City Council Retreat: Sustainability Discussion

March 13, 2020

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Presentation Overview

I. **Resilience - Primary Threats to Asheville**
   - Overview of Asheville's Climate Resilience Assessment

II. **Asheville Sustainability Goals**
   - Climate Justice Initiative
   - 100% Renewable Energy Goal
   - Waste Reduction Goal
   - Community-wide 100% Renewable Energy Goal
   - 4% Carbon Reduction Goal

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Takeaways

- Lead by example as an organization and lead with equity.
- Investments are needed in capital projects throughout city departments that support sustainability goals.
- Need collaboration and external partnerships to achieve sustainability goals.

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What is Resilience?

Resilience is investing now for a better (present and) future.





U.S. Climate Resilience Toolkit
toolkit.climate.gov

UNC ASHEVILLE NEMAC+FernLeaf

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Moving from Threat to Solution

Did you know? →

Why should I care? →

What can we do about it?



U.S. Climate Resilience Toolkit
toolkit.climate.gov

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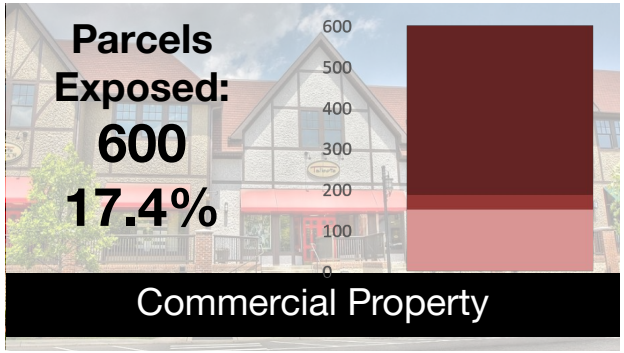
Primary Threats for Asheville

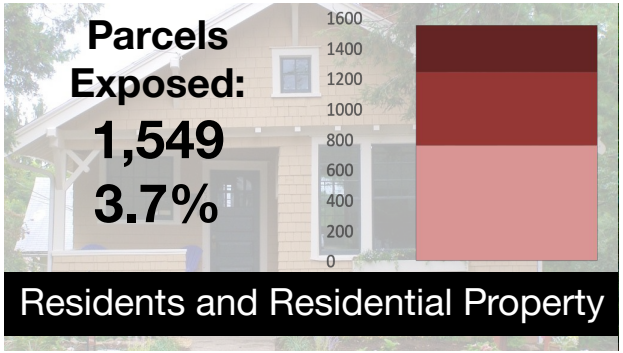
- Increased **flooding, nuisance flooding and landslides** due to stronger and more frequent **heavy precipitation events.**
- Increased risk of **water shortage and wildfires** due to increasing severity of **drought.**
- **Supply chain interruptions.**
- Increasing **temperature variability** that leads to **extreme heat events.**

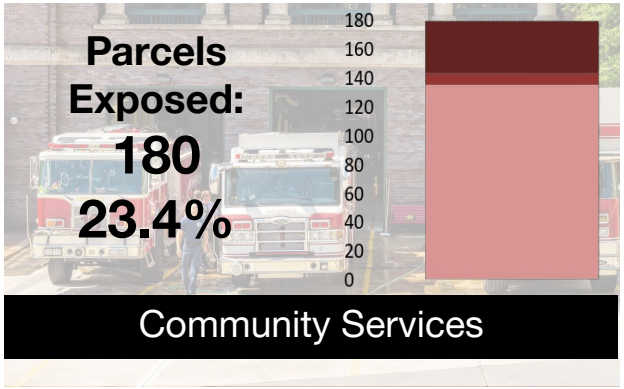
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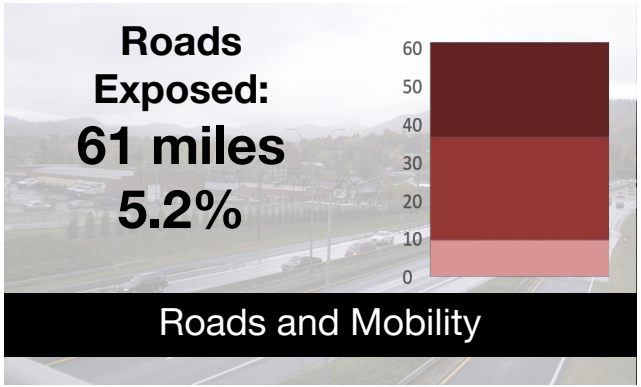
Vulnerability at City Scale

