

CHOWAN RIVER BASINWIDE WATER QUALITY MANAGEMENT PLAN

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This document was approved and endorsed by the NC Environmental Management Commission on September 11, 1997 to be used as a guide by the NC Division of Water Quality in carrying out its Water Quality Program duties and responsibilities in the Chowan River Basin.

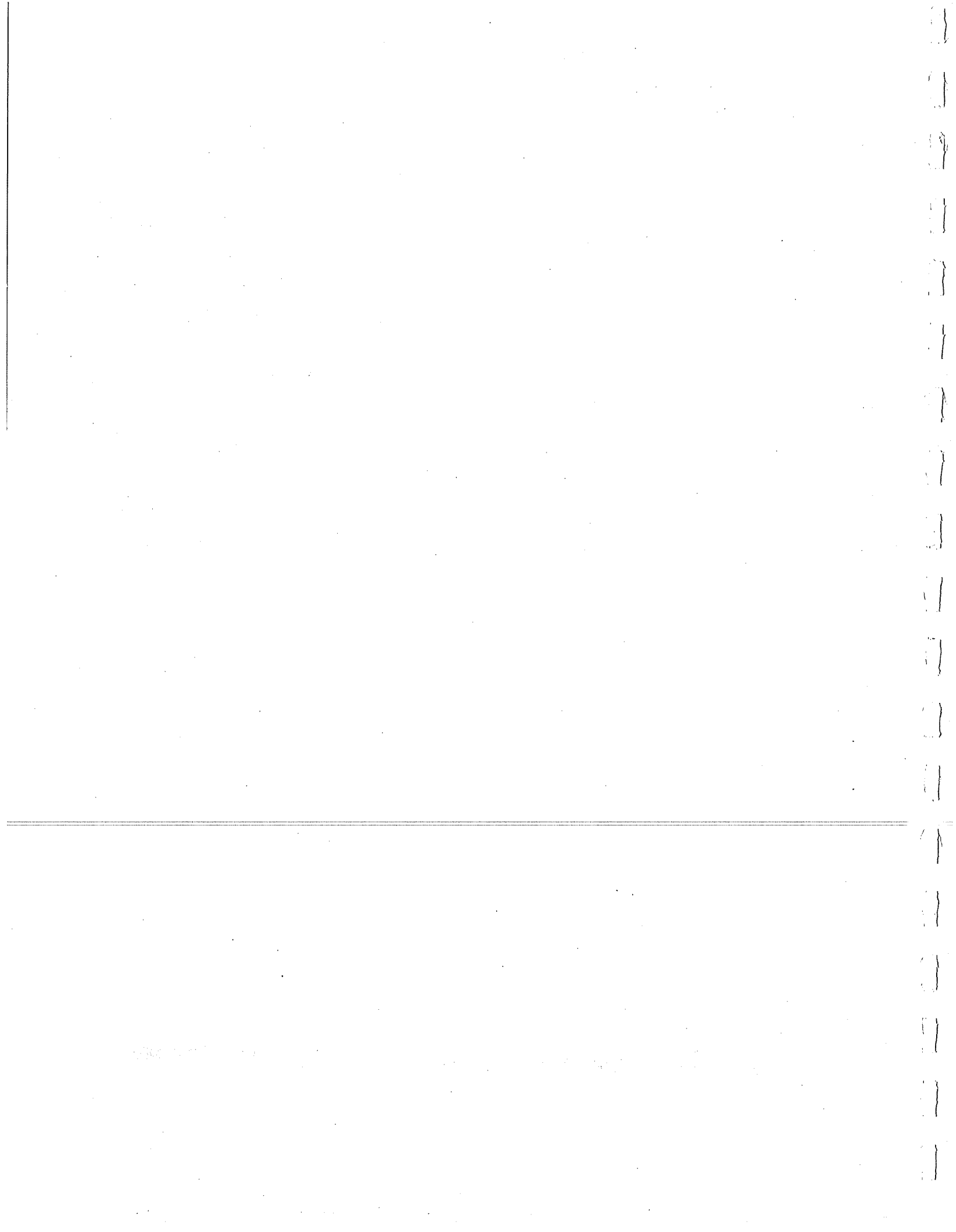
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Right: Boating on the Chowan River



FOREWORD

The Chowan River was the first waterbody in North Carolina to be designated as Nutrient Sensitive Waters (NSW). This classification was applied to the basin in 1979 because of the occurrence of nuisance algal blooms. A management strategy to control the input of nutrients to the river from both wastewater treatment plant discharges and agricultural runoff was applied. Water quality data indicate that the combined effects of actions taken by farmers and dischargers have led to significant improvements. These improvements are evident in the decrease in the frequency of algae blooms and a decrease in the duration of blooms that do occur. An evaluation of the progress of the implementation of the NSW strategy conducted in 1990 revealed that the goal of a 20% reduction in nitrogen loads had been achieved and that there had been a 29% reduction in phosphorus loads (goal of 35%). Continued efforts to reduce nutrients in the basin should produce further improvements in water quality.

