

State of North Carolina
Department of Environment and Natural Resources
Division of Water Quality
Division of Air Quality

DRAFT

Summary of Written Comments and Responses to the Comments Submitted on

Draft NC Mercury Total Maximum Daily Load
Draft Post-TMDL Wastewater Permitting Strategy
Mercury Reduction Options for Nonpoint Sources

July 6, 2012

Introduction

The Division of Water Quality (DWQ) developed a statewide mercury total maximum daily load (TMDL) consistent with Section 303(d) of the federal Clean Water Act. DWQ also developed a strategy for implementing the wastewater requirements of the TMDL. The Division of Air Quality (DAQ) developed North Carolina's Mercury Reduction Options for Nonpoint Sources in order to get feedback from the public on choices for nonpoint source mercury management.

The NC Department of Health and Human Services issued a statewide consumption advisory for fish high in mercury. The TMDL is needed to address impairment of fish consumption uses in NC waters. It quantifies loads from in-state and out-of-state atmospheric and water-related sources, and provides an aggregate statewide wasteload. The wastewater strategy describes how the wasteload will be allocated in individual NPDES permits.

Three documents were provided to the public on April 27, 2012 for comment:

1. DRAFT Statewide Mercury Total Maximum Daily Load (TMDL)
2. DRAFT Mercury Post-TMDL Permitting Strategy (for wastewater)
3. North Carolina's Mercury Reduction Options for Nonpoint Sources

Comments from the public were accepted April 27, 2012 through June 18, 2012 for the draft TMDL and the permitting strategy. One thousand seven hundred individuals and organizations had submitted comments by the end of June 18th. This document provides a brief summary of comments received regarding the TMDL and the Permitting Strategy, along with responses and any revisions made to the documents. Comments received during the comment period may be viewed from a link on DWQ's mercury web page <http://portal.ncdenr.org/web/wq/ps/mtu/tmdl/tmdls/mercury>. Comments on the Mercury Reduction Options for Nonpoint Sources continue to be accepted and are not included in this Summary.

Comments and Responses

(Number of individuals and organizations submitting each comment is shown in parentheses)

General Comments (not specifically about TMDL or Strategy)

- Urge the Environmental Management Commission (EMC) to pursue the strongest possible measures to keep mercury pollution out of our air and water (1513).
- Want mercury reduced to protect children and/or grandchildren from mercury-linked developmental problems (1405).
- Mercury regulation needs to be strengthened to limit exposure to mercury (1385).
- Especially concerned about mercury pollution being discharged from Progress Energy's Asheville Coal Plant. Mercury is a potent brain toxin that is particularly dangerous for pregnant women and small children. (1384).
- I am writing to urge you to use the best scientific information to help reduce mercury pollution from our waterways. Mercury pollution is a serious threat to our waterways and the safety of our fisheries, and we need to make sure any plan the state of North Carolina pursues yields actual reductions in mercury pollution. North Carolina demonstrated true leadership in protecting our air and water in 2002 when we

passed the Clean Smokestacks Act. Let's continue to be a leader by implementing a strong TMDL plan that will actually make our water safe for fishing once again (165).

- High mercury levels in fish and water is a constant concern and want something done about it (25).
- Tired of company profits first, and regulators for allowing them to do it, at the expense of human health (18).
- Want coal fired plants held to the most stringent pollution standards and implement the highest pollution reduction technology available (10).
- Urge the EMC to approve the wastewater implementation plan (8).
- We know mercury has been a health issue for many years so quit fooling around and do something about it (7).
- Want general restoration of waters to improve health of North Carolina's environment and quality of life (7).
- Want more use of renewable (green) energy and energy conservation (4).
- The cost of preventing mercury contamination is negligible compared to the medical cost of mercury related illnesses (3).
- Stop Titan (2).
- New River has contaminated fish and people are still fishing (1).
- EMC needs to look at more mercury being released due to fracking (1).
- North Carolina is a dirty state (1).
- Thank you for your commitment to help reduce mercury (1).
- Applaud the Department's effort to impose reasonable regulatory requirements consistent with the insignificant nature of the point source loadings (1).
- Appreciate the Department and staff members' hard work that went into the development of the statewide mercury TMDL and for hosting the public meetings in Hickory and New Bern (1).
- Applaud the Department for its effort to address the mercury impairment issue (1).
- The permitting strategy should be submitted to EPA along with the mercury TMDL (1).

