School of Natural Resources
University of Missouri

Columbia Law School

The Basics of the Clean Water Act

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Outline of Presentation

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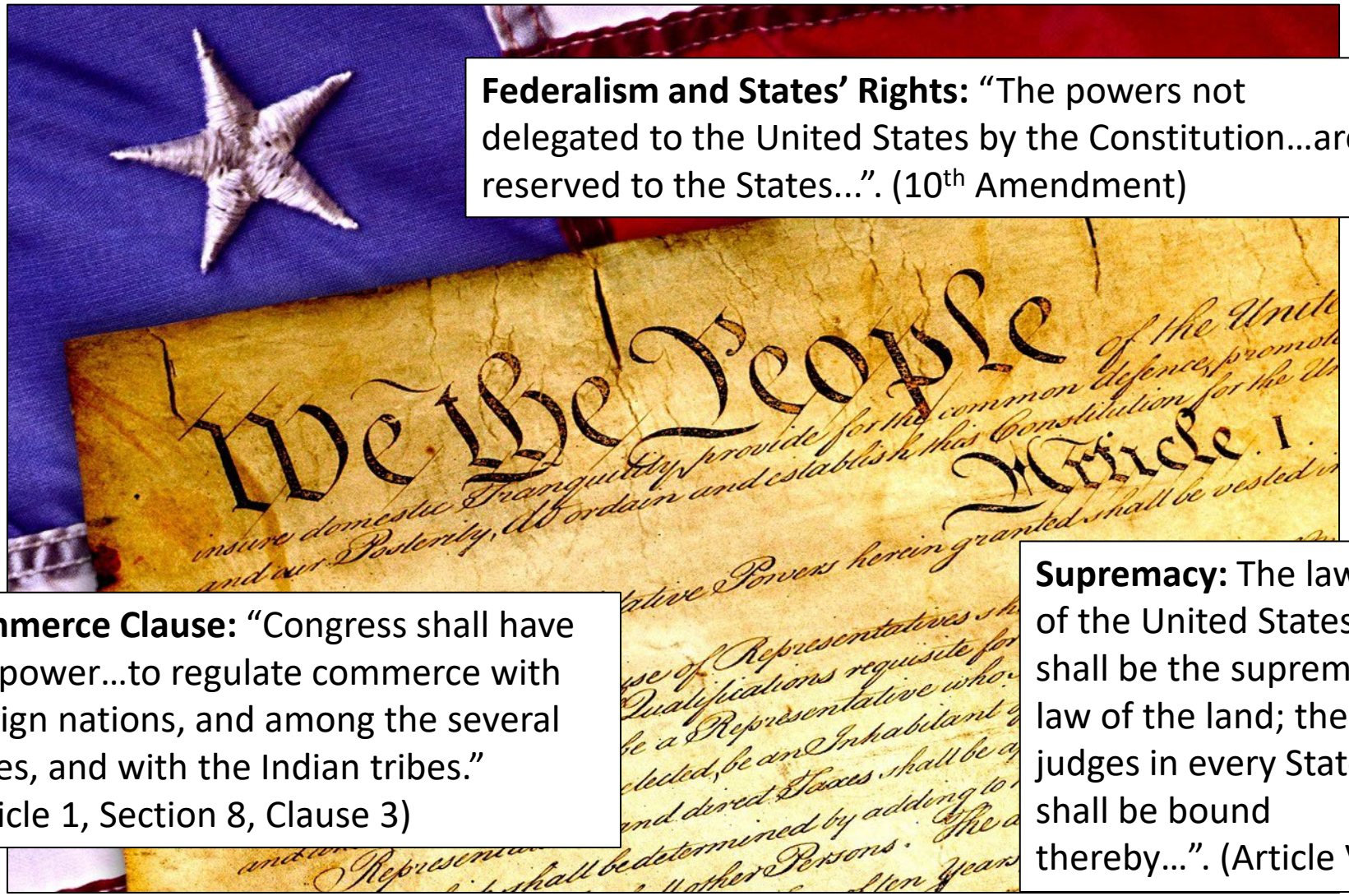
- Clean Water Act overview
  - History of water quality regulation in the United States
  - Statutory intent
  - Cooperative federalism
  - Waterbody designations, water quality criteria, and permitting
  - Enforcement and citizen suits
  - Revolving funds
- Case studies and environmental justice considerations
  - Combined sewer overflows
  - On-site / septic sewage
  - Tribal considerations
- Current issues

It’s Nice to Meet You

The U.S. Constitution



Federalism and States' Rights: "The powers not delegated to the United States by the Constitution…are reserved to the States...". (10th Amendment)

