

Department of Ecology
2014 Proposed Water Quality Assessment
Public Review

Response to General Comments
Revised October 13, 2015

The Department of Ecology (Ecology) received comments on the draft 2014 Water Quality Assessment (WQA) from 64 entities representing various organizations, governing units, and the public. Comments were submitted in two ways:

1. Comments on a specific category listing were either submitted through an online comment form that was available on the Review Search Tool or directly to Ecology via letter or email. **To view specific listing comments and the response to those comments, go to the [Response to Listing-Specific Comments](#).**
2. Comments on the WQA not related to a specific listing were either submitted online or directly to Ecology via letter or email. The attached table in this document provides Ecology's response to comments on the WQA not related to a specific listing. Comments are in alphabetical order by organization or person, represented by the acronym for each commenter in [brackets].

Correspondence received during the public review are posted on [Ecology's website](#). Correspondence was received from the following, in alphabetical order with the acronym for each commenter in [brackets] that can be found in the attached table:

Association of Washington Businesses [AWB] - Housekeeper

Bellevue, City of [Bellevue] - Bucich

Bellingham, City of [Bellingham]-Hoover

Belsby, Nancy [Belsby] – self

Boeing Company [Boeing] - Erickson

Boise White Paper, LLC [Boise] - Krajnik

Burlington, City of [Burlington] - Abenroth

Clallam County Road Department [Clallam County] - Chadd

Clark County [Clark County] -Swanson

Clark Regional Wastewater District - Cities of Vancouver & Camas [CRWD] – Peterson, Carlson, Wall

Coeur d'Alene, City of [Coeur-d'Alene] - Fredrickson

Columbia Riverkeeper [Columbia Riverkeeper] - Goldberg

Coon, Dick [Coon] – self

Dashiell, Robert [Dashiell] – self

Davis, Eric [Davis] – self

DeMeyer et al [DeMeyer] – Deymeyer, Holman, Milne

East Columbia Basin Irrigation District [ECBID] - Balliet

Everett Public Works, City of [Everett] – Kibbey, Sklare

Georgeson, Amy on behalf of Mason County [Georgeson] - Georgeson

Idaho Department of Environmental Quality [Idaho DEQ] - Steed

Inland Empire Paper [IEP] - Krapas

Kapstone Kraft Paper Corporation [Kapstone] - Ortiz

King County Department of Natural Resources and Parks [King County] - Isaacson

Kirkland, City of [Kirkland] - Rush

Kitsap County [Kitsap County] - Fohn

Kitsap Public Health District [KPHD] - Whitford

Kittitas County Water Purveyors [KCWP] - Satnik

Klickitat County Natural Resources Department [Klickitat County] – Anderson

Lakewood, City of [Lakewood] - Vigoren

Lengenfelder, James [Lengenfelder] - self

Liberty Lake Sewer and Water [Liberty Lake] – Jenkins

Loehr, Lincoln [Loehr] - self

Longview, City of [Longview] - Warner

Muckleshoot Tribe [Muckleshoot] – Rapin

Northwest Environmental Advocates [NWEA] - Bell

Northwest Pulp and Paper Association [NWPPA] - McCabe

Olympia, City of [Olympia] - Graham

Pierce County Surface Water Management [Pierce County] - Groce

Ponderay Newsprint [Ponderay Newsprint] - Johnson

Port of Seattle [Port of Seattle] - Duffner

Rogers, Cheryl [Rogers]- self

Rogers, Eric [Rogers-Eric]- self

Roza-Sunnyside Board of Joint Control [RSBOJC] - Brouillard

SeaTac, City of [SeaTac] - Robinett

Seattle City Light [SCL] - Armstrong

Seattle Public Utilities, City of [Seattle] - Hoffman

Smith, Peter – self

Snohomish County Public Works Department [Snohomish County] – Williams, Kerwin

South Columbia Basin Irrigation District [SCBID] - Shopbell

Spokane River Stewardship Partners [SRSP] - Wilson

Streamkeepers of Clallam County [Streamkeepers] - Chadd

Thurston County Department of Resource Stewardship [Thurston County] – Benson

Trout Lake Community Council [Trout Lake] - Arnold

U.S. Bureau of Reclamation Ephrata Field Office [USBOR] - Belchoff

U.S. Environmental Protection Agency Region 10 [USEPA] - Croxton

U.S. Forest Service Colville National Forest [USFS-Colville] - Hickenbottom

U.S. Forest Service Regional Office [USFS-PNR] - Pena

U.S. Navy [US Navy] - Jabloner

Vancouver, City of [Vancouver] - Sutton

Washington Department of Transportation Resource Programs Branch [WDOT] - Stone

Washington Forest Protection Association [WFPA] - Terwilleger

Weyerhaeuser [Weyerhaeuser] - Johnson

White Salmon, City of [White Salmon] - Poucher

White Salmon Irrigation District [WSID] - Trout

COMMENTS RECEIVED	ECOLOGY RESPONSE
<p>AWB-1: AWB requests for time extension of public comment period for proposed Water Quality Assessment and 303(d).</p>	<p><i>The request for extension of the public review was denied since Ecology felt it had given an ample 60 days to review the Assessment.</i></p>
<p>Bellevue-1: Ecology's approach of placing waterbodies on the 303(d) List before the source of the biological impairment has been determined is:</p> <ul style="list-style-type: none"> • Inconsistent with CWA 303(d) List requirement to list waterbodies impaired by pollutants; • Misapplied and confusing as demonstrated in the examples discussed above; • Directs limited resources away from developing TMDLs for pollutant-impaired waterbodies. • Results in an inaccurate 303(d) list, requiring on-going administrative and tracking resources to "delist" or keep waterbodies on 303(d) List once the source of the biological impairment is known. 	<p><i>Ecology believes that numeric thresholds can be used to make listing decisions on healthy or degraded biological communities, based on EPA guidance. EPA comments on Policy 1-11 in 2006 clearly stated that if bio-monitoring shows that beneficial uses are not being met then the water is impaired and should be listed in Category 5. EPA further suggested that many states list waters as impaired by an "unknown" parameter. We respectfully disagree that listing on Category 5 based on bioassessment data creates an inaccurate 303(d) list. WAC 173-201A requires that all indigenous fish and nonfish aquatic species be protected. Data and information, including bioassessment, that demonstrates an impairment of uses to aquatic life must be placed on the 303(d) list. We will ensure that these listings are appropriately tracked as more information indicates the source of biological impairment.</i></p>
<p>Bellevue-2: Bellevue recommends that the 303(d) List only be used for bioassessment impairments where a causal pollutant has been identified and that bioassessment impaired waterbodies be listed in Category 2 (Segment is a Water of Concern) until a source or cause of the biological impairment has been identified. Waterbodies with bioassessment impairments caused by non-pollutants such as aquatic habitat, storm water flow, or whose condition is "likely not the result of pollutant sources" would be placed in Category 4c (Segments Impaired by a Non-Pollutant) consistent with current WQA Policy 1-11 direction.</p>	<p><i>EPA 2006 Integrated Report Guidance clearly states that if a designated use is not supported and the segment is impaired or threatened, the fact that the specific pollutant is not known does not provide a basis for excluding the segment from Category 5. The guidance goes on to state that those segments must be listed unless the state can demonstrate that no pollutant(s) causes or contribute to the impairment. EPA guidance further states that upon further study, if the assessment of the new data and information demonstrates that the use impairment is not associated with a pollutant and is attributable only to other types of pollution (e.g., flow or habitat alteration) the segment may be placed into Category 4c.</i></p>
<p>Bellevue-3: Bellevue further requests Ecology update WQA Policy 1-11 to be more consistent with the above recommendations.</p>	<p><i>Comment noted. After the proposed WQA is approved by EPA, Ecology will review and update the bioassessment methodology in Policy 1-11.</i></p>
<p>Bellevue-4: Ecology appears to be developing TMDLs for non-pollutants as proposed in the Soos Creek MultiParameter (aquatic habitat) and Clarks Creek Area TMDLs noted in previous comments. In addition, Ecology appears to be proposing use of pollutant surrogates to establish targets for TMDL loading capacity in TMDL implementation requirements. Bellevue recommends Ecology discontinue the use of pollutant surrogates in TMDLs as they are not pollutants regulated by the Clean Water Act. Continuance of this practice by Ecology is counter to the federal court decision and national direction EPA is applying to the Clean Water Act's TMDL program.</p>	<p><i>The Report of the Federal Advisory Committee on the Total Maximum Daily Load (TMDL) Program (EPA #100-R-98-006, 1998) includes guidance on the use of surrogate measures for TMDL development (see page 33 and Appendix G, starting at page G-3). EPA's guidance has not changed as a result of the Accotink TMDL decision in Virginia. That decision applies only in that court district and does not affect Washington. Ecology uses surrogate measures for TMDL allocations when the direct pollutant is too expensive or difficult to measure and there is a direct correlation between the surrogate and direct measures. Surrogate measures are either indirect pollutant targets (e.g. measuring total suspended solids [TSS] as an indication of the concentration of copper or mercury) or as an "other appropriate measure" (e.g. an effective shade target to shade and cool a stream). Surrogate measures are also used to set a target for implementation activities, such as how much stream shade is needed to reduce</i></p>

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	<i>solar radiation that heats rivers or the percent impervious area target within a stormwater permit boundary to reduce stormwater flow that can cause pollution.</i>
<p>Bellevue-5: Bellevue requests that Ecology provide a description of how they arrived at the definitions of bioassessment impairment included in WQP 1-11. This includes the peer reviewed or scientific literature used to support Ecology's determination that a BIBI score of <27 or a RIVPACS score of <0.73 over two concurrent years (where the data is less than 5 years old) identifies impairment. Alternatively or in support of Ecology's work to date to define bioassessment impairment in streams, we request that a transparent and public multi-stakeholder group effort be convened to develop bioassessment impairment definitions for future use in identifying Category 2 waterbodies.</p>	<p><i>Ecology has provided a rationale for how the Benthic Index of Biotic Integrity (B-IBI) numeric thresholds were established based on scientific and statistical analysis of the data. This is included in the WQA submittal package to EPA and will also be used as the basis for inclusion in updates to Policy 1-11 after EPA approves this Assessment. Policy 1-11 updates will go through a full public review. We also convened a meeting with stakeholders subsequent to the comments received on this draft WQA and EPA prior to the WQA submittal to discuss bioassessment listings. We will continue to engage stakeholders in how bioassessment listings will be implemented in TMDLs and other Water Quality Programs as we move forward.</i></p>
<p>Bellevue-6: Bellevue thinks Category 4B, the "direct to implementation" approach, is an under-utilized tool by municipalities and Ecology. Bellevue recommends Ecology convene a multi-stakeholder work group to develop guidance and identify the process necessary for municipalities and other agencies to create successful Category 4B pollution control programs. Taking this approach would result in resolution of known pollutant problems sooner.</p>	<p><i>Comment noted. We have been working with a number of municipalities to bring greater attention to using Category 4B.</i></p>
<p>Boise-1: Boise White Paper, LLC respectfully requests a 30-day extension of the public comment period for the water quality assessment and proposed 303(d) list of impaired water.</p>	<p><i>The request for extension of the public review was denied since Ecology felt it had given an ample 60 days to review the Assessment.</i></p>
<p>Boise -2: It appears that Ecology is considering old data differently in this listing cycle than in previous listing cycles. To be consistent with past listings and consistent with Ecology guidance, Ecology should include rationale for why older data are being handled differently in developing the proposed 303(d) list compared to past years and should reconsider the proposed new 303(d) Category 5 listings for which no new data have been collected.</p>	<p><i>Ecology has consistently handled older data similarly in assessing data since 1994, so we are unclear what the commenter believes is different. To begin an Assessment, Ecology conducts a call-for-data. Data collected within ten years of the published call-for-data end date for each Assessment will be consolidated and assessed with other data of the same waterbody segment and parameter. Data older than ten years which has not been submitted for previous Assessments is not accepted for use in the Assessment but may be submitted to Ecology's Environmental Information Management (EIM) system for other purposes. Newly submitted data will be added to previously assessed data that are less than ten years old. Data older than ten years will be used only if no more recent data exists to conduct the assessment. So, you will see listings that have been carried over from previous Assessments that are based on data older than ten years and that is because there was no newer data available to update the previously assessed listing.</i></p>

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<p>Clark County-1: It appears that Ecology has modified a number of listings from Category 3 “uncertain due to lack of data” to Category 5 “needs a TMDL”, without using additional data. Perhaps it is more appropriate to include these as Category 2 “waters of concern” listings rather than leaving as Category 3 or moving to Category 5.</p>	<p><i>We are not aware of Category 3 listings that would have moved to Category 5 without considering additional data by which to reassess the listing. Category 3 contains listings that have “insufficient data” to make a different category determination, so without more data they would remain in Category 3. It is a possible there were some Category 3 listings that were combined with another segment due to the NHD transition, and the combination of data could have resulted in a Category 5 listing. But, no Category 3 listings would have moved to Category 5 without additional data.</i></p>
<p>Clark County-2: In some cases, such as tributaries to Salmon Creek and Gibbons Creek, new segments are listed for bacteria. These basins already have clean-up plans. Shouldn’t such listings be category 4?</p>	<p><i>We appreciate you bringing this to our attention. The following listings have been placed in Category 4A (from Category 5) because it has been determined that they are covered by a Bacteria TMDL: listings 72479, 72482, 72448 (tributaries to Salmon Creek); listings 72469, 72486, 72474 (tributaries to Gibbons Creek).</i></p>
<p>Clark County-3: Temperature listings for very rare departures from the standard in forested basins should be considered for listing as waters that are impaired due to natural conditions or waters of concern. Jones Creek is a good example. It is a forested drinking water source area largely controlled by the City of Camas where the Oregon Water Quality Index is excellent and the BIBI is in the mid-forties.</p>	<p><i>Ecology lists waterbody segments on the Category 5 list due to temperature impairment when the numeric criteria are exceeded. In most cases, insufficient information exists to determine the level of human influence on temperature for each listed site. This approach assumes that human influences have contributed to the exceedance over the numeric criteria and the increase is measurable over natural conditions. While this approach may list waterbody segments as impaired for temperature without fully knowing the extent of the human influences, listings are based on existing and readily available information. In the absence of information, the waterbody segment will remain in Category 5 until further information or data are provided to change the category determination. Any information provided through the public call for data that provide validation that human influences can be ruled out and are therefore not contributing to the exceedances will be evaluated. Until we receive information to evaluate, the listings will remain in Category 5.</i></p>
<p>Clark County-4: Is it possible to identify forest areas under forest management plans to protect stream habitat for Salmon as Category 4 listings?</p>	<p><i>Ecology considered in previous Assessments whether forest areas covered under the Washington Forest Practices rules could be a general basis for assigning Category 4B as an alternative to conducting a TMDL, and came to the decision that it would be inappropriate to list all forested lands as a broad category into Category 4B without first reviewing the specific forest plan for the given area to determine if it meets the requirements to be moved to Category 4B.</i></p>

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<p>Clark County-5: Several listings use data over ten years old and in some cases over 20 years old, raising the question of whether these are valid Category 5 listings.</p>	<p><i>As stated in Policy 1-11, data older than ten years will be used only if no more recent data exists to conduct the assessment. In other words, listings that have been carried over from previous Assessments that are based on data older than ten years occur because there was no newer data available to update the previously assessed listing. Older data must also meet all QA requirements at the time of submittal. Because of the large number of listings in the database, listings from previous assessment cycles will not be reassessed according to the most recent policy unless more recent information associated with the parameter and waterbody segment is made available, or a request is made to reassess under the new policy.</i></p>
<p>Clark County-6: In some cases where Ecology has conducted studies in recent years, such as Salmon Creek and Lacamas Lake watershed, this more recent data does not appear to have been considered.</p>	<p><i>Ecology conducted a public "call for fresh water data" that was collected up through 2010. The deadline for data submittals was August 31, 2011. Ecology gathered and analyzed all fresh water quality monitoring data (e.g., streams, rivers, and lakes) that had been collected through December 2010. Data collected in more recent years (after 2010) and submitted to Ecology, will be considered in the next Assessment, which we will begin as soon as EPA approves the proposed Assessment and Candidate 303(d) List.</i></p>
<p>Clark County-7: The use of BIBI scores as a listing criterion causes concern that Ecology is moving to surrogates for pollutants in listings and TMDLs. Biologic assessments are a key element for describing stream habitat quality but are not a pollutant and cannot be converted into a load allocation for a pollutant. The use of BIBI scores should be limited to areas such as 305(b) reporting and listing waterbodies as a concern in Category 2.</p>	<p><i>EPA 2006 Integrated Report Guidance clearly states that if a designated use is not supported and the segment is impaired or threatened, the fact that the specific pollutant is not known does not provide a basis for excluding the segment from Category 5. WAC 173-201A requires that all indigenous fish and nonfish aquatic species be protected. Data and information, including bioassessment, that demonstrates an impairment of uses to aquatic life will be placed on the 303(d) list.</i></p>
<p>Columbia Riverkeeper-1: The Washington Department of Ecology's Draft Water Quality Assessment and 303(d) List fail to timely assess the health of Washington's waterways. Columbia Riverkeeper therefore urges Ecology to revise the 303(d) List to reflect public comment on these critical decisions for human health, salmon recovery, and water quality. Accurate water quality assessments are the first line of defense against further degradation. For this reason, Columbia Riverkeeper is deeply disappointed by the significant delays in reviewing water quality data and updating the 303(d) List. Ecology's failure to maintain an updated water quality assessment leaves large sections of the state's waterways vulnerable to new pollution dischargers exacerbating existing, degraded water quality conditions. Delay in listing decisions also delays TMDL development. This is unacceptable. Columbia Riverkeeper therefore urges Ecology to revise the draft 303(d) List and Water Quality Policy 1-11.</p>	<p><i>The delay in completing the fresh water assessment was due to several factors. The transition to NHD required a resource intensive effort that involved merging water segment listings from the old system into the new NHD system based on hydrologic features. In addition, capturing, compiling, analyzing and assessing data for the five categories of waters (rather than just the traditional 303(d) list) has resulted in a significant increase in data assessment. Likewise, we estimate that there was about 31% more listings from data than was in the 2012 Assessment. So, not only are we assessing more data, but the amount of data has grown from previous listing cycles. During this last assessment Ecology began working on a project to automate the Assessment to the degree that we can, in order to relieve some of the staffing pressures of completing a listing cycle. As we looked to automate the technical assessment of the data, time was spent capturing the numerous steps and requirements that go into assessing various parameters. While this has taken more time out of actual assessment of the data, we hope that the payoff will come in future Assessments as we are able to automate parts that currently are time consuming and complicated.</i></p>

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<p>Columbia Riverkeeper-2: In addition to the comments herein, Columbia Riverkeeper incorporates by this reference comments filed by the Northwest Environmental Advocates.</p>	<p><i>Comment noted.</i></p>
<p>Columbia Riverkeeper-3: In reviewing the 303(d) List, Columbia Riverkeeper notes thirteen segments of the Columbia River that lack Category 5 proposed or current listings for temperature. These reaches are noteworthy for future research or data collection to support new listings.</p>	<p><i>Comment noted.</i></p>
<p>Columbia Riverkeeper-4: Based on the prevalence of Category 5 temperature listings throughout the mainstem Columbia, Columbia Riverkeeper urges Ecology to seek and review temperature data for these reaches to ensure that the protections afforded by the Ninth Circuit's Pinto Creek decision.</p>	<p><i>Comment noted. We also note that EPA started a multi-state/tribal Temperature TMDL for the Columbia River many years ago and unfortunately abandoned the effort. Given that we know at least some of the Columbia is impaired for temperature, a TMDL seems to be the next best step.</i></p>
<p>Coeur d'Alene-1: This comment letter is in regard to proposed Category 5 listings for PCBs on the middle and upper Spokane River in Assessment Units 1701030500009 through 1701030500012, 17010307009615 and 17010307009. The City of Coeur d'Alene requests that Ecology not list the middle and upper Spokane River under Category 5 as impaired due to PCBs based on more recent water quality monitoring data and the work of the Spokane River Regional Toxics Task Force.</p>	<p><i>Listings are based on data submitted during the data call, as well as older data from the last ten years. Ecology conducted a public "call for fresh water data" that was collected up through 2010. The deadline for data submittals was August 31, 2011. Ecology gathered and analyzed all fresh water quality monitoring data (e.g., streams, rivers, and lakes) that had been collected through December 2010. Data collected in more recent years (after 2010) and submitted to Ecology, will be considered in the next Assessment, which we will begin as soon as EPA approves the proposed Assessment and Candidate 303(d) List.</i></p>
<p>Coeur d'Alene-2: In 2012 and 2013 Ecology conducted extensive surface water monitoring in the Spokane River using the most sensitive test methodology available for assessing PCBs – EPA Test Method 1668C. The test method has never been approved by EPA and it is now understood that EPA will not be pursuing approval of this the test method. EPA made clear in amendments to its regulations last August that unapproved test methods cannot be used for regulatory purposes under NPDES permits. The proposed update expressly states that 1668C is not an approved test method.</p>	<p><i>Data and information that demonstrates an impairment of designated uses must be placed on the 303(d) list.</i></p>
<p>Coeur d'Alene-3: The City of Coeur d'Alene respectfully requests that Ecology accept the most recent surface water data as establishing that the river is not impaired for failing to meet Washington Water Quality Standards for PCBs.</p>	<p><i>Listings are based on data submitted during the data call, as well as older data from the last ten years. Qualifying datasets from more recent sampling will be included in the next WQ Assessment.</i></p>
<p>Coeur d'Alene-4: There is substantial doubt about the reliance on fish tissue data rather than water quality data in the proposed Category 5 PCB listings for the Spokane River. Much of the fish tissue data is over fifteen years old. The tissue concentrations of PCBs may represent an untested sediment pool issue, and should not be used as the basis for current water quality impairment listings.</p>	<p><i>Ecology currently depends on the numeric criterion to help calculate acceptable tissue concentrations for this determination. Current policy specifies that tissue data, as used, is acceptable for listing. Comments related to tissue can be considered at the next revision of Policy 1-11.</i></p>

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<p>Couder d'Alene-5: Additionally, fish tissue samples collected from "Rainbow Trout" do not differentiate between resident populations or stocked Rainbow Trout from hatchery programs. It is known that there is an extensive introduction of hatchery fish to the Spokane River from federal, state and tribal programs. It is also known that these fish contain elevated levels of PCBs. Ecology acknowledged several years ago that 303(d) listings of PCBs may be due to contamination from hatchery fish. Ecology should not list the Spokane River for PCBs until the department has resolved the potential contribution of hatchery programs to fish tissue concentrations.</p>	<p><i>With the exception of one location, all of the listings were based on a suite of resident fish, not just one species. While Rainbow Trout were included in the analysis, they were not the determining species.</i></p>
<p>Couder d'Alene-6: Ecology also needs to reassess the quality of the more recent fish tissue data to even determine if there is likely to be any discharge on the river that is likely responsible for elevated PCB concentrations in fish tissue. The most recent source assessment suggests that is not the case. The source assessment would suggest that NPDES permit discharges are not causing or contributing to a violation of water quality standards for PCB based on fish tissue data. Ecology should withhold Category 5 listings broadly in the river until there is a better understanding of this source assessment.</p>	<p><i>The 303(d) listing is a determination that a waterbody is impaired. The listing process is based on consideration of the monitoring data being assessed and is independent of a source assessment. In fact, a source assessment would typically occur after the list is identified as impaired, as part of a TMDL or other pollution control program.</i></p>
<p>ECBID-1: The East Columbia Basin Irrigation District (East district) requests that Ecology refine their classification protocols to ensure appropriate names and designations are applied to respective water bodies. A clear distinction should be made between irrigation facilities and naturally occurring lakes, rivers, streams or creeks. Under the proposed 303(d) list, some district facilities are incorrectly designated as streams and/or rivers. It is important that these facilities be appropriately named and designated due to the criteria they are commonly listed for (temperature, pH and dissolved oxygen). East district facilities are man-made and atypical of the naturally occurring water bodies the 303(d) list is intended for. Due to the unnatural nature of these facilities, the aforementioned criteria can rarely be met.</p>	<p><i>The formal naming convention used by Ecology for the WQA is the Geographic Names Information system (GNIS). These waterbody names are approved through the federal government. To have these names changed at the national level would involve a petition to the lead state manager for waterbody name changes in Washington State, located at the Department of Natural Resources. Regarding your request to make a clear distinction between irrigation facilities and naturally occurring waterbodies in the Assessment, we must note that irrigation ditches and other manmade waterways are considered to be a "water of the state" and therefore we do not treat irrigation ditches different from other waters of the state. Ditches are considered "waters of the state" because the language in RCW 90.48.020 is interpreted to be broad and all inclusive. The long-standing interpretation given to chapter 90.48 RCW beginning with the water pollution control commission, when coupled with the history of legislative amendments to this chapter, has established a legal definition of "waters of the state" that clearly includes ditches. Therefore, there is not a clear distinction between irrigation ditches and naturally occurring waterbodies when it comes to interpretation of the water quality standards.</i></p>
<p>ECBID-2: Due to their unique nature and design, East district facilities should not constitute the same water quality criteria as naturally occurring lakes, rivers, streams or creeks and should be assessed in a way that better represents their natural climatic conditions.</p>	<p><i>Creating a different set of water quality criteria for irrigation ditches would require a rulemaking to either change uses, through a Use Attainability Analysis, or create site-specific criteria for the specific criteria noted. Until this occurs, Ecology is obligated to apply criteria in the standards to all waters of the state except as noted in the chapter.</i></p>

