



**American Rivers**  
RIVERS CONNECT US®

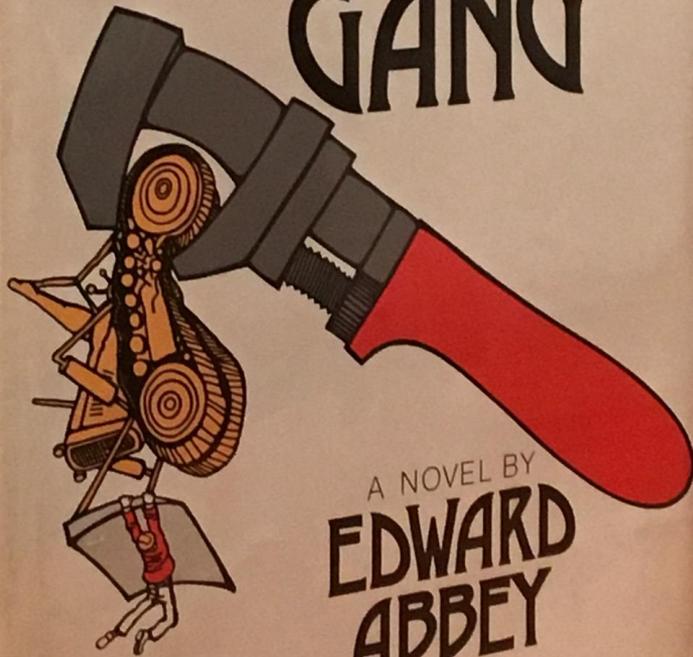
**From Monkey Wrenching to Mainstream:  
30 years of dam removal and river restoration  
in the United States**

