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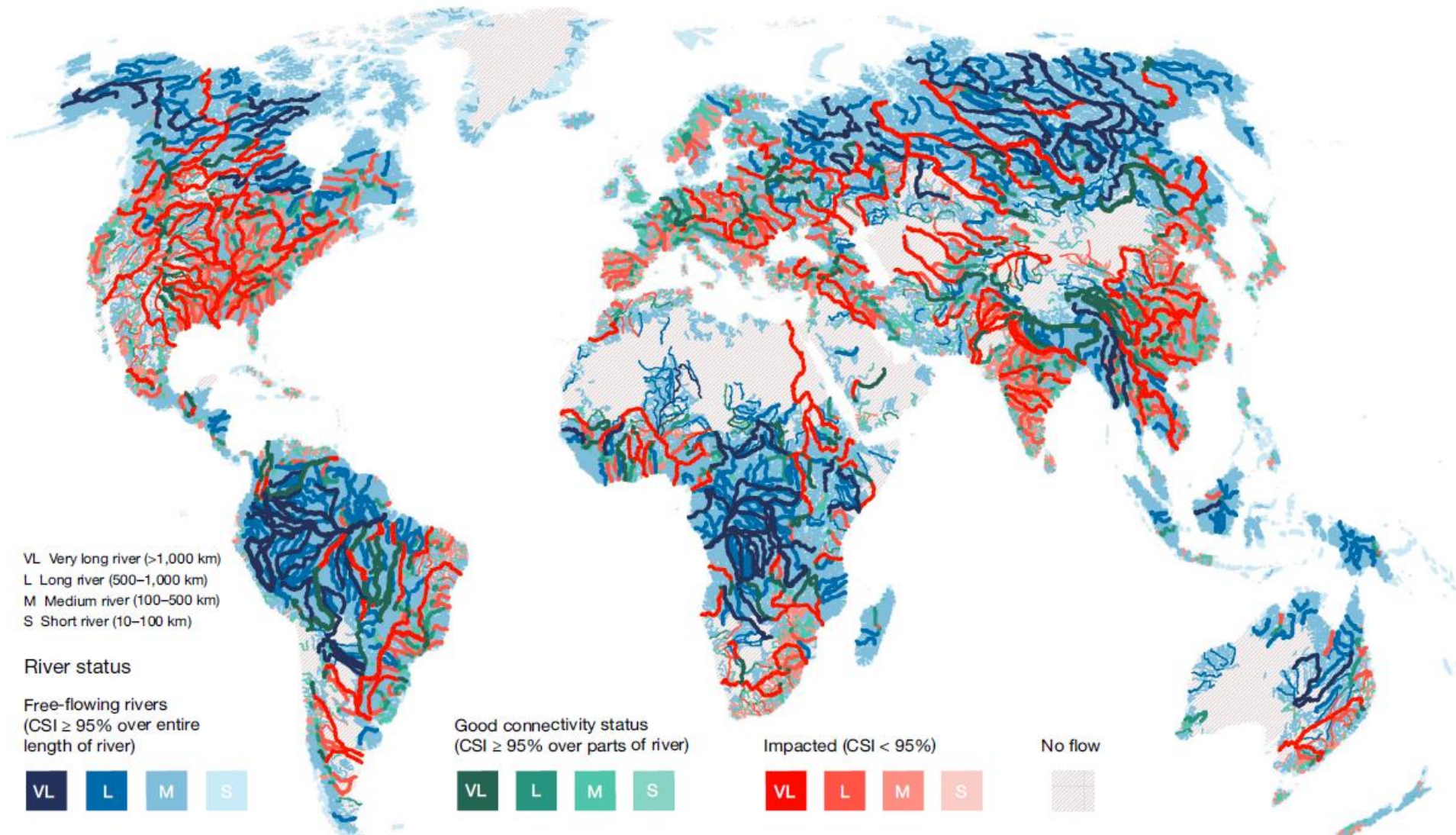
TARA MOBERG  
SENIOR FRESHWATER ADVISOR  
ENERGY & INFRASTRUCTURE