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<p>ECBID-3: The website improvements and public hearings offered by Ecology were very helpful in utilizing the technical features offered on the website and better understanding the Fresh Water evaluation process.</p>	<p><i>Comment noted.</i></p>
<p>Everett-1: Ecology has used fish tissue concentrations as a basis for Category 5 listings. The City believes such listings are inappropriate. The City is not aware of other states using fish tissue as a basis for 303(d) listings. The City is unaware of any requirement in the Clean Water Act Section 303(d) to use fish tissue concentrations for listing purposes. The state has never proposed or adopted numeric tissue concentration "water quality" criteria. Ecology needs to go through rule-making to adopt tissue based criteria and/or to adopt a means for establishing narrative criteria based on tissue concentrations before using them in the 303(d) program. Tissue concentrations greater than fish tissue equivalent values calculated by Ecology cannot be used to demonstrate that numeric water quality criteria are exceeded.</p>	<p><i>Ecology currently depends on the numeric criterion to help calculate acceptable tissue concentrations for this determination. Current policy specifies that tissue data, as used, is acceptable for listing. Comments related to tissue can be considered at the next revision of Policy 1-11.</i></p>
<p>Everett-2: Bioassessments are not pollutants, therefore they cannot be listed as Category 5 requiring TMDLs. They should be listed in Category 2 (Segment is a Water of Concern) until such time as the causal agent of the biological impairment has been identified. Once monitoring has occurred, and the cause of impairment is identified, it can them be moved to either 4c or 5 of the 303(d) list as appropriate, and actions can be developed. It is more reasonable for bioassessment to be a parameter to lead to a category 4c, not a category 5, since there is not a TMDL for bioassessment. It is unreasonable to propose this reach as a category 5, and make the jurisdiction perform extensive pollutant testing based solely on low BIBI scores, since those can be dependent on parameters other than pollutants.</p>	<p><i>Data and information, including bioassessment, that demonstrates an impairment of uses to aquatic life must be placed on the 303(d) list. We will ensure that these listings are appropriately tracked as more information indicates the source of biological impairment.</i></p> <p><i>EPA 2006 Integrated Report Guidance clearly states that if a designated use is not supported and the segment is impaired or threatened, the fact that the specific pollutant is not known does not provide a basis for excluding the segment from Category 5. The guidance goes on to state that those segments must be listed unless the state can demonstrate that no pollutant(s) causes or contribute to the impairment. EPA guidance further states that upon further study, if the assessment of the new data and information demonstrates that the use impairment is not associated with a pollutant and is attributable only to other types of pollution (e.g., flow or habitat alteration) the segment may be placed into Category 4c.</i></p>
<p>Everett-3: In addition, the bioassessment parameter for this reach is based on BIBI data from 2010 and before, but standardized biological data testing procedures were not in place until 2012.</p>	<p><i>It is true that prior to 2012, a variety of methodologies were used when collecting samples for calculation of B-IBI scores, i.e. different surface areas sampled and various levels of taxonomic effort employed. However, we feel that these differences are not significant enough to warrant exclusion of these samples from the WQA. Addressing some of these issues, King County Department of Natural Resources and Parks Water and Land Resources Division, working on a grant from EPA, performed several analyses with data in the Puget Sound Stream Benthos (http://www.pugetsoundstreambenthos.org/) and produced several technical reports. The key findings from these reports were that despite differences in taxonomic effort employed and surface areas sampled, the B-IBI scores could be adjusted for levels of standard taxonomic effort and that scores derived from 3 ft² or 8 ft² sampling areas can be compared with confidence.</i></p>

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<p>Everett-4: It has become widely known in the NPDES community that Ecology is attempting to use pollutant surrogates in establishing targets for loads in Water Quality Improvement Implementation Plans as a result of the TMDL process. This is not consistent with federal court findings that restrict EPA to issuing TMDLs for actual pollutants, and EPA's subsequent updating of its 2002 memo Establishing TMDL Wasteload Allocations (WLAs) for Storm Water Sources and NPDES Permit Requirements Based on Those WLAs, and throwing out a previous 2010 update memo. Language related to using surrogates for pollutants when establishing targets for loading have been removed, and it would be advisable for Ecology to also abandon the use of surrogates to avoid potential litigation and concentrate on other possible avenues to address the real pollutants as specified in the Clean Water Act.</p>	<p><i>The Report of the Federal Advisory Committee on the Total Maximum Daily Load (TMDL) Program (EPA #100-R-98-006, 1998) includes guidance on the use of surrogate measures for TMDL development (see page 33 and Appendix G, starting at page G-3). EPA's guidance has not changed as a result of the Accotink TMDL decision in Virginia. That decision applies only in that court district and does not affect Washington. Ecology uses surrogate measures for TMDL allocations when the direct pollutant is too expensive or difficult to measure and there is a direct correlation between the surrogate and direct measures. Surrogate measures are either indirect pollutant targets (e.g. measuring total suspended solids [TSS] as an indication of the concentration of copper or mercury) or as an "other appropriate measure" (e.g. an effective shade target to shade and cool a stream). Surrogate measures are also used to set a target for implementation activities, such as how much stream shade is needed to reduce solar radiation that heats rivers or the percent impervious area target within a stormwater permit boundary to reduce stormwater flow that can cause pollution. EPA did not mention surrogates in its update to the 2002 Wayland memo because the purpose of the memo was to be more explicit about how TMDLs should set wasteload allocations for stormwater and how those wasteload allocations were to be translated into permit limits. It was not to discuss the use of surrogates. The 2014 memo outlined three areas in which EPA was providing additional guidance:</i></p> <ul style="list-style-type: none"> <i>• Including clear, specific, and measurable permit requirements and, where feasible, numeric effluent limitations in NPDES permits for stormwater discharges;</i> <i>• Disaggregating stormwater sources in a WLA; and</i> <i>• Designating additional stormwater sources to regulate and developing permit limits for such sources.</i> <p><i>The fact that the memo does not discuss surrogates should not be interpreted as an EPA decision that surrogates may not be used in TMDLs.</i></p>
<p>Georgeson-1: Mason County Public Health (MCPH) is pleased to request that the Washington Department of Ecology (ECY) in collaboration with the us Environmental Protection Agency remove nine streams that are currently on the 303(d) list for fecal coliform. MCPH requests that the nine streams are reclassified as Category 1. Meets Tested Standards.</p>	<p><i>Ecology has reassessed these listings based on data submitted by Mason County. Responses to the reassessment of data can be found in the specific listing response to comments.</i></p>
<p>Georgeson-2: At your presentation in Lacey we discussed some 303(d) listed streams in the Hood Canal watershed. Although, Mason County has collected more recent data from many of these streams (which was the information I provided to you in paper format last week), that data is too new to be included in the current evaluation. However, since the current listing includes data evaluation from 2000 – 2010, I thought I should also send Mason County's Ambient Water Quality Data. I have included all of the data, but I am</p>	<p><i>We appreciate you bringing to our attention the Mason County Ambient Water Quality Data that had not been previously submitted by the County for consideration. We considered the use of the additional dataset submitted via your email of 4/17/15 but determined that we could not use it in the candidate assessment because it was submitted well after the call for data and it was submitted at a point in the assessment process at which we were not in a position to georeference and analyze additional large datasets. However, we intend to incorporate the</i></p>

COMMENTS RECEIVED	ECOLOGY RESPONSE
<p>only requesting that ECY consider the data from the 303(d) listed streams that flow into Hood Canal. I will leave it up to ECY, if there is interest in evaluating any of the other data. I also included Mason County's Surface Water Monitoring SOP, which covers samples collected from 2003 – 2007, an electronic copy (and the appendices, which I did not give you last week) of the request for removal based on the "too new" data, and a summary of FC monitoring that was included in the original grant proposal for the Mason County Hood Canal 303(d) listed project.</p>	<p><i>data into the next assessment, which we will begin as soon as we receive approval from EPA on the 2014 Water Quality Assessment and candidate 303(d) list. We will need to work with Mason County to determine the status of data submittals into EIM so that we do not unnecessarily duplicate data already submitted.</i></p>
<p>IEP-1: PCB listings on Spokane River: 14397, 8201, 8207, 8202. The proposed Category 5 PCB listings are not consistent with the basic principles of section 303(d) listings under the Clean Water Act. Ecology Water Quality Program Policy, WQP Policy 1-11, is clear that the "objective of the listing policy is to establish which waterbodies need TMDLs." The Spokane River does not need a PCB TMDL. The most recent monitoring data establishes that PCB levels in the river are undetectable and below state water quality standards.</p>	<p><i>The requirement of the Water Quality Assessment is to report a list of impaired waters to congress on the impaired waters of the state. This includes waterbodies that are impaired and slated for a TMDL as well as waterbodies that are under a cleanup plan other than a TMDL. Until qualifying data are submitted and assessed in an Assessment, Ecology cannot remove the waterbody from the impaired waters list, (Categories.5, 4A, 4B, and 4C.) This new data will be analyzed in the next Water Quality Assessment.</i></p>
<p>IEP-2: We are starting to see measurable progress towards PCB reductions in both surface water concentrations and in fish tissues. It is unlikely however, that greater progress can be made through a PCB Total Maximum Daily Load (TMDL) process. The current concentrations of PCBs in the river are too low to be successfully regulated under the Clean Water Act. The most recent data from surface water monitoring would need to be considered non-detect for PCBs with respect to any reasonable potential analysis that would be used in developing a TMDL or permit effluent limits. If waste load allocations in a TMDL are not going to provide meaningful water quality improvement, there is no need for a TMDL. And if there is no need for a TMDL, there is no basis under WQP Policy 1-11 for the Category 5 PCB listings on the middle and upper Spokane River.</p>	<p><i>We reviewed the Spokane River Regional Toxics Task Force efforts to determine if it could meet Category 4B requirements and found that although it meets some, there is still work to be done to meet 4B. Specifically, having reasonable time limits, including load reduction or interim targets when necessary, having enforceable pollution controls, and having enforceable legal or financial guarantees that implementation will occur. We encourage the Task Force to pursue this approach in the next Assessment cycle if feasible.</i></p>
<p>IEP-3: Ecology should consider placing the middle and upper Spokane River in Category 4B rather than Category 5. WQP Policy 1-11 allows for this alternative approach when a water body segment is impaired by a pollutant and a local or state program is expected to result in the water body meeting the water quality standards. The Spokane River Regional Toxics Task Force (SRRTTF) meets the qualifications for such a program.</p>	<p><i>We reviewed the Spokane River Regional Toxics Task Force efforts to determine if it could meet Category 4B requirements and found that although it meets some, there is still work to be done to meet 4B. Specifically, having reasonable time limits, including load reduction or interim targets when necessary, having enforceable pollution controls, and having enforceable legal or financial guarantees that implementation will occur. We encourage the Task Force to pursue this approach in the next Assessment cycle if feasible.</i></p>
<p>IEP-4: The Category 5 listings on the Spokane River should not be in any case based on fish tissue samples where water column data consistently demonstrates that the river is meeting the applicable PCB water quality criteria. Results from recent sampling of surface water samples indicate that the river is below current state PCB criteria.</p>	<p><i>Ecology currently depends on the numeric criterion to help calculate acceptable tissue concentrations for this determination. Current policy specifies that tissue data, as used, is acceptable for listing. Comments related to tissue can be considered at the next revision of Policy 1-11.</i></p>

COMMENTS RECEIVED	ECOLOGY RESPONSE
<p>IEP-5: It is additionally inappropriate for Ecology to rely on fish tissue data for PCB listings until the impact of hatchery fish on PCB concentrations is fully evaluated. This is a particular concern with fish tissue data from rainbow trout. Ecology recently confirmed that it has no way to determine whether fish tissue samples attributed to rainbow trout have come from resident rainbow trout species or hatchery raised fish. Ecology is not justified in basing any listing decision based on the potential impact of hatchery fish without fully understanding this information.</p>	<p><i>With the exception of one location, all of the listings were based on a suite of resident fish, not just one species. While Rainbow Trout were included in the analysis, they were not the determining species.</i></p>
<p>IEP-6: No known TMDLs in Washington have included hatchery fish as a contaminant source. For PCBs, and to a lesser extent dieldrin, hatchery fish may contribute to impairment and, in some cases, may cause the bulk of impairment. Therefore, TMDL investigators may want to consider including hatchery fish as contaminant sources among other sources.</p>	<p><i>Comment noted.</i></p>
<p>IEP-7: The fish tissue data throughout these reaches, Assessment Units 17010305000010, 17010305000011 and 1701035000012, should not be a basis for Category 5 listings without further research on whether the data is from hatchery fish and the impact of hatchery fish contamination on other species.</p>	<p><i>With the exception of one location, all of the listings were based on a suite of resident fish, not just one species. While Rainbow Trout were included in the analysis, they were not the determining species.</i></p>
<p>IEP-8: Ecology should also not rely on fish tissue data without a thorough review of how fish tissue equivalent concentrations are calculated. Ecology should note a statement by EPA Region 10 Administrator to Ecology in a letter dated February 24, 2015, that “aggregation of PCB congeners may in some instances be problematic for risk assessment because the toxicity of different PCB congeners varies and a fixed water quality concentration for total PCBs may not adequately represent the variable toxicity of the various congeners actually present in a particular water body.” Thus the current total PCB criterion likely overstates the risk posed by PCBs in the water column. This bias is only compounded when adjusted by a single bioaccumulation factor to derive a fish tissue equivalent concentration (FTEC). This may well explain why Ecology is finding PCB concentrations in fish tissue above the FTEC when the water column data is meeting the applicable criteria. Ecology should defer a Category 5 listing based on fish tissue data until this apparent disparity in the data as well as the interactions between sediments, partitioning and bioaccumulation factors for different fish species are better understood.</p>	<p><i>Ecology currently depends on the numeric criterion to help calculate acceptable tissue concentrations for this determination. Current policy specifies that tissue data, as used, is acceptable for listing. Comments related to tissue can be considered at the next revision of Policy 1-11.</i></p>

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<p>IEP-9: Ecology should not rely on dated sampling when there have been dramatic declines in PCB levels in the receiving water. All of the above Listing IDs rely on tissue sampling from 1993 to 1999. Listing ID 14397 relies entirely on this older data. It has been well documented that both surface water and tissue sample data for PCBs have declined in the Spokane River since 2000. Ecology, Spokane River PCB Source Assessment, 86-89 (April 2011). Relying on this older data is not a proper basis for a Category 5 listing in 2015.</p>	<p><i>Ecology uses newly submitted data received on a waterbody segment to reassess the listing by combining the new data with previously assessed data that are less than ten years old. Data older than ten years will be used only if no more recent data exists to conduct the assessment. Therefore, until more recent data is available on these listed segments that indicates a change in category is necessary, the older data will be used as the basis for the listing.</i></p>
<p>Kapstone-1: KapStone supports the industry comments submitted by the Northwest Pulp and Paper Association (NWPPA) on the proposed listings for temperature, dissolved oxygen, those based on fish tissue data as well as those about the Water Quality Program Policy 1-11.</p>	<p><i>Comment noted.</i></p>
<p>King County-1: King County Water and Land Resources Division has concerns with the use of bioassessment data to legally mandate a total maximum daily load (TMDL) where no causative pollutant has been identified.</p>	<p><i>We appreciate your concerns regarding how bioassessment listings will lead to a TMDL where no pollutant has been identified. A necessary step for determining human actions that may be causing the impairment is the stressor identification process. This process is engaged when considering a TMDL study and either identifies one or more anthropogenic sources of impairment or may also rule out anthropogenic causes. Data and information, including bioassessment, that demonstrates an impairment of uses to aquatic life must be placed on the 303(d) list. Category 4C is not appropriate for these listings until it has been determined that a pollutant is not responsible for the impaired aquatic life use.</i></p> <p><i>We convened interested stakeholders and EPA prior to the WQA submittal to discuss bioassessment listings and heard these concerns voiced there as well. We will continue to engage stakeholders in how bioassessment listings will be implemented in TMDLs and other Water Quality Programs as we move forward. One of our goals is to make the implementation of bioassessment TMDLs as transparent as possible so that everyone understands the steps to be taken and how the data will be used.</i></p>
<p>King County-2: (WQP) Policy 1-11 states that if a source of impairment is unidentified, the segment should be placed in Category 4c. For example, if bioassessment data indicate an impaired biological community, and monitoring of suspected pollutants does not show impairment by an actual pollutant such as copper or temperature, the waterbody segment will be placed in Category 4c, indicating that a habitat-related impact is suspected. There are a number of stream segments listed as Category 5 based on bioassessment data without any other pollutant identified or described for that segment.</p>	<p><i>EPA 2006 Integrated Report Guidance clearly states that if a designated use is not supported and the segment is impaired or threatened, the fact that the specific pollutant is not known does not provide a basis for excluding the segment from Category 5. The guidance goes on to state that those segments must be listed unless the state can demonstrate that no pollutant(s) causes or contribute to the impairment. EPA guidance further states that upon further study, if the assessment of the new data and information demonstrates that the use impairment is not associated with a pollutant and is attributable only to other types of pollution (e.g., flow or habitat alteration) the segment may be placed into Category 4c.</i></p>

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<p>King County-3: 1) Although the WQP Policy 1-11 states that a listing based on bioassessment data should be placed in Category 4c, it may be more appropriate to place the impacted reach in Category 2 until a cause is identified. Additional details to describe each category would be beneficial to ensure listings are placed under the correct categories and to clearly identify next steps to achieve water quality improvements. 2) The use of the term “impairment” with respect to bioassessment data is confusing. King County agrees that BIBI and RIVPCAS scores can and should be used to describe waterbodies requiring restoration and/or improvement. However a single BIBI or RIVPACS score does not equate to a water quality standard and the optimum benthic index for a particular stream reach is highly site-specific. A single number or rating defining “degradation” or “impairment” based on bioassessment data for the entire state may not represent the optimal or achievable conditions for a local aquatic ecosystem. We recommend a transparent and public multi-stakeholder group effort to develop a multimetric assessment process for bioassessment data similar to that applied in other States such as Colorado.</p>	<p><i>Data and information, including bioassessment, that demonstrates an impairment of uses to aquatic life must be placed on the 303(d) list. Ecology has provided a rationale document as part of its WQA submittal to EPA that explains how the numeric thresholds were set for Categories 1, 2, and 5 and how they are used. This is included in the WQA submittal package to EPA and will also be used as the basis for inclusion in updates to Policy 1-11 after EPA approves this Assessment. Policy 1-11 updates will go through a full public review before being finalized for use in the next Assessment. We appreciate concerns that stakeholders have expressed for the different categories based on bioassessments and look forward to more stakeholder meetings so that we can ensure a transparent process and clarity with how bioassessment data is used for listing purposes and TMDL development.</i></p>
<p>King County-4: For bioassessment data, we believe that conclusively identifying the absence of a pollutant is scientifically impossible since a multitude of potential pollutants which singly or in aggregate with habitat degradation may be causing biological impairment. Listing biological impairments with unknown causes as Category 4c is more appropriate until a pollutant has been identified which can then dictate a Category 5 listing.</p>	<p><i>As stated in previous responses, EPA guidance is clear that the absence of a pollutant identified is not a reason to not put onto Category 5. Category 4C would be appropriate where pollutants have been ruled out and "pollution" has been identified as the source. A necessary step for determining human actions that may be causing the impairment is the stressor identification process. This process is engaged when considering a TMDL study and either identifies one or more anthropogenic sources of impairment or may also rule out anthropogenic causes. Data and information, including bioassessment, that demonstrates an impairment of uses to aquatic life must be placed on the 303(d) list. Category 4C is not appropriate for these listings until it has been determined that a pollutant is not responsible for the impaired aquatic life use.</i></p>
<p>King County-5: Because Category 5 impairment decisions obligate a TMDL, which can only be developed for specific pollutants, accurately describing the causes of degradation is critical to directing resources towards the most effective restoration tools. In some cases this might be a TMDL investigation; however, in others a more general evaluation of potential stressors or putting efforts directly towards habitat restoration may be more effective.</p>	<p><i>Comment noted.</i></p>
<p>King County-6: King County Water and Land Resources Division has concerns with the evaluation of pH data from lakes without regard to the natural processes which can lead to transient changes in pH throughout the day.</p>	<p><i>Ecology agrees. The new listings for pH in lakes were created in error. These have been removed from the WQ Assessment. pH data is not assessed in lakes unless natural condition information is available by which to determine a measureable change.</i></p>

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<p>King County-7: King County Water and Land Resources Division has concerns with the continued use of data collected more than 10 years ago in some cases, which perpetuates potentially outdated impaired listings.</p>	<p><i>As stated in Policy 1-11, data older than ten years will be used only if no more recent data exists to conduct the assessment. In other words, listings that have been carried over from previous Assessments that are based on data older than ten years occur because there was no newer data available to update the previously assessed listing. Older data must also meet all QA requirements at the time of submittal. Because of the large number of listings in the database, listings from previous assessment cycles will not be reassessed according to the most recent policy unless more recent information associated with the parameter and waterbody segment is made available, or a request is made to reassess under the new policy.</i></p>
<p>King County-8: Previous Category 5 listings have been maintained in the current list based on data that is greater than 10 years old, yet Ecology will not consider data older than 10 years for new assessments. These methods and decisions are inconsistent with EPA guidance (2005) for water quality assessments, where statistical methods should support a determination of true segment conditions from all valid existing and readily available data (regardless of age). King County WLR recommends reviewing all available data be used to evaluate waterbody conditions and place them in the most representative category. This may result in maintaining a Category 5 listing based on 10 year old data, but in other cases older data may be deemed insufficient or unrepresentative of current conditions or inadequate to support a particular category. In these cases we would expect a Category 4 or 5 listing might move to Category 2 or 3.</p>	<p><i>As stated in Policy 1-11, data older than ten years will be used only if no more recent data exists to conduct the assessment. In other words, listings that have been carried over from previous Assessments that are based on data older than ten years occur because there was no newer data available to update the previously assessed listing. Older data must also meet all QA requirements at the time of submittal. Because of the large number of listings in the database, listings from previous assessment cycles will not be reassessed according to the most recent policy unless more recent information associated with the parameter and waterbody segment is made available, or a specific request is made to reassess an old segment under the new policy.</i></p>
<p>King County-9: King County believes there is the need to revise and update Ecology Water Quality Program Policy 1-11 (where the decision procedures for waterbody categories are identified) to reflect the best available science. Many of our concerns with Policy 1-11 are best addressed via facilitated multi-stakeholder collaboration. We recommend that Ecology expand the scope of the existing Interagency Project Team to improve TMDLs and address these issues through that group and process.</p>	<p><i>Ecology acknowledges your comments. As soon as we submit this proposed WQA to EPA for approval, we will start the planning process to update Policy 1-11 in preparation for the next listing cycle. This process will involve all interested stakeholders and tribes.</i></p>
<p>King County-10: Ecology's Administrative Procedures Act (under RCW 34.05.272) states that; before taking significant agency action, Ecology must identify the sources of information relied upon. Ecology must make these available on the agency's website. Sufficient information has not been provided to understand the scientific basis used to establish the RIVPACS (<0.73) and BIBI (<27) impairment thresholds or the methods used to determine listings based on biological assessment. A clear understanding of how impairment thresholds were defined is critical to the process of both identifying and addressing stressors to the macroinvertebrate community. King County recommends</p>	<p><i>Ecology is submitting a list of the sources of information and data that were used to conduct the WQA with its submittal package to EPA. This is also available on our website at: http://www.ecy.wa.gov/programs/wq/303d/freshwtrassessmnt/index.html. We have also provided more detailed information on the scientific basis for establishing numeric thresholds that were used to assess bioassessment data. We appreciate your suggestions to convene a panel of experts to develop a transparent mechanism for defining biological impairment and will work with staff in our Environmental Assessment Program to ensure this occurs.</i></p>

COMMENTS RECEIVED	ECOLOGY RESPONSE
<p>that Ecology convene a panel of experts and use the Biological Condition Gradient process to develop a transparent mechanism to define biological impairment in streams.</p>	
<p>King County-11: We note that Category 5 listings appear to be proliferating, with few mechanisms identified to reverse pollution problems before a waterbody segment reaches Category 5. The Interagency Project Team’s TMDL improvement recommendations include more thorough implementation of existing authorities to address unpermitted and non-point sources. In general, catching and addressing problems early, while they are still “Waters of Concern” (Category 2) could help improve water quality sooner while avoiding many of the challenging legal problems posed by Category 5 listings. One underutilized tool which Ecology should consider expanding are 4B plans and “direct to implementation” approaches to resolve known problems, such as temperature and fecal coliforms.</p>	<p><i>The requirement of the Water Quality Assessment is to report a list of impaired waters to congress on the impaired waters of the state where data are available. This includes waterbodies that are impaired and slated for a TMDL as well as waterbodies that are under a cleanup plan other than a TMDL. Additionally, Ecology agrees with the goal of implementing existing authorities to address pollution sources before the waterbody segment reaches Category 5. We support proactive counties and other entities that don't wait for the polluted waters list to identify problems and actively seek early alternatives to TMDLs in order to more efficiently address pollution problems. Please refer to Policy 1-11 for guidance on what is needed to get into Category 4B, and work with Ecology's regional TMDL staff on ideas you have for curbing pollution ahead of a waterbody going onto Category 5.</i></p>
<p>Kirkland-1: It is more reasonable for bioassessment to be a parameter to lead to a category 4c, not a category 5, since there is not a TMDL for bioassessment. It is unreasonable to propose this reach as a category 5, and make the jurisdiction perform extensive pollutant testing based solely on low BIBI scores, since those can be dependent on parameters other than pollutants. In addition, the bioassessment parameter for this reach is based on BIBI data from 2010 and before, but standardized biological data testing procedures were not in place until 2012.</p>	<p><i>EPA guidance is clear that the absence of a pollutant identified is not a reason to not put onto Category 5. Category 4C would be appropriate where pollutants have been ruled out and "pollution" has not been identified as the source. A necessary step for determining human actions that may be causing the impairment is the stressor identification process. This process is engaged when considering a TMDL study and either identifies one or more anthropogenic sources of impairment or may also rule out anthropogenic causes. Data and information, including bioassessment, that demonstrates an impairment of uses to aquatic life must be placed on the 303(d) list. Category 4C is not appropriate for these listings until it has been determined that a pollutant is not responsible for the impaired aquatic life use. Regarding your comment on the standardized biological data testing procedures, it is true that prior to 2012, a variety of methodologies were used when collecting samples for calculation of B-IBI scores, i.e. different surface areas sampled and various levels of taxonomic effort employed. However, we feel that these differences are not significant enough to warrant exclusion of these samples from the water quality assessment. Addressing some of these issues, King County Department of Natural Resources and Parks Water and Land Resources Division working on a grant from EPA, performed several analyses with data in the Puget Sound Stream Benthos (http://www.pugetsoundstreambenthos.org/) and produced several technical reports.</i></p>
<p>KPHD-1: The proposed list has many streams places in Category 5 for bioassessment (BIBI). It is unclear in Policy 1-11 (page 33) how the score for 0.73 RIVPACS was developed. There is no explanation of where and how the reference score was determined. Additionally, there is no scientific explanation for the public to understand the Category 5</p>	<p><i>The use of RIVPACS and the associated thresholds for placing waterbodies in Categories went through public review in 2006. The derivation of these thresholds was described and discussed during that revision of the Policy 1-11. The thresholds were developed using all available RIVPACS score data available to Ecology at that time. The Cat. 1 and Cat. 5 thresholds of 0.86 and</i></p>

