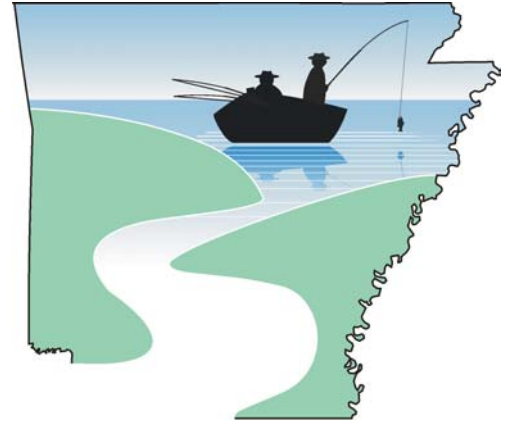


Water Quality Standards

A guide to ADEQ Water Quality Protection



This fact sheet tells you:

- **ADEQ begins the process of revising Arkansas's Water Quality Standards.**
- **The WQS protect the state's rivers, lakes and streams for everyone's use.**
- **The public is invited to participate in protecting water quality.**

What are Water Quality Standards?

Water Quality Standards are pollution limits measured numerically or detailed in narrative descriptions. The Standards take into account human exposure to water as well as the well-being of animals that live in the water. Standards relate to water temperature, turbidity (water clarity), bacteria, minerals, toxic substances and other criteria.

The Standards are developed from extensive water data, and acknowledge both historical water uses and the characteristics of waterways in different parts of the state. Standards vary according to the use of the waterway and according to its location and characteristics.

Each state develops its own Water Quality Standards as authorized by the federal Clean Water Act. The Arkansas Pollution Control and Ecology Commission (APC&EC) incorporates the ADEQ's Water Quality Standards into Arkansas Regulation Number 2.

What do Water Quality Standards do for Arkansas?

Arkansas is blessed with abundant, high quality rivers, lakes and streams. The Standards protect water quality for the historic uses we enjoy - drinking, swimming, fishing, farming and other uses. The Standards give ADEQ a yardstick to guide the Department's water quality protection programs. To protect water quality, ADEQ regulates water pollution discharges from factories, businesses, cities and some farm activities. Facilities must obtain permits that limit operations or require waste treatment before release.

Why are the Standards being revised?

Federal law requires ADEQ to review every three years its plans for protecting water quality in the state. Water quality monitoring data is analyzed to identify trends, levels of pollutants or changes in water quality. From the data, ADEQ staff determines whether revisions are needed to better protect water quality.

Published by the
Arkansas Department of
Environmental Quality
May 2002

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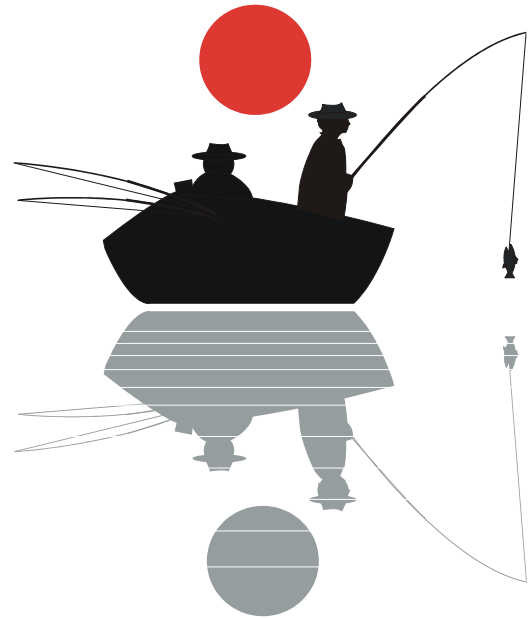
ADEQ

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What happens next with the Water Quality Standards?

Following a series of public meetings held in the Fall of 2001, in which ADEQ educated the public about water quality standards and solicited public comments about the upcoming revision, ADEQ's Water Division has been reviewing and analyzing water quality management needs with respect to new federal requirements, public concerns and the needs of all water users.

Changes to the Standards may be proposed that further protect water quality. ADEQ's review process is expected to take several months. The public will have the opportunity to comment on any proposed revisions to the Standards. Ultimately, the Pollution Control and Ecology Commission and the U.S. Environmental Protection Agency must approve any changes to the Water Quality Standards.



Water Quality Standards and Designated Use

ADEQ and the Pollution Control and Ecology Commission develop pollution limits that reflect the historic use of the state's waters. Arkansas' Water Quality Standards set pollution limits based on each waterway's designated uses. Different uses require different types and levels of water protection.

The designation and protection of specific uses is required by the federal Clean Water Act and the Arkansas Legislature. The state Pollution Control and Ecology Commission designates uses for Arkansas waterbodies in Regulation Number Two.

