



American Rivers
Rivers Connect Us

Watershed Health- Flows Connect Us

NC Environmental Management Commission

May 2018



American Rivers
Rivers Connect Us®



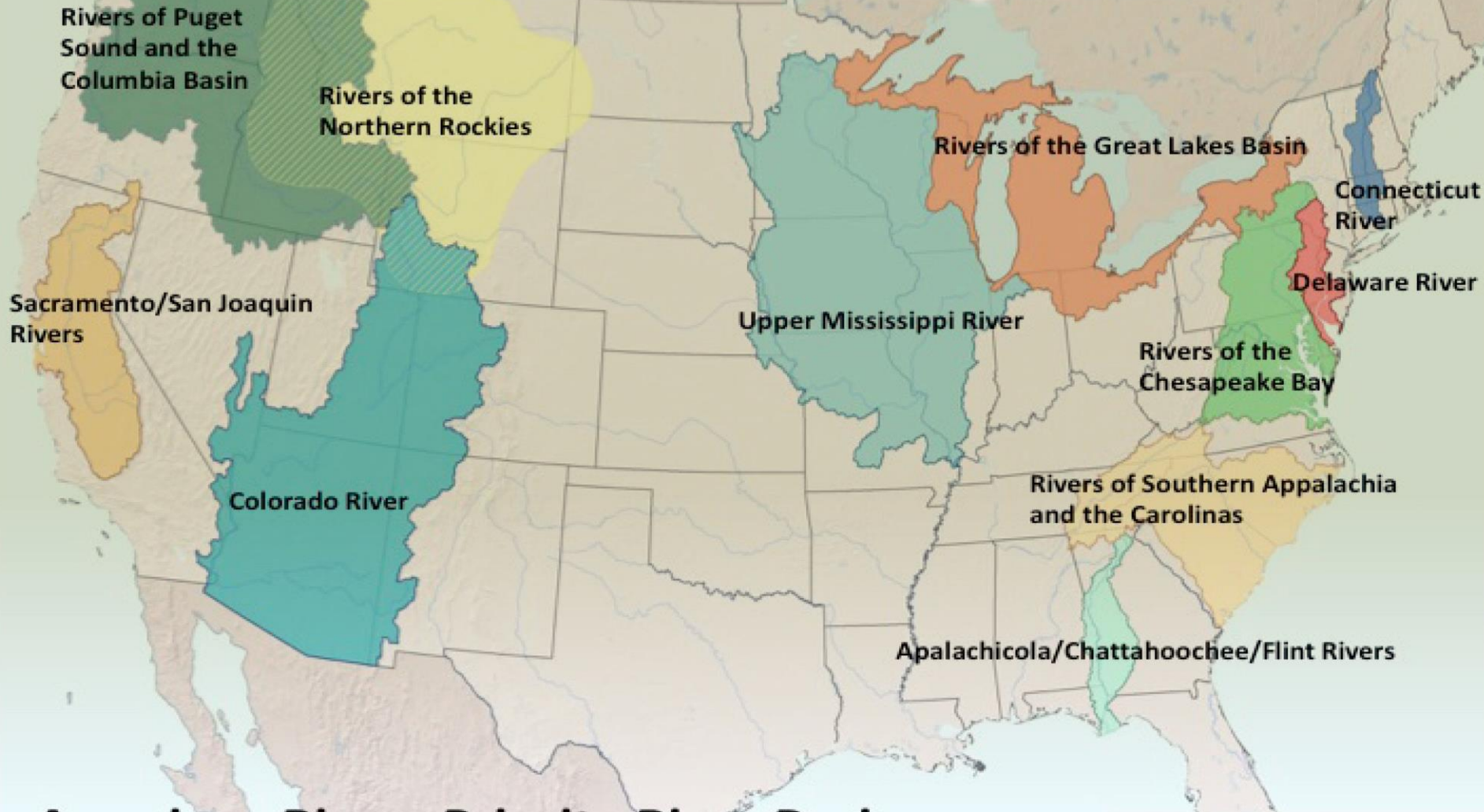
Founded in 1973, American Rivers **protects wild rivers**, **restores damaged rivers**, and **conserves clean water** for people and nature.



