UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IV
345 COURTLAND STREET, N.E.
ATLANTA, GEORGIA 30365

AUG 14 1995

WATER QUALITY SECTION

AUG 10 1995

Mr. Steve Tedder, Chief
Water Quality Section
NC Division of Environmental Management
P.O. Box 29535
Raleigh, North Carolina 27626-0535

Dear Mr. Tedder:

This letter is in regards to the Environmental Protection Agency's action on the Total Maximum Daily Load (TMDL) Management Strategies for specific waterbodies in the Tar-Pamlico River Basin. These TMDL strategies address the identified problem pollutants: biochemical oxygen demand and nutrients. Management strategies to address sediment and fecal coliforms, the other two problem pollutants identified, are discussed in the Tar-Pamlico River Basinwide Water Quality Management Plan. The NC Division of Environmental Management (NCDEM) submitted the final TMDL strategies as part of the Tar-Pamlico River Basinwide Water Quality Management Plan, by way of cover letter dated June 27, 1995.

I am pleased to inform you that EPA is approving these TMDL strategies for the Tar-Pamlico Basin as being in full compliance with Section 303(d) of the Clean Water Act (CWA). The CWA requires that TMDLs be established at levels necessary to implement the applicable water quality standards, taking into account seasonal variations and an adequate margin of safety.

EPA is aware that, in some cases, a complete management strategy has not yet been developed due to additional work being required. For example, for biochemical oxygen demand in the Tar River mainstem above Tar River Reservoir, a second time-of-travel study needs to be completed to calibrate a QUAL2E water quality model. The recommended nutrient TMDL is a 30% reduction in total nitrogen (TN) and maintaining existing total phosphorus loads at Washington. Approximately 92% of the TN reduction is from nonpoint sources. It is likely that further TN reduction will be required, however, a more exact target for TN reduction cannot be established until the model is calibrated to lower nutrient loading conditions. Therefore, the 30% TN reduction is an interim goal. It is anticipated that the TN loading target at Washington will not be met during the next basin cycle (the year 2000).

Three important areas of additional work to develop complete nutrient TMDL management strategies for the Tar-Pamlico River Basin have been identified by NCDEM. These include: 1) obtaining better information relating to BMPs, i.e., where current BMPs are located, what types of BMPs are in place, and cost and effectiveness of BMPs; 2) a monitoring plan to evaluate nutrient reductions, evaluate changes in estuary quality, and improve the modeling analysis and loading targets; and 3) developing methods to perform fate and transport modeling to determine how nutrients are assimilated instream.

We commend the considerable efforts on the part of the NCDEM to develop TMDLs and management strategies for waterbodies within the Tar-Pamlico River Basin. We also commend the Division for its efforts to make positive use of the TMDL process in its basinwide water quality management approach. We look forward to assisting the Division in its future efforts to implement the TMDL process to help address North Carolina's most pressing water quality concerns. If you have any questions regarding this action, please ask your staff to call John Kroske at (404) 347-3555, extension 6595.

Sincerely,

Robert F. McGhee
Acting Director
Water Management Division

cc: Ruth Swanek, NCDEM