May 28, 2002

Mr. Peter Gold
USEPA REGION 3 - 3WP12
1650 Arch Street
Philadelphia, PA 19103-2029

Dear Mr. Gold:

In your recent letters providing comment on the fecal coliform TMDLs developed for Thumb Run, Cooks Creek, and Four Mile Run, you requested references for TMDLs which show that wildlife loadings alone cause a violation of the standard. TMDLs where modeling has shown such violations include: South Fork Blackwater River, Middle Blackwater River, Upper Blackwater River, Maggoddee Creek, Mill Creek (Rockingham County) and Holmans Creek. The above referenced comment letters also questioned statements made in the TMDL report section addressing wildlife contributions. Attached as Addendum A is text addressing the Commonwealth's approach to wildlife contributions. DEQ is requesting that this text replace the existing sections addressing wildlife contributions in all 2002 fecal coliform TMDL reports.

You also provided comments related to the water quality standards section in several TMDLs. To clarify the section on Water Quality Standards Review, I hereby submit the paragraphs in Addendum B as replacements for the corresponding paragraphs in all fecal coliform TMDLs submitted to EPA as part of Virginia's 2002 TMDL commitment.

I believe that the attached paragraphs adequately address your concerns. If you have any questions or need additional information, please contact me at (804) 698-4099.

Sincerely,

Jutta Schneider
Watershed Programs Section
VA Department of Environmental Quality

Attachments

Cc: Charles Martin, VADEQ
Charles Lunsford, VADCR
File

ADDENDUM A
(Replacement for Wildlife Contribution Section, to be part of the Reasonable Assurance Section of each 2002 Fecal Coliform TMDL Report)

x.x. Addressing Wildlife Contributions

In some streams for which TMDLs have been developed, water quality modeling indicates that even after removal of all of the sources of fecal coliform (other than wildlife), the stream will not attain standards. As is the case for Accotink Creek, TMDL allocation reductions of this magnitude are not realistic and do not meet EPA's guidance for reasonable assurance. Based on the water quality modeling, many of these streams will not be able to attain standards without some reduction in wildlife. **Virginia and EPA are not proposing the elimination of wildlife to allow for the attainment of water quality standards.** This is obviously an impractical action. While managing over-populations of wildlife remains as an option to local stakeholders, the reduction of wildlife or changing a natural background condition is not the intended goal of a TMDL. In such a case, after demonstrating that the source of fecal contamination is natural and uncontrollable by effluent limitations and BMPs, the state may decide to re-designate the stream's use for secondary contact recreation or to adopt site specific criteria based on natural background levels of fecal coliforms. The state must demonstrate that the source of fecal contamination is natural and uncontrollable by effluent limitations and BMPs through a so-called Use Attainability Analysis (UAA) as described in chapter 3. All site-specific criteria or designated use changes must be adopted as amendments to the water quality standards regulations. Watershed stakeholders and EPA will be able to provide comment during this process.

Based on the above, EPA and Virginia have developed a TMDL strategy to address the wildlife issue. The first step in this strategy is to develop an interim reduction goal such as in table xxx. The pollutant reductions for the interim goal are applied only to controllable, anthropogenic sources identified in the TMDL, setting aside any control strategies for wildlife. During the first implementation phase, all controllable sources would be reduced to the maximum extent practicable using the staged approach outlined above. Following completion of the first phase, VADEQ would re-assess water quality in the stream to determine if the water quality standard is attained. This effort will also evaluate if the modeling assumptions were correct. If water quality standards are not being met, a UAA may be initiated to reflect the presence of naturally high bacteria levels due to uncontrollable sources. In some cases, the effort may never have to go to the second phase because the water quality standard exceedances attributed to wildlife in the model are very small and infrequent and may fall within the margin of error.

ADDENDUM B
(Replacement for Water Quality Standards Review Section
in 2002 Fecal Coliform TMDL Reports)

Two regulatory actions related to the fecal coliform water quality standard are currently under way in Virginia. The first rulemaking pertains to the indicator species used to measure bacteria pollution. The second rulemaking is an evaluation of the designated uses as part of the state's triennial review of its water quality standards.

Bacterial Indicator Criteria

EPA has recommended that all States adopt an *E. coli* or enterococci standard for fresh water and enterococci criteria for marine waters by 2003. EPA is pursuing the States' adoption of these standards because there is a stronger correlation between the concentration of these organisms (*E. coli* and enterococci) and the incidence of gastrointestinal illness than with fecal coliform. *E. coli* and enterococci are both bacteriological organisms that can be found in the intestinal tract of warm-blooded animals. Like fecal coliform bacteria, these organisms indicate the presence of fecal contamination. In Virginia, the adoption of the *E. coli* and enterococci standard is scheduled for 2002, and will apply to protect primary contact recreational uses. As proposed, primary contact recreational uses means "any water-based form of recreation, the practice of which has a high probability for total body immersion or ingestion of water (examples include but are not limited to swimming, water skiing, canoeing and kayaking)."

Designated Uses

Currently, all waters in the Commonwealth are subject to the fecal coliform standard as described in 9 VAC 25-260-170 and on page 1 above. This standard is designed to protect the designated recreational use (e.g. swimming and boating), and does not distinguish between "primary" and "secondary" contact recreational uses. The adoption of *E. coli* or enterococci criteria discussed above would apply to protect primary contact recreational uses, and all waters of the Commonwealth would be subject to this standard.

At their December 12, 2001 meeting, the State Water Control Board approved a proposal for public hearing that included bacteria criteria applicable to any waters that are designated for secondary contact recreation. As proposed, the definition for secondary contact recreation means "a water-based form of recreation, the practice of which has a low probability for total body immersion or ingestion of waters (examples include but are not limited to wading, boating, and fishing)." This proposed standard will likely go to public hearing during the summer of 2002.

While the proposal set up criteria for protection of secondary contact recreation, no waters have yet been re-designated as such. The re-designation of the current swimming use in a stream to a secondary contact recreational use would require the completion of a Use Attainability Analysis (UAA). A UAA is a structured scientific assessment of the factors affecting the attainment of the use which may include physical, chemical, biological, and economic factors as described in

the Federal Regulations. The stakeholders in the watershed, Virginia, and EPA will have an opportunity to comment on these special studies.

Re-designation of the swimming use for secondary contact would only be considered after TMDL implementation measures to achieve compliance with the primary contact standard have been implemented without success and one or more of the following conditions exist: 1) Naturally occurring pollutant concentrations prevent the attainment of the use; 2) Natural, ephemeral, intermittent or low flow conditions or water levels prevent the attainment of the use unless these conditions may be compensated for by the discharge of sufficient volume of effluent discharge without violating state water conservation requirements to enable the uses to be met; 3) Human caused conditions or sources of pollution prevent the attainment of the use and cannot be remedied or would cause more environmental damage to correct than to leave in place; 4) Dams diversions or other types of hydrologic modifications preclude the attainment of the use, and it is not feasible to restore the waterbody to its original condition or to operate such modification in a way that would result in the attainment of the use; 5) Physical conditions related to the natural features of the waterbody, such as the lack of a proper substrate, cover, flow, depth, pools, riffles, and the like, unrelated to water quality, preclude attainment of aquatic life protection uses; or 6) Controls more stringent than those required by Sections 301(b) and 306 of the Clean Water Act would result in substantial and widespread economic and social impact.