

A public hearing was held May 12, 1983, at which comments were received on proposed revisions to the Water Quality Management Plan (208 Plan). Adversed comments were received on the proposed Effluent Limit Policy and Addendum to Chapter IV of the 208 Plan. Subsequently, these documents were revised to reflect the comments.

The Commission hereby approves updating the 208 Plan with the following additions and/or revisions:

- An effluent limitation policy to provide interim limits for municipalities unable to meet final effluent limits for compliance with state water quality standards.
- Implementation plans for the control of nonpoint source water pollution through the use of best management practices. The implementation plans have been developed by the management agencies designated in the original 208 Plan for particular types of water pollution or for geographic areas. Implementation plans have been developed by the Arkansas Department of Pollution Control and Ecology, Soil and Water Conservation Commission, Forestry Commission, Highway and Transportation Department, and the United States Forest Service.
- Changes in the wastewater discharge location of the city of Malvern to the Ouachita River and the type of wastewater treatment by the cities of Morrilton and Murfreesboro to land application.
- Wasteload allocation studies for the cities of Arkadelphia, Caddo Valley, Conway, Coy, Hackett, Heber Springs, Jonesboro, Lake Village, Malvern, Marshall, Monticello, Quitman, Stuttgart, Wilmar and Wilton.

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 CHAIRMAN

SUBMITTED BY: James R. Shell DATE PASSED: _____
 Chief, Water Division

Addendum to Chapter IV, Point Source Pollution Control Measures
of the Arkansas Water Quality Management Plan.

The following addition is herewith made part of Chapter IV of the Water Quality Management Plan.

Determination of Municipal or Domestic Wastewater Effluent Limits

The "Department Policy for Determination of Domestic Wastewater Limitations" shall be the guidelines used to establish effluent limits for domestic or similar oxygen demanding wastewater.

DEPARTMENT POLICY FOR DETERMINATION OF DOMESTIC
WASTEWATER EFFLUENT LIMITATIONS

Revised August, 1983

DEPARTMENT POLICY FOR DETERMINATION OF DOMESTIC
WASTEWATER EFFLUENT LIMITATIONS

I. GENERAL

- A. When a municipality proposes to significantly upgrade its treatment system (for example go from primary to secondary treatment) but cannot meet the final effluent limits necessary to meet Water Quality Standards (WQS) due to a lack of financial capability, interim limits may be issued. However, the final limits must be met no later than the date required by Section 301(i)(1), where applicable, of the Clean Water Act. This also requires that the municipality must have made application to the Construction Grants Branch for inclusion in the Construction Grants program.
- B. Effluent limits for oxygen demanding effluent flows of less than/or equal to 0.65 million gallons per day (MGD) shall be determined as outlined below. In all cases applicable water quality standards shall be met. These limits shall include as a minimum biological oxygen demand (BOD), total suspended solids (TSS), and total ammonia nitrogen (NH₃-N) and effluent dissolved oxygen (D.O.)
1. Effluent limits for oxygen demanding flows of less than or equal to 0.05 MGD will normally be derived by use of Method 1 as outlined in EPA Region VI Criteria for Performing Waste Load Analysis (as revised). However, the Department may occasionally require more stringent effluent limits where, in the judgement of the Department, Method 1 would result in effluent limits not protective of in stream uses. Generally such limits will not be more stringent than 10/15, BOD/TSS respectively. Limits of 10/15, BOD/TSS with nitrification shall be considered the best conventional treatment (BCT) for this flow range. When BCT limits are used, total NH₃-N level for the proposed treatment facility shall be included in the permit.
 2. Oxygen demanding effluent flows of greater than .05 MGD but less than or equal to 0.65 MGD shall have limits which are derived by a non-calibrated model. However, when the model requires limits more stringent than 10/15, BOD/TSS, the permit limits shall be established on a case-by-case basis using the following considerations:
 - existing and potential beneficial downstream uses of the receiving stream;
 - affordability of operation and maintenance (O & M);
 - capability of the municipality to have adequate O & M;
 - financial/institutional structure of permittee;

- suitability of land treatment.

If, upon evaluating these five considerations, it is determined by the Department that application of effluent limits more stringent than 10/15 meet the conditions of Regulation 2, Section 4(F), the discharger may request a variance as outlined in such section.

