

OK

Water

NEWS



It's All Here: A Guide to Using 1985 Water Quality Standards

MONTHLY NEWSLETTER OF THE OKLAHOMA WATER RESOURCES BOARD

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In November, the Board will hold public meetings in McAlester, Lawton, Woodward, Oklahoma City and Tulsa to acquaint Oklahomans with the proposed 1985 Water Quality Standards and to give them opportunities for input. If you have an interest in the state's waters and in protecting their integrity, read on, then plan to attend the public meeting in your area.

It is the job of the OWRB, and its Water Quality Division in particular, to determine Water Quality Standards which are reasonable, feasible and, therefore, enforceable. The Standards are intended to enhance the quality of the waters, define and protect their beneficial uses and aid in the prevention, control and abatement of water pollution.

Federal law, through the Clean Wa-

ter Act, prescribes a schedule for public hearings, standards review and modification every three years.

The Water Quality Standards is the single most important document for restoring and maintaining the quality of Oklahoma's ground and surface waters. The Standards reflect the state's interests and attitudes toward preventing, reducing and eliminating pollution. Therefore, it is necessary to provide the public with information regarding the overall purpose, function and use of the Standards.

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Schedule of Public Hearings

McALESTER—November 5
7 p.m., First National Bank Center,
Conference Room
200 East Choctaw
Information: (918) 426-5435

LAWTON—November 6
7 p.m., Comanche County Court-
house, Room 204
6th St. and C Avenue
Information: (405) 248-7762

WOODWARD—November 7
7 p.m., Northwestern Electric Compa-
ny, Medallion Room
2925 William Avenue
Information: (405) 248-7762

OKLAHOMA CITY—November 12
7 p.m., Oklahoma Department of
Wildlife Conservation Auditorium
1801 North Lincoln Blvd.
Information: (405) 271-2541

TULSA—November 14
7 p.m., State Agencies Building, Au-
ditorium
440 South Houston
Information: (918) 581-2925

Here's Your Chance to Have a Voice in Deciding How Oklahoma's Water Will be Used



Shon Simpson of the OWRB checks a monitor which measures and records stream temperature and dissolved oxygen content. The device, left at the stream site for up to three weeks, elicits readings once every hour.

Guide, continued from page 1

Management Plan is Updated

The Standards serve to enforce Oklahoma's Water Quality Management Plan, a document created jointly by the state agencies responsible for managing water quality, and to guide industrial, municipal and non-point source discharge activities. Non-point source pollution is that which does not have a well defined point of entry into a body of water.

The water quality management process includes identifying and determining the priority of water quality problems through use of the Standards, developing solutions to control water quality problems and implementing these solutions to determine if control programs are improving water quality.

The quality of Oklahoma's water is protected by requiring a permit of any individual or firm who discharges wastes into any body of water. Standards are incorporated into a water quality permit for an individual dis-

charger through the wasteload allocation process. This process determines the probable cause and effect relationships of pollutants to water quality. Discharge limits are set and permits are issued to insure that standards are maintained.

The Standards are composed of three main elements:

A statement of Oklahoma's position on uses which could degrade its water quality;

A set of designated beneficial uses for which a specific body of water is or will be used;

Numerical and narrative criteria which protect these beneficial uses.



Simpson lays out monitoring unit cable connected to a probe in the stream. Accurate measure of stream DO is important in the determination of water quality standards.

Designations Prescribe Uses

Beneficial uses are defined as the use of a stream or ground water for a lawful and economically necessary purpose. Certain beneficial uses are designated along with narrative and numerical standards for streams and

lakes in order to protect water. Standards may be more or less stringent depending on the uses assigned.

At present, beneficial uses which may be assigned to a body of water are: public and private water supplies, emergency public and private water supplies, fish and wildlife propagation (primary or secondary warm water fishery), agriculture, hydroelectric power generation, industrial and municipal process and cooling water, primary body contact recreation, secondary body contact recreation, navigation, aesthetics, smallmouth bass fisheries (excluding lake waters) and trout fisheries (put and take).

Beneficial uses are assigned to streams based upon each stream's current and potential uses. An initial literature survey is conducted in order to assign these uses. All available background information on a stream is considered in this survey including data on the last study made, municipalities or industries using the stream and habitat and fish species involved. If there is inadequate background information to assign uses, a one-day, on-site survey of the stream is made.

When a one-day survey is insufficient, a Use Attainability Assessment is performed. This detailed study, which sometimes takes months to complete, determines current and potential uses by investigating the stream's physical, biological and chemical characteristics, along with impacts which may affect those uses. Beneficial uses are then proposed for a particular stream based upon these findings.

Narrative, Numerical Criteria

The OWRB prescribes stringent narrative and numerical criteria in order to fully protect the beneficial uses of Oklahoma waters. Some of the numerical and narrative criteria protecting stream beneficial uses include: toxic substances, pesticides, radioactive substances, fecal coliform, oil and grease, dissolved oxygen (DO), temperature, polychlorinated biphenyls (PCBs), chlorides, sulfates, total dissolved solids, color, turbidity, nutrients, solids, taste and odor.

Streams designated smallmouth bass and trout fisheries have the pro-

tection of all numerical criteria which apply to other beneficial uses. These numerical standards are more stringent because these bodies of water must be maintained even during low flow conditions (below one cubic foot per second). To provide further protection on these streams, more stringent criteria exist for DO and temperature.