Response:

We appreciate the interest and feedback from each commenter. Each comment submitted was read and considered, and revisions were made to the documents in response to specific comments (listed in the following sections).

Specific Comments on Draft Statewide Mercury TMDL

A) Statewide Approach

- Suggests alternative of 5m categorization of the state's waters for mercury (1).

Response:

Subcategory 5m was considered. Since 2007, states have had the option of using a "5m" (m for mercury) designation for waters on their 303(d) list that are impaired by mercury predominantly from atmospheric sources. EPA allows state to defer development of mercury TMDLs while they carry out mercury reduction programs; however, 5m does not allow for flexible permitting, and does not remove a state's obligation to develop TMDLs, because the waters remain on the 303(d) list. No state has used

subcategory 5m to date, yet 11 states have developed statewide mercury TMDLs in that same time period.

- Concerns with the assessment methodology used to make the determination that all waters in North Carolina are impaired for mercury (5).
- The EMC should lay out a path for reviewing individual watersheds to determine the health of each particular waterway. As mercury concentrations in fish tissue drop to safe levels, these watersheds can then be designated as healthy again, on a case-by-case basis (167)
- The TMDL should be revised to provide an off-ramp for stream segments where use attainment can be demonstrated (4).

Response:

The assessment methodology (AM) is a separate issue from this TMDL. A state's AM is reviewed and revised as needed as part of the two-year 303(d) list cycle. NC's AM for mercury may be revised in the future. A statewide TMDL is an appropriate approach where mercury loading is primarily from atmospheric deposition.

DWQ will continue to assess mercury in fish tissue, applying the AM in place at the time of assessment. The goal of any TMDL is to attain water quality standards.

- Appreciate that States need to act even in the face of uncertainty and change, commend North Carolina for statewide mercury TMDL (2).
- Concerns about the statewide approach, suggest site-specific or basin-wide approach (2).
- Additional studies, using a more sophisticated air model that is readily available and can account for local deposition, are needed to accurately assess hotspots. Scientific studies show that a significant proportion of mercury emitted into the air lands locally (168).
- Support adoption of a baseline statewide TMDL, followed by targeted site-specific TMDLs and implementation plans (1).
- The EMC should approve a modified statewide mercury TMDL now, with a commitment to modeling and follow-on watershed-specific TMDLs (1).

Response:

Given that the mercury problem is widespread, a statewide approach for the development of the TMDL allows us to account for mercury sources that are not confined locally. Section 4.1 of the TMDL document compared a statewide approach with eco-regional and basin-wide approaches and concluded that "A statewide, universal mercury TMDL, which conservatively considers the necessary mercury reduction goal to remove fish consumption advisory across the state, is appropriate for mercury TMDL development in North Carolina."

We understand the concerns regarding "hot spots." Some commenters cited CMAQ model results reported in the TMDL document as showing "hot spots" or locally elevated mercury deposition within North Carolina. The "hot spots" of mercury deposition simulated by the CMAQ model (Figure 5-3 in the TMDL document) are mainly due to emissions from sources that are distributed within the entire model grid cell. The CMAQ model is designed to be a regional model and is not meant to be used for local hot spot analyses or to model impacts immediately around individual sources. Pollutant concentrations within the grid cells containing emission sources may be significantly over predicted due to limitations in

the CMAQ model. The CMAQ model used in the TMDL study aimed to provide a statewide total deposition and the comparative contribution from different geographical emission sources.

