

DURHAM · CHAPEL HILL · CARRBORO

DCHC

METROPOLITAN PLANNING ORGANIZATION

PLANNING TOMORROW'S TRANSPORTATION

DCHC MPO Wildlife Crossing Planning

DCHC MPO Technical Committee

May 14, 2024

David Miller, DCHC MPO

Ramona McGee, Southern Environmental Law Center

Ron Sutherland, Wildlands Network

Presentation Overview

1- Background on wildlife crossings

2 – Local ongoing wildlife crossing planning efforts (Triangle Connectivity Collaborative and Wildlands Network)

3 - DCHC MPO's wildlife crossing planning process

4 – Discussion and questions

Background on Wildlife Crossings

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Background on Wildlife Crossings

Background on Wildlife Crossings

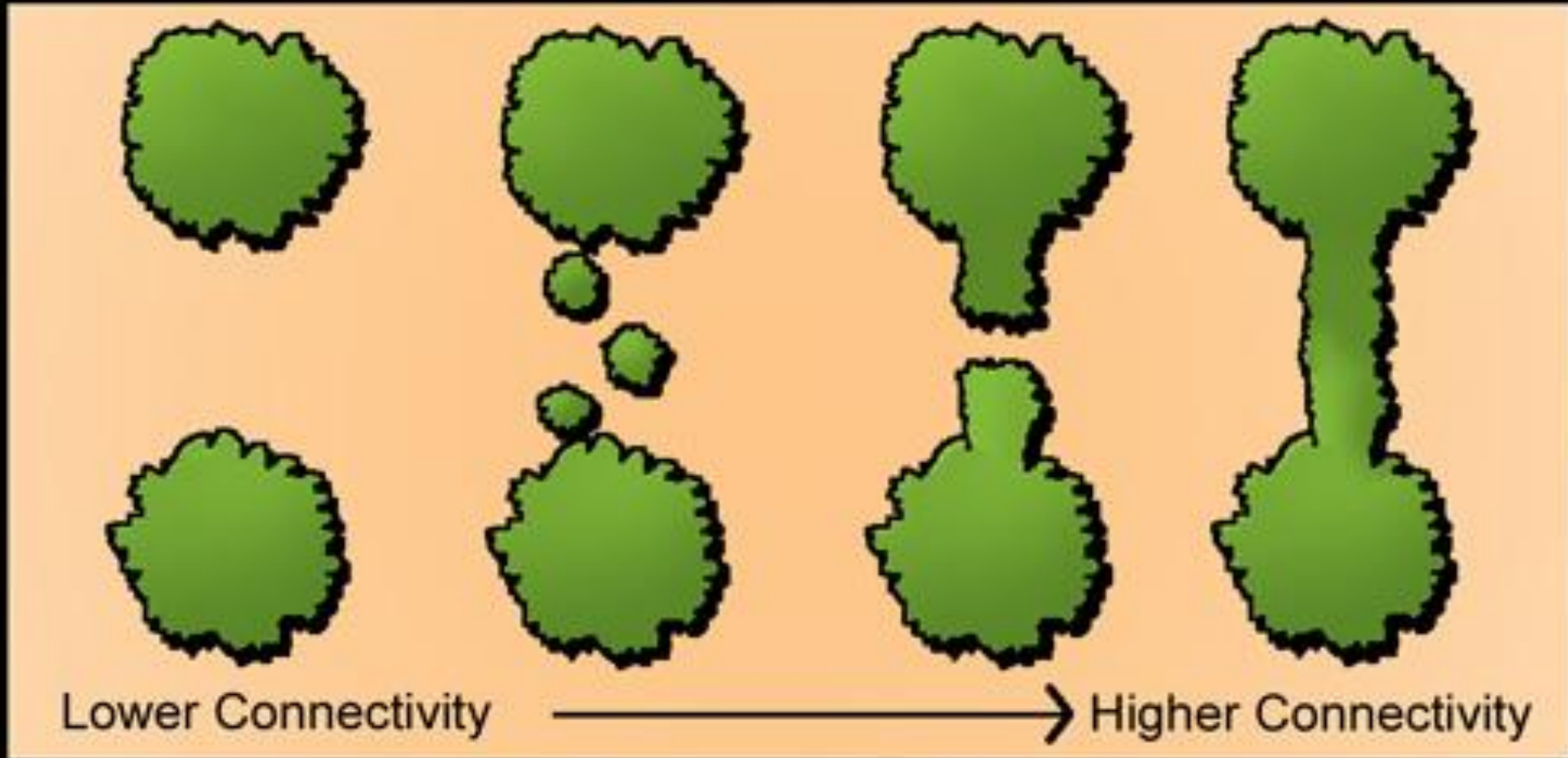
Ron Sutherland, Wildlands Network

Road Ecology 101

Ron Sutherland **Wildlands**
NETWORK 



Habitat Connectivity







Wildlife Corridor



Wildlife Road Crossing



Roads are
key barriers





SUR 20km

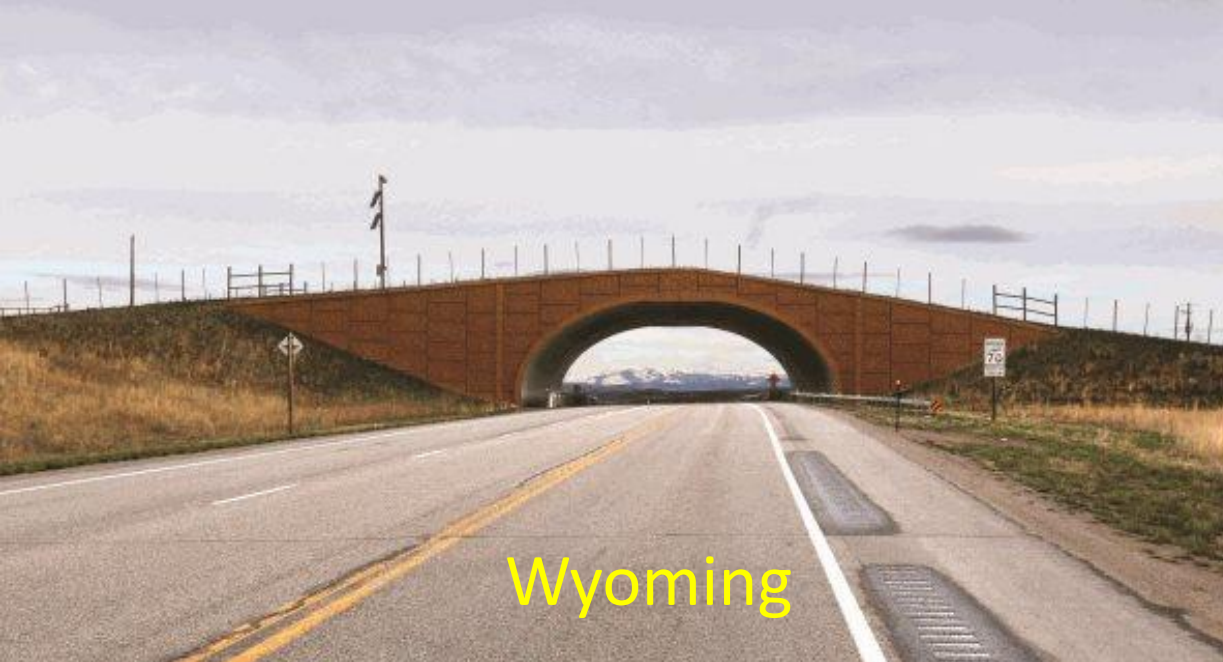


Banff National Park, Canada



>80% reduction in wildlife crashes via 48 crossing structures + fencing





Wyoming



Nevada



Utah



Colorado



Hitchcock Center

New wildlife
tunnel
for small
animals in
western NC



Modifications to normal structures



Local Ongoing Wildlife Crossing Planning Efforts

1 – Background on wildlife crossings

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Local Ongoing Wildlife Crossing Planning Efforts