**Bob Irvin**

**President and CEO, American Rivers**

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# THE MONKEY WRENCH GANG



A NOVEL BY  
**EDWARD  
ABBAY**

THE MONKEY WRENCH GANG EDWARD ABBAY

LIPPINCOTT



ELWHA  
BE  
REE



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



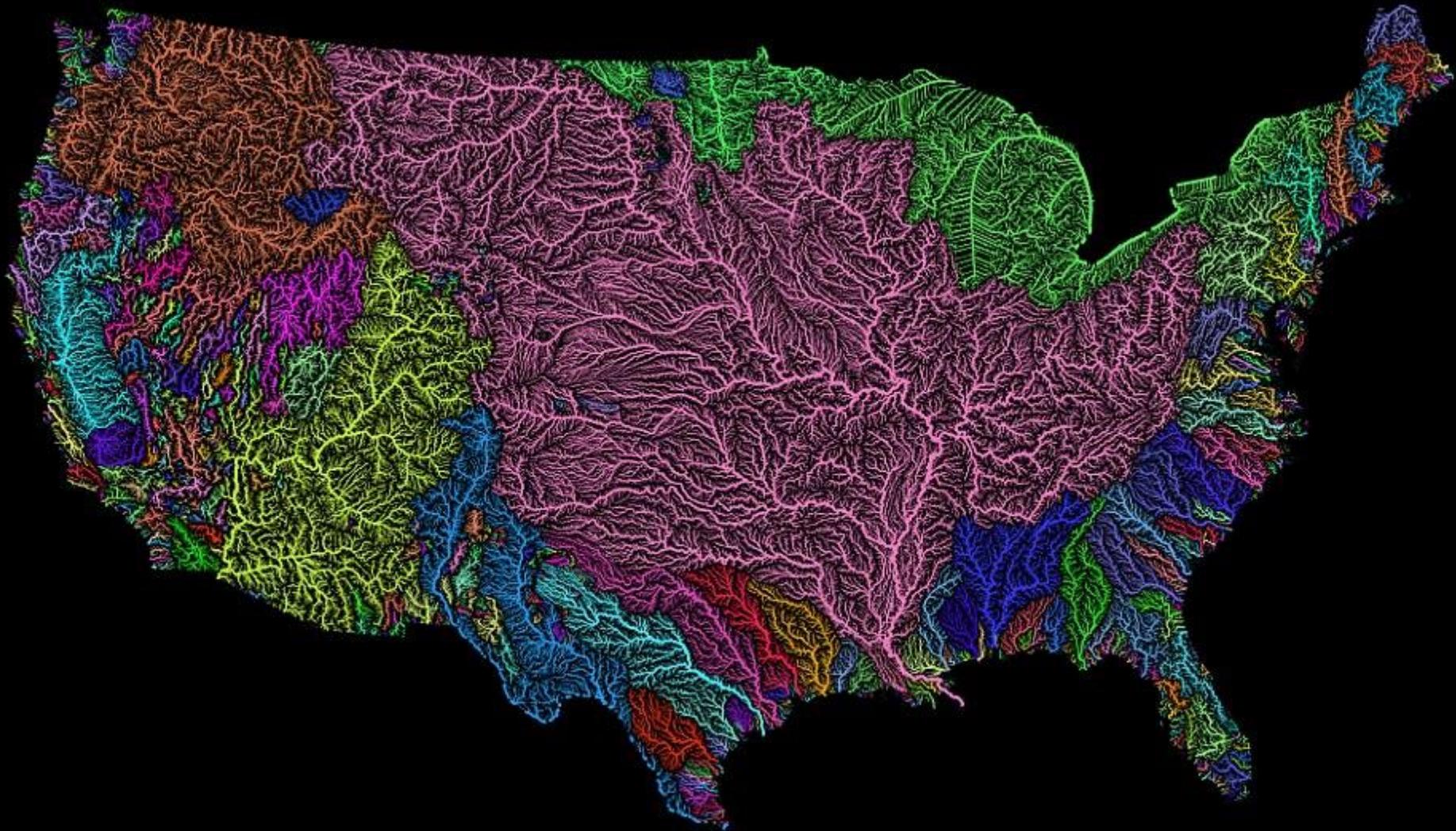
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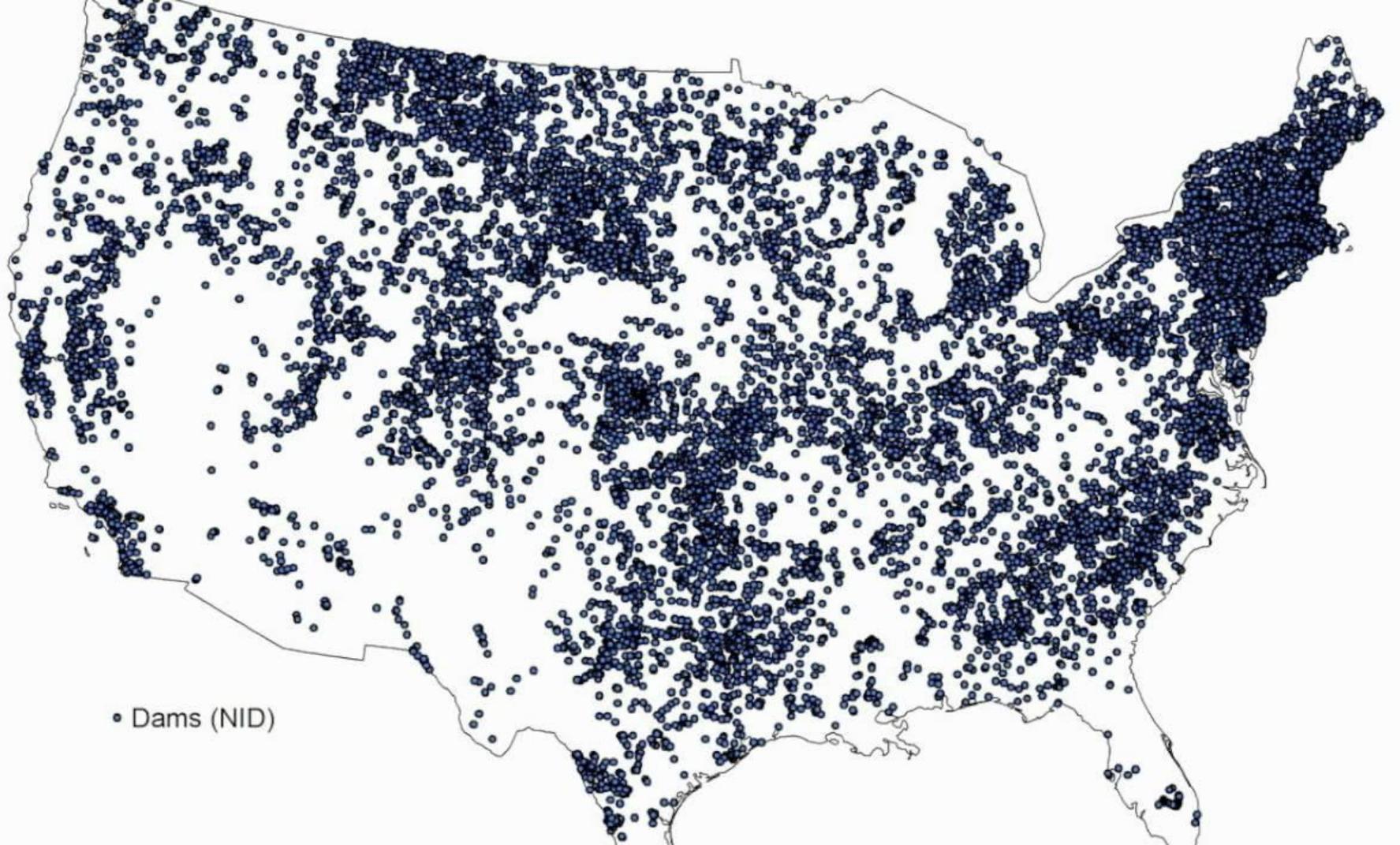
2011/10/14





