MISSOURI DEPARTMENT OF NATURAL RESOURCES

Lower Missouri River Watershed Meeting

February 6, 2017

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St. Louis Regional Office

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Our Missouri WATERS

EAST-WEST GATEWAY Council of Governments

MONTGOMERY LINCOLN WARREN

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- ***Mission:*** The mission of the Missouri Department of Natural Resources is to protect our air, land and water; preserve our unique natural and historic places; and provide recreational and learning opportunities for everyone.
- ***Vision for Missouri***: The Missouri Department of Natural Resources envisions a Missouri where people live and work in harmony with our natural and cultural resources, make decisions that result in a quality environment, and prosper today and in the future.

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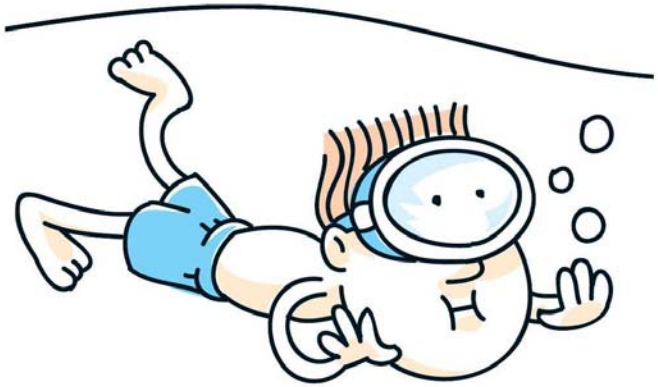

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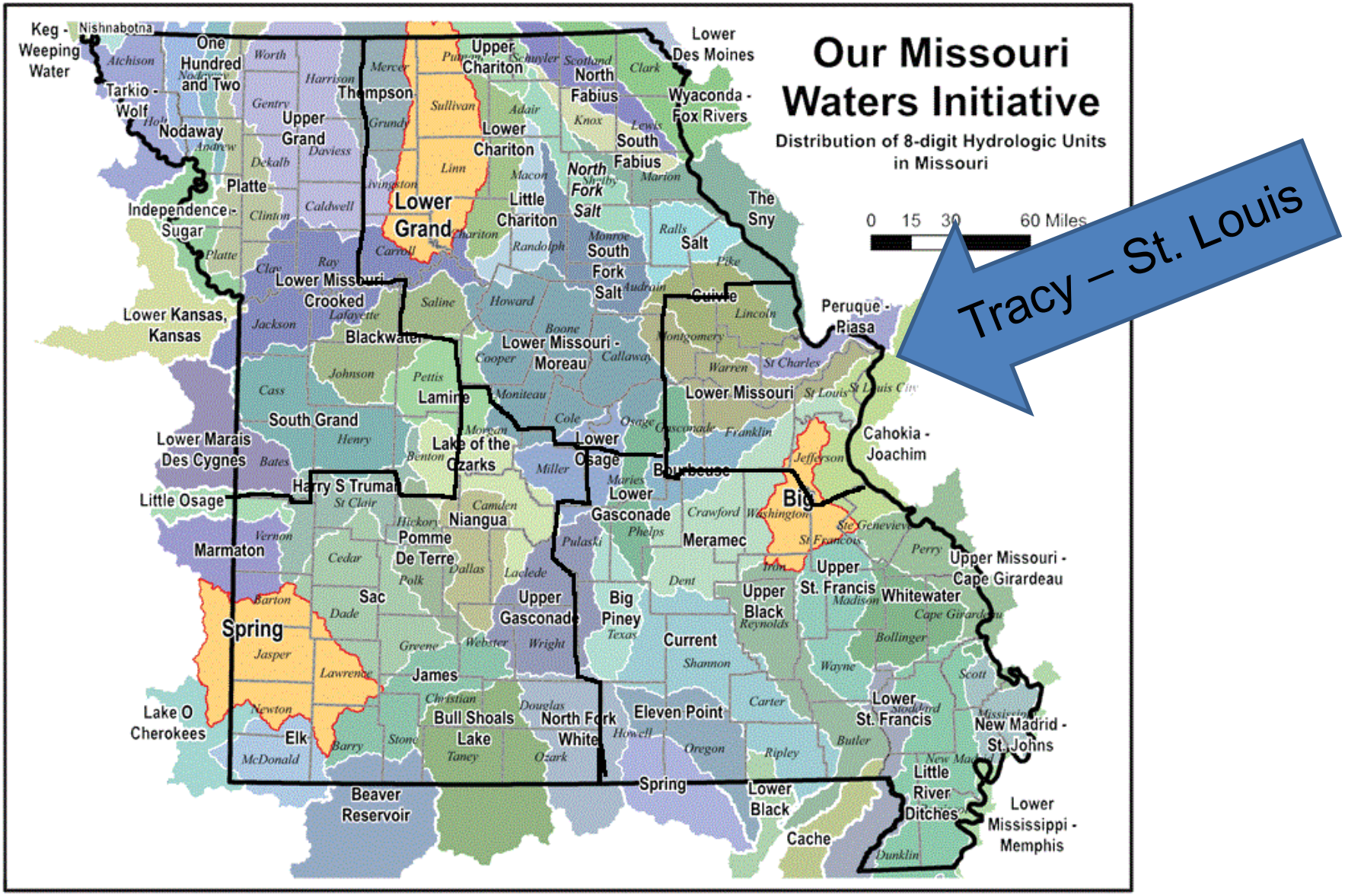

