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November 9, 2011

Tinka G. Hyde, Director
Water Division
U.S. Environmental Protection Agency – Region 5
77 West Jackson Blvd.
Chicago, IL 60604-3590

RE: Response to Comments on Draft WisCALM guidance document

Dear Ms. Hyde:

Thank you for providing comments on the Wisconsin Department of Natural Resources (WDNR) draft 2012 Wisconsin Consolidated Assessment and Listing Methodology (WisCALM) guidance document in your August 26, 2011 letter. Enclosed are staff responses to U.S. EPA – Region 5 comments, as well as a revised WisCALM document that reflects the changes made in response to U.S. EPA comments.

Your letter expresses a primary concern that our tiered monitoring approach may not provide sufficient data to meet Clean Water Act Section 305(b) assessment requirements. WDNR is in the initial stages of refining our statewide water quality monitoring strategy. Revised monitoring strategy proposals are being developed and reviewed by WDNR technical teams, and the proposals will be considered for implementation during the next monitoring field season. EPA's concerns regarding WDNR's current monitoring strategy will be considered when developing and evaluating our strategy proposals.

Another primary concern identified in EPA's comments is the implementation of s. NR 102.06, Wis. Adm. Code, when making phosphorus-related impairment determinations. WDNR has put significant effort and resources into the development of numeric phosphorus criteria and intends to put forth a commensurate level of effort and resources in the implementation of these criteria. Because site-specific factors may influence relationships between phosphorus concentrations and environmental responses, WDNR feels that these responses provide a more effective and direct measure of a water's impairment status. Based on preliminary statewide assessments of total phosphorus (TP) and biological metric data, some waters that exceed numeric TP criteria have been found to support healthy biological communities. Therefore, to avoid placing waters on the 303(d) list that support aquatic life and recreation uses, WDNR requires confirmation of an aquatic life or recreational use impairment using biological indicators, prior to listing a water body that exceeds numeric TP criteria. We will be reviewing the process by which we use biological indicators in conjunction with TP criteria for our 2014 listing cycle.

A primary program goal for the WDNR Water Division is to submit a timely Integrated Report (IR), including the Section 303(d) list of impaired waters. In addition to timely 2012 IR submittal, we want to make data-driven, transparent 303(d) listing decisions by consistently applying our assessment methodology presented in the WisCALM document. We hope that our responses and revisions to the finalized 2012 WisCALM guidance document will address U.S. EPA's concerns regarding WDNR's assessment methodology.

Please feel free to contact Aaron Larson, of my staff, at 608.264.6129 or aaronm.larson@wi.gov, if you should have any questions about the revised WisCALM or response to comment documents.

Sincerely,

for Ken Johnson
Administrator
Water Division

Enclosures(2)

cc: Matthew Gluckman, U.S. EPA – Region 5
Linda Holst, U.S. EPA – Region 5
Marcy Kamerath, U.S. EPA – Region 5
David Pfeifer, U.S. EPA – Region 5
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Tim Asplund, WDNR – WT/3
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1. Primary Comments

1a. Concerns about monitoring and attainment decisions.

EPA Comment: Tiered data collection approach is unlikely to collect sufficient data to assess water and identify impairments. Based on our understanding of the current monitoring approach, the Tier 1 data collection effort will not collect sufficient data to make an attainment determination. The Tier 2 data collection and analysis process is not designed to systematically collect data across all waterbodies, and in general only targets waters previously identified as "poor." Waters identified as "poor" will only be assessed as resources and regional priorities allow. Furthermore, the Trophic Status Index (TSI) thresholds associated with "poor" waters may fail to identify some waters that are not attaining designated uses. For example the TSI score for shallow lakes in "poor" condition is linked to a "major ecosystem change and once it occurs, it is very difficult to restore the aquatic plant dominated state," (at p. 23). Thus, waters in the "fair" category may be marginally impaired (i.e., given that "poor" waters are certainly impaired and 'difficult to restore'), but based on their TSI score, these waters would be considered as meeting their designated uses.

