



# ADVENTURE SCIENTISTS

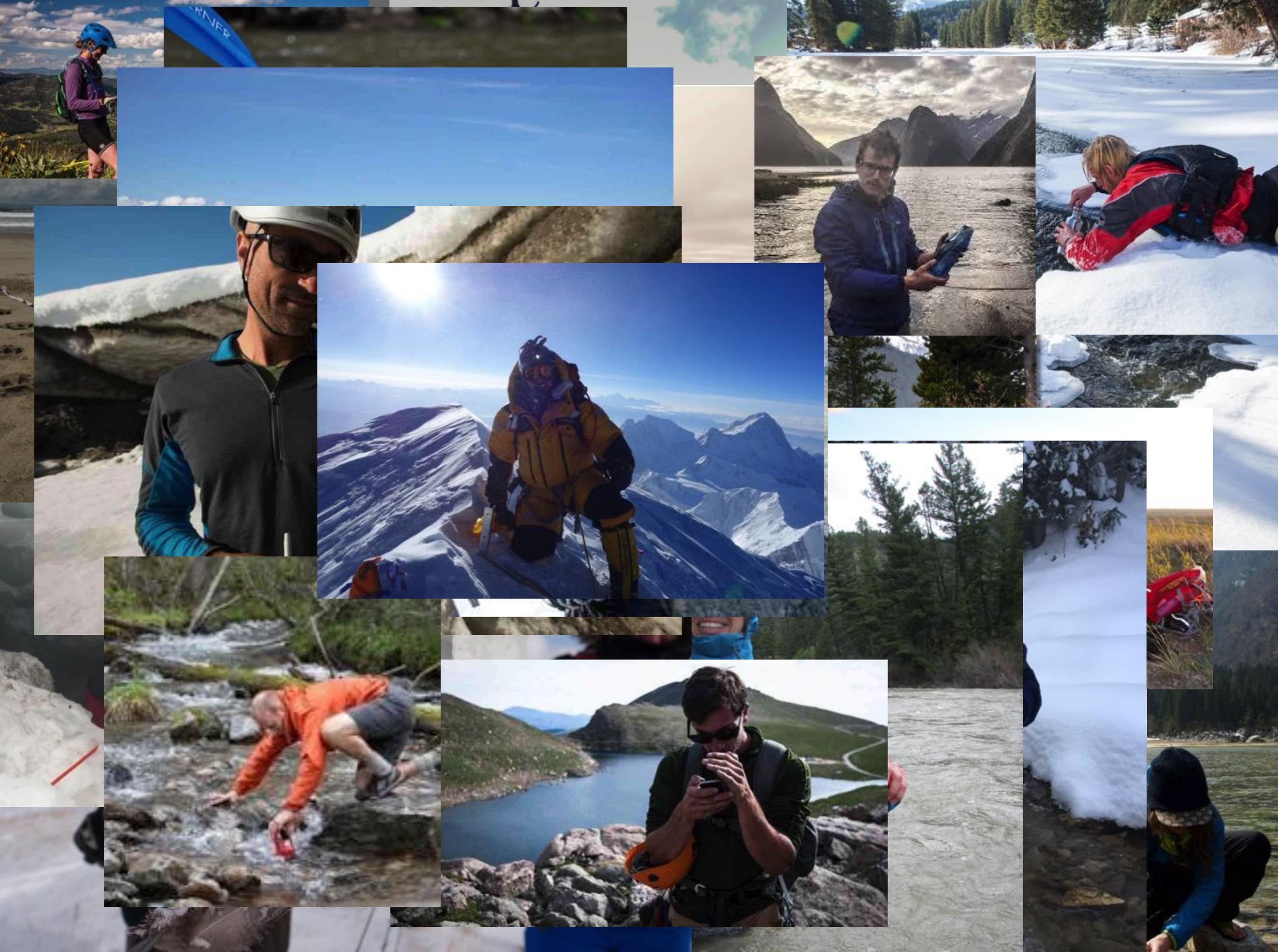


RIVER MANAGEMENT SYMPOSIUM | OCTOBER 25 2018

# VOLUNTEER-COLLECTED WATER QUALITY DATA IN SUPPORT OF DECISION MAKING



**What can be accomplished with  
data collected by volunteers?**



