



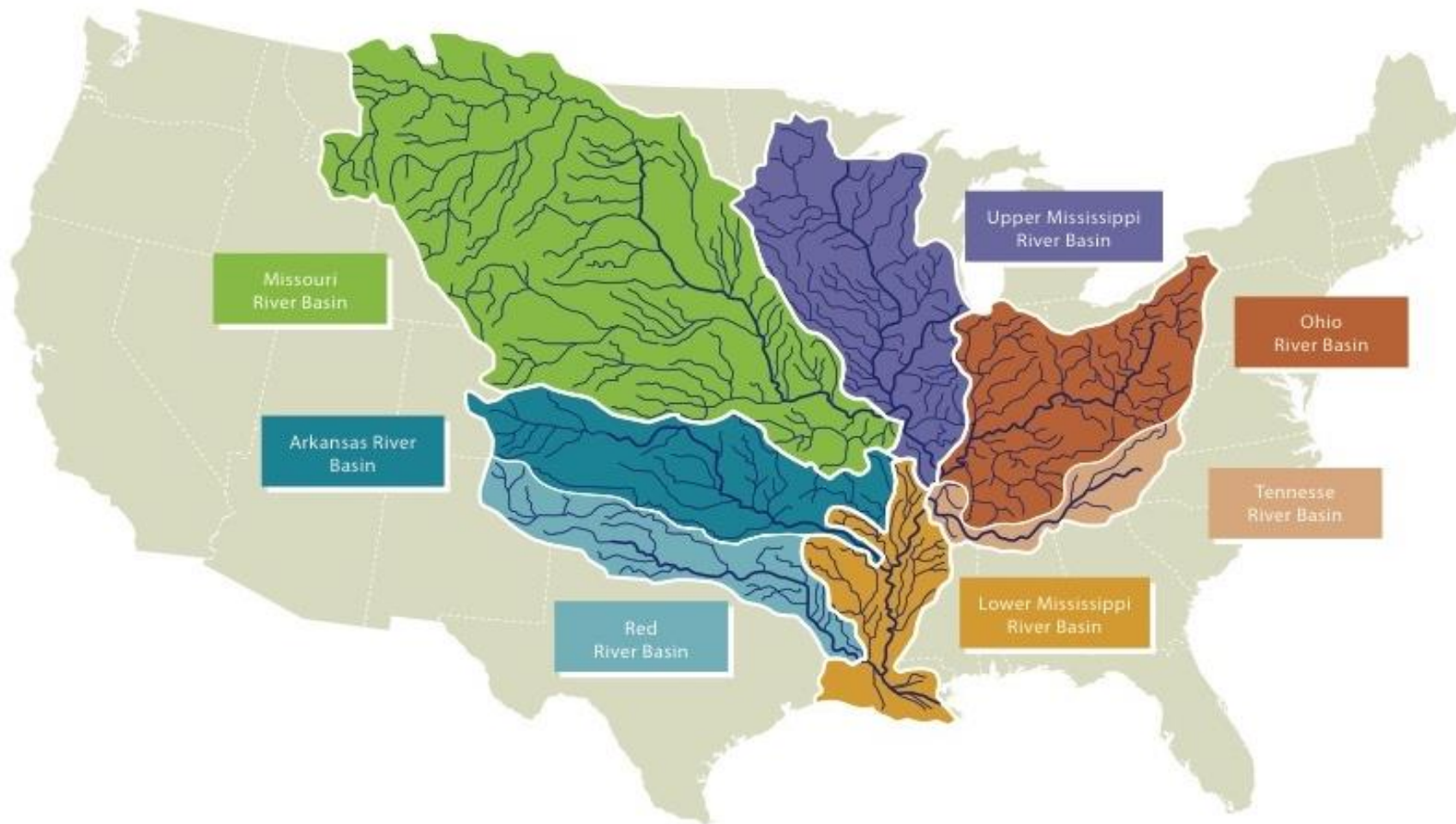
America's Watershed Initiative

Report Card for the Mississippi River Watershed

Fourth Annual Fox River Summit

March 18, 2016

America's Watershed



Goals for the Mississippi River Watershed



Ecosystems

Support and enhance healthy and productive ecosystems



Goals for the Mississippi River Watershed



Flood Control and Risk Reduction

Provide reliable flood control and risk reduction



Goals for the Mississippi River Watershed



Transportation

Serve as the nation's most valuable transportation corridor



Goals for the Mississippi River Watershed



Economy

Support local, state, and national economies



Goals for the Mississippi River Watershed



Water supply

Maintain supply of abundant, clean water



Goals for the Mississippi River Watershed



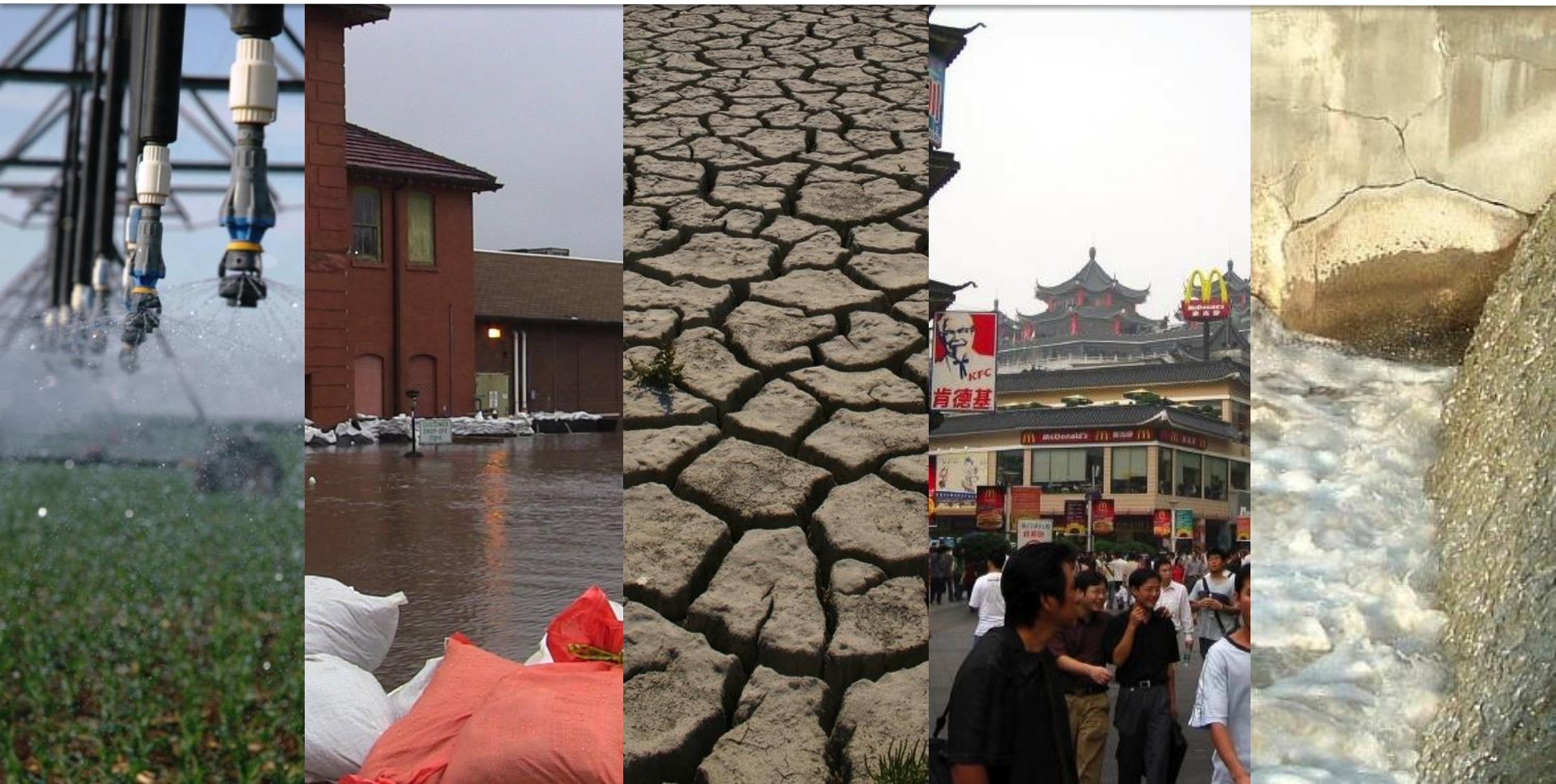
Recreation

Provide world-class recreational opportunities



“Orphan” River & Watershed

Growing global demand for food & fiber