As stated under Section 6.5 of the TMDL document, “No linkages between elevated fish mercury concentrations and local large water and air sources were identified. In order to avoid local impact from individual point sources, a cap of wastewater effluent mercury concentration will be developed by DWQ and included in wastewater permitting strategies. Fish tissue mercury concentrations will be continually monitored and evaluated by DWQ to investigate potential local impacts of point sources in effluent dominated streams. If necessary, DWQ will look to additional permit limitations and/or develop site-specific mercury TMDLs.” Language was added under Section 9 (Implementation Plan) to clarify that the statewide TMDL does not preclude studies, additional modeling, or site-specific TMDLs.

B) Water Quality Target

- The water quality target was devised inappropriately and is inconsistent with the NC Administrative Procedures Act and the 2012 Use Assessment Methodology (3).
- The selected water quality target is inconsistent with EPA guidance and overly conservative (3).
- The TMDL must also include water column mercury standard (back calculated from the fish tissue mercury target) (2).
- The draft mercury TMDL may need a more stringent criterion and a larger reduction factor (1).

Response:

As explained under Section 3 of the TMDL document, North Carolina water quality standards include beneficial use designations (classifications) and numeric levels and narrative statements protective of the use designations. The fresh surface water quality standards applicable to the waters covered in this mercury TMDL (15A NCAC 02B .0211) state:

Best Usage of Waters: aquatic life propagation and maintenance of biological integrity (including fishing and fish consumption), wildlife, secondary recreation, agriculture and any other usage except for primary recreation or as a source of water supply for drinking, culinary or food processing purposes.

North Carolina has also adopted water column criteria for mercury of 0.012 µg/l for fresh surface waters. A TMDL is a quantification of the maximum pollutant loading while water quality standards can still be met. In this case, the best usage of waters, which include fishing and fish consumption, need to be met (40 C.F.R. 130.7(c)(1)). TMDLs must identify a numeric TMDL target, a quantitative value used to attain and maintain the applicable WQS, including designated uses, as necessary to calculate the load allocation and wasteload allocation (40 C.F.R. 130.2(i)). No numeric fish tissue water quality criterion for mercury is established in North Carolina; a fish tissue mercury target is therefore needed for this TMDL. The EPA and FDA fish tissue mercury criterion of 0.3 mg methylmercury / kg fish is selected as the target level for this TMDL development. The NC fish consumption advisory action level of 0.4 mg methylmercury / kg fish is not selected, because fish with mercury concentrations at this level will trigger the fish consumption advisory to be in place.

C) Mercury Source and Trend Analyses

- The assessment of mercury sources and trends is sound (2).

- Pleased to see the significant atmospheric loading reductions (1).
- Given the international contribution of air deposition of mercury and the minor contribution from NPDES permit holders, it is not clear why the agency is pursuing a TMDL for mercury in North Carolina (2).
- The draft TMDL should be improved by including a more robust discussion comparing and contrasting the different global sources of anthropogenic mercury emissions. The draft TMDL does a good job of comparing this (from U.S.) relatively small total to the much larger amount of emissions from Asia (on the order of 1,100 metric tonnes). However, the report states that “Together, China, India, and the United States are responsible for 57 percent of the total estimated global anthropogenic emissions of mercury emitted into the air in 2005 (1097 out of 1921 tonnes).” Without the proper context regarding actual U.S. emissions, the statement may give the reader the impression that U.S. emissions are a relatively high proportion to the total, when exactly the opposite is true (1).

Response:

This TMDL is needed to provide the quantification of total maximum load from known mercury sources, including out-of-state sources. Without this quantification process, it would not be clear that NPDES permit holders contribute 2% of the total mercury loading.

The statement about China, India, and the U.S. was removed from the TMDL document.

D) Model Analysis

- A more sophisticated air model that is readily available and can account for local deposition is needed for the study (171).
- The TMDL study is flawed or too simplistic; need more studies or a better model (2).
- DENR did not use a response model to analyze whether reductions will eliminate impairments across the state (2).

Response:

The CMAQ model was used to estimate the total air deposition of mercury within North Carolina and the comparative contributions from in-state and out-of-state air emission sources. CMAQ was developed and is maintained by EPA and regarded as one of the state-of-art air quality models currently available.