Example - flooding hazard





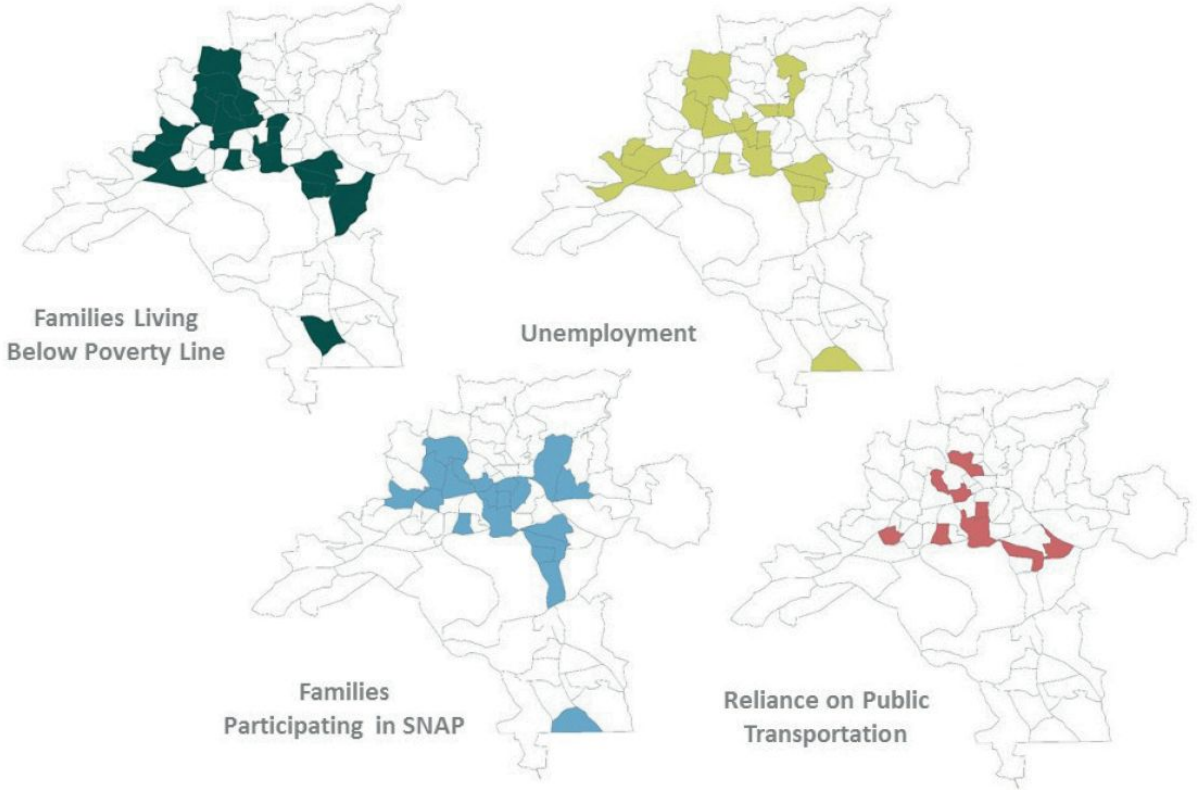




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Social Vulnerability

Socioeconomic vulnerability Highlighting Census Block Groups in the Top Quartile



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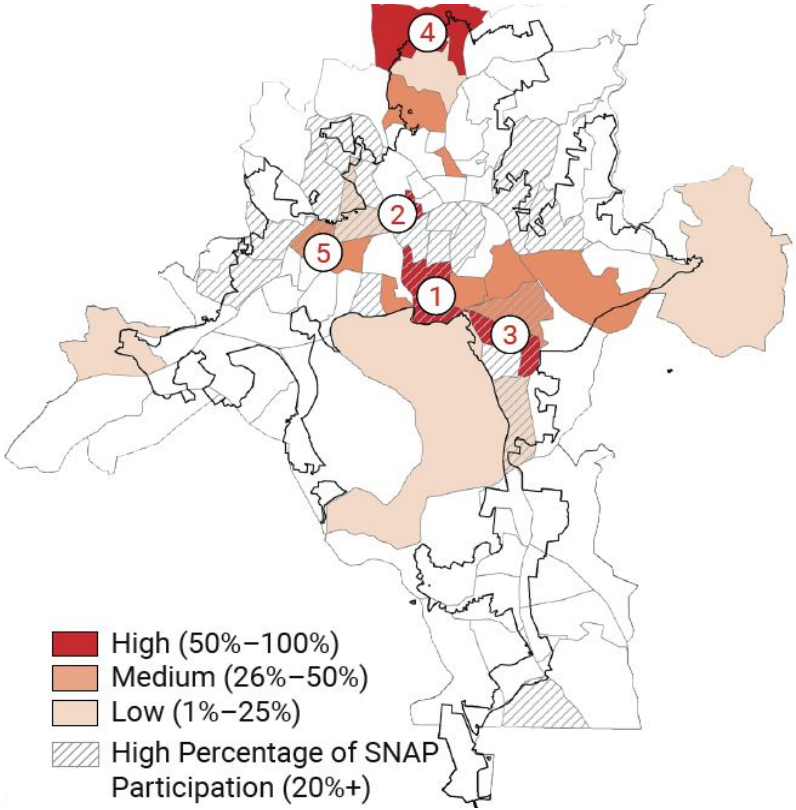
Social Vulnerability

Most vulnerable areas:

- Families participating in SNAP.
- In areas where majority of SNAP retailers could be affected.

Impacts to people:

- Food access.
- Disproportionate impacts to vulnerable populations.



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Prioritized Strategies

Important and can be implemented based on current resources:

- Provide information on assets and threats to Emergency Management.
- Improve communications across departments during hazard events.
- Promote water conservation.
- Enhance response and recovery programs.
- Conduct additional studies as necessary to determine detailed strategies for flood and landslide hazard mitigation.
- Increase use of stormwater and flood control.
- Continue to improve water supply and distribution systems.
- Promote climate resilience concepts and best management practices through public education and communication.
- Develop partnerships to promote green infrastructure strategies.
- Promote regional partnerships to build resilience.

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Prioritized Strategies

Important, but will require more stakeholders or resources:

- Modify the Unified Development Ordinance as it pertains to steep slopes in accordance with the climate assessment prioritization table.
- Upgrade stormwater infrastructure systems and enhance capacity through green infrastructure utilizing strategies identified in the comprehensive plan.
- Continue to build further capacity into water supply.
- Prepare and plan for supply chain interruptions through partnerships with appropriate regional entities.

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Active Strategies and Previous Efforts

- Improvements to North Fork Dam.
- Proactive floodplain and slope ordinances.
- Protection of access points on steep slopes.
- Proactive fire programs and codes.
- Partnerships for water supply (Mills River, County)
- Initiatives and studies (tree canopy, Energy Task Force, weatherization).
- Emergency Management Planning (Regional Hazard Mitigation Plan).