# Stream Compensatory Mitigation Webinar Series | What's next? Challenges and opportunities



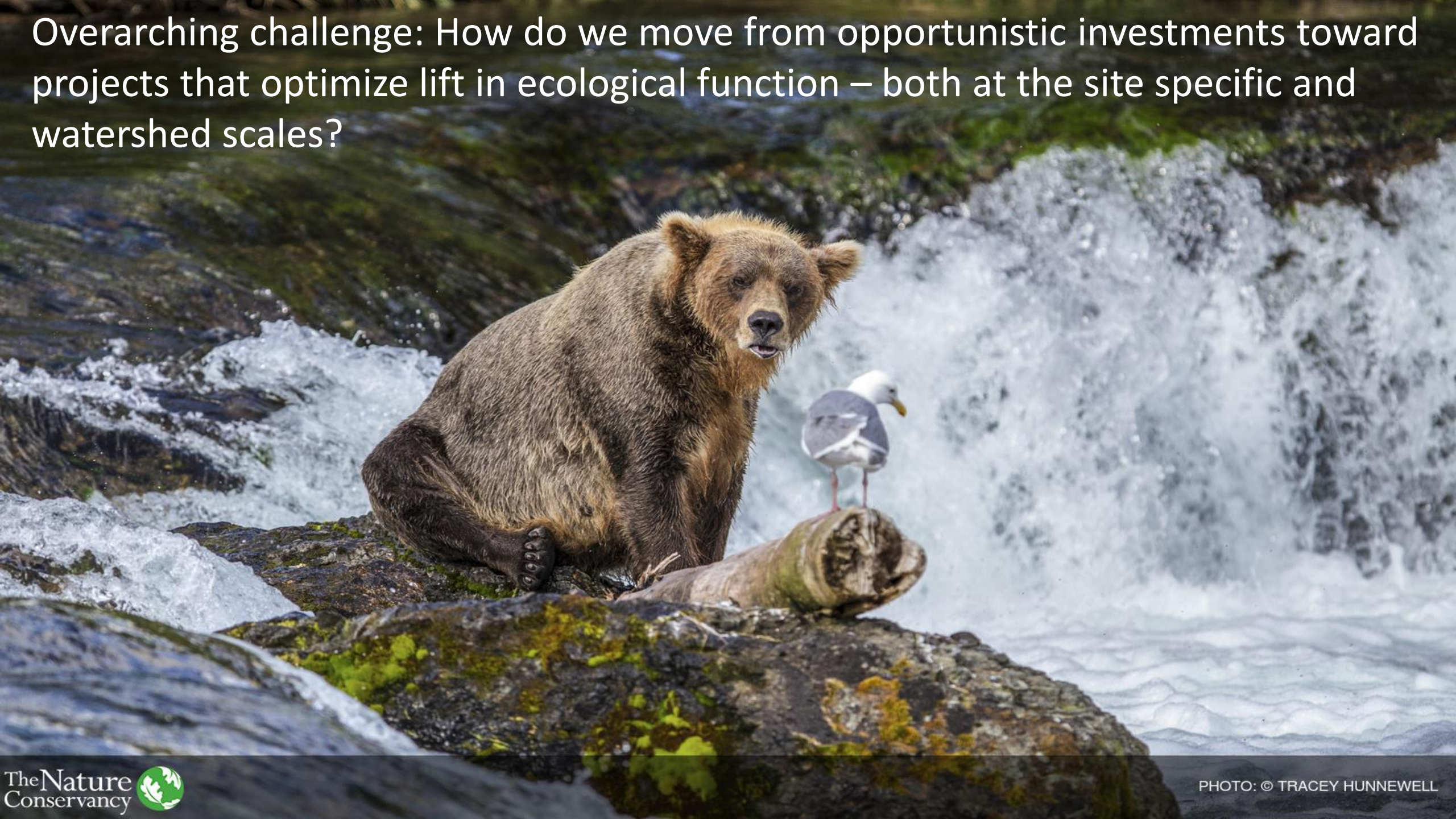


# Global status of free-flowing rivers





Overarching challenge: How do we move from opportunistic investments toward projects that optimize lift in ecological function – both at the site specific and watershed scales?