A response model that predicts the ultimate results of fish tissue mercury concentrations in North Carolina waters after the reductions are achieved is not currently available. In 2011, EPA’s independent Science Advisory Board (SAB), in comments on proposed Mercury and Air Toxics Standards, cited work that supports a linear relationship between mercury loading and accumulation in aquatic biota. The SAB noted that using the CMAQ deposition modeling and proportionality assumption to produce estimates of changes in fish tissue concentrations is considered to be sound.

E) Reduction Needed

- A simple 67% reduction in mercury from 2002 levels is not a sufficient goal for restoring the health of North Carolina’s waters (167).
- 100 % reduction should be the goal (2).

- Recommend to the Environmental Management Commission that North Carolina require maximum mercury reductions for North Carolina emitters (1).
- TMDL should include maximum mercury reductions from both point and nonpoint sources (1).
- The TMDL cannot demonstrate that a 67% reduction from all sources is the correct amount for reducing fish tissue contamination and restoring the health of North Carolina's waters as is required by the Clean Water Act. The EMC should require additional studies and develop an action plan to implement stronger controls if the additional study shows that stronger controls will meet the goal of the TMDL to reduce mercury fish tissue contamination and delist waters from an impaired status (1).
- The proposed TMDL assumes, without adequate basis, that most of the required reductions in mercury will come from reductions in mercury emissions outside of North Carolina and outside of the United States (1).

Response:

As explained under section 6.2 of the TMDL document, the reduction factor is the percent reduction needed to achieve the target fish mercury concentration from the existing fish mercury concentration. At this time, neither the mechanisms linking emissions and mercury bioaccumulation nor the effect of a given emissions reduction on fish tissue concentrations are completely understood. Study results and empirical evidence suggest that reductions in fish tissue mercury are likely to result from reductions in mercury inputs. Therefore we rely on the proportionality assumption regarding the relationships between mercury emissions, deposition, and fish tissue concentrations to conclude that 67% of reduction is needed from all sources of mercury in North Carolina. In 2011, EPA's independent Science Advisory Board, in comments on proposed Mercury and Air Toxics Standards, cited work that supports a linear relationship between mercury loading and accumulation in aquatic biota.

In recognition of mercury source contributions from outside of NC, "North Carolina's Mercury Reduction Options for Nonpoint Sources" was provided for public comment, which includes an option to petition non-NC sources to reduce their mercury release. Under Section 8, Reasonable Assurance, a number of federal and international activities and programs were listed to show reductions are expected from out-of-state mercury sources as well.

F) Load Allocation and Wasteload Allocation

- Supports mercury minimization plans as the mechanism used to address the small contribution of mercury from water point sources (4).
- Given the insignificant contribution from the point source, no reduction should be expected from the point source. WLA should be prescribed as baseline loading (1).
- We suggest that DWQ consistently use the term "insignificant" to describe statewide point source loadings in the document (rather than "small" (page 5), "tiny," (page 55) "low," etc.) (1).
- The TMDL should be revised to clarify that new or expanded point source discharges to surface waters will be addressed pursuant to the permitting strategy. We also suggest that DWQ delete or revise the last paragraph in Section 6.5 (1).
- Section 6.5 (wasteload allocation) and 6.8 (Final TMDL). These two sections should incorporate by reference the final TMDL Permitting Strategy, as it is amended consistent with our comments (1).

Response:

This TMDL estimated that point source contributed only 2% of the total mercury loading to the receiving waters. However, this estimated 2% is introduced into receiving waters directly and has an immediate effect. By contrast, the nonpoint sources were estimated as the total air deposition within North Carolina, which include deposition onto water surface as well as deposition onto land and potentially introduced into waters through runoff at a later stage. Therefore, the contribution from NPDES point sources cannot be ignored and a proportional reduction from this source category is needed.

The description of the residual stormwater contribution has been changed from “tiny” to “insignificant” in the text. However, in describing the contribution from NPDES wastewater, for the reasons listed above, we do not believe the effect of total point source loading could be ignored and hence we chose not to use the word “insignificant”.

The last paragraph of Section 6.5 (Wasteload Allocation) was revised to include “New or expanded point source discharges to surface waters will be addressed pursuant to the permitting strategy”.