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Best Practice Comparison

- We work with many cities in the Southeast
  - Heavy precipitation events that lead to flooding are a primary impact for all.
- These cities are moving beyond “Why should I care?” to “What can we do about it?”
- To implement action, cities are adding capacity:
  - Tallahassee - Resilience officer + 3
  - West Palm Beach - Sustainability officer + 4
  - Charleston - Resilience officer + Sustainability officer



Discussion

Sustainability Management Plan

- Sustainability Management Plan adopted in 2009.
- Focus areas: public buildings, transportation, water, solid waste, land use and education.
- Ranks opportunities by:
  - Existence of current activity
  - Environmental, economic and social benefits
  - Financial incentive
  - Personnel availability and capacity
  - Technical feasibility
  - Stakeholder concerns
  - Regulatory requirement

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Sustainability Accomplishments

Building Efficiency Investments:

- Boiler replacements
- Building automation systems
- LED lighting upgrades
- LEED Certified FS13

Renewable Energy Investments:

- Solar site feasibility assessments
- Policy Roadmap
- First on-site installation ART Station
- Aggregate RFP
- Solar ready re-roofing
- EDF Cities Initiative



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Sustainability Accomplishments

Climate Resilience:

- Climate Resilience Assessment
- Climate Resilience Resource Guide

Community-wide Sustainability Initiatives:

- Updated Fee and Rebate Policy
- Blue Horizons Project Community Council
- Gold SolSmart Designation
- Asheville Edibles Program
- Edible maintenance plans
- EV charging stations
- Weatherization Program

Blue Horizons project

Setting the course for clean energy

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Sustainability Accomplishments

Recycling:

- Housing Authority
- Triple stream bins at Thomas Wolfe
- Composting workshops
- “Recycle Right” Campaign
- Recycling audits



Fleet:

- Upgraded diesel fleet from B5-B20
- 5 Electric Buses
- Hybrid vehicles
- Electric vehicles

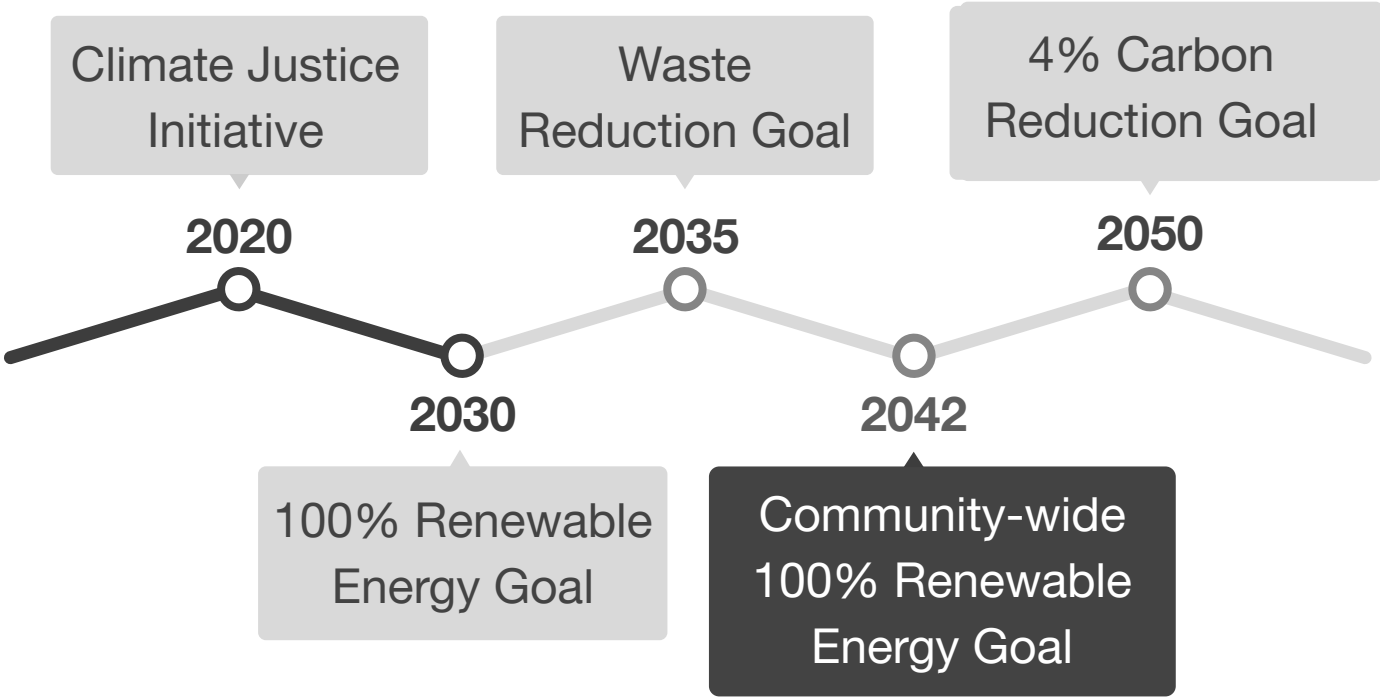
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City of Asheville Sustainability Resolutions