# SCIENTIFICALLY VIABLE DATA AT ANY SCALE. ANYWHERE.

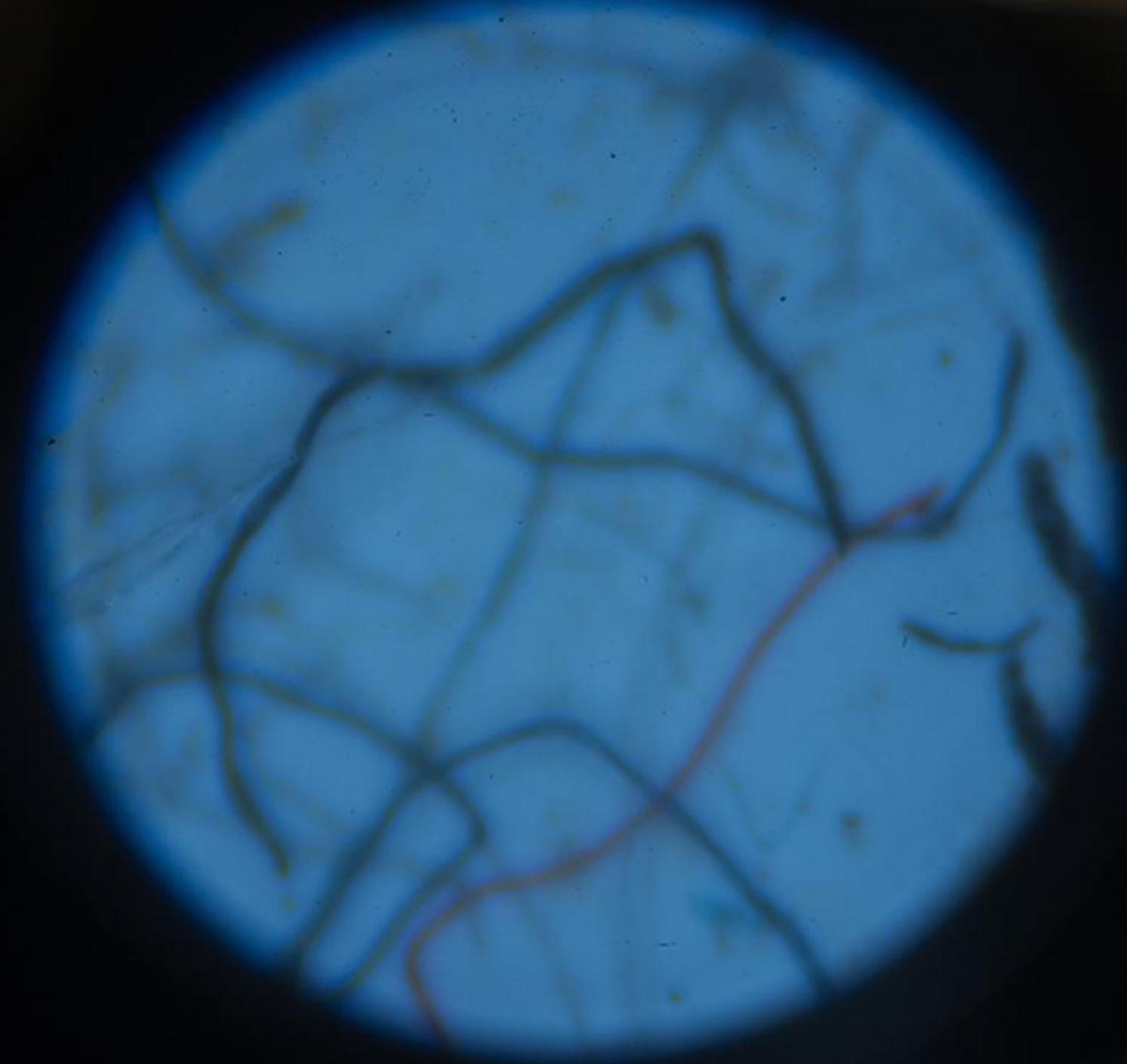


# Projects That Fit Our Model

- Environmental or human health issue
- Solution depends on access to data
- Clear pathway to tangible outcomes
- Need for the skills of the outdoor community



