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**Dave Somers**
*County Executive*

April 6, 2018

Susan Braley
Water Quality Program
Department of Ecology
PO Box 47600
Olympia, WA 98504-7600

Dear Ms. Braley,

Thank you for the opportunity to provide comments on the Department of Ecology's ("Ecology") public review draft of the Water Quality Policy 1-11 Chapter 1[1] *(Policy)*.

To gain the financial and political support necessary to protect and improve water quality, decision-makers and the public need to be confident that procedures for listing and de-listing are transparent and based on good science. While proposed changes to the *Policy* are a start, the County does not believe the proposed changes go far enough. Two areas of particular concern are:

1. Ensuring credible data: Water quality data evaluation procedures similar to those provided for sediment are lacking. This undermines the confidence partner organizations and the public have in listing and de-listing decisions. Ecology should document the parameter specific criteria (e.g. how to treat temperature data when instruments fail calibration) necessary to evaluate the credibility of water quality data.

2. Benthic invertebrate listings: We do not believe the *Policy* sufficiently recognizes the highly variable nature of benthic invertebrate results shown through comprehensive studies like Snohomish County's Little Bear Creek Watershed Plan. We urge Ecology to:
    - Provide justification on the decision to set numeric BIBI threshold scores, including why municipalities should have confidence in the datasets used to set thresholds;
    - Require more than two years of data as this helps ensure outlier samples are not driving listing determinations and recognizes that BIBI scores are highly variable; and
    - Delay the use of benthic assemblage indices, e.g. the Hilsenhoff Biotic Index, until Ecology provides scientific documentation supporting their use and engages stakeholders in determining how these indices will be applied.

[1] Washington State Department of Ecology. Public Review Draft. Water Quality Program Policy 1-11 Chapter 1. Washington's Water Quality Assessment Listing Methodology to meet Clean Water Act Requirements. February 2018.

The County looks forward to working with Ecology and the EPA to discuss recommendations above and those further identified in Attachment A.

If you have questions, please feel free to contact Steve Britsch at s.britsch@snoco.org or by phone at 425.262.2656

Sincerely,

Karen Kerwin, P.E.
Engineering Manager
Snohomish County Surface Water Management

## Attachment A – Comments on Water Quality Policy 1-11 Chapter 1

The following comments are organized according to Chapter 1 of the draft *Policy*.

### Executive Summary

**1. Clarify the roles and responsibilities for the production and use of credible data during the WQA.**

> **Recommendation:** Include a sentence or two in the executive summary summarizing the roles that submitters and Ecology play in producing and utilizing credible data for the WQA.

### Abbreviations, Acronyms, and Definitions

**1. Improve the list of defined terms to foster consistent interpretation of the *Policy.***

> For example, the term "data validation" conflicts with usage in other parts of the Policy and with Environmental Information Management System (EIM) specified Quality Assurance levels. Additionally, we understand that EIM does not require, nor does Ecology conduct data validation under *Ecology's Quality Management Plan (QMP)* [2], for the purposes of the WQA.
>
> **Recommendation:** Evaluate the use of terminology throughout the *Policy* to eliminate vague, inconsistent, or incorrect descriptions. Ensure terminology aligns with legal and scientifically accepted definitions in conformance with Ecology's *Quality Management Plan* requirements for inclusion in the *Policy's* definitions.

**2. Several commonly used terms lack definition.**

> **Examples of commonly used terminology lacking definition include:** *Critical Condition, Consistent, Natural Condition, Non-detect, Persistent, Pollutant, Pollution, QA Assessment Level, QA Planning Level, Replicate Sample, Field Replicate Sample, Sampling Event,* and *Significant Human Impact*.
>
> **Recommendation:** Define those terms included above. Search the document for commonly used terms, and include definitions for those as well.



[2] Washington State Department of Ecology. Quality Management Plan. Publication No. 15-030303. December 2015 – Version 4.

**Part 1: General Assessment Considerations**

**1A. Introduction and Background**

**1. Page 2. Awkward last sentence of the first paragraph "Development of this document was largely in accordance with directed in part by EPA's Integrated Reporting Guidance".**

> **Recommendation:** Consider re-wording to ""Development of this document was largely in accordance with, and directed in part by, EPA's Integrated Reporting Guidance".