WDNR Response: Under the current monitoring framework for rivers and streams, Tier 1 macroinvertebrate and/or fish surveys and chemical data, where available, will be used to make an assessment decision. Because of multiple water division goals, Tier 1 monitoring data is collected for several WDNR priorities and, in some cases, insufficient data is collected to make an assessment decision. WDNR recognizes the need for a more strategic approach to collecting Tier 1 monitoring data from streams to meet WisCALM requirements.

For lakes, TSI scores based on satellite imagery may be used for Tier 1 assessments, and as a screening tool for impairment. The development of satellite imagery has enabled Wisconsin to assess its 15,000 lakes in an efficient and low-cost manner. This tool has many benefits, but it also has its limitations. For lakes for which we have no corresponding secchi or chlorophyll a data, satellite images are used to determine water clarity, and a corroborating TSI score. This method has allowed us to assess 4,000 lakes in the most recent reporting cycle (2010).

TSI scores derived from satellite data *allow us to determine the absence of a problem*: i.e., if the water clarity is excellent or good, we can say with some confidence that the lake is not impaired due to eutrophication caused by excessive phosphorus and chlorophyll *a**. Conversely, a poor TSI score indicates that there *may be an impairment*, but further data are needed to verify impairment. This is partly due to lakes in Wisconsin having low water clarity due to tannins (“stained lakes”). For this reason, satellite data is used as a screening tool for impairment listings. To determine a eutrophication impairment, WDNR requires chlorophyll *a* data, as outlined in WisCALM.

WDNR recognizes satellite imagery as a beneficial tool to make a reasonable assessment of a large percentage of our lakes, rather than to forego this tool and only assess a very small number of lakes using labor-intensive field work. Limitations of this technology must also be recognized, so TSI satellite data for lakes that result in "poor" conditions need in-lake data collection of chlorophyll *a* before listing the waters as impaired.

EPA's concern about where WDNR's impairment thresholds are drawn and how to treat "Fair" waterbodies revolves around the philosophical question of whether "impaired" waters should be only those waters in the worst condition, or whether impairment thresholds should encompass waters that are marginally impaired. WDNR acknowledges the need to further assess the options on how to treat these waters, and is currently discussing the question of how to best handle "Fair" or a subset of marginally impaired waterbodies for the 2014 listing cycle.

*In the future, WDNR may study lakes with known zebra mussel infestations more closely and determining what listing methods may be appropriate, as high TP levels may be present, but lakes are oligatrophic due to the mussels' filtering of algae.

EPA Comment: Minimum data requirements in the Draft WisCALM appear to be difficult to meet. For basic water quality parameters such as pH, for example, the State's minimum data requirement is to have 10 discrete samples collected on separate calendar days; for temperature, 20 discrete samples are required (Table 12, "Impairment Thresholds for Rivers and Streams"). Also, the Draft Methodology requires replicate fish and macro invertebrate samples before attainment decisions are made (e.g., Minimum Data Requirements in Table 12). The Draft Methodology does not demonstrate how these data will be routinely collected across State waters in order to assess attainment and produce an informative and accurate 303(d) list. Region 5 is concerned that a 303(d) list produced by way of the Draft Methodology could include a consistently high number of Category 3 waters due to insufficient data. Such a list may be perceived by EPA as an incomplete assessment on the condition of State waters.

WDNR Response: Wisconsin has made significant strides in increasing the number and variety of assessments completed through watershed planning and the creation of automated assessment tools in recent years. However, WDNR staff will continue evaluating minimum data requirements outlined in WisCALM to ensure that these requirements can be practicably met within the current baseline monitoring framework in order to make attainment decisions. WDNR is evaluating our current monitoring strategy with the goal of better aligning our monitoring design and assessment methodology in order to meet Clean Water Act (CWA) assessment requirements.

1b. Concerns about use of multiple lines of evidence.