Commerce Clause: "Congress shall have the power…to regulate commerce with foreign nations, and among the several states, and with the Indian tribes." (Article 1, Section 8, Clause 3)

Supremacy: The laws of the United States shall be the supreme law of the land; the judges in every State shall be bound thereby…". (Article VI)

The Commerce Clause and Navigable Waters

- *Gibbons v. Ogden*, 22 U.S. 1 (1824): Because "goods and services in interstate commerce are transported or performed by vessel," only Congress can "regulate waterbodies where vessels may travel."
- *Gilman v. City of Philadelphia*, 70 U.S. 713 (1865): "Congress has powers to keep [navigable waters] open and free from any obstruction to their navigation."
- *Daniel Ball*, 77 U.S. 557 (1871): "The rivers that must be regarded as navigable rivers in law are those which are navigable-in-fact in their ordinary condition…using customary modes of travel on water."

Early Legislation

- The Rivers and Harbors Act of 1899
  - Made it illegal to dump refuse into navigable waters without a permit from the U.S. Army Corps of Engineers
- Federal Water Pollution Control Act of 1948
  - Empowered the U.S. Surgeon General to investigate and seek to enjoin interstate water pollution – but only with consent of the state where pollution originated
- Water Quality Act of 1965
  - Required states to identify intended uses of navigable waters within their borders and set corresponding water quality critieria
  - Did not require states to enforce the standards

The Summer of ‘69…

The Clean Water Act of 1972

- Make all navigable waters safe for swimming and fishing
- Eliminate all pollution discharges to navigable waters by 1985 (!)

"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, consistent with the provisions of this Act—

"(1) it is the national goal that the discharge of pollutants into the navigable waters be eliminated by 1985;

"(2) it is the national goal that wherever attainable, an interim goal of water quality which provides for the protection and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water be achieved by July 1, 1983;

"(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 waste treatment management planning processes be developed and implemented to assure adequate control of sources of pollutants in each State; and

"(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.

"(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 further the policy of the Congress to support and aid research relating to the prevention, reduction, and elimination of pollution, and to provide Federal technical services and financial aid to State and interstate agencies and municipalities in connection with the prevention, reduction, and elimination of pollution.

"(c) It is further the policy of Congress that the President, act-

Cooperative Federalism

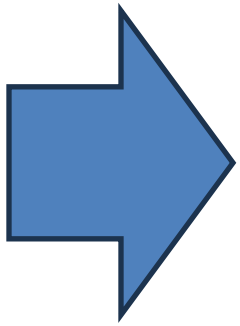
- Federal agencies
  - U.S. Environmental Protection Agency
  - U.S. Army Corps of Engineers
- State governments
  - Delegated authority
- Tribal governments
  - Can apply for “Treatment As State” (TAS) status
- State or tribal Water Quality Criteria must be at least as strict as the minimum criteria recommended by EPA

Key Functions

- Protects ambient water quality
- Provides grants and low-interest loans, and technical assistance, to municipal wastewater utilities
- Distinguish from Safe Drinking Water Act
  - Regulates public water systems (but not private wells or bottled water) and some aspects of plumbing
  - Contains (limited) provisions for surface and groundwater source water protection

CWA Approach to Protecting Ambient Water Quality

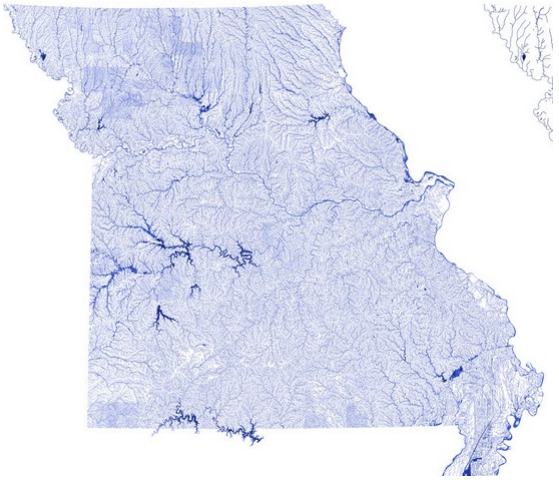
- Step 1: Adopt “Designated Uses” for navigable waters
- Step 2: Set “Water Quality Criteria” to meet those Designated Uses
- Step 3: Control pollution through “Anti-Degradation Measures” such as permitting, inspections, and enforcement