American Rivers: What We Do



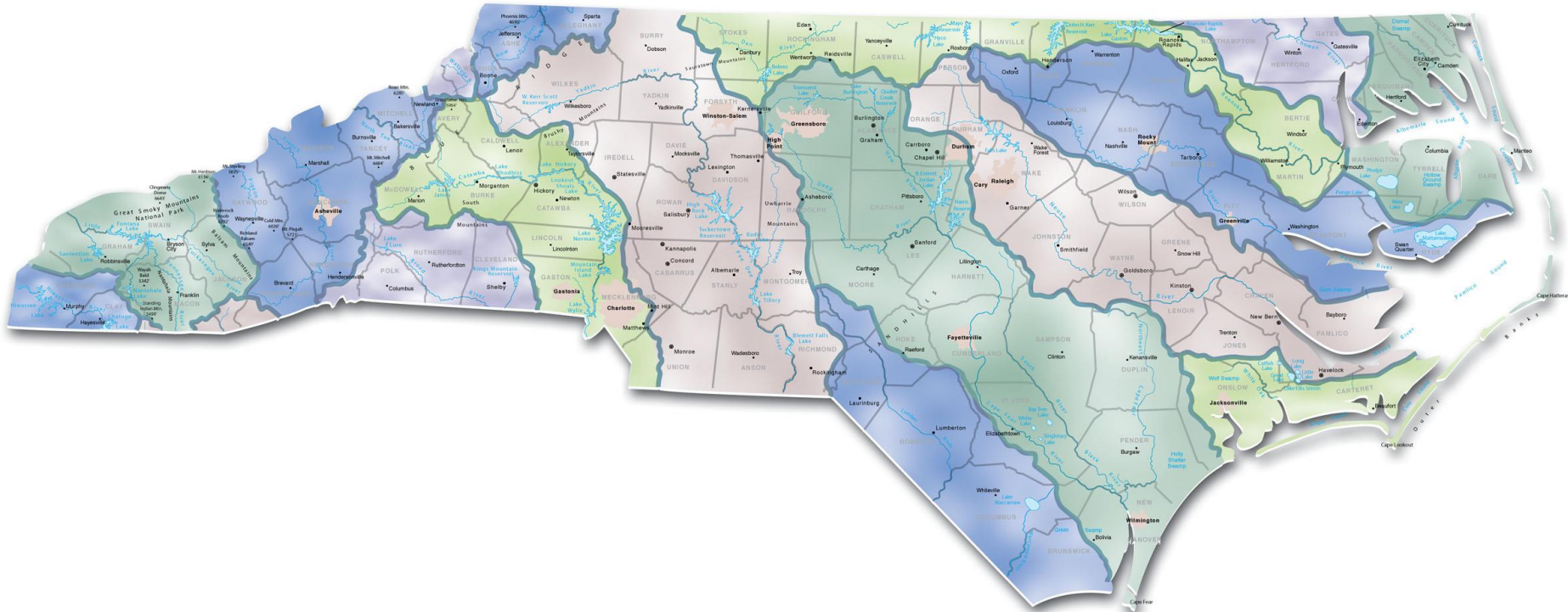
National focus + local presence



American Rivers Priority River Basins



Rivers and Watersheds of NC



Leading Problems in Rivers and Streams

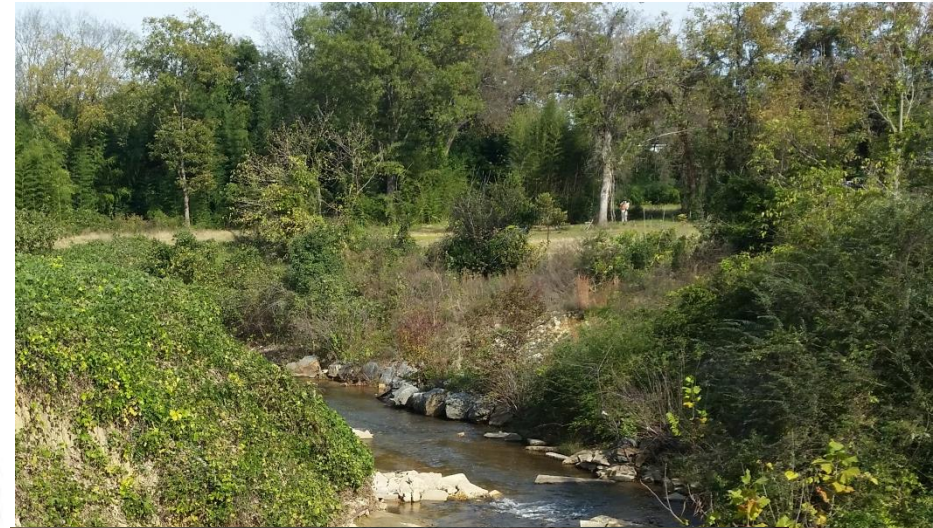
2008/2009 National Streams and Rivers Assessment