- C. Calibrated models generally will be required for oxygen demanding effluent flows greater than 0.65 MGD but less than 1.9 MGD. However, when the model requires limits more stringent than 10/15, BOD/TSS, the permit limits shall be established on a case-by-case basis using the considerations listed under 2(b) above. In all cases applicable water quality standards shall be met.
- D. Calibrated/verified models will generally be required for oxygen demanding effluent flows greater than 1.9 MGD. However, when the model requires limits more stringent than 10/15, BOD/TSS, the permit limits shall be established on a case-by-case basis using the considerations listed under 2(b) above. In all cases applicable water quality standards shall be met.

II. CLASS AA STREAMS

- A. AA Streams Named in WQS: In all cases, effluent limits must comply with Section 3A of Regulation No. 2, as amended.
 - 1. Oxygen demanding effluent flows of less than or equal to .05 MGD shall use a non-calibrated model to determine the appropriate effluent limits, but in no case shall the effluent limits be less than 10/15, BOD/TSS. NH₃-N limits should be included in the permit.
 - 2. Oxygen demanding effluent flows greater than .05 MGD shall use a calibrated model to determine the appropriate effluent limits, but in no case shall effluent limits be less stringent than 10/15, BOD/TSS.
- B. Tributary to AA streams But Not Listed in WQS:

Effluent limits for tributary streams designated as intermittent shall be governed by the general policy. However, extreme caution must be exercised to insure that the receiving stream shall comply with Section 3A of Regulation No. 2, as amended.

III. RESERVOIRS/DOMESTIC WATER SUPPLY

- A. In all cases applicable water quality standards shall be met.
- B. Effluent limits for oxygen demanding flows discharging to a domestic water supply lake shall be required to meet effluent limits of at least 10/15, BOD/TSS and nutrient removal as appropriate.
- C. Effluent limits for oxygen demanding flows of .05 MGD or less discharging to the hypolimnion of Class A and B recreational lake may be 30/30, BOD/TSS, unless more stringent treatment is deemed necessary to meet WQS based on a lake analysis.
- D. All other oxygen demanding effluent flows which are discharged at or below the normal pool of any recreational lake shall have effluent limits of 10/15, BOD/TSS and nutrient removal as appropriate.
- E. Oxygen demanding effluent flows which are discharged to AA lakes shall be required to meet effluent limits of at least 10/15, BOD/TSS and nutrient removal as appropriate. In addition, caution must be exercised to insure that Section 3A of Regulation No. 2, as amended, is complied with.

GLOSSARY

Non-calibrated model: A mathematical model which utilizes some field data but is not calibrated to a measured or observed dissolved oxygen profile.

Calibrated model: A mathematical model which is calibrated to observed field data in the stream.

ARKANSAS DEPARTMENT OF POLLUTION CONTROL AND ECOLOGY

RESPONSIVENESS SUMMARY

CONCERNING

PROPOSED REVISIONS TO THE ARKANSAS WATER QUALITY MANAGEMENT PLAN (208 PLAN)

I. Public Participation Activity Conducted

Public hearing May 12, 1983, at the Arkansas Game and Fish Commission auditorium, No. 2 Natural Resources Drive, Little Rock, Arkansas, beginning shortly after the conclusion of a previous public hearing on proposed revisions to the Arkansas Water Quality Standards.

II. Individuals Commenting at the Hearing

The following persons appeared at the hearing and submitted oral and/or written comments:

Kenneth Holke, Beaver Lake Advisory Committee
James Odendahl, Weyerhaeuser Company
Clyde Temple, Committee for a Clean Saline
Tom Riley Jr., Arkansas Association of Conservation Districts
Bob Bogard, Arkansas Federation of Water and Air Users

In addition, Bruno Kirsch Jr. of the Arkansas Department of Health submitted a written comment prior to the comment period deadline.

III. Issues Presented for Public Comment

A number of proposed changes or additions to the Arkansas Water Quality Management Plan were presented for public comment at the hearing. The list included:

--A domestic wastewater effluent policy which would provide interim limits for municipalities unable to currently meet water quality related effluent limits. Final limits would have to be met by the deadline established by federal law. In addition, the proposed policy would set the advanced treatment level of 10 milligrams per liter biochemical oxygen demand as the most stringent level of treatment except in exceptional cases for Class A and B waters. The policy would further require, as a minimum, a treatment level of 10 mg/l BOD for discharges to Class AA waters.