Wildlands Network

Ron Sutherland, Wildlands Network



Wildlands
Network Road
Ecology Work

Continental Conservation

Scientific Foundations of Regional Reserve Networks



Edited by
Michael E. Soulé
John Terborgh
The Wildlands Project



reagan 2019



Prioritizing Wildlife Road Crossings in North Carolina

To Reconnect Wildlife Habitat and Improve Road Safety

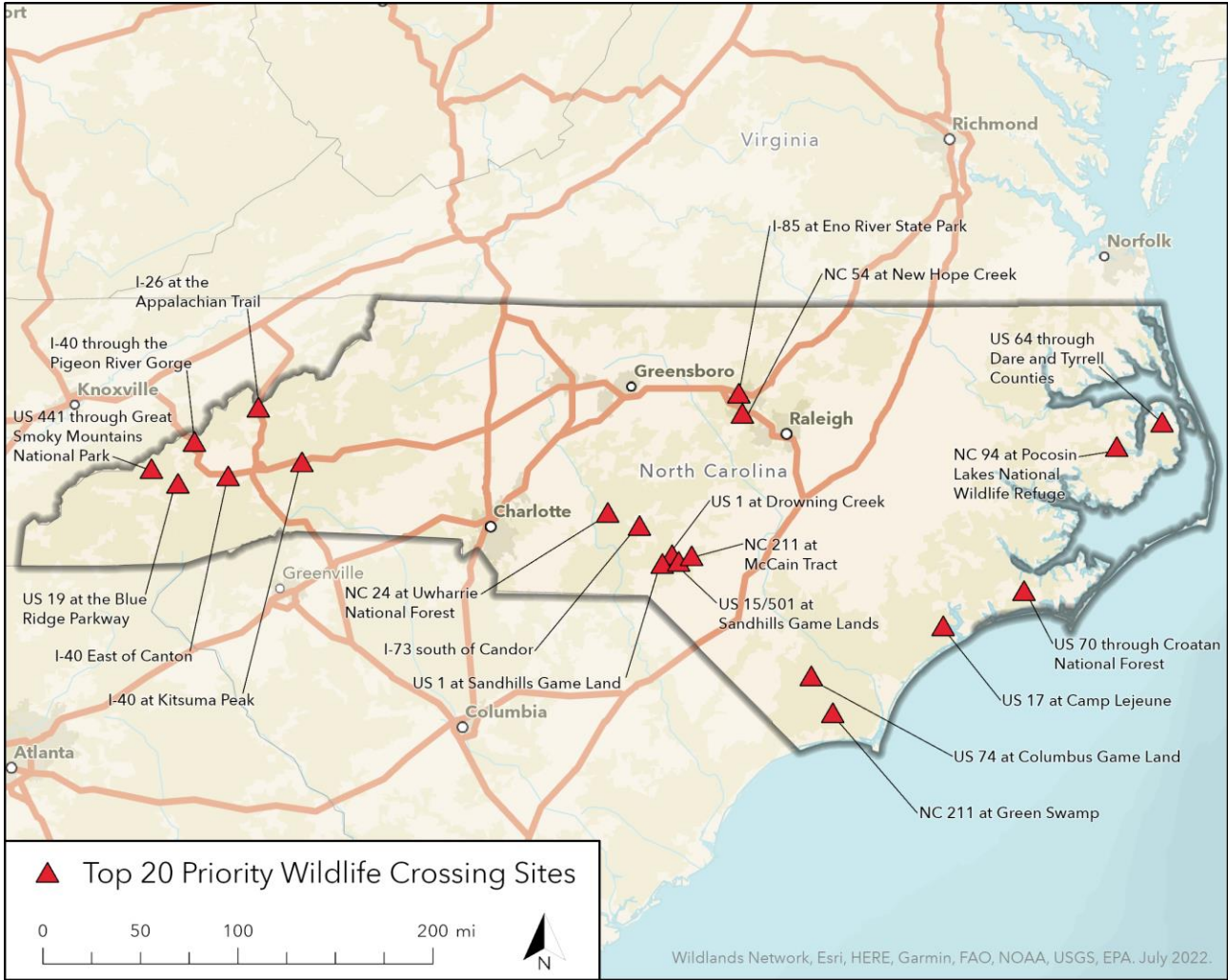
September 2022

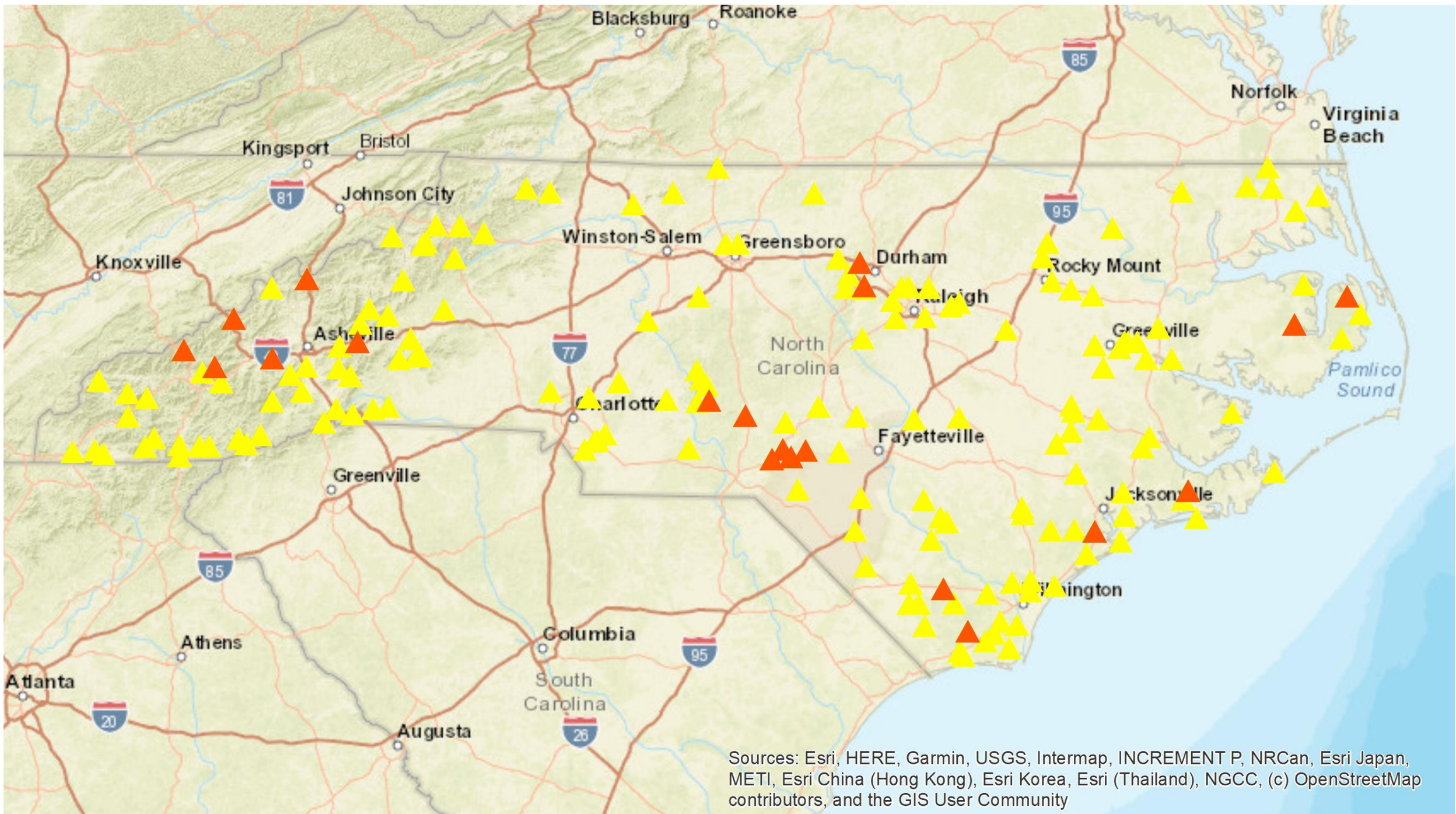


Bear running down road near Alligator River National Wildlife Refuge. Photo: Houston Bumgarner

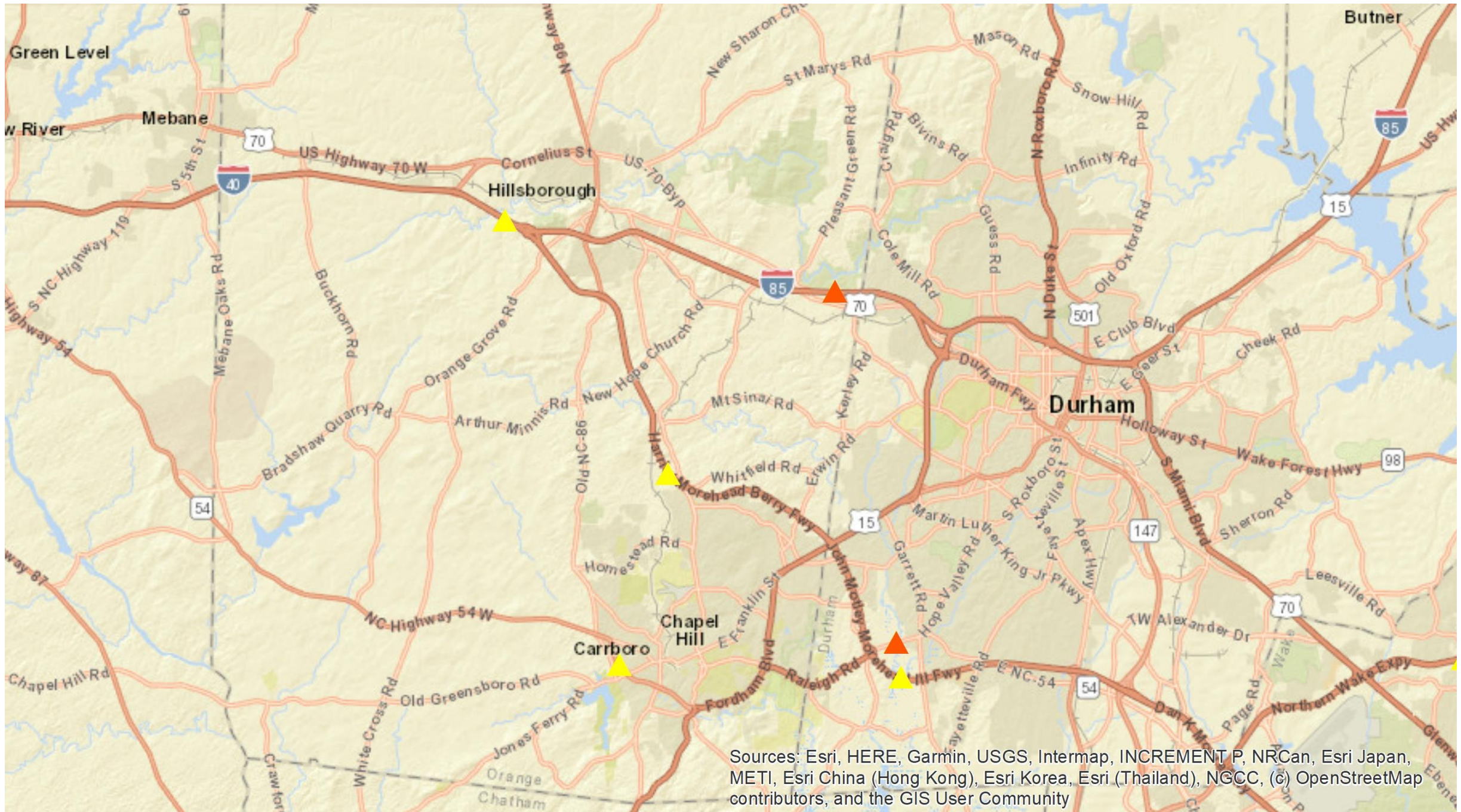
Dr. Ron Sutherland - Chief Scientist
Alex Vanko - GIS Specialist
Nikki Robinson - North Carolina Project Manager