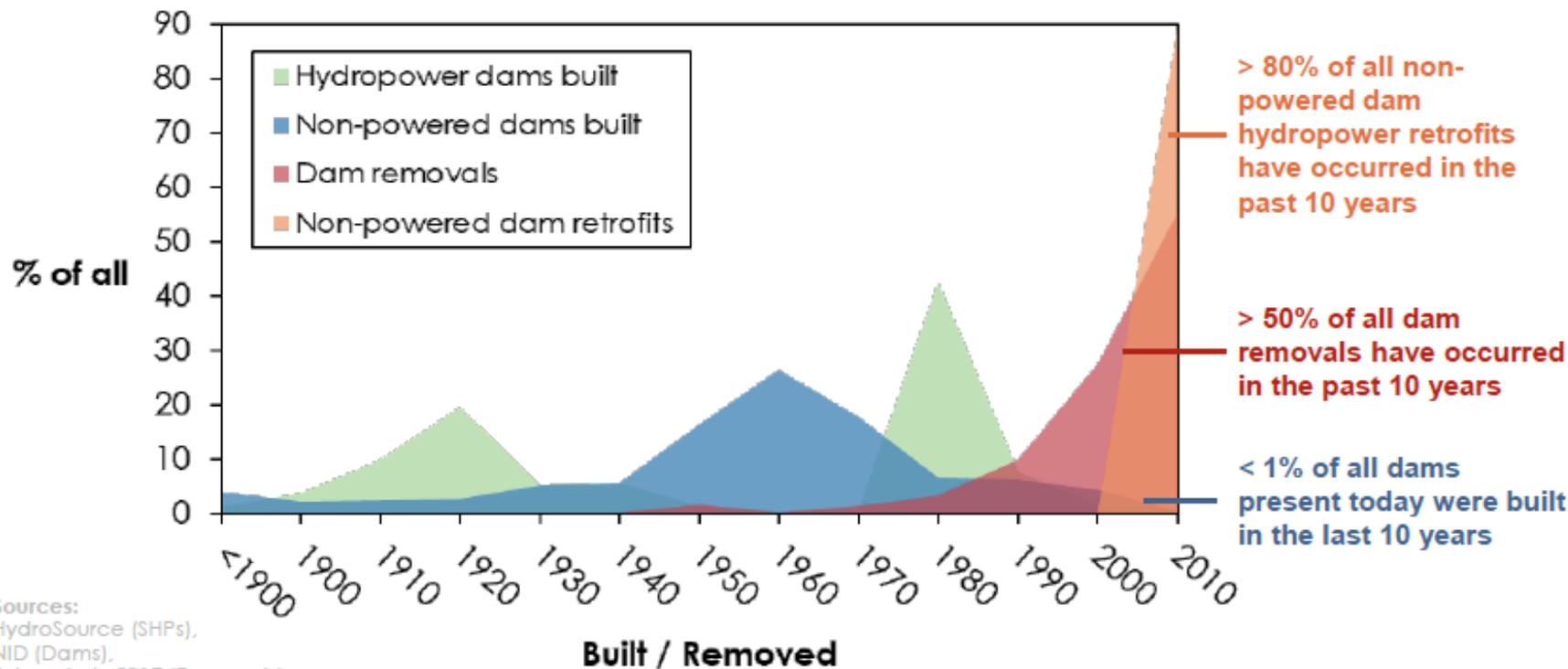






• Dams (NID)

## Dams, past and present



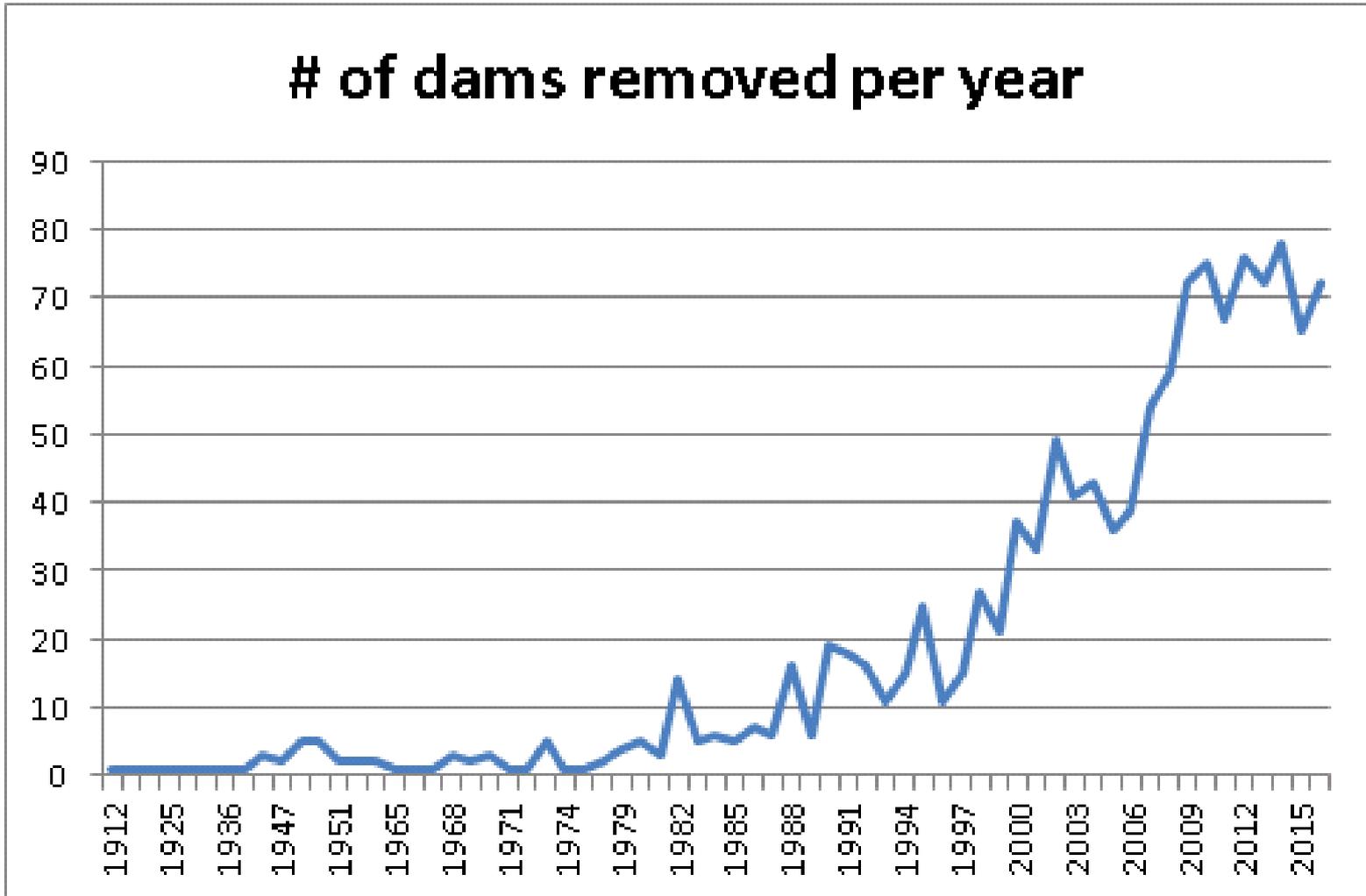
Sources:  
HydroSource (SHPs),  
NID (Dams),  
Foley et al., 2017 (Removals)