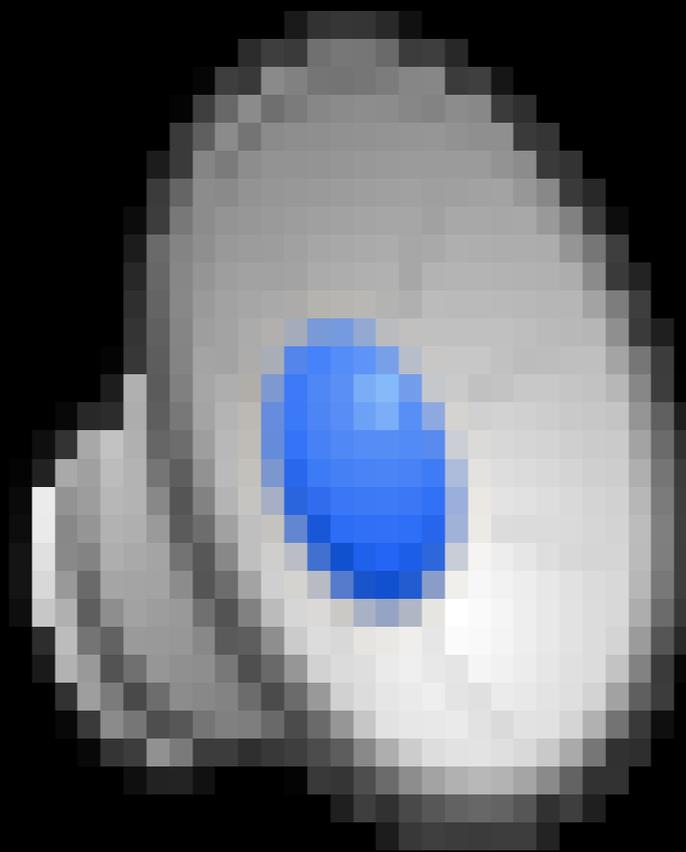






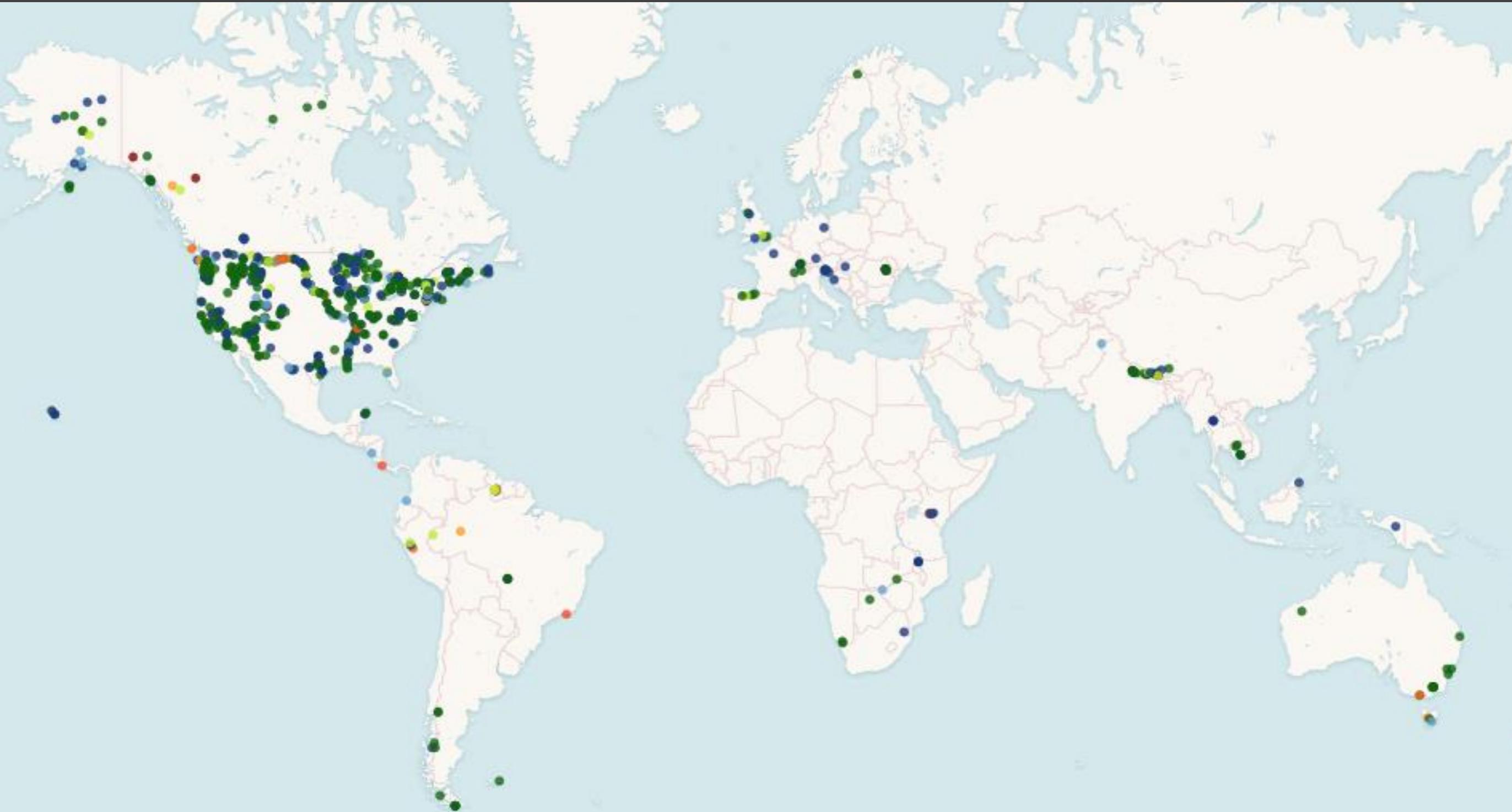