Our Missouri Waters Pilot Project 2012-2016

Goals of the Effort:

- Raise Awareness
- Receive Input
- Build Partnerships
- Coordinate Efforts
- We are also synchronizing site specific NPDES permits to expire/renew in the same year for permits in the same HUC 8 watershed
- Long term goal – maintain and improve water quality and wisely manage water supply

How do we collaborate at the HUC 8 level?

- Phased approach – it takes time!
- Partnership with the Missouri Association of Council of Governments
- Partnership with MU– Extension specialists
- Reaching out to agency partners and NGOs – federal, state, local
- Transparent process, advertised publicly and open to the public

MISSOURI RIVER WATERSHED COALITION includes Colorado, Montana, Nebraska, North Dakota, South Dakota, Kansas, and Wyoming.

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Big Muddy Missouri

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Water Quality trends on Missouri's rivers

Stream	Location	Variable*	Trend	Probable Cause
Spring R.	Waco	TDS	Increase	Coal mining, Barton County
		NO3	Increase	Unknown
Meramec R.	Sullivan	SO4	Increase	Lead mining, Iron County
Elk R.	Tiff City	SO4	Increase	Unknown
		NO3	Increase	Poultry, hog production
Missouri R.	St. Joseph	NO3	Increase	Unknown
		TSS	Decrease	Soil conservation
Mississippi R.	Thebes	NO3	Increase	Many urban, rural sources
		TSS	Decrease	Unknown
Mississippi R.	Alton	TSS	Decrease	Soil conservation

*Key -**NO3** - nitrate nitrogen, **SO4** - sulfate, **TDS** - total dissolved solids, **TSS** - total suspended solids

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Acronyms and Government Speak

