

**Comment Response Document (CRD)  
Regarding the Total Maximum Daily Loads of Fecal Coliform for the Restricted Shellfish  
Harvesting Area in Cherry Cove Creek of the Breton Bay Basin  
in St. Mary's County, Maryland**

**Introduction**

The Maryland Department of the Environment (MDE) has conducted a public review of the proposed Total Maximum Daily Loads of Fecal Coliform for the Restricted Shellfish Harvesting Area in Cherry Cove Creek of the Breton Bay Basin. The public comment period was open from July 8, 2005 through August 17, 2005. MDE hosted a public hearing on this document. MDE received four sets of comments during the comment period.

Below is a list of commentors, their affiliation, the date comments were submitted, and the numbered references to the comments submitted. In the pages that follow, comments are summarized and listed with MDE's response.

**List of Commentors**

<b>Author</b>	<b>Affiliation</b>	<b>Date</b>	<b>Comment Number</b>
Erik Jansson	Potomac River Association	July 20, 2005	1
Michael W. Sullivan	Department of Facilities Operations, St. Mary's County Metropolitan Commission	July 22, 2005	2 through 6
Clare Whitbeck	Citizen	July 27, 2005	7
Matt Mobley	Citizen and Resident along Cherry Cove Creek	August 17, 2005	8 through 15

1. The commentor requests a public hearing on the TMDL document for the following reasons: The Potomac River Association has been involved in a cleanup effort and public awareness campaign by holding a number of public meetings, executed several submerged aquatic vegetation (SAV) plantings and monitoring in the non-tidal streams in conjunction with DNR Stream Waders; The Association has learned that the community is mostly unaware of the mediocre health of Breton Bay; St. Mary's County has completed a Watershed Restoration Action Strategy (WRAS) and is currently putting in place a variety of actions on order to enhance the quality of Breton Bay. The commentor continues that without the direct involvement of MDE, the Cherry Cove Community will remain ignorant of the issues and uninvolved in the stewardship of this beautiful and important little watershed.

**Response:** As a result of this comment and others, a public hearing was held at the Leonardtown Public Library on August 16, 2005 from 6:00pm to 8:00pm. An ad was placed in the St. Mary's Enterprise on August 5, 2005 and again on August 10, 2005 to notify stakeholders of the hearing. Ten interested stakeholders attended the hearing. During the

public hearing, a number of the comments below were submitted and discussed. Therefore, they are not identified separately in this document. However, transcripts and attendance sheets of the hearing are available upon request. With the same legal advertisement the public comment period was extended until August 17, 2005 to allow interested stakeholders to submit additional comments after the public hearing.

2. The commenter states that on page 11 the document states that Bacteria Source Tracking (BST) data is not available. The commenter recommends that the BST be accomplished as soon as possible, and that the implementation of the TMDL be delayed or amended based on the data collected from the BST.

**Response:** MDE is committed to developing TMDLs for all of its impaired waters on a schedule developed in cooperation with the U.S. Environmental Protection Agency (EPA). In keeping with that schedule, Maryland slated this and other fecal coliform/bacteria TMDLs to be completed in this timeframe. MDE shares the commenter's desire to complete BST analysis as soon as possible. Unfortunately, MDE's completion of BST analyses for these watersheds is constrained by the laboratory capacity with which the State has contracted to perform the work. This is a necessary constraint, given that BST is a new science. MDE is using one research laboratory to reduce possible discrepancies in source library building between multiple laboratories. It is expected that the BST results will provide a more accurate estimate of bacteria sources within the embayment.

MDE has received approval from EPA to proceed in this manner, with the understanding that the TMDL reports will be revisited and receive potential revisions that are subject to public consideration upon receipt of the BST results. In the mean time, the State is using the best available information to estimate the bacteria loading contributions by the four major source categories (human, pet, livestock and wildlife). It is expected that these data will be used as a tool to identify significant source contributions in the basin.

Please note that the TMDL is an estimate of the assimilative capacity of the water body and is based on the water quality criteria. We typically estimate the current condition (baseline) to give an approximation of the reduction that will be required for attainment of water quality standards. Therefore, the BST source information will not change the estimated assimilative capacity, but will provide more precision and accuracy to the current source distribution. The BST information will be available for the Breton Bay basin in 2006.