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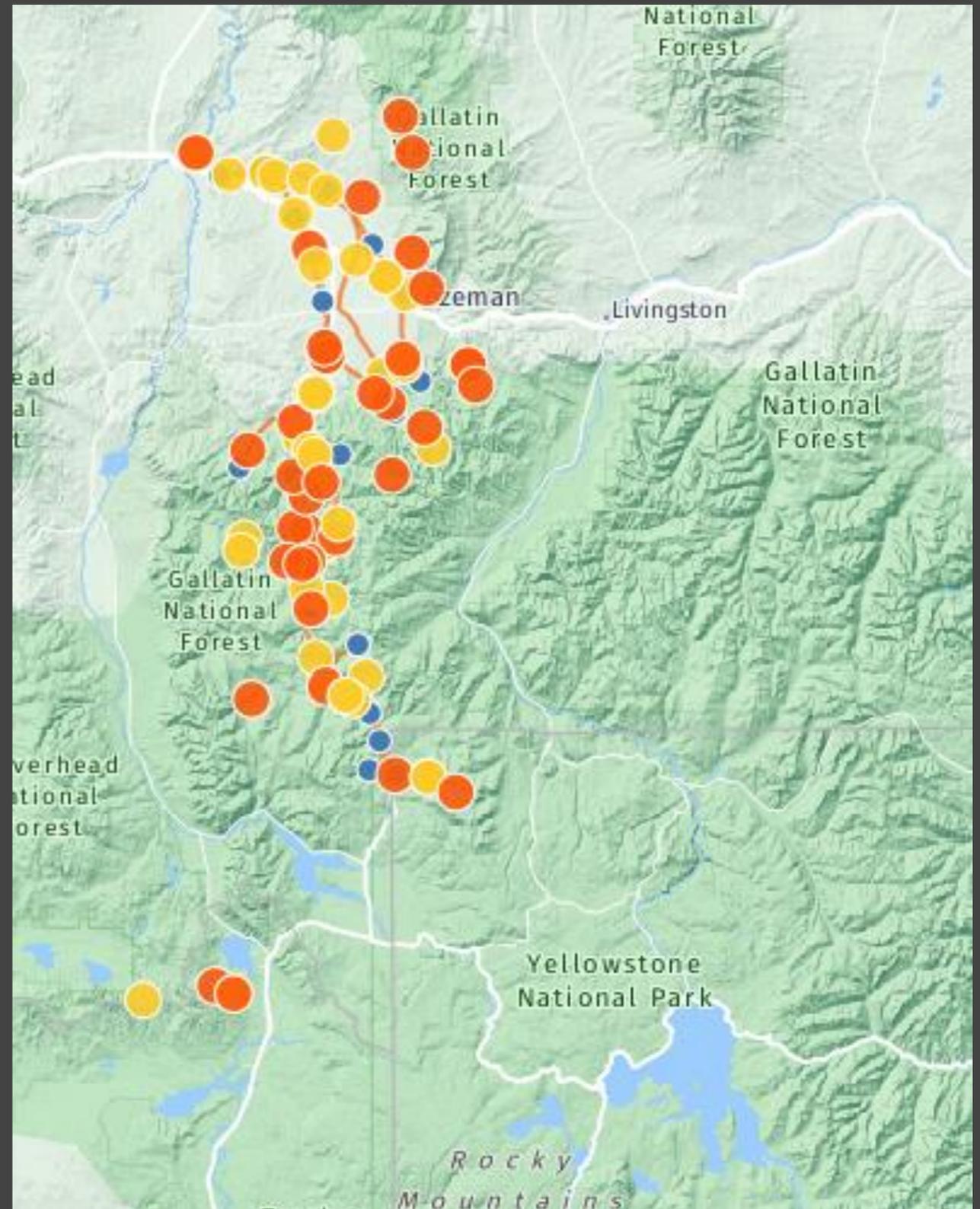