# Opportunities – Watershed approach

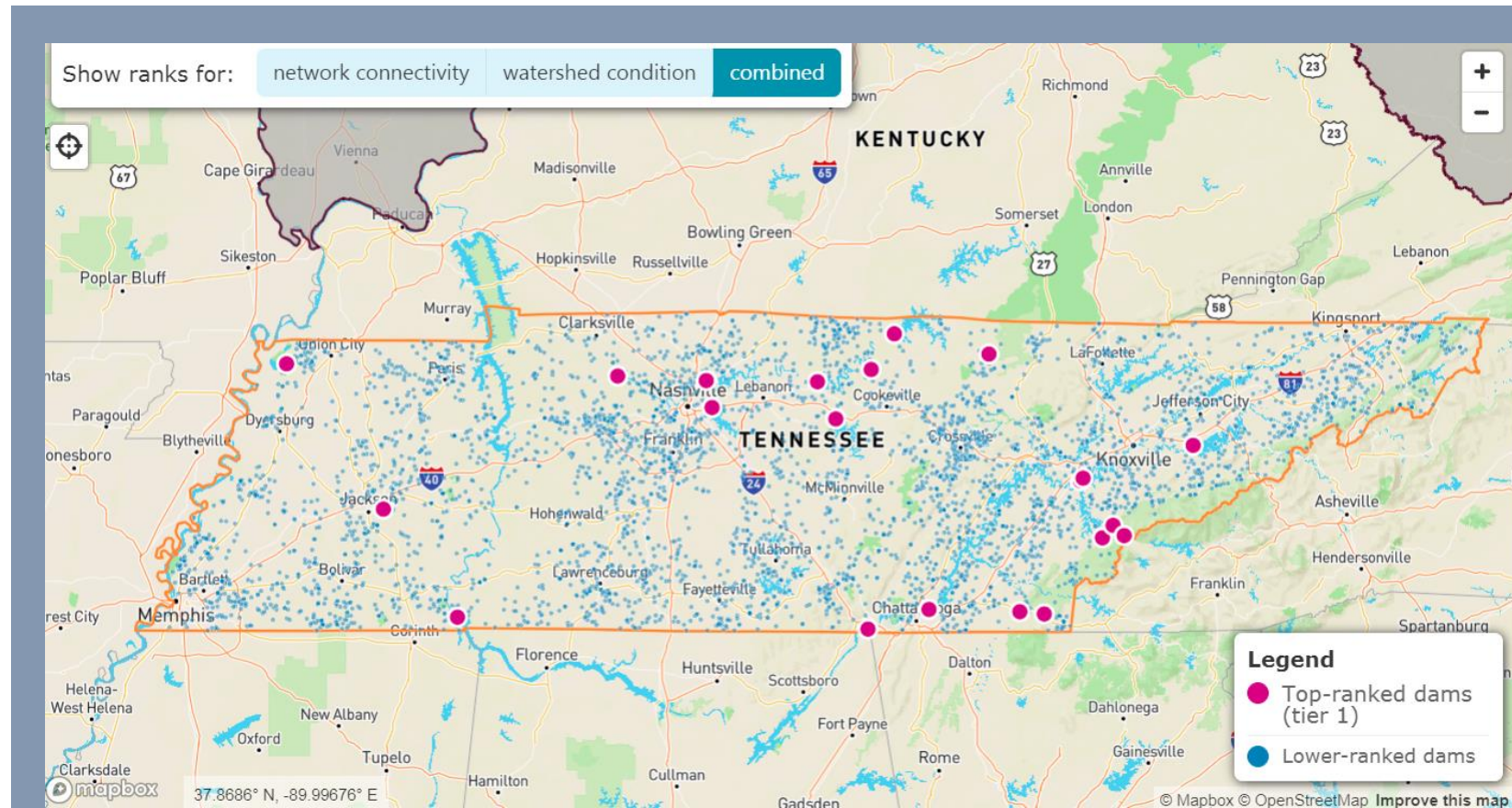
- We're learning...
- Linking watershed goals to project selection
- Lack of a watershed plan shouldn't preclude evaluation within a watershed context