3. The commenter states that based on their observations, the wildlife and livestock contributions may be much greater than estimated. The commenter continues with the following examples: recent large populations of deer and waterfowl have become a concern for damages to crops and residential flora; there are also a number abundant animals in the area that are not taken into consideration (opossum, squirrel, rabbit, fox and skunk); and the commenter has noticed a large increase in boarded horses in the area that may not have been present in the livestock surveys used in the TMDL document.

**Response:** As mentioned in the above response to Comment 2, MDE is using the best available information to estimate the bacteria loading contributions when developing these

TMDLs. The TMDL reports will be revisited upon receipt of the BST results. At the time of the development of these TMDLs in Breton Bay basin, deer and waterfowl data are not available. Also, the St. Mary's County Soil Conservation District was contacted on March 21, 2005 to review the animal count numbers proposed for use in the TMDL. The St. Mary's County Soil Conservation District completed a windshield survey on March 22, 2005 to confirm these counts. The counts were corrected, and the corrected numbers were used in the TMDL analysis.

4. The commentor states that on page 20, the document states that implementation of the TMDL will first focus on managing controllable sources (human, livestock, and pets). The commentor states that these sources, according to the documented estimations, cover only 43.5% of the loading, whereas wildlife contributes 57.9% of the loading. The commentor recommends that wildlife should be the primary focus.

**Response:** While managing the overpopulation of wildlife remains an option for State and local stakeholders, it is not the intended goal of a TMDL to reduce wildlife or change a natural background condition. Given the nonpoint source characteristics of the wildlife contribution, it may be assumed that best management practices, such as stormwater management ponds, applied to controllable sources (i.e., stormwater) may also reduce some wildlife sources contributing to the restricted shellfish harvesting area. Following this first implementation stage, MDE would re-assess the water quality to determine if the measures implemented are sufficient to achieve water quality standards.

5. The commentor states that on page B3 of the document it is stated, "according to GIS coverage, the Cherry Cove Creek restricted shellfish harvesting area watershed does not have a public sewer system". The commentor states that portions of the watershed are covered by the St. Clement's Shores Wastewater Treatment Plant (WWTP) public sewer system.

**Response:** Based on MDE point source permitting information, there are no permitted point source facilities discharging fecal coliform directly into the restricted shellfish harvesting area. Maryland Department of Planning (MDP) Geographic Information System (GIS) information does not account for the existence of a public sewer system in the Cherry Cove Creek watershed. However, additional information provided by St. Mary's County, as part of the public comment process, indicates that the St. Clement's Shore Wastewater Treatment Plant (WWTP), in fact, serves part of the watershed. In 2000, the facility was upgraded to a Biolac treatment system and four rapid infiltration basins were constructed to supplement spray irrigation. The St. Clement's Shore WWTP has a groundwater discharge permit (permit number 01-DP-1587). Requirements under this permit authorize the plant to discharge treated sewage, via spray irrigation and/or rapid infiltration, to the groundwater. Prior to discharge at the spray irrigation site, all wastewater shall be treated to produce an effluent, which does not exceed the limitation of 200 MPN/100ml for fecal coliform.

The Department has included within the septic system source category those properties that may be on the public sewer served by the St. Clements Shores Wastewater Treatment Plant. The analysis assumes that septic system failures occur, discharging fecal coliform to the shellfish harvesting area. Properties connected to the St. Clements WWTP do not present the

same risk of fecal coliform discharge. Accordingly, projected fecal coliform loading estimates from these properties is conservative.

This language has been added to the Point Source Assessment section and Appendix B of the document.

6. The commentor summarizes by recommending that the proposed TMDL either be delayed until the BST data can be collected and analyzed, or amended, if necessary, once BST data is available to focus the management of pollution to the largest areas of loading.

**Response:** See response to Comment 2.

7. The commentor states that she is a property owner on Cherry Cove Creek and is writing to request a public hearing be held in Leonardtown reading the proposed fecal coliform TMDL for Cherry Cove Creek in the Breton Bay basin. The commentor also hopes that the comment period will be extended until after the hearing.

**Response:** See response to Comment 1.

8. The commentor states that in the document, he did not see an analysis relative to the condition of neighboring creeks with watershed of similar hydrology, soil type, land use and topography. The commentor further states that a relative comparison should be paramount to establishing the condition of Cherry Cove, since many creeks on the southern Potomac coast of St. Mary's County may be similarly affected by moderate to poor sewage treatment. The commentor recommends adding a meaningful side by side comparison between Cherry Cove and neighboring Combs Creek, at a minimum but would like to see comparisons to more than one other similar creek with older houses on low lying ground that use septic systems approved in the 1970s.