Ecological Risks

- >40%** Nutrient pollution
- 24%** Riparian vegetation loss
- 20%** Riparian disturbance
- 15%** Sediments

Human Health Risks

- 23%** Bacteria Exceedance
- 13,000 Miles** Mercury Contamination





America's Most Endangered Rivers® Report

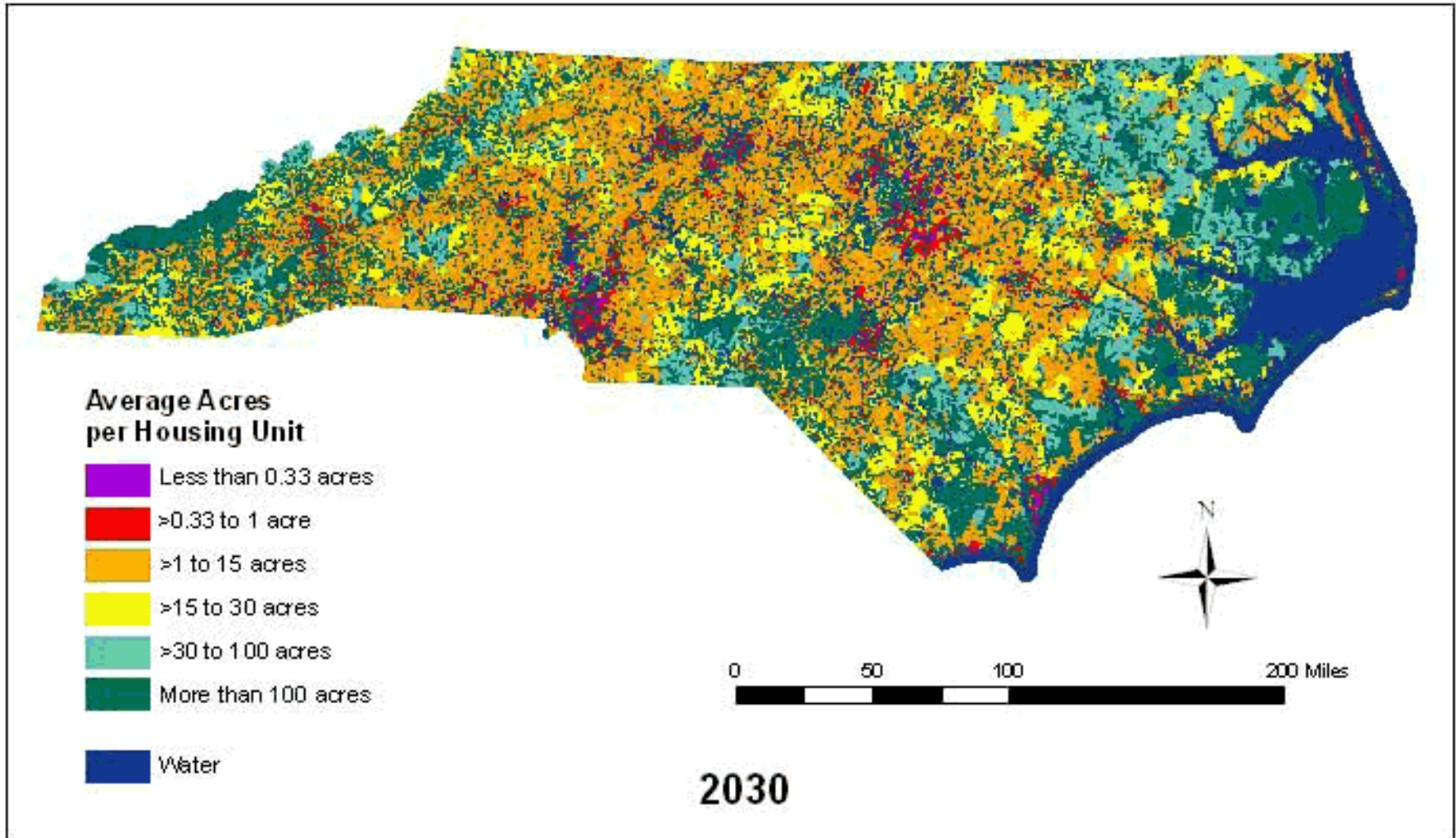




Benefits of Healthy Rivers