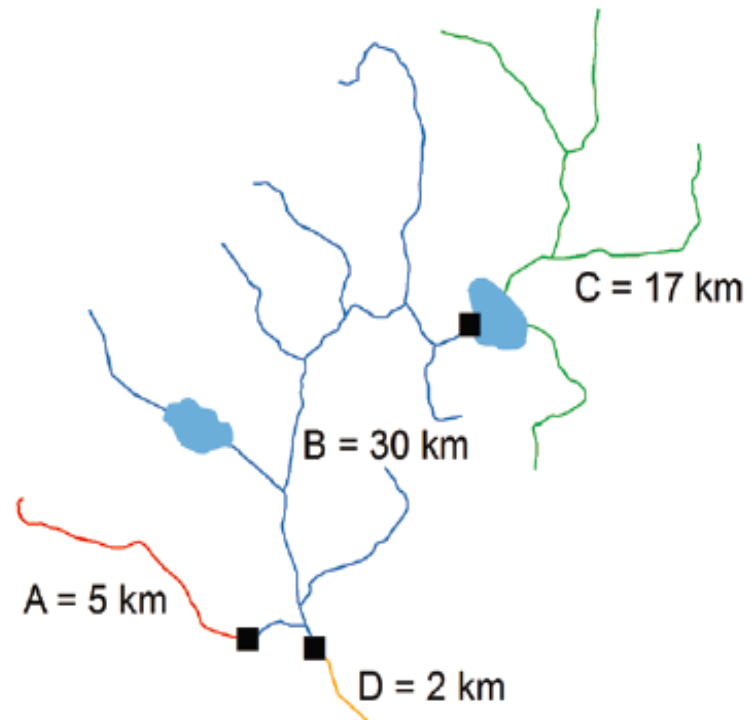
# Opportunities – Watershed approach

- Development of agency guidance
- Frameworks for incorporating available data on condition and resilience



Southeastern Aquatic Resource Partnership Prioritization Tool  
<https://connectivity.sarpdata.com/priority>

# Opportunities – Watershed approach



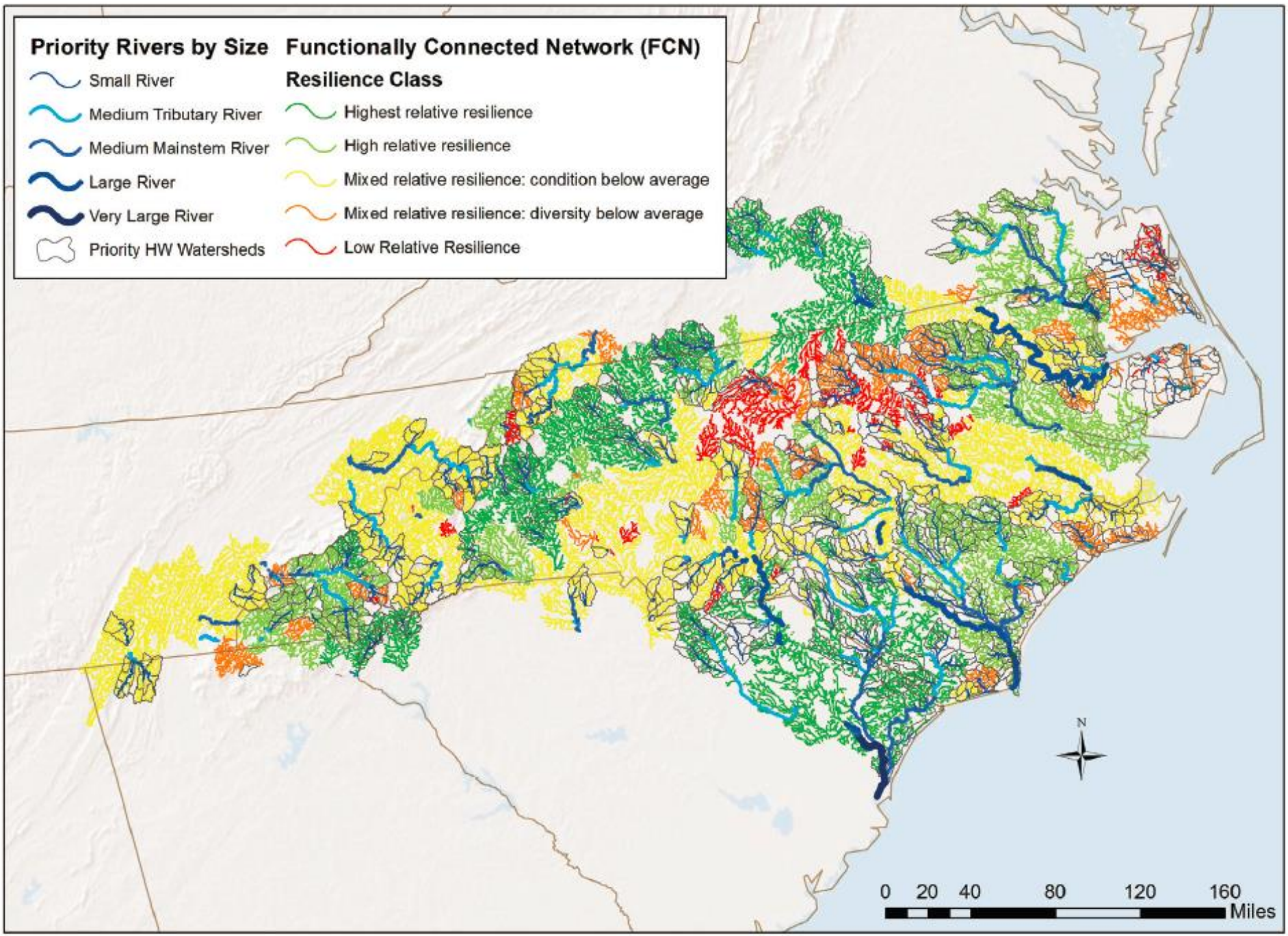
## Physical factors of climate resilience

