

Preface

The Clean Water Act was amended by Congress in 1987 to afford federal oversight of State and local efforts to reduce nonpoint source pollution. As a result, section 319 of the CWA, allows for federal funds administered by the Environmental Protection Agency to be received by States, Territories, and Indian Tribes to support efforts aimed at controlling nonpoint source pollution. These funds can be used to provide for technical assistance, financial assistance, education, training, technology transfer, demonstration projects, and monitoring. The Arkansas Natural Resources Commission, formerly the Arkansas Soil and Water Conservation Commission, has served as the lead agency for the distribution of 319 funds received by the state. Funds have been made available through grant processes to conservation districts, academic institutions, state governmental agencies, nonprofit watershed groups and others.

Recently, as part of The Clean Water Action Plan initiated by the Environmental Protection Agency and the United States Department of Agriculture, states have been requested to prepare a nine-element watershed-based strategy for each priority watershed that contains a designated impaired waterbody. These plans will provide guidance for the efforts employed to abate nonpoint source pollution and a plan for use of federal dollars from the 319 program. These nine element strategies or plans are to include the following elements:

1. Identification of causes and sources of nonpoint source pollution;
2. Estimated load reductions;
3. Management measures;
4. Technical and financial assistance;
5. Public education/awareness;
6. Schedule of implementation;
7. Milestones and reevaluation;
8. Performance criteria;
9. Monitoring component.

This document was prepared in cooperation with the Bayou Bartholomew Alliance Technical Support Group to provide input from all stakeholders within the Bayou Bartholomew Watershed. The Technical Support Group (TSG) is comprised of representatives from various local, state, and federal agencies as well as private interests and citizens. This document is divided into three chapters: 1) Watershed Description; 2) What Has Been Done; and 3) Future Actions Needed. The latter chapter constitutes the nine elements of a watershed-based strategy to control nonpoint source pollution as outlined by the Environmental Protection Agency. **This nine element plan was developed with a goal of providing guidance and direction of efforts to control nonpoint source pollution in the Bayou Bartholomew Watershed in Arkansas and Louisiana.**

In an effort to identify the causes and sources of nonpoint source pollution in the watershed, the TSG was able to use a variety of previously developed assessments

including those prepared by state agencies and those prepared by the TSG itself. These documents and information sources are reviewed in Chapter 2. This document primarily addresses turbidity and siltation, which have been found to cause impairment of aquatic life use. The identification of causes and sources of nonpoint source pollution in the Bayou Bartholomew Watershed can be found on page 29, Element 1.

Load reductions that are required in order to meet water quality standards must be estimated. A TMDL has been prepared for the Bayou Bartholomew, although not all tributaries were included. This document and its recommendations as well as existing water quality standards are discussed on page 30 under Element 2.

Nonpoint management measures that need to be employed to achieve the necessary load reductions constitute the third element of the strategy. The TSG used much existing data and reviews of what has already been accomplished to select sub-basins for immediate attention. Plans to review other sub-basins and their contribution towards impairment are outlined. BMP's and how they should be implemented have been identified. These and other considerations are considered in Element 3, page 30.

The financial and technical assistance required to implement the recommendations within this document have been estimated. Factors which have been considered include: BMP types and related costs including installation and maintenance; where both technical and financial resources might be found; and the costs of coordinating the implementation of the entire plan. Cost factors are also included for monitoring efforts, public education and outreach. Element 4 is presented beginning on page 33.

Public education and public outreach are components of the plan which are necessary for a number of purposes. The public understanding of the strategy encourages their participation in selecting, designing and implementing nonpoint source management measures. Their support also leads both to support financially as well as through volunteer efforts. The TSG identified a number of activities which should be carried out to inform and educate the public as well to include volunteer efforts in restoration of the Bayou Bartholomew. Many of these activities represent the continuation of ongoing activities. Element 5 is summarized on page 39.

A schedule for implementation of specific items within the plan has been developed. This schedule includes the implementation of BMP's as well as the scheduling of other aspects of the nine element plan including public outreach activities, monitoring efforts, and evaluation considerations. A schedule is necessary to insure that progress is being made and that the plan itself is being implemented. Element 6 is found on page 37.

Measurable milestones are necessary to be identified to determine whether or not nonpoint source management measures and other plan items are actually being implemented. Tracking of measures identified to be implemented will be one charge of the TSG to insure that all aspects of the plan are being implemented in the proper time sequence and in the proper geographic locations identified within the plan. The TSG will

continually re-evaluate progress to insure the plan is kept on schedule or modified when and where appropriate. This Element 7 is presented on page 41.

Criteria were established which would indicate that loading reductions were being achieved or that, indeed, progress would be identified, if actually occurring. Because turbidity and siltation are elusive factors to assess with fluctuating flows and other variabilities, a set of criteria related to improvements in these factors that could readily be assessed were identified. These are presented on page 42 as Element 8.

Monitoring activities are required to evaluate the effectiveness of the implementation efforts. The activities, in some cases, are directly related to assessing performance criteria in Element 8. The monitoring activities required as a part of this plan are provided in Element 9, page 43.