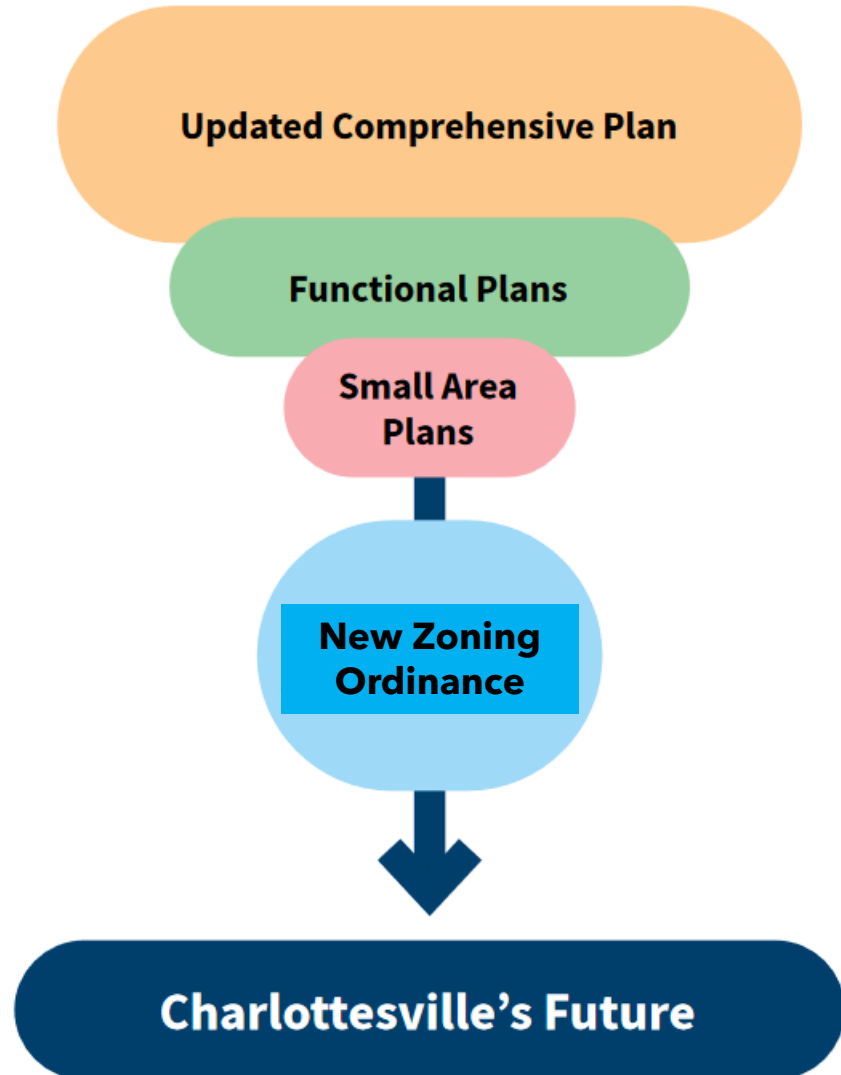
Staff & SMEs

- Participate in strategy design workshops and sector- or hazard-specific technical working groups to develop implementation roadmaps

Community

- Participate in strategy design workshops and/or self-led community conversations to provide place-specific knowledge and input

Fitting in with Existing Plans: City of Charlottesville



- Like the Climate Action Plan, it is our intention for the Climate Resilience Plan to be adopted as a Functional Plan amendment to the Comprehensive Plan.
- Final strategies will support many of the goals and strategies of the Comprehensive Plan, not just Chapter 7 (Environment, Climate, and Food Equity)

Fitting in with Existing Plans: Albemarle County



- Elements of climate change mitigation and resilience intersect with strategies across AC44
- The Resilient Community chapter will explicitly integrate:
 - climate mitigation SMART goals
 - climate resilience

Thank you!

Questions?