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<p>designation of sites with a score of less than 27. It appears this criteria was not vetted through a scientific or public and transparent process.</p>	<p><i>0.73 correspond to 1 standard deviation and 2 standard deviations, respectively, from an observed over expected (O/E) score of 1. These thresholds remained present in the 2012 policy review and no comments were received on the use or thresholds associated with RIVPACS.</i></p>
<p>KCWP-1: The Kittitas County Water Purveyors, a non-profit consortium comprised of the main irrigation districts in Kittitas County, continue to be gravely concerned with the inclusion of irrigation waterways on the Washington State 303(d) list. Per Ecology’s website, “The 303(d) list comprises those waters that are in the polluted water category, for which beneficial uses— such as drinking, recreation, aquatic habitat, and industrial use – are impaired by pollution.” The so-called pollutants identified in the current assessment do not in any way impair the beneficial use of irrigation water, and should therefore not be included in the assessment.</p>	<p><i>Irrigation waterways and other manmade waterways are considered to be a "water of the state" and therefore we do not treat irrigation ditches different from other waters of the state. Ditches are considered “waters of the state” because the language in RCW 90.48.020 is interpreted to be broad and all inclusive. The long-standing interpretation given to chapter 90.48 RCW beginning with the water pollution control commission, when coupled with the history of legislative amendments to this chapter, has established a legal definition of “waters of the state” that clearly includes ditches. Therefore, there is not a clear distinction between irrigation ditches and naturally occurring waterbodies when it comes to interpretation of the water quality standards. Irrigation waterways must protect for the designated uses that have been assigned to waters of the state, including aquatic life and recreation, unless a Use Attainability Analysis has been done to remove those designated uses.</i></p>
<p>Klickitat County-1: We believe that the designated use of Buck Creek (I.e., Salmonid Spawning, Rearing, and Migration) should not be changed for the 2012 Water Quality Assessment. Temperature monitoring station WQ-2 was influenced by Northwestern Lake, the impoundment behind Condit Dam, and is not representative of the free flowing reaches of Buck Creek. The GPS location of the logger can clearly be seen to be in the backwaters of the dam impoundment. The location of the temperature monitor was scoured out with the removal of the dam suggesting that the influence was significant.</p>	<p><i>The designated uses for Buck Creek (tributary to the lower White Salmon River) are defined in the state water quality standards. The designated uses and associated water quality criteria were defined during a standards update process prior to the initiation of this water quality assessment. Defining a designated use is not within the scope of the water quality assessment and therefore we do not have the ability to assess the data to a different set of criteria.</i></p>
<p>Klickitat County-2: In the proposed 2012 water quality assessment the designated use for Buck Creek is proposed to be changed from Salmonid Spawning, Rearing, and Migration (17.5 degrees C) to Core Summer Salmonid Habitat (16 degrees C). This change of use while appropriate to the new conditions should not occur until new data from the new use can be considered. Changing should not be considered until the next assessment cycle when data from 2011 onward can be considered.</p>	<p><i>The proposed category designation for Listing 21594 (lower Buck Creek) has been changed from category 5 to category 3 in recognition that the temperature data leading to the category 5 designation was collected from a portion of Buck Creek that was inundated due to the Conduit dam and with the removal of the dam the data is not likely to represent current hydrological characteristics in lower Buck Creek.</i></p>
<p>Klickitat County-3: The County requests that no measurements be attributed to the Klickitat River that are in the slack waters of the Bonneville pool.</p>	<p><i>Upon review, we have determined that the entire Klickitat River assessment unit associated with listings 70982, 73489, and 77405 (the lower 0.6 km of the river) is considered to be within the inundation zone of the Columbia River backwaters. The water quality criteria applicable to the portion of the Columbia River into which this waterbody flows apply to this assessment unit. Listing 73489 has been placed in category 2 due to data showing that the temperature criterion for the Columbia River has been</i></p>

COMMENTS RECEIVED	ECOLOGY RESPONSE
	<p><i>exceeded. The upstream assessment unit associated with listings 72908 and 77924 is not presently considered to be within the Columbia River inundation zone; no changes have been made to these listings (if we had applied the Columbia River temperature criterion to listing 72908, then the listing would still be a proposed category 5 due to measurements).</i></p>
<p>Klickitat County-4: The County requests that any reaches of the White Salmon River from the mouth to the upper limits of the old reservoir only use data post breaching of Condit Dam for future water quality assessments that are in the slack waters of the Bonneville pool.</p>	<p><i>Our goal is to appropriately incorporate considerations of the influence of reach specific hydrological influences upon water quality. In this regard, we seek to account for influences of dams, backwater effects, tributaries, tidal zones, etc. in our analyses of data and information relative to water quality criteria. Since the dam released water from the hypolimnion rather than the surface of the former reservoir, and subsurface temperatures in a reservoir are typically significantly cooler than surface temperatures, we do not think that removal of the dam would necessarily mean that maximum water temperatures in the downstream reaches would now be lower than previously observed. Therefore in this case we do not agree the premise that the most recent available data for the assessment unit should not be considered in the listing for the reason that it was collected before the dam was removed. Listing 72898 has been revised, but for a reason that is different than stated in the comment (i.e. Condit dam removal). It has been recognized that a portion of the NHD reach associated with 72898 is within the backwaters of the Bonneville dam and that all of the available temperature data for this parameter within this assessment unit was collected from the portion of the reach within the inundation zone. Therefore the assessment unit has been split at the location where the inundation zone appears to end. Listings 47414, 51055, 72330, and 72898 now address only the portion of the river within the Columbia River inundation zone. The water quality criteria applicable to the portion of the Columbia River into which this waterbody flows apply to this modified assessment unit. Listing 47414 has been placed in category 2 due to an excursion from the Columbia River dissolved oxygen saturation criterion. The proposed category 5 designation for Listing 72898 remains unchanged because the Columbia River temperature criterion of 20 degrees Celsius has been exceeded multiple times.</i></p>
<p>Lakewood-1: Many of the Category 5 listings for lower Clover Creek and Chambers Creek (#18889, 7548, 7549, 7553) are based on results of data collected as long ago as the early 1990s. Is data not collected more regularly for Category 5 listings? A Category 5 listing could lead to a cleanup plan. If so, would this be based on the old data; or would new data be collected to corroborate the old data? A lot could have changed - better or worse - since the data was collected.</p>	<p><i>Listings that have been carried over from previous Assessments that are based on data older than ten years occurs because there was no newer data available to update the previously assessed listing. So, the listings you cite did not have newer data upon which to update the status of that listing. Ecology does not have an expansive enough monitoring program to regularly monitor every Category 5 listed water. In fact, besides Ecology generated data, we really on other state, federal and local jurisdictions to submit data for consideration. If a cleanup plan is started for a Category 5 listings based on old data, it would be expected that newer data would be collected and analyzed to determine the current status, and to begin to identify likely sources causing the pollutant.</i></p>

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<p>Lengenfelder, James, Public- The pH listing is new. Since 2010 ninety percent of the samples have met the standard. But the new listing is only using testing results up to 2010. If you are going to update the listing why not use the most recent data available?</p>	<p><i>To begin an Assessment, Ecology conducts as call-for-data. Data collected within ten years of the published call-for-data end date for each Assessment are consolidated and assessed with other data of the same waterbody segment and parameter. The data to develop this assessment was collected up through 2010 and for various reasons we only finished the analysis of that data in November 2014. While we realize this is a frustrating situation especially where newer data is available, to continue to assess newer data at this point would only further delay the completion of this Assessment for submittal to EPA. We believe the most prudent thing to do at this point is complete this Assessment based on the call-for-data established, and then make a commitment to begin the next WQA as soon as EPA approves this Assessment submittal (expected in the Fall of 2015).</i></p>
<p>Loehr-1: Probably need a category 5M for mercury. Lake Ozette gets a category 5 for mercury in tissue, and it isn't going to be associated with Washington State human inputs. I'm not saying global sources are natural, but a TMDL here would be futile. Need category 5M and default to Mercury CAP as only action feasible. Since Mercury CAP is in place, then make this site a Category 4 of some type.</p>	<p><i>Under Policy 1-11 Ecology does not sub-categorize Category 5 listings for any parameter. Unless there are specific permits or programs for Lake Ozette that are targeted to meet water quality standards, this waterbody will remain in Category 5 under the current Policy 1-11. We understand and agree with your concerns related to mercury pollution in waterbodies without human inputs attributed to Washington sources. Until a more integrated state approach for mercury is developed, it is likely this waterbody will remain in Category 5.</i></p>
<p>NWEA-1: We applaud Ecology's decision to make the much-needed change of the segmentation of the Columbia and Snake Rivers. The previous assessment units were illogical. The Columbia River certainly has some "natural" segmentation, from the influences of hydroelectric dams for example. But the previous segmentation scheme, in which the Columbia River was cut up into innumerable tiny pieces, simply hampered every regulatory action that depends upon the assessment and 303(d) list such as TMDL's and discharge permits.</p>	<p><i>Comment noted. We agree that this new segmentation system for the Columbia and Snake Rivers is a vast improvement over the previous gridded system that was in place. This grid system was not appropriate for flowing waters that meet the definition of a riverine water in the surface water quality standards. The gridded system remains for those non-riverine, open waters; large lakes, Puget Sound and coastal waters.</i></p>
<p>NWEA-2: We note that Ecology submitted a marine-only 303(d) list— with no freshwater review—as Washington's 2010 list on December 28, 2011 and EPA approved that list, with no freshwater review, on December 21, 2012, referring to it as "Washington's 2010 Section 303(d) list." As Ecology explains the status of the state's freshwater list, "[a]fter the 2008 Water Quality Assessment Ecology, with EPA approval, went to a rotating system for completing the assessment. This cycle focused on marine waters. The next cycle will focus on freshwater. The focus will continue to alternate between marine and freshwater cycles." It should be noted that this view of what is allowed under EPA's "rotating basin approach" is not consistent with EPA national policy, as discussed infra, notwithstanding EPA Region 10's apparent acceptance of it in its 2012 approval of the 2010 list.</p>	<p><i>Ecology requested that EPA allow the 2010 WQA in Washington to be based on marine data only. This was due in large part to the transition of fresh water listings to the National Hydrography Dataset, or NHD, which was a major transition to both the results database and the related GIS mapping schema and it was obviously going to cause a delay in timely submittal of the Assessment. EPA agreed this was appropriate. At that time Ecology envisioned conducting the marine and fresh water data assessments on a continuing rotating basis because of the extensive staff resources needed for the large amount of data that are assessed. However, we have since rethought the concept of a rotating basis and have decided that the next Assessment will be a full assessment of the state and will not split out marine from fresh waters.</i></p>

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<p>NWEA-3: Now Ecology refers to the 2010 list that was approved by EPA in 2012 as Washington’s “2012” list, notwithstanding EPA’s finding and even Ecology’s own 2011 “call for data” that referred to the new data being for a “2012 assessment.” The date of EPA’s approval does not make the 2010 list a 2012 list, notwithstanding Ecology’s attempt to paper over its failure to complete a list for that year. EPA has never approved a Washington “2012” list; rather, EPA quite clearly approved a partial 2010 list for Washington. Either Ecology must call the list presently out for public comment a “2012” list or it must acknowledge that—just as it failed in 2002, 2006, and 2010 for freshwater— so too did it fail to submit a list in 2012. One thing is clear: it is incorrect and misleading for Ecology to repeatedly refer to the “2012 Assessment” because there is no such thing. Even Ecology is confused because on that same website it states: “Ecology is overdue on the 2012 Water Quality Assessment.” Id. Ecology cannot both have a 2012 assessment completed and be overdue on a 2012 assessment.</p>	<p><i>We apologize for this confusion, and have added language to the website to clarify what each Assessment cycle represents. In the past three assessments, Ecology has referred to the EPA-approved assessment based on the year EPA gave approval. This was true for the 2004 assessment (which started as the 2002), the 2008 assessment (which started as the 2006) and the 2012 assessment (which started as the 2010). Ecology has found that when we embraced the "Integrated Report" concept, by including all data in the five categories, it has been a resource intensive process and we have not been able to complete it in a two-year period, even with additional staffing resources added. Also, we assess significantly more data than most states and while we are committed to that, it increases the time and resources to complete the Assessment for the given listing cycle. In this latest Assessment we looked at millions of data records that resulted in over 4500 new listings (all categories) and updated data for more than 6,700 previous listings. We are hopeful that the automation project we are conducting to automate the technical assessment of the data will greatly decrease the amount of staff time to conduct the data assessments, and get us back on being able to complete a cycle within the 2 year timeframe envisioned in the Clean Water Act.</i></p>
<p>NWEA-4: Moreover, it makes no sense for Ecology to maintain a cut-off date for data and information upon which the proposed list is based that only goes through December 31, 2010—almost four and a half years ago—and to term this same list by whatever date EPA completes its review and approval, partial approval, or denial. Hypothetically the result could be as much as a six year gap between the cut-off date and the name of the list. This is just misleading to the public and to regulators. Ecology should change the cut-off date or name the list based on the cut-off date, namely a “2012 list,” and acknowledge it is now a year late starting on its 2014 list.</p>	<p><i>Comment noted. We have made clarifications on the website to be clear about what the year of the assessments represent.</i></p>
<p>NWEA-5: Ecology has, for many years, failed to meet the requirements set out in federal regulations to “assemble and evaluate all existing and readily available water quality related data and information to develop the list[.]” 40 C.F.R. § 130.7(b)(5). EPA regulations specify that the meaning of that phrase includes but is not limited to four broad categories of waters, including waters identified as “threatened” in the state’s 305(b) report. Specifically called out is a requirement that states review data and information on “[w]aters for which water quality problems have been reported by local, state, or federal agencies; members of the public; or academic institutions.” 40 C.F.R. § 130.7(b)(5)(iii). The regulations instruct states that these groups should be “actively solicited for research they may be conducting or reporting.” 40 C.F.R. § 130.7(b)(5)(iv) (emphasis added).</p>	<p><i>Ecology conducted an extensive public "call-for-data" that was published in the state register and sent to the Water Quality Partnership. A press release and extensive email ListServ notice with over 1000 names was sent out, including representatives of state, federal, local, and tribal contacts, as well as members of the public. In addition, the Environmental Assessment Program at Ecology developed a list of targeted data owners from which to specifically request data, and sent letters out to those targeted data submitters. Ecology also set up EIM training for data submitters around the state to assist them in submitting data for the assessment. This call for data has involved millions of data records being assessed, resulting in almost 24,000 listings, which is a 31% increase over the last assessment. Given that this is the largest assessment ever conducted by Ecology, we are satisfied that we have met federal regulations requiring the use of "all existing and readily available data" to develop the list.</i></p>

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<p>NWEA-6: Ecology’s reliance on its “Call for Data” violates EPA regulations and guidance. Summarized, over a 13 year period, Ecology has requested data for pollution on freshwater waterbodies three times and data on saltwater waters three times. In contrast, had Ecology followed legal requirements, it would have requested data seven times during that period or more than twice the opportunities for the public, nonprofit, and governmental agencies to submit data and information.</p>	<p><i>Ecology conducts official calls for data which indicate a cut-off date for any data to be submitted in time for an upcoming assessment. This date is a necessary step in the assessment in order to consolidate and assess a complete dataset for each waterbody. With millions of records to assess, a continuous iterative process to accept data beyond a published date would make the assessment process infeasible. However, the data acceptance period is always open for current and future assessments. Ecology accepts data submittals at any time up through that date. Anyone at any time can contact Ecology via email at 303d@ecy.wa.gov to submit data. We have made this clear at every public meeting and encouraged data submitters to work with Ecology early and not wait for a notification that we are accepting data.</i></p> <p><i>Ecology stands by its record for meeting the requirement to use readily available data. This assessment cycle resulted in over 4500 new listings (all categories) and updated data for more than 6,700 previous listings. EPA has approved all Assessments submitted since the "Integrated Report" was put in place, based on Ecology's record of meeting requirements for the Assessment. We are not aware of any other state that receives and assesses more data than Washington. We do acknowledge that going to the five categories of data listings has been a tremendous resource intensive effort for Washington and has caused delays in meeting the two year schedule envisioned by the Clean Water Act. Washington has approximately 74,000 miles of rivers and streams, over 4,000 lakes, and almost 3,000 square miles of marine estuaries. As of 2015, water quality has been monitored for one or more parameters in 5,520 stream and river segments, resulting in almost 24,000 records for this Assessment. We are hopeful that the Data Automation project we have started will result in more timely submittals that are closer to the 2-year window envisioned by the Clean Water Act. However, this will continue to be a significant undertaking, given the amount of data we look at and the fact that, based on increasing trends, we expect available data to increase in subsequent years.</i></p>
<p>NWEA-7: In none of the four solicitations to support the assessment has Ecology mentioned “information,” despite the fact that “data and information” are repeated throughout section 130.7(b) and despite the fact that not all aspects of water quality standards can be assessed strictly through the type of data Ecology requested. These calls for data demonstrate Ecology’s 303(d) proposed list, as well as its lists in the past on which this one builds, are not consistent with federal requirements. With one exception for marine waters only, Ecology has not sought from the public or evaluated on its own any “information on water quality.” EPA’s regulations and guidance are consistently clear that states must consider information on water quality as well as data.</p>	<p><i>Ecology has regularly used the word "data" to imply both monitoring pollutant parameter data as well as any associated information that would lead to a credible listing decision. Examples of this are Quality Assurance Project Plans, verification studies, or other studies that are used for narrative listing decisions. In fact, Merriam-Webster's dictionary defines data as "facts or information used usually to calculate, analyze, or plan something." To suggest that Ecology has purposely mislead the public by not using a word that is built into a broader definition is not appropriate. Ecology has considered relevant information in previous listing cycles, and will continue to consider any information that meets credible data requirements of the Water Quality Data Act (codified in RCW 90.48.570-590). Water Quality Policy 1-11, Chapter 2 provides guidance on what is considered credible information in order to make category decisions for the</i></p>

COMMENTS RECEIVED	ECOLOGY RESPONSE
	<p><i>Assessment as well as a policy on narrative information and how this is used in the assessment.</i></p>
<p>NWEA-8: There is no indication Ecology has sought any information—as opposed to data—from any entity. While the methodology refers in several places to the notion that “information” can be used to determine impairment, in the methodology’s discussions of specific parameters, the concept of “information” is only discussed with regard to 303(d) listings as a method of determining a pollutant’s level is natural, that is to say as a basis for not listing it. Otherwise the basis for placing a segment into Category 3 is “information.” Put another way, there is no evidence from the methodology that Ecology uses information for listing purposes.</p>	<p><i>Ecology respectfully disagrees with NWEA's perspective. Data is a broad term for facts and information used to make an analysis and can come in many forms. Data submittals for the Assessment include many types of information to determine that the monitoring data was credibly collected and analyzed, specifics about the monitoring site, and other information for the particular assessment. Policy 1-11 methodology includes several references to information, other than numeric monitoring data, that should be considered in the Assessment. For example, General Requirements (starting on page 9) outline information that can or should be submitted, especially to verify that the data submittal meets credible data requirements. In Section 6: Assessment Methodology, "Assessment of Information using Narrative Standards" (starting on page 20) specifically refers to water quality studies that show documentation that narrative standards are not being met. Water quality studies that draw credible conclusions about a waterbody can be used to make decisions based on both numeric and narrative criteria.</i></p>
<p>NWEA-9: Regardless of whether NWEA or others had or had not provided a list of sources of data and information on water quality, designated and existing use impairment, Ecology was obligated to obtain the readily available data and information itself. See EPA 2006 Guidance at 32. For example, it begs credulity for Ecology to ignore data such as that from the studies on the Lower Columbia River, discussed infra, and the information from those studies in which risks to designated uses, such as fish, wildlife and human health, were evaluated.</p>	<p><i>Besides conducting a call for data with notices in the state register, a press release, and a broad list serve notice, we also sent out individual letters to numerous state, local, volunteer, academic, and tribal entities that collect water quality data. Furthermore, data and information must be reviewed and shown to be credibly attributable to an impairment to the designated uses of a particular waterbody that is protected by WAC 173-201A.</i></p>
<p>NWEA-10: There is no evidence that Ecology “actively solicited” agencies and academic institutions for data and information. An announcement soliciting submission of data is not an active solicitation in the meaning of the EPA regulations.</p>	<p><i>Besides conducting a call for data with notices in the state register, a press release, and a broad list serve notice, we also sent out individual letters to numerous state, local, volunteer, academic, and tribal entities that collect water quality data.</i></p>

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<p>NWEA-11: Last, Ecology’s methodology contains no reference to listing of waters because they have been identified as “threatened” contrary to EPA regulations. 40 C.F.R. § 130.7(b)(5)(i). Ecology’s assessment database of waters does not include any method for the public to assess whether the agency has used waters identified as “threatened” as the basis for 303(d) listing. Therefore it can be deduced that Washington has listed precisely zero waters that have been listed as threatened. EPA Guidance indicates that a water should be placed in Category 5 of the 303(d) list when “[a]vailable data and/or information indicate that at least one designated use is not being supported or is threatened, and a TMDL is needed.” EPA recommends that states consider segments as threatened “those segments that are currently attaining WQS, but are projected as the result of applying a valid statistical methodology to exceed WQS by the next listing cycle (every two years). Ecology has not identified threatened waters as a category for which it makes listing determinations in its methodology. There is no way to search for threatened waters on the Ecology database. Therefore, one can conclude that Washington does not include threatened waters in its 303(d) list.</p>	<p><i>You are correct; Washington does not have any waterbody segments listed specifically as threatened, as opposed to impaired, on its 303(d) list. According to EPA 2006 guidance “States may define “threatened waters” in their assessment and listing methodologies. EPA recommends that states consider as threatened those waters that are currently attaining WQs, but which are expected to not meet WQs by the next listing cycle (every two years). For example, segments should be listed if the analysis demonstrates a declining trend in a specific water quality criteria (WQC), and the projected trend will result in a failure to meet a criterion by the date of the next list (i.e., 2008 for purposes of the 2006 assessment cycle); or, segments should be listed if there are proposed activities that will result in WQs exceedances.” Ecology has chosen not to specifically define “threatened waters” in Policy 1-11 but would apply the EPA 2006 guidance for threatened waters where credible data indicated a projected trend would result in failure to meet a criterion by the next listing cycle. Ecology received no data submittals that definitively showed a declining trend in a specific water quality criteria where the projected trend would result in a failure to meet a criterion by the date of the next list. Therefore, there are no listings specifically attributed to being “threatened” in accordance with suggested EPA guidance.</i></p>
<p>NWEA-12: Washington’s purported rotating basin approach is an incomplete assessment of state waters, and is inconsistent with EPA regulations and guidance. Washington had taken an approach to completing its 303(d) lists that is a mixture of not submitting lists and a purported “rotating basin” approach that is not consistent with EPA policy.</p>	<p><i>Ecology has made a decision to not continue the rotating basin approach and will start an assessment of all state waters for the next listing cycle.</i></p>
<p>NWEA-13: It is misleading and confusing to refer to a list that reflects only data through 2010 as anything but a 2010 or 2012 list. It is certainly could not in any stretch of the imagination be considered a 2014 or 2016 list notwithstanding when Ecology analyzed the data and when EPA might approve the list. That there might be some time lag between the data cut-off period and the date the list is due is understandable. But this proposal is utterly illogical. Either Ecology should name this list the 2010 list or it should change the data cut-off date.</p>	<p><i>Comment noted. We have made clarifications on the website to be clear about what the year of the assessments represent.</i></p>

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<p>NWEA-14: Not only is Ecology’s current proposed list inadequate from the standpoint of its freshwater rivers, streams, lakes, and wetlands but it is an inadequate list for all its waters, including marine and estuarine waters. This proposed list is “based on fresh water data.” But this new list fails to be a “full refresh” of Ecology’s marine and estuarine waters as well, contrary to EPA guidance and regulations. By the time that Ecology updates the marine 303(d) list it will likely be at least seven years old. This is neither a “full refresh” of all of the state’s waters, nor is it a rotating/alternating every four-year list, nor is it a “rotating basin” approach. This is simply contrary to law.</p>	<p><i>As stated previously, Ecology split out marine from fresh water data in order to allow more time for the transition to NHD segments for fresh waters. The delay in completing the fresh water assessment was due to several factors. The transition to NHD required a resource intensive effort that involved merging water segment listings from the old system into the new NHD system based on hydrologic features. In addition, capturing, compiling, analyzing and assessing data for the five categories of waters (rather than just the traditional 303(d) list) has resulted in a significant increase in data assessment. Likewise, we estimate that there was about 31% more listings from data than was in the 2012 Assessment. So, not only are we assessing more data, but the amount of data has grown from previous listing cycles. During this last assessment Ecology began working on a project to automate the Assessment to the degree that we can, in order to relieve some of the staffing pressures of completing a listing cycle. As we looked to automate the technical assessment of the data, time was spent capturing the numerous steps and requirements that go into assessing various parameters. While this has taken more time out of actual assessment of the data, we hope that the payoff will come in future Assessments as we are able to automate parts that currently are time consuming and complicated.</i></p>
<p>NWEA-15: Washington uses an arbitrary temporal limit on “Available Data” and fails to justify it’s use. For its proposed list, Ecology relies on data almost exclusively limited to that collected through December 2010. FAQ. Ecology states that the public “call for data” was completed on August 31, 2011. This approach is arbitrary for several reasons. First, Ecology has not necessary obtained and evaluated all data and information that was collected or analyzed prior to 2001.</p>	<p><i>Washington's WQA includes many listings that were assessed based on data collected and analyzed prior to 2001. Regarding the temporal limits, Ecology has followed the Integrated Guidance developed by EPA, especially the most comprehensive 2006 Guidance, in establishing its listing methodologies in Policy 1-11. This guidance suggests that "If the state has specifications for data and information, these specifications should be included in any requests for information. To facilitate the timely completion of a draft list that can be distributed for public review and comment, states may set a reasonable “cut-off” date after which no additional data or information will be considered in the preparation of the draft section 303(d) list and other aspects of a preliminary Integrated Report." In 2002 Ecology considered what would be a representative timeframe within which to assess available data and determined that ten years was reasonable. This was then stipulated in Policy 1-11 and went through public review for consideration. Data older than ten years continues to be included in Washington's Assessment unless there is more recent data to reassess the status of the specific waterbody segment. Furthermore, Ecology conducts official calls for data which indicate a cut-off date for any data to be submitted in time for an upcoming assessment. This date is a necessary step in the assessment in order to consolidate and assess a complete dataset for each waterbody. With millions of records to assess, a continuous iterative process to accept data beyond a published date would make the assessment process infeasible. However, the data acceptance period is always open for current and future</i></p>