A Different Path Forward



Dru Buntin
Upper Mississippi River
Basin Association



Stephen Gambrell
Mississippi Valley Flood
Control Association



Teri Goodmann
City of Dubuque, IA



Steve Mathies
Lower Mississippi River
River Basin



Sean Duffy, Sr
Big River Coalition



Sue Lowry
State of Wyoming
Upper MO River Basin



Dan Mecklenborg
Ingram Barge Company



Michael Reuter
North America
Freshwater Program, TNC



Rainy Shorey
Caterpillar Inc.



Charles Somerville
Marshall University & Ohio
River Basin Alliance



Max Starbuck
National Corn Growers
Association

Building a Shared Vision – Report Card



Bringing People Together

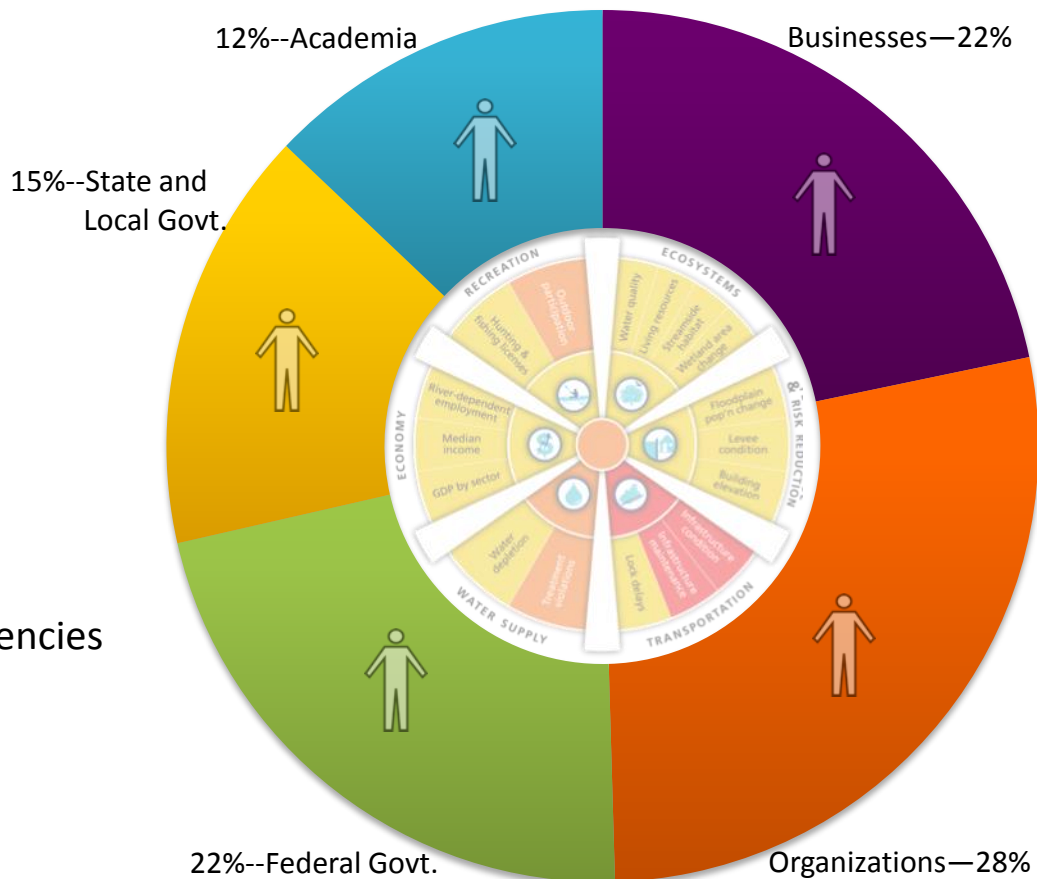


Throughout the Watershed



Diverse Participation

- 400+ businesses and organizations
- 37 states + Canada and Korea
- 140+ Business Organizations
- 145+ Federal Agencies
- 180+ Organizations & Basin Groups
- 100+ State & Local Government Agencies
- 85+ Academic Institutions