**2. Page 2. As written, the fourth paragraph could be interpreted to suggest that data submitters are responsible for ensuring the credibility of data used in the WQA. The credibility of data collected for an intended purpose may be sound, yet that does not necessarily mean the data should be assigned a Level 3 or higher in EIM for use in the WQA.**

> **Recommendation:** Re-word the sentence to clarify that data submitters are responsible to ensure data credibility for their QAPPs intended purpose. Per RCW 90.48.570-585, Ecology has responsibility for ensuring use of credible data in the WQA.

**1B. Process to Develop Water Quality Assessment**

**1. The process, including roles and responsibilities of the involved parties and the laws governing the process should be better described.**

> As written, this section does not provide stakeholders a clear picture of the process. We understand that the WQA process involves three main steps: assemble, evaluate, and assess data.
>
> - The *assemble step* is met when Ecology sends a *call-for and receives-data*.
> - The *evaluate* step is met when Ecology determines the credibility of assembled data using specific criteria
> - The *assess* step is met when Ecology compares the data deemed credible, in the evaluate step, against *Water Quality Standards*[3] and makes category determination.
>
> **Recommendation:** The section would benefit from outlining the WQA development process in a simple flow chart, assigning roles and responsibilities to involved parties, and taking care to ensure consistent and appropriate word usage when describing steps of the WQA process.



[3] Water Quality Standards for Surface Waters of the State of Washington. Chapter 173-201A WAC. Amended May 9, 2011

**2. During the January 19, 2017 WQP stakeholder meeting, Ecology committed to revising statewide listings to reflect current water quality conditions through the use of a new automation process. Ecology indicated a willingness to examine listings that have only pre-2001 data to determine if they qualify for their current listing category and revise those that do not qualify.**

**Recommendation:** Include language in the finalized *Policy* to reflect Ecology's ongoing commitment to reviewing listings which were based upon pre 2001 data that no longer meet the requirements of *Policy* updates. During each assessment, move listings supported by "old" and/or non-representative data into a new category established for determining conformance to *Policy* conditions and consideration for new study. This recommendation aligns with opportunities under Goal 2A of the *Water Quality Programs 2015-2020 strategic plan*[4] to improve internal WQA process and maintain progress on *Standards.*

**1C. Waterbody Segments and GIS Layers**

**1. Data available through the Water Quality Atlas is not "representative" of *Standards*.**

The disclaimer on data available through the Water Quality Atlas indicates that Ecology does not certify the information is an accurate representation of *Standards.*

**Recommendation:** Indicate that data available through the Water Quality Atlas is useful, but that stakeholders should reference WAC 173-201A, Table 2 for the definitive set of water quality standards to apply to water bodies of interest.



[4] Washington State Department of Ecology. Water Quality Program. 2015-2020 Strategic Plan.

**1D. Ensuring Data Credibility in the Assessment**

**1. The draft *Policy* does not adequately describe the specific criteria used to determine credibility of water quality data in alignment with the *Water Quality Data Act (WQDA) RCW 90.48.570-585.***

As identified in EIM Study Form help document version 3.2; to achieve a Quality Assessment and Planning Level of 3 for inclusion in the WQA, collectors/submitters of sediment data must follow the Sediment User's Manual II[5]. This manual contains guidance on specific criteria used to evaluate the credibility of sediment data. The QAPP guidance required to achieve the same level of Quality Assessment and Planning for water quality data does not contain specific criteria.

**Basic Examples of Specific Criteria Used to Evaluate Data Credibility of Water Quality Data:**

(a) As required by Chapter 2 of the *Policy,* stakeholders submitting data for the WQA must collect, preserve, and analyze data using methods prescribed in procedures published by Ecology, EPA, USGS, APHA, USACOE, ASTM, or the Code of Federal Regulations. To facilitate this, the County requests Ecology develop, document, and utilize a list of parameter-specific methods for reference and use in determining data credibility.

(b) Neither the *Policy*, any quality assurance/quality control (QA/QC) document, nor SOP provides definitive guidance on how organizations should treat/qualify their bacteria samples that exceed method-specific hold temperatures or where field duplicates fail a relative standard deviation or percent difference data quality objective. Without these parameter specific criteria, stakeholders are treating data differently and Ecology likely accepts data for use in the WQA that it should reject.

(c) Neither the *Policy*, any QA/QC document, nor SOP provides definitive guidance on how organizations should treat/qualify their temperature data if a thermistor fails calibration criteria. Without these parameter specific criteria, stakeholders are treating data differently and Ecology likely accepts data for use in the WQA that it should reject.