COMMENTS RECEIVED	ECOLOGY RESPONSE
	<p><i>assessments. Ecology accepts data submittals at any time up through that date. Anyone at any time can contact Ecology via email at 303d@ecy.wa.gov to submit data. We have made this clear at every public meeting and encouraged data submitters to work with Ecology early and not wait for a notification that we are accepting data.</i></p>
<p>NWEA-16: In the absence of information that suggests that water quality has improved, older data should be used, unless they are likely inaccurate. Professional judgment is a better method than arbitrary cut-off dates where expensive studies are not likely to be replicated.</p>	<p><i>We agree, and continue to have listings based on data older than ten years. Data older than ten years will be in situations where no more recent data exists to conduct the assessment. Older data must meet all QA requirements at the time of submittal, and will be compared against the current policy to make the assessment decision.</i></p>
<p>NWEA-17: Ecology states that “[n]ew information is being generated continuously on water quality in the state of Washington.” 2012 Response at 5. While facially true, it is not true that data and information is being generated continuously in all media, in all waters, and on all parameters. In fact, there are plenty of waters and parameters and use support findings that have not been replicated due to the enormous cost of doing so and limited budgets for monitoring and special studies. This is particularly true for toxics. Contrary to the requirements set out in 40 C.F.R. § 130.7(b)(3), Ecology has not provided a “rationale for any decision to not use any existing and readily available data and information” but, instead, has simply stated an arbitrary outcome.</p>	<p><i>Ecology did not use data and information that did not meet minimum quality assurance requirements dictated in Chapter 2 of Policy 1-11, "Ensuring Credible Data for Water Quality Management." A list of studies and information not used was compiled from the EIM database, and submitted to EPA as part of the Assessment submittal. Regarding other studies and information that NWEA has submitted as readily available information that should have been considered, Ecology reiterates that in order to use information to make a narrative listings, the data submitter must provide information to show documentation of environmental alteration in the waterbody segment, as well as documentation that impairment of the existing or designated use is related to the environmental alteration on that same waterbody segment or grid. Those two pieces of evidence must be tied together in order to reach a reasonable determination that the waterbody is impaired for the existing or designated use.</i></p>
<p>NWEA-18: This arbitrary cut-off will become more apparent when, if ever, Washington updates its toxic criteria for human health and aquatic life, bringing them into this century. Ecology should review all of its data in light of adequately protective criteria, regardless of when the data were collected. While this is not an issue for this list, given Ecology’s foot-dragging revision of its water quality standards, it will presumably be an issue for the next list.</p>	<p><i>Comment noted.</i></p>
<p>NWEA-19: Ecology has failed to demonstrate that it has, in fact, actively solicited all sources of existing and readily available information and data. Nonetheless, it has failed to use all available data and information that exist on impacts to water quality and beneficial uses including some information Ecology has in its possession or could have readily obtained. Moreover, although two past proposed lists have included Ecology’s sources of data and information, discussed <i>infra</i>, contrary to 40 C.F.R. § 130.7(b)(6)(ii) this proposed list does not. Therefore, we can only guess at what sources Ecology does not have or has chosen to reject based on what appears to be missing from its listings and how its methodology is written.</p>	<p><i>Ecology submitted a list of data sources, as well as a list of sources that were not used, as part of its Assessment submittal package to EPA. This information is also being posted on the website so that it can be accessed by the public.</i></p>

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<p>NWEA-20: Ecology never explicitly recognizes the legal definition of a water quality standard in its methodology. Nor does it explicitly acknowledge the regulatory requirement to base its assessment on data and information. These huge gaps together result in Ecology’s generally ignoring designated uses and narrative criteria and the data and information gathered that demonstrate impairments of uses and narrative criteria.</p>	<p><i>Comment noted. Policy 1-11 clearly cites the legal basis for the water quality standards that are applied in the Assessment: "The surface water quality standards to be used for the assessment process are in Chapter 173-201A WAC, Water Quality Standards for Surface Waters of the State of Washington; see apps.leg.wa.gov/WAC/default.aspx?cite=173-201A and the federal National Toxic Rule (NTR) and Human Health Criteria in 40 CFR Part 131 (Federal Register Vol. 57, No. 246, and as updated). For contaminated sediments, the standards are in Chapter 173-204 WAC, Sediment Management Standards; see apps.leg.wa.gov/WAC/default.aspx?cite=173-204."</i></p>
<p>NWEA-21: Washington Fails to List Waters for Not Supporting Designated Uses rarely uses data or information to find lack of designated use support. In fact, the only time when Ecology uses an actual impairment of uses as the basis for a 303(d) listing is where a health advisory has been issued for fish or shellfish consumption and swimming, and there only in some circumstances. As Ecology states in a number of places, its view is that “[b]eneficial use support is demonstrated by adherence to the numeric criteria and the anti-degradation policy . . . [and] the use of numerical and narrative criteria . . . provides the most direct link to the support of beneficial uses and the quality of water that is needed to support those uses.”</p>	<p><i>Comment noted.</i></p>
<p>NWEA-22: It is difficult to understand Ecology’s thinking when it claims that a criterion is a more “direct” link to determining if uses are supported than the state of the uses themselves. For example, reproductive failure or extirpation are pretty clear indications that uses have not been supported. Moreover, as will be demonstrated below, Ecology rarely applies its narrative criteria, instead relying almost exclusively on numeric criteria, which often fail to capture the level of protectiveness required and, in some instances, do not even address all the pollutants in Washington’s waters.</p>	<p><i>Washington Water Quality Standards are designed to set criteria levels for the protection of the associated beneficial uses. Monitoring data provides a direct and streamlined indicator that can be used to make assumptions that uses are, or may be, impaired if the associated criteria are showing persistent exceedances. Determining impairment of a beneficial use of a waterbody is more time and resource intensive, and to meet credible data requirements in Washington there needs to be a link between the environmental alteration and the impairment of a beneficial use in order to make a more definitive determination that the water is impaired based on narrative standards. Given the time and resource intensity of demonstrating impairment of narrative standards, it shouldn't be surprising that numeric criteria are predominantly used to make listing decisions. These listings then become indicators for TMDL work, which goes into the kind of detail on degradation and sources that leads to protection and restoration.</i></p>
<p>NWEA-23: Therefore, despite noting which broad categories of designated uses are affected by the named pollutants in the methodology, Ecology rarely states how it will directly assess designated use support to identify impaired waters. In addition, there is no search parameter in its on-line assessment database for designated use impairment of any kind. And, there is no mention of evaluating designated use impairment in the methodology other than as discussed above with regard to bacteria.</p>	<p><i>Comment noted. We point out that Ecology is also using the bioassessment listings to directly assess designated use support to identify impaired waters. Ecology GIS staff are working on upgrades to Washington's Water Quality Atlas, which we hope to release with the next Assessment approval. If possible, we will consider adding information on designated uses so that there is a clearer connection between the pollutant parameter listing and the beneficial use being affected.</i></p>

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<p>NWEA-24: The failure of Ecology to include 303(d) listings based on lack of support of beneficial uses is contrary to the statutory requirement that waters be listed on the 303(d)(1) list when effluent limits are not stringent enough to “implement any water quality standard applicable to such waters.”</p>	<p><i>Ecology believes that Category 5 listings on Washington's WQA indicate where waters are not supporting beneficial uses.</i></p>
<p>NWEA-25: There are ample readily available data and information concerning the failure of Washington’s waters to support its designated uses. Sources of this information include but are not limited to the National Marine Fisheries Service, U.S. Fish and Wildlife Service, the U.S. Geological Survey, Washington Department of Fish and Wildlife, Washington Herp Atlas, institutions of higher learning, and Ecology itself. We hereby submit as readily available data and information on lack of full support of designated uses, the data and information in Section I.E. of these comments, supra.</p>	<p><i>Ecology is unfortunately unable to use the list of information sources that you cited for several reasons. First, the information was not received within the call-for-data period such that Ecology could review the appropriateness of the information to make listing decisions in the Assessment. Secondly, we require data submitters to provide quality assurance information to ensure that the information meets requirements spelled out in Policy 1-11 Chapter 2, "Ensuring Credible Data for Water Quality Management." Submittals of information by third parties must include documentation addressing the accuracy and completeness of the information submitted to Ecology, including documentation that the required QA objectives were met. Finally, we should note that information to make narrative listings would need to show documentation of environmental alteration in the waterbody segment, as well as documentation that impairment of the existing or designated use is related to the environmental alteration on that same waterbody segment or grid. Those two pieces of evidence must be tied together in order to reach a reasonable determination that the waterbody is impaired.</i></p>
<p>NWEA-26: It is difficult if not impossible to understand what Ecology does with data and information on other pollutants and parameters not included in its listing policy. For example, missing from this list is information on how—or even whether—Ecology assesses waters for aquatic weeds, invasive species, turbidity affecting drinking water, algae, toxicity from algal growth, excess fine sediment, nutrients not in lakes, toxics that affect wildlife, toxics for which there are no numeric criteria, and intergravel dissolved oxygen.</p>	<p><i>Washington's WQA is largely driven by the pollutant parameters outlined in Policy 1-11. These are more commonly monitored and where exceedances occur, allow a faster indication that the designated use associated with the parameter is not likely being protected. The examples you cite are more typical of pollution that would be based on impairment of a narrative criteria. Information necessary to show that narrative criteria and anti-degradation are not being met requires a more intensive study as outlined in Policy 1-11, and have not been typically submitted to Ecology for consideration.</i></p>
<p>NWEA-27: Ecology fails to list waters for impairment from biological pollutants including invasive exotic species. Ecology provides a narrative that somehow the 303(d) list is really just about only those “water segments involving discharge of effluents or pollutants that can be improved through the TMDL process are those that are amenable to reduced pollutant loading as from an effluent source.” Id. at 7. Not only is that a silly response in light of the fact that invasive species are discharged from point sources, but it is simply not true. Moreover, the state is not off the hook for 303(d) listings merely because EPA has not provided guidance.</p>	<p><i>Listings based on information showing presence of invasive exotic species are placed in Category 4C "Segment is impaired by a non-pollutant". Segments are placed in this category when the failure to meet the applicable water quality standards is caused by a type of pollution that is not appropriately addressed through the TMDL process. Ecology fails to see how a TMDL would be implemented to address invasive exotic species. This is the purpose for Category 4C listings which recognizes that a waterbody's designated uses are impaired but placement in Category 5 (303d list) to set a TMDL would not be appropriate. There are other programs in place at Ecology and elsewhere that deal directly with prevention and eradication of invasive exotic species. We have been placing these listings in Category 4C since 2004 and have subsequently received EPA approval on our</i></p>

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	<p><i>candidate 303(d) lists submitted, so we believe we are operating within federal law.</i></p>
<p>NWEA-28: A search for “invasive exotic species” and all categories in the proposed draft assessment database results in 240 listings. In contrast, a search of “invasive exotic species” and Category 5 results in zero listings. These queries demonstrate the Ecology’s methodology means precisely what it says: contrary to federal law, Washington does not consider exotic invasive species to be a pollutant. Ecology is incorrect and must remedy its listings.</p>	<p><i>You are correct that there are no Category 5 listings for invasive exotic species. Listings based on information showing presence of invasive exotic species are placed in Category 4C "Segment is impaired by a non-pollutant". Segments are placed in this category when the failure to meet the applicable water quality standards is caused by a type of pollution that is not appropriately addressed through the TMDL process. There are other programs in place at Ecology and elsewhere that deal directly with prevention and eradication of invasive exotic species. We have been placing these listings in Category 4C since 2004 and have subsequently received EPA approval on our candidate 303(d) lists submitted, so we believe we are operating within federal law.</i></p>
<p>NWEA-29: The methodology describes how Ecology makes impairment determinations for only a limited number of pollutants. Each of the sections in the methodology that address these subjects identifies the designated uses, the numeric criteria (if any), the “narrative standards” [sic] (if any), and the “unit of measure.” Few of these sections explain how, or whether, Ecology intends to make impairment findings based on the designated uses cited or the “narrative standards” [sic].</p>	<p><i>You are correct that Policy 1-11 provides greater detail on guidance for assessing specific pollutant parameter data that are commonly monitored in Washington. These sections are pollutant parameter specific and do not typically go into detail on the designated uses or narrative standards cited because the assumption is that if the criteria is not being met in accordance with the policy, then the designated use is impaired. Assessment of information using narrative standards is described starting on page 20 of Policy 1-11.</i></p>

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<p>NWEA-30: A 1999 study found that bald eagle reproductive failure in the Lower Columbia River was related to toxic contamination. There are no listings on this basis, however. Using both the database and map search features, there appears to be a single listing for PCBs in the Lower Columbia downstream of Puget Bar: Assessment Unit ID: 46123C5E5 Listing ID: 8772. This is not a listing for impairment of bald eagles but, rather, “excursions beyond the National Toxic Rule [human health] criterion in sturgeon, L. sucker and carp fillets in 1994 and 1995.” Likewise, the single listing for 4,4'-DDE, Assessment Unit ID: 46123C7H4, Listing ID: 8768, is for “excursions beyond the National Toxic Rule criterion in sturgeon fillets in 1994 and 1995.” Similarly, listings for these two toxic pollutants upstream of the Puget Bar in the Lower Columbia River are based on excursions beyond Washington’s numeric criteria for human health, the National Toxics Rule. This demonstration is important for at least three reasons. First, it demonstrates that Ecology blatantly ignores readily available data and information on designated use impairment. Second, because there is no efficient way to do a similar search across the state—without spending hundreds of hours in the process—it serves to demonstrate Ecology’s policy. Third, it matters on what basis a waterbody is listed.</p>	<p><i>As stated previously, to make a listing decision based on impairment of narrative criteria, information must be provided to show documentation of environmental alteration in the waterbody segment, as well as documentation that impairment of the existing or designated use is related to the environmental alteration on that same waterbody segment or grid. Those two pieces of evidence must be tied together in order to reach a reasonable determination that the waterbody is impaired for the existing or designated use.</i></p>
<p>NWEA-31: In pending litigation, EPA has made clear that it stands by this policy: the TMDL need only meet the specific uses for which it was listed as impaired. So long as EPA Region 10 takes this position, Ecology must list waters on the basis of all uses and all criteria for which data and information demonstrate impairment. Only this way may the public be assured that when a TMDL is done, it will address the most sensitive use and control pollution to the degree required. Not only are the NTR human health criteria wildly out of date in terms of protecting public health, they certainly are not sufficient to protect fish and wildlife. This requires the application of the narrative criterion as it is written and as intended by federal law: to fill the yawning gaps between the numeric criteria and protection of designated and existing uses.</p>	<p><i>Comment noted. Policy 1-11 notes that assessment of water quality can be based on narrative standards and describes what information is needed to make a decision based on narrative standards.</i></p>
<p>NWEA-32: But Ecology has another excuse that it pulled out of a hat in 2008 that we quoted above: “potential additional listings in the Columbia River will be considered along with existing water and sediment listings as EPA and other participants of the Columbia River Toxics Workgroup consider the collaborative strategy to assess and reduce toxics in fish and water in the Columbia River basin.” There is, in fact, no evidence that any “potential additional listings” were considered in the proposed 303(d) list out now for public comment. Yet that statement was made over six years ago. And, of course, most obviously, Ecology is required to list on the basis of readily available data and information, not</p>	<p><i>Comment noted.</i></p>

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<p>on the basis of some “collaborative strategy” between “participants” in a “workgroup.” It is, quite frankly, amazing that Ecology could write such an absurdity.</p>	
<p>NWEA-33: Ecology states that it will list on the basis of narrative criteria when “both of the following” are true: • Documentation of environmental alteration related to deleterious chemical or physical alterations, such as nutrients or sediment deposition, is measured by indices of resource condition or resource characteristic or other appropriate measure. • Documentation of impairment of an existing or designated use is related to the environmental alteration on the same waterbody segment or grid. This language is ambiguous but appears to suggest that if Ecology does not have an index of resource condition no listing will be done. This is problematic since Ecology has not included in its methodology any indices of resource condition with the exception of bioassessment. A search of an obvious parameter in the database helps. Querying the database for “fine sediment” and all waters generates a mere 17 entries. All of these are for Category 5 with one exception, for Listing ID 17519 in Category 4A. The requirement, as stated above, that the measurement according to an index be accompanied by document of impairment of a use ensures that neither the occurrence of fine sediment by itself, along with professional judgment that the use has been affected negatively, nor documentation of a use impairment, along with professional judgment that the use impairment was caused by the pollutant, is sufficient. This, no doubt, is the reason behind the mere 17 entries but what accounts for so few entries, even if there are so few 303(d) listings? How in the entire State of Washington, with the abundance and importance of fisheries affected by fine sediment could Ecology only have data sets for only 17 waters? It begs credulity.</p>	<p><i>This comment is based on a misreading of the policy language. The term “such as” is included to demonstrate that these are examples of methods to document environmental alterations and should not be construed as the only method by which a narrative based listing can be created. In fact, the Assessment includes many narrative based listings that are not associated with an index of resource condition. Ecology will consider all credible biological information, including but not limited to, biological index scores to assess designated uses. The language can be improved during the next policy revision based on public comment in the public review of this revision. We encourage the public to engage in that process.</i></p> <p><i>Narrative listings are based on available data submitted to Ecology. New fine sediment listings were added in this assessment cycle due to new data provided.</i></p>
<p>NWEA-34: Because there is no apparent way to search for Category 3 entries, perhaps there are thousands of entries for fine sediment in Category 3 that reflect a measurement of an index but fail to demonstrate an impairment of a use or visa versa. The lack of access to this portion of the non-listed data entries makes it impossible for us to challenge Ecology’s proposed determinations in any way other than by examining its methodology, its statements, and a sample of its database.</p>	<p><i>Category 3 is reserved largely for those waterbody segments that are showing no violation of water quality standards for a given parameter but the data available are not sufficient to move to Category 1. Policy 1-11 is written to provide that any waterbody showing an exceedance of water quality standards will, at the least, be placed in Category 2. Ecology fails to understand how data that shows no violations of the water quality standards would be useful for reviewing the proposed impaired waterbody list, which is the federal requirement in section 303(d) that Category 5 in the WQA is intended to meet. Ecology deliberately chose not to have Category 3 listings searchable on the Search and Map tools. Category 3 listings were made available for the 2008 listing process, and it led to much confusion by users because the large number of Category 3 listings with no data showing violations of water quality standards tended to overwhelm the other category listings, (there are over 42,000 listings presently in Category 3). Therefore, we</i></p>

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	<p>took Category 3 listings off the search tool. We are happy to provide a spreadsheet with Category 3 listings for your perusal and can also post it on the website, we simply have not had anyone requesting them prior to your comment. Category 3 listings are comprised of numeric data listings. There are no Category 3 listings for narrative standards, including fine sediment.</p>
<p>NWEA-35: But in any case, the notion that Ecology will only list waters when an impairment of a use is demonstrated but not when sufficient data and information are available to make a finding on a narrative criterion using an index is to ensure that Washington’s uses will be, in some cases, irreparably damaged. Wait long enough to take the regulatory steps to cleaning up water pollution and uses will be extirpated and, in some instances, rendered extinct. But extirpation is a violation of the requirement to protect existing uses, which Ecology claims to honor. The short-sightedness of this position is stunning.</p>	<p>Category 3 is reserved largely for those waterbody segments that are showing no violation of water quality standards but data are not sufficient to move to Category 1. The policy is written to provide that any waterbody showing an exceedance of water quality standards will, at the least, be placed in Category 2.</p> <p>The statement that Ecology does not list waters “when sufficient data and information are available to make a finding on a narrative criteria using an index” is confusing. This statement is incorrect as demonstrated by previous comments as well as Policy 1-11 bioassessment methodology and narrative listing language. Biological information and index data are used to make 303d listing decisions.</p>
<p>NWEA-36: If an agency has issued an advisory, regardless of how it pertains to Ecology’s outdated human health criteria, Ecology should honor that finding that a designated use is impaired. The mere fact that people are being asked to curtail or eliminate the use is a form of impairment.</p>	<p>Advisories serve many different purposes and have varying temporal and spatial aspects associated with them, as well as varying levels of quality assurance. Some advisories are general warnings and may last a week or months, rather than a persistent impairment associated with Category 5 listings. For these reasons, Ecology has described in Policy 1-11 how advisories will be used for listing purposes. It can be found on page 27 of the document and elsewhere for specific parameters.</p>
<p>NWEA-37: The bioassessment criteria are explicitly limited to River Invertebrate Prediction and Classification System (RIVPACS) and IBI scores. Methodology at 33. Ecology announces its new policy but provides no basis to support it.</p>	<p>Ecology has provided a rationale for how the B-IBI numeric thresholds were established based on scientific and statistical analysis of the data. This is included in the WQA submittal package to EPA and will also be used as the basis for inclusion in updates to Policy 1-11 after EPA approves this Assessment. Policy 1-11 updates will go through a full public review before being finalized for use in the next Assessment.</p>
<p>NWEA-38: Contaminated sediments can be deemed impaired based on chemical or biological tests. Methodology at 34. Ecology cites no authority for its conclusion that “[c]onfirmatory biological testing, in compliance with the SMS and Ecology requirements, may override chemical data.” Id. In the methodology, Ecology incorrectly identifies only the designated use of “aquatic life” as affected by contaminated sediments. This excludes, for example, the human impacts of contaminated sediment on fish and shellfish. Ecology makes no observations regarding how evidence of the effects of contaminated sediments on fish and wildlife will be used as direct evidence of harm to designated uses or violations of narrative criteria.</p>	<p>Authority for the use of biological testing to confirm designation of sediment can be found in the Sediment Management Standards (SMS) WAC 173-204-310(2) through 173-204-320(3), the biological criteria for the protection of the benthic community. The SMS Chapter 173-204 WAC were developed to reduce and ultimately eliminate adverse effects on biological resources and significant threats to human health from surface sediment contamination. Ecology considers the SMS biological criteria sufficient for determining Categories 1 - 5.</p>

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<p>NWEA-39: Ecology states that impairment by total phosphorus in lakes will be evaluated on the basis of narrative criteria. The discussion in Section 6 of the listing methodology does not discuss the use of narrative criteria other than to state that data must show a deleterious alteration according to an index and that there is an associated use impairment. This dual requirement approach to interpreting Washington’s water quality standards is arbitrary. Moreover, Ecology does not establish in this hide-the-ball approach to listing guidance whether there is any index that it will accept as an appropriate interpretation of data on total phosphorus in lakes. Nor has it explained why a use impairment without an exceedance of an index or an exceedance of an index without a measured use impairment is a requirement to demonstrate a violation of water quality standards. By requiring both, Ecology fails to give independent legal meaning to use designations and narrative criteria.</p>	<p><i>The numeric values by which the phosphorus in lakes is assessed are derived from the Action Values in WAC 173-201A. These values are not numeric water quality standards, rather these are thresholds for further action as described in section 230. None of the listing methodologies in Policy 1-11 require a dual impairment determination of narrative and numeric criteria. Either criteria may be used to determine impairment.</i></p>
<p>NWEA-40: A listing, chosen randomly, demonstrates that Ecology’s listing policy ensures that waters are fully impaired to the point of having an effect on public use of waters rather than based on data and information that measure impairment by water quality measurements. Assessment Unit ID: 17110016000122, Listing ID: 6348 shows that in 1992 the uses were impaired as follows: “Problems Encountered: Blue-green algae, hypolimnetic anoxia, aquatic macrophytes, low transparency, sediment phosphorus recycling.” In 2009 and again in 2010 “the summer epilimnetic mean concentration of total phosphorus samples exceeded the action value for this ecoregion (20 ug/L).” It is certainly poor public policy to not act on the action value for the ecoregion until the effects of a violation are measured in use impairment. If anything, this example indicates that the longer the state waits to act to control pollution, the more difficult it will be to remedy it.</p>	<p><i>Comment noted.</i></p>
<p>NWEA-41: For toxic pollutants, Ecology notes that assessment decisions can be made “as defined by exceedances of either numeric criteria or narrative criteria, as determined by criterion tissue equivalent concentrations and fish advisories.” It further states that only fish tissue from resident fish may be used, without noting that as EPA did in the Columbia River Dioxin TMDL,167 anadromous fish can be used for determining water quality impairments perfectly well. Id. And this section states that Ecology may use fish and shellfish advisories but only if they are based on “site-specific information and data associated with the specific segment.” This extremely narrow interpretation of Washington’s narrative criteria for protection of designated uses from toxic contaminants is entirely inconsistent with the applicable standards. For example, limiting the evaluation of fish tissue levels to back-calculating to the NTR</p>	<p><i>Ecology currently depends on the numeric criterion to help calculate acceptable tissue concentrations for the water quality assessment. Current policy specifies that tissue data, as used, is acceptable for listing. Comments related to tissue can be considered at the next revision of Policy 1-11.</i></p>

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<p>criteria is just another way of using the NTR criteria with data from a different medium. It is not consistent with the narrative criterion that requires limits on toxic substances that cause toxicity to “the most sensitive biota dependent upon those waters.” Biota likely to be the most sensitive are piscivorous birds and mammals whose body weight is small and fish consumption is high (e.g., mink, otter, eagles) or species with very high lipid content, such as orca whales.</p>	
<p>NWEA-42: Ecology states that narrative criteria are met through the use of numeric criteria. This flies in the face of the Supreme Court’s explanation of the legal definition of water quality standards in <i>Jefferson County</i>. Quite clearly, the Supreme Court said that each individual part of the water quality standard must be given legal meaning and the reason for doing so is that no state can anticipate all the numeric criteria that are needed or that will be sufficient. Accordingly, the requirement to protect uses directly and to use broad narrative criteria beyond interpreting them to mean exactly what the numeric criteria already mean, is at the essence of the legal definition of a water quality standard. Ecology’s rationale that the protection of uses and the meeting of narrative criteria all boil down to one and the same, namely the meeting of numeric criteria, is illogical, nonsensical, and inconsistent with federal law.</p>	<p><i>Ecology is not aware of making a blanket statement that narrative criteria are met through the use of numeric criteria. We have and will continue to use narrative criteria in the Assessment without having numeric criteria as a backup. There are instances in both Category 4C and Category 5 where this occurs.</i></p>
<p>NWEA-43: While the 2012 methodology mentions narrative criteria, not only is there nothing substantive regarding the use of narrative criteria in the methodology, as demonstrated above, random samplings of the database demonstrate there is nothing there either. For example, data on toxics from the Columbia River are all assessed by Ecology in comparison to Washington’s numeric criteria for human health, namely the National Toxics Rule. Likewise, the Department’s methodology needs to discuss how it treats wildlife studies that demonstrate that levels of toxics are causing adverse effects to health and reproductivity of species such as mink, otter, eagles, falcons, and other piscivorous birds and mammals.</p>	<p><i>Policy 1-11 does not discuss different types of information that could be used to make a listing based on a narrative standard. Rather, the policy dictates that information must be provided to show documentation of environmental alteration in the waterbody segment, as well as documentation that impairment of the existing or designated use is related to the environmental alteration on that same waterbody segment or grid. Those two pieces of evidence must be tied together in order to reach a reasonable determination that the waterbody segment is impaired for the existing or designated use. Using NWEA’s example of wildlife studies that demonstrate levels of toxics causing adverse effects to wildlife, there must also be a demonstration that the environmental alteration is occurring in the waterbody segment identified within the study, and there is a relationship to the impaired use. To assume the two are connected without documentation would not meet credible data requirements in Washington.</i></p>

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<p>NWEA-44: Ecology’s fixation on evaluating tissue samples based on backcalculating from the NTR criteria fails to realistically account for the toxic effect of toxics in fish on a range of designated uses, as required by the narrative criterion. As a result of the Ecology’s limited interpretation of its own water quality standards, it has also failed to evaluate data on use impairment related to levels of toxic contaminants to piscivorous wildlife such as eagles, mink and otter, instead relying on outdated human health criteria. For example, despite a report on the Columbia River that concludes “that river otter in the vicinity of RM 119.5 are in a critical or almost critical category based on reference level comparisons, abnormalities noted during necropsy, and histopathological observations of individuals,” Ecology has not used this data as the basis of listing.</p>	<p><i>Please see response above (NWEA-41).</i></p>
<p>NWEA-45: Ecology is required to consider some minimum amount of information to use its narrative criteria correctly. Ecology surely must be in possession of the August 2012 NMFS jeopardy findings for Oregon threatened and endangered species—the same species found in Washington’s waters and interstate waters shared with Oregon—for cadmium, copper, aluminum, and ammonia. Specifically, in light of information from NMFS that the freshwater criteria for these pollutants did not protect Oregon’s designated uses of salmonids, Ecology was required to apply the gap-filling measure of its narrative criterion in order to prevent the introduction of toxic substances at levels “below those which have the potential, either singularly or cumulatively, to adversely affect characteristic water uses, cause acute or chronic conditions to the most sensitive biota dependent upon those waters, or adversely affect public health[.]”</p>	<p><i>Comment noted.</i></p>
<p>NWEA-46: Where Washington does not have numeric criteria, it must rely upon—or ignore completely—data and information on toxic effects of pollutants. Because Ecology declines to use its narrative criterion for toxics as it is written, neither the public nor EPA will be able to discern whether there is sufficient information upon which data could be evaluated to determine if PBDE loading was causing harm to species or was at levels that are known to cause harm to species.</p>	<p><i>Please see response above (NWEA-41).</i></p>