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Emily Irvine
City of Charlottesville
Climate Program Manager

irvinees@charlottesville.gov

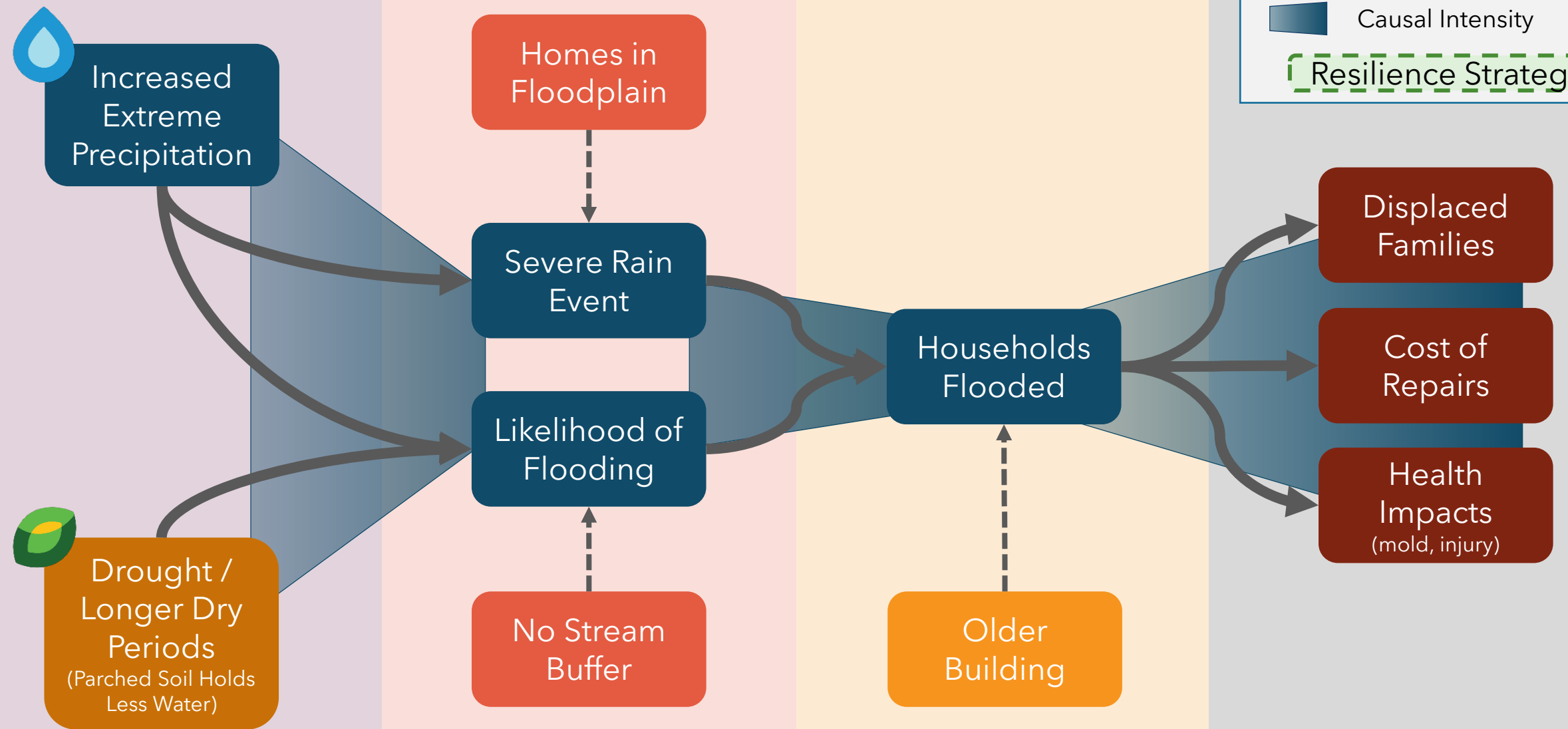
Check out RT's One Year Progress Report!