# Freshwater Microplastics Dataset



# Gallatin Microplastics Initiative

- 72 field sites
- Sampled 4 times/year
- 2 consecutive years
- 117 volunteers
- Final dataset includes 774 samples



**What has been accomplished  
so far?**

# Microplastics Project Outcomes

- The first maximum contamination limits by the EPA
- Data supported the creation of world's largest Marine Protected Area
- Reduction or elimination of single-use plastics
- Additional volunteer action



# Our Wild & Scenic Rivers System



## NATIONAL WILD AND SCENIC RIVERS SYSTEM

Designations as of November 2016

### The National Wild and Scenic Rivers System

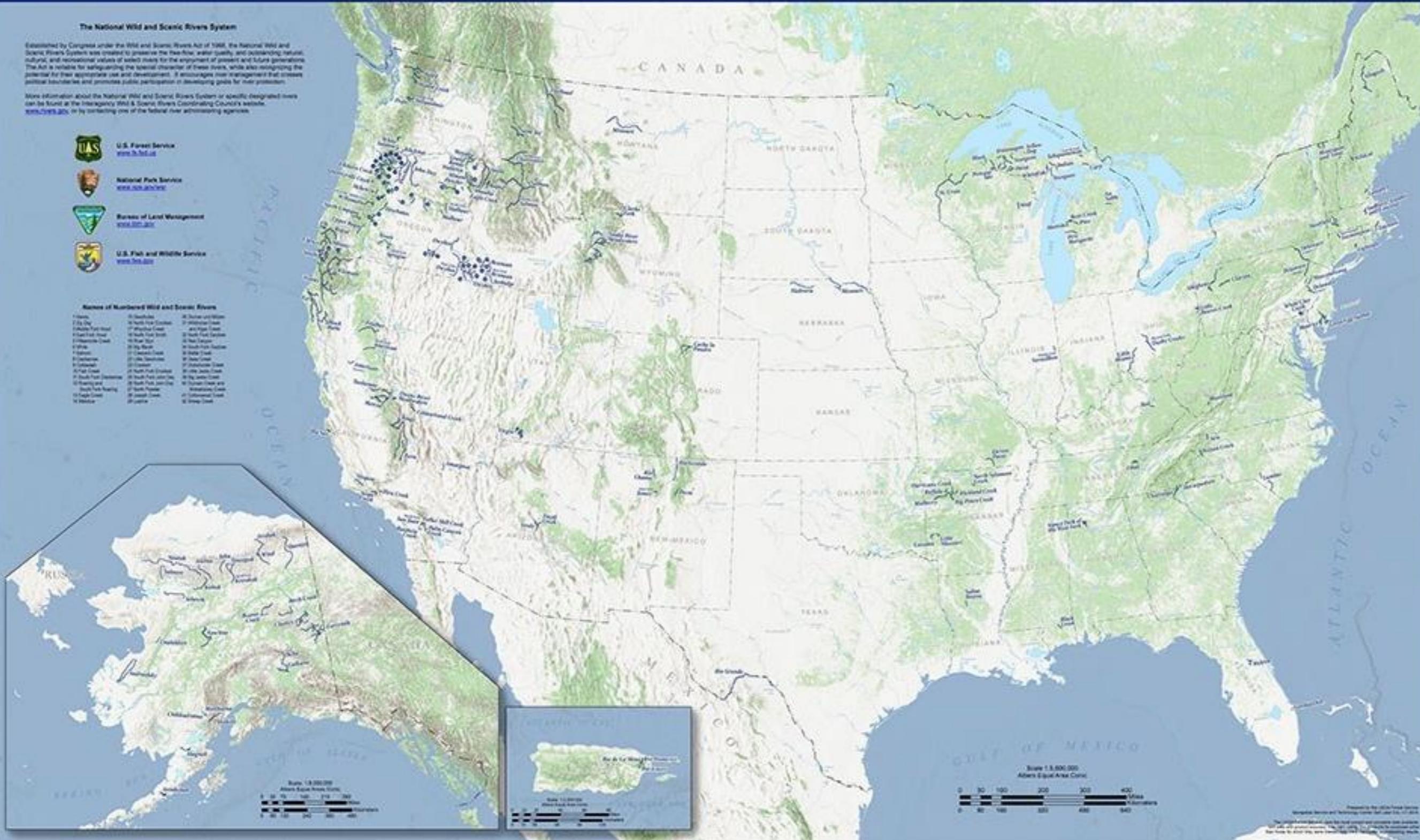
Established by Congress under the Wild and Scenic Rivers Act of 1968, the National Wild and Scenic Rivers System was created to preserve the free flow, water quality, and outstanding natural, cultural, and recreational values of select rivers for the enjoyment of present and future generations. The Act is flexible for recognizing the special character of these rivers, while also recognizing the potential for their appropriate use and development. It encourages river management that crosses political boundaries and promotes public participation in developing goals for river protection.