The wastewater permitting strategy needs to be consistent with the approved TMDL but is not part of the TMDL. An implementation plan is not a required component of a TMDL; therefore, more specific references to the permitting strategy is not made in the TMDL document.

G) Margin of Safety (MOS)

- The implicit margin of safety is based upon four different factors in this section. We believe any of these factors individually would provide an adequate margin of safety and that the combination of the four factors makes the MOS significantly overly protective. Moreover, there are additional implicit margins of safety elsewhere in the document, such as the conservative (overestimation) of point source loadings as described in Section 6.1 (the point source loading “number is likely over-predictive”). Accordingly, we suggest that the Department acknowledge that the margin of safety may be overly protective and that it can be revisited in the future if a less conservative (yet still legally adequate) MOS becomes desirable. For example, if point source loadings turn out to be slightly above two percent, a small reduction in the large MOS could readily offset any natural variability in the statewide point source mercury loadings (1).
- Page 57, Section 6.8 Final TMDL. Revise this section as follows: “As described in Section 6.4, a very conservative implicit MOS, based on several factors, is used for this TMDL, and therefore, it is not necessary to include an explicit MOS in the calculations.” (1)

Response:

Yes, the implicit margin of safety is based upon four conservative assumptions. Unfortunately, these assumptions cannot be quantified exactly, hence there is no line to draw as “overly protective.” Due to the conservative assumptions in the TMDL, the explicit margin of safety is set at zero.

Revisions were made to the TMDL text according to the editing suggested by the commenter.

H) Stormwater

- Page 54, Section 6.5 Wasteload Allocation. Please revise the second sentence in the second paragraph as follows: “~~Although the contribution of stormwater to mercury loading is unknown, t~~The vast majority

of mercury from in stormwater that contributes to the impairment of these waters originates from air sources and ~~should~~will be controlled accordingly.” (1).

- The TMDL should account for point source contributions from stormwater NPDES phase II permits, which could significantly alter the balance between point and nonpoint contributions (2).
- Supports the decision to not include municipal stormwater NPDES permit-holders in the TMDL permitting strategy (1).
- The effect of stormwater BMP (e.g. pond) on mercury removal needs to be studied (1).

Response:

Revisions were made to the TMDL text according to the editing suggested by the commenter.

Since the vast majority of mercury in stormwater originates from air sources, this TMDL expects actual reductions in mercury loading in stormwater will be addressed through controls on atmospheric deposition sources that are necessary to meet the load allocation.

This TMDL aims to provide the quantification of a total maximum load from known mercury sources. As described under Section 6.5 of the TMDL document (2nd paragraph of p.55), the best management practices required by stormwater management may also reduce mercury loading, hence a reduction of mercury from NPDES stormwater sources is not proposed in the TMDL. In addition, direct study of the ability of bioretention ponds to remove mercury is still scarce. Instead, sediment was used as surrogate in some reports. The document provided by the commenter is one example.

(http://www.bacwa.org/Portals/0/Committees/Clean%20Estuary%20Partnership/Library/rpt-CEP-SW_Feas-Nov06-09223.pdf). A review of the capabilities of stormwater BMPs in removing mercury is beyond the scope of this document. This type of information may be included in an implementation plan.

I) Daily Load

- Page 57, Section 6.7 Daily Load. We recommend that the Department modify this section as follows: “Because this TMDL addresses mercury accumulation in fish over long periods of time, annual loads are the only technically ~~more~~ appropriate approach for expressing mercury loading goals. Daily loadings simply cannot be shown to correlate to fish tissue concentrations. There are far too many variables at work to establish such a relationship. Therefore, the calculations and compliance with this TMDL are based on annual loads. However, in order to comply with current EPA guidance, the TMDL ~~is also~~ identifies ~~expressed as~~ a daily load for informational purposes.” (1)
- Page 58, Table 6-2 TMDL Allocation Summary. We recommend that the Department add an asterisk to the “daily loads” columns in this table noting that the daily loads are shown for “informational purposes” only and that the reader should see the discussion of the appropriateness of implementing the annual loading goals in Section 6.7 (1).