Example Chain of Events from Climate Hazards to Impacts

Legend

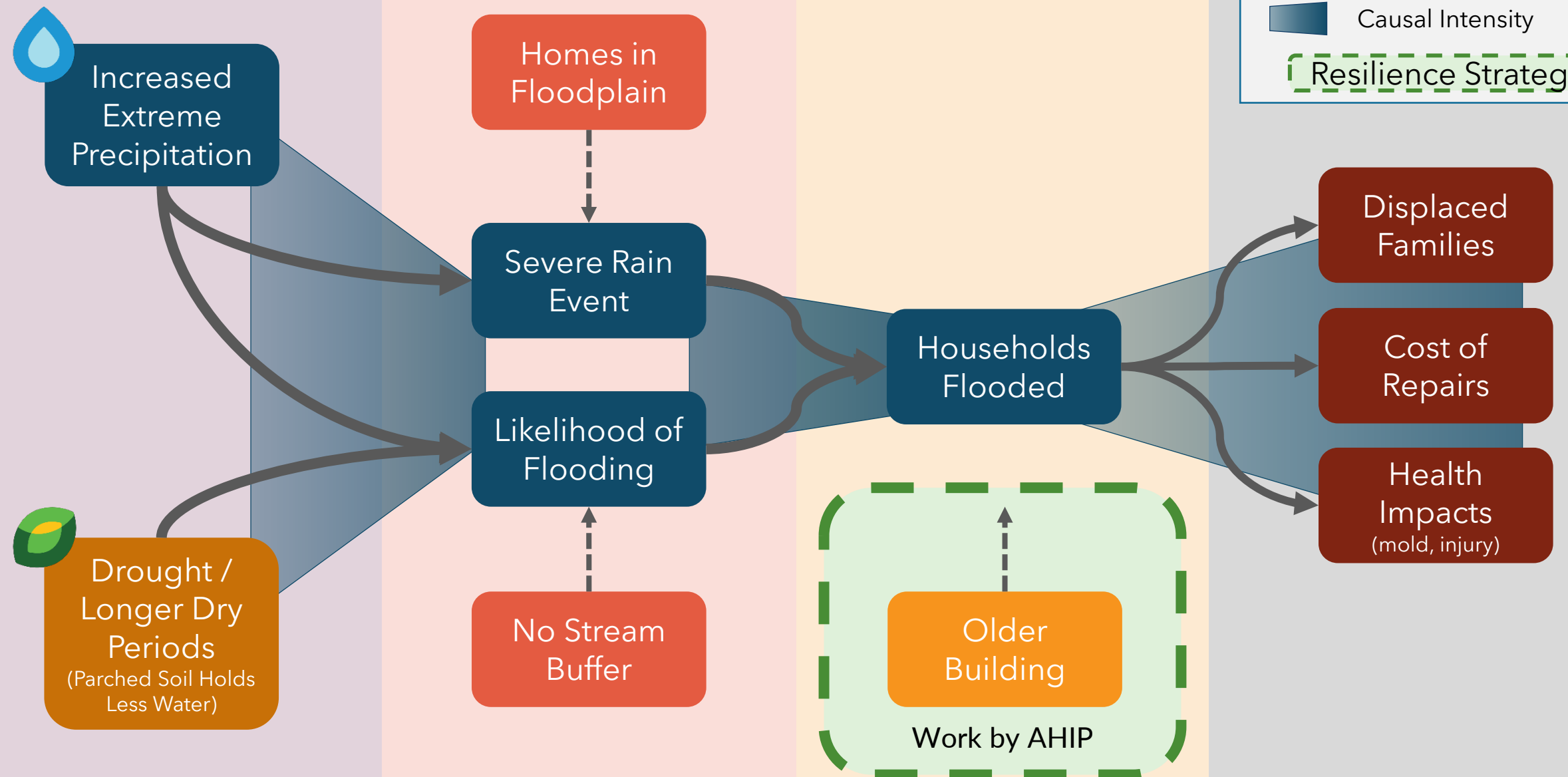
- Causal Direction
- - - - -> Exacerbating Condition
- ▭ Causal Intensity
- Resilience Strategy