Clean Water Law

HUC8

DNR

GPD

EPA

WQ

OMW

Ps & NPs

DMR

TMDL

FAC

303d

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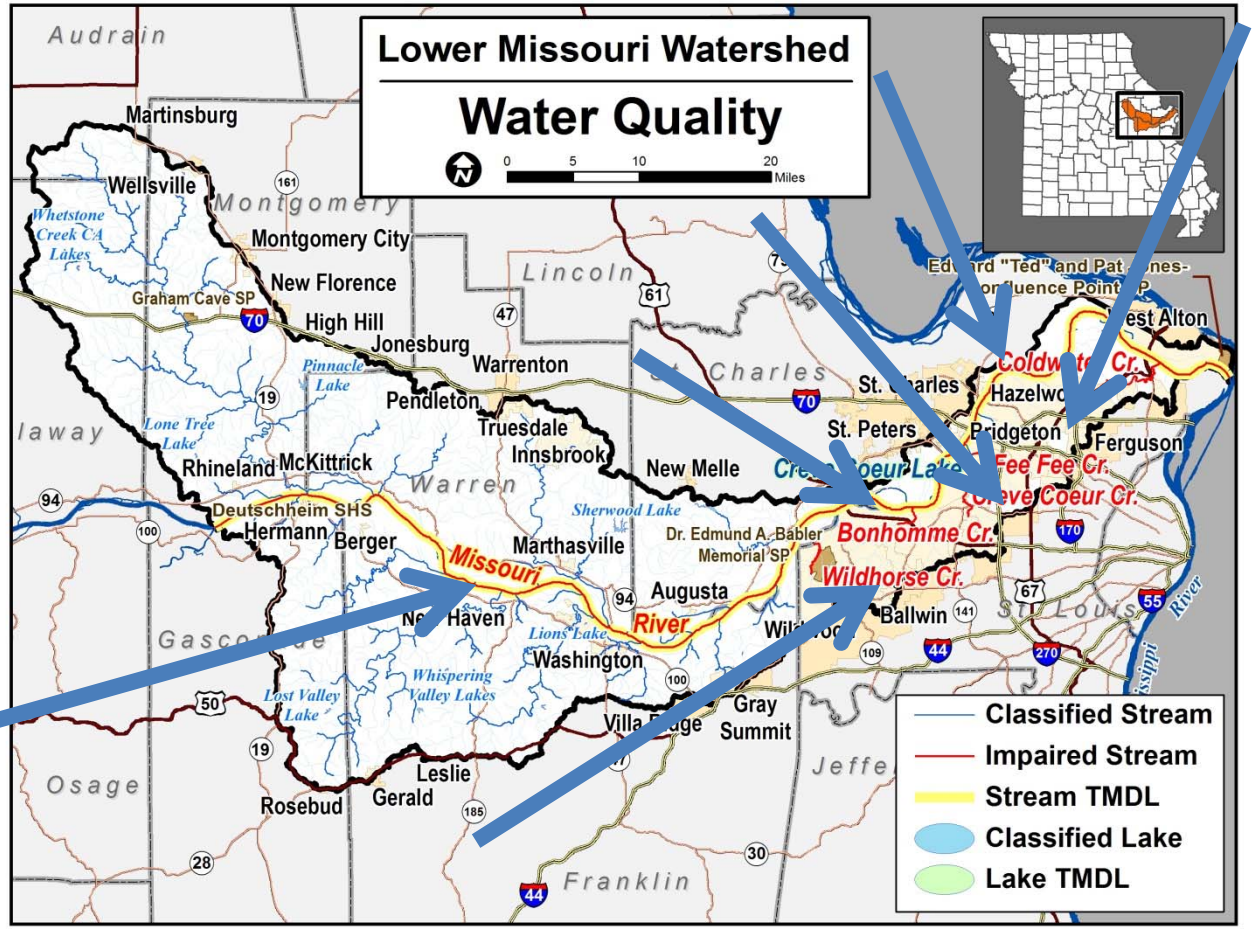
Water Quality

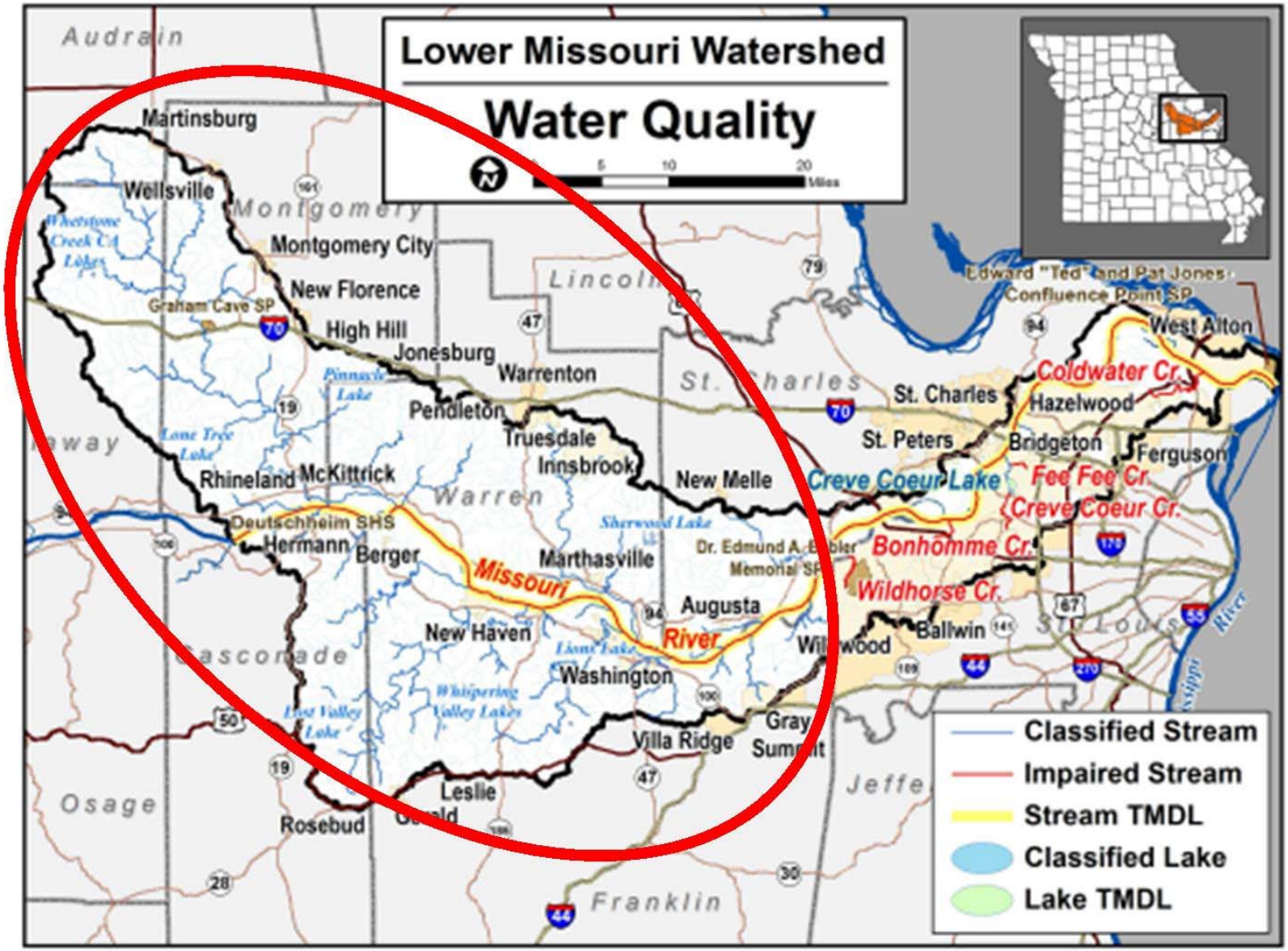
Missouri Water Quality 305(b) Integrated Report