[5] Washington State Department of Ecology. Sediment Cleanup User's Manual II (SCUM II). Guidance for Implementing the Cleanup Provisions of the Sediment Management Standards. Chapter 173-2014 WAC. Publication No. 12-09-057.

Ensuring data credibility is particularly important since the WQA is a significant agency action under the *Administrative Procedures Act*[6] *(APA)*. Unfortunately, neither Chapter 1 nor 2 of the draft *Policy* nor QAPP guidelines for water quality data contain baseline parameter specific data credibility requirements, in the form of method and data quality objectives (that could be used to define QA or Planning Level 3 or higher in EIM). Further, Chapter 2 of the *Policy* has not been updated and provided for public review.

Without adequate parameter-specific criteria in the *Policy* or QAPP guidance*,* Ecology and stakeholders risk generating and/or approving QAPPs using differing method and data quality objectives. This results in organizations verifying data using different conventions This data, submitted to Ecology for the assessment, undermines the credibility and consistency of data used for the WQA.

To assist in alleviating the issues above, Snohomish County contributed to a *Credible Data Proposal*[7] provided to Ecology in December 2016 which outlined a framework to improve and employ consistent processes for collecting, assessing, and utilizing credible water quality data for the WQA and therefore TMDL development. The recommendations in that proposal remain relevant, though some may be more pertinent to Chapter 2 and EIM.

**Recommendations:**

- Reconsider the recommendations outlined in the *Credible Data Proposal* and initiate an effort to update Chapter 2 to better define a baseline level of acceptability for data used in the WQA and therefore TMDL development.
- Create a new QAPP template or improving upon (publication 04-03-030) by including MQOs and DQOs.
- Improve the QAPP template requiring its use for: WQP grant funded projects, NPDES permit-related QAPPs, and Ecology's internal monitoring projects in support of the federal clean water programs. Achievement of QAPP required MQOs and DQOs would define data that can be assigned a QA or Planning Level 3 or higher in EIM.



[6] Washington State Legislature. Administrative Procedures Act. RCW 34.05.272.

[7] Interagency Team. 2016. Credible Data Proposal to Ecology to Support Refinement to Water Quality Policy 1-11, the Water Quality Assessment and Total Maximum Daily Load Programs.

**1E. Data and Information Submittals**

**1. Page 11. The allowed use of modeled data to determine natural conditions is of concern where credible field validation of modeled results is not conducted.**

> **Recommendation:** Clarify that credible field validation of modeled results is necessary for use in determining natural conditions.

**2. Page's 12 – 13. Better describe the information leading up to the EIM Quality Assurance table to clarify the difference between QA Planning Levels and QA Assessment Levels. Additionally, improve the EIM Quality Assurance table to clarify roles and responsibilities for data collectors, labs, and data submitters.**

> **Recommendation:** Edit language, using active voice, leading up to and within the table to clarify roles and responsibilities of the various actors involved in the EIM submittal and QA/QC level assigning process. Define important terminology such as QA/QC Planning Level and QA/QC Assessment Level.

**3. EIM does not currently provide the capability for data submitters to upload their approved QAPP, SAP, equivalent document, modeling effort information, or narrative documentation to support natural condition or Category 5 determinations for B-IBI, and ensure that data meet QA Planning and Assessment levels of 3 or higher.**

> **Recommendation:** Provide EIM the capability to house attached documents and require data submitters to upload their QAPP, SAP, equivalent document, information obtained from a modeling effort, or narrative documentation to EIM such that natural condition and Category 5 determinations for B-IBI occur and ensure that data achieve QA Planning and Assessment Levels of 3 or higher.

**4. Definitions for Quality Assurance Levels do not account for instances where Ecology provides waivers from producing a new QAPP when Ecology deems an existing QAPP equivalent.**

> **Recommendation:** Include language in applicable sections of the *Policy* to reflect Ecology decisions to provide waivers to QAPPs and describe how data submitters should assign Quality Assurance levels to that corresponding data in EIM.

**5. Lack of clarity that EIM Quality Assurance Levels of 3 or above includes conditions in the levels below them.**

> **Recommendation:** Clarify that the assignment of quality assurance levels of 3 or higher include the conditions placed on levels below them.

**6. Page 15. Use of non-detect samples. Choosing a random value for calculation of a geometric mean seems inconsistent with EIM requirements for assigning values to non-detect data.**

EIM requires that the method detection or reporting limit be assigned to a non-detect result, particularly for bacteria data where geometric means are generated for comparison to *Standards*. An associated qualifier is used, indicating the non-detect value.