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<p>NWEA-47: There are ample readily available data and information concerning the failure of Washington’s waters to meet its narrative criteria. Sources of this information include but are not limited to the National Marine Fisheries Service, U.S. Fish and Wildlife Service, the U.S. Geological Survey, Washington Department of Fish and Wildlife, institutions of higher learning, and Ecology itself. We hereby submit as readily available data and information pertaining to violations of narrative criteria, the data and information in Section I.E. of these comments.</p>	<p><i>Ecology is unable to use the list of information sources that you cited at this time for several reasons. First, the information was not received within the call-for-data period such that Ecology could review the appropriateness of the information to make listing decisions in the Assessment. Secondly, we require data submitters to provide quality assurance information to ensure that the information meets requirements spelled out in Policy 1-11 Chapter 2, "Ensuring Credible Data for Water Quality Management." Submittals of information by third parties must include documentation addressing the accuracy and completeness of the information submitted to Ecology, including documentation that the required QA objectives were met. Finally, we should note that information to make narrative listings would need to show documentation of environmental alteration in the waterbody segment, as well as documentation that impairment of the existing or designated use is related to the environmental alteration on that same waterbody segment or grid. Those two pieces of evidence must be tied together in order to reach a reasonable determination that the waterbody is impaired.</i></p>
<p>NWEA-48: It is difficult to comment on the proposed assessment because Ecology’s database does not allow searches for Category 3 listings. For example, the database query for bioassessment in Category 5 generates only 92 listings. Searching for bioassessment in all categories yields 277 entries. Based on the total entries, it appears likely that there are many entries in Category 3. Being able to comment on those entries where Ecology has determined that data are “insufficient” for a 303(d) listing is essential to being able to comment on Ecology’s 303(d) list. It seems that Ecology is only interested in giving the public an opportunity to provide information to remove waters from the list rather than to provide information that would suggest Ecology had incorrectly omitted waters from the list.</p>	<p><i>For this proposed Assessment using bioassessment data, there were 92 Category 5 listings, 121 Category 2 listings, and 64 Category 1 listings, for a total of 277. There are currently over 300 Category 3 listings, which are listings where only one year of data exists (to get onto Categories 1, 2, or 5 at least two years of data are required). As more data is available in future Assessments, these Category 3 listings will move onto one of the other categories based on the data analysis. We are happy to make Category 3 listings available and have done so when requested. We have found that including Category 3 as a searchable category caused confusion and overwhelmed the other more relevant category listings.</i></p>

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<p>NWEA-49: The statute and EPA’s implementing regulations require that 303(d) listings be based on all components of applicable water quality standards, including the antidegradation policy. In its 2012 listing methodology, Ecology makes no reference to the state’s antidegradation policy. Oddly, however, in its response to comments on the 2012 methodology, Ecology invokes the antidegradation policy as a basis to not make listings on the basis of lack of support for designated uses: “Beneficial use support is demonstrated by adherence to the numeric criteria and the anti-degradation policy.” If Ecology is relying on data submitters to “provide the data” and the submitters are limited to the listing methodology and the methodology is silent on the matter of soliciting data and information on compliance with the antidegradation policy, it is logical to assume that no data are being submitted on the antidegradation policy and if they were, Ecology would likely reject them. For example, If Ecology had evidence that bull trout that were present in a waterbody after November 28, 1975 are no longer there today, that would be evidence of a violation of the existing use protection of the antidegradation policy. Therefore, contrary to Ecology’s assertion that the presence of species is merely to assist in developing water quality standards, the presence and absence of species is specifically related to compliance with the antidegradation policy that it claims it relies upon for 303(d) listings.</p>	<p><i>Ecology does in fact make reference to the state's antidegradation policy in Policy 1-11. Policy 1-11 cites the antidegradation section of the standards (WAC 173-201A-300) in several parts of the policy, as an application of narrative standards that are used to make listing decisions. Data submitters who believe narrative standards have been violated can submit data and information in accordance with Policy 1-11, "Assessment of Information using Narrative Standards." Ecology did not receive any information on waterbodies during the call-for-data citing antidegradation as the basis for listing. We cannot agree to your assertion that Ecology would reject any submittal based on antidegradation because we would first need to review and analyze the information and data to determine the credibility of the information in relation to the Credible Data requirements in Washington and the appropriateness of listing based on meeting Policy 1-11. To use your example of determining bull trout that were present in a waterbody after November 28, 1975, and evidence that they were no longer there today, that evidence would need to show documentation of environmental alteration in the waterbody segment, as well as documentation that impairment of the existing or designated use is related to the environmental alteration on that same waterbody segment or grid. Those two pieces of evidence must be tied together in order to reach a reasonable determination that the lack of bull trout presence is associated with an environmental alteration of the waterbody, and therefore the waterbody is impaired.</i></p>
<p>NWEA-50: Moreover, because Ecology’s assessment database provides no ability to query the database to determine if Ecology has made any 303(d) listings based on violations of Tier I of the antidegradation policy that requires protection of existing uses, NWEA is forced to rely on the listing methodology and other sources of information to deduce Ecology’s position. This is not solely a comment on the listing methodology; it is a comment on Washington’s inadequate 303(d) list.</p>	<p><i>Ecology did not make any listing decisions based solely on antidegradation as the basis for listing, so you will not find reference in the database to antidegradation as a "pollutant parameter". Tier I antidegradation, protection and maintenance of existing and designated uses, is intrinsically applied through the numeric and narrative criteria, which are written such that if you are meeting criteria, Tier I antidegradation is being met. As described in WAC 173-201A-310(2), "No degradation may be allowed that would interfere with, or become injurious to, existing or designated uses, except as provided for in this chapter." Information required to make a listing based on narrative standards, including anti-degradation, would need to document both the environmental alternation (degradation) of the waterbody and documentation that the impairment of an existing or designated use is related to the environmental alteration.</i></p>
<p>NWEA-51: WAC 173-201A-310(1), (2). It is unclear what more “appropriate and definitive steps” Ecology could take to protect waters where it has failed to protect existing uses than to place those waters on the 303(d) list, provide them with a higher level of interim protection than other waters (i.e., high quality waters that are assumed to have some assimilative capacity), and develop a TMDL to bring those waters into compliance with water quality standards.</p>	<p><i>Ecology in fact does what you state in order to meet WAC 173-201A-310(1) & (2). Waters on Category 5 are provided a higher level of scrutiny and are used as a basis to develop a TMDL to bring those waters back into compliance.</i></p>

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<p>NWEA-52: As NWEA pointed out in its 2008 comments, there is no evidence that Ecology has sought out any data or information on existing uses and, moreover, its policy limiting data going back to ten years would often preclude making a finding that uses were present in 1975 but are no longer present. On the other hand, Ecology states that it has some data and information on “presence of bull trout and other ESA-listed species,” the range of which has decreased along with populations with the effect of making them either threatened or endangered. Therefore not only are the data and information “readily available” but at least some of them are in the hands of Ecology itself.</p>	<p><i>Ecology would not use information on presence (or lack) of a species alone to make a listing decision. Chapter 2 of Policy 1-11 requires Ecology to use credible data to determine whether any water of the state is to be placed on or removed from any section 303(d) list and whether any surface water of the state is supporting its designated use or other classification. Documentation must be provided with all water quality data submitted for consideration in WQA updates indicating that the objectives of a QA Project Plan or equivalent quality assurance procedures were met. Documentation must also be provided that indicates whether the data are suitable for water quality-based actions.</i></p>
<p>NWEA-53: The DNR sponsors the Washington Herp Atlas.177 The Atlas includes a distribution map of each featured species, including 25 amphibians. The maps provide the historical context needed to determine compliance with Tier 1 protections for existing uses. With regard to bulltrout, for example, the Herp Atlas informs us that “[l]ocal declines and extirpations may have occurred but have not been documented. Moreover, the Herp Atlas helps identify sources of data and information about which Ecology might not be aware.</p>	<p><i>Comment noted. The Herp Atlas you reference serves its purpose in providing a good framework for current information on amphibians and reptiles and the ability for interested citizens to add information they observe in the field. This information is not useable for the level of quality assurance and waterbody specific detail needed to make listing decisions in the WQA.</i></p>
<p>NWEA-54: One example of a distribution map that appears to demonstrate an extirpation from waters after 1992 is for the Columbia spotted frog. For example, this map from the Washington Herp Atlas shows that the Columbia spotted frog was seen in Walla Walla and Columbia counties prior to 1992 but no observations have been made since. Such maps are available for 25 amphibians; we have not downloaded or specifically cited each of them. Ecology’s failure to use this readily available evidence of aquatic and aquatic-dependent species on the verge of extirpation in locations in Washington is a failure to assess compliance with Tier 1 of the state’s antidegradation policy, contrary to the requirements of federal law.</p>	<p><i>We disagree that presence or absence of aquatic species, on its own, indicates noncompliance with Tier 1 antidegradation and must be used to place waters on Category 5. Tier 1 states that “No degradation may be allowed that would interfere with, or become injurious to, existing or designated uses, except as provided for in this chapter.” Simply presence or absence of aquatic life is not “evidence” that degradation has occurred. That is why Policy 1-11 dictates what information must be presented to make a narrative listing. We also disagree that Ecology has an obligation to independently seek out this type of information as “readily available evidence” that must be used in the WQA.</i></p>
<p>NWEA-55: EPA’s regulations require that a state’s water quality standards “take into consideration the water quality standards of downstream waters and shall ensure that its water quality standards provide for the attainment and maintenance of the water quality standards or downstream waters.” In the case of the Columbia River, for example, Ecology should be applying the most stringent standards, namely Oregon criteria for human health and aquatic life protection. It must also apply to all tributaries of the Columbia River that enter this interstate waterbody where Oregon’s standards apply. Washington’s narrative protecting downstream waters must be used in developing a 303(d) list.</p>	<p><i>The federal regulations specify how states are to address downstream waters in development of state water quality standards. These two requirements are found in 40 CFR 131.10 as follows:</i></p> <p><i>“Subpart B—Establishment of Water Quality Standards § 131.10 Designation of uses.</i></p> <p><i>(b) In designating uses of a water body and the appropriate criteria for those uses, the State shall take into consideration the water quality standards of downstream waters and shall ensure that its water quality standards provide for the attainment and maintenance of the water quality standards of downstream waters.”</i></p> <p><i>Washington’s water quality standards provide for attainment and maintenance of the water quality standards of downstream</i></p>

COMMENTS RECEIVED	ECOLOGY RESPONSE
	<p>waters at WAC 173-201A-260(3)(a) and (b). See Fact Sheet for NPDES Permit WA0000124, Weyerhaeuser Longview, October 15, 2014, Pages 60-62 and 111 for an example of how these sections are implemented. Nowhere is there a requirement that this language be used in developing a 303(d) list as suggested in the comment.</p>
<p>NWEA-56: Ecology’s use of its natural conditions provisions is inconsistent with EPA guidance. EPA addressed the issue in its 2008 guidance answering the question: How should States make 303(d) listing decisions when naturally occurring pollutants are present in a waterbody? Specifically, EPA addresses the question of “303(d) decision making for waters impaired totally or in part by a naturally occurring pollutant, id. (emphasis in original), concluding that where a waterbody that “receives pollutant loadings from both natural background and anthropogenic sources . . . the waterbody is considered impaired and belongs on the 303(d) list or Category 5,” Only where the exceedance of the applicable numeric criterion is “all natural” may the state not list the waterbody if it has a natural conditions provision in its standards.</p>	<p>We assume you are referring to the “Information Concerning 2008 Clean Water Act Sections 303(d), 305(b) and 314 Integrated Reporting and Listing Decisions” that is supplemental guidance to EPA’s 2006 Integrated Report Guidance. We see no inconsistencies with how Ecology used its natural condition provisions in relation to the 2008 supplemental guidance. In accordance with Policy 1-11, waterbody segments with data indicating impairment will be placed in Category 5 unless Ecology determines that the exceedance of water quality standards is due to natural conditions or processes. Segments will be placed in Category 5 when human activities cause, or have a strong potential to cause, significant impacts in addition to natural conditions. This is consistent with EPA 2006 Integrated Report Guidance and the supplemental 2008 information, which indicates that if the state’s water quality standards include a specific exclusion for exceedances caused by “natural conditions”, these segments would not be considered impaired. Ecology’s natural conditions provision in WAC 173-201A-260(1)(a) provides for these situations.</p>
<p>NWEA-57: Contrary to EPA’s guidance, Ecology states that waterbody segments will be found impaired only “when human activities cause, or have a strong potential to cause, significant impacts in addition to natural conditions.”</p>	<p>We believe our listing policy for natural conditions is consistent with EPA 2006 Integrated Report Guidance. Natural condition decisions are made judiciously and must have information sufficient to rule out anthropogenic sources, as described in Policy 1-11.</p>

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<p>NWEA-58: Ecology asserts that its approach is not a “presumption either way,” id. at 21, but goes on to say that “[i]f the determination is made that potential human influences exist that could impact temperature, the waterbody segment will be placed in Category 5,” id. at 44. Because Ecology states that it after determining an exceedance it “will take an additional step to determine if the water is impaired due to human influences,” this latter statement is, in fact, a presumption that temperature exceedances are natural, notwithstanding Ecology’s assertion. According to Ecology, only if “the determination is made” that temperature exceedances are caused by humans will it list the water as impaired. This is the most obvious reason why Ecology’s listing methodology for temperature impairments is inconsistent with long-standing EPA policy. Ecology’s methodology is not consistent with EPA guidance because it requires that the human contribution be “significant.” And it is not consistent with EPA guidance because it provides for Ecology’s not placing waters that have violations of the numeric criteria into Category 5 where natural conditions may “override human influences.”</p>	<p><i>It appears you are misinterpreting how we are making 303(d) listings for temperature. In previous Assessments we have been challenged for placing waters on Category 5 when numeric criteria for temperature are exceeded because we don't have proof that the temperature is above the allowable 0.3 degrees due to human influences. We countered these arguments by stating that even if you have insufficient information, you cannot rule out anthropogenic sources without sufficient historic and background information to ensure that human influences are not contributing to the exceedance. Policy 1-11 (page 44) states: "Ecology lists waterbody segments on the Category 5 list due to temperature impairment when the numeric criteria are exceeded. In most cases, insufficient information exists to determine the level of human influence on temperature for each listed site. This approach assumes that human influences have contributed to the exceedance over the numeric criteria and the increase is measurable over natural conditions. While this approach may list waterbody segments as impaired for temperature without fully knowing the extent of the human influences, listings are based on existing and readily available information. In the absence of information, the waterbody segment will remain in Category 5 until further information or data are provided to change the category determination." Ecology does commit to taking an additional step to determine if the water is impaired due to human influences, but will only do so when information is provided to validate that there are no human influences. To date, we have not made such a determination (to take off Category 5) for fresh water temperature listings.</i></p>
<p>NWEA-59: As EPA’s illustration, in the 2008 memorandum shows, where there are natural pollutant loadings, that is considered the base and the anthropogenic loadings are considered an additional load. Ecology has inverted this approach to suggest that it is the natural conditions that are at fault and/or that the human influences can be disregarded because they are “override[n].”</p>	<p><i>State water quality standards for temperature and dissolved oxygen allow a small increment for human actions when the measurements exceed the criteria due to natural conditions (WAC 173-201A-200(1)(d)(i) and 173-201A-210(1)(d)(i)). The designation of a water body as impaired or as exceeding a water quality criterion for these two parameters due to natural conditions requires a systematic review of available data and the application of best professional judgment of Ecology staff. If data or information is available to determine that the human increment is below the threshold, the exceedance will not be considered a violation, and a case will be made that it is due to natural conditions, qualifying the waterbody segment for Category 1. The presence of common large scale physical processes in marine waters, such as upwelling, circulation, and thermal heating effects, presents naturally occurring situations that would override the ability of sufficient human influences to produce exceedances. In these cases, Ecology staff will use historic data and best professional judgment to determine that the human influences are significant or not. For marine water bodies that are clearly due to natural conditions, the waterbody segment will be placed in Category 1. For water bodies that appear to have natural conditions sufficient to override human influences, but the information is not conclusive, the waterbody</i></p>

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	<p><i>segment will be placed in Category 2. In the absence of specific data to determine whether the exceedance is above or below the threshold allowance, the waterbody segment may be placed in Category 5 or Category 2, depending on available historic data and the best professional judgment of Ecology staff.</i></p>
<p>NWEA-60: In addition, while Ecology states that it is not presuming one way or the other, it also states that in the absence of data to determine if the exceedance exceeds the threshold allowance, meaning the human use allowance, it has the discretion to place or not place the water on the 303(d) list. This is incorrect. In the absence of knowledge about whether human contributions are in excess of the allowance, the exceedance over the numeric criteria is sufficient by itself to warrant placement on the 303(d) list. It is required and Ecology does not have the discretion that it purports to have.</p>	<p><i>Comment noted. Ecology makes natural condition calls judiciously and they must be approved by EPA as part of the Assessment submittal. EPA scrutinizes these decisions and will not approve listings based on natural conditions that they don't agree have ruled out anthropogenic sources.</i></p>
<p>NWEA-61: In addition to temperature and dissolved oxygen, Ecology uses a special treatment of arsenic for natural conditions. Methodology at 48. This states that: “[i]norganic arsenic . . . requires a natural conditions evaluation prior to a final listing determination.” The current methodology contains language that specifically calls for a “natural conditions evaluation” prior to a listing decision. While we have no way of knowing precisely what Ecology means, the language suggests that Ecology will not list a water exceeding arsenic criteria until it makes a determination that the arsenic is from human sources. This is an incorrect reading of Ecology’s water quality standards and EPA’s listing guidance.</p>	<p><i>The full context of the statement in Policy 1-11 is "Inorganic arsenic can be naturally elevated in shellfish in certain areas of the Puget Sound and requires a natural conditions evaluation prior to a final listing determination." This statement is specific to shellfish in certain areas of Puget Sound, and is not applied statewide.</i></p>
<p>NWEA-62: The database demonstrates that with only two exceptions out of 35, all data on inorganic arsenic have been deemed to be in compliance with standards. Nineteen of 399 entries for arsenic are Category 5. None of the organic or inorganic arsenic listings is in freshwater. Picking one inorganic arsenic entry at random, Assessment Unit ID: 47122F6E2, Listing ID: 14811, Ecology offers the following rationale for delisting: “Johnson and Roose, 2002, conclude that the high arsenic concentrations in tissue samples in this area are a natural condition based on a comparison to reference areas. Further, note that since very little of the total arsenic in fish or shellfish tissue is inorganic, listings based on total arsenic are likely not appropriate (Johnson, ECY/EAP, 2003).” This statement does not equate to a finding that there are no human sources of arsenic. The net result of Ecology’s approach will be to find nearly all arsenic is “natural,” because it will not do any kind of evaluation to determine whether there are, in fact, human contributions. Given the human health hazard from arsenic, this is not good policy.</p>	<p><i>Comment noted.</i></p>

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<p>NWEA-63: Information on the location of barriers to salmon passage are readily available. For example, the Washington Department of Fish and Wildlife’s Fish Passage Program “maintains a centralized database of fish passage, diversion screening, fish use, and habitat information from inventory efforts conducted throughout Washington State. WDFW’s Fish Passage and Diversion Screening Inventory (FPDSI) database is a main data source for planning fish passage projects.” This database is readily available as GIS data¹⁸⁸ and in map form. See WDFW, Fish Passage Program, Fish Passage Barrier Map.¹⁸⁹ Ecology is required to remedy its inadequate 303(d) list.</p>	<p><i>Ecology considered using WDFW’s database of information on fish passage barriers in 2002 and in fact had proposed numerous Category 4C listings on the draft 2002/2004 Assessment. Comments on those listings challenged whether the listings met quality assurance requirements dictated by Policy 1-11 for data that meets minimum quality levels to be used in the Assessment. After meeting with WDFW staff, we mutually concluded that their database of information, while satisfying WDFW’s use of the database, did not meet the higher quality requirements established in Policy 1-11 and through the Credible Data Act. Because the data is compiled from many different sources, WDFW could not be responsible for the accuracy of data collected by non-WDFW entities, and noted that the structures contained in the data set may have changed since the data was collected and recorded. Based on this feedback from WDFW, and concurrence from them, a decision was made not to use this database to populate the Assessment and those listings were deactivated. Since then we have developed additional guidance in Policy 1-11 for the inclusion of third party data, to ensure that information submitted includes documentation that the required QA objectives were met.</i></p>
<p>NWEA-64: Ecology is required to list waters that are impaired by invasive species. It could start with its own database layer, “Areas of Extreme Concern–Invasive Species.”</p>	<p><i>This data was not initially used because of quality concern issues around whether the data is of a high enough quality to use for Assessment purposes (this data must meet Credible Data Act requirements). We are currently working with the program coordinator for this database and will consider what data can be used during the next assessment cycle.</i></p>
<p>NWEA-65: Ecology has access to many studies and sources of data and information. However, the public cannot evaluate whether Ecology has in its possession all of the studies that it should have because it has not chosen to make that information available, as required. The only way in which the public can ascertain whether Ecology is using data or information is to tediously look up pollutants on individual waterbodies and see what references are there. As pointed out above, any data or information that has placed a waterbody into Category 3 will not be available for public review. It is extremely difficult to review the data base to evaluate what data Ecology has, what data it has used and what data it has discarded, and how it is treating the data. And this does not answer the question of whether Ecology has the data or information but is choosing not to use it because, for example, it has decided not to use tissue residue data or information on suppression of wildlife reproduction.</p>	<p><i>Because Category 3 has been deemed insufficient until more data is available, we have not had public express interest in viewing these listings. We would have gladly created a spreadsheet of Category 3 listings for you and sent it to you as you were reviewing the Assessment, had we known. In future assessments, we will post a spreadsheet with Category 3 listings so that they may be viewed without having to make a special request. We do agree that the Assessment contains a great deal of information and admittedly takes time and effort to review. This fresh water assessment has almost 24,000 listings, coming from hundreds of studies and thousands of data points. We have diligently tried to create computer search and map tools that assist the public in being able to review the listings and data associated to the degree that we can, and feel that we do a commendable job compared to other states.</i></p>

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<p>NWEA-66: Ecology’s comments in the database are frequently not clear in describing why the data or information are inadequate. Therefore, the reviewer is forced to rely heavily on the methodology to interpret the database. Relying on the methodology is particularly difficult, if not simply impossible, where the methodology provides very little if any information.</p>	<p><i>The Watershed Assessment Tracking database contains a great deal of information on the specific listing, including location information, a basis for the listing, what monitoring data was used, access to data records if available, and any qualifying remarks. You are correct that in order to replicate listing decisions one would need to be familiar with the methodology to interpret the database. Given the complexities of the different listing parameters, and the type and amount of data reviewed and assessed, it is difficult to simplify such a process. If you do have specific questions on how a listing was made, Ecology staff are happy to help out.</i></p>
<p>NWEA-67: In the past, Ecology has provided the public with the information that it needs to make this analysis. For example, for its 1998 and 2004 303(d) lists, Washington created lists of references cited. Using these lists, a quick word search for “eagle,” for example, demonstrates that for neither of those 303(d) lists did Ecology use the report issued in 2000 concerning contamination of bald eagles in Hood Canal. Likewise, that same search demonstrates that in neither 303(d) list did Ecology use a 1999 report on bald eagle reproductive failure in the Lower Columbia River. Both of these reports contain data and information demonstrating that a designated use—the bald eagle—was impaired reproductively by toxic contaminants in Washington waters.</p>	<p><i>Data sources used for this WQA were included in the Assessment submittal to EPA and have been posted on Ecology’s website. The 1999 report on bald eagle reproductive failure in the Lower Columbia River basin was not considered for listing purposes. This study does not have documented linkages between the impaired wildlife to environmental alterations of waterbodies within the study area required to make a specific listing on a waterbody segment based on narrative criteria.</i></p>
<p>NWEA-68: In contrast, to see if Ecology has used data on PCB-related reproductive impairment of bald eagles in Hood Canal, a new tab must be opened, Hood Canal, North and South, and the single parameter of PCBs chosen. For this query, three reports come up, each of which demonstrates that the waterbody is in Category 1 for PCBs. Each individual toxic chemical must be checked separately instead of simply being able to see if a single report that examined many toxic parameters was even considered by Ecology. Not only did this exercise take a lot more time than a simple word search for a title or author in a list of references but it remains unclear whether Ecology has or does not have the bald eagle reports. It certainly has not used them.</p>	<p><i>Ecology has routinely included data sources with its WQA submittals to EPA but has not always made this list available until after the public review. We will make a commitment to have a list of data sources available in future public reviews. Ecology staff are also on hand to respond to requests such as yours as the public review is underway, and would encourage you to call or email us with requests when you are not able to readily find what you think should be easily available. If possible, we will fulfill your requests as soon as possible. As noted previously we did not use PCB-related reproductive impairment of bald eagle reports for listing decisions in this Assessment.</i></p>
<p>NWEA-69: EPA regulations require that Ecology provide EPA with “[a] rationale for any decision to not use any existing and readily available data and information[.]” 40 C.F.R. § 130.7(b)(6)(iii). We have never seen an example of Ecology’s having provided a rationale for a decision to not use any existing and readily available data and information and no such document exists on Ecology’s website for any past 303(d) list submission. The responses to comments have been cursory and dismissive. Certainly one has not been provided for public review on this proposed 303(d) list.</p>	<p><i>The submission of this Assessment includes a list of data and information that was not used in this assessment. Ecology uses all data that can be assessed under WAC 173-201A and that meets the assessment policy (WQP Policy 1-11, Ch. 1) and that are allowable under the Credible Data (Policy 1-11 Ch.2). Note that data and information must be specific to a waterbody and demonstrate that the waterbody is impaired.</i></p>