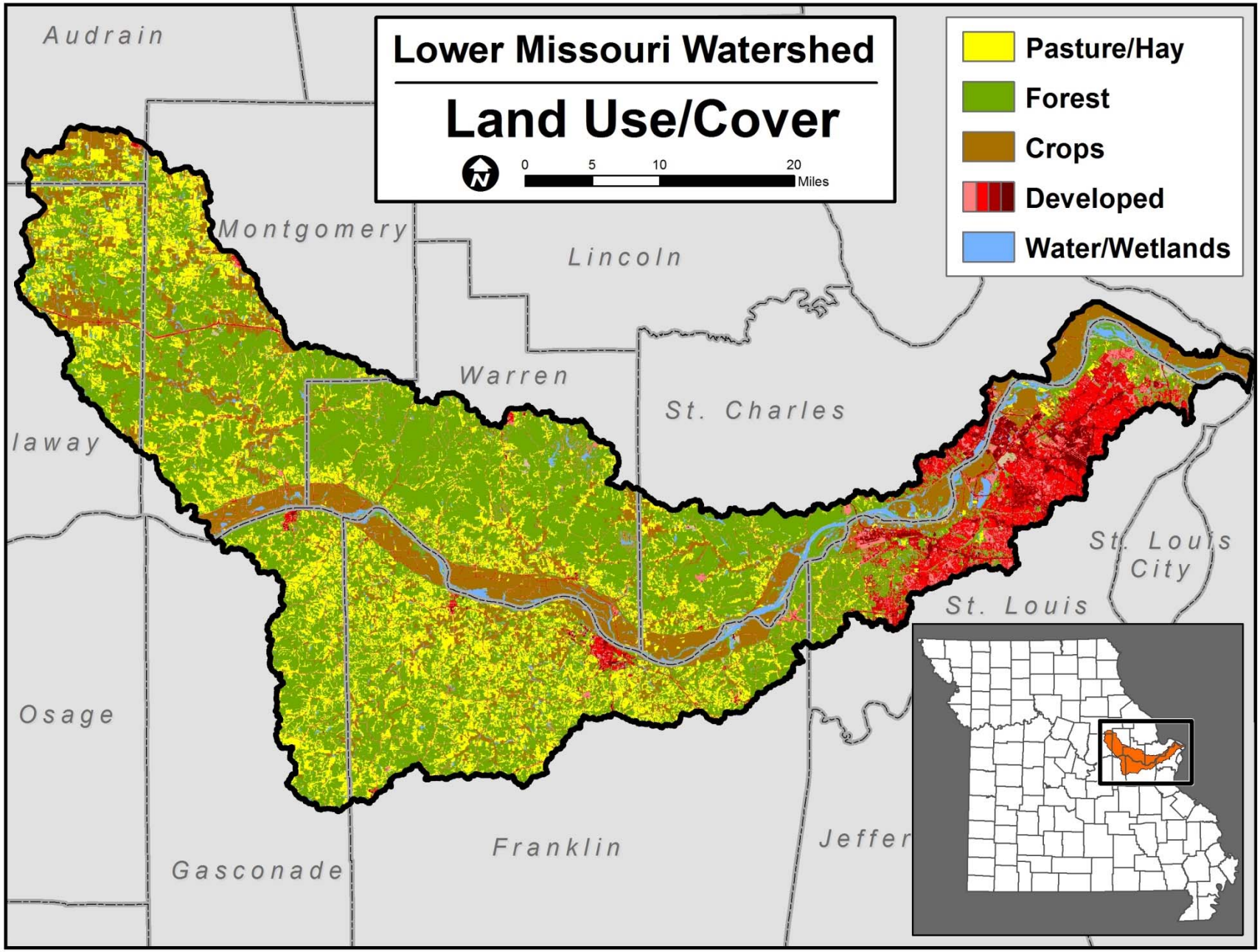
Water Quality

303d listed streams:

- Bonnehomme Creek
- Coldwater Creek
- Creve Coeur Creek
- Fee Fee Creek
- Missouri River
- Wildhorse Creek




Lower Missouri Watershed
Water Quality
Classified Stream
Impaired Stream
Stream TMDL
Classified Lake
Lake TMDL
Audrain
Montgomery
Lincoln
St. Charles
Warren
Gasconade
Osage
Franklin
Jeffe
St. Louis
Martinsburg
Wellsville
Montgomery City
New Florence
High Hill
Jonesburg
Warrenton
Pendleton
Truesdale
Innsbrook
Rhineland
McKittrick
Deutschheim SHS
Hermann
Berger
Marthasville
New Melle
Augusta
New Haven
Washington
Villa Ridge
Gray Summit
Leslie
Rosebud
St. Charles
St. Peters
Hazelwood
Bridgeton
Ferguson
West Alton
Ballwin
Coldwater Cr.
Creve Coeur Lake
Fee Fee Cr.
Creve Coeur Cr.
Bonhomme Cr.
Wildhorse Cr.
Missouri
River
Edward "Ted" and Pat Jones-Confluence Point SP
Graham Cave SP
Dr. Edmund A. Babler Memorial SP
Sherwood Lake
Lione Lake
Whispering Valley Lakes
East Valley Lake
Lone Tree Lake
Pinnacle Lake
Whetstone Creek CA Lakes


Lower Missouri Watershed
Land Use/Cover
0
5
10
20
Miles
Pasture/Hay
Forest
Crops
Developed
Water/Wetlands
Audrain
Montgomery
Lincoln
Warren
St. Charles
laway
St. Louis City
St. Louis
Osage
Franklin
Jeffer
Gasconade

Poor Bra
70
MONTGOMERY
HARDWARE
Photo courtesy of Haldeman Spa

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FEDERAL WATER POLLUTION CONTROL ACT

(33 U.S.C. 1251 et seq.)

AN ACT To provide for water pollution control activities in the Public Health Service of the Federal Security Agency and in the Federal Works Agency, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

TITLE I—RESEARCH AND RELATED PROGRAMS

DECLARATION OF GOALS AND POLICY

SEC. 101. (a) The objective of this Act is to restore and maintain the chemical, physical, and biological integrity of the Nation's waters. In order to achieve this objective it is hereby declared that,

"discharge of pollutants…

…eliminated by 1985"

(3) it is the national policy that the discharge of toxic pollutants in toxic amounts be prohibited;

(4) it is the national policy that Federal financial assistance be provided to construct publicly owned waste treatment works;

(5) it is the national policy that areawide treatment management planning processes be developed and implemented to assure adequate control of sources of pollutants in each State;

(6) it is the national policy that a major research and demonstration effort be made to develop technology necessary to eliminate the discharge of pollutants into the navigable waters, waters of the contiguous zone and the oceans; and

(7) it is the national policy that programs for the control of nonpoint sources of pollution be developed and implemented in an expeditious manner so as to enable the goals of this Act to be met through the control of both point and nonpoint sources of pollution.

(b) It is the policy of the Congress to recognize, preserve, and protect the primary responsibilities and rights of States to prevent, reduce, and eliminate pollution, to plan the development and use (including restoration, preservation, and enhancement) of land and water resources, and to consult with the Administrator in the exercise of his authority under this Act. It is the policy of Congress that the States manage the construction grant program under this Act and implement the permit programs under sections 402 and 404 of

