



Climate Resiliency

Rockingham County,
NC

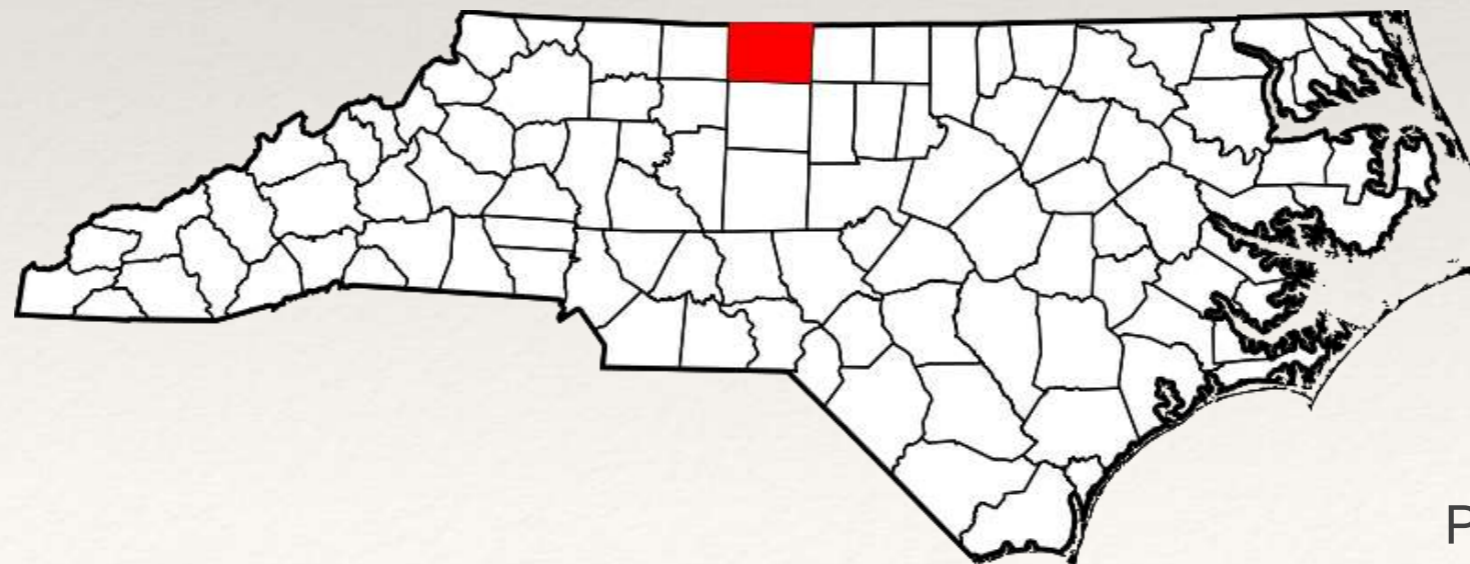


Photo: City of Eden

Dan River Basin Association

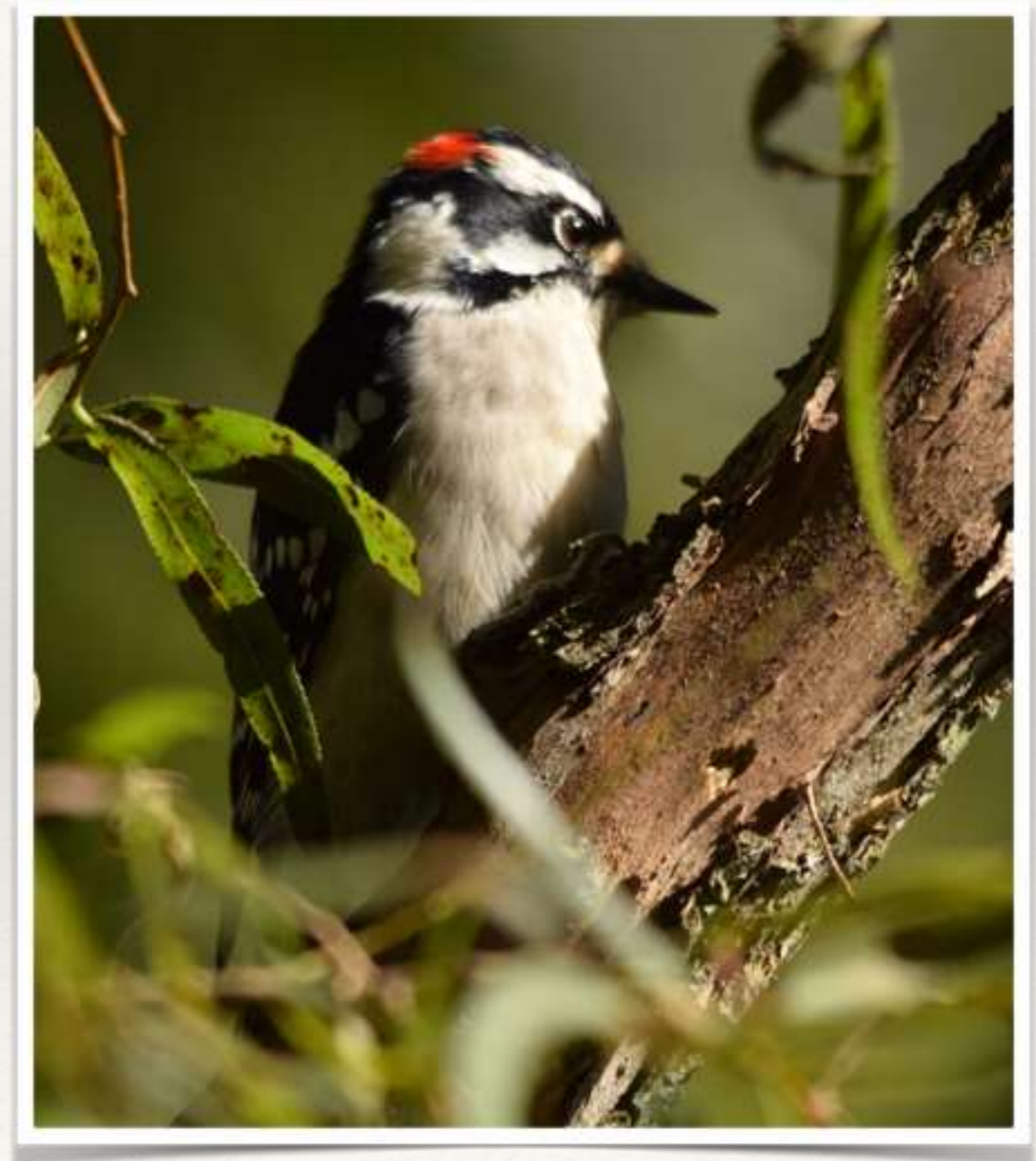
- ❖ Mission to preserve, promote & protect the Dan River Basin
- ❖ Philosophy is to work with people and businesses for a healthier environment & vibrant communities
- ❖ Recreation, Education, Stewardship



Wildlife of the Dan River Exhibition
made possible by REI

Model Forest Policy Program

- ❖ Works with rural communities on climate change resiliency
- ❖ Goal is to create plans ready for implementation
- ❖ Climate Solutions - Resiliency Focus
 - ❖ Watershed health
 - ❖ Species habitat
 - ❖ Ecosystem/Economic



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About Us: Rockingham County

- ❖ We're aging: Population is older than the state average
- ❖ We're not growing residents: Only 1.9% population growth compared to 18.5% for state
- ❖ We're under stress from economic poverty
- ❖ We have high obesity rates and poor health

Climate Change in Rockingham County?

- ❖ 57% in RC acknowledge climate change (62% NC; 63% nationally)
- ❖ What we hear:
 - ❖ Weather has always shifted
 - ❖ Any impacts are in land far, far away
 - ❖ Not considered relevant here



Are you an environmentalist, or do you work for a living?