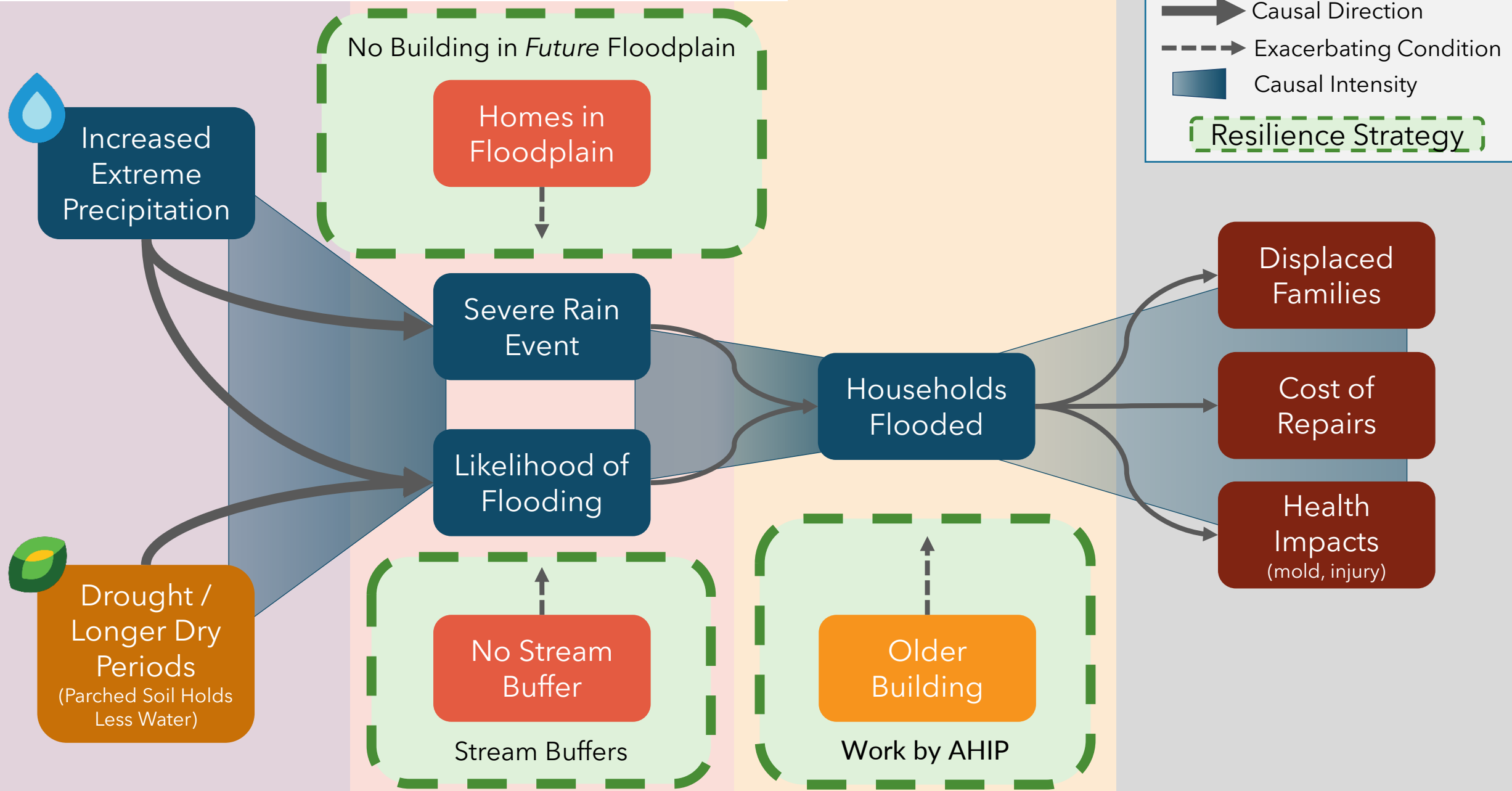
Example Chain of Events from Climate Hazards to Impacts

