



Environmental Subcommittee

Presented by

Sybil Tate

Asst. County Manager



Purpose

Why are we here?

“to examine opportunities for environmental and energy stewardship”



Background

How did we get here?

- Strategic Plan adopted in 2019 – Environment is a focus area
- Desire to create an ongoing conversation about env. programming and opportunities



Focus Areas

What are we going to discuss?

1. Open Space
2. Water Quality
3. Climate Resiliency
4. Renewable Energy Transition
5. Clean Energy Financing



Resources

How are we going to move forward?

- Staff:
 - Rafael Baptista – agenda, minutes
 - Jeremiah LeRoy and Jennifer Harrison - staff liaisons
 - Provide subject matter expertise
- Resolutions, programs, funding requests, etc., are forwarded to the full Board of Commissioners for a vote
- Budget deadlines
 - IT requests – Sept 24th
 - Personnel requests- Nov. 19
 - Capital project request – Nov 19
 - Vehicle requests – Nov. 19
 - Operating budget requests – Jan 28th



Env. Subcommittee: Top 5 Priorities

Jennifer Harrison

Nathan Pennington

Jeremiah LeRoy

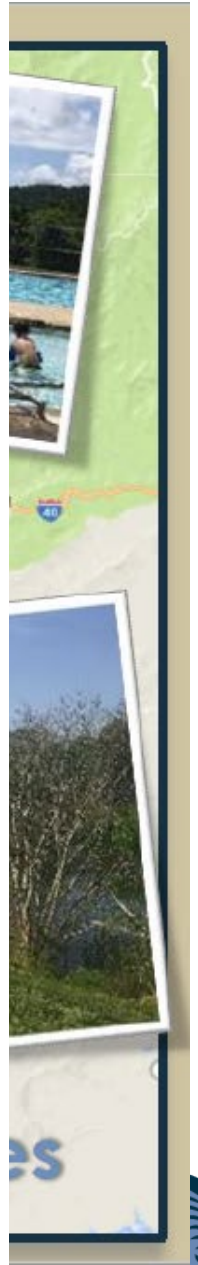
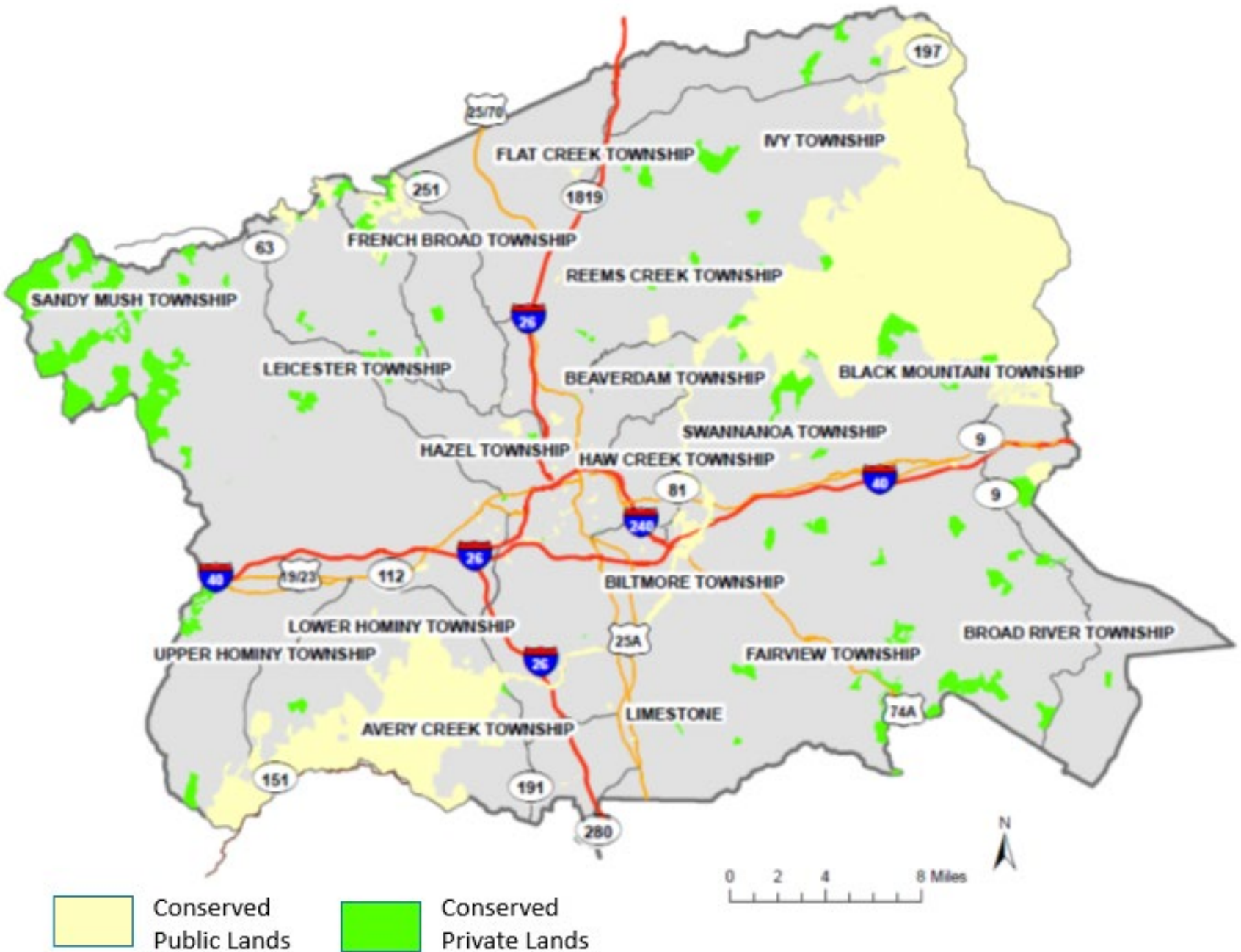