Beneficial use limitations may also be designated on a stream. For example, some streams and bodies of water are protected through prohibition of any new point source discharge of waste or increased load from an existing point source. These streams cannot allow any new discharge (industrial, municipal, etc.) without a corresponding reduction in loading.

Policy Protects Quality

The intent of the anti-degradation policy is to protect all waters of the state from degradation of quality. This policy states that existing beneficial



Ron Jarman, Water Quality Division chief, standing, reviews the Standards draft prepared by Main Hutcheson and Pat Powell.

uses shall be maintained, protected and improved for the benefit of all Oklahomans.

Further protection is provided for streams designated as smallmouth bass and trout fisheries. The criteria which protect these fisheries may not be lowered for any reason.

The policy provides that no degradation shall be allowed in waters which constitute an outstanding resource or waters of exceptional recreational or ecological significance.



Ground Water Geologist Norma Aldridge collects data for the Standards in the form of a water sample from a municipal well.

These include bodies of water located in national and state parks, wildlife refuges and those designated "scenic rivers."

How to Report a Violation

Many people are faced with the problem of not knowing who to contact when a pollution problem exists. After determining the nature of the pollution (oil, sewage waste, industrial discharge, etc.) and its precise location, citizens should call the Department of Pollution Control's toll-free number: 1-800-522-0206 (or 271-4468 in the Oklahoma City area.) The Department is responsible for recording the complaint and referring it to the appropriate enforcement agency.



Governor Nominates Four

Governor Nigh announced late in September that he had submitted the names of four Oklahomans to be considered for induction into the National Rivers Hall of Fame in Dubuque, Iowa.

Among the nominees were former OWRB Board Members Dr. Lloyd E. Church of Wilburton and L. L. "Red" Males of Cheyenne. Other candidates were the late Senator Robert S. Kerr and environmentalist David Strickland of Muskogee.

Nigh said the National Rivers Hall of Fame honors and preserves the memory of those whose lives and activities on the inland waters merit special recognition. The four "dedicated their lives to a better Oklahoma and America for the generations to come," he said.

Bathe in a Gallon of Water?

If you were allowed a single gallon of water to last a week, how would you use it? That is the hypothetical question asked students in Tucson, Arizona, when school officials added water education to the 3 Rs.

"A Sense of Water," classroom guides developed by the Southern Arizona Water Resources Association, challenges the students' problem-solving skills by posing that scenario and many others related to water. Two versions of the guides target primary and secondary students. Authors point out that the curricula were designed to incorporate water-related concepts in math, science and social studies.

More information on the texts is available by writing the Southern Arizona Water Resources Association Inc., 465 West St. Mary's Road, Tucson, 85705.

L.A. Program Pays Rebates

In a pilot program in Los Angeles, the City Department of Water and Power offered rebates to 500 customers who volunteered to try to reduce their water use 25 percent. In October, successful conservationists received a one-time bonus of \$10 for cutting back on the water they used in and around their homes.

**ACTIVE CONSERVATION STORAGE IN SELECTED OKLAHOMA LAKES AND RESERVOIRS
AS OF SEPTEMBER 23, 1985**

PLANNING REGION LAKE/RESERVOIR	CONSERVATION STORAGE (AF)	PERCENT OF CAPACITY	PLANNING REGION LAKE/RESERVOIR	CONSERVATION STORAGE (AF)	PERCENT OF CAPACITY
SOUTHEAST			NORTHEAST		
Atoka	103,400	83.3	Eucha	74,600	93.7
Broken Bow	853,572	92.9	Grand	1,378,800	92.4
Pine Creek	74,690	96.0	Oologah	544,240	100.0
Hugo	123,375	78.2	Hulah	30,594	100.0
CENTRAL			Fort Gibson	365,200	100.0
Thunderbird	99,958	94.3	Heyburn	5,996	90.8
Hefner	66,200	87.8	Birch	18,658	97.0
Overholser	13,700	86.2	Hudson	200,300	100.0
Draper	76,600	76.6	Spavinaw	30,000	100.0
SOUTH CENTRAL			Copan	43,300	100.0
Arbuckle	59,362	94.8	Skiatook	—	—
Texoma	2,329,192	88.0	NORTH CENTRAL		
Waurika	189,165	93.0	Kaw	428,600	100.0
SOUTHWEST			Keystone	616,000	100.0
Altus	5,005	3.7	NORTHWEST		
Fort Cobb	62,167	79.0	Canton	70,977	72.8
Foss	124,113	50.9 ²	Optima	3,000	—
Tom Steed	60,580	68.0	Fort Supply	13,376	96.0
EAST CENTRAL			Great Salt Plains	31,400	100.0
Eufaula	2,189,889	93.9	STATE TOTALS		
Tenkiller	625,404	99.6		11,392,752³	90.2³
Wister	13,125	48.4			
Sardis	288,214	95.0			

1. In initial filling stage
2. Temporarily lowered for maintenance
3. Conservation storage for Lake Optima not included in state total

Data courtesy of U.S. Army Corps of Engineers, Bureau of Reclamation, Oklahoma City Water Resources Department, and City of Tulsa Water Superintendent's Office.

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**Pollution
HOT LINE**

**1-800-522-0206
in OKC 271-4468**

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