Legend

- Causal Direction
- - - - -> Exacerbating Condition
- ▭ Causal Intensity
- ⌈ Resilience Strategy ⌋



Example Chain of Events from Climate Hazards to Impacts



CLIMATE HAZARD

ADDITIONAL EXPOSURE

ADDITIONAL VULNERABILITY

IMPACTS

Hazards & Risks: Extreme Heat

Number of Days per Year above 95°F

Current Climate

1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

5 Days

2050


1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

25-35 Days


2075

1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

32-56 Days

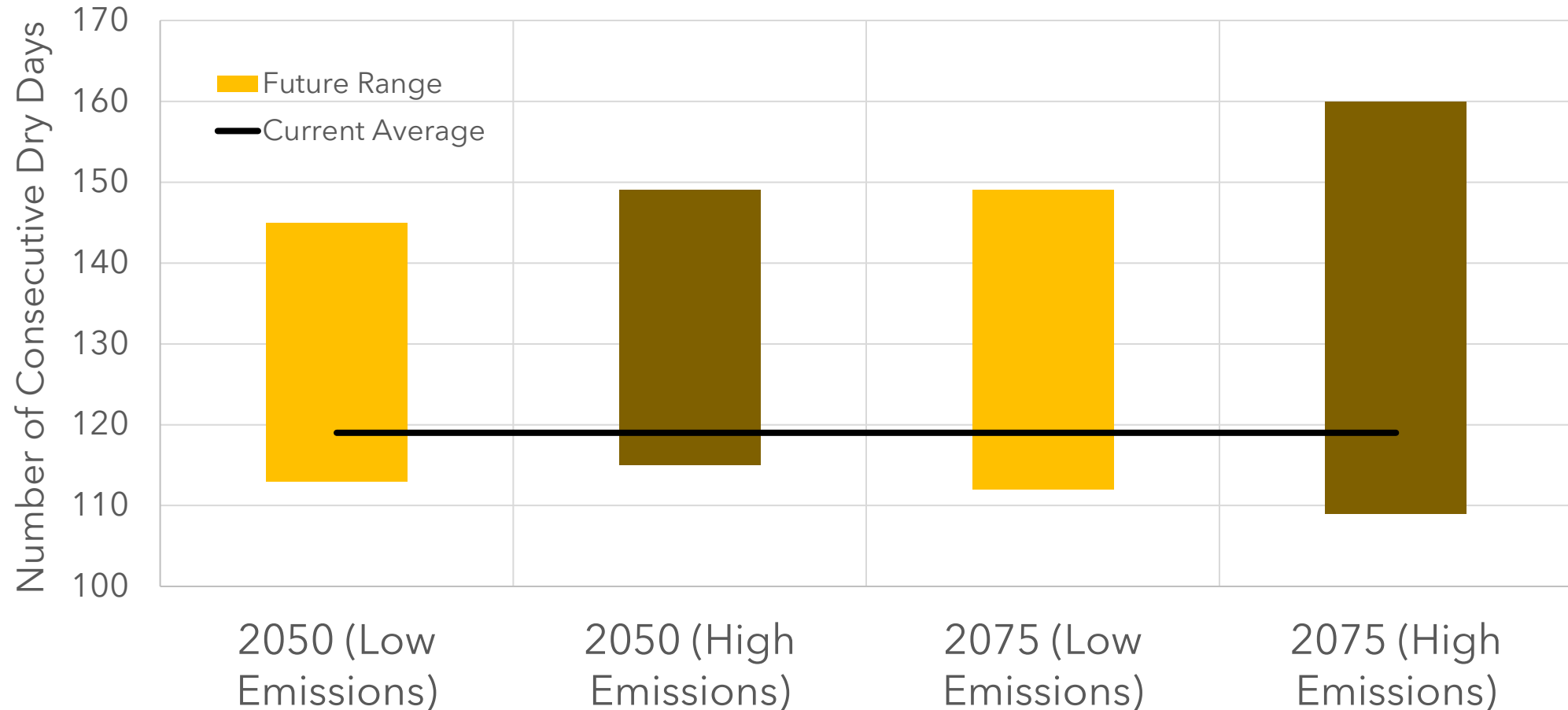
 Observed 30 Year Average (1990-2020), Monticello Station