EPA Comment: Wisconsin's water quality standards for phosphorus contain numeric criteria to be met in surface waters (Wis. Admin. Code NR §102.06). However, because the Draft WisCALM requires multiple lines of evidence before an

attainment decision can be made, the Draft Methodology appears to be inconsistent with the water quality standards. For example, according to the Draft Methodology, chlorophyll-a data will be used to assess lakes for impairment status when phosphorus exceedences have already been demonstrated. For rivers to be listed as impaired, at least one IBI score of 'poor' is required, in addition to a phosphorus exceedence. EPA is concerned that this approach does not implement the water quality standards as they are written and will result in a 303(d) list that excludes some waters not attaining water quality standards for phosphorus. The Draft WisCALM at page 47 indicates that a water may not be listed based on phosphorus impairments unless both total phosphorus and biological data exceed impairment thresholds. Section 303(d)(1)(A) of the CWA requires states to list waters as impaired where "any water quality standard applicable to such waters" is not attained. A decision by Wisconsin to not list a water as impaired in which the approved phosphorus criterion is exceeded would be inconsistent with Section 303(d)(1)(A) of the CWA.

WDNR Response: WDNR supports evaluating both total phosphorus (TP) concentrations and biological responses to assess water quality impairment. Because site-specific factors may influence relationships between phosphorus concentrations and environmental responses, WDNR feels that these responses provide a more effective and direct measure of a water's impairment status. Based on preliminary statewide assessments of total phosphorus (TP) and biological metric data, some waters that exceed numeric TP criteria have been found to support healthy biological communities. Therefore, to avoid placing waters on the 303(d) list that support aquatic life and recreation uses, WDNR requires confirmation of an aquatic life or recreational use impairment using biological indicators, prior to listing a water that exceeds numeric TP criteria.

1c. Concerns about impairment thresholds.

EPA Comment: Table 4 includes phosphorus impairment threshold values for lakes which are higher than the phosphorus criteria set forth in Wis. Admin. Code NR§ 102.06. Wisconsin's approved numeric criteria for phosphorus were developed to be protective of water quality, and concentrations above these criteria indicate a declining condition. However, WDNR's phosphorus impairment thresholds for lakes are indicative of waters that are already in need of restoration.

As stated in comment l.b above, the CWA requires states to list waters as impaired where "any water quality standard applicable to such waters" is not attained. A decision by WDNR to not list a water as impaired where the approved phosphorus criterion is exceeded would be inconsistent with the CW A. Table 4 of the Draft WisCALM must therefore be revised to reflect Wisconsin's phosphorus criteria.

WDNR Response: This comment hinges on interpretation of the rule language in NR 102.06, and the intent behind the language that was codified. When the TP criteria were developed, the intent of scientists working on the criteria was that two

separate listing thresholds would be applicable for Recreational and FAL Uses. When this was translated into rule language, *the most stringent limit for all the uses was codified* (the Recreation limits, protective of swimming, boating, and aesthetics), which will by default be protective of Fish and Aquatic Life uses as well. Fish and aquatic life generally do not experience significant impacts until much higher levels of phosphorus and chlorophyll a lead to greater disturbances*: for shallow lakes, the WisCALM FAL thresholds indicate the point at which a lake is expected to "flip" from macrophyte-dominated to algae-dominated, thus impacting the biota; for deep lakes, the WisCALM FAL thresholds correspond to severe oxygen depletion and low visibility, affecting sight-feeding predator species.

While the criteria reflected in code *are* protective of all uses, it is not until higher TP values are exceeded that FAL uses are impaired. We request that EPA recognize the intent of the science behind the development of the thresholds shown in Tables 4 and 5 of WisCALM.

*The exception is for two-story fishery lakes, where use of the oxygenated hypolimnion by cold water species can be impaired at relatively low levels of eutrophication.