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<p>NWEA-70: Given, as in this example, that federal regulations explicitly specify that “[f]or the purpose of listing waters under § 130.7(b), the term ‘water quality standard applicable to such waters’ and ‘applicable water quality standards’ refer to those water quality standards established under section 303 of the Act, including numeric criteria, narrative criteria, waterbody uses, and antidegradation requirements,” 40 C.F.R. § 130.7(b)(3), Ecology’s decision not to use the readily available data and information on bald eagle impairment due to toxic contaminants must be explained. That is just one example.</p>	<p><i>Ecology received no information during the call-for-data suggesting that there was narrative information on PCB-induced reproductive failure in bald eagles that documented linkages between the impaired wildlife to environmental alterations of waterbodies within the study area.</i></p>
<p>NWEA-71: Federal regulations require that Ecology provide EPA with “[a] rationale for any decision to not use any existing and readily available data and information[.]” 40 C.F.R. § 130.7(b)(6)(iii). It is, of course, fully possible that Ecology will provide EPA with this rationale, despite its not having provided it for public review. All we have at this point is Ecology’s response to comments on the proposed methodology, finalized in 2012, and similarly unhelpful comments on the last revision of the freshwater 303(d) list, as well as our belief that in the past Ecology has not made any effort to provide this information nor is the information embedded in the assessment database (e.g., by providing the rationale for not using data in the description of those data that are used).</p>	<p><i>Ecology has provided in the EPA submittal of the 2014 WQA a list of data and information that was considered for use in the WQA. In this list we are indicating what data was not used. This list includes consideration of numeric data pulled from the agency EIM database and other local, state, and federal databases. In accordance with Policy 1-11, information and studies used to place a segment on Category 5 on the basis of violating narrative standards were only considered by Ecology if the study provided both of the following:</i></p> <ul style="list-style-type: none"> <i>• Documentation of environmental alteration related to deleterious chemical or physical alterations, such as nutrients or sediment deposition, is measured by indices of resource condition or resource characteristic or other appropriate measure; and</i> <i>• Documentation of impairment of an existing or designated use is related to the environmental alteration on the same waterbody segment or grid.</i> <p><i>Ecology did not provide a list of studies that did not meet the above requirements for narrative listings because such a list would not be practical to provide and would not be useful.</i></p>
<p>NWEA-72: To a large extent, the designated uses could be protected if Ecology did, as it asserts, apply its narrative criteria. Using our example of the bald eagles, there is, of course, no evidence that Ecology has ever evaluated the data on PCB-induced reproductive failure in bald eagles as data or information that demonstrates a violation of WAC 173-201A-240(1); -260; or -300. The effect of PCBs on bald eagles has not been found to be a violation of the prohibition on causing toxicity to “the most sensitive biota dependent upon those waters” or to have “adversely affect[ed] characteristic water uses.” Ecology has not explained why; to the best of our knowledge, it simply has not bothered.</p>	<p><i>Ecology received no information during the call-for-data suggesting that there was narrative information on PCB-induced reproductive failure in bald eagles that documented linkages between the impaired wildlife to environmental alterations of waterbodies within the study area.</i></p>
<p>NWEA-73: Similarly, although the opening sentence of Ecology’s purported rationale invokes the antidegradation policy, there is nothing in Ecology’s methodology that would even hint at what Ecology means by this reference. The word does not even show up a single time in the methodology. The words “antidegradation,” “existing use,” and “Tier 1” do not show up in the “parameter” field of the assessment</p>	<p><i>Comment noted. Tier I antidegradation, protection and maintenance of existing and designated uses, is intrinsically applied through the numeric and narrative criteria, which are written such that if you are meeting criteria, Tier I anti-degradation is being met. As described in WAC 173-201A-310(2), “No degradation may be allowed that would interfere with, or</i></p>

COMMENTS RECEIVED	ECOLOGY RESPONSE
<p>database. There is, in short, no evidence whatsoever that Ecology has any listings or any evaluation of data or information on the basis of the antidegradation policy.</p>	<p><i>become injurious to, existing or designated uses, except as provided for in this chapter."</i></p>
<p>NWEA-74: Washington may assert all that it wants about the protectiveness of its narrative criteria but if they are not interpreted and used in ways to provide actual protection to sensitive species that the numeric criteria were never intended to protect, its assertions are simply disingenuous.</p>	<p><i>Comment noted.</i></p>
<p>NWEA-75: Ecology's proposed list does not include a priority ranking for all listed water quality limited segments requiring TMDLs nor the identification of waters the state intends to develop TMDLs for in the next two years, and is therefore inconsistent with federal regulations.</p>	<p><i>Comment noted. The TMDL Prioritization schedule is included with Washington's submittal to EPA.</i></p>
<p>NWEA-76: In its response to comments on the methodology, Ecology completely ignored the 2008 comments that Ecology had earlier ignored on the basis that they constituted comments on the methodology. See Response to Comments, Revisions to Policy 1-11 (July 2012). Ecology is playing a cat-and mouse game, simply rejecting comments as inconvenient every time it issues a list or a chance to comment on its methodology. It is always the wrong comment period and/or the wrong time. Yet Ecology never takes the older comments and answers them when it presumably would be a better time. In this way, Ecology has persisted in ignoring most of NWEA's comments on its 303(d) list over the years and persisted in not comparing all readily available data and information to every legally required component of its EPA-approved water quality standards. It is time this comes to an end.</p>	<p><i>We want to assure you that Ecology did not deliberately ignore your organization's public comments. In going back through public review documentation for the past several listing cycles, for both the listing methodology (Policy 1-11) and the Assessment results, we have records of both receiving and responding to NWEA's comments. Ecology typically does a two-step process for an Assessment. First, the current listing policy is reviewed and revised as necessary through a public process, and then the updated policy is used to make listing decisions. Ecology responses to public comments on the Assessment results tend to focus on listing decisions rather than responding to comments that disagree or have an issue with some part of the listing policy, since the updated listing policy is already based on a previous public process and is the basis for what is used to conduct the Assessment. If we were to deviate from Policy 1-11 at the end of the listing process, we would cause numerous inconsistencies and arguably result in a flawed assessment that could not be reliably replicated. It may be that Ecology's past responses to NWEA's comments do not appear to adequately address concerns to your satisfaction. If your concern is that we did not go back into previously submitted comments from your organization on Washington's listing policies and independently resurrect them for reconsideration at a later date, you are correct. We suggest that you resubmit any policy-specific comments that you feel were not adequately addressed at the next public review of Policy 1-11, which we expect to initiate after EPA takes an approval action on the 2014 WQA.</i></p>

COMMENTS RECEIVED	ECOLOGY RESPONSE
<p>NWEA-77: An example that highlights the jarring end result of Ecology’s policies is this. In September 2013, Washington and Oregon issued a joint fish consumption advisory for the consumption of resident fish between Bonneville and McNary dams on the Columbia River due to mercury and PCBs. See Oregon Health Authority (OHA) and Washington Department of Health, Limit consumption of some fish species near Bonneville Dam, middle Columbia River (Sept. 23, 2013).195 In contrast, Assessment Unit ID: 170701051204_01_01, Listing ID: 17979 for a part of this waterbody places it in Category 2 for PCB and there is no entry for mercury. Mercury has been indicted as contributor to human health and ecological problems in the Columbia River, as discussed above, yet a query for mercury for all segments in the Columbia River for all categories in Ecology’s database results in 18 entries only one of which is for Category 5 (Listing ID: 9062 for exceeding the NTR). A startling 13 of those entries are for Category 1, a finding that the water is clean. Not just not impaired, but clean.</p>	<p><i>Listing 17979 does not meet the methodology for listing based in tissue. This data is from a composite of 1 fish. The policy clearly states that a composite must be made up of at least 3 individual fish. Washington state is currently under the NTR which includes a total mercury concentration criterion. Oregon water quality standards are based on methyl mercury. Category 1 listings for mercury are based on meeting the numeric Fish Tissue Equivalent Concentration for total mercury. Methyl mercury will not be assessed unless or until the State of Washington has a methyl mercury standard. Where data and applicable standards are available, each toxic chemical (e.g. total Mercury, methyl mercury, PCBs, and others) are categorized in the Assessment independently.</i></p>
<p>NWEA-78: We look forward to Washington’s completing a thorough evaluation of all available data and information for state waters as compared to its applicable water quality standards, as defined by law. Such an accurate 303(d) list will support the regulatory programs of the Clean Water Act to ensure protection of the state’s designated and existing uses.</p>	<p><i>Comment noted. Our goal is to produce an Assessment and 303(d) List that meets our state credible data requirements and that EPA can approve.</i></p>
<p>NWEA-79: Ecology’s listing methodology makes clear that we have no business submitting data and information for which we do not control the quality assurance plans. This year’s proposed list is just one action in a series in which Ecology has, over very many years, repeatedly ignored federal law and policy, and its own water quality standards. That it is the Washington Department of Ecology that turns its back on the leading Clean Water Act case in the country—the Supreme Court’s Jefferson County decision—a case in which it was the defendant, is nothing short of disturbing. And that it does so by playing games with public participation is even more so.</p>	<p><i>Ecology can only use data and information in which the quality of the data is known and documentation can be provided that meets the Credible Data Policy developed in response to the credible data requirements of the Water Quality Data Act (codified in RCW 90.48.570-590). Ecology has consistently responded to similar comments in previous listing cycles.</i></p>
<p>NWPPA-1: The Northwest Pulp and Paper Association (NWPPA) requests a 30 day extension of the public comment period for the water quality assessment and proposed 303(d) List of impaired water.</p>	<p><i>The request for extension of the public review was denied since Ecology felt it had given an ample 60 days to review the Assessment.</i></p>

COMMENTS RECEIVED	ECOLOGY RESPONSE
<p>NWPPA-2: The proposed temperature listings are unwarranted because Ecology has not determined that human-caused contributions to any temperature criteria exceedances are greater than 0.3 °C. The Proposed 303(d) List includes temperature listings based on temperature measurements in excess of numeric temperature criteria. The applicable water quality standards for temperature, however, include both a numeric temperature criterion and an allowance of 0.3 °C for human-caused temperature increases when the numeric criteria are exceeded. The applicable temperature standards in these waterbodies are not violated, then, unless the relevant numeric criterion is exceeded and the human contribution to the waterbody’s temperature exceeds 0.3 °C. None of the proposed temperature listings include or refer to any information on the human contribution to the measured temperatures. Without such information, there is no basis for concluding that the applicable temperature standard is not met. Accordingly, there is no basis for including these waterbodies on the subsection 303(d) list (listing Category 5). At most, measured exceedances of the temperature criteria in the absence of data showing that the human contribution to the exceedance is more than 0.3 °C should warrant placing the waterbody in listing Category 3—insufficient data.</p>	<p><i>The issue of placing waters on Category 5 when numeric criteria for temperature are exceeded because we don't have proof that the temperature is above the allowable 0.3 degrees due to human influences has been previously debated. We conferred with EPA who made it clear that even if you have insufficient information confirming the natural condition, you cannot rule out anthropogenic sources without sufficient historic and background information to ensure that human influences are not contributing to the exceedance. Policy 1-11 (page 44) states: "Ecology lists waterbody segments on the Category 5 list due to temperature impairment when the numeric criteria are exceeded. In most cases, insufficient information exists to determine the level of human influence on temperature for each listed site. This approach assumes that human influences have contributed to the exceedance over the numeric criteria and the increase is measurable over natural conditions. While this approach may list waterbody segments as impaired for temperature without fully knowing the extent of the human influences, listings are based on existing and readily available information. In the absence of information, the waterbody segment will remain in Category 5 until further information or data are provided to change the category determination." Ecology does commit to taking an additional step to determine if the water is impaired due to human influences, but will only do so when information is provided to validate and confirm that there are no human influences.</i></p>
<p>NWPPA-3: The expansion of the waterbody segments proposed for listing is unwarranted in the absence of new evidence that the expanded areas do not meet applicable temperature standards. Several areas within the Columbia, Pend Oreille, Spokane, and White Rivers are included on Washington’s current subsection 303(d) list for temperature. The Proposed 303(d) List greatly expands the geographic scope of these temperature listings without any analysis that demonstrates that the human contribution to water temperatures exceeds 0.3 °C throughout the expanded areas. NWPPA urges Ecology not to compound the deficiencies with the proposed temperatures listings by extending the listings into areas where there is insufficient information to support them.</p>	<p><i>The change to the National Hydrography Dataset (NHD) segmentation system provides an improved, higher resolution, hydrologic framework for our rivers and streams. The NHD system is independent of any analysis on specific pollutant parameters to determine the human contributions, such as the example you give for temperature. We do acknowledge that the change to a water-based segment system could mean that some NPDES permitted discharges will now be discharging to a 303(d) listed waterbody segment when previously they were not and vice versa—some will no longer be on a 303(d) list. Being on the 303(d) list can result in additional conditions for a permitted discharger, depending on the pollutant at risk (for example, if the waterbody segment is 303(d)-listed for fecal coliform, a POTW may have additional limits so as to not add more of the pollutant to the impaired water).</i></p>
<p>NWPPA-4: The Proposed 303(d) List includes a large number of listings based on fish tissue concentrations of toxic substances, even though both the human health and aquatic life water quality criteria for these substances are expressed as water column concentrations, not tissue concentrations. The proposed listings are based on measured fish tissue concentrations that exceed the human health FTECs. The proposed listings should be removed or designated under another category, such as Category 2 (water of concern) or Category 3 (insufficient data).</p>	<p><i>Ecology currently depends on the numeric criterion to help calculate acceptable tissue concentrations for this determination. Current policy specifies that tissue data, as used, is acceptable for listing. Comments related to tissue can be considered at the next revision of Policy 1-11.</i></p>

COMMENTS RECEIVED	ECOLOGY RESPONSE
<p>NWPPA-5: Neither the FTECs nor the bioconcentration factors on which they are based are applicable water quality standards. A fish tissue sample in excess of an FTEC is not a water quality standards violation, nor can such an exceedance legally be equated with an exceedance of the water column criterion based only on a back-calculation using the BCF from which the water column criterion was derived.</p>	<p><i>Use of fish tissue data is based on narrative water quality standards at WAC 173-201A-260(2). Criteria tissue equivalent concentrations are back-calculated to surface water concentrations using bioconcentration factors (BCF) that were used to derive the human health criteria in the federal National Toxics Rule (NTR). Thus, Ecology currently depends on the numeric criterion to help calculate acceptable tissue concentrations for this determination. Current policy specifies that tissue data, as used, is acceptable for listing. Comments related to tissue can be considered at the next revision of Policy 1-11.</i></p>
<p>NWPPA-6: It is inappropriate to infer water column concentrations from the available fish tissue data. Depending on the site-specific food web, a significant fraction of the chemical body burden in fish can originate from sediments via the food chain, meaning that tissue concentrations in excess of the calculated FTEC could result even when water column concentrations are less than the applicable water quality criterion.</p>	<p><i>As noted above, the use of fish tissue data is based on narrative water quality standards at WAC 173-201A-260(2) to protect aquatic life and public health. We believe it is appropriate to use and have been using fish tissue data for several years to determine impairment of human health criteria. Comments related to tissue can be considered at the next revision of Policy 1-11.</i></p>
<p>NWPPA-7: Many proposed listings are based on an analysis of a single sample representing a single fish species. This is inappropriate. Because tissue concentrations result from conditions throughout the home range of the specific fish species sampled, that range must be considered in making listing decisions. For wide-ranging species, water column concentrations for the area from which the fish was taken cannot be inferred from the tissue concentration because that concentration may reflect conditions from areas other than the area sampled. On the other hand, large waterbody segments cannot be designated on the basis of samples taken from fish whose home ranges are smaller than that segment. Also, the tissue concentrations represent only conditions at and before the time the samples were taken, and many of the samples were taken more than a decade ago. They do not reflect any more recent reductions in water column concentrations, e.g., as would be expected for legacy chemicals such as 4,4'-DDE and PCBs.</p>	<p><i>There are not Category 5 listings based on an analysis of a single fish sample. Fin fish fillet tissue samples, whole shellfish tissue samples, and edible shellfish muscle samples must have at least three single-fish samples or a single composite sample made up of at least three separate fish of the same species. Policy 1-11 also dictates that for use of fish tissue, all tissue samples used for the Assessment must be from resident fish. This helps to ensure that fish are local to the area sampled, and not anadromous. For old samples that may not reflect more recent reductions, we encourage updated sampling to be done to show that the waterbody is reflecting those improvements. That information can be used to change the category of the waterbody, if that is what the data is verifying.</i></p>
<p>NWPPA-8: The disconnect between FTECs and water quality standards makes Category 5 listings based solely on exceedances of the FTECs, and particularly a single FTEC exceedance, inappropriate. The proposed Category 5 listings based on FTEC exceedances should be removed or redesignated as Category 2 (water of concern) or Category 3 (insufficient data).</p>	<p><i>Use of fish tissue data is based on narrative water quality standards at WAC 173-201A-260(2). Criteria tissue equivalent concentrations are back-calculated to surface water concentrations using bioconcentration factors (BCF) that were used to derive the human health criteria in the federal National Toxics Rule (NTR). Thus, Ecology currently depends on the numeric criterion to help calculate acceptable tissue concentrations for this determination. Comments related to tissue can be considered at the next revision of Policy 1-11.</i></p>

COMMENTS RECEIVED	ECOLOGY RESPONSE
<p>NWPPA-9: The Walla Walla River immediately above the confluence with the Columbia River is subject to TMDLs for both 4,4'-DDE and PCBs (Category 4A listings). Thus, the Walla Walla River Basin is a source of these chemicals in the specific segment of the Columbia River now proposed for Category 5 listings. The actions that have been taken and will be taken in response to the TMDLs to reduce the loadings of these chemicals to the Walla Walla River will also have reduced and will continue to reduce their concentrations in the Columbia River near and downstream of the confluence. These actions are further evidence that the measured fish tissue concentrations—which predated the TMDLs by several years and exceeded the FTECs by only relatively small margins—are unrepresentative of current and future conditions in the Columbia River.</p>	<p><i>Comment noted. Any new data submitted to show that those chemicals are now being meet will be used to change listing categories as appropriate.</i></p>
<p>NWPPA-10: The excessive number and breadth of the proposed listing decisions are a direct consequence of Ecology’s listing methodology, which is embodied in Water Quality Program Policy 1 11, which Ecology last revised in July 2012. NWPPA urges Ecology to reevaluate and revise Policy 1-11 to make the subsection 303(d) list a more accurate reflection of current water quality standards violations and to better align it with Ecology’s water quality improvement resources and priorities.</p>	<p><i>Ecology strives to identify waters for placement on the 303(d) List that are truly impaired (not meeting criteria and/or not meeting designated uses). Policy 1-11 provides the specifications on how waterbody segments will be assessed to determine persistent pollution or impairment for the given pollutant parameter or designated use. We typically update and revise Policy 1-11 prior to the start of a new Assessment so that we can continue to enhance and clarify what constitutes impairment for listing purposes. We can assure you that we will be looking at updates to Policy 1-11 to make the 303(d) List an accurate reflection of current water quality standards where needed. The alignment of Ecology’s water quality improvement resources and priorities would not occur at this step because the Assessment is a reflection of the data and information provided and is not based on these factors. Rather, they will be considered when establishing priorities and resources for the resulting list of polluted waters.</i></p>
<p>Olympia-1: Through our analysis, we identified three stream reaches/segments currently listed as impaired under Ecology's 2012-303(d) list. These streams include Black Lake Ditch, Percival Creek and Chambers Creeks'. It appears these three streams will be de-listed or moved to a Category 1 (meets water quality standards) as a result of the proposed Water Quality Assessment and 303(d) listing update. We view this as an incremental but positive success toward the improvement of water quality within the City's incorporated limits.</p>	<p><i>Comment noted.</i></p>
<p>Olympia-2: The City of Olympia agrees with and supports the proposed Water Quality Assessment and 303(d) list update as it relates to waterbodies within City limits. We look forward to the approval of this update by the Department of Ecology and Environmental Protection Agency.</p>	<p><i>Comment noted. We appreciate your support.</i></p>

COMMENTS RECEIVED	ECOLOGY RESPONSE
<p>Ponderay Newsprint-1: In addition to the comments provided by PNC, which are specific to the Pend Oreille River, PNC supports the comments filed by Northwest Pulp & Paper Association on the proposed 303(d) list.</p>	<p><i>Comment noted.</i></p>
<p>Ponderay Newsprint-2: Ecology proposes to list most segments of the Pend Oreille River as Category 5, and to change the listing of Segment ID 8616 from Category 2 to Category 5. PNC opposes this change, and urges Ecology to list segments 8617, 8616, 8614, 48345, 48346, 48347, 48348, 48351 and 48352 as Category 1 for temperature. The basis for this request is that the available TMDL modeling shows that these segments meet the applicable water quality standard for temperature: Temperature shall not exceed a 1-day maximum (1-DMax) of 20.0 oc due to human activities. When natural conditions exceed a 1-DMax of 20.0 °C, no temperature increase will be allowed which will raise the receiving water temperature by greater than 0.3 oc.</p>	<p><i>The listings you note are within the area that is part of a temperature TMDL that was submitted to EPA in April 2011 and is awaiting approval by EPA. Once EPA takes action on the TMDL, Ecology will make necessary changes to the listing categories based on newer data assessed and actions that have occurred. We note that the Pend Oreille River is a complex system that requires consideration of different flow regimes now compared to under natural conditions; warm water temperatures lasting longer into the fall now due to the greater volume of water; and the requirement to meet the Kalispel Tribe's temperature criteria.</i></p>
<p>Ponderay Newsprint-3: PNC's comments on the 2002 303(d) list, prepared by Lincoln Loehr, demonstrated that River temperatures are naturally elevated because the River drains a large lake in Idaho, and the outlet draws from the warm surface waters of the lake. PNC also demonstrated that Albeni Falls Dam at the Idaho-Washington border did not create Lake Pend Oreille, but it does elevate the Lake level in late summer. The river outlet draws from a slightly greater depth range than in the natural condition, resulting in a cooler mix of water in the outlet flow than the natural condition. The upstream segments of the River should, therefore, show lower summer temperatures than under natural conditions. Those segments meet the above-quoted temperature standard.</p>	<p><i>The comments you note were considered as part of a temperature TMDL that was submitted to EPA in April 2011 and is awaiting approval by EPA. The Pend Oreille River is a complex system that requires consideration of different flow regimes now compared to under natural conditions; warm water temperatures lasting longer into the fall now due to the greater volume of water; and the requirement to meet the Kalispel Tribe's temperature criteria.</i></p>
<p>Ponderay Newsprint-4: The Pend Oreille Temperature TMDL modeling divided the Pend Oreille River into a number of reaches and it showed that the Newport, Dalkena, Kalispel, Middle and Blueslide reaches meet the state's temperature criteria. The proposed category 5 listings for segments 8617, 8616, 8614, 48345, 48346, 48347, 48348, 48351 and 48352 are all in the Newport, Dalkena, Kalispel, and Middle reaches. These listings should be changed to Category 1 as Ecology has determined they meet the temperature standard.</p>	<p><i>The listings you note are within the area that is part of a temperature TMDL that is awaiting approval by EPA. Once EPA takes action on the TMDL, Ecology will make necessary changes to the listing categories based on newer data assessed and actions that have occurred.</i></p>
<p>Ponderay Newsprint-5: For those River segments that are temperature impaired Ecology should acknowledge in the</p>	<p><i>Comment noted. The listing remarks do not routinely indicate that a TMDL in in process until it has been completed and</i></p>

COMMENTS RECEIVED	ECOLOGY RESPONSE
listings that Ecology has completed a TMDL that awaits EPA approval.	<i>received approval by EPA, at which point it would move to Category 4A.</i>
Ponderay Newsprint-6: PNC is not aware of other jurisdictions that use fish tissue concentrations for 303(d) listing purposes, nor is there any requirement in CWA Section 303(d) to do so.	<i>Use of fish tissue data is based on narrative water quality standards at WAC 173-201A-260(2). Criteria tissue equivalent concentrations are back-calculated to surface water concentrations using bioconcentration factors (BCF) that were used to derive the human health criteria in the federal National Toxics Rule (NTR). Thus, Ecology currently depends on the numeric criterion to help calculate acceptable tissue concentrations for this determination. Comments related to tissue can be considered at the next revision of Policy 1-11.</i>
Ponderay Newsprint-7: Further, a TMDL is not an effective tool to address the sources that contribute bioaccumulative toxins like mercury to lakes and rivers. The state has another mechanism, Chemical Action Planning (CAP), that is better suited to address these pollutants, and CAPs have already been prepared for Mercury and PCBs.	<i>Comment noted.</i>
Ponderay Newsprint-8: PNC asks that Ecology evaluate the scientific basis of the state pH criterion. Ecology proposes to list six stations on the Pend Oreille River for elevated pH. Photosynthesis by aquatic plants can cause elevated pH values in the afternoon. PNC notes that the state freshwater pH criterion is 6.5 to 8.54 versus the EPA National Recommended Water Quality Criterion of 6.5 to 9.05. The national recommendation freshwater pH criterion has a scientific basis. PNC asks Ecology to determine the basis for the state's pH criteria. PNC suggests that if the state cannot find a scientific basis for its pH criteria, that the 9.0 pH value from EPA be used as the basis for listing state waters as impaired for water quality under Section 303(d) of the Clean Water Act.	<i>This is a water quality standards issue that would need to be handled separately from this Assessment. We will pass your request onto the Standards section for consideration.</i>

COMMENTS RECEIVED	ECOLOGY RESPONSE
<p>Port of Seattle-1: Water Quality Program Policy 1-11 (2012) allows for the use of a single measurement to represent the averaging period of the acute and chronic criteria. In the case of metals, this means that a single grab sample can be used to represent the entire 4-day averaging period for the chronic criterion. It is highly unlikely that a grab sample is representative of average conditions over an entire storm hydrograph, much less a 4 day period which could include both storm runoff and baseflow in “flashy” small urban streams. This is particularly true when considering that most grab sampling studies are designed to capture a “first flush” portion of the hydrograph, which theoretically contains the highest concentrations of pollutants. Applying the results of a single grab to the 4-day chronic criteria will likely cause many segments to be listed for metals when in fact the 4-day average concentrations in the stream meet the standard.</p>	<p><i>Washington Water Quality Standards provide defined magnitude and durations for each aquatic life use toxic parameter listed in WAC 173-201A-240. Additionally, U.S.EPA guidelines specify the frequency of allowable exceedances of these criteria as no more than once in a three year period. This frequency threshold is very different from other aquatic life use conventional pollutants whose criteria thresholds are designed to protect not only survival but full protection of the development and propagation of aquatic life. These criteria often include (through rule or assessment methodology) a percent allowable exceedance before a waterbody is determined impaired. However, the development of aquatic life use toxic criteria are based on lethal concentration evaluations and are therefore expressed as a do not exceed value. The exceedance frequency is based on an estimated period of time for sensitive aquatic organism to recover from these lethal concentration events. These aquatic life use toxic criteria and frequency guidance are the basis of the WQ Assessment methodology for aquatic life use water column toxic criteria. Ecology requires greater than on exceedance in a three year period to determine that the waterbody is impaired. This methodology is consistent with other states’ methodologies as it is based on federal recommended criteria and guidance provided to the states.</i></p>
<p>Port of Seattle-2: Ecology’s own report on copper and zinc in Des Moines, Massey, and McSorely Creeks (Coots and Friese 2012) states: “For assessing criteria compliance for metals, the Water Quality Program has determined that a single grab sample is representative of the 1-hour average, referred to in the acute criteria. For this study, only acute criteria are applied to dissolved copper and zinc. Chronic criteria are meant to represent a 4-day average. Because storm samples were never collected over more than a 5-hour period for the first storm, and 2-hour period for the second and third storms, the chronic criteria do not apply.” (page 34). If a 5-hour sample period is insufficient then clearly a single, instantaneous grab sample should not be applied to the 4-day chronic criterion.</p>	<p><i>Comment noted. The assumptions used for determining impairment for Section 303(d) are described in Policy 1-11 and may be different from compliance issues related to a permit. Please see response above.</i></p>
<p>Port of Seattle-3: The Port joins King County in requesting that Ecology undertake a study to determine the appropriate sample size and methodology needed to accurately assess a 4-day average concentration within an assessment unit. The EPA, as quoted above, would seem to agree. Until Ecology has shown that the application of a single data point to the chronic water quality standard is valid it should not be used for assessing water quality under the Clean Water Act Section 303(d).</p>	<p><i>Comment noted. Ecology’s Environmental Assessment Program is in the process of preparing a document that will provide a more complete analysis of the use of single sample values to determine impairment based on the chronic aquatic life use water column criteria. We plan to have this available during the next update and revision to Policy 1-11 so that the use of single grab samples can be fully examined.</i></p>
<p>SCL-1: Individual listing comments were put on other spreadsheet.</p>	<p><i>Please see the Responsiveness Summary for listing-specific comments.</i></p>