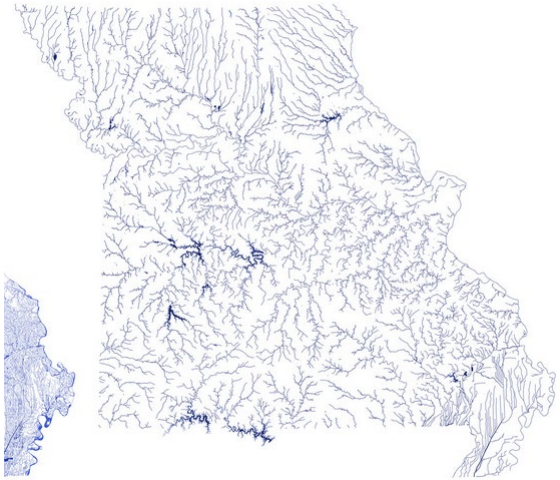


These two together are called “Water Quality Standards”

Step 1: Designated Uses

- How the waterbody will be used
  - Public water supply
  - Recreation
  - Agriculture, industry, or navigation
  - Protection and propagation of fish, shellfish or wildlife
  - Multiple uses may be designated
- Opportunities for public input (hearings, comments)
- Concern: a Designated Use has not yet been adopted for all waterbodies
- CWA § 303(c) / 40 C.F.R. Part 131