Read the report at wildlandsnetwork.org





Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

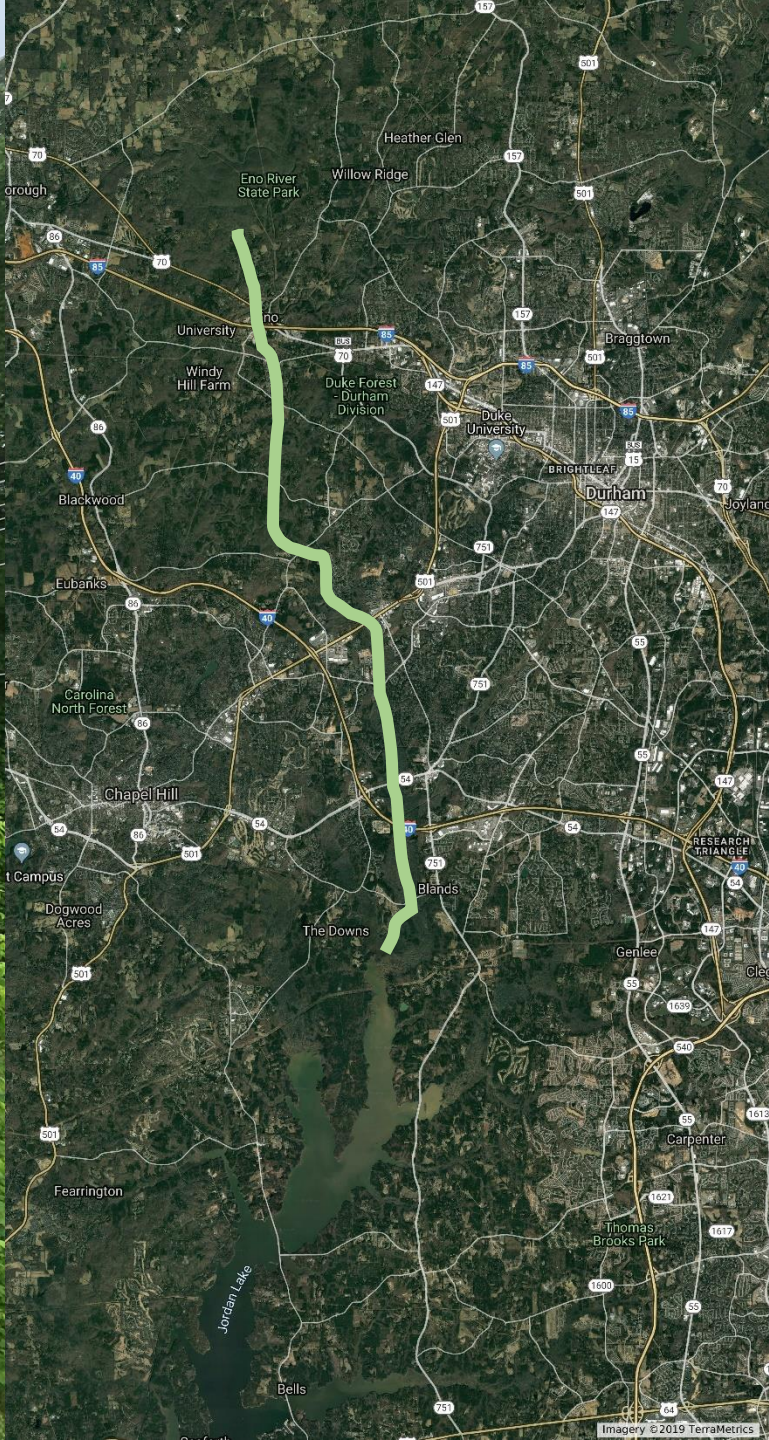


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Evaluating the use of New Hope Creek bridges by wildlife