COMMENTS RECEIVED	ECOLOGY RESPONSE
<p>SEATTLE-1: The new "compare" component of the map search was helpful. However it was challenging to review the changes since not all information was available in a single search mode (map, database). We had to search multiple ways to find the listings. For example, since Category 3 is not mapped we could not tell that several listings had changed to Category 3 using the mapping compare tool. We recommend that information is in both the map and search tool be complete and consistent.</p>	<p><i>Comment noted. We strive to have both the search and map tool complete and consistent and will continue to seek improvements where we can.</i></p>
<p>SEATTLE-2: Fautleroy Creek and Longfellow Creek do not show up on the base map. The creeks only show up if there the appropriate assessed waters category is checked on the map layers. We recommend adding these creeks to the base map.</p>	<p><i>The omission of these two features is due to limitations in the underlying hydrography dataset. Addressing the noted discrepancy will be part of our efforts to revise the statewide hydrography dataset on an ongoing basis in order to improve the spatial visualization of all assessed waters.</i></p>
<p>SEATTLE-3: Bioassessments should not be listed as Category 5 unless there is an associated pollutant listed for the following reasons: (1) Bioassessment is not a pollutant so cannot trigger a TMDL. (2) The B-IBI [and RIVPACS] scores Ecology would use do not support an impairment listing because they are not state WQ criteria or WQ standards. (3) Any bioassessment score is insufficient and premature basis for Category 5. Any associated pollutant should be identified before, not after, listing as Category 5. Ecology has stated that before a TMDL is developed, a "stressor ID study" must be conducted, to determine whether there is a pollutant that can be addressed by a TMDL. (2012 Ecology Response to Comments on WQ Policy 1-11, p. 35.) (4) The TMDL process triggered by 303d listing is not intended for non-pollutant impairment such as the impact of general urbanization or development (which B-IBI and RIVPACS can reflect), so great care should be used before moving any segment to Category 5. (5) Category 2 should be used for bioassessment where the segment is not otherwise listed in Category 5 for a pollutant that has caused a biological impairment that violates an established state water quality standard. Affects the following waterbody listings: 70132, 70133, 70138, 70139.</p>	<p><i>Responses in order of your numbered comments: 1) EPA 2006 Integrated Report Guidance clearly states that if a designated use is not supported and the segment is impaired or threatened, the fact that the specific pollutant is not known does not provide a basis for excluding the segment from Category 5. The guidance goes on to state that those segments must be listed unless the state can demonstrate that no pollutant(s) causes or contribute to the impairment. 2) Water quality standards are comprised of designated uses, criteria, and anti-degradation. Bioassessments provide an indication of whether the designated use of that waterbody is being impaired, therefore a listing based on impairment of the designated use is valid. 3) EPA 2006 Guidance states that if there is a clear indication that the designated use is impaired, the listing should go into Category 5 even if the pollutant is unknown. The guidance then suggests that prior to establishing a TMDL for such segments the pollutant causing the impairment should be identified. If the assessment of the new data and information demonstrates that the use impairment is not associated with a pollutant and is attributable only to other types of pollution (e.g., flow or habitat alteration) the segment may be placed into Category 4c. 4) As noted in the response to 3, EPA suggests that as part of starting the TMDL process for Category 5 bioassessment listings where the pollutant is unknown, a stressor identification be done to determine the pollutant. 5) We have established thresholds for when it is appropriate to place a listing on bioassessment in Category 2.</i></p>
<p>Snohomish County-1: The Assessment process must be transparent and use data that is credible, representative of current conditions and generally acceptable to the scientific community.</p>	<p><i>Comment noted. Ecology strives to conduct an Assessment that meets the goals outlined in your comment.</i></p>
<p>Snohomish County-2: Upon review of the freshwater stream and river proposed listings, we found proposed listings based on data that is over 10 years of age. We question how this data can be considered representative of current conditions or be generally accepted by the scientific community. Using</p>	<p><i>As stated in Policy 1-11, data older than ten years will be used only if no more recent data exists to conduct the assessment. In other words, listings that have been carried over from previous Assessments that are based on data older than ten years occur because there was no newer data available to update the</i></p>

COMMENTS RECEIVED	ECOLOGY RESPONSE
<p>data greater than 10 years of age as the basis for identifying impaired waters for clean-up does not ensure the limited financial resources of the state and local regulated governments are prioritized to address our most important water quality issues.</p>	<p><i>previously assessed listing. Older data must also meet all QA requirements at the time of submittal. Because of the large number of listings in the database, listings from previous assessment cycles will not be reassessed according to the most recent policy unless more recent information associated with the parameter and waterbody segment is made available, or a request is made to reassess under the new policy.</i></p>
<p>Snohomish County-3: In the near term, the County encourages Ecology to review all Category 5 listings based upon data greater than 10 years of age from the proposed draft list and place them in the most appropriate Category. In cases where older data may be considered insufficient or unrepresentative of current conditions, we expect listings may move to Category 2 or .3, Recognizing resource limitations, these measures will help improve the assessment and reduce the volume of data Ecology must evaluate during each assessment cycle thereby helping to achieve goals of the 2013 EPA and State Vision for Assessment, Restoration, and Protection under the Clean Water Act Section 303(d) Program. In the longer term, Ecology should continue working on technical solutions to expedite and improve assessments. The County directs Ecology's attention to approaches taken by other States as summarized in Recommendations for Improving Water Quality Assessment and Total Maximum Daily Load Programs in Washington State ("2014 Interagency Report"). It may be appropriate to modify WQP 1-11 to include a new category for old data which would trigger planning for new studies.</p>	<p><i>Ecology focused its efforts on assessing new data that was submitted during the ten year period within the call-for-data (2001-2010) and does not have the capacity to review all Category 5 listings that have been carried over from previous assessments within the timeframe to submit this Assessment to EPA. Because of the large number of listings in the database and the delays in getting this Assessment completed, a decision was made that listings from previous assessment cycles would not be reassessed according to the most recent policy unless more recent information associated with the parameter and waterbody segment was made available, or a request for verification was made during the public review to reassess under the new policy. If we are able to find some staffing capacity within the next listing cycle to review all old listings, we will do so.</i></p>
<p>Snohomish County-4: Upon review of the freshwater stream and river proposed listings, we found proposed listings for bioassessment that use a numeric threshold not stated in State Water Quality Standards or policy. It is unclear how this threshold was determined, including whether or not the numeric threshold underwent a transparent and scientifically credible public review process. Ecology appears to have established a water quality standard or rule, as defined by RCW 34.05.010(16), outside of official rule-making and inconsistent with controlling laws, rules and regulations. Ecology's actions will have significant implications for municipal stormwater permittees.</p>	<p><i>Ecology has a rational document that more fully explains how bioassessment data was used in this Assessment. Regarding concerns that the numeric thresholds are not stated in the State Water Quality Standards, we acknowledge that we have not adopted bio-criteria into Washington's standards. However, narrative standards are described at WAC 173-201A-260(2) that do not allow degradation of a beneficial use. It is important to note that water quality standards are comprised of designated uses, criteria, and antidegradation. Bioassessments provide an indication of whether the designated use of that waterbody is being impaired, therefore a listing based on impairment of the designated use is valid, relying on the narrative standards.</i></p>
<p>Snohomish County-5: Upon review of the freshwater stream and river proposed listings, we found proposed Category 5 bioassessment listings within Snohomish County are not associated with a pollutant. Ecology policy states that if the source of a bioassessment impairment is unidentified and likely not due to a pollutant, the waterbody segment should be placed in Category 4c (habitat-related impairment), not Category 5. Bioassessment methods in WQP 1-11, Chapter 1, state that if a source of impairment is unidentified but is suspected to be from pollution (e.g. habitat alteration, flow,</p>	<p><i>We are following EPA guidance, which states that information on a waterbody indicating that the biological community is impaired should go into Category 5 even when the pollutant is unknown. If the source of the impairment is suspected to be from pollution, rather than pollutants, then it would be appropriate to place the waterbody segment into Category 4C.</i></p>

COMMENTS RECEIVED	ECOLOGY RESPONSE
<p>etc.), instead of a pollutant (e.g. toxics, temperature, etc.), the segment must be placed in Category 4c.</p>	
<p>Snohomish County-6: Snohomish County recommends all Category 5 bioassessment listings based on a numeric . bioassessment criteria be removed from listing or, at a minimum, reconsidered for Category 4c. Ecology should engage EPA and stakeholders in a transparent process, as required by chapters 90.48 and 34.05 RCW, to evaluate and establish credible bioassessment criteria and methods of assessment for establishment in chapter 173-201A WAC and WQP 1-11. Methods of assessment may include a review of category placement to support stressor identification study. For listing IDs: 70119, 70134, 70135, 70200, 70202, 70217, 70220, 70224, 70236, 70238, 70242, and 70251. Remove listings or at a minimum change to Category 4c. The numeric standard established by ECY to support Category 5 listing was created outside of required legal and administrative processes and is a standard contrary to that established in WQP 1-11. Listing methods and thresholds for impairment are ambiguous and lack transparent scientific justification. Ecology has not identified and made available the sources of information relied upon. Additionally, the Category 5 listing is not associated with a pollutant. WQP 1-11 states that when a source of impairment is unidentified but is suspected to be from "pollution" instead of a "pollutant" the segment must be placed in Category 4c.</p>	<p><i>EPA 2006 Integrated Report Guidance clearly states that if a designated use is not supported and the segment is impaired or threatened, the fact that the specific pollutant is not known does not provide a basis for excluding the segment from Category 5. The guidance goes on to state that those segments must be listed unless the state can demonstrate that no pollutant(s) causes or contribute to the impairment. The guidance then suggests that prior to establishing a TMDL for such segments the pollutant causing the impairment should be identified through a stressor identification process. If the assessment of the new data and information demonstrates that the use impairment is not associated with a pollutant and is attributable only to other types of pollution (e.g., flow or habitat alteration) the segment may be placed into Category 4c. We appreciate your suggestion to convene a stakeholder group to ensure that bioassessment methods are transparent and plan to do that as soon as we have submitted this Assessment to EPA for approval and are ready to start the next Assessment process.</i></p>
<p>Snohomish County-7: Upon review of the freshwater stream and river proposed listings, we found proposed listings that have a greater than 90% probability of non-impairment based on an analysis of the entire dataset. While the County recognizes that Ecology is not required to use probability-based methods to determine impairment, the listing of waterbodies that are more than likely not impaired reduces overall confidence in assessments and could divert limited resources from higher priority waterbodies.</p>	<p><i>Comment noted</i></p>

COMMENTS RECEIVED	ECOLOGY RESPONSE
<p>Snohomish County-8: Listing decisions result in economic, political and social repercussions, including the establishment of Total Maximum Daily Loads (TMDL). Significant financial resources are required to meet new TMDL requirements in the County's National Pollutant Discharge Elimination System Phase I Municipal Stormwater permit. The County believes its limited financial resources must be used to remedy actual problems and given the concerns listed above; the current Assessment will misdirect County resources.</p>	<p><i>The current assessment lists waters that monitoring has shown are impaired by one or more pollutants. This would seem to indicate that there is an actual problem. Ecology has an obligation to produce TMDLs for the waters listed in category 5. However, if Snohomish County believes it could address the impaired waters without a TMDL, it could work with Ecology's Northwest Regional Office staff to see if that might be a viable option.</i></p> <p><i>The development of a TMDL should help identify sources of pollutants that need to be addressed. We agree that all of our limited resources should be focused on actual problems.</i></p>
<p>Snohomish County-9: The County has significant concerns that Ecology's Category 5 listings of certain waterbody segments are contrary to one or more of the following: (1) RCW 90.48.570 - .585; (2) chapter 34.05 RCW; (3) chapter 90.48 RCW; (4) chapter 173-201A WAC; (5) chapter 173-204 WAC; (6) relevant Environmental Protection Agency guidance and policy documents; (7) relevant federal statutes and regulations, including but not limited to the Federal Clean Water Act and 40 CFR Parts 25, 130, and 131; and (8) relevant Ecology guidance and policy documents, including but not limited to Water Quality Policy 1-11.</p>	<p><i>Ecology strives to produce an Assessment and 303(d) list that meets state and federal requirements. We will review each specific listing noted in your comment letter and make changes as needed to reflect accurate listings.</i></p>
<p>Snohomish County-10: Further, Ecology did not identify or make available the sources of information relied upon in implementing the bioassessment criteria, contrary to RCW 34.05.272.</p>	<p><i>Ecology has compiled a citation list in accordance with RCW 34.05.272 and included it as part of its submittal package to EPA to seek approval for the updated WQA and candidate 303(d) list. The citation list will also be published and place on Ecology's website at: supporting literature for significant actions.</i></p>
<p>SCBID-1: In an effort to effectively represent the intended use of the water delivery systems within SCBID, we would like to see all our facilities labeled as "canals/ditches". Currently, many are incorrectly labeled as "rivers/streams". Our facilities are manmade and function to deliver irrigation water therefore "canal/ditch" accurately describes their purpose and use.</p>	<p><i>The formal naming convention used by Ecology for the WQA is the Geographic Names Information system (GNIS). These waterbody names are approved through the federal government. To have these names changed at the national level would involve a petition to the lead state manager for waterbody name changes in Washington State, located at the Department of Natural Resources. Regarding your request to make a clear distinction between irrigation facilities and naturally occurring waterbodies in the Assessment, we must note that irrigation ditches and other manmade waterways are considered to be a "water of the state" and therefore we do not treat irrigation ditches different from other waters of the state. Ditches are considered "waters of the state" because the language in RCW 90.48.020 is interpreted to be broad and all inclusive. The long-standing interpretation given to chapter 90.48 RCW beginning with the water pollution control commission, when coupled with the history of legislative amendments to this chapter, has established a legal definition of "waters of the state" that clearly includes ditches. Therefore, there is not a clear distinction between irrigation ditches and naturally occurring waterbodies when it comes to interpretation of the water quality standards.</i></p>

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<p>SCBID-2: We do not believe the default beneficial uses to which our waterways are assigned are appropriate given their intended purpose to supply irrigation water. We have included a table that contains those Assessment Unit IDs in the proposed 303(d) list that are misidentified as rivers/streams. Additionally, proposed Listing IDs 72086 and 73306, which do not have an Assessment Unit ID, should also be labeled as canals/ditches. This is by no means an exhaustive list and only represents a small portion of our canals.</p>	<p><i>The default designated uses assigned in the water quality standards are in rule and any changes to specific waterbodies would need to be validated and go through a rule-making process to remove or reassign uses. Ditches are considered “waters of the state” because the language in RCW 90.48.020 is interpreted to be broad and all inclusive. Please see the above response regarding the naming convention used in the Assessment.</i></p>
<p>SCBID-3: Several of our canals in the Proposed Assessment are misidentified or unnamed. Please see the table provided in our letter for our submitted revisions.</p>	<p><i>The formal naming convention used by Ecology for the WQA is the Geographic Names Information system (GNIS). In this regard, if a waterbody has been associated with the wrong GNIS name, we will make such changes in the assessment. Since listings are tracked by their assessment units IDs rather than waterbody name, changes to waterbody name are not critical to the completion of the assessment and we therefore will defer working with SCBID on such name changes until the next assessment cycle begins. If the name being proposed for an assessment unit is not the GNIS name, then we are not inclined to change the name in the assessment. The GNIS waterbody names are approved through the federal government. To have these names changed at the national level would involve a petition to the lead state manager for waterbody name changes in Washington State, located at the Department of Natural Resources.</i></p>
<p>SRSP-1: In the case of the Spokane River system, groundwater recharge and discharge into the Spokane River are extremely significant factors in the overall hydrologic system. In a number of reaches of the river, the gain (or loss) of streamflow to groundwater is significantly higher than the gains due to tributary inflow (The Spokane Valley-Rathdrum Prairie Aquifer Atlas, 2009 update, pp. 12-15). We understand that tributaries were used to define the reach segments in the proposed draft water quality assessment. This may be problematic for reaches on the Spokane River that are dominated by groundwater inflow or outflow and not tributary input. Please see the attached map showing the proposed stream segments (red lines) and the reaches with significant groundwater loss or gain on the river. It appears that the newly defined stream segments between Liberty Lake and the Spokane gauge each include both gaining and losing reaches. We suggest you align the stream segments in such a way that they are in a consistently gaining reach or a consistently losing reach. This is particularly relevant for temperature, as reaches of the Spokane River where groundwater recharges the river system can be cooler.</p>	<p><i>We acknowledge that the unique groundwater hydrology in the Spokane River watershed can have a significant temporal and spatial influence upon water quantity and quality in the river. We considered altering the delineation of the assessment units on the Spokane River, but we determined that for this assessment cycle, it would not be feasible. The assessment units (AUs) in the proposed assessment are delineated based on separately addressed NHD features, i.e. for the Spokane River there is a 1:1 relationship between NHD reaches and AUs. Altering the AU delineation for the Spokane River based on groundwater influence would break from the current convention for using the NHD to delineate AUs, unless the change also involved revisions to the NHD; if revisions to the NHD were made based on groundwater influence, it would depart from the current convention by which the NHD indexes NHD stream/river reaches. We have not delineated waterbodies in the NHD or assessment units in the water quality assessment based on groundwater influence for any waterbodies in the state and need to carefully consider the policy and technical implications involved before making this type of change. We are, however, willing to work with the SRSP to explore this issue in efforts to ensure that we are performing assessments in a manner that facilitates water quality protection.</i></p>

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<p>Streamkeepers-1: Bioassessment-disagree with scoring breaks for categories. The draft WQA thresholds for the different categories differ from those recommended by Clallam County and accepted by Ecology in prior assessments. Clallam County’s recommendations and citations for such are presented here: http://www.clallam.net/streamkeepers/html/revised_b-ibi_grading_system.htm. If Ecology has provided equivalent documentation for its scoring breaks, this reviewer has not seen it.</p>	<p><i>Ecology has provided a rationale for how the B-IBI numeric thresholds were established based on scientific and statistical analysis of the data. This is included in the WQA submittal package to EPA and will also be used as the basis for inclusion in updates to Policy 1-11 after EPA approves this Assessment. Policy 1-11 updates will go through a full public review.</i></p>
<p>Thurston County-1: In most instances, in the Main Listing Information section, there was no “designated use” assigned to the listing. It is our understanding that a waterbody’s listing is based on attainment or non-attainment of the water quality standards established for a designated use; therefore, it cannot be listed if there is no designated use. We learned in conversations with Ecology staff that this field simply wasn’t populated and that designated uses are associated with each listing exist. This makes it very difficult for the reviewers to verify listings and/or to provide any necessary feedback or corrections. We recommend populating this field for future assessments. The designated use is essential to provide context for the impairment and an associated corrective action.</p>	<p><i>The designated uses are assigned in the water quality standards and the criteria are associated with the most sensitive uses. So, the listings based on criteria are protective of the most sensitive uses, in most cases aquatic life or contact recreation. Nonetheless, we understand that this information would be helpful to the user. Ecology GIS staff are working on upgrades to Washington’s Water Quality Atlas, which we hope to release with the next Assessment approval. If possible, we will include information on designated uses so that there is a clearer connection between the pollutant parameter listing and the beneficial use being affected.</i></p>
<p>Thurston County-2: In the map feature, we recommend including an overlay map in the background that depicts whether a Water Quality Improvement Plan (WQIP) or Total Maximum Daily Load (TMDL) (draft and/or approved) exists for a proposed listing. This would allow the user to quickly determine if a water quality improvement plan or TMDL already exists to address the impairment, if one is being drafted, or if there is an error in the listing (i.e. should be moved to Category 4A).</p>	<p><i>We appreciate your suggestion and agree that this additional map feature would be highly beneficial. The work on the Washington Water Quality Atlas, when completed, plans to include an overlay of TMDL footprints to be able to see where TMDLs are on the landscape and what listings fall within that landscape. We hope to have this available within the next year or so.</i></p>
<p>Thurston County-3: At the public meeting in Lacey on April 9, 2015, Ecology noted that all listings with a list identification number over 70,000 represent new listings. However, all of the river/stream Thurston County listings for “water quality” above that number, except for one, reference a change from Category 3 to Category 5, rather than a brand new listing. This includes Listing ID’s 71048, 71057, 71058, 71066, 72268, 72637, 72638, 73229, 73660, 73667, 74217, 74219, 74220, 74242, 74252, 74416, 74643, 74783, 74814, 74848, 74850, 74968, 78074, and 78075. We request clarification in WQA Policy 1-11 regarding what amount of data (and the protocols followed for data collection) is required to place a segment in Category 3, rather than not having a listing at all. For example, are all waterbodies considered to be Category 3 even if no monitoring has been conducted?</p>	<p><i>Category 3 represents listings where there are insufficient water quality data available to make a determination on the status of water quality criteria or a designated use. This category includes all waters in the State (except on tribal reservation lands) that lack sufficient information (including no information) for placement in any other category. You are correct that all waterbodies are considered to be Category 3 even if no monitoring has been conducted. Therefore, a waterbody is assigned a Category 3 for previous assessment cycles even when no data was available.</i></p>

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<p>Thurston County-4: They are many instances in which the terms “bacteria”, “fecal coliform bacteria”, and/or “fecal coliform” are interchanged. In addition, in many cases, the impairments are listed for “bacteria”, but the WQIPs and TMDLs are developed for “fecal coliform” or “fecal coliform bacteria”. We recommend moving towards consistency with listing protocols and terminology in this regard.</p>	<p><i>Comment noted.</i></p>
<p>Thurston County-5: Several TMDLs or WQIPs in Thurston County have titles which include multiple parameters; however, the reports may only include loading allocations for one or two parameters. Example. Nisqually River Basin Fecal Coliform Bacteria and Dissolved Oxygen Total Maximum Daily Load: Water Quality Implementation Plan. This TMDL includes loading allocations for fecal coliform bacteria (Appendix D) and a narrative of best management practices for dissolved oxygen. Therefore it is unclear if dissolved oxygen is covered under this TMDL. Tributaries to Totten, Eld and Little Skookum Inlets Fecal Coliform Bacteria and Temperature Total Maximum Daily Load: Water Quality Implementation Plan (final). There are only loading allocations for fecal coliform bacteria provided.</p>	<p><i>Comment noted. We will pass this comment to the TMDL program for consideration and response.</i></p>
<p>Thurston County-6: Furthermore, it is unclear if a TMDL must provide loading allocations for a given parameter in order for that parameter to be considered as having a TMDL. In some cases, the WQIP or TMDL may list out Best Management Practices (BMPs) or recommendations in lieu of loading allocations. For example, in the Nisqually Watershed Bacteria and Dissolved Oxygen Total Maximum Daily Load (Water Cleanup Plan), loading allocations are provided for fecal coliform bacteria, but dissolved oxygen is only discussed and addressed in a narrative format. To further complicate the issue, Ecology itself seems unclear about how to apply TMDLs to the listings. In this most recent proposed assessment, Ecology has proposed to move some (but not all) segment listings from Category 5 to 4A based on an inclusion in a Multiparameter TMDL, even if no loading allocations for that parameter have been provided.</p>	<p><i>Comment noted. We have worked with regional TMDL staff to identify Category 5 listings that should have gone to Category 4A, and made changes where needed. A listing should not go to Category 4A unless a load allocation has been established for it. They may happen either because a specific load allocation applies within the listed segment or because a downstream load allocation also applies to the segment. For newer TMDLs, the second situation may be verified by checking to see if the segment is inside the mapped area in which the TMDL applies. We will pass your comment on to the TMDL program in the southwest regional office and ask them contact you with assistance in determining loading allocations for these areas of confusion.</i></p>
<p>Thurston County-7: An example is provided in the Henderson Inlet watershed. Ecology has proposed moving 3 freshwater listings for pH in Thurston County (40615, 51449, and 72064) to Category 4A based on their inclusion in the “Henderson Inlet Multiparameter TMDL” (this is what is listed in the listing). Yet it is unclear which of the several reports listed above for Henderson Inlet is considered the actual TMDL, and none of the reports provides loading allocations for pH. The webpage is titled “Henderson Inlet Watershed Area: Fecal Coliform Bacteria” which further confounds the issue. This makes it extremely difficult for regulated communities to discern which parameters Ecology considers covered under any given TMDL or WQIP. In follow-</p>	<p><i>Comment noted. We have worked with regional TMDL staff to identify Category 5 listings that should have gone to Category 4A, and made changes where needed. A listing should not go to Category 4A unless a load allocation has been established for it. They may happen either because a specific load allocation applies within the listed segment or because a downstream load allocation also applies to the segment. For newer TMDLs, the second situation may be verified by checking to see if the segment is inside the mapped area in which the TMDL applies. We will pass your comment on to the TMDL program in the southwest regional office and ask them contact you with assistance in determining loading allocations for these areas of confusion.</i></p>