**Recommendation:** Review EIM requirements for assigning values to non-detect data and update the *Policy* accordingly. This may include indicating that non-detect values are assigned a value equal to the method detection or reporting limit.

**1G. Other Assessment Considerations**

**1. Page 25. Under Natural Conditions, second paragraph, first sentence. The information and documentation generally necessary to determine natural conditions is not identified.**

**Recommendation:** Clarify the information and data required to make a natural conditions determination. Make it clear that such information focus on processes and discharges regulated under the CWA and RCW 90.48. Additionally, refrain from using the term "validate" in the sentence as its use here is not consistent with Ecology's *QMP*.

**2. Page 25. Natural Conditions. Use and documentation of best professional judgment needs clarity.**

**Recommendation:** Standardize the process as much as possible to reduce the reliance on subjectivity and facilitate consistent decision making when applying judgment for listing decisions. Clarify how to document professional judgment when applied.

**1H. Prioritizing TMDLs**

**1. While we appreciate the added commitment to statewide public meetings, these meetings/webinars are not an appropriate public involvement vehicle for local participation in prioritization of TMDLs. Focused coordination with local partners is necessary to ensure that TMDLs are mutually prioritized to produce meaningful and measureable improvements in water quality. This level of engagement is consistent with the EPA's 2013 Long Term Vision for Assessment, Restoration, and Protection under section 303(d) of the CWA[8].**

> **Recommendation:** Commit regional TMDL managers and leads to holding public TMDL engagement and prioritization meetings to solicit local knowledge to help inform the prioritization process.

**2. The criteria used to prioritize TMDLs lack the specificity found in in a *1997 Memorandum of Agreement (MOA) between Ecology and EPA*[9].**

> The County understands that the *MOA* expired on December 31, 2013, but remains in effect because Ecology and EPA have not completed negotiations to finalize an update to the agreement. The *MOA* contains much more specificity on how to prioritize TMDLs and are therefore important to retain and/or improve upon. Additionally, it may be useful to review *Appendix E* of the *Water Quality Program Permit Writer's Manual* [10] *Part 1* or other documents as appropriate to consider for inclusion in the *Policy*.
>
> **Recommendation:** After updating the MOA, align the TMDL prioritization criteria in the *Policy* with those in the MOA and/or the *Permit Writer's Manual.*



[8] United States Environmental Protection Agency. 2013. A Long-Term Vision for Assessment, Restoration, and Protection under the Clean Water Act Section 303(d) Program.

[9] Memorandum of Agreement Between the United States Environmental Protection Agency and the Washington State Department of Ecology Regarding the Implementation of Section 303(d) of the Federal Clean Water Act. October 29, 1997

[10] Washington State Department of Ecology. Water Quality Program Permit Writer's Manual, Publication No. 92-109. 2015.

**Part 2: Specific Assessment Considerations for Water Quality Criteria**

**General Comment: The steps described for moving a Category 4a listing to Category 1 within a TMDL area do not consistently meet Ecology TMDL lead's or EPA's expectations.**

**Examples of discrepancies between Ecology and EPA expectations and Policy:**

- Experience with de-listing segments impaired for bacteria indicates that Ecology TMDL lead and EPA expectations for data volumes and analysis methods did not conform to *Policy* or *Standards*.
- Ecology TMDL leads do not consistently evaluate TMDL load or waste load allocations when making de-listing decisions.
- The age of data allowed or required to support de-listing has differed from *Policy.*

**Recommendation:** Ecology's Water Quality Program Policy staff should work with TMDL leads and EPA to develop transparent, predictable, and credible parameter-specific de-listing methods protective of designated uses and consistent with *Standards.*

**2A. Bacteria**

**1. Page 29, third paragraph, first sentence. Assessment Information and Data Requirements. Lacks clarity on whether a minimum of 5 data collection events are needed to calculate a geometric for a season or a water year.**

**Recommendation:** For consistency with *Standards* and subsequent areas of the *Policy,* clarify that a minimum of 5 data collection events or samples are needed to calculate a geometric mean for a season.

**2. The *Policy* fails to specify the maximum number of samples to collect and assess for a water year and critical period.**

**Recommendation:** Identify the maximum number of bacteria samples to collect and assess within a critical period or water year to align with *Standards* and ensure consistent use of the number of samples the WQA and category 1 determinations.