Ron Sutherland





15-501

NC 54









NC 54



2019-07-16 11:23:08 PM

89°F ●

M 1 ⚡



DB9



Connectivity Policy





ron@wildlandsnetwork.org

Local Ongoing Wildlife Crossing Planning Efforts

Triangle Connectivity Collaborative Transportation Workgroup

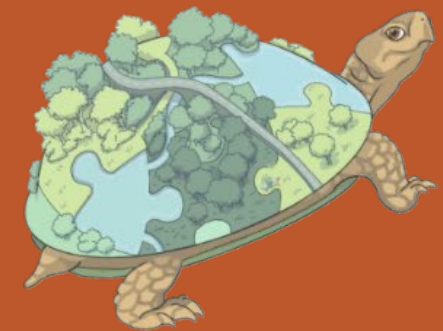
Ramona McGee, Southern Environmental Law Center

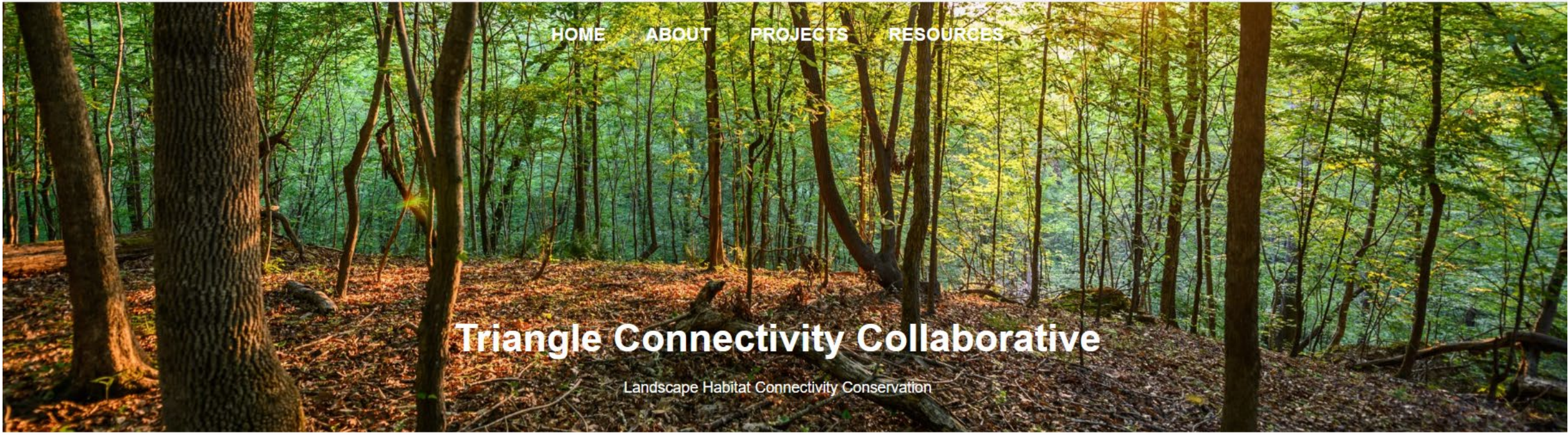


Triangle Connectivity Collaborative: Habitat Network Analysis & Transportation Planning

Ramona McGee

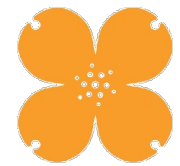
Southern Environmental Law
Center





Triangle Connectivity Collaborative

Landscape Habitat Connectivity Conservation



NORTH CAROLINA
BOTANICAL
GARDEN
FOUNDATION, INC.



DUKE FOREST
Teaching & Research Laboratory
ESTABLISHED 1931



Our Mission



To conserve and restore landscape habitat connectivity that ensures long term protection and resilience of biodiversity and natural resources.





2015

Initial meetings with
Eno-New Hope
stakeholders



2017

Grant from
NCWRC and
Orange County
to create a
landscape
conservation plan



2019

Release of
Eno-New Hope
Landscape Plan



2020

Catalyst Fund Grant to hire a
coordinator and create a
Strategic Action Plan

2022

Completion and
release of Strategic
Action Plan



Eno-New Hope Connectivity Conservation **Strategic Action Plan**

- PLAN WAS FUNDED BY THE NETWORK FOR LANDSCAPE CONSERVATION
- INVOLVED OVER 60 STAKEHOLDERS
- COMPLETED IN 2022



WHAT DOES THE DATA MEAN?