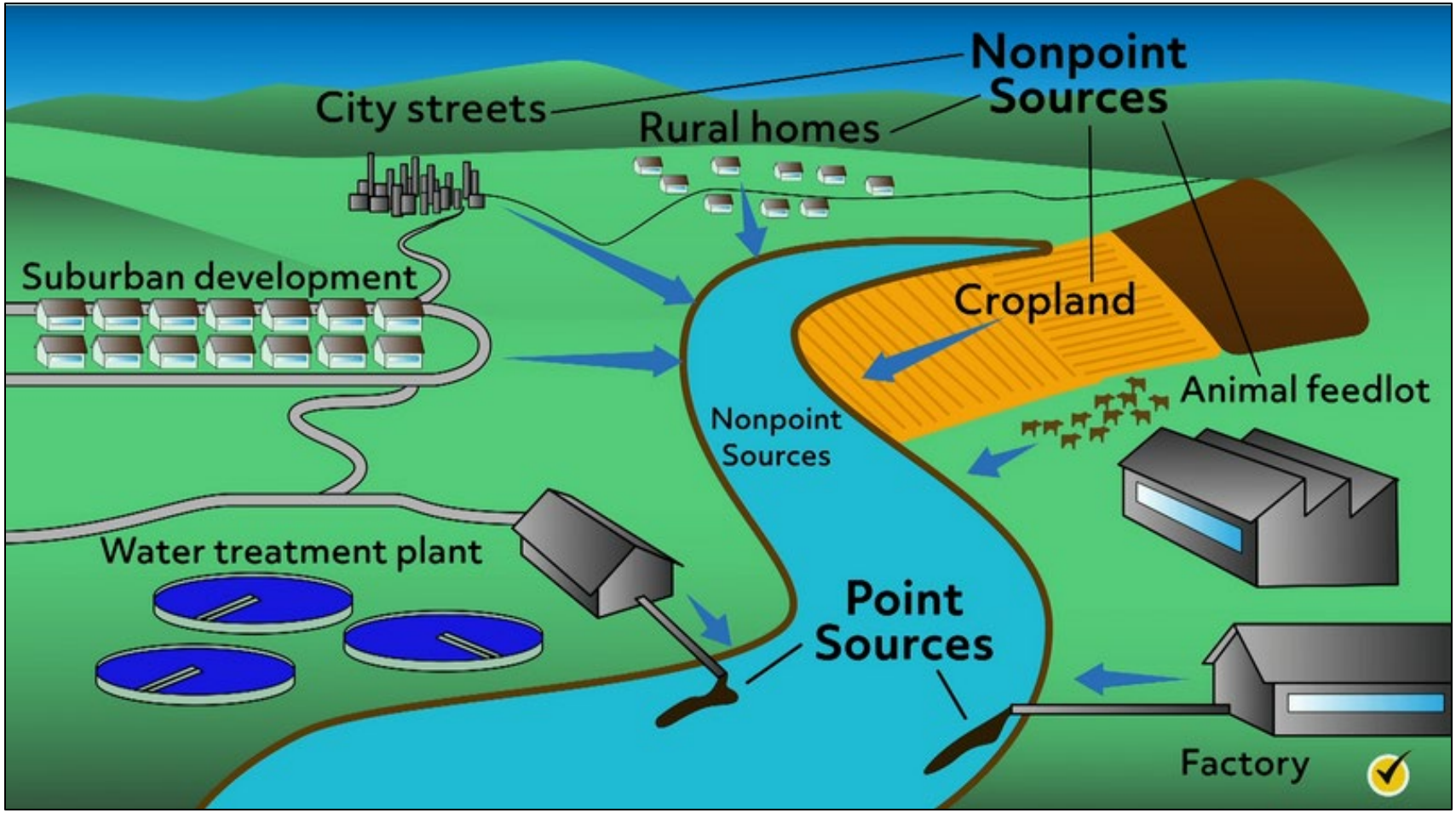




Step 2: Water Quality Criteria

- To safely allow the Designated Use(s)
- Format
  - Numeric (maximum pollutant concentration levels permitted in the waterbody, e.g., mg/L)
  - Narrative (color; free from odor or scum)
- EPA publishes minimum recommended criteria based on latest scientific evidence
- States may choose to adopt stricter criteria
- CWA § 303(c) / 40 C.F.R. Part 131

Step 3: Permitting, Inspection, and Enforcement



Point Sources: NPDES Permits

- CWA § 402
- National Pollution Discharge Elimination System (NPDES) permit required for point source discharge to navigable water
  - For most polluters, numeric limitations for pollutant discharges
  - For municipal wastewater treatment plants, specifies level of treatment technology required
- Quite effective at controlling point source pollution

Nonpoint Sources: TMDLs

- CWA § 303(d)
- Total Maximum Daily Load Plan
  - For “Impaired Waterbodies” = consistently fail to meet water quality criteria
  - Holistic look at all sources of pollution, point and nonpoint
  - Point: strict controls on existing NPDES permits, and limited issuance of new permits
  - Nonpoint: focus on voluntary landowner adoption of Best Management Practices to reduce run-off

Nonpoint Sources: Management Programs

- CWA § 319: Nonpoint Source Management Program
  - Gives grants to states and tribes that design and implement plans for controlling nonpoint source pollution
  - States have broad discretion / EPA has no enforcement authority → variable efficacy

In-Depth NONPOINT SOURCE SUCCESS STORY

Highlighting the People Behind the Progress

Cooperative Efforts Build Trust While Reducing Pollution

ILLINOIS RIVER, OKLAHOMA

Decades of implementing targeted actions are steadily reducing pollution problems in Oklahoma's Illinois River, which is a state-designated scenic river. When combined with long-term dedication of multiple stakeholders, the creative use of funding sources, and strategic and consistent monitoring, the success achieved in the Illinois River basin serves as a model for others.

Success Story Highlights

- **Pollutant of concern:** Bacteria and nutrients
- **Practices implemented:** Agricultural conservation practices (CPs), failing septic system replacement or upgrades, education of landowners and river users, and point source pollution control measures
- **Waters restored/improved:** Water quality has improved in many streams, including five waterbodies that have been removed from the impaired waters list for bacteria
- **Key elements of success:**
  - Dedicated leaders with a long-term vision
  - Engaged citizen volunteers
  - Projects providing environmental, recreational and economic benefits
  - Availability of funds from Clean Water Act (CWA) section 319 and other sources (NRCS, state, local)
  - Cooperation between local, state and federal partners

Illinois River, OK

Partners in Success

Ed Fite, Grand River Dam Authority (GRDA)
Local Visionary Creates Change
Ed leads multiagency efforts to increase conservation, monitoring and river protection efforts.

Jerry Hammons, Producer and Cherokee County Conservation District (CD)
Landowner Supports Implementation
Jerry, the first farmer in his county to sign an easement contract, actively encourages others to participate.

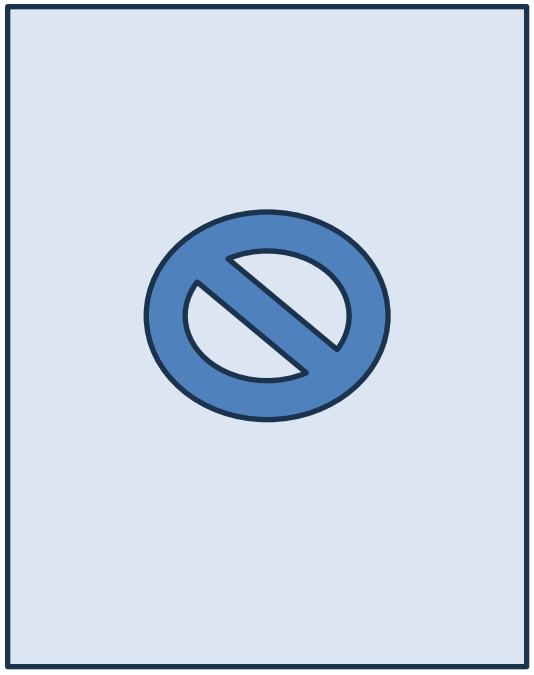
Leslie Gore, Producer
Local Farmer Leads by Example
Leslie is a farmer and a long-time participant in cost-share programs for conservation practices.

