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303(e) Red River  
BASIN

MEMORANDUM

TO: All Commissioners  
FROM: Everett Perrien, Chief - Water Planning Section *E Perrien*  
DATE: July 16, 1976  
SUBJECT: REVISIONS TO RED RIVER BASIN PLAN

Based upon comments received at and following the Section 303(e) Red River Basin Plan public hearing held June 14, 1976 (copies enclosed), the staff of Arkansas Department of Pollution Control and Ecology makes the following recommendations:

- A. In response to a letter from T. A. Skinner, Director, Division of Public Health Engineering, Arkansas Department of Health:
1. "Best practicable technology" is the minimum <sup>required</sup> level of treatment for industrial discharges in Segment 1C. Permits issued to municipal discharges in this segment now require better than secondary treatment. While nutrients are not specific parameters on municipal discharge permits, the requirement for nutrient removal will be considered for those discharges immediately upstream from water supply lakes prior to preparation of a facility plan.
  2. Although "water reuse" is not specifically mentioned in the "Construction Grant Projects Priority Rating System", additional consideration is and has been given to discharges upstream from water supply intakes. It should be noted that a municipality will be placed in Category I of the rating system if "A significant potential or existing health hazard has been defined by the Department's staff to exist due to waste discharge within or from a particular municipality."
  3. The "use classifications" in the Arkansas Water Quality Standards are based upon current, accepted Federal criteria. However, this Department recognizes that the Arkansas State Board of Health has the responsibility of approving or disapproving the suitability of specifically delineated outdoor bathing places for body contact recreation.

RECOMMENDED CHANGES IN BASIN PLAN: NONE

B. In response to letter from Duane Motsenbocker, Weyerhaeuser Company:

1. The revised Standard Form C submitted 2-4-76 contains additional discharges which were overlooked in the previous application. These eight discharges are:

- 001 - Log Spray Pond
- 002 - Truck Wash Rack Settling Pond
- 003 - Log Spray Pond
- 004 - Herreshoff Cooling Water
- 005 - Truck Shop Sewage Plant
- 006 - Merchandiser Compressor Cooling Water
- 007 - Boiler Feedwater Treatment/Sawmill Cooling Water
- 008 - Charcoal Plant Discharges

State Permit 975-W issued in 1971 covers discharges 002 and 005. None of the other discharges have State Permits. These additional discharge points will be reflected in the future revision of this basin plan.

2. No State permit has been issued to the Dierks facility, other than 957-W, due to the fact that no plans have been submitted to this Department showing how storm runoff will be handled. The Arkansas Water and Air Pollution Control Act states that it is unlawful "to discharge sewage, industrial waste, or other wastes into any of the waters of the State" without obtaining a written permit from the Commission. The Act also states that "The Commission may receive the submission of such plans, specifications and other information as it deems relevant in connection with the issuance of disposal permits."

If confusion still exists regarding this Department's request for plans to control all discharges from the Dierks facility, the staff of this Department will contact representatives of Weyerhaeuser Company to clarify this point.

3. Measurements of plant efficiency at the DeQueen facility during the 1973 intensive survey were based on standard engineering principles and procedures outlined in Standard Methods for the Examination of Water and Wastewater. The data obtained reflect the

conditions found at that time which may, we recognize, have changed since that time. The Department will make available any data requested by Weyerhaeuser Company and will consider splitting samples with Weyerhaeuser Company.

RECOMMENDED CHANGES IN BASIN PLAN: NONE

C. In response to statement by Nick Toth, President, Miller County Wildlife Club:

1. No recommendations were made concerning the basin plan.

RECOMMENDED CHANGES IN BASIN PLAN: NONE

D. In response to letter from James D. Goerke, Executive Director, Ark-Tex Council of Governments:

1. The date of publication should have been included in the document.
  2. The name of the river basin was inadvertently left off the cover.
  3. Sources of information should be given.
  4. McKinney Bayou does not flow into the Sulphur River, as shown in Figure 3.
  5. The samples taken in the Sulphur River during the 1973 basin survey are not the same as the data given for monitoring station RED 05.
  6. In the data given for stations RED 04 and RED 04A, eighteen of thirty-six samples, or exactly fifty percent, violate D.O. standards.
  7. Figures A-4 and A-5 were inadvertently omitted.
  8. It is true that D.O. is not exclusively related to flow and that water quality problems in the Sulphur River are very complicated. However, D.O. problems are more likely to occur during low-flow conditions as evidenced by fish kills and incidents of fish in distress. During periods of low flow the river becomes essentially stagnant and thus more susceptible to oxygen depletion due to aerobic benthic demands, fish respiration and metabolism, anaerobic decomposition
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which can release compounds (e.g. sulfides) which can combine with oxygen, and the fact that less surface area is available for oxygen transfer.

Another possibility (although this has not been actually demonstrated) is that discharges at high flows cause water containing IPC and other wastes to back up into sloughs. This water becomes low in D.O. and, when flow is abruptly reduced upstream, this water is fed back into the main stream. Thus, the lack of continual flushing may also create low D.O. conditions.

RECOMMENDED CHANGES IN BASIN PLAN:

1. Correct errors mentioned in items 1,2,3,4, and 7. This information may be mailed to all recipients of the basin plan in the form of an errata sheet and, possibly, new covers.

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Enclosures

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