# Dam Removal: The Movement Grows

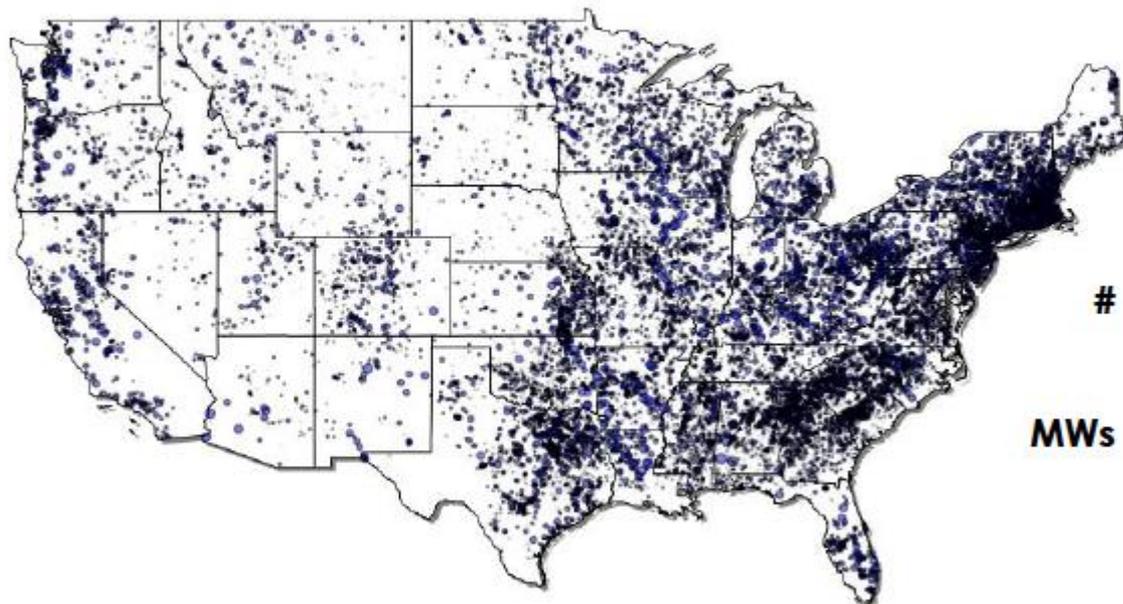


## Dams removed





# Most dams have very little energy potential and serve some purpose other than hydropower generation



2,051 dams have 5,608 MW of hydropower potential



2.2% of the dams have 95% of the hydropower potential

SOURCE: HydroSource

**"Dams are not like the pyramids of Egypt that stand for eternity. They are instruments that should be judged by the health of the rivers to which they belong."**

**-- Bruce Babbitt,  
U.S. Secretary of the  
Interior, July 1998**





  
THE GOLDMAN ENVIRONMENTAL PRIZE









## MAP OF U.S. DAMS REMOVED SINCE 1916

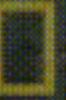
While dams can benefit society, they also cause considerable harm to rivers. Dams have depleted fisheries, degraded river ecosystems, and altered recreational opportunities on nearly all of our nation's rivers. Today, many dams that were once at the epicenter of a community's livelihood are now old, unsafe or no longer serving their intended purposes. Learn how we're working to remove these dams and [restore our rivers to their natural free-flowing state](#).