Designations 4-9 are federally mandated designations. Most streams in Arkansas are designated for more than one use; for example, a stream may be designated as fishable, wadable and swimmable. Virtually all of the waters of the state are designated for uses 4-9.

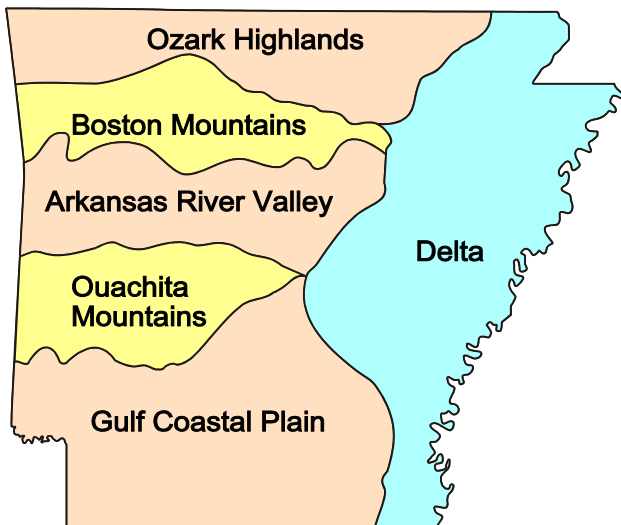
Arkansas Designated Uses

1. Extraordinary Resource Waters
2. Ecologically Sensitive Waterbodies
3. Natural and Scenic Waterways
4. Primary Contact Recreation (swimmable)
5. Secondary Contact Recreation (wadable)
6. Fisheries (fishable)
7. Domestic Water Supply
8. Industrial Water Supply

Waterways in categories 1-3 are considered worthy of the highest level of protection by the state because of their beauty, value or beneficial use.

WQS and Ecoregions

ADEQ sets specific standards for each of six ecoregions in the state. Ecoregions are areas of the state with waterbodies that share similar geography, biological characteristics and land uses. Arkansas' Water Quality Standards pioneered the ecoregions concept in the United States.



Arkansas Ecoregions

Potential revisions for the WQS

ADEQ measures water quality by sampling surface water at several hundred locations around the state. This information is used to direct our water quality programs and is used to evaluate potential revisions to the Water Quality Standards.

For example, staff may consider whether to assign nutrient limits for some ecoregions impacted by nutrients from animal waste, fertilizer runoff, or other activities. Currently no numerical limits are set for nutrient levels.

Changes to toxicity limits may be considered for some ecoregions. New chemicals continually enter the market place, and Arkansas's standards may not reflect the most recent products or toxicity levels.

If a facility impairs a stream with a chemical that isn't included in the Water Quality Standards, a pollution limit for that chemical may be added to the

Standards. This was the case a few years ago when a dioxin standard was adopted after dioxin was discovered in some Arkansas streams.

How do other states' WQS compare with Arkansas?

Each state develops its own method and criteria for determining and measuring water quality. Each state's Standards are unique, making it difficult to compare.

What happens if WQS are exceeded in a waterway?

ADEQ regularly reviews water quality data to identify streams that exceed their pollution standards, and thus fail to meet their Designated Uses (See *Water Quality Standards and Designated Use* on previous page). Such streams are considered **impaired**.

ADEQ is obligated to improve water quality in impaired waterways by assigning stricter permit limits for permitted dischargers or by seeking voluntary best land management practices (BMPs) to decrease the impact of non-point pollution sources.

ADEQ helps determine what efforts will best improve water quality by studying the maximum amount of pollutants a waterway can support and still maintain its water quality designation. This quantity is called the waterway's Total Maximum Daily Load (TMDL).

ADEQ and other agencies propose solutions for keeping water pollution below each stream's TMDL.

Public input regarding Arkansas Water Quality Standards

ADEQ and the APC&EC are soliciting public input as we consider possible changes to Arkansas' Water Quality Standards.

We are currently soliciting *informal* public input as ADEQ staff prepare a first draft of possible Water Quality Standards changes.

In the coming months the APC&EC will release a formal draft of Water Quality Standards, and all citizens will be invited to review the proposed Water Quality Standards and to comment *formally* about the Standards.

As you consider your comments regarding Arkansas Water Quality Standards, we encourage you to view informative water quality information found on the ADEQ website at:
http://www.adeq.state.ar.us/water/wqs_review.htm .

ADEQ: What We Do

The Department of Environmental Quality is an agency of the state of Arkansas. We are headquartered in Little Rock and have offices and area inspectors throughout Arkansas.

Our regulatory programs for air, water, solid waste, hazardous waste, regulated storage tanks and mining help protect Arkansas' environment. We issue operating permits for businesses and farms and monitor for compliance.

We also manage many proactive programs to assist businesses, educators and the public with regulatory, recycling and other issues. ADEQ offers loans and tax credits for environmental improvement projects.



ADEQ

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