Top 5 Priorities

1. Open Space
2. Water Quality
3. Climate Resiliency
4. Renewable Energy Transition
5. Clean Energy Financing



7 ball
7
12 soc
8
6 recre
1
5 pool



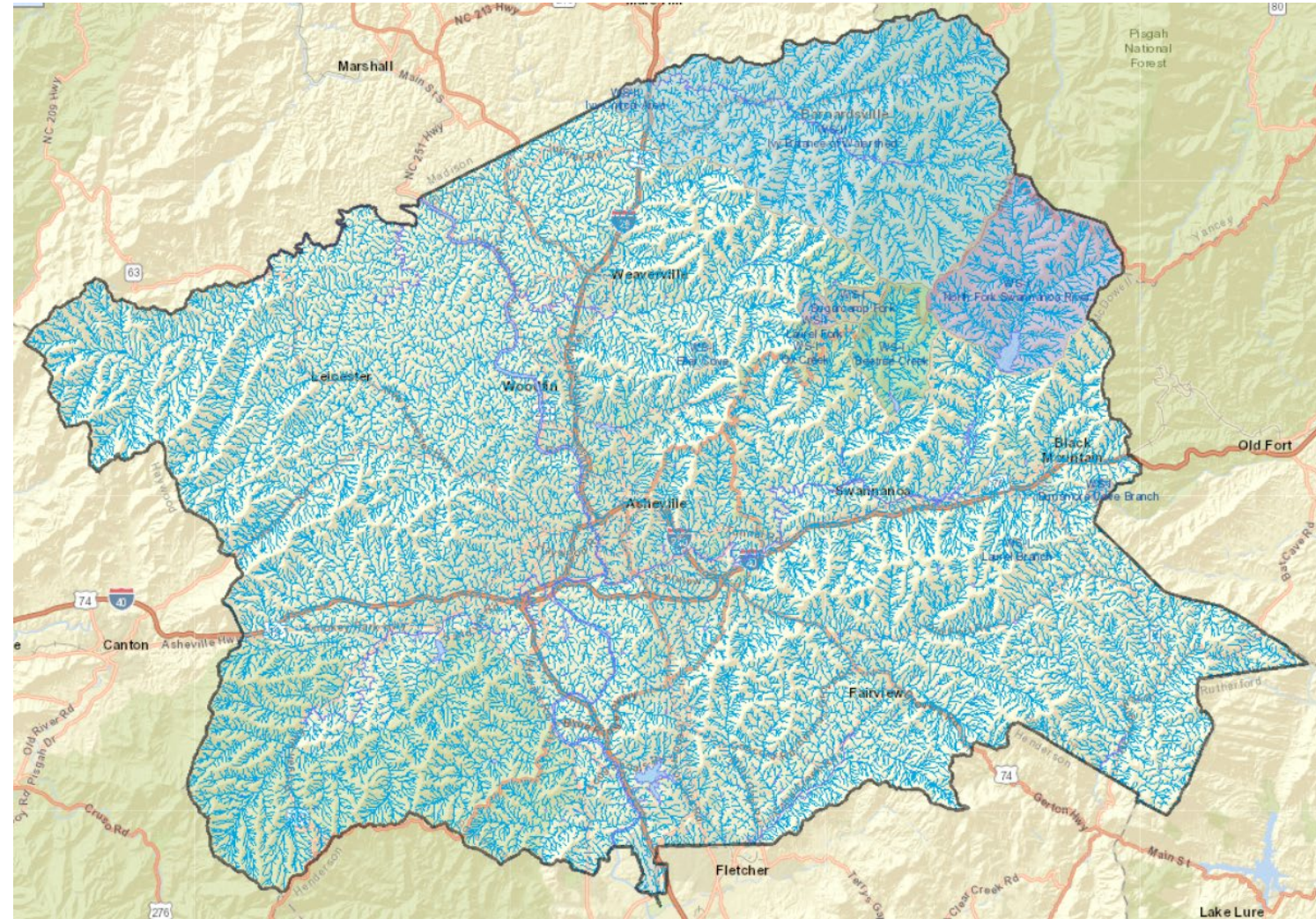
Open Space and Conserved Lands

- Hiring a Farmland Preservation Program Coordinator
- Bringing LCAB (Land Conservation Advisory Board) into Ag and Land Resources
- Working with a U Penn grad student to identify high priority regions to target for conservation easements
 - Consecutive tracts of land – close to other easements
 - High quality/prime agricultural soils
 - Working with GIS and Land Management to map
- Comp Plan is working to address Open Space and Land Use



Water Quality

- Buncombe County Soil and Water Conservation District Programs
 - Cost Share Assistance on Ag Lands
 - EWP Disaster Response
 - CCAP – Urban Water Quality
 - Other Water Quality Grant Sources
- Working with EQI on Water Quality Monitoring
 - FY22 Contract to monitor 16 sites
 - Environmental Education Program is engaging students in the monitoring