- ❖ Environmentalism is
 - ❖ Realm of the liberals
 - ❖ Unrealistic & un-necessary
 - ❖ Expensive to tax payers
 - ❖ Regulatory solutions
 - ❖ Mildly un-American (stops progress)
 - ❖ A JOB KILLER

Primary Climate Vulnerabilities

- ❖ Proposed Uranium mining
 - ❖ storms can overwhelm waste systems
- ❖ Proposed Fracking
 - ❖ *“It is one thing for a truck to spill chemicals into a river. It is another thing for a river to flood hundreds of well sites, collect toxic chemicals, and then spread them across a broader area.”*
- ❖ 1930s - 1960s Farm ponds
 - ❖ More than 1,000 with aging dams
- ❖ Coal ash ponds at Belews Creek and Dan River Steam Stations



Parable of the Burning House

- ❖ Had to figure out how to frame climate change resiliency
- ❖ Buddhist parable of the burning house
- ❖ Tell the story that people need to hear. Meet people where they are.



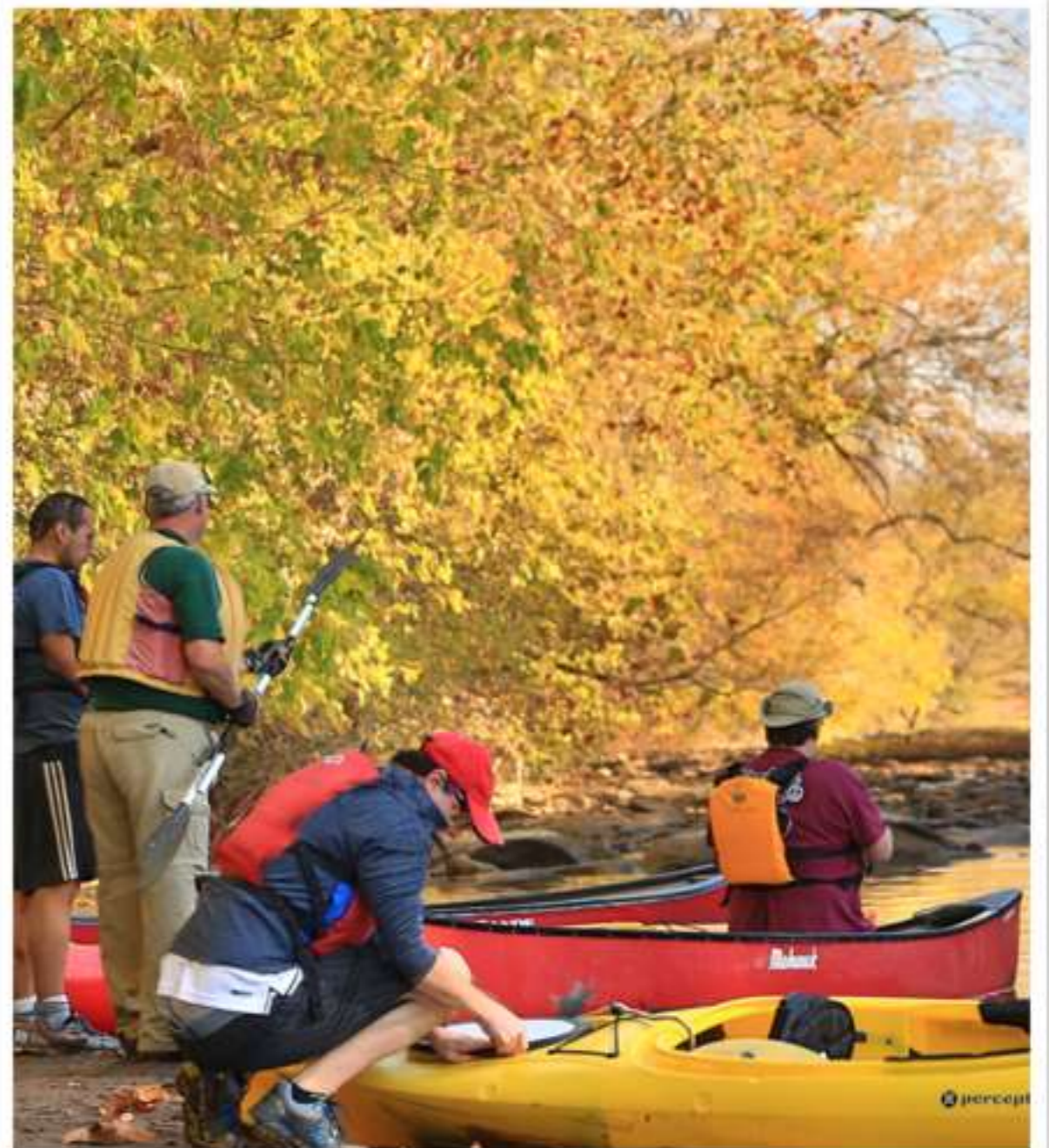
Plan with Conservative Values & No Regrets