--Implementation plans for the control of nonpoint source water pollution with the use of best management practices. The plans were developed by the management agencies designated in the original 208 Plan for particular types of water pollution or for geographic areas of the state. Implementation plans considered at this hearing were developed by the Arkansas Department of Pollution Control and Ecology, Arkansas Forestry Commission, Arkansas Department of Highways and Transportation, United States Forest Service, and United States Soil Conservation Service.

--Changes in the wastewater discharge location of the city of Malvern to the Ouachita River, and changes in the type of wastewater treatment by the cities of Morrilton and Murfreesboro to land application.

--Wasteload allocation studies using specific water quality standards criteria for the cities of Arkadelphia, Caddo Valley, Coy, Malvern and Marshall.

--Wasteload allocation studies using intermittent/ephemeral stream standards criteria for the cities of Conway, Hackett, Heber Springs, Jonesboro (east plant), Lake Village, Monticello, Quitman, Stuttgart, Wilmar, and Wilton.

IV. Public Response

Comments on the proposed effluent policy were unfavorable and were general in nature, although some comments did focus on specific points of the proposal. Comments on the proposed implementation plans were all favorable. There were no comments on the other three areas presented at the hearing. Some of the persons commenting against the proposed effluent policy viewed the proposal as a water quality standards change, and, as was the case in the hearing which immediately preceded this hearing, they were opposed on general principles to anything they perceived as a lowering of the standards.

V. Changes Resulting from Public Comments

The only changes in any of the proposals resulting from public comments were made in the proposed effluent policy as a result of comments from the Beaver Lake Advisory Committee and the Arkansas Department of Health. Both organizations had suggested that the Reservoirs/Domestic Water Supply section of the proposed policy did not provide adequate protection for sources of public drinking water. As a result, the Department has made changes to strengthen this section by providing that under no circumstances would violations of the water quality standards be allowed. Other changes in the proposals were the result of new guidance received from the United States Environmental Protection Agency during the comment period.

VI. Evaluation of Public Participation Effectiveness

Although fewer persons chose to comment on these issues than had responded at the water quality standards hearing held immediately prior to this hearing, there was still a wide range of interests represented, and a number of the comments indicated a considerable amount of time and effort had been spent in preparing the remarks. In addition, few, if any of those who attended the first hearing left the auditorium during the recess between hearings, indicating there was considerable interest in the second hearing. (See copy of hearing transcript for attendance list.) These factors indicate at least modest success was achieved in notifying the public and prompting responses from it.

VII. Distribution of Responsiveness Summary

Copies of this summary have been provided to members of the Arkansas Commission on Pollution Control and Ecology, appropriate representatives of the Environmental Protection Agency, and information depositories maintained by the Department of Pollution Control and Ecology throughout Arkansas (see Attachment 1 of the hearing transcript for list). Individuals who request it will be provided with a copy of this summary.

INTERMITTENT PROPOSALS
1983 WLA PLAN UPDATE PROJECTS

City - Receiving Stream	Critical Limits	Winter Limits	Comments
Wilton Lick Creek	10-15-8-5	15-15-15-5	
Wilmar Flat Branch Creek	10-15-4-5	10-15-10-2 Dec. - March	
Stuttgart King Bayou Ditch	30-30-4-5	30-30-10-5	Winter limits based on 10°C
Heber Springs Sulphur Creek	10-15-3-5	10-15-8-5 Dec. - March	Winter limits based on 10°C
Quitman Mill Creek	30-30-15-5	None	
Conway Stone Dam Creek	10-15-1-6	None	
Jonesboro E. Whitman Cr./Little Bay Ditch	Refer to chart in report		Multiple effluent sets given for operational ease
Hackett Big Branch Creek	30-90-9-5	30-90-15-5 Dec. - March	
Lake Village Unnamed Ditch to Bayou Macon	10-15-2-5	10-15-6-5 Nov. - April	
Monticello Godfrey Creek - Lower Cutoff Creek	20-20-10-5	20-20-15-5 Dec. - March	

1983 WLA PLAN UPDATE
EXISTING STANDARD PROJECTS

City - Receiving Stream	Critical Limits	Winter Limits
Coy - Salt Bayou	10-15-2 Sat. Effluent	20-20-5 April - Nov. @ 20°C
Caddo Valley - Caddo River	30-30-15-5	None
Malvern - Ouachita River	30-30-10-5	
Marshall - Forest Creek	30-30-5 Sat. Effluent	30-30-20 Sat. Effluent Nov. - April
Arkadelphia - Ouachita River	30-30-20-5	