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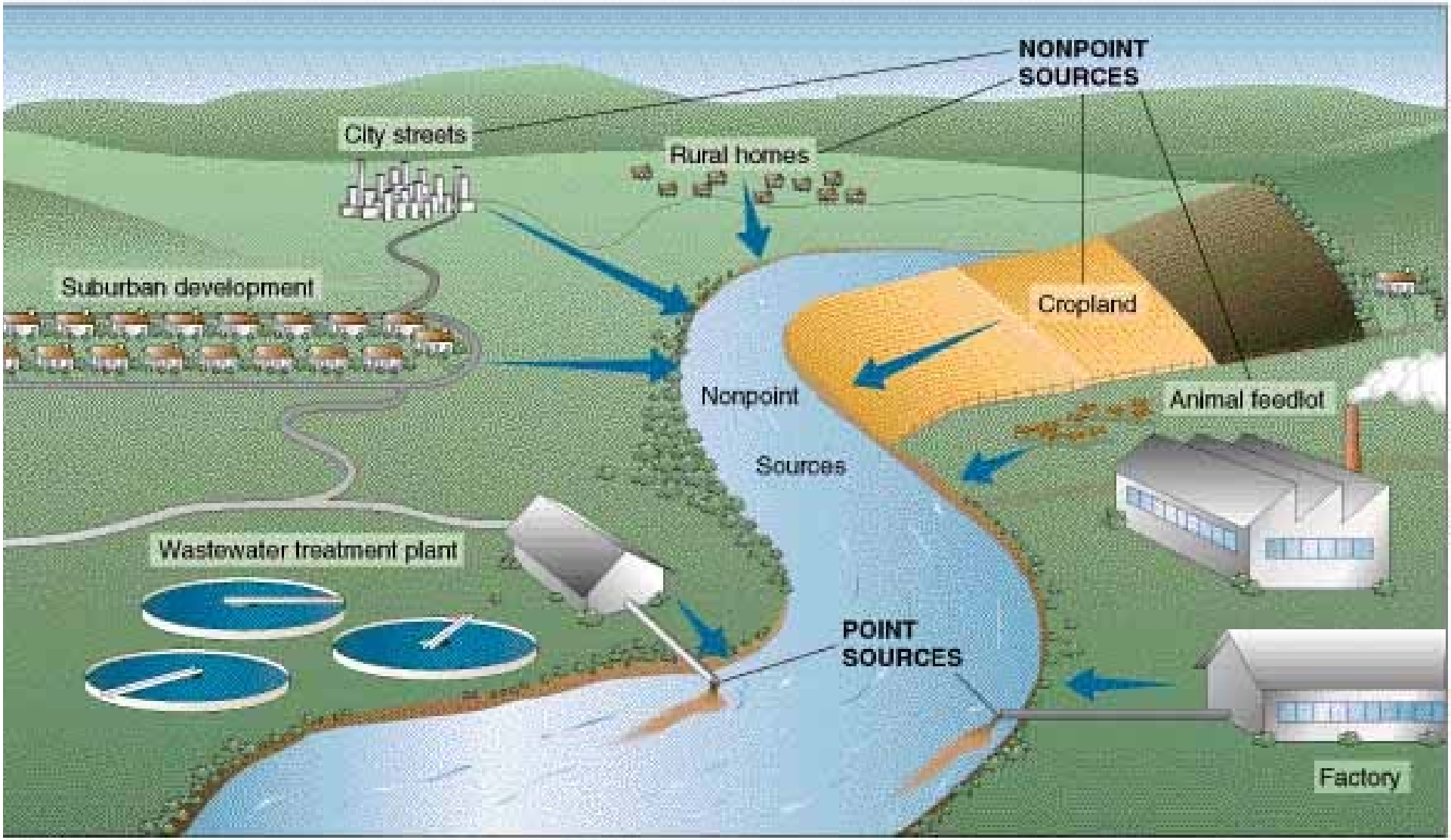
Point vs NonPoint Sources