- |                      |  |
|----------------------|--|
| 1. Setting the stage | 1a. Length of connected network          |
|                      | 1b. Stream and lake size class diversity |
| 2. Adding complexity | 2a. Temperature diversity                |
|                      | 2b. Topographic diversity                |
|                      | 2c. Geochemical diversity                |
|                      | 2d. Groundwater diversity                |

## Condition factors of climate resilience

- |                  |                                   |
|------------------|-----------------------------------|
| 1. Connectivity  | 1a. Floodplain naturalness        |
|                  | 1b. Longitudinal fragmentation    |
| 2. Flow          | 2a. Risk of hydrologic alteration |
|                  | 2b. Groundwater alteration        |
| 3. Water quality | 3a. Catchment permeability        |
|                  | 3b. Sediment regime alteration    |

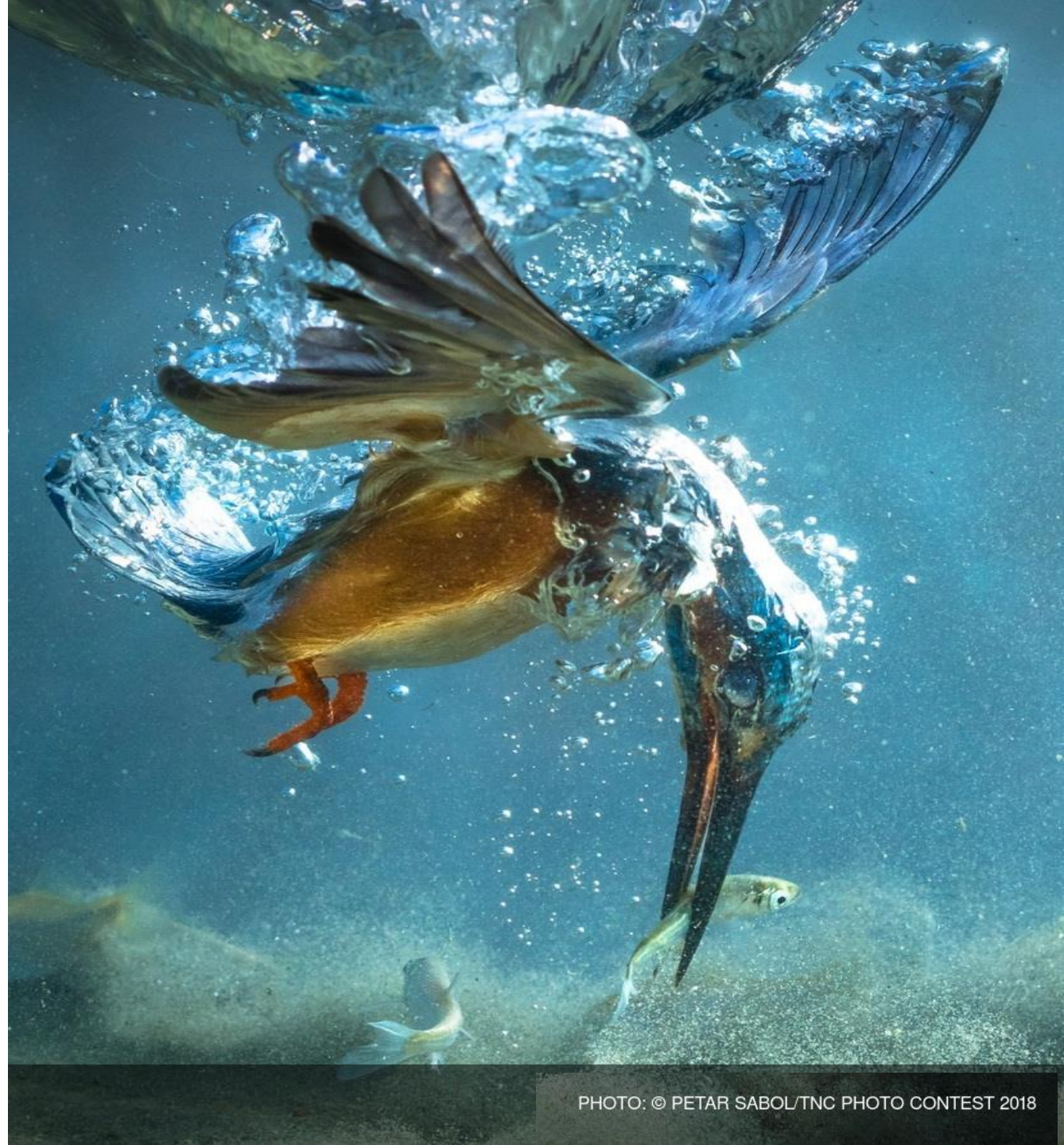






# Opportunities – Crediting methodologies

- Creating a base system that can be regionally tailored
