

Bacterial TMDL process

The bacterial TMDL process is being undertaken for the following reason (from a 10/27/08 letter to Dr. Lynton S. Land from DEQ addressing his public comments):

“DEQ is obligated to restore the water quality of creeks with bacterial impairments via the Clean Water Act of 1972, and the recent lawsuit in 1998 of the American Canoeist Society and subsequent Consent Decree (essentially a court order), to develop TMDLs for all impaired waterbodies. The Virginia WQMIRA requires that all TMDLs developed must be implemented. For more information regarding the Clean Water Act and the lawsuit which resulted in our current Consent Decree, visit: <http://www.epa.gov/reg3wapd/tmdl/law.htm>.”

DEQ holds public hearings and generates a TMDL report for impaired water bodies. If EPA approves the report, DCR generates and then implements, an “Implementation Plan.”

My belief is the entire bacterial TMDL process, in which DEQ is responding to EPA’s requirements, is unnecessary, can never be effective, wastes public funds and is actually just an excuse not to deal with the real reason water quality in our creeks and rivers is so abysmal. It has been known for 1/3 century that agricultural practices are the largest source of pollution of Chesapeake Bay, and wasting time and money on bacteria is just, in my opinion, an excuse not to deal with the real problem. I believe three facts are relevant:

- 1) The Virginia Administrative Code, Chapter 310 “Pertaining to the relaying of shellfish” clearly defines how shellfish can be grown in and harvested from water contaminated with bacteria, moved to uncontaminated water and then be safely consumed. The Clean Water Act demands that water be “fishable and swimmable.” The provisions of 4VAC20-310,

especially -20. General Provisions: A. **“Nothing in this chapter shall prohibit the harvesting, transporting, or handling of wild and cultured seed-stock shellfish from condemned areas.”** allow almost all except “prohibited” areas around sewage outfalls etc. to be fishable. The public health is thus protected.

- 2) In order to reduce bacterial concentrations, the source of bacteria must be identified with reasonable certainty. DEQ attempted to identify the source(s) of bacterial using “Bacterial Source Tracking” methods, without meaningful success. It is widely agreed by practitioners of these techniques that the various techniques are currently in the development stages, and that no single “library based” technique is reliable. Further, in the Northern Neck, approximately half the land is forested and one-third dedicated to agricultural practices. Common sense dictates that wildlife must be a major source of contamination, and contamination from wildlife is inactionable, as DEQ has repeatedly stated. Bacterial contamination can never be eliminated.
- 3) The entire TMDL philosophy is cumbersome, over-quantified and subject to legal challenge. For example, it would be much more logical to ban all livestock from within 100 feet of any body of water, including ephemeral streams, than to try to impose bans selectively on some, but not all, watersheds. It is common sense that livestock contribute bacteria as well as nitrogen and phosphorus pollution to water bodies, and banning them everywhere would result in improved water quality everywhere. Selective imposition of a ban would likely result in court challenges of the specific data used to make selective decisions.

Given the certain massive contribution from wildlife, it is impossible to ever eliminate bacterial contamination. But there are

several common-sense actions that could be taken by Federal/State entities that might reduce bacterial contamination:

- 1) Require that failed/failing septic systems be repaired immediately and identify a source of funds that can be used by citizens who demonstrate “hardship,”
- 2) Impose “No Discharge” in Virginia waters for boaters, as is done in Maryland, to ensure uniformity throughout Chesapeake Bay,
- 3) Ensure that no livestock enter the RPA (as the RPA is defined in the “Bay” Act.),
- 4) Ban the land-application of poultry litter and municipal sewage sludge because these practices introduce trillions of fecal coliform bacteria per truckload from outside the watershed,
- 5) Ensure that fecal material from kennels and other congregations of dogs is disposed properly, and eliminate feral dogs,
- 6) Change Virginia’s ”greywater” laws so as to allow water from sources other than the toilet to bypass the septic tank and discharge to infiltration trenches, cisterns, etc.

Voluntary actions by citizens can have no significant effect on reducing bacterial levels, just as voluntary actions by agricultural interests have had no significant effect on improving water quality in Chesapeake Bay. Rather than continue to waste time and public funds on the current TMDL process, implementing the six actions listed above would accomplish about all that can be reasonably expected to address the bacterial contamination problem. Even if these actions prove ineffective in reducing bacterial contamination, all actions would certainly reduce nutrient loads to local bodies of water, as will ultimately be required if Federal/State entities ever get around to seriously addressing nutrient pollution.

EPA approved the TMDL for Greenvale Creek, Lancaster County, Virginia, on 08/02/06. Citizens became frustrated that no further action was being taken by the State. Using guidelines

provided by the State, and a template of a previously approved Implementation Plan, an Implementation Plan for Greenvale Creek was submitted to DCR on 12/23/08. Stay tuned.

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