**3. It remains unclear why Ecology's Error Analysis excluded bacteria, allowing better management of listing decision error rates through the use of advanced test statistics.**

> **Recommendation:** In alignment an Ecology 2002 overview of the Water Quality Assessment Process[11], reconsider including bacteria in an error analysis to mitigate for Type 1 and Type 2 listing decision errors.

**4. EIM currently does not contain a clear and easily queried mechanism to identify bacteria samples associated with programs specifically targeting discharges or events not representative of ambient conditions.**

> **Recommendation:** Modify EIM such that users and Ecology are provided the ability to query representative vs. non-representative data.

**2B. Benthic Biological Indicators**

**1. It is unclear how Category 5 bioassessment listing decisions can be made when EIM does not have the capability to accept documentation showing that deleterious chemical or physical alternations cause the designated use impairment.**

> **Recommendation:** In support of recommendation #3 under section 1E; provide EIM the capability to accept stressor identification studies supportive of Category 5 determinations.

**2. It remains unclear how Ecology data used to support numeric criteria development conforms with the *WQDA* when:** 1) it includes data gathered prior to Ecology's 2010 Quality Assurance Project Plan for Ambient Biological Monitoring; and 2) Ecology has not demonstrated that these program data have been verified for usability against a QAPP's data quality objectives.

> **Recommendation:** Provide the public with scientific documentation demonstrating that Ambient and Sentinel Program B-IBI data, used to support numeric criteria, have been verified for usability against a QAPP's data quality objectives.

**3. The use of Periphyton as a bioassessment tool is not understood well enough for use in listing decisions.** While the County agrees that periphyton communities can potentially be indicative of nutrient or other pollutants, we know of no Puget Sound-specific indices or metrics useful in determining designated use(s) impairment. The County suggests applying periphyton data as one of several lines of evidence to potentially help focus future stressor identification studies.

> **Recommendation:** Clarify that periphyton data alone are insufficient to make category determinations.



[11] Overview of the Water Quality Assessment Process. 2002. Water Quality Policy 1-11. Additional Clarification of the Binomial Distribution Method. Washington State Department of Ecology.

**4. Page 35, 3rd major bullet. While use of sample counts as a way to evaluate B-IBI data for use in the assessment represents a step forward, Ecology should consider additional field and lab criteria.**

**Recommendation:** Use the following additional field and laboratory criteria to evaluate the credibility of bioassessment data:

- Relative percent difference or standard deviations of field replicates
- Relative percent difference or standard deviations of lab replicates
- Lab sorting efficiency
- Lab taxonomic accuracy and precision

**5. Page 36. The scientific justification for the use of only the two most recent years of data has not been provided to stakeholders in a manner consistent with the legislative intent outlined in the APA.**

The lack of scientific justification for the use of only the two most recent years of data is concerning given the high interannual variation shown through multiple studies, including Snohomish County's Little Bear Creek study.

**Recommendation:** Update the Policy and/or the B-IBI Thresholds Rationale[12] document to include the scientific justification for use of the two most recent years of data to support bioassessment category determinations.

**6. Page 37, 1st paragraph. The description of the correlative analysis with pollutant levels lacks clarity and raises questions about its relationship to stressor identification analysis.**

**Recommendation:** Clarify the correlative analysis and describe its relationship to stressor identification analysis.

**7. Page 37, 1st paragraph. The use of benthic assemblage indices as an additional step to support Category 5 listings appears informative, but additional information is needed to gain full support.**

**Recommendation:** Delay the use of benthic assemblage indices until Ecology provides scientific documentation for and publishes the specific reference tolerance levels for the Hilsenhoff Biotic Index and the fine sediment and metals tolerance indices in Policy 1-11. If the intent is to periodically update these reference tolerance levels, please provide information on the frequency and process for these updates. Future application of the temperature index currently in development suggests that additional indices will be added at Ecology's discretion. Snohomish County scientists would appreciate the opportunity to participate in the process for determining how these indices will be applied to water quality decisions at Ecology.



[12] Establishing Benthic Index of Biotic Integrity (B-IBI) Thresholds for Use in the Water Quality Assessment. 2015. Washington State Department of Ecology.

**8. Page 37, second paragraph. The use of trends analysis to support listing decisions lacks specificity needed to provide assurances of consistent, credible, and transparent analyses.**

**Recommendation:** Describe the minimum number of samples used to support a trends analysis, the test statistic proposed, and the confidence interval and listing decisions made based upon the results. Further, clarify how Ecology uses results from trends analysis where they agree or do not agree with average scores from the two most recent years.