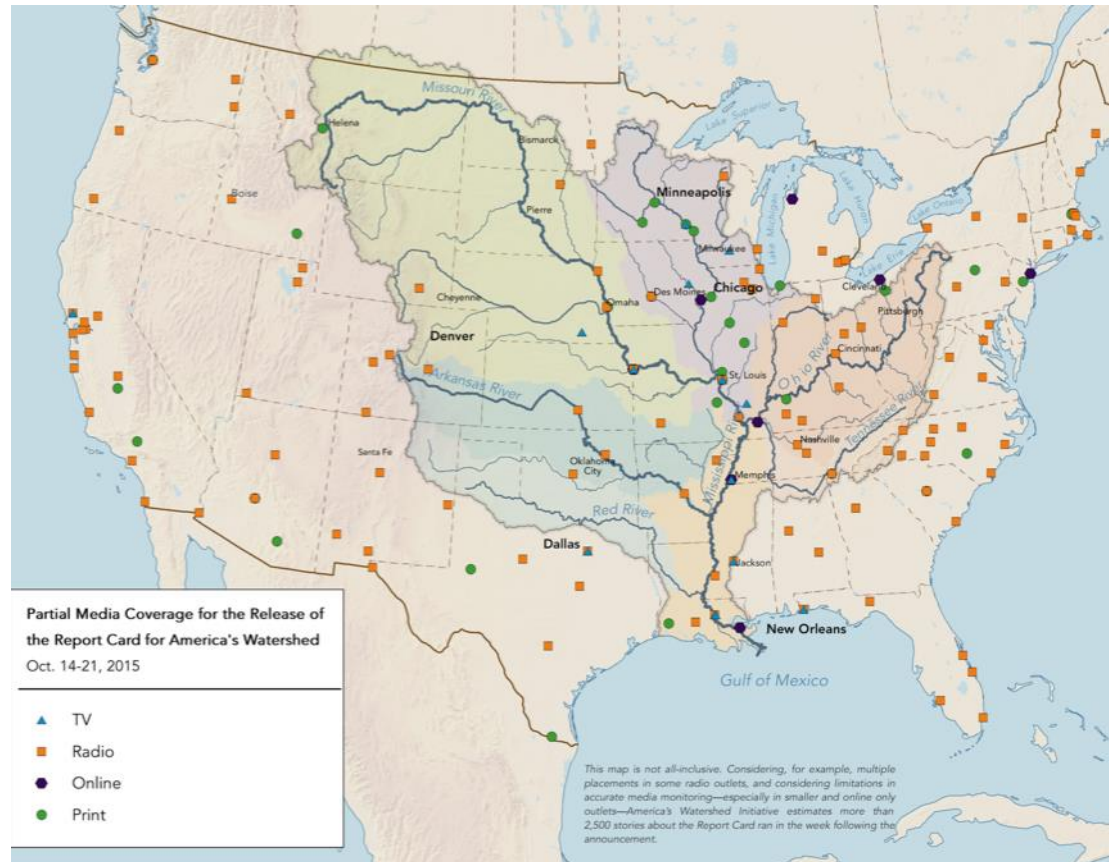


Report Card for the Mississippi River Watershed

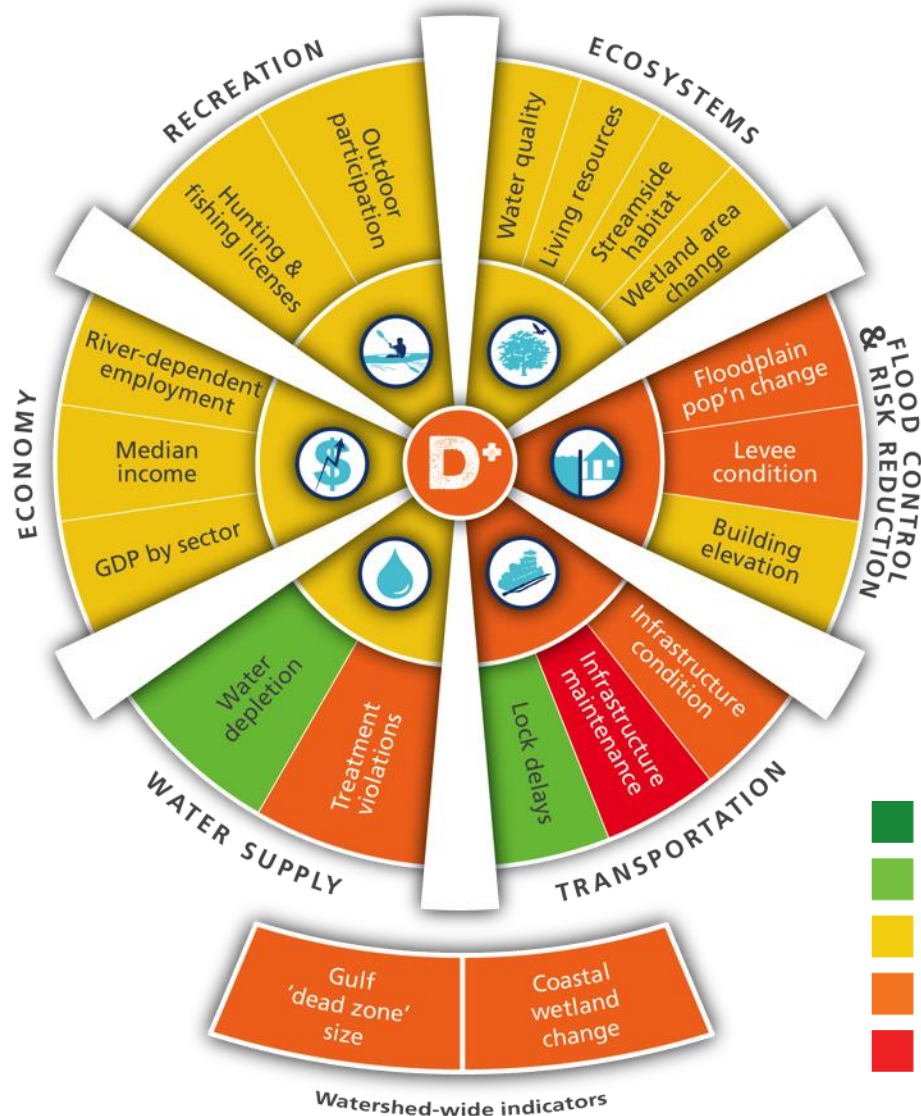


Many Tools to Build and Share Vision

- **Final Watershed Report Card**
 - Preliminary Report Card
 - Report Card Goals & Values
 - Report Card Methods paper
 - Participant Summary
 - 6 Watershed Workshop Reports
 - 6 Basin Fact Sheets
 - New Web Pages
 - Report Card Video



Report Card Results



- 6 goals measured
- 17 basin scale measurements
- 2 watershed scale measurements
- Results for watershed
- Results for basins

Finding the Details

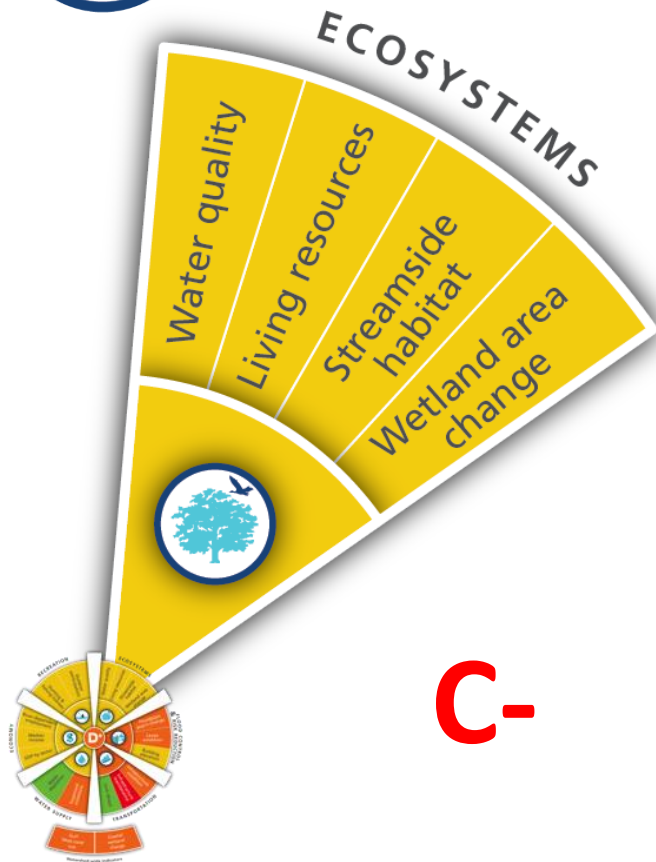
www.americaswatershed.org/reportcard

- Goal specific information
- Basin specific information
- 80 page Methods Paper with data sources & calculations



Ecosystems Results

Support and enhance healthy and productive ecosystems



C-

Report Card Indicators