EPA Comment: Region 5 is concerned about the biological thresholds proposed by WDNR for determining the attainment status of rivers and streams. It is our understanding that in developing the fish IBI thresholds, WDNR set the attainment threshold between poor and fair at the approximate median score of sites that were identified as most degraded based on non-fish measures (Table 9). It is assumed that the macro invertebrate thresholds were set at a similar level, although threshold derivation was not detailed in the Draft Methodology. While setting the biological attainment thresholds at this level provides a high degree of confidence that aquatic life use is impaired, the cost of such high confidence is that a larger number of sites with less dramatic impairments are mischaracterized as attaining the aquatic life use. EPA is concerned that these thresholds may not protect designated uses, particularly for Fish and Aquatic Life, and therefore would not ensure meeting the CW A minimum goal of protection and propagation of fish, shellfish and wildlife, or be protective of waters that are not already disturbed. The Draft Methodology should be revised to ensure that biological attainment thresholds for rivers and streams are set at protective levels rather than levels reflective of a degraded condition.

WDNR Response: Condition category thresholds for the warmwater and coldwater fish Indices of Biotic Integrity (IBIs) were developed using the least-impacted stream data by identifying the 95th percentile value of their distribution as the threshold between "good" and "excellent" condition. Below this 95th percentile value, the remaining data were trisected, such that below 33% of that value was considered a "poor" condition, from 33-66% was a "fair" condition, and above 66% was a "good" condition. Condition categories for the large river, small stream, cool-cold transition, and cool-warm transition fish IBI's, developed more recently, include both a "heavily impacted" and a "least impacted" subset of sites. Values less than the 25th percentile for the heavily impacted sites (i.e., 75% of the heavily impacted sites had a value

lower than this) were considered poor, values greater than the 25th percentile for the least-impacted sites (i.e., 75% of the least impacted sites had a value greater than this) were considered good, and values between the poor and good thresholds were considered fair. More detail on the derivation of these thresholds will be added to future updates of the WisCALM document. Citations to peer-reviewed journal articles that explain the development of the IBIs and condition categories were added to the finalized 2012 WisCALM document.

WDNR is considering whether revisions to the above thresholds would be appropriate for the 2014 list.

2. Other Comments

2a. Chlorophyll-*a* thresholds

EPA Comment: WDNR can use chlorophyll a thresholds to determine aquatic life use impairment where total phosphorus criteria are not exceeded through implementation of Wisconsin's narrative water quality standards. We note, however, that the chlorophyll a thresholds in Table 4 have limited justification and appear to correlate to total phosphorus values that are higher than the numeric total phosphorus criteria.

Section 4.5 Lake Impairment Assessment: Recreational Uses. We recommend that Wisconsin either revise its chlorophyll a thresholds so that they are linked with total phosphorus concentrations consistent with the phosphorus numeric criteria, or provide more explanation on how chlorophyll a thresholds are protective of recreational uses for its various lakes categories.

WDNR Response: It is difficult to derive a direct correlation between chlorophyll *a* thresholds and TP thresholds. For some lake categories, the chlorophyll *a* levels that directly correspond to the TP criteria are too restrictive, and such low chlorophyll *a* levels are not needed to be protective of recreation in those lake types. Instead, the chlorophyll *a* thresholds for Recreational uses were set to correlate to the breakpoint between "Good" and "Fair" TSI-derived general condition categories. This is a more appropriate breakpoint for supporting recreational uses. A better link between TP and chlorophyll *a*, one that acknowledges the variability in chlorophyll *a* levels, is needed and the Department will consider modifying the 2014 WisCALM guidance.

2b. Fish Consumption

EPA Comment: WisCALM needs to be revised to reflect procedure used to determine how fish tissue samples are analyzed and what results are necessary to remove the waterbody from the impaired waters list. How are impairment decisions made? How many samples are needed? During what time frame? What contaminant levels are needed? How these factors correlate with a specific source of impairment and how this would lead to a 303d listing decision.

New listing criterion for Hg for gamefish? What is the justification for having a less restrictive listing criterion for Hg in gamefish vs. that for panfish (p. 54). Ex: waters are listed as impaired where consumption advice for panfish is limited to one meal per month; waters for gamefish are listed when "do not eat."