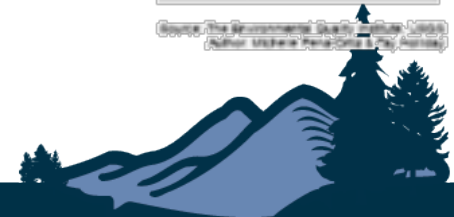
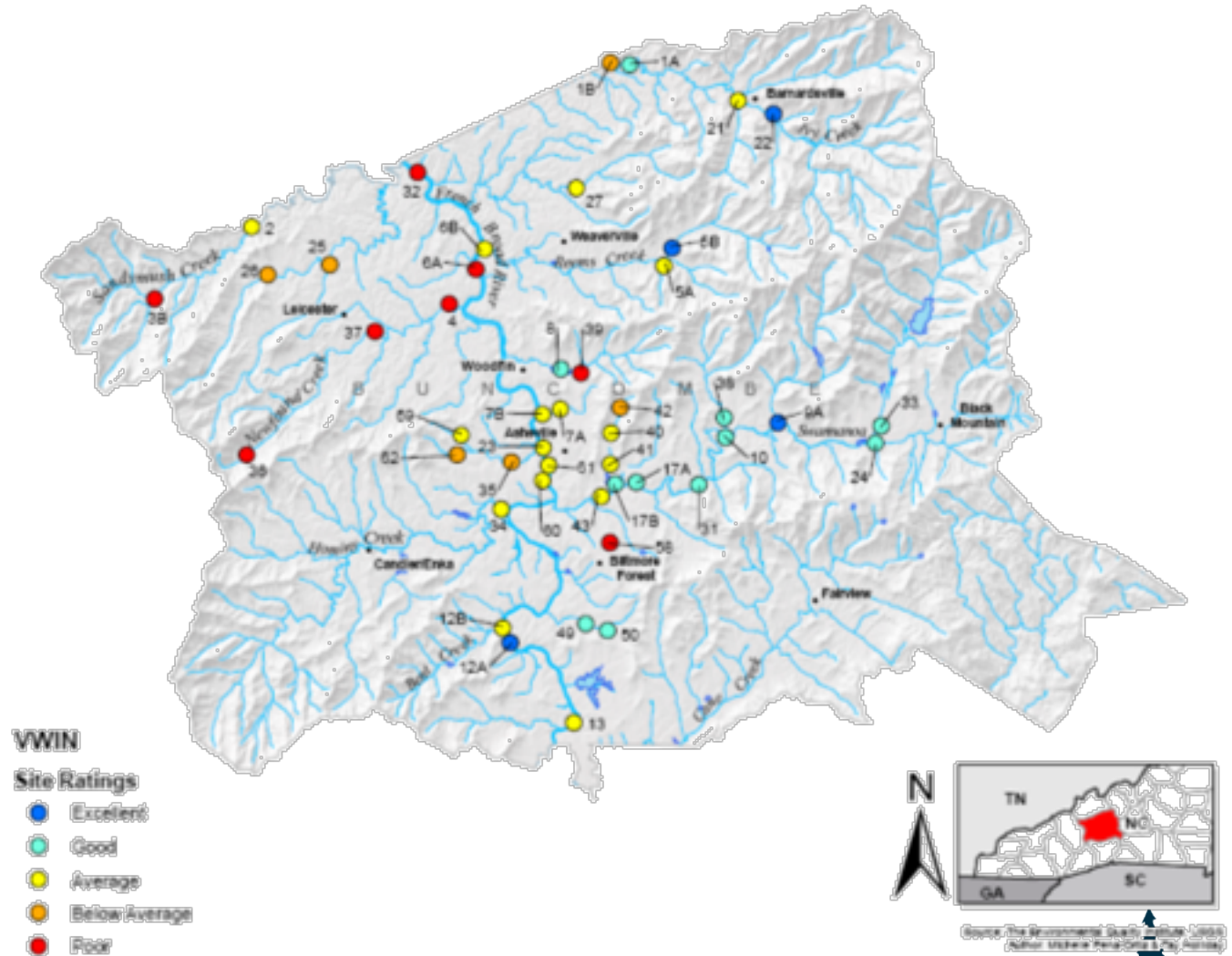


Water Quality



Buncombe County VWIN Map 2017-19

Environmental Quality Institute

- Big Ivy at Forks of Ivy
- Little Ivy at Forks of Ivy
- Sandymush Creek at Leicester Hwy
- Lower Newfound Creek
- Ox Creek at Reems Creek
- Reems Creek at Ox Creek
- Cane Creek at Hwy 74
- Ashworth Creek at Cane Creek
- Ivy Creek at Buckner Branch Road
- Paint Fork at Ivy Creek confluence in Barnardsville
- Ivy Creek at Dillingham Road
- South Turkey Creek
- North Turkey Creek at North Turkey Creek Rd
- Newfound Creek at Dark Cove Road
- Newfound Creek at Leicester Hwy
- Nesbitt Discovery Academy stream



Climate Resiliency Efforts

- Hazard Mitigation Plan  Capability Assessment, Mitigation Strategy, Mitigation Action Plan
- Comp Plan  Will evaluate needs, identify threats and vulnerabilities, offer solutions through a series of goals, objectives and policies (ex. Community Rating System – CRS)

Sample Goal Taken From BC HMP – adopted earlier this year:

Action #	Description	Hazard(s) Addressed	Relative Priority	Funding Sources	Responsible Party	Target Completion Date	2021 Action Implementation Status
P-3	Evaluate participation in the National Flood Insurance Program Community Rating System (CRS)	Flooding	Moderate	Local	Planning Dept.	2025	<p>New Action for 2021 update. A high percentage of Buncombe County's land area is located within flood-prone areas. As developable land continues to diminish, the County will experience increased development pressure upon flood-prone land. As described on the CRS website, "As a part of the National Flood Insurance Program (NFIP), the Community Rating System is a voluntary incentive program that recognizes and encourages community floodplain management activities that exceed the minimum program requirements.</p> <p>As a result, flood insurance premium rates are discounted to reflect the reduced flood risk resulting from the community actions meeting the three goals of the Community Rating System:</p> <ol style="list-style-type: none"> 1. Reduce flood damage to insurable property 2. Strengthen and support the insurance aspects of the National Flood Insurance Program 3. Encourage a comprehensive approach to floodplain management" <p>Citizens of participating CRS communities are eligible for reduced flood insurance rates. In exchange, participating local governments commit to implementing programs to educate the community about flood risks, and to the adoption of higher standards for floodplain development. Buncombe County will evaluate participation in CRS.</p> <p>Constraints:</p> <ul style="list-style-type: none"> • Program participation would require additional staff and capital resources within the Planning & Development, Emergency Management, and Communications departments, and expose the County to period program reviews by the International Organization for Standards (ISO). • Enhanced floodplain development standards will reduce the land area that is available for development as well as increase the cost of land development in these areas. This will be mitigated, to some extent, by improving options for cluster development.



Other Efforts

- Identification of risks and vulnerabilities is critical to development of mitigation strategies.
- Resilient strategies include components like land use planning, flood prone property buyouts, land management, open space preservation, green building techniques, infrastructure hardening.
- Tools are readily available including Accel Adapt.



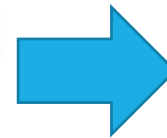
Land of Sky Regional Resilience Assessment

Phase III Report

June 2020



NEMAC+FernLeaf



Commercial Property & Flooding

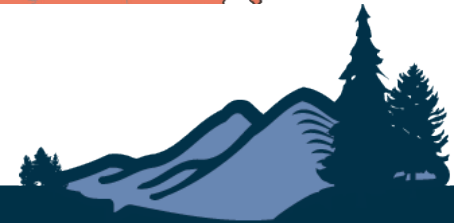
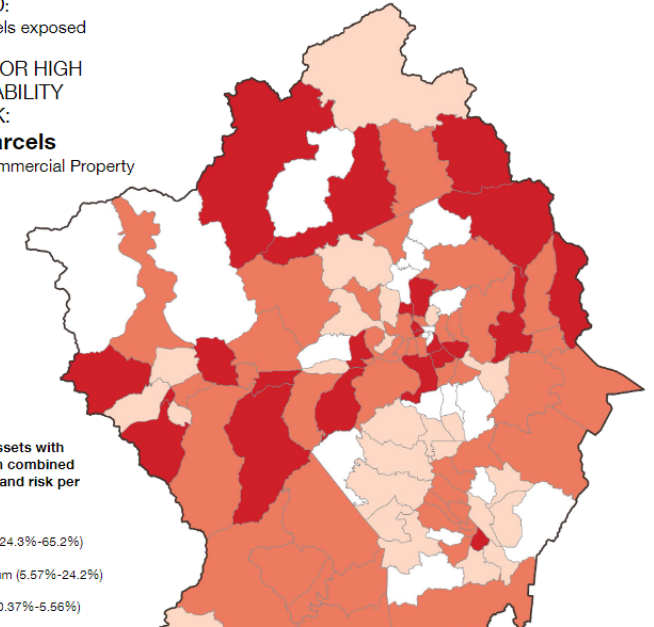
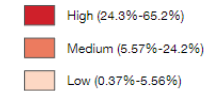
Vulnerability & Risk Assessment

Impacts to commercial properties from flood inundation can range from property loss or damage to business interruption and loss of economic revenue. Commercial properties with the highest vulnerability and risk are those with structures in the floodway that had no base flood elevation requirements when they were constructed.