1. Resolution 11-77 - Establishing a Carbon Footprint Reduction Goal
2. Resolution 13-17 - Adopting a Food Policy Action Plan
3. Resolution 13-228 - Supporting a Clean Energy Economy
4. Resolution 14-27 - Establishing a Waste Reduction Goal
5. Resolution 15-200 - Adopting a Community Clean Energy Policy
6. Resolution 16-64 - Energy Innovation Task Force
7. Resolution 17-119 - Re-affirming Paris Agreement
8. Resolution 17-257 - Asheville's 2017 Food Policy Action Plan
9. Resolution 18-05 - EITF Recommendations into the Sustainability Management Plan
10. Resolution 18-92 - Support Federal Action Carbon Fee & Dividend
11. Resolution 18-279 - 100% Renewable Energy Goal for Municipal Operations + Buncombe County's community goal
12. Resolution 20-25 - Declaration of a Climate Emergency

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Asheville's Sustainability Goals



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City of Asheville Sustainability Initiatives

Internal:

- Carbon Reduction
- 100% Renewable Energy
- Climate Resilience

External:

- Waste Reduction
- Climate Resilience
- 100% Renewable Energy
  - Blue Horizons Project
- Climate Emergency
- Food Policy

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Sustainability Challenges

- Many new goals adopted since passage of Sustainability Management Plan.
- While low cost efficiency improvements have been implemented, more costly investments are needed:
  - Average building is almost 60 years old.
  - Inadequate funding for reroofing, building envelope and HVAC upgrades.
- Cost to achieve waste reduction goals has grown due to global recycling industry trends.

Sustainability Challenges

Capital Improvement Projects funding gap for addressing internal sustainability goals both on energy and resilience.

Capital Need	Total Identified
Fleet Replacement	$ 35.2M
Building Systems	$ 8.6M
Facility Renovations	$ 28.1M
Roof Replacement	$ 2.5M
Total	**$ 74.4M**

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Policy Review and Analysis

Update the Sustainability Management Plan to include:

- Climate Justice Initiatives
- A review of adopted resolutions and goals
- A review of adopted work plans and time commitments
- Asheville's Climate Resilience Assessment
- A definition of climate equity with Asheville's frontline community members

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Budget Requests

FY21 Sustainability Funding Requests:

- Base Budget (+ $2M)
  - Sustainability Management Plan Update
  - Climate Justice Screening Tool
  - Blue Horizons Project
  - Renewable Energy Projects: Mills River and Harrah's Center [not funded]

FY21 Capital Needs Funding Requests:

- Base Budget (+ $11.1M)
  - Roof Replacements
  - Building Systems

FY21 Sanitation Division Funding Requests:

- Base Budget (+ $507,000)
  - Solid Waste Management Plan
  - Waste Reduction Specialist

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Takeaways

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Discussion