WDNR Response: The listing criteria for fish tissue contaminants (i.e. fish consumption advisories) have not changed. Waters for which fish consumption advisories are in effect are added to the 303(d) list. When an advisory is removed (based on new fish tissue contaminant concentrations), the associated waters are removed from the 303(d) list during the biennial listing update.

The number of samples needed and time frame considered for issuing an advisory on a particular water is determined case-by-case based on the professional judgment of WDNR toxicologists and Department of Health Services staff.

Consumption advisories are based on fish tissue concentrations, and advisories are more restrictive for gamefish than panfish due to the bioaccumlative nature of the contaminants in the tissue (i.e. greater accumulation in larger gamefish than panfish). Thus, consumption advice for an individual water may be both "do not eat" for gamefish and "one meal per month" for panfish, despite the fish being exposed to the same ambient water column concentrations. When specific advice is issued for either one or both of these fish types, the water is listed as impaired.

2c. Public Water Supply/Public Health and Welfare

EPA Comment: The Draft WisCALM should provide a discussion about how the State intends to implement the language of NR 102.04(7)(a) and 102.04(8) in relation to impairment decisions. If the public health and welfare use is not currently assessed, WDNR should begin investigating, with the assistance of the Region, development of an appropriate methodology for assessing attainment of public water supply use.

WDNR Response: WDNR acknowledges that the current standards state that all surface waters shall be suitable for supporting public health and welfare; however, current formal use classifications for public water supply do not exist. While public water drinking supply and non-public drinking water supply are defined in Wis. Admin. Code NR § 102, the definition does not imply an official designated use category. These definitions were designed to implement language in NR 105. As WDNR states in the WisCALM document, an impairment category for Public Health and Welfare Uses may be created in the future, to house impairments due to fish consumption advisories, contaminated sediments and blue green algal toxins. However, without clearly defined uses in code for Public Water Supply, it will be difficult to apply attainment thresholds to create impairments for this use.

EPA Comment: Section 6.0 of the Draft WisCALM states "WDNR hopes to create an impairment category for Public Health and Welfare Uses for the 2014 listing

cycle. This category would house impairments due to Blue Green Algal Toxins (see Lakes Assessment chapter)" (at p. 53). WDNR should also create an impairment category for public water supply use in 2014.

WDNR Response: See response to previous comment.

2d. Other Topics

EPA Comment: The Draft WisCALM states that "Data from the most recent 10-year period are to be used when assessing waters" (at p. 14). However, in Section 4.2 Lake General Condition Assessment, WDNR states only the most recent 5 years of data are used when conducting assessments to make impairment determinations.
• Please revise the Draft WisCALM to clarify for which parameters the State would seek 10 years of data and where 5 years (or other duration) would be used.
• Where there are not 5 years of data within the recent 10 year period to assess the status of the water, EPA is concerned that a 10 year period constraint on eligible data, in conjunction with the lack of an apparent monitoring schedule for waters, may result in a consistently high number of waters being listed under Category 3 due to insufficient data.

WDNR Response: WisCALM was updated to clarify when 5 years vs. 10 years of data are used for assessing waters. For instance, our lake TP and chlorophyll a automated assessment report uses the most recent 5 years to make an automatic determination that a lake is a candidate for 303(d) listing. If data from the most recent 5 years indicate listing is appropriate, then we can have a high level of confidence that it should be listed. However, the automated report also displays the data for the past 10 years, and that information can be viewed by the biologists to make a weight of evidence decision about listing. We do not feel it is warranted to routinely use data older than 10 years to make impairment decisions.

EPA Comment: Table 12. Impairment thresholds related to flow existed in the 2010 Draft WisCALM, but not in the 2012 version. Please explain why flow related impairments were removed, specifically, explaining if this removal weakens the assessment methodology, or protection of waters.