September 2011 - June 2012







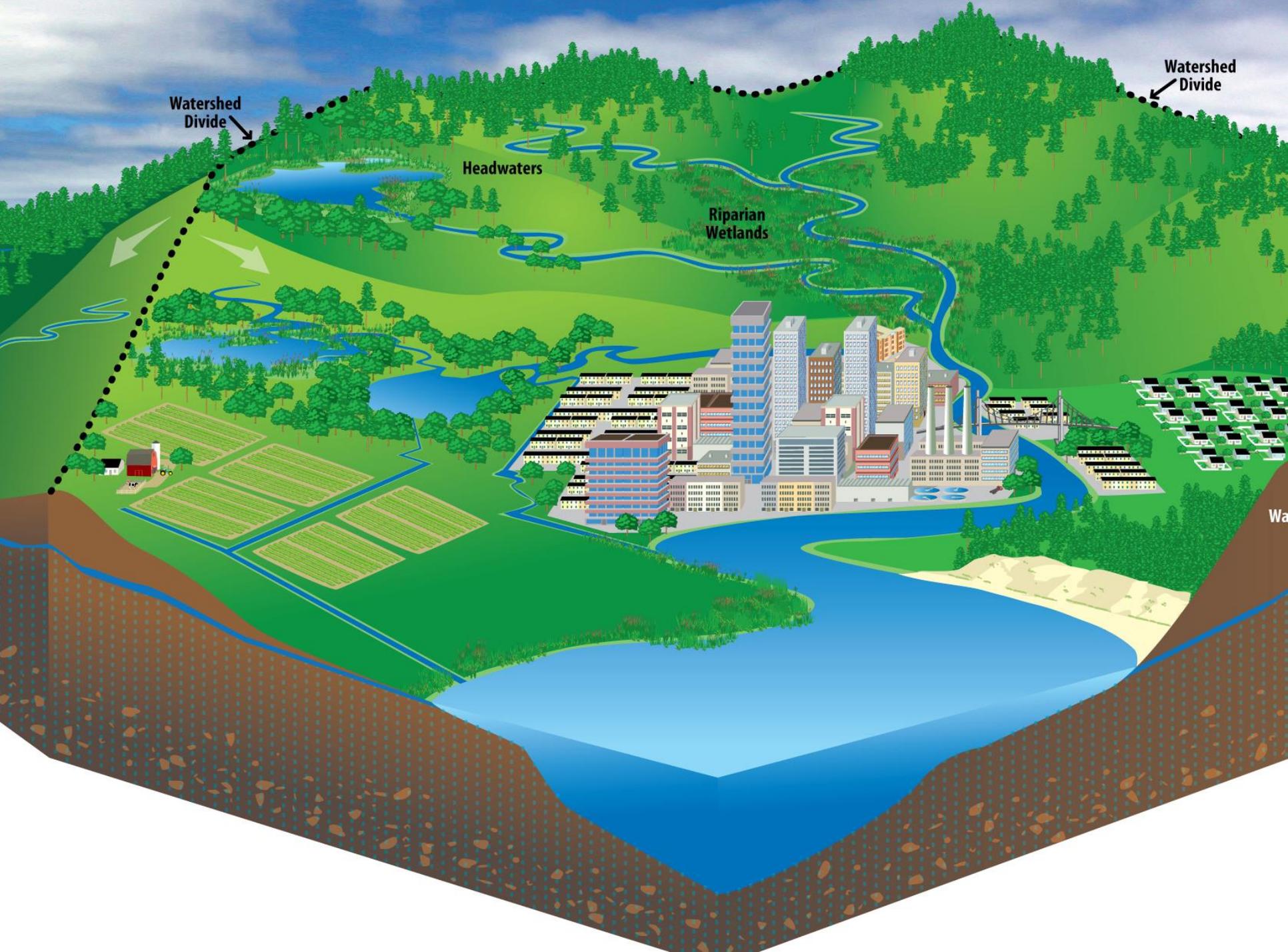












Watershed Divide

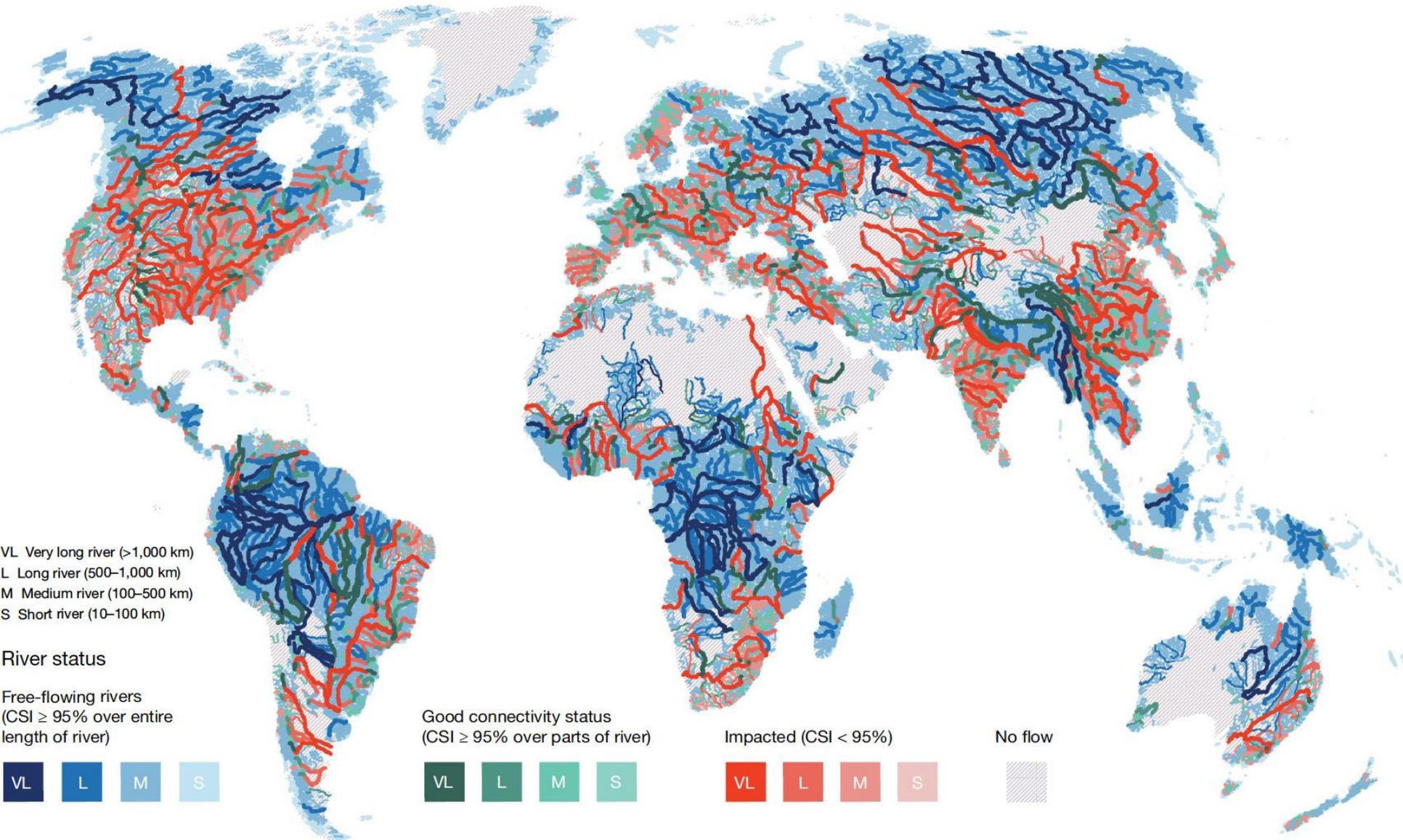
Headwaters

Riparian Wetlands

Watershed Divide

Wa





- VL Very long river (>1,000 km)
- L Long river (500–1,000 km)
- M Medium river (100–500 km)
- S Short river (10–100 km)

River status  
Free-flowing rivers  
(CSI ≥ 95% over entire length of river)

VL	L	M	S
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Good connectivity status  
(CSI ≥ 95% over parts of river)

VL	L	M	S
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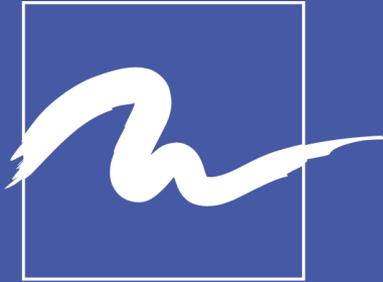
Impacted (CSI < 95%)

VL	L	M	S
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No flow







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