ADEQ Divisions

Management Services  Legal
Fiscal  Computer
Public Outreach and Education  Solid Waste
Hazardous Waste  Mining
Technical Services  Water
Air  Water
The Federal Water Pollution Control Act of 1948 was the first major U.S. law to address water pollution; amended in 1972, it became known as the Clean Water Act.

The 1972 amendments had a major impact on state water programs:

- Required states to establish water quality standards
- Required states to perform a *water quality assessment* of the quality of surface waters in the state every two (2) years
- Made it unlawful to discharge any pollutant from a point source into navigable waters without a permit
ADEQ Water Division

The Water Division has four (4) branches whose aim is to protect and enhance the water quality of the State of Arkansas:

- Water Quality Planning
- Permits
- Inspection
- Enforcement
Water Quality Planning Branch

- Water Quality Standards (Regulation 2)
- Biennial Water Quality Assessment
  - Create 303(d) list based on assessments
    - TMDLs for listed waterbodies
- Groundwater Protection Program
- Technical Review of NPDES Program
- Water Quality and Biological Monitoring
- STAA and 401 Certification Program
- Toxicity Program
Water Quality & Biological Data

Water Quality Standards & Criteria

Assessment

Impairment

TMDL

Permit Limitations
Water Quality Planning Branch

Water Quality Monitoring Network

Ambient Surface Water Network

- Approximately 150 stations
- Sampled monthly – some for 25-30 years
  - Chemical parameters & flow
- Monitor objectives:
  - Big river systems
  - Below point source discharges
  - Potentially problematic nonpoint source areas
  - Least-disturbed reference streams
  - Long-term consistent monitoring
Roving Surface Water Network

- Approximately 200 stations
  - ¼ stations sampled for two year period
- Waters with limited to no water quality data
- Sampled every two (2) months:
  - Chemical parameters
  - Flow
  - Bacteria
  - Specialized compounds
Water Quality Planning Branch
Watershed Monitoring Network

Macroinvertebrate Community

Watershed Based
10-20 sites
Statewide
100+ samples/year

Fish Community

Watershed Based
10-20 sites
Statewide
30+ samples/year
What are Designated Uses?

Primary Contact Recreation
Industrial Water Supply
Domestic Water Supply
Secondary Contact Recreation
Fisheries
Water Quality Standards

Water Quality Standards include criteria designed to prevent impairment of the designated uses.

These criteria serve as the regulatory basis for water quality-based treatment controls under Section 303(e) of the Clean Water Act.
Water Quality Standards

Criteria can be narrative or numeric for constituents, such as:

- Dissolved Oxygen
- Bacteria
- Temperature
- Nutrients
- Toxic Substances
- Turbidity
In Arkansas, water quality standards were developed using data from least-disturbed streams within each of the State’s six (6) ecoregions. These data were developed during an intensive, statewide study of the physical, chemical, and biological characteristics of least-disturbed streams (1983-1986).
Arkansas’s Ecoregions

- Ozark Highlands
- Boston Mountains
- Arkansas River Valley
- Ouachita Mountains
- Gulf Coastal Plains
- Mississippi Alluvial Plains
## Water Quality Standards
### Ecoregion Based

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Clean Water Act

§ 303(d) List of Impaired Waters

- Section 303(d) of the Clean Water Act requires states to perform a *water quality assessment* of the quality of surface waters in the state, including all rivers and lakes, every two (2) years.

- Waters that are impaired and not meeting their designated uses must be placed on the 303(d) list.
Draft 2014 Impaired Waterbodies
Clean Water Act
§ 303(d) List of Impaired Waters

For listed waters, ADEQ must develop water quality improvement strategies to reduce the specific pollutant(s) that are restricting the designated use(s) in order to restore and protect the use(s)

- TMDLs
- Watershed Restoration Plans
- NPDES permit limits
- Additional monitoring
Clean Water Act
National Pollutant Discharge Elimination System

- As authorized by the Clean Water Act, the NPDES permit program controls water pollution by regulating point sources that discharge pollutants into waters of the U.S.

- Industrial, municipal, and other facilities must obtain permits if their discharges go directly to surface waters
Permits Branch

Permit limitations are based on Arkansas’ ecoregion-based water quality criteria

- Individual NPDES Discharge Permits
- Stormwater General Permits
- General NPDES Permits
- No-Discharge Permits
- Wastewater Treatment Construction
- Pretreatment Programs
Inspection Branch

- Permit Compliance Inspections for NPDES facilities
  - Municipal wastewater treatment plants
  - Industrial discharges for process wastewater
- Permit Compliance Inspections for subsurface or no-discharge facilities
- Storm Water Inspections
- Investigate citizen’s complaints against municipalities, industries, other citizens, or agricultural facilities
- Respond to spills of materials from industries, transportation and municipalities
- Investigate fish kills related to environmental causes
- Collect routine water samples for the ambient surface water network
Enforcement

• Monitor and enforce Storm Water, General, and NPDES permits for facilities
• Reviewed on case by case basis
• Willingness to discuss violations and review actions to resolve issues
Stay informed

ADEQ Homepage: www.adeq.state.ar.us

You will find:

- Contact Information
- Public Hearing Notices Concerning Permits
- Arkansas’ 303(d) List
- TMDLs
- Regulation 2
- Links to other resources
Questions?
What We Do

Nothing grows faster than a fish between the time the fish takes the bait... and the time he gets away

-Tom Lehmann