Water quality: Water quality index calculated as average total phosphorus and total nitrogen.

Living resources: Condition of aquatic animal communities.

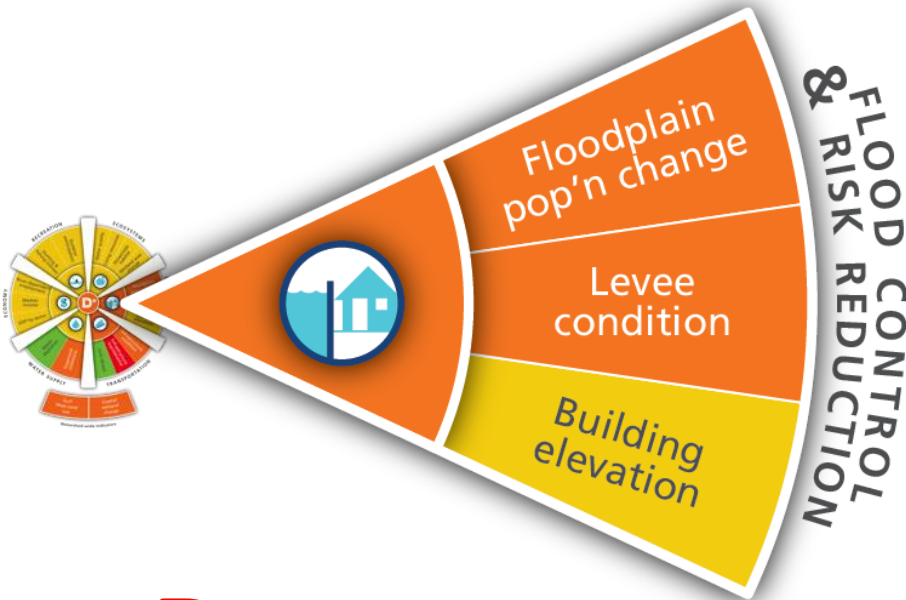
Streamside habitat: Condition of stream and river habitat.

Wetland area change: Percent change in wetland area between 2006 and 2011 (National Land Cover Database).



Flood Control & Risk Reduction Results

Provide reliable flood control and risk reduction



D+

Report Card Indicators

Floodplain population change: Change in number of people most at risk to flooding compared to total basin population (U.S. Census).

Levee condition: Results of levee evaluations following inspections by U.S. Army Corps of Engineers.

Building elevation: Degree to which communities have adopted requirements to elevate structures above mapped flood levels (Federal flood protection standards).