Response:

Revisions for clarification were made to the TMDL text regarding “Daily Load” and “Annual Load.”

J) Implementation Plan

- The TMDL should be revised to include a detailed, specific adaptive implementation methodology (2).

Response:

We acknowledge that uncertainties are involved in this TMDL study. Language was added to Section 9 (Implementation Plan) to describe an adaptive implementation methodology.

K) Appendix

- Table 2 in Appendix B: Wet deposition number for the zero out run should be 1357.4 instead of 1375.4 (1).

Response:

Corrected as recommended.

Comments regarding the specifics of the Draft Permitting Strategy

A) Level Currently Achieved

- The Level Currently Achieved (LCA) is derived in an unscientific manner, unnecessary and should be eliminated (4).
- While we agree the 47 ng/l threshold is reasonably set, we just don't see the need for this exercise and the triggering for MMPs for facilities given the overall insignificant mercury loadings from point sources, particularly where there is no localized water quality issue (1).
- Instead of evaluation against LCA, evaluate each major point source against the 12ng/l water quality standard for localized impacts in relation to whether a water quality-based limit is necessary (1).

Response:

As stated in the Permitting Strategy document, 98.5 percent of effluent data from the last 5 years was below the LCA and that 93 % of facilities with mercury monitoring or limits could regularly comply with this limit without the addition of new treatment technology. The LCA is needed in order to avoid local impact and also to stay below the state aggregate wasteload allocation.

B) Mercury minimization plans and limits

- Supports mercury minimization plans as the mechanism used to address the small contribution of mercury from water point sources (4).
- We agree that a four year schedule for developing and beginning to implement an MMP is appropriate (1).
- Major Facilities Receiving New Limits. New limits for facilities should be based only on local water quality concerns and then expressed (annual average) and implemented (through MMPs) (1).
- New or Expanding Facilities. We disagree with the suggested approach of imposing limits where “there is a potential for mercury to be in the discharge.” This will mean mercury limits for every new or expanding POTW. This makes no sense given the larger perspective that the entire point source community is approximately two percent of statewide loadings.

We believe that new or expanding facilities should be permitted with the sole focus on local water quality standards compliance. If a limit is warranted, it should be expressed (annual average) and implemented (through compliance with an MMP) (1).

- Modification of Existing Permit Limits. Where the normal reasonable potential analysis shows that there is no longer any reasonable potential to exceed the 12 ng/L water quality-based limit, the limit should be removed and monitoring should revert to the priority pollutant scans (1).

Response:

The permitting strategy will not necessarily result in mercury limits for every new or expanding POTW. The need for limits will be determined through monitoring and/or wastewater characterization.

C) Stormwater

- Supports the decision to not include municipal stormwater NPDES permit-holders in the TMDL permitting strategy (1)
- We believe that MS4 permits should not impose any mercury-related requirements unless the receiving water has documented water column impairments for mercury. Then an MMP (mercury minimization plan) requirement for the MS4 system may be appropriate. Again, a four year schedule should be provided to develop and begin to implement the approved MMP and compliance with the MMP should establish compliance with any mercury-related effluent limitation or condition in the permit We agree that the vast majority (if not all) reductions in mercury loadings in stormwater will be achieved through ambient point source controls rather than MS4 best management practices. MS4 BMPs , such as suspended solids and sediment controls, may yield some tangential mercury reduction, yet should not be relied upon to resolve the State's mercury impairment. (1)

Response:

The suggestion about MMP has been forwarded to the Stormwater Permitting Unit.

D) Monitoring

- Support the monitoring requirement (1).
- Difficult to support costs of \$150 per sampling event, multiple times annually. Action should be taken in cases where proof supports necessary prudence, such as Reasonable Potential Analysis, on a case-by-case basis (1).
- DWQ should authorize the use of method 245.7 (1.8 ng/L detection level) as an alternate to method 1631 (1).
- Given the insignificant overall level of point source mercury loadings, we believe that facilities with local water quality-based effluent limits should monitor for the first two years at a frequency of quarterly. However, after characterizing the mercury loadings over that period, the monitoring should be reduced to either twice-per-year or annual. That would ensure 11-14 samples each permit cycle and that is more than enough in our view to measure an individual facility's insignificant contribution to the insignificant two percent overall point source loadings. Quite frankly, after the first permit cycle, the monitoring should be reduced to annually or with the priority pollutant scans (1).
- For major facilities that do not have mercury limits we believe that monitoring for mercury as part of the priority pollutant scan requirement is appropriate (1).