Legend

Habitat Patches

Connectivity Priority

- 1-Highest
- 2-Higher
- 3-High
- 4-Moderate
- 5-Unranked

Corridors

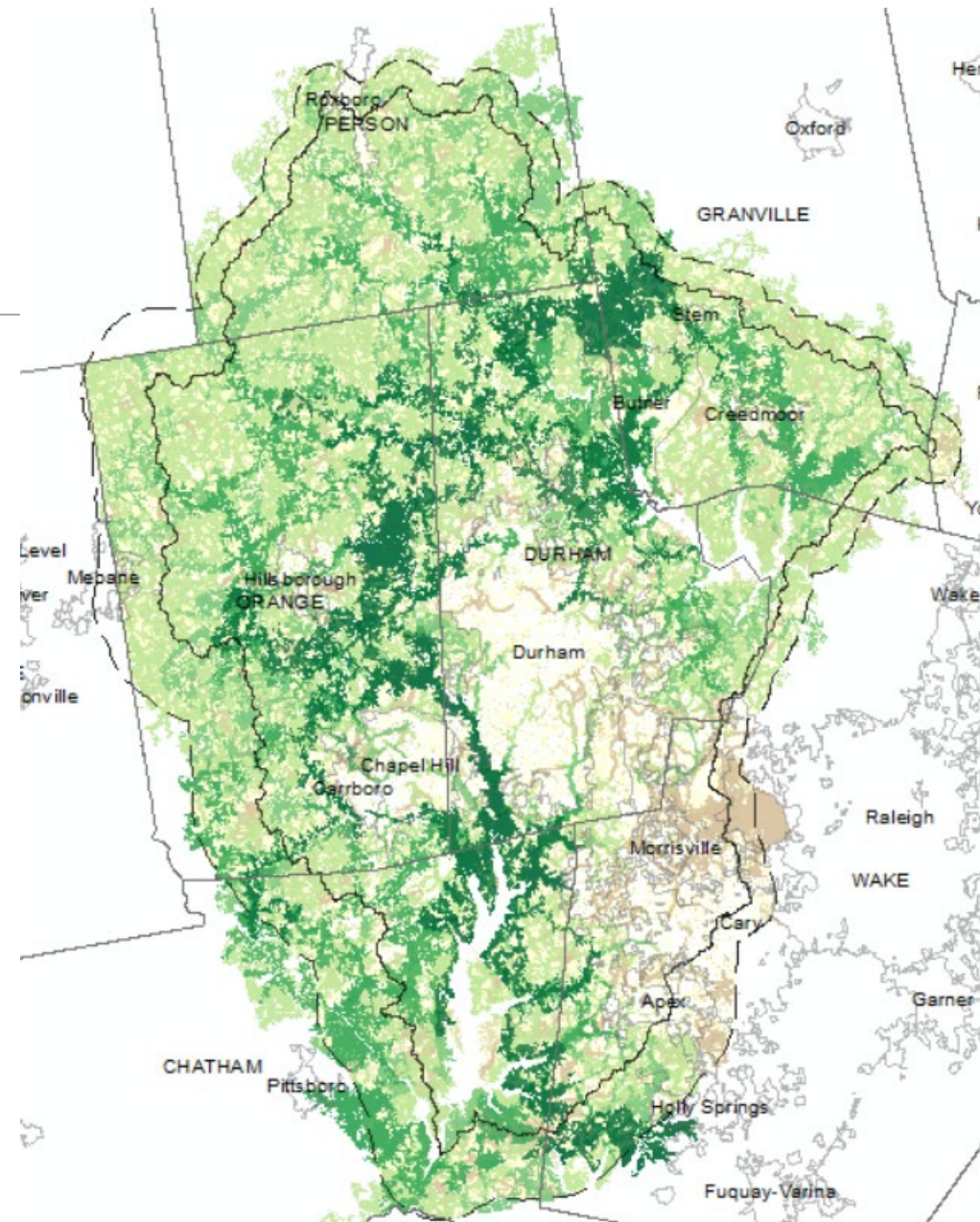
Connectivity Priority

- 1-Highest
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Background

Type

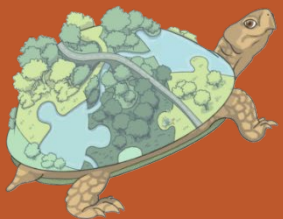
- Barrier (no color)
- Habitat fragment
- Non-habitat



www.connectedconservationnc.org



Kathy Lee



DCHC MPO's Wildlife Crossing Planning Process

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NC and DCHC MPO Crash Data

NCDOT's Statewide Animal Related Crashes report, found that between 2020–2022:

- 59,644 wildlife-vehicle crashes occurred
- 13 people were killed
- 2,679 people were injured
- \$183.3 million in property damage caused

DCHC MPO Entire County Data (from NCDOT 2020-2022 report):

County	County Ranking (Crashes)	Total Crashes	Total Fatalities	Total Injuries	Damage
Chatham	21	936	0	31	\$ 2,756,642
Orange	30	801	0	48	\$ 2,557,150
Durham	35	638	0	38	\$ 2,032,220
Total		2,375	0	117	\$ 7,346,012

NCDOT crash data gathered from crash reports submitted by law enforcement agencies

- A Virginia DOT study² that compared VA's crash reports to both carcass removal records and insurance claims found that deer-vehicle collisions were 8.5 times higher than what law enforcement crash reports showed.

1. NCDOT. (June 2023). *North Carolina Animal Related Crashes: 2020-2022 County Rankings and Crash Data*. <https://www.ncdot.gov/initiatives-policies/safety/driving-safety/Documents/animal-crash-report.pdf>

2. Virginia Transportation Research Council. (December 2017). *Improving Animal-Vehicle Collision Data for the Strategic Application of Mitigation*. <https://rosap.nrl.bts.gov/view/dot/36053>

Planning Process, Plan Elements, and Goals

1. **Identify wildlife crossing sites** in the Durham urbanized area.
2. **Visit, evaluate and develop recommendations** for existing bridge and culvert infrastructure at identified wildlife crossing sites.
3. **Coordinate with key stakeholders** (i.e., NCDOT, member jurisdictions, local land trusts, conservation groups) as sites are identified and recommendations developed.
4. **Administer a public engagement process** to gather feedback on recommended projects.
5. **Develop a funding strategy and identify funding sources** to help deliver wildlife crossing recommendations.
6. **Adopt the recommendations in local and state transportation planning (SPOT, STIP, CTP) and MPO planning (Wildlife Crossing Plan, CTP and MTP)** so that all new road and bridge projects that cross wildlife corridors (or core areas) are informed by the recommendations from the start.
7. **MPO Board and NCDOT BOT adopt relevant projects into MTP and CTP.** Local councils and county board of commissioners adopt relevant changes to local ordinances.

On-site Assessments

- Determine type of structure (bridge, culvert, etc.)
- Photographs
- Width and vertical clearance of structure
- Visible daylight through the structure
- Waterways / flooding potential
- Evidence of wildlife (tracks, roadkill)
- Existing wildlife crossing solutions (dry paths, fencing, raised platforms, etc.)
- Existing barriers for wildlife passage (rocks, debris, water, road/structure noise, etc.)
- Wildlife crossing recommendations



*Old Chapel Hill Road at New Hope Creek in Durham County,
DCHC MPO*

Anticipated Timeline

The existing and ongoing wildlife crossing planning by the Triangle Connectivity Collaborative Transportation Workgroup and Wildlands Network has positioned DCHC MPO to develop the plan in one year.

Key dates:

- **MPO Planning:** January 2024 – December 2024
 - Site identification, visits and evaluations; data analysis; development of recommendations; public engagement; CTT guidance; review by MPO TC and Board
- **Request to Release Draft for Public Comment:** TC – September 10; Board – September 24
- **Public Engagement and Comment Period for Draft Plan:** September 24 to October 21
- **Plan Adoption**
 - **TC considers recommending the MPO Board adopt the plan:** November 5
 - **MPO Board considers adoption of the plan:** November 19
- **Incorporate Recommendations into CTP update:** December

Anticipated Public Engagement Timeline

September 24 to October 21, 2024

MPO Board Meeting and Release for 21-Day Public Comment Period (September 24)

- Advertisement via social media, email blast via Constant Contact, DCHC MPO website, press release to be shared by MPO members, and newspapers ads (*Triangle Tribune, Que Pasa*)
- Survey and feedback form to accompany draft plan

Public Engagement Opportunities

- **October 15** – Virtual information session (Zoom platform for accessibility)
- **October 16** – Public open house in Durham County (location TBD)
- **October 17** – Public open house in Orange County (location TBD)
- **October 21** – Public open house in Chatham County (location TBD)

Discussion & Questions

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Discussion & Questions

Project Contacts:

David Miller – david.miller@dchcmpo.org

Madeline Galliano – madeline.galliano@dchcmpo.org

Project Webpage:

www.dchcmpo.org/what-we-do/programs-plans/special-studies/wildlife-crossing-planning-study