Transportation Results

Serve as the nation's most valuable transportation corridor



D-

Report Card Indicators

Lock delays*: Time that locks are unavailable for navigational use (USACE).

Infrastructure condition*: Percentage of critical components at lock and dam facilities identified as “inadequate” or “failed” (USACE).

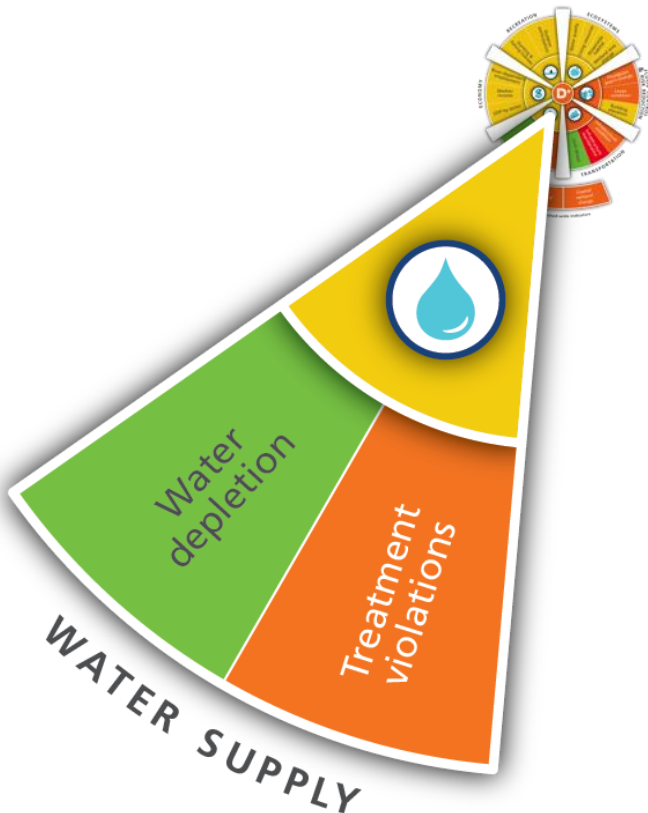
Infrastructure maintenance: Adequacy of funding for operations and maintenance to maintain current navigation system in working order (USACE).

*there are no locks in the Missouri River basin; therefore we do not include a score for this indicator in the Missouri Basin



Water Supply Results

Maintain supply of abundant, clean water



Report card Indicators

Treatment violations: Violations by community water treatment systems (USEPA). Calculated as percent of population served by community water systems with no reported violations in 2013. Basin scores weighted to reflect population served by systems.

Water depletion: Quantity of available surface water using a water stress index, based on US Forest Service Water Supply Stress Index Model.



Economy Results

Support local, state, and national economies



C

Report Card Indicators

River-dependent employment: River dependent sectors (farming, fishing, forestry, production, transportation, material moving) to average employment in all states (US Bureau of Labor Statistics).

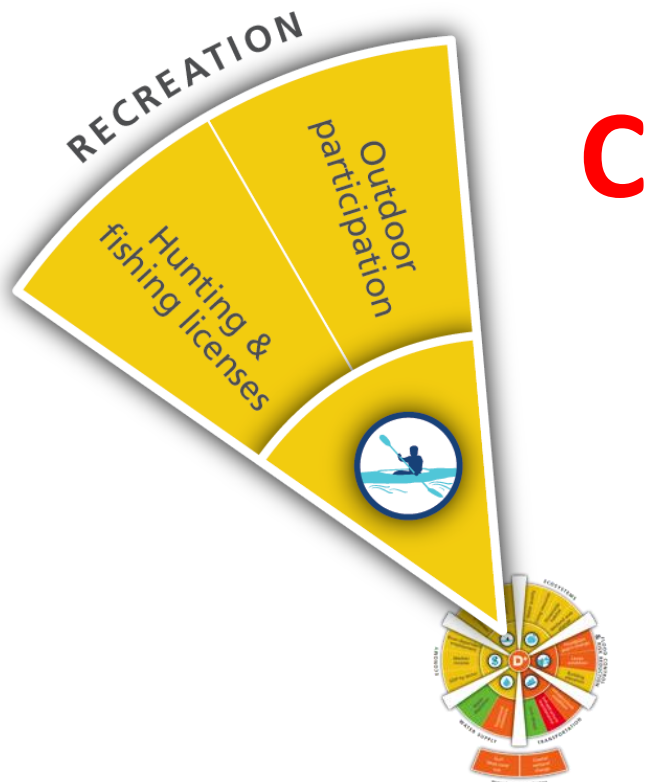
Median income: Per capita income for 2013 compared to average income (Bureau of Economic Analysis).

GDP by sector: Selected industries in each state in 2013 compared to average GDP in all states.



Recreation Results

Provide world-class recreational opportunities



Report Card Indicators

Outdoor participation: hunting, fishing, birding, and national park visitation with 20-year historical range (FWWAR Survey, USFWS, US Census).

Hunting and fishing licenses: Sales of licenses, tags, stamps, and permits for hunting and fishing reported in National Hunting License Report 2004-2013. The score compared the three-year (2011-2013) average with the 10-year (2004-2013) historical range.