**9. Page 36. The use of the 10$^{th}$ percentile as a single bioassessment criteria was not disclosed by Ecology as a preferred bioassessment alternative, and the scientific documentation supporting its use is not available to the public.**

Ecology's *B-IBI Thresholds Rationale* does not discuss the use of the 10$^{th}$ percentile as a single criteria and therefore was not available for public dialogue in a manner consistent with the *APA.*

**Recommendation:** Update the Policy and/or the B-IBI Thresholds Rationale document to include the scientific justification for use of the 10$^{th}$ percentile to support B-IBI category determinations.

**10. Under Assessment Information and Data Requirements. The continued use of RIVPACS model scores for the WQA is not supported without documentation of correlative analysis between reference RIPACS and B-IBI scores.**

**Recommendation:** Provide the public with scientific documentation supporting the use of RIVPACS for the WQA in a manner consistent with the APA.

**11. The credibility of B-IBI data obtained from the Puget Sound Stream Benthos (PSSB) website can't be assessed is a manner consistent with quality assurance planning and assessment levels as defined in the *Policy.***

The PSSB website neither requires nor allows data submitters to conform to data quality requirements outlined in the Policy, such that Ecology can deem the data credible for use in the WQA.

**Recommendation:**

- Refrain from pulling bioassessment data from the PSSB website or,
- Require users of PSSB to conform to the same credible data requirements outlined in the Policy, or
- Require all bioassessment data be loaded to and pulled from EIM only.

**2C. Dissolved Oxygen**

**1. Under Category 5 Determinations, Pages 41 – 42. The minimum number of discrete measurements within a year, qualifying as having sufficient data, is not specified.**

> **Recommendation:** Specify the minimum number of discrete dissolved oxygen measurements needed within one year to qualify as sufficient.

**2. The allowed and alternative use of single day exceedences or "large deviations" to support Category 5 listings for Dissolved Oxygen defeats the purpose and utility of the Hypogeometric mean test and perpetuates historical errors in decision making, resulting in TMDLs and regulatory burden.**

> **Recommendation:** Use only the hypogeometric mean test as the basis for Category 5 listings, but maintain the exceptions where site specific dissolved oxygen criteria exist in table 602.

**3. Under Category 1, Page 43. A TMDL target is not a Standard and therefore should not be used as the basis for listing decisions.**

> **Recommendation:** Remove the reference to using TMDL targets as the basis for listing decisions.

**2D. pH**

**1. The allowed and alternative use of single day exceedences or "large deviations" from *Standards* to support Category 5 listings for pH defeats the purpose and utility of the Hypogeometric mean test, introduces ambiguity, and perpetuates historical errors in decision making, resulting in TMDLs and regulatory burden.**

> **Recommendation:** Use only the hypogeometric mean test as the basis for Category 5 listings.

**2E. Phosphorus (Total) in Lakes**

**1. The *Policy* lacks clear guidance or methods to support development of lake-specific studies which establish phosphorus criteria.**

> **Recommendation:** Develop clear and complete guidance or model-based analyses that local organizations can use to develop lake-specific criterion development evaluations.

**2F. Temperature**

**1. Page 54. Category 5 Determinations. The *Policy* may err in referencing 1 Day Maximum temperatures as water quality standards.**

*Standards* for temperature do not clearly indicate that 1 day maximums of 17.5 °and 23°C are criteria, rather they are referenced as guidelines on acute lethality relative to narrative criteria at the site scale which do not override criteria established in section 200(1)(c) or tables 600 or 602. Neither section 200(1)(c) nor tables 600 or 602 contain 1 day maximum criteria.

**Recommendation:** Justify the use of 1 Day Maximum temperatures when *Standards* suggests they are guidelines, and when other temperatures related to barriers are established but not referenced as criteria.

**2. Pages53 – 55. Category Determinations. The terms "warm season", "summer season", and "period between July through August 15" are used interchangeably and introduce confusion with such periods as the Core Summer Salmonid Habitat period (June 15 – September 15) found in *Standards.***

**Recommendation:** Improve consistency in use of terminology and critical period ranges to maintain consistency with *Standards.*

**3. Pages 53 – 55. Category Determinations. The Policy does not clearly articulate how category determinations are made relative to section 200(B)(iii) of the *Standards* which indicates that temperatures are not to exceed the criteria at a probability frequency of more than once every ten years on average.**

**Recommendation:** Include language in the Policy, clarifying how category determinations are made relative to section 200(B)(iii) of *Standards.*