**Response:** The purpose of the requested analysis is not clear from the comment. If the commentor is suggesting that the segment should be subject to more lenient standards because other segments are also impaired then the Department's response is: The TMDL program develops Total Maximum Daily Load analyses for waterbodies on the State's 303(d) list. A reference watershed approach, to which the commentor alludes, is not an appropriate approach in the case of fecal coliform impairment of shellfish waters. The listing (and closure) is due to failure to meet standards based on public health criteria, and therefore, is irrespective of conditions in other, similar or neighboring waterbodies. Rather, the appropriate comparison to be made in this case is to the water quality standards and criteria in question. The TMDL for Breton Bay demonstrates a loading analysis that will meet the State's water quality criteria, and is an appropriate analysis.

If the commentor is suggesting that more rigorous or consistent assessment of all similar waterbodies is necessary, then the following response applies: MDE has an on-going shellfish program that conducts shoreline surveys to identify actual and potential pollution sources impacting shellfish water quality. Where possible, the shellfish program works with other programs at MDE, local health departments, and the Soil Conservation Service to

mediate any actual sources identified. This program has been successful in preventing illnesses associated with Maryland shellfish for over 50 years, and has resulted in upholding over 90% of shellfish waters in the “open” status. The Department will continue to use this process to monitor and evaluate this watershed under the shellfish program.

9. The commentor states that with respect to topography/land use analysis, Figure 2.1.2 fails to identify two significant streambeds feeding Cherry Cove. The commentor continues that Figure 2.1.2 also fails to identify a municipal spray irrigation wastewater treatment facility at the headwater of both of these streams. The commentor further states that the lack of consideration given to these streams and St. Clements spray irrigation facility is a source of major concern, since treated effluent contains fecal coliform.

**Response:** Figure 2.1.2 is intended more broadly to reflect land use in the watershed and has not been refined; however, the information provided by the commentor with respect to the referenced streambeds and wastewater treatment facility has been considered and incorporated into the TMDL analysis. See also response to Comment 5.

10. The commentor states that the St. Clements facility once applied for and received a surface water discharge permit from MDE without prior written notice given to affected residents. The commentor also believes that the surface discharge permit put Cherry Cove on MDE’s radar screen.

**Response:** The Maryland 8-digit basin that includes Cherry Cove Creek was listed on the State’s 1996 303(d) list (List of Impaired Waters). The list has been updated every two years as required by the Clean Water Act and EPA guidance. As part of these updates, the impairment has been refined to specify Cherry Cove Creek as impaired by fecal coliform. Recent monitoring data shows that the waterbody is not meeting the fecal coliform criterion for the waterbody’s designated use. This is the reason that the basin is on the TMDL Development Program’s “radar” screen.

With respect to the permitting history of the St. Clements facility, MDE – Water Management Administration records show that, since the groundwater discharge permit issuance in 1989 until the upgrade to the biolac infiltration system (2000), the facility has had storage capacity issues. In 1995, the Department advised that it was agreeable to St. Mary’s MetCom constructing a 2.0 million gallon storage pond to provide an additional 20 days of storage capacity and utilizing the existing 25% reserve area to develop additional spray fields. MDE also stated that it would allow spraying during “wet” weather conditions under an “Emergency Operating Plan” to be developed by MetCom and approved by MDE. The facility completed the “Emergency Operating Plan” in 1995 and the Department approved the plan and it was incorporated upon the renewal of MetCom’s groundwater discharge permit (1996). In September 1996, during a meeting between MetCom and MDE it was suggested that because of ongoing storage issues that the plant may be able to discharge to the surface waters of Cherry Cove Creek. The Shellfish Certification Program in October 1996 stated that this was not a feasible solution since it would affect open shellfish harvesting waters. In December, the Shellfish Certification Program reiterated that a surface water discharge from the treatment facility is unacceptable. The program also stated that it is unacceptable to continue to allow spraying under adverse conditions because it would also

affect the open shellfish harvesting area in Cherry Cove Creek. The facility continued to look for solutions to their storage issues including various types of infiltration basins. In March 1998, the MDE –Water Management Administration had reviewed MetCom’s request for temporary authorization to discharge treated wastewater to Cherry Cove Creek, stating that MDE has an established policy prohibiting further sanitary wastewater to shellfish harvesting waters. MDE denied the facility’s request and advised that action be initiated immediately to pump and haul wastewater or install a temporary forcemain to the Leonardtown WWTP in order to prevent wastewater overflows from the facility’s storage lagoons. MDE also offered assistance wherever possible to identify effective alternatives for disposal of wastewater during inclement weather conditions until construction of the rapid infiltration basins has been completed. The biolac infiltration system was completed in 2000 (see also response to Comment 5). Since the new system has been in place, there have been no compliance issues. According to the Department’s records, at no time was there a surface water discharge permit issued to this facility. All of the groundwater discharge permits were subject to public review according to the Maryland Administrative Procedures Act.