WDNR Response: Flow related impairments were removed from the assessment methodology because 1) guidance is not available for developing TMDLs for flow-related impairments and 2) the difficulty in identifying causes (sources) that affect flow-related impairments (e.g. anthropogenic vs. naturally occurring). Because WDNR does not have the tools needed to determine whether flow changes are natural, or to address effects of these changes, the removal of this impairment category does not significantly change the current level of protection of waterbodies.

EPA Comment: Please provide the rationale for the requirement that eutrophication standards for lakes need to be exceeded 2 out of 5 years before the aquatic life and recreational uses are impaired (for chlorophyll a, if the threshold is

exceeded in 3 out of the most recent 5 years, the lake is a candidate for impairment). EPA's nutrient criteria for Florida identify that aquatic life uses are impaired if the eutrophication criteria are exceeded more frequently than 1 out of every 3 years on average.

WDNR Response: WDNR feels that it is important to require more than a single year of exceedance before listing a lake as impaired because of the inherent variability of lentic systems. However, in response to this comment, WDNR has modified the chlorophyll *a* assessment protocols in WisCALM to require a minimum of 2 years of exceedance for impairment listing, instead of 3 years. This is now consistent with the total phosphorus assessment protocols. Both the TP and chlorophyll *a* protocols also specify that if more than 2 years of data are available, a majority of years for which there are data must exceed in order to list as impaired.

EPA Comment: Table 4 (at p. 31) and Table 13 (at p. 49). The column for "Minimum Data Requirement" does not indicate how many samples are required to assess attainment using aquatic toxicity-based indicators. Instead the instructions refer to the number of taxa (8) required for toxicity testing to develop criteria. Please indicate the appropriate number of samples to evaluate attainment of the standards. What is the appropriate number of samples to evaluate attainment of the standards for aquatic toxicity?

DNR Response: The minimum data requirement for aquatic toxicity assessments has been revised in the finalized 2012 WisCALM document to require two samples within a 3-year period.

EPA Comment: The discussion of Aquatic Macrophyte Community Index and related plant metrics describes steps WDNR is taking to determine the role of plant metrics in defining impairment indicators. The Draft WisCALM states that WDNR is developing guidance in 2012 (at p. 30). Should this read 2014?

WDNR Response: This typo was corrected in the finalized 2012 WisCALM document.

EPA Comment: Please explain how WDNR will determine if excessive plant growth is impairing recreational use (at p. 35, third bullet)?

WDNR Response: WDNR hopes to develop metrics that correlate density of macrophytes or frequency of occurrence with impacts such as inhibited recreational uses or increased issuance of Aquatic Plant Management permits. Guidance on the use of the Aquatic Macrophyte Community Index (AMCI) as a method for determining levels of plant growth that impair recreation uses will be provided in future updates of our WisCALM guidance document.

EPA Comment: The Draft WisCALM defines limited aquatic life community waterbodies as requiring a DO level of 1 mg/l (at p. 39). Please clarify if this means that DO should be at least a minimum of 1 mg/L.

WDNR Response: The sentence describing the DO requirement for limited aquatic life waters was revised as follows: "Representative aquatic life communities associated with these waters are tolerant of many extreme conditions, and require concentrations of dissolved oxygen that remain above 1 mg/L."

EPA Comment: The discussion of contaminated sediments lacks an explanation of the methodology that will be used to make impairment determinations (See Section 6.2, at p. 55). For example, what are the minimum data requirements for listing based on contaminated sediments? What criteria will be used to compare monitoring data to the water quality criteria identified at Wis. Admin. Code NR § 105? The Draft WisCALM should be revised to clarify how such assessments will be conducted.

WDNR Response: WDNR staff may assess waters based on sediment contaminant concentrations using the threshold values outlined in a sediment quality guidance document entitled, *Consensus-Based Sediment Quality Guidelines, WT PUB- 732, 2003,* which is available on our the DNR website at: *http://www.dnr.state.wi.us/org/water/wm/sms/documents.html*. This guidance document will be included as an appendix to the finalized 2012 WisCALM document.