Projected Housing Density











North Carolina Priority Dams by Ecological Benefit

Ranks closer to 1 have greatest ecological benefit

6,500 dams in North Carolina

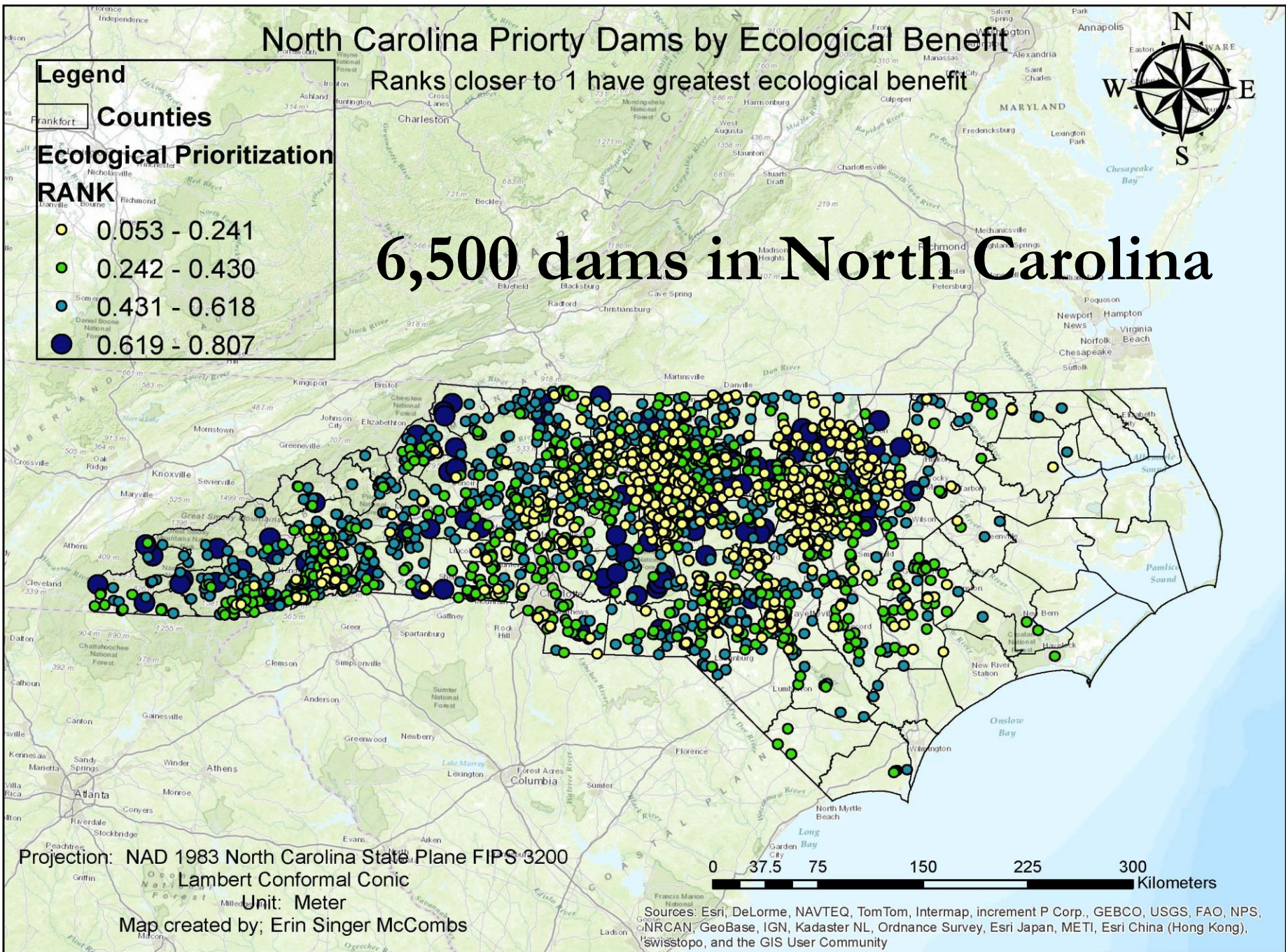
Legend

Counties

Ecological Prioritization

RANK

- 0.053 - 0.241
- 0.242 - 0.430
- 0.431 - 0.618
- 0.619 - 0.807





What is the Solution?