Watershed-wide Indicator Results

Coastal wetland area change and Gulf of Mexico 'dead zone' size

D-

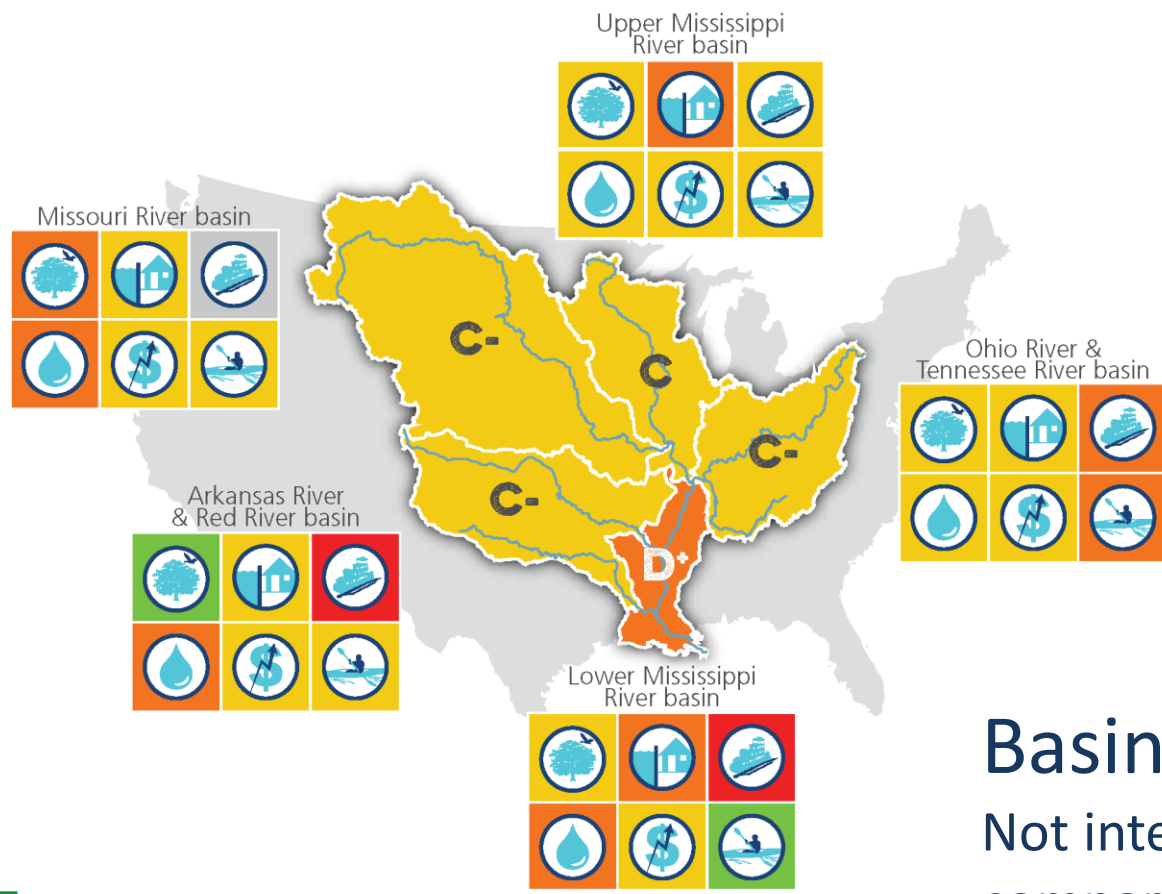


Watershed-wide indicators

Report Card Indicators

Coastal Wetland Change measures the annual net rate of wetland loss in coastal Louisiana.

Dead Zone measures size of the dead zone against the official target of no more than 5000 square kilometers established by the hypoxia task force



GOALS

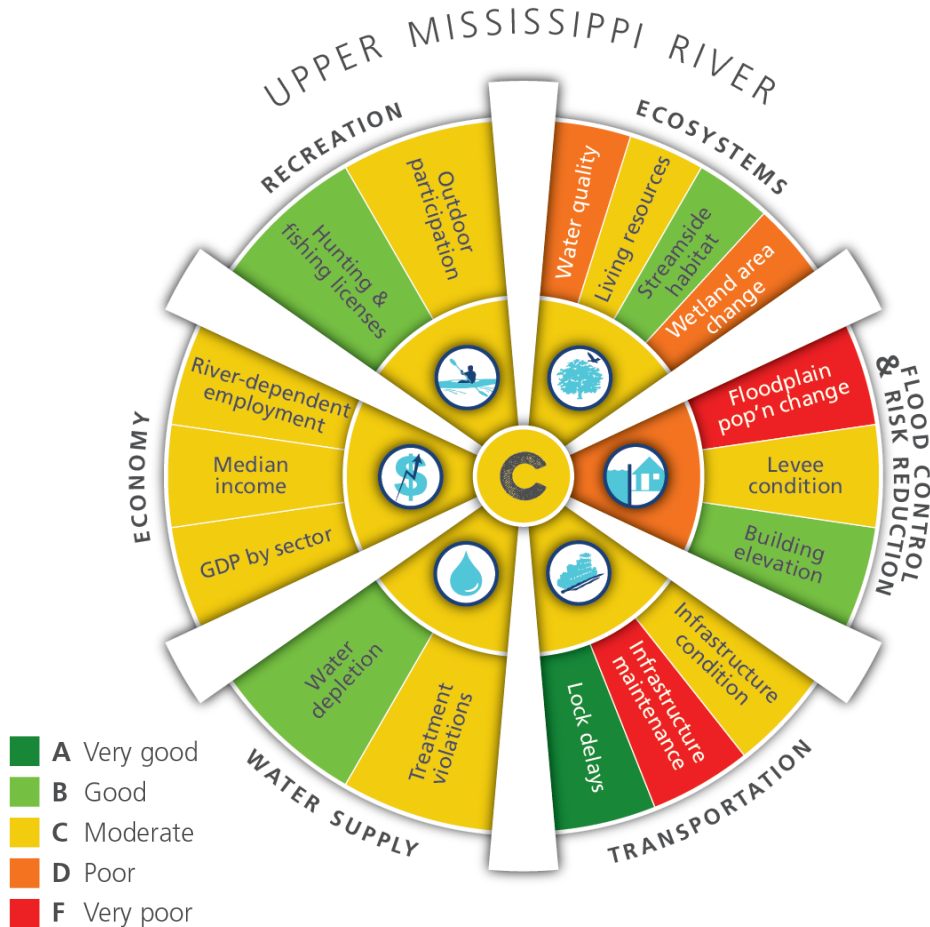
- Ecosystems
- Flood Control & Risk Reduction
- Transportation
- Water Supply
- Economy
- Recreation

- A** Very good
- B** Good
- C** Moderate
- D** Poor
- F** Very poor
- No data

Basin results
Not intended for
comparisons between
basins



Results by basin: Upper Mississippi



- Mix of urban, agricultural, and forested areas, relatively high precipitation.
- Negative: Water quality, Wetland area change, Floodplain population
- Positive: Streamside habitat, Building elevation, Lock delays, Water depletion, Hunting & fishing licenses

Raise the Grade for the Watershed

- Advocate for \$1 billion annually in new public and private investment in Watershed
- Encourage greater collaboration and improved information to better manage an increasingly complex system for multiple benefits.
- Recognize and support local leaders who develop and implement solutions and inviting their continuing participation as partners.