EPA Comment: Chapter 7.1 provides that "Where natural background levels of a chemical are higher than impairment thresholds (due to soil types, geology or other local factors), the water may not necessarily be considered impaired" (at p. 57). Before the State could make a determination not to list a water as impaired on the basis of site-specific factors, EPA would require a revision to the federally approved WQS, which would require EPA approval. See 40 C.F.R. § 131.21(e).

WDNR Response: Chapter 7.1 was revised to explain that when natural background pollutant levels are higher than impairment levels, site-specific criteria or a Use Attainability Analysis (UAA) should be conducted. The water would be placed in Category 5c (impaired, but natural conditions) until either a site-specific criterion was developed or a UAA on the water was completed.

EPA Comment: The discussion of "Watch Waters" (Section 7.4, at p. 59) should be revised to include how WDNR plans to address issues such as monitoring schedules, data collection efforts, or other methods necessary to determine impairment status. Please clarify if Watch Waters are intended to be listed separately, for example, as Category 3 waters? Helpful EPA guidance on Category 3 includes the Memorandum from Suzanne Schwartz, EPA to Water Division Directors, "Information Concerning 2010 Clean Water Act Sections 303(d), 305(b), and 314

Integrated Reporting and Listing Decisions," May 5,2009, at pp. 5-6. (See http://www.epa.gov/owow/tmdl/guidancelfinaI52009.pdf.)

WDNR Response: Watch waters are flagged in our WATERS database. The Department intends to address watch waters in the future by either revising our current monitoring strategy or dedicating specific funds to follow-up on these waters to verify impairment status.

EPA Comment: The discussion of de-listing impaired waters (Section 7.6 at p. 60) should be revised to clarify that impairments/pollutants may also be delisted.

WDNR Response: Section 7.6 has been revised to clarify that impairments/pollutants may also be delisted.

EPA Comment: Section 8.0, Integrated Report Listing Categories (at p. 62). Should the reference made to Integrated Report Listing Categories be to Table 13, not Table 15?

WDNR Response: Change made to table reference in finalized 2012 WisCALM.

EPA Comment: Section 8.0 (at p. 63). In the discussion of assessment units with multiple pollutant/impairment listings, the State should explain how it intends to track those waters where some, but not all causes of impairment have been remediated (i.e. effect of one pollutant removed but not another). This section should also explain how the State intends to address de-listing for portions of waterbodies that were listed but are no longer impaired, when remaining portions are still impaired.

WDNR Response: WDNR assigns a listing category to both the overall water and individual pollutant/water combinations in our WATERS database. If one pollutant listing has been removed from a water (e.g. because the applicable criteria are now met for that pollutant) but additional pollutant listing(s) remain, the overall waterbody will remain in an impaired water category (i.e. category 4 or 5) until all pollutant listings have been removed. Categories are also assigned to pollutant/water combinations, in part, to allow DNR to track the TMDL status of each pollutant listing. For example, for a water with multiple pollutant listings, category 4a is assigned to pollutant listings when a TMDL has been developed, while other pollutant listings that do not have a completed TMDL are assigned to category 5.

If a portion of a previously listed water is later determined to be no longer impaired, while other portions remain impaired, the originally listed water may be further subdivided to account for these differences in attainment status.

Further explanation on categorization and delisting was added to Section 8.0 of the finalized 2012 WisCALM.

EPA Comment: The process outlined in Appendix B for assessing streams and rivers is not clear as written. It appears there are missing or mislabeled steps and parts. It is not clear what the sequential process is for running the 'package' in order to analyze data for assessment and attainment decisions. It is also unclear how chemistry alone is evaluated using this assessment package. The Draft WisCALM should be revised to clarify the parts, steps and subparts of the decision making process.

WDNR Response: Appendices B and C were intended to be step-by-step guides for internal staff use only that discuss, in more detail, how to conduct assessments of the fish and aquatic life and recreation uses for lakes (Appendix A) and streams/rivers (Appendix B). These guides lack sufficient background information and detail for general public understanding; therefore, the appendices have been removed from the finalized 2012 WisCALM document.