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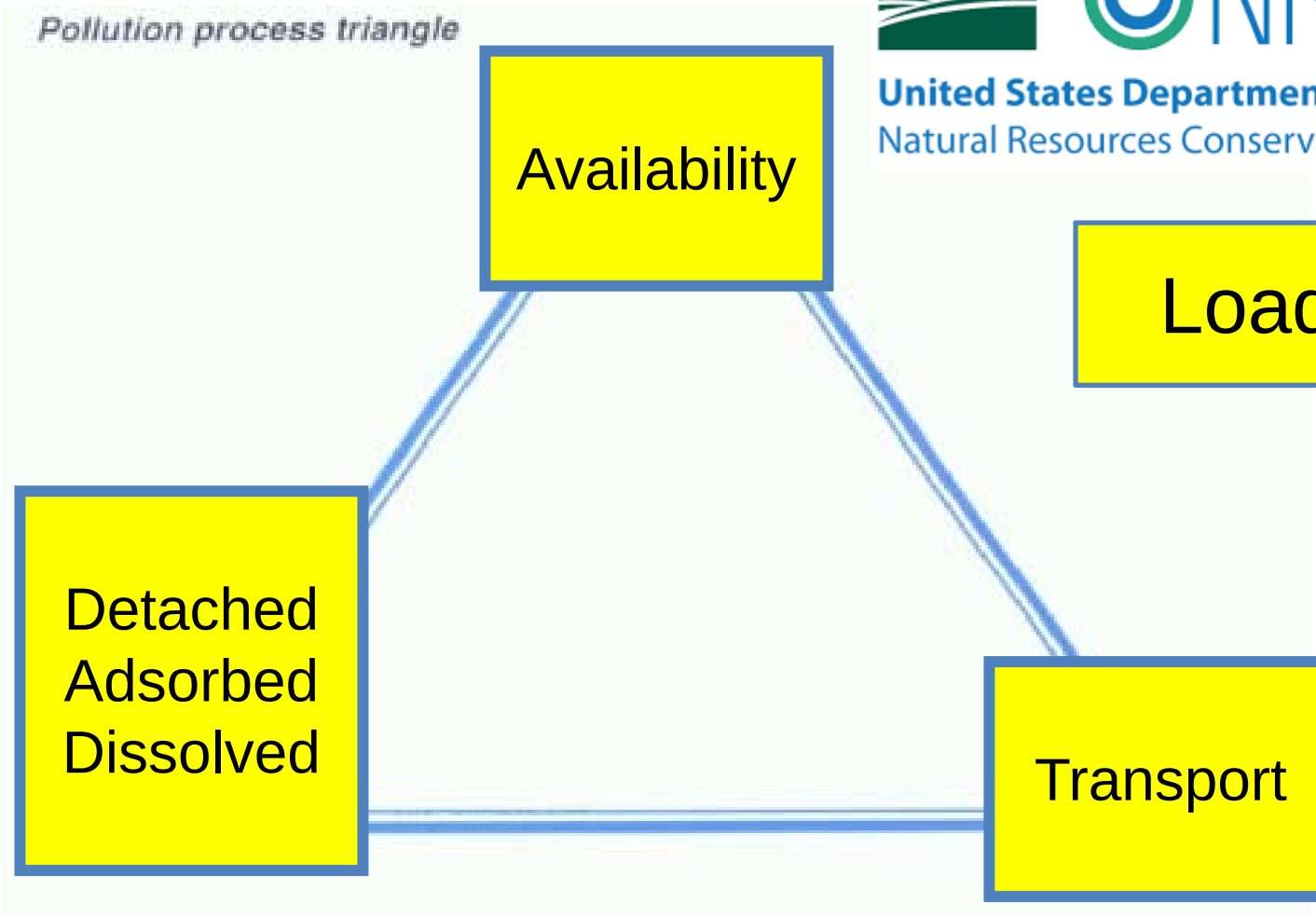
How does water pollution occur?

USDA NRCS
United States Department of Agriculture
Natural Resources Conservation Service



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Missouri Agriculture and Forestry

- For every million dollars generated by agriculture and forestry, there is $420,000 in additional output and 4.4 jobs created in other industries.
- In 2016, agriculture, forestry and related industries in Missouri contributed:
  - $88.4 billion in total sales (including food and related products manufacturing; crop, livestock, forage and fisheries production; agricultural inputs and services; and forest products manufacturing)
  - $33 billion in value-added activity
  - $55.4 billion for the purchase of inputs
  - $17.5 billion in labor income
  - $4 billion in federal taxes
  - $2.2 billion in state/local taxes
  - 378,232 jobs