America's Watershed



America's Watershed Initiative Contact
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Cell: (608) 445-8543



ADDITIONAL INFORMATION

Participating Business Organizations

- Agriservices of Brunswick
- America's Central Port
- American Commercial Lines
- American Electric Power, River Operations
- Amherst Madison
- Anderson Tully Company
- ATKINS
- Battelle
- Biohabitats, Inc.
- Boeing
- Cargill, Inc.
- Caterpillar Inc.
- CDM Smith
- CH2M HILL
- Conversant
- Crounse Corporation
- Dawson & Associates, Inc.
- DLA Piper
- DTN/The Progressive Farmer
- Duke Energy
- DuPont-Pioneer
- East Coast Awakening
- Ecology and Environment Inc.
- Electric Power Research Institute
- Engineering News-Record
- ENVIRON International Corp
- Fox Consulting Group LLC
- Gaea Engineering Consultants, LLC
- Great Lakes Dredge & Dock
- Growmark, Inc.
- Gulf Coastal Ozarks LLC
- Hanson Professional Services, Inc.
- Headwaters Corporation
- IBM
- Ingram Barge Company
- Iowa Soybean Association
- Jones Walker
- KCI Technologies Inc.
- Kieser & Associates
- Klingner & Associates, P.C.
- LTA Consulting
- Marathon Petroleum Company
- McKinsey & Company
- Missouri American Water
- MO Agribusiness Assn.
- Monsanto Company
- Mississippi River Corridor-TN
- MWH Americas
- National Corn Growers Association
- National Corn Growers Assn.
- Oklahoma Cattlemen's Association
- Paul Davis PE
- SIMPCO
- SSM Group, Inc.
- Stanley Consultants, Inc.
- Stantec Consulting
- TerraCarbon LLC
- The Mosaic Company
- Tulsa Port of Catoosa
- Waterways Council, Inc.
- WaterWonks LLC
- Waurika Master Conservancy District
- Weston Solutions
- Woodland Venture Management
- Xcel Energy



Participating Organizations & Basin Groups

- America's Waterway
- America's Wetland Foundation
- American Rivers
- Appalachian Energy & Environment Partnership
- Assn. of State Floodplain Managers; ASFCO
- National Audubon Society
- Audubon Louisiana, National Audubon Society
- Audubon Missouri
- Audubon of Minnesota
- Big River Coalition
- Biodiversity Project
- Boone County Conservation District
- Cheney Lake Watershed, Inc.
- Coalition to Protect the Missouri River
- Cumberland River Compact
- Delta Dispatches
- Delta Wildlife Inc.
- Ducks Unlimited - Headquarters
- Ducks Unlimited - Illinois
- Ducks Unlimited - Washington DC
- Environmental Defense Fund
- Grand Lake O'the Cherokees Watershed Alliance Foundation
- Great Rivers Greenway
- Green Umbrella
- HeartLands Conservancy
- Horinko Group
- Interstate Council on Water Policy
- International Plant Nutrition Institute
- Iowa Corn Growers Association
- Iowa Environmental Council
- Izaak Walton League of America, Missouri River & UMR programs
- Kentucky Waterways Alliance
- Kentucky Association of Mitigation Managers
- Lake Texoma Association
- Living Lands & Waters
- Mid-America Freight Coalition
- Mississippi River Cities and Towns Initiative
- Mississippi River Network
- Mississippi River Program
- Mississippi Valley Flood Control Assn.
- Missouri River Navigation Caucus and Pallid Sturgeon Recovery Working Group
- Missouri River Recovery Implementation Committee (MRRIC)
- Missouri Valley Waterfowlers Association
- MO Coalition for the Environment
- MO Levee & Drainage District Assn
- Mississippi River Cities & Towns Initiative, NE-Midwest Institute
- National Waterways Conference
- National Wildlife Federation
- National Mississippi River Museum & Aquarium
- Natural Resources Defense Council
- North Dakota Water Users Assn.
- Nebraska Wildlife Federation
- Northeast-Midwest Institute
- Ohio River Basin Association
- OK Municipal League
- ORSANCO
- Ouachita River Valley Assn.
- Platte River Recovery Implementation Program
- Prairie Rivers Network
- Rahall Transportation Institute
- Red River Valley Association
- Restore or Retreat, Inc.
- River Network
- State Association of Kansas Watersheds
- The Little River Drainage District
- The Nature Conservancy – World Office
- The Nature Conservancy Global Water
- The Nature Conservancy North America Water
- The Nature Conservancy - Central Division
- The Nature Conservancy - UMR
- The Nature Conservancy - Indiana
- The Nature Conservancy - Indiana Lower Wabash
- The Nature Conservancy - Iowa
- The Nature Conservancy - Kentucky
- The Nature Conservancy - Kentucky - West KY
- The Nature Conservancy - Kentucky Green River
- The Nature Conservancy - Louisiana
- The Nature Conservancy - Mississippi
- The Nature Conservancy - Nebraska
- The Nature Conservancy - Ohio
- The Nature Conservancy - Oklahoma
- The Nature Conservancy - Tennessee
- The Nature Conservancy – TN/West TN program
- The Nature Conservancy - Western Dakotas
- The Nature Conservancy – Wisconsin
- The Water Institute of the Gulf
- The Waterways Journal
- Trust for Public Land - Embrace Open Space
- US Water Alliance
- Upper Mississippi River Basin Association
- Upper MS, Illinois & Missouri Rivers Association
- Wilderness Inquiry
- Yazoo-MS Delta Levee Board