$$(V_{ws} + V_{ef})^n = \sum_{k=0}^n \binom{n}{k} x^k V_{ws}^{n-k} + V_{ef}^{n-k}$$

Where:

V = *normalized societal value*

ws = *water supply*

ef = *environmental flows*

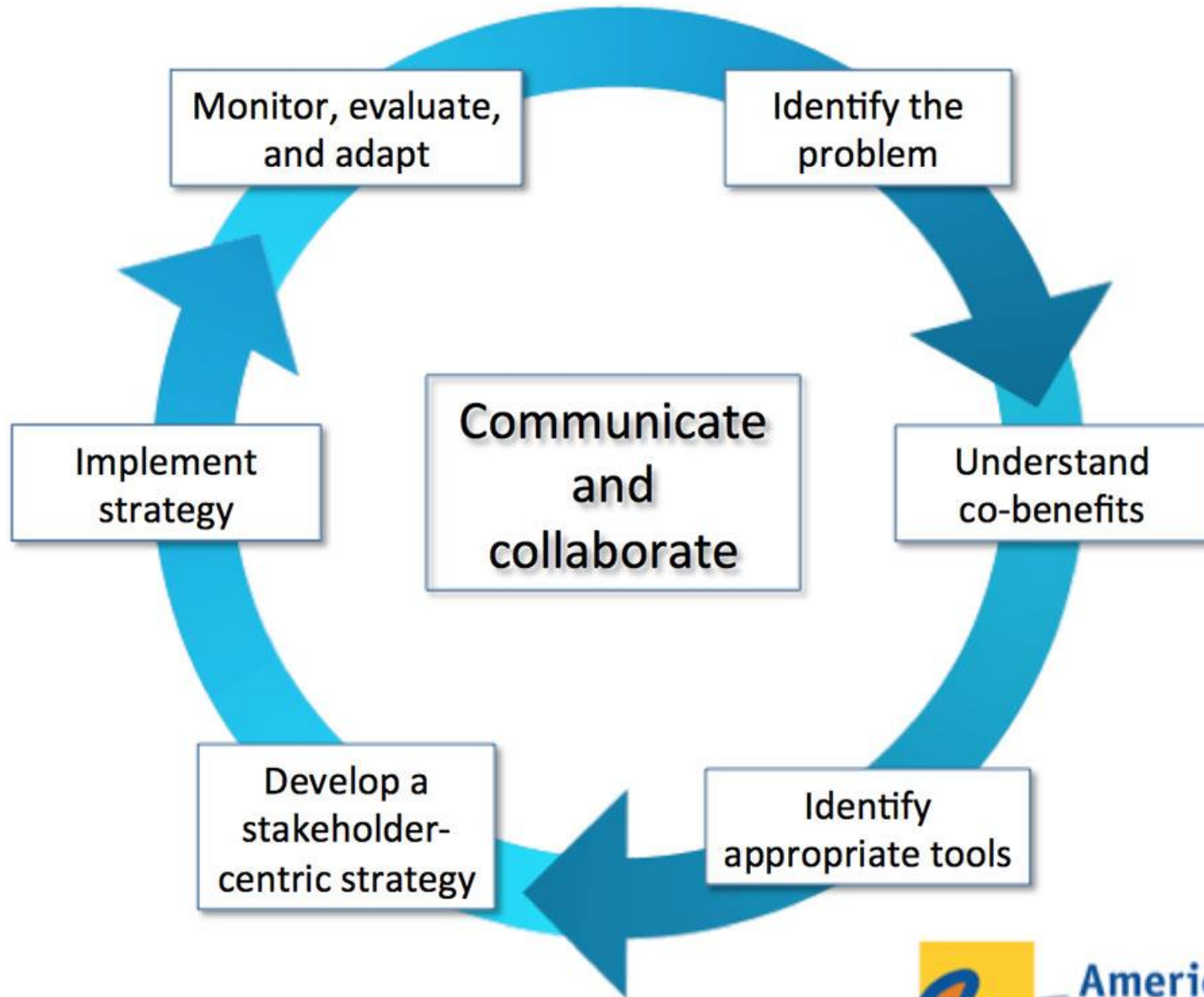
n = *years into future*



Integrated Water Management

- 💧 Breaks down “silos”
- 💧 Create holistic, coordinated water systems that maximize economic, social, and environmental benefits
- 💧 Manages water resources to optimize cross-departmental and multi-jurisdictional coordination and management of water infrastructure.

The Process of Integrated Water Management



Thank you!



American Rivers
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