 Lower Emission Scenario (steep emission reductions)

 Higher Emission Scenario (business as usual)

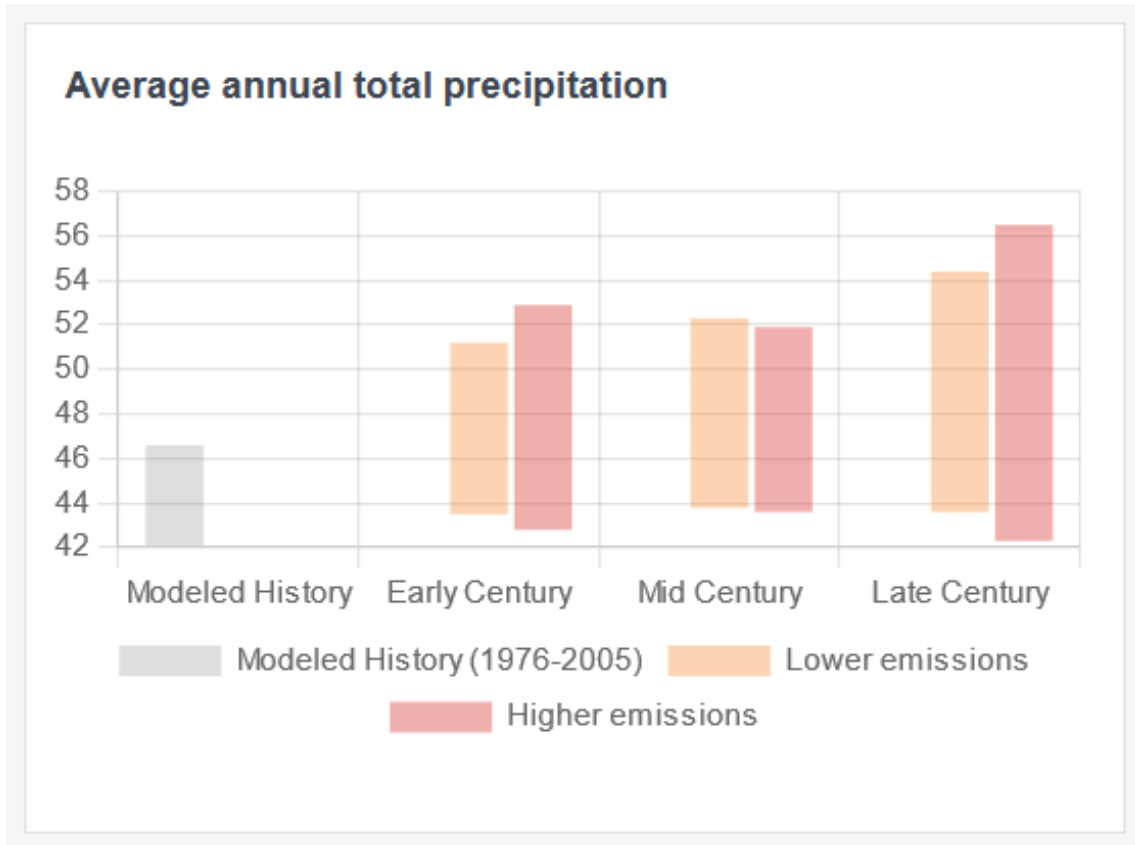
Hazards & Risks: Drought

Dry periods are predicted to increase



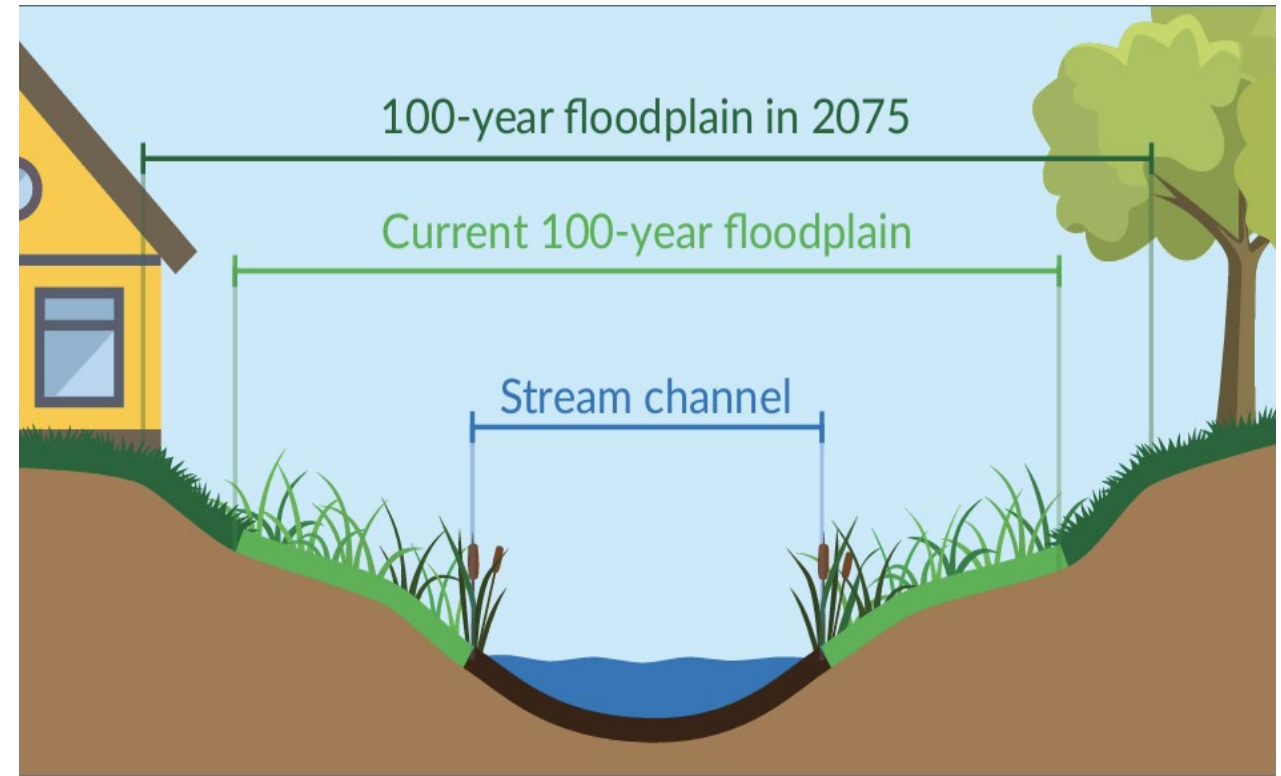
Hazards & Risks: Increased Flooding

Precipitation is increasing...



Data for Albemarle County, Climate Mapping for Resilience and Adaptation Tool (CMRA)

...and our floodplains are growing.



Note: Illustrative graphic; not an actual local stream channel

Hazards & Risks: Changing Seasons

Frost Days: Number of Days per Year with Minimum Temperature below 32°F

Current Climate

1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31	1	3

63 Days

2050


1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		


49 Days

2100

1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

29 Days

 Observed 30 Year Average (1990-2020), Charlottesville

 Higher Emission Scenario (business as usual)

Hazards & Risks: Changing Seasons



Hazards & Risks: Wildfire Smoke

Allergies, respiratory issues spike from wildfire smoke in the air

Published: Jun. 5, 2023 at 6:09 PM EDT



CBS19 News 07/17/23

Air quality in Central Virginia impacted by wildfire smoke again

Monday, July 17th 2023, 1:36 PM EDT



NBC29 News 06/05/23

UNIVERSITY NEWS

Best Health Advice for Smoky Skies: Stay Inside and Wear a Mask When Outdoors

UVA Today 06/09/23



ABC13 News 06/29/23