Improvements have also been seen in reducing dioxin levels in the tissue of fish in the river. While a fish consumption advisory is still in place for some fish species, the source of the dioxin has been eliminated and continued improvement could lead to the eventual lifting of this advisory.

Despite progress, however, protection of surface waters in the Chowan River Basin continues to be a major challenge. The majority of the basin is contained within the state of Virginia and waters flow from there into North Carolina. It will be important for North Carolina to promote interstate cooperation to control nutrients, as well as to continue to work on reducing loads in the lower basin contained in North Carolina.

The Chowan is a scenic, freshwater coastal river that flows freely through a landscape of wooded swamps and expansive agricultural lands. Of the 788 miles of freshwater streams and rivers in the Chowan basin, use support ratings were determined for 64% or 507 miles of water. Twenty-two percent of these waters are considered impaired (partially supporting their uses). None were determined to be not supporting their uses. Agricultural activities, including animal operations, are thought to be the primary source of impairment throughout much of the basin with nutrients from Virginia being a likely contributor to impairment in the Chowan River mainstem.

Preserving and enhancing the quality of water in the basin is beyond the capabilities of any one agency or group. State and federal government regulatory programs will play an important part, but much of the responsibility will be at the local level. Those who live, work and recreate in the basin have the most at stake.

This document provides a summary of the causes and sources of water pollution in the basin, the status of the basin's water quality, a summary of water quality rules and statutes that apply to water quality protection in the basin, and recommended measures to protect and enhance the quality of the surface waters and aquatic resources in the Chowan River Basin. The Chowan Basinwide Water Quality Management Plan will be used as a guide by the NC Division of Water Quality in carrying out its water quality program responsibilities in the basin. Beyond that, it is hoped that the plan will provide a framework for cooperative efforts between the various stakeholders in the basin toward a common goal of protecting the basin's water resources while accommodating reasonable economic growth.

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2. The second part of the document focuses on the financial aspects of the organization. It provides a detailed overview of the budget, including the projected income and expenses for the upcoming year. This section also discusses the various financial risks and how they are being managed to ensure the organization's financial stability.

3. The third part of the document addresses the operational aspects of the organization. It describes the various processes and procedures that are in place to ensure the efficient and effective delivery of services. This section also discusses the various challenges that the organization is facing and how they are being addressed.

4. The fourth part of the document discusses the human resources of the organization. It provides a detailed overview of the current staff levels and the various roles and responsibilities of the different departments. This section also discusses the various training and development programs that are in place to ensure that the staff is equipped with the necessary skills and knowledge to perform their duties effectively.

5. The fifth part of the document discusses the legal and regulatory aspects of the organization. It provides a detailed overview of the various laws and regulations that the organization is subject to and how they are being complied with. This section also discusses the various legal risks and how they are being managed to ensure the organization's legal compliance.

6. The sixth part of the document discusses the environmental aspects of the organization. It provides a detailed overview of the various environmental impacts that the organization is having and how they are being managed to ensure that the organization is operating in a sustainable and environmentally responsible manner.

7. The seventh part of the document discusses the social aspects of the organization. It provides a detailed overview of the various social impacts that the organization is having and how they are being managed to ensure that the organization is operating in a socially responsible manner.

8. The eighth part of the document discusses the overall performance of the organization. It provides a detailed overview of the various key performance indicators (KPIs) that are being used to measure the organization's performance and how they are being used to inform decision-making.

9. The ninth part of the document discusses the future of the organization. It provides a detailed overview of the various strategic initiatives that are being implemented to ensure the organization's long-term success and how they are being monitored and evaluated.

10. The tenth part of the document discusses the conclusion of the report. It summarizes the key findings of the report and provides a final statement on the organization's overall performance and future prospects.

11. The eleventh part of the document discusses the appendix. It provides a detailed overview of the various supporting documents and data that are included in the report, ensuring that the information is complete and accurate.

12. The twelfth part of the document discusses the bibliography. It provides a detailed overview of the various sources of information that were used in the report, ensuring that the information is credible and reliable.

13. The thirteenth part of the document discusses the index. It provides a detailed overview of the various topics and sections of the report, ensuring that the information is easy to find and access.

14. The fourteenth part of the document discusses the glossary. It provides a detailed overview of the various terms and definitions used in the report, ensuring that the information is clear and consistent.

15. The fifteenth part of the document discusses the executive summary. It provides a detailed overview of the key findings and recommendations of the report, ensuring that the information is concise and easy to understand.

16. The sixteenth part of the document discusses the introduction. It provides a detailed overview of the purpose and scope of the report, ensuring that the information is clear and concise.

17. The seventeenth part of the document discusses the methodology. It provides a detailed overview of the various methods and techniques used in the report, ensuring that the information is reliable and valid.

18. The eighteenth part of the document discusses the results. It provides a detailed overview of the various findings and conclusions of the report, ensuring that the information is clear and concise.

19. The nineteenth part of the document discusses the discussion. It provides a detailed overview of the various implications and recommendations of the report, ensuring that the information is clear and concise.

20. The twentieth part of the document discusses the conclusion. It provides a detailed overview of the key findings and recommendations of the report, ensuring that the information is clear and concise.