Ensure forests & rivers in healthiest possible condition

- ❖ Provide timber income
- ❖ Wildlife habitat
- ❖ Ample water for electrical production & industry
- ❖ Protect the elderly
- ❖ Place Rockingham County in best possible position to attract new business and to foster the entrepreneurial spirit from within

JOBS! Sustainable Forests & Rivers = Jobs

- ❖ County is rich in water
- ❖ More than national average in forest canopy
- ❖ Natural resources in fairly good condition
- ❖ Businesses association with tourism the *only* sector on the rise
- ❖ Protecting natural assets is a conservative value & a job maker



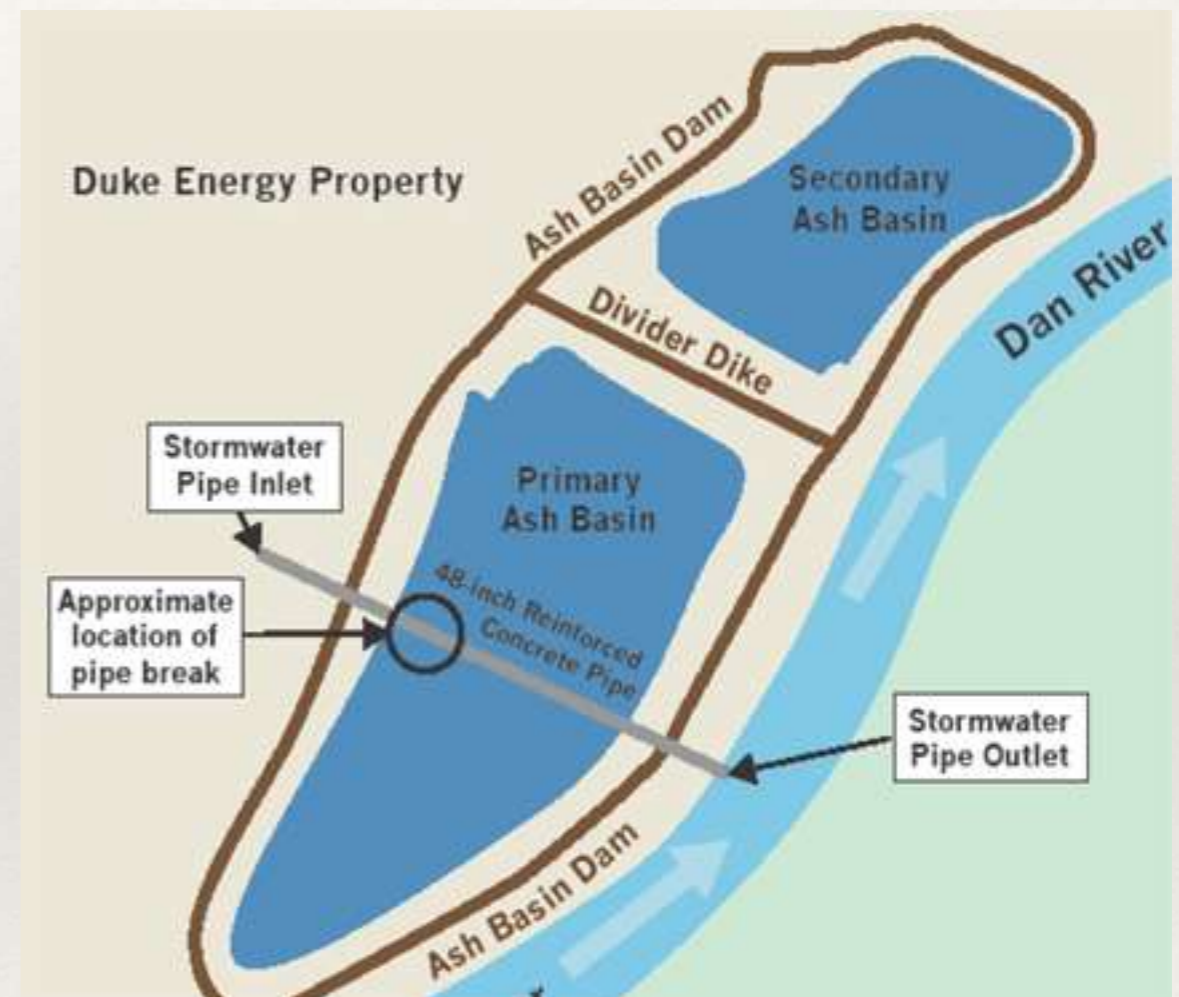
And then this



Photo: J. Edwards

And then: Duke Energy Coal Ash Spill

- ❖ On Sunday, February 2, a 48-inch storm water pipe broke
- ❖ Break allowed coal ash to drain from the pond and spill into the Dan River.
- ❖ Initial estimates by Duke were that 50,000 to 82,000 tons of coal ash, along with 27 million gallons of contaminated water. Later revised to 39,000 tons of coal ash
- ❖ Coated river bottom for 70 miles
- ❖ Duke unable to stop the flow. Most of the pond drained out by Feb. 5



6-Month Damage Cost Assessment (Dr. Lemley)

- ❖ Ecological Impacts
 - ❖ More than \$113 million
- ❖ Recreational Impacts
 - ❖ More than \$31 million
- ❖ Health & Consumptive Use
 - ❖ \$75 million



Photo: B. Williams

2013/14 Winter - Record Setting

- ❖ Polar Vortex - extremely cold, dense air
- ❖ At least 17 deaths attributed to the cold that winter
- ❖ Burlington sewer force main break. Spill into the Haw (3.5 million gal.)
- ❖ “Sometimes we attribute it to weather, the material itself, the way it was installed,” Michel Layne, Field Operations Manager, City of Burlington. “It’s really a shot in the dark.”

Climate Change or “Global Weirding”

- ❖ Normally fast winds in the vortex hold it in the Arctic
- ❖ But when winds weaken, the vortex wobbles & Arctic air can escape
- ❖ During winter of 2013/14, the entire vortex tumbled South
- ❖ Melting sea ice may have contributed to the phenomena