MISSOURI FARM BUREAU

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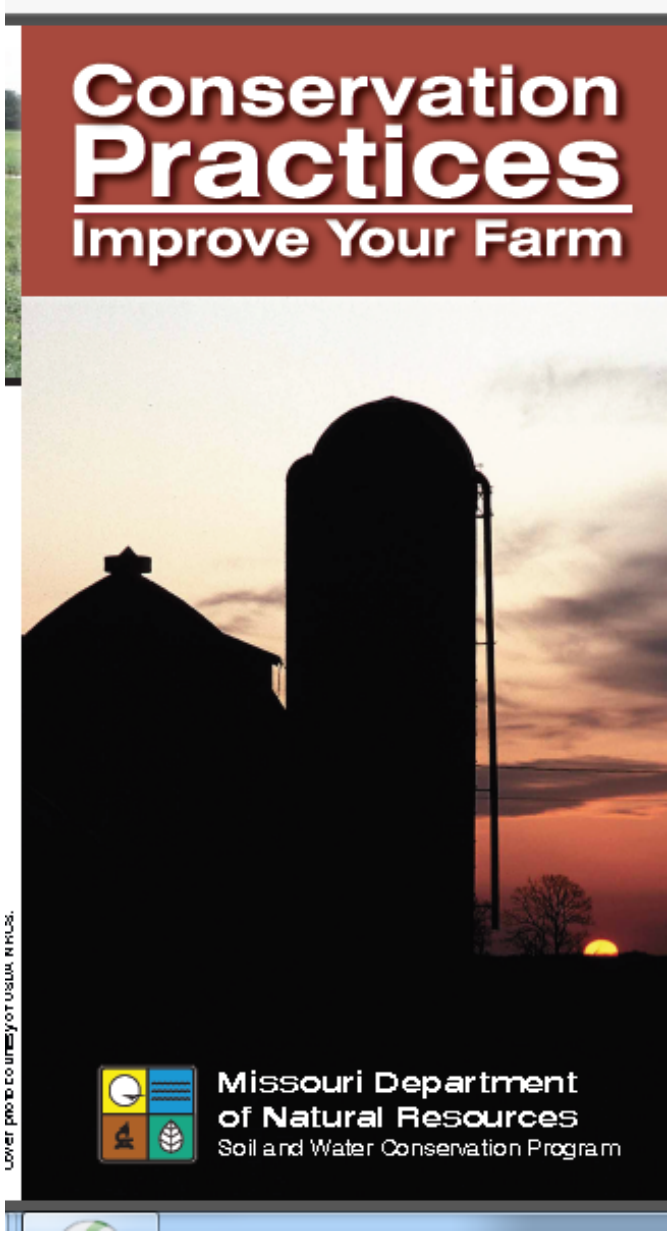
Cost-Share Practice Categories



- Sheet/Rill and Gully Erosion
- Grazing Management
- Irrigation Management
- Nutrient and Pest Management
- Sensitive Areas
- Woodland Erosion

Voluntary conservation practices can save you time and money and increase your farm's production while protecting the overall natural environment of the state.

Nonpoint source reductions

"Nearly 75 percent of farmers have already changed some farming practices to help reduce the delivery of nonpoint source pollutants. "

www.nrcs.usda.gov

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Flood of '93

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Water quality depends on soil quality

CONSERVING SOIL AND WATER FOR FUTURE GENERATIONS

The Parks, Soils and Water Sales Tax

SOIL AND WATER CONSERVATION DISTRICTS

Successful Implementation

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USDA NRCS

United States Department of Agriculture
Natural Resources Conservation Service

MoDOT

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SOIL AND WATER CONSERVATION DISTRICTS

MISSOURI DEPARTMENT OF dhss HEALTH AND SENIOR SERVICES

MISSOURI STREAM TEAM

MONTGOMERY LINCOLN WARREN

MISSOURI DEPARTMENT of AGRICULTURE

CONSERVATION DEPARTMENT MISSOURI

UNIVERSITY OF MISSOURI Extension

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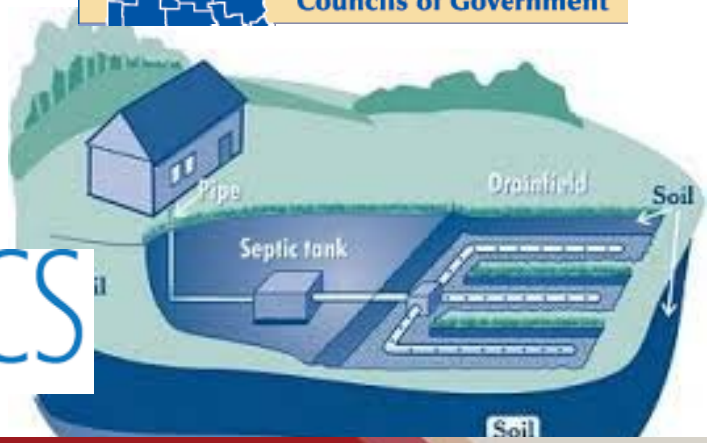
Protecting watersheds: What You Can Do

- Watershed, Lake or River Association
- Stream Team
- Planting trees
- Shore up stream banks
- On-site Wastewater improvements
- Implement conservation practices

MISSOURI STREAM TEAM

MACOG
Missouri Association of Councils of Government

USDA NRCS



MISSOURI
ON-SITE WASTEWATER GRANT-LOAN PROGRAM

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Thank you!

Got questions? Call or email!

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