- Reasonable number of metrics that do not require precise measurement





# Opportunities – Crediting methodologies



## Key principles

- Science-based
- Reasonably precise measure of function/condition
- Transparent method
- Stakeholder input
- Easy to implement
- Roughly proportional
- Considers landscape context



# Opportunities – Multi-purpose projects

Clean Water Act

- S.401
- S.404
- S.303d

Endangered Species Act

Federal Power Act

Oregon Fish Passage Mitigation  
Banking Pilot Project





# Opportunities – Multi-purpose projects

Clean Water Act

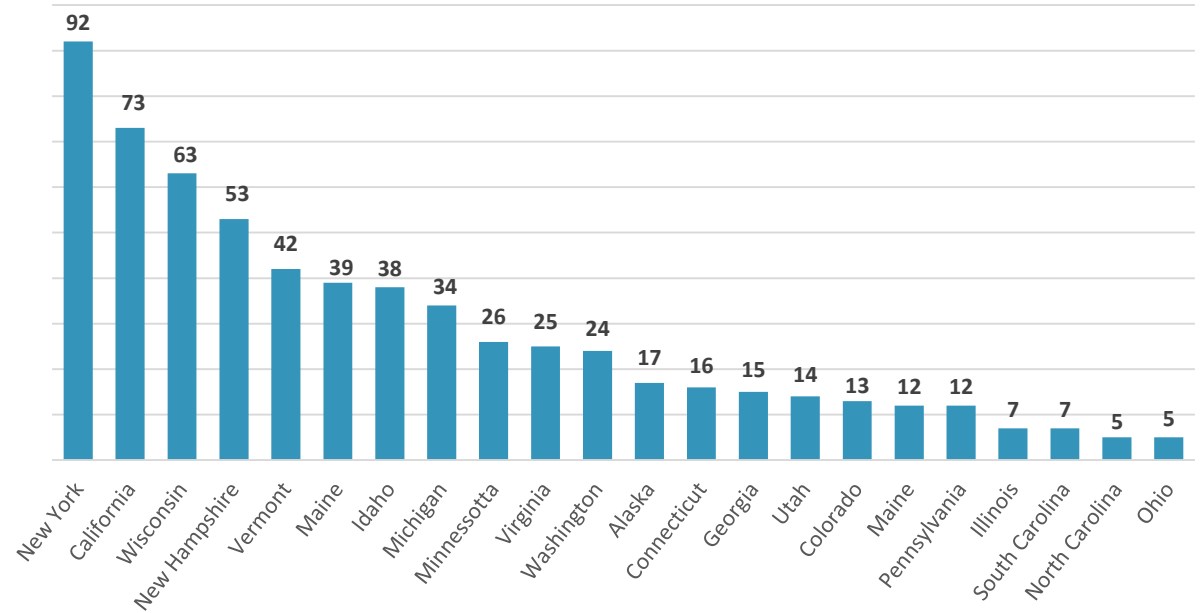
- S.401
- S.404
- S.303d

Endangered Species Act

Federal Power Act

Oregon Fish Passage Mitigation  
Banking Pilot Project

Hydro Re-licensing (Federal Power Act)<sup>1</sup>



*More than 500 facilities over the next 10 years*

<sup>1</sup> Anticipated hydropower re-licensing events from 2019 – 2028 from FERC website; 610 total expected over this period





Thank you!

Please be in touch:

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