More information about the National Wild and Scenic Rivers System or specific designated rivers can be found at the Interagency Wild & Scenic Rivers Coordinating Council's website, [www.rivers.gov](http://www.rivers.gov), or by contacting one of the federal river administering agencies.

-  U.S. Forest Service  
[www.fs.fed.us](http://www.fs.fed.us)
-  National Park Service  
[www.nps.gov/RSR](http://www.nps.gov/RSR)
-  Bureau of Land Management  
[www.blm.gov](http://www.blm.gov)
-  U.S. Fish and Wildlife Service  
[www.fws.gov](http://www.fws.gov)

### Names of Numbered Wild and Scenic Rivers

- |               |                      |                     |
|---------------|----------------------|---------------------|
| 1 Snake       | 16 Snake             | 32 Snake and Salmon |
| 2 Elwha       | 17 North Fork Snake  | 33 Whitehorse       |
| 3 Klamath     | 18 Middle Fork Snake | 34 High Clear       |
| 4 Rogue       | 19 South Fork Snake  | 35 North Fork Snake |
| 5 Umpqua      | 20 Bear              | 36 North Fork Snake |
| 6 Willamette  | 21 Big Lost          | 37 Snake            |
| 7 Clackamas   | 22 Lewis             | 38 Snake            |
| 8 Hood        | 23 Lewis             | 39 Snake            |
| 9 Clackamas   | 24 North Fork Snake  | 40 Snake            |
| 10 Willamette | 25 North Fork Snake  | 41 Snake            |
| 11 Willamette | 26 Snake             | 42 Snake            |
| 12 Willamette | 27 Snake             | 43 Snake            |
| 13 Willamette | 28 Snake             | 44 Snake            |
| 14 Willamette | 29 Snake             | 45 Snake            |
| 15 Willamette | 30 Snake             | 46 Snake            |



Prepared by the U.S. Forest Service, National Park Service, and Bureau of Land Management. The U.S. Fish and Wildlife Service provided the names of the rivers in the National Wild and Scenic Rivers System. The map is for informational purposes only. It is not intended to be used for any other purpose.

# Explore Opportunity With Partners



- What data gaps exist on these river sections?
- What role does water quality data play in decision-making and who is responsible?
- Is there a clear need for Adventure Scientists' volunteer network?

# What will be the outcomes of this project?

Clean Water Act

Local river management and  
planning

Improved conservation

State and federal agencies'  
decision-making

Invasive species management

Fisheries health



# Collaboration and Discovery



# Partnership Takeaways

**1. Patience & persistence**

**2. Clear objectives & questions**

**3. Creativity & optimism**



A photograph of three hikers walking across a vast, golden-brown field under a blue sky with scattered white clouds. The hiker on the left is wearing a red backpack and a white cap. The hiker in the middle is wearing a blue backpack and is holding a black device. The hiker on the right is wearing a red backpack and a green headband. The text is overlaid on the top half of the image.

**DATA. YOU NEED IT. WE GET IT.**

WHAT CAN WE HELP **YOU** ACHIEVE?

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