Shanon Phillips, Oklahoma Conservation Commission (OCC)
State Contact Fosters Communication
Shanon promotes restoration, communicates with stakeholders and helps connect people with funding.

Tashina Kirk, Natural Resources Conservation Service (NRCS)
Federal Employee Connects with Landowners
Tashina reaches out to landowners and emphasizes building lasting partnerships based on trust.

Michael Ramming, NRCS
Federal Employee Coordinates Efforts
Michael connects landowners with funding, technical assistance and education materials.

A supplement to Oklahoma's 2019 NPS Success Story, *Restoration Efforts Reduce Bacteria in the Illinois River Watershed*



In-Depth NONPOINT SOURCE SUCCESS STORY

Highlighting the People Behind the Progress

Community Efforts Improve the Achugao Watershed

TANAPAG VILLAGE, SAIPAN, COMMONWEALTH OF THE NORTHERN MARIANA ISLANDS

A collaboration between community members and local government officials led to voluntary efforts to reduce water pollution in the 1,607-acre Achugao watershed on the island of Saipan. A survey team from the Commonwealth of the Northern Mariana Islands Bureau of Environmental and Coastal Quality (CNMI BECQ) discovered wastewater and other pollution sources entering the watershed's streams. To improve watershed conditions, the team met with Tanapag villagers, explained the causes and effects of the pollution and helped them obtain funds from the local government and the Natural Resources Conservation Service (NRCS). The community responded by conducting watershed cleanups and implementing practices to improve stream and coastal water quality.

Success Story Highlights

- **Pollutant of concern:** Bacteria, nutrients, dissolved oxygen, biological conditions
- **Practices implemented:** Sewer leak repair, dump site cleanups, public sewer line connection, outhouse removal, improved animal housing, vegetation plantings
- **Waters restored/improved:** Achugao, Dogas and Agatan streams
- **Key elements of success:**
  - Sanitary survey
  - Public outreach, including face-to-face interactions and offers of technical assistance and funding
  - Local buy-in and support from Tanapag villagers
  - Widespread community participation in on-the-ground pollution reduction and clean-up efforts

Partners in Success

Tanapag Village Community
Neighbors Making a Difference
Community members responded to the call to clean up the watershed by removing debris and pollution.

Martin Naputi, NRCS
Federal Employee Connects with Landowners
Martin worked alongside his district conservationist to conduct outreach and provide technical assistance.

Morihna Iguel, Piggery Owner
Citizen Supports Action
Mrs. Iguel, a longtime resident of the watershed, worked with NRCS to build a new dry-litter piggery system.

Clarissa Bearden, CNMI BECQ (Former)
CNMI Contact Fosters Communication
Clarissa worked with federal and local partners to implement projects and connect residents to resources.

Inspections and Enforcement

- Inspection authority can be delegated to states / tribes
- Permitted facilities required to self-report using Discharge Monitoring Reports
- Citizen suits
- Enforcement
  - Consent Decrees
  - Compliance Orders
  - Civil penalties
  - Criminal penalties

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF MISSOURI
EASTERN DIVISION

UNITED STATES OF AMERICA,

and

THE STATE OF MISSOURI,

Plaintiffs,

and

MISSOURI COALITION FOR THE ENVIRONMENT FOUNDATION,

Plaintiff/Intervenor,

v.

THE METROPOLITAN ST. LOUIS SEWER DISTRICT,

Defendant.

No. 4:07-CV-1120 (CEJ)

CONSENT DECREE

Dredge and Fill Permitting

- CWA § 404: a permit from the U.S. Army Corps of Engineers is required for discharge of dredged or fill materials into navigable waters
- Applicant must mitigate impacts, or where impacts cannot be avoided, do compensatory mitigation

Slides on Current Issues

Des Moines Water Works Case

- *Bd. of Water Works Trustees of City of Des Moines*, 2017 WL 1042072
- Agricultural runoff from tile drainage systems loaded nitrates in Raccoon River, a primary drinking water source → raising treatment costs and consumer rates
- Des Moines sued upstream drainage districts in CWA citizen suit
- Iowa Supreme Court ruled for drainage districts on state law grounds