Response:

We will evaluate authorizing method 245.7. We believe the monitoring frequencies set for facilities with effluent limits are reasonable.

E) Special Situations

- The TMDL should be revised to provide an off-ramp for stream segments where use attainment can be demonstrated (4).

Response:

See p.3 of the Permitting Strategy document for descriptions of Special Situations.

F) Water Quality Standard

- We urge DWQ to revisit the State's water column number for mercury and either remove it altogether in lieu of a whole body fish tissue concentration approach (which would dovetail with the fish consumption advisory approach) or to express the 12 ng/L limit as an annual average concentration. Either approach is scientifically more valid than adopting 12 ng/L as a short-term criterion when we are concerned about long-term fish tissue concentrations (over potentially many years) (1).

Response:

This suggestion was forwarded to DWQ's Classification and Standards Unit.

G) Reduction Needed

- The implementation plan based on the proposed statewide TMDL should be approved and implemented (1).
- The TMDL won't result in reductions in mercury from 98.5% percent of point sources in the state (1).

Response:

Mercury in NC wastewater has already been reduced significantly since the TMDL's 2002 baseline. As stated in the Permitting Strategy document, the strategy is designed to maintain mercury loadings from point sources below the wasteload allocation to surface waters as well as prevent localized areas of mercury excursions above the state water quality standard.

H) Clarification Questions

- P.1 2nd paragraph: How was the baseline calculated? What facilities were used to develop the baseline loading?
- P.1, 5th paragraph: 7% of the facilities will need additional treatment to comply with mercury limit requirements? What is the compliance timeline/schedule for systems that do not meet discharge limits for mercury?
- P. 2, Information below 2. Major facilities currently with an Hg limit: If determined that a facility should have a limit on mercury, would monitoring requirements be included in a NPDES permit or will this be enforced by another permit?

- P. 2, Information below 2. Major facilities currently with an Hg limit: This section does not indicate how long each facility will be given to get in compliance with this requirement? (This information is listed for #3 but not #2).
- P. 2, New or expanding municipal facilities: Sentence does not make sense – “If there is a potential for mercury to be in the discharge, they will.....
- This requirement seems to be geared towards the wastewater NPDES program. Are there any plans to monitor mercury through the Stormwater NPDES program?
- MCB Camp Lejeune currently does not have a Hg limit in its NPDES WW permit or its NPDES Phase 1 Stormwater Permit. WE are not required to analyze for Priority Pollutants on a regular basis; normally these scans are only conducted when renewing the NPDES permit. The NPDES permit would have to be modified to require these scans and their frequency
- P. 1, 3rd paragraph: Current Priority Pollutant Scan method analyzes mercury utilizing EPA Method 245.2. The current reporting limit for Hg using this method is <0.0002 mg/L or <200 ng/L – which is of no use if trying to compare to a water quality standard of 12 ng/L. If Hg is to be analyzed using EPA Method 1631, either a request to contracting laboratory would have to be made to change the Hg test method or a separate sample would need to be analyzed using just this method. This would make more sense rather than adding a requirement to conduct a Priority Pollutant Scan on a regular frequency; just add the requirement for Hg analysis to the permit.
- Recent process of renewing MCB Camp Lejeune’s NPDES permit required Priority Pollutant Scans to be conducted. Results from sampling in Nov 11 and Feb 12 showed no detections (<0.0002 mg/L or <200 ng/L) of Hg.

Response:

Please see Section 6.1 of the TMDL, Baseline Mercury Load for 2002. Compliance schedules are determined on a case-by-case basis. Please contact DWQ permitting staff for questions about specific permits.