EXPOSED:
2,050 parcels exposed

MEDIUM OR HIGH
VULNERABILITY
AND RISK:
1,360 parcels
15% of Commercial Property

Percent of assets with
medium-high combined
vulnerability and risk per
census tract

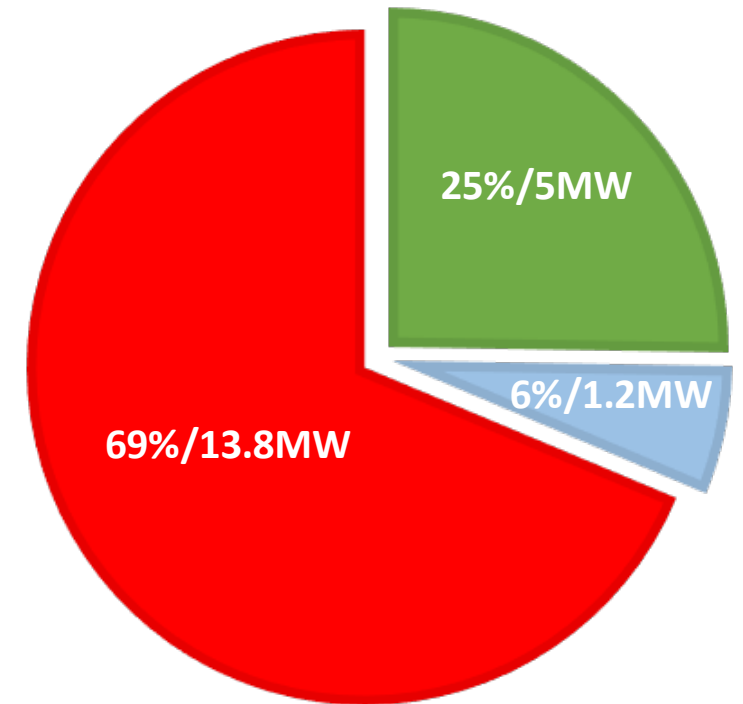


Renewable Transition

In 2018, Buncombe County adopted a goal of reaching 100% Renewable by 2030 for its county operations

- To achieve this goal the total energy load needed is ~**20 MW**
- Current on-site solar projects = 6%/1.2MW
- The Woodfin Landfill utility scale project =25%/5MW
- Remaining= 69% or 13.8 MW needed
 - Approximately 1/3 of total consumptions is vehicle fuels

■ Woodfin Landfill ■ Rooftop Solar Projects ■ Left to complete



Renewable Transition

Short-term Future Projects

- RFI for a second utility scale site
- 2 more county buildings slated for solar in FY22
- 5-8 year electric vehicle transition plan

8MW estimated

6.5MW ongoing

5.5MW needed

Considerations

- ~5.5MW = more utility scale solar projects
- Is REC procurement an option for the remaining 5.5MW?
- How much will new and upgraded buildings increase/decrease the goal?
 - Buildings will be constructed/renovated to LEED Gold (policy emphasizes net-zero)
 - New General Services Facility
 - Renovation of 35 Woodfin



Community-wide Renewable Transition

2042 Community Goal

25 solar projects on public facilities ~ 5.5MW

The County has contracted with the Green Built Alliance to convene and facilitate the Blue Horizons Project Community Council

BHPCC convenes to assist in developing and recommending projects and programs to address the community goal

- Weatherization – Energy Savers Network
- Outreach and Education
- Solarize Campaign (Neighbor to Neighbor)
- BHP Technology Committee (pilot projects)



Clean Energy Financing

Are Commercial Solar financing options available?

- Most solar developers provide in-house financing and/or work with private lenders; rates are good

Commercial Developers Identified Impediment to adoption as:

- ROI – typically 9-10 years is too long for most commercial businesses
- NC Cost of electricity is low on avg. making ROI longer (5-6 yrs in areas with more expensive kWh)

C-PACE - Cost of energy upgrades financed and pay back via a voluntary assessment on the property tax bill

- Current G.S. is problematic; new legislation recently filed to create a state administered program with County opt-in

Alternative Options authorized by GS

- Revolving Loan Fund and Loan Loss Reserves
- Update Economic Development policy to include renewable energy incentive
- Work with Chamber to identify hotels and other commercial entities that might be interested in solar
- Explore incentives for new construction
- Partner with Blue Horizons on Commercial Solarize campaign/education & outreach