Participating Federal Agencies

- Department of Defense
- Environmental Protection Agency
- EPA - Enviro Tech Innovation Center
- EPA - Hypoxia Task Force
- EPA - National Rivers and Streams Assessment
- EPA – National Exposure Research Laboratory
- EPA - Office of Water
- EPA - Wetlands, Oceans and Watersheds
- Gulf Coastal Plains & Ozarks Landscape Conservation Cooperative
- NOAA - National Weather Service
- NOAA - National Climatic Data Center
- Department of the Interior – Secretary's office
- National Park Service, Midwest Region
- National Park Service Mississippi River National River & Rec Area
- Fish and Wildlife Service - Missouri Ecological Services Field office
- Fish and Wildlife Service - Lower Mississippi Valley Joint Venture
- Fish and Wildlife Service - LMRCC
- Fish and Wildlife Service - Kentucky Ecological Services Field Office
- Fish and Wildlife Service - Mississippi Interstate Resource Association
- Fish and Wildlife Service - Big Muddy Refuge
- Fish and Wildlife Service - Fishers & Farmers Partnership
- Fish and Wildlife Service - Natl Wildlife Refuge System, Rock Island Ecological Services office
- US Geological Survey, Indiana & Kentucky Commonwealth
- US Geological Survey, Midwest Regional Office
- US Geological Survey, OH Water Science Center
- US Geological Survey, Upper Midwest Environmental Science Center (UMESC)
- Oak Ridge National Laboratory – Environmental Sciences Division
- Tennessee Valley Authority
- USACE U.S. Army Corps of Engineers
- USACE, Headquarters
- USACE Mississippi River Commission
- USACE, Great Lakes and Ohio River Division
- USACE Mississippi River Division
- USACE, Northwest Division
- USACE, Huntington District
- USACE, Kansas City District
- USACE, Little Rock District
- USACE, Louisville District
- USACE, Memphis District
- USACE, Nashville District
- USACE, Rock Island District
- USACE, St Louis District
- USACE, St Paul District
- USACE, Tulsa District
- USACE, Vicksburg District
- USACE CPRP, Rivers Project Office
- USACE Engineer Research and Development Center
- USACE Missouri River Recovery Program
- USACE MO River Basin Programs
- USDA - Conservation Effects Assessment Project
- USDA - NRCS - Kentucky
- USDA Forest Service Northeastern Region
- USDA National Laboratory for Agriculture and the Environment
- USDA NRCS Central Region
- USDA NRCS Watershed Planner
- USDA-NRCS - Missouri Basin
- USDA-NRCS - Ohio
- USDA-NRCS Kentucky
- USDA, Natural Resources Conservation Service, Headquarters
- AmericasWatershed.org

Participating State and Local Agencies

- Participating Local Governments
- AR Game & Fish Commission
- IA Dept. of Natural Resources
- IA Dept. of Transportation
- IL Dept. of Natural Resources
- IL Dept. of Transportation
- IL EPA Division of Public Water Supplies
- KS Water Office
- KS Bureau of Water, Kansas Department of Health & Environment
- KS Watershed Management Section
- KY Department of Agriculture
- KY Dept. of Environmental Protection, Water Quality Br
- KY Div. of Water
- LA Dept. of Enviro Quality, Office of Enviro Services
- MN Dept. of Ag
- MN Dept. of Natural Resources
- MN Pollution Control Agency
- MO Dept. of Agriculture
- MO Dept. of Conservation
- MO Dept. of Natural Resources
- MO DNR Water Resources Center
- MS Dept. of Environmental Quality, Office of Pollution Control
- MT Dept. of Natural Resources and Conservation
- MS DOT
- ND State Water Commission
- NE Department of Natural Resources
- OH Dept of Natural Resources
- OH DNR, Div of Soil & Water Resources
- OK Dept of Agriculture, Food & Forestry
- OK Dept of Environmental Quality
- OK Dept of Mines
- OK Dept of Transportation, Waterways Branch
- OK Municipal League
- OK Scenic Rivers Commission
- OK Water Resources Board
- Red River Waterway Commission
- SD Dept. of Environmental Natural Resources
- SD Game, Fish and Parks
- The Wildlife Resources Agency
- TN Fisheries Mgmt. Div., TN Wildlife Resources Agency
- TN Wildlife Resources Agency
- TX Commission on Environmental Quality
- TX Water Development Board
- WI DOT, Bureau of Transit, Local Roads, RR & Harbors
- WV Conservation Agency
- WV DEP
- WY Wyoming State Engineers Office
- Cherokee County Health Department (Kansas)
- City of Dubuque, IA
- City of Moline, IL
- Metropolitan Water Reclamation (Chicago)
- Port Authority of Kansas City, MO
- City of Portland, OR
- City of St. Louis Water Division
- Louisville Metropolitan Sewer District

Participating Academic Institutions

- Carnegie Mellon University
- Illinois Sustainable Technology Center
- Illinois State Water Survey
- Iowa State University
- Kansas State University
- Kansas State University, Big Creek Middle Smoky Hill River Watersheds
- Lewis and Clark College
- Louisiana Sea Grant College Program, LA State University
- Marshall University College of Science
- Marshall University Rahall Transportation Institute
- Mississippi State Cooperative Res Assn.
- Mississippi State University
- National Center for Water Quality Research, Heidelberg University
- National Great Rivers Research & Education Center
- Northern Kentucky University
- OHRB Consortium for Research & Education
- Oklahoma State University
- Thomas More College
- Tulane Institute on Water Resources Law & Policy
- Texas A&M Transportation Institute
- Univ. of Arkansas, Aquaculture & Fisheries Center
- University of Arkansas Water Resource Center
- Univ. of Maryland Center for Environmental Science - IAN
- Univ. of Maryland, Dept. of Civil & Environmental Engineering
- Univ. of Wisconsin-Madison
- University of Cincinnati
- University of Iowa - Iowa Flood Center,
- University of Minnesota
- University of Minnesota, Dept. of Forestry
- University of Missouri, Dept. of Fisheries & Wildlife Sciences
- Vanderbilt University
- Washington University in St. Louis
- Webster University