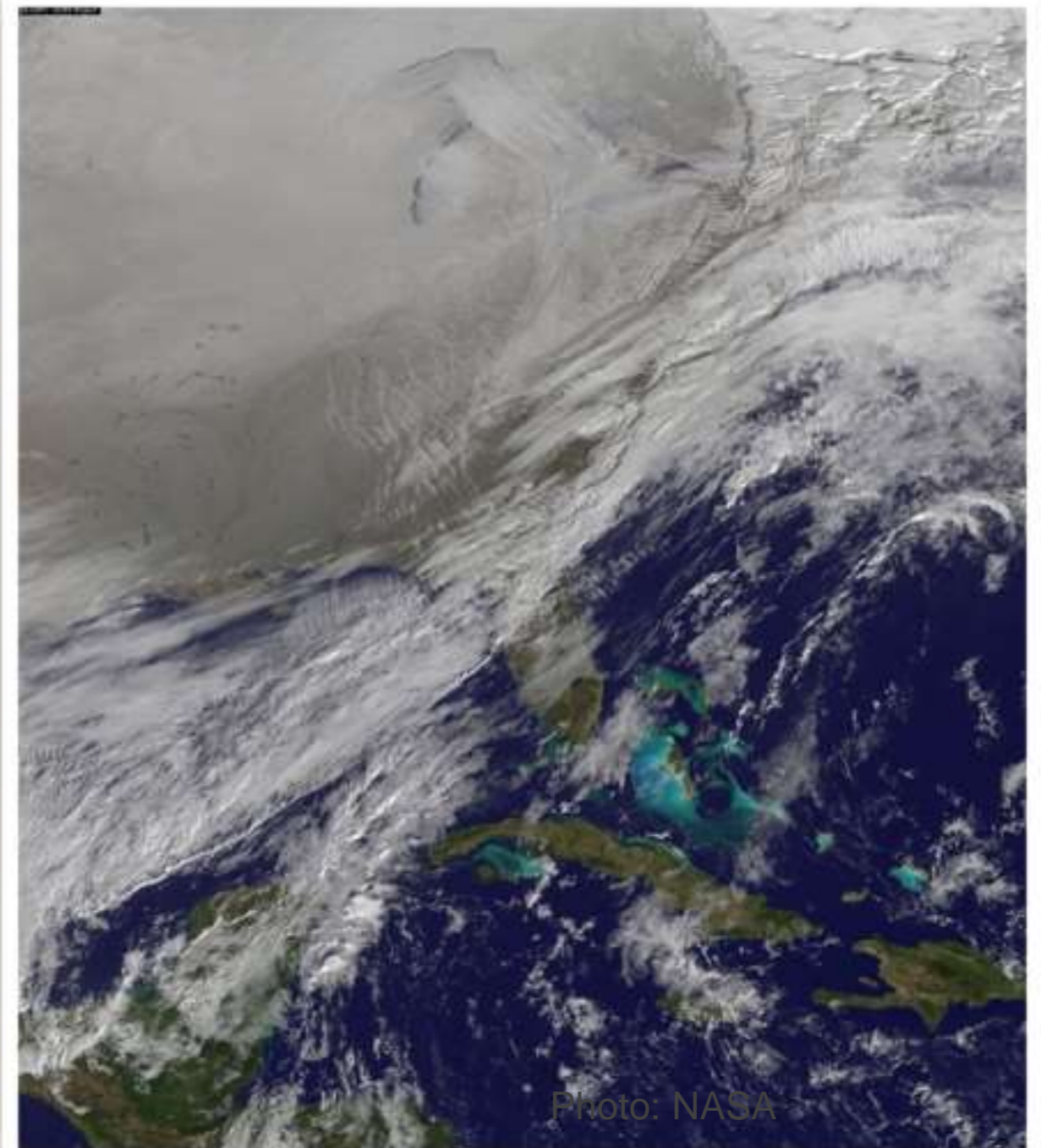


Photo: NASA

Tourism is on a Come Back

- ❖ Duke Energy investing more than 2 million in environmental & economic development projects
 - ❖ New recreational trails
 - ❖ New river access
 - ❖ Environmental park
 - ❖ Interactive map of trails/river access
 - ❖ Outdoor classroom
 - ❖ Environmental education



Photo: J. Edwards

Climate Vulnerabilities - Where We Are Now

- ❖ Proposed Uranium mining
 - ❖ 30+ year moratorium
- ❖ Proposed Fracking
 - ❖ Strong local opposition. County & most municipalities have passed bans.
- ❖ 1930s - 1960s Farm ponds
 - ❖ Remains a threat
- ❖ Coal ash ponds
 - ❖ All slated for closure
 - ❖ Coal ash remains in river



Photo: J. Edwards

Focus: Sustainable Trail Building

- ❖ Low long term maintenance
- ❖ Serves wide range of users
- ❖ Workforce development
- ❖ Economic development
- ❖ Doubled miles of trail (from 11 to 23.5 miles)
- ❖ Engaging youth through mountain biking



Photo: J. Edwards

Connect

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Model Forest Policy Program

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White Egret on the Dan. Greensboro News & Record