11. The commentor recommends addressing the surface water discharge permits issued to this St. Mary’s MetCom facility (a.k.a, St. Clements Shores WWTP) in the Point Source Assessment, with a description of how surface water discharge should affect a creek like Cherry Cove, and detailed analysis determining how MDE concludes the ongoing groundwater discharge practice has no effect on levels of fecal coliform in Cherry Cove.

**Response:** Please see the response to Comment 5. In addition, MDE coordinated with the St. Clement’s Shores WWTP resulting in an offer for the commentor to tour the facility to further the commentor’s understanding of the wastewater treatment process.

12. The commentor recommends monitoring water quality in or near the two unmapped streams flowing from the wastewater treatment facility.

**Response:** Please see the second paragraph of the response to Comment 8 and the responses to Comments 5 and 11 above.

13. The commentor states that as MDE refines its analysis of the source problem, he recommends a more detailed focus on houses using septic systems. The commentor continues that Figure B-1 in the draft document attributes septic systems to all the houses surrounding Cherry Cove. The commentor states that this is not an accurate depiction and that very few residences surrounding Cherry Cove are actually using septic systems. The commentor continues that these septic systems tend to be used by older residences on the southwestern shoreline of the cove. The commentor states that acceptable standards for soil percolation testing in Maryland may not have been in place when several of these older residences were constructed.

**Response:** For this first analysis, septic loads were estimated by first, determining the number of people per septic in the watershed (MDP data); second, estimating the percentage

of septic systems that fail (based on MDE Shoreline Survey data); and third, assigning a daily load for each septic system.

The source analysis methodology presented in this document is to provide a relative ranking of probable sources in the watershed, assuming all sources are contributing. It is expected that the BST results will provide a more accurate estimate of bacteria sources within the embayment including human sources such as septic systems. The advantage of the BST results is that the uncertainty associated with modeling transport paths and kinetics will be removed because the source is estimated from the water sample and inform future implementation decisions.

Please also see the response to Comments 2 and 5 above.

14. The commentor recommends, with respect to wild and/or domesticated animals, that a focused review of the duck farm located at one of the small residences on the northwest finger of the cove.

**Response:** When the BST results become available, it is expected that they will provide a more accurate estimate of bacteria sources within the embayment including waterfowl. The advantage of the BST results is that the uncertainty associated with modeling transport paths and kinetics will be removed because the source is estimated from the water sample and inform future implementation decisions.

Please also see the response to Comment 2.

15. The commentor recommends, as a homeowner whose property value may depend on accuracy of findings in the final report entered into public record, that no final report should be issued until Bacteria Source Tracking data is available, with specific recommendations for a definitive, enforceable remedy. The commentor also strongly urges MDE to issue at least one more draft report containing specific remedial recommendations and ramifications prior to issuance of a final report.

**Response:** In general, MDE intends for the required reductions to be implemented in an iterative process that first addresses those sources with the largest impact on water quality, with consideration given to ease of implementation and cost. The source contributions estimated from the watershed analysis (see Table 2.4.1) may be used as a tool to target and prioritize initial implementation efforts. The iterative implementation of BMPs in the watershed has several benefits: tracking of water quality improvements following BMP implementation through follow-up stream monitoring; providing a mechanism for developing public support through periodic updates on BMP implementation; and helping to ensure that the most cost-effective practices are implemented first.

However, neither the Clean Water Act nor current EPA regulations direct states to develop a detailed implementation plan as part of the TMDL development and approval process. Implementation measures, therefore, are beyond the scope of the TMDL document. Additionally, by not including a detailed implementation plan within the TMDL

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documentation, Maryland allows flexibility for other government programs and stakeholders currently developing mechanisms to reduce bacteria loads to Cherry Cove Creek of the Breton Bay Basin and other waters of the State.

Please also see the response to Comment 2.