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<p>up conversations with Ecology staff, conflicting information is provided. For example, the County has been told in the past that a loading allocation is required for a parameter to be considered covered, but this information is inconsistent with the proposed listings provided as an example above.</p>	
<p>Thurston County-8: We strongly recommend updating the TMDL/WQIP websites, document titles, and database information to specify which parameters are considered to be included under the TMDL or WQIP. In addition, we recommend the development of a consistent methodology and policy for applying TMDL coverage to listings (e.g. is a loading allocation required to be determined as having a TMDL or are narrative recommendations sufficient in some cases?). WQA Policy 1-11 should be updated to include this information.</p>	<p><i>Comment noted. We will pass this comment to the TMDL program for consideration and response.</i></p>
<p>Thurston County-9: It is not always clear what segments are included in the geographic scope of a TMDL or WQIP. Many segments were not specifically addressed during the development of a TMDL or WQIP because data was not available to make a determination about their water quality. With more data available, new listings are popping up in areas where TMDLs or WQIP have already been established. In these cases, it is not always easy to discern if Ecology considers a segment to be included in the geographic scope of an existing TMDL or WQIP. As with Comment 2, we recommend including an overlay map in the listing database that depicts the applicability of TMDLs or WQIP for any given listing.</p>	<p><i>Comment noted. We will pass this comment to the TMDL program for consideration and response.</i></p>
<p>Thurston County-10: Thurston County does not consider it appropriate to list a waterbody in Category 5 based on an indicator rather than a pollutant. Rather, bioassessment should be regarded as a screening tool with which we may identify potential water quality impairments. An impaired bioassessment listing may trigger a stressor identification assessment. If additional monitoring during a stressor identification assessment identifies an impaired parameter for which we have established numeric water quality criteria, then it would be appropriate to list that waterbody based on that parameter and develop a TMDL accordingly. If pollution or habitat degradation is determined as the cause, the segment would be placed in Category 4C. Alternatively, a stressor identification study (during which reference conditions should be adequately established) may indicate that the biological community is consistent with natural conditions for that reach (acknowledging that different waterbodies inherently exhibit different water quality conditions and biotic communities).</p>	<p><i>EPA 2006 Integrated Report Guidance clearly states that if a designated use is not supported and the segment is impaired or threatened, the fact that the specific pollutant is not known does not provide a basis for excluding the segment from Category 5. The guidance goes on to state that those segments must be listed unless the state can demonstrate that no pollutant(s) causes or contribute to the impairment. We note that water quality standards are comprised of designated uses, criteria, and anti-degradation. Bioassessments provide an indication of whether the designated use of that waterbody is being impaired, therefore a listing based on impairment of the designated use is valid. EPA 2006 Guidance further states that if there is a clear indication that the designated use is impaired, the listing should go into Category 5 even if the pollutant is unknown. The guidance then suggests that prior to establishing a TMDL for such segments the pollutant causing the impairment should be identified. If the assessment of the new data and information demonstrates that the use impairment is not associated with a pollutant and is attributable only to other types of pollution (e.g., flow or habitat alteration) the segment may be placed into Category 4c. EPA suggests that as part of starting the TMDL process for Category 5</i></p>

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	<p><i>bioassessment listings where the pollutant is unknown, a stressor identification be done to determine the pollutant.</i></p>
<p>Thurston County-11: We recommended the following listing policies associated with bioassessments.</p> <p>a) In instances where a causal pollutant has not been identified for a bioassessment-listed impairment, we recommend placing the listing in Category 2 (Water of Concern). WQA Policy 1-11 should be updated to include recommendations on follow-up actions that should be taken to identify the pollutant stressor(s).</p> <p>b) Subsequent to the stressor identification study, and/or in instances where there is a bioassessment impairment and enough information to show the “condition is likely not the result of pollutant sources”, we recommend the listing be placed in Category 4c (as currently articulated in WQA Policy 1-11).</p> <p>c) We recommend that Category 5 should only be used for listings where a causal pollutant has been identified. (Ecology’s current policy on using Category 5 for bio-assessments (pg. 33) appears inconsistent with its on policy for categorization (pg. 18), which states that “waterbody segments impaired by a pollutant...will be placed in Category 5.”)</p> <p>d) We recommend updating WQA Policy 1-11 to be more consistent with the recommendations provided above.</p>	<p><i>The comments you bring up regarding policies for listing with bioassessment data will be discussed in further detail with stakeholders as we move forward with the next Assessment cycle. One of the first steps will be to update Policy 1-11. Policy 1-11 updates will go through a full public review. We also convened a meeting with stakeholders subsequent to the comments received on this draft WQA and EPA prior to the WQA submittal to discuss bioassessment listings. We do appreciate concerns that stakeholders have expressed for the different categories based on bioassessments and we are committed to having more stakeholder meetings so that we can ensure a transparent process and clarity with how bioassessment data is used for listing purposes and TMDL development. We will continue to engage stakeholders in how bioassessment listings will be implemented in TMDLs and other Water Quality Programs as we move forward.</i></p>
<p>Thurston County-12: The current WQA Policy 1-11 indicates that Ecology applies narrative standards for bio-assessment, but what those narrative criteria are is not explicitly described in the policy or in WAC 173-201A -260 and 300. In addition, the required data collection methods and process for assessment listings are unclear. Ecology states a preference for data to be “collected in accordance with Standard Operating Procedures (SOP) #EAP073, but may also accept data collected using other protocols. It then states that after 2012, all biological data submitted for review must be collected using the field and data reporting protocols outlined in the SOP for collecting freshwater macroinvertebrates. This verbiage is conflictual and it is not clear if only data collected with the SOP will be allowed after 2012 or if another collection method would be considered. In addition, “may also accept data collected using other protocols” does not provide enough clarity to make informed monitoring decisions. We recommend updating the WQA Policy 1-11 language to clarify Ecology’s meaning and to explicitly define what data collection methods are suitable.</p>	<p><i>Ecology has provided a rationale for how the Benthic Index of Biotic Integrity (B-IBI) numeric thresholds were established based on scientific and statistical analysis of the data. This is included in the WQA submittal package to EPA and will also be used as the basis for inclusion in updates to Policy 1-11 after EPA approves this Assessment. Regarding your comment on the use of standardized biological data testing procedures, it is true that prior to 2012, a variety of methodologies were used when collecting samples for calculation of B-IBI scores, i.e. different surface areas sampled and various levels of taxonomic effort employed. However, we feel that these differences are not significant enough to warrant exclusion of these samples from the water quality assessment. Addressing some of these issues, King County Department of Natural Resources and Parks Water and Land Resources Division working on a grant from EPA, performed several analyses with data in the Puget Sound Stream Benthos (http://www.pugetsoundstreambenthos.org/) and produced several technical reports. We will take all of this into consideration as we work with stakeholders in the next Assessment cycle to update and clarify Policy 1-11 with regard to the use of narrative standards.</i></p>
<p>Thurston County-13: We further recommend that Ecology engage EPA and stakeholders in a transparent process to help evaluate and determine these data collection methods and establish credible bioassessment criteria and</p>	<p><i>Comment noted. As noted in our previous responses, we are committed to having more stakeholder engagement so that we can ensure a transparent process and clarity with how</i></p>

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<p>assessment. Methods of assessment may include a review of category placement or expansion of existing categories to support stressor identification study prior to establishing Category 5 listings, such as has been suggested in previous comments. Also, please note that the link to (SOP) #EAP073 is broken. We recommend updating the link.</p>	<p><i>bioassessment data is used for listing purposes and TMDL development.</i></p>
<p>Thurston County-14: Chapter 2 of the WQP Policy 1-11 (pg. 1) states that “Ecology shall use credible data for the following actions: determining whether any water of the state is to be placed on or removed from any section of the 303(d) list...”. It further states (pg. 3) that this policy includes a “description of the specific criteria that are used to judge whether data are of adequate credibility to use when (1) determining whether any water of the state is to be placed on or removed from any section 303(d) list...”. However, no such specific criteria is actually provided in the policy other than circular references to credible data. Furthermore, this language suggests that the same data protocols would be applied to both listing and de-listing; however, in application, Ecology has required more data collection to de-list than to list. We suggest that Ecology revise the policy to require the same level and quality of data collection for both listing and de-listing decisions.</p>	<p><i>The description of specific criteria that are used to judge whether data are of adequate credibility to be placed on the 303(d) List can be found starting at the bottom of page 6 of Policy 1-11, Chapter 2, “Water quality Assessment Updates”. Basically, it references the need to collect and assess data using appropriate scientific methods as described in the agency’s listing policy (Chapter 1-11, Chapter 1). We do not agree that the language in Chapter 2 precludes the same level of data collection for both listing and de-listing decisions. We encourage you to be involved in updates and revisions that will be considered for Policy 1-11 as we start the next Assessment process, after EPA approves this Assessment.</i></p>
<p>Trout Lake-1: It appears that for the irrigation ditches, the most recent data is 2010. This is of concern, since there have been significant changes in water distribution practices and irrigation practices (mostly installing pivots) since 2010.</p>	<p><i>To begin an Assessment, Ecology conducts as call-for-data. Data collected within ten years of the published call-for-data end date for each Assessment, are consolidated and assessed with other data of the same waterbody segment and parameter. The data to develop this assessment was collected up through 2010 and for various reasons we only finished the analysis of that data in November 2014. While we realize this is a frustrating situation especially where newer data is available, to continue to assess newer data at this point would only further delay the completion of this Assessment for submittal to EPA. We believe the most prudent thing to do at this point is complete this Assessment based on the call-for-data established, and then make a commitment to begin the next WQA as soon as EPA approves this Assessment submittal (expected in the Fall of 2015). We encourage you to submit the newer data you have to Ecology so that it may be reviewed during the next listing cycle.</i></p>
<p>USBOR-1: The Bureau of Reclamation has a significant number of irrigation facilities (facilities) throughout the State, which include reservoirs, canals, laterals, wasteways, drains, and buried pipe drains. Ecology has designated many of Reclamation's facilities with the appropriate name and designation. However, there are still many facilities that are designated as unnamed ditches. Reclamation requests that Ecology establish the appropriate names and designations for the remaining facilities referred to as unnamed ditch in the Assessment so there is no confusion between the</p>	<p><i>The formal naming convention used by Ecology for the WQA is the Geographic Names Information system (GNIS). These waterbody names are approved through the federal government. For waterbodies that have no assigned GNIS name, we are willing to consider whether or not it would be practicable to establish a secondary waterbody name field wherein, locally used names for a waterbody would be noted.</i></p>

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<p>facilities and the natural features. Reclamation can furnish Ecology with the facility names.</p>	
<p>USBOR-2: Irrigation projects such as the Project are unlike natural systems. They are characteristic of large flows at the headwaters and reduced flows at confluences and facility terminus' (end of the facility). Reclamation would like Ecology to classify the facilities as man-made not lakes, rivers, streams, or creeks. The association of the facilities with the natural features misconstrues the actual complexity of these features. Further, Reclamation would like the facilities listed in the Assessment referred to by their proper name or designation for clarity between the man-made and natural features.</p>	<p><i>Regarding your request to make a clear distinction between irrigation facilities and naturally occurring waterbodies in the Assessment, we must note that irrigation ditches and other manmade waterways are considered to be a "water of the state" and therefore we do not treat irrigation ditches different from other waters of the state. Ditches are considered "waters of the state" because the language in RCW 90.48.020 is interpreted to be broad and all inclusive. The long-standing interpretation given to chapter 90.48 RCW beginning with the water pollution control commission, when coupled with the history of legislative amendments to this chapter, has established a legal definition of "waters of the state" that clearly includes ditches. Therefore, there is not a clear distinction between irrigation ditches and naturally occurring waterbodies when it comes to interpretation of the water quality standards.</i></p>
<p>USBOR-3: A substantial number of facilities are Category 5 listings on the 303(d) list for a variety of parameters of which temperature, dissolved oxygen, and pH are the majority listings. Reclamation facilities are not natural, and according to the Water Quality Standards, 173-201A- 260, Natural conditions and other water quality criteria and applications (1) (a and b), a change in criteria may need to be addressed. Reclamation requests that the climatic conditions and human structural changes related to the irrigation facilities be reassessed for criteria that better reflects the existing environmental conditions and man-made structures.</p>	<p><i>The default designated uses assigned in the water quality standards are in rule and any changes to specific waterbodies would need to be validated and go through a rule-making process to remove or reassign uses. Ditches are considered "waters of the state" because the language in RCW 90.48.020 is interpreted to be broad and all inclusive. It does not differentiate between whether the watercourse is natural or manmade.</i></p>
<p>USEPA -1: The regulations at 40 CFR 130.7(b)(4) require States to prioritize waters on their Section 303(d) lists for total maximum daily load (TMDL) development, and also to identify those WQLS targeted for TMDL development in the next two years. This TMDL Prioritization Schedule must be included with Ecology's final submittal.</p>	<p><i>Comment noted. The TMDL Prioritization schedule is included with Washington's submittal to EPA.</i></p>
<p>USEPA -2: In our December 21, 2012 letter to you, in which we approved Ecology's 2010 303(d) list, EPA stated that in order to be included in Category 4B in future listings, Ecology needs to analyze recent data and information for each of the waterbodies, including sediment listings, included in Category 4B and provide that analysis with the Integrated Report, for each reporting cycle. For the 1508 sediment listings that have been proposed for placement in Category 4B, EPA requests that Ecology review the status of the 4B plans to determine if their placement in Category 4B remains appropriate.</p>	<p><i>Because this Assessment focused on fresh water data and not marine water data, Ecology did not analyze any data related to marine waters, including those in Category 4B. We are submitting Category 4B analyses for fresh waters in the 2014 Assessment submittal to EPA, but not for marine waters. We plan to begin the next Assessment, which will include marine and fresh water data, as soon as we receive approval of the 2014 Assessment from EPA. To start, we will review and update Policy 1-11, and anticipate that there will be revisions to the policy relating to contaminated sediment listings to reflect the revised 2013 Sediment Management Standards rule. For the next Assessment listing cycle, which will include both marine and fresh water data, we will also work on the analysis to address Category</i></p>

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	<p><i>4B listings for contaminated sediments to determine if their placement in Category 4B remains appropriate.</i></p>
<p>USEPA -3: EPA evaluated the reviews that Ecology conducted of the proposed freshwater 4B listings. EPA requests that Ecology add additional information to these 4B summaries. For each summary, the "Schedule for Implementing Pollution Controls" section should include a detailed timeline with milestones for the implementation of pollution controls. The section "Monitoring Plan to Track Effectiveness of Pollution Controls" should include a detailed schedule of planned monitoring events.</p>	<p><i>Ecology has considered this new request from EPA, and has determined that more detail about implementation and monitoring for the programs we have placed into Category 4B is unnecessary. First, many of the 4B justifications already contain this information. Second, for many of the programs, which are performing on-going implementation, they have not yet developed this kind of schedule. However, EPA should keep in mind that Ecology does not place impaired waters into Category 4B unless a program in place is being actively implemented and has been implemented for enough time that we believe it will achieve compliance with water quality standards. We do not place any impaired waters into Category 4B based solely on a plan or even, for example, when a program is funded but not enough implementation has occurred. Administrators of these programs value placement of waters into Category 4B and understand that Ecology expects them to have made measurable progress each time we produce a new water quality assessment. We would also point out that EPA has had the Category 4B justifications for several months without requesting this new level of detail to justify placement into Category 4B. If this new level of detail is going to be required by EPA for approval purposes, we would appreciate knowing it upfront for the next listing cycle. This will allow us to build it into the requirements to get into 4B, and provide adequate time to work with entities of these programs to obtain the additional information.</i></p>
<p>USEPA -4: Thank you for providing EPA with a preliminary draft crosswalk for the waterbody resegmentation to the NHD system. EPA reviewed the crosswalk and requests that for each listing that was deactivated and either split or rolled up into another listing, that this change be reflected in the remarks of the active listing. While this information has been captured for some of the changes, it is not consistently documented in all cases.</p>	<p><i>Ecology will provide a crosswalk of listings that were deactivated due to the transition to the NHD system and if feasible will capture this information in active remarks within the database. Ecology recognizes that this information is helpful for TMDL tracking of older listings.</i></p>

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<p>USEPA -5: EPA supports Ecology's use of macroinvertebrate assemblage data in 303(d) listing. The bioassessment listings in Ecology's draft 303(d) list are based on either the multivariate River Invertebrate Prediction and Classification System {RIVPACS} score or the multi-metric Benthic Index of Biotic Integrity {B-IBI} score. Both IBI and RIVPACS have undergone extensive scientific review, and this type of data is used across the world to assess aquatic resources {Rankin and Yoder, 1990; Davis and Simon, 1995.}</p>	<p><i>Comment noted.</i></p>
<p>USEPA -6: Ecology's Policy 1-11 (July 2012 version) provides a brief explanation of the assignment of thresholds for categories 1 through 5 in the Bioassessment portion of the chapter titled "Specific Submittal and Basis for Assessment Decisions." A waterbody segment will be placed in Category 1 {not impaired} when the RIVPACS score from the two most recent years of available macroinvertebrate assemblage data are equal to or greater than 0.86, or a B-IB I score indicates no biological impairments. A waterbody segment will be placed in Category 5 {impaired} when the RIVPACS score calculated from the two most recent years of available macroinvertebrate assemblage data results in a score less than 0.73, or a B-IB I score indicates a level of degradation such that the uses in the water body are impaired. EPA does not recommend this approach for several reasons. First, a listing methodology premised on such a delta in the bioassessment scores will leave some sites in an indeterminate state- neither impaired nor unimpaired. This disparity could cause some confusion as it could appear that a waterbody could be considered to be not meeting designated uses, yet not be considered impaired. EPA recommends that Ecology bolster the rationale for establishing a range between the threshold for impairment and nonimpairment.</p>	<p><i>Ecology has provided a rationale for how bioassessment data is used for listing purposes and in particular how the B-IBI numeric thresholds were established based on scientific and statistical analysis of the data. This is included in the WQA submittal package to EPA. We believe this rationale adequately explains how the numeric thresholds were set and how the different categories will be used. Ecology appreciates EPA's concerns with having a numeric threshold range for Category 2 listings that will leave some sites in an indeterminate state-neither impaired nor unimpaired, but points out that the purpose of Category 2 for Washington waters is to identify a "water of concern" where some data may indicate a concern but not enough to declare that the water is impaired. Category 2 is used for all parameters in this manner, not just for bioassessment analysis. We would also point out that for the last two listing cycles, EPA has accepted Category 2 bioassessment listings as part of Washington's Assessment.</i></p>
<p>USEPA -7: EPA recommends that Ecology use only one B-IBI number to designate whether or not a waterbody is impaired {i.e. for placing waters in Category 5}. This would be based on scores falling below the single numeric threshold for two of the past five years for which data has been collected. Ecology may be able to set a higher numeric goal for waterbodies as a result of the TMDL process based on more watershed specific information and analysis, if appropriate. Forty states use a single number for an index as a threshold for impairment, although some supplement it with either a score from another biological assemblage or an evaluation of habitat (e.g., Indiana). EPA believes variability of B-IBI scores is not an issue when two years of data over the last five years consistently shows a Category 5 condition.</p>	<p><i>Ecology has provided a rationale document for the use of B-IBI data as part of its WQA submittal to EPA that explains how the numeric thresholds were set for Categories 1, 2, and 5 and how they are used. While we appreciate that other states may only use one number to designate whether or not a waterbody is impaired, we have been using Category 2 since 2004 to identify waters where the data indicates some concern but not enough to declare that the water is impaired. This allows further study or monitoring to be undertaken in order to validate impairment.</i></p>

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<p>USEPA -8: One approach is to set impairment thresholds based on comparison to reference conditions. A common approach is to take the distribution of B-IBI scores at reference sites and set an impairment threshold at a certain percentage of those reference sites {typically 10%}.</p>	<p><i>Reference sites of neighboring or similar watersheds are not always available for each location for which bioassessment data exists. Limiting the assessment to the methodology suggested would greatly limit the use of valuable B-IBI data. Nevertheless, this approach can be considered in a future revision to the Assessment Policy 1-11.</i></p>
<p>USEPA -9: The Bioassessment section in Policy 1-11 provides the numeric thresholds for RIVPACS scores but only a narrative description of the B-IB I scores that are to serve as thresholds for determining whether or not a site is impaired (e.g., "poor conditions" or "very poor conditions"). However, in the Remarks section of an individual bioassessment listing, the threshold for Category 5 is mentioned as being~ 27 /RIVPACS score~ 0.73, while Category 1 is~ 38 /RIVPACS score~ 0.86. While Policy 1-11's Bioassessment section (pp. 31-33) provides those RIVPAC scores as thresholds for Categories 1 and 5, no explanation is offered as to how the B-IB I scores were selected as thresholds for those categories. The method for establishing those ranges should be explained since the numeric thresholds determine to which category a site will be assigned.</p>	<p><i>Ecology has provided a rationale for how the B-IBI numeric thresholds were established based on scientific and statistical analysis of the data. This is included in the WQA submittal package to EPA and will also be used as the basis for inclusion in updates to Policy 1-11 after EPA approves this Assessment. Policy 1-11 updates will go through a full public review before being finalized for use in the next Assessment.</i></p>
<p>USEPA -10: Once a numeric threshold has been determined, then a Biological Condition Gradient (BCG) model can be developed to confirm the empirically derived thresholds. The BCG is a conceptual, narrative model that describes how biological attributes of aquatic ecosystems change along a gradient of increasing anthropogenic stress. It provides a framework for understanding current conditions relative to natural, undisturbed conditions.</p>	<p><i>Comment noted. We appreciate the suggestion.</i></p>
<p>USEPA -11: For the next biennial 303(d) List, EPA encourages Ecology to use the new Puget Lowlands B-IBI, which was developed under an EPA grant by King County, who worked with regional partners and experts to improve data analysis tools and standardize benthic macro invertebrate monitoring in the Puget Sound region. This new index is a significant improvement from the older index used in this proposed listing, in that its taxa attribute lists (long-lived, predator, clinger) have been enhanced with new scientific information, and intolerant and tolerant taxa attributes have been updated with empirically-derived data from over 700 sites in the Puget Sound region. Its scoring methodology is also more refined and provides continuous scoring without gaps within each of the ten macro invertebrate groups, so that a score is developed on a scale of 0 to 100, rather than current scale of 10 to 50.</p>	<p><i>Comment noted. We appreciate the suggestion and want to note that Ecology bioassessment staff are working closely with King County and the important work they have undertaken in the Puget Lowlands B-IBI. We fully expect to use the scoring methodology scale of 0 to 100, rather than the current scale of 10 to 50.</i></p>

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<p>USEPA-12: EPA understands that the call for data used to create this proposed list occurred before the revisions to the Puget Lowlands B-IB I were complete, so a policy decision was made to use the old version. However, the Puget Sound Stream Benthos (PSSB) website allows the old data to be calculated on the new scale and vice versa, so a transition to the new system should not be an issue for the next list. EPA hopes Ecology will convert its existing data to the new index for its next list for an "apples to apples" comparison of the sampling results over a five-year period.</p>	<p><i>Comment noted. We appreciate the suggestion.</i></p>
<p>USFS-Colville-1: There is inconsistency in the proposed categories of 4A and 5. We have an approved TMDL for bacteria and temperature, 2006. But some of the new listings are proposed as 4As and some are proposed as 5s. The decision to have them fall under the approved TMDL needs to be consistent. Either they should all be 4As or they should all be 5s.</p>	<p><i>We have worked with regional TMDL staff to identify Category 5 listings that should have gone to Category 4A, and made corrections where needed. A listing cannot go to Category 4A unless the listing has a load allocation associated with the TMDL, so there may be cases where it is not appropriate to move every listing to Category 4A.</i></p>
<p>USFS-PNR-1: We reviewed the proposed listings, changes in map representation, and participated in public workshops. You are to be commended for providing excellent public access to data, and clear summaries and presentations of the assessment and proposed changes.</p>	<p><i>Thank you for your commendation.</i></p>
<p>USFS-PNR-2: We support the change from Public Land Survey (PLS) to National Hydrographic Dataset (NHD) for water body designation; though this change results in an increase in the total area/miles listed for much the same point-collected data, the new system is consistent with national standards for referencing water bodies used in many water and other resource applications.</p>	<p><i>We appreciate your support for the change in how assessment units are delineated in the water quality assessment.</i></p>
<p>USFS-PNR-3: Of the 255 303d proposed listings on the Forest Service, 39 are new listings for temperature (18), toxics (9), dissolved oxygen (7), bacteria (3), and pH (2). We are concerned about increased temperature listings with the change in Char designation and suggest there may be opportunity for coordination to verify or confirm use. With warming climate and drought, the likelihood of water quality exceedances especially in hot dry years, increases. We are also concerned to see 10 lakes listed for toxics (Polychlorinated biphenal and Toxaphene).</p>	<p><i>Comment noted. If USFS were to present data to validate that Char are not present (and have not been present in the past) in a waterbody that has been designated for Char use, a use attainability analysis could be performed to remove that use and replace it with the appropriate most sensitive aquatic life use in that waterbody.</i></p>
<p>USFS-PNR-4: On the Colville National Forest- we would like to know if the new bacteria listings will fall under the current approved TMDL and if so, it would be difficult to address under the current deadline. The additional listings may also increase expectations for sampling and compete with available resources to implement water quality improvement activities. We are interested in exploring other options including a 4B pollution control plan for both bacteria and temperature, and will be in discussion with WDOE Eastern Region staff on these questions.</p>	<p><i>We worked closely with the Colville National Forest staff to consider bacteria data under the currently approved TMDL, and changes were made as appropriate. We look forward to the results that you come up with in consultation with our eastern regional staff on pollution control options for bacteria and temperature that may result in more efficient improvements to water quality. We suggest that you look at some of the 4B Analyses that are on the Assessment website to understand what is involved with a project that qualifies for Category 4B.</i></p>

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<p>USFS-PNR-5: For the Gifford-Pinchot National Forest- we agree the temperatures on the Category 5 streams exceed standards. We are implementing protection strategies and restorative actions in these and other priority areas which are and will continue to contribute to improving water quality conditions.</p>	<p><i>Comment noted. We appreciate your dedication to protecting and improving water quality conditions in the national forest.</i></p>
<p>USFS-PNR-6: Overall, water quality protection on Forest Service land has significantly improved in the last 20 years since implementation of aquatic conservation strategies commonly known as the Northwest Forest Plan, Pacfish and Infish, which amended the national forest land and resource management plans in the state.</p>	<p><i>Comment noted. We appreciate your efforts to improve water quality protection on Forest Service lands.</i></p>
<p>WDOT-1: Overall the data is nicely presented in the Review Tool and there are some user friendly features. However, due to the magnitude of the proposed data, WSDOT was not able to complete a comprehensive review of the WQA. We request that a permanent mechanism, such as the "Listing Comment" feature currently available in the Review Tool, be implemented to address any issues identified after the WQA is approved and being used.</p>	<p><i>We in fact already have this feature in the currently approved Water Quality Assessment. If you open up any listing description in the Current Search Tool, you will see a prompt inviting you to contact us if you find an error or have a question about the specific listing. Your comment or question will be directly submitted to the 303(d) mailbox for consideration and response.</i></p>
<p>WDOT-2: WSDOT understands the need to transition to the NHD mapping system and welcomes the national consistency and the active error correction capability that this national dataset provides. However we have some concerns with the lack of clarity in how it is being rolled out as the new standard. There are permitting ramifications that should be considered and planned for to prevent confusion and unrealistic expectations. WSDOT has been using the Department of Natural Resources (DNR) hydrography data to evaluate permit requirements thus far and there are many areas where the NHD is different. The transition to NHD is a substantive change that warrants some transitional time for permittees.</p>	<p><i>We are unclear about what your concerns are with your perceived lack of clarity in how the NHD will be rolled out as the new segmentation system. We provided detailed explanations to stakeholders about what NHD is and what it represents, both in written documentation and at the public workshops that were held as part of the public review of the Assessment. We also provided a map comparison tool so that one could compare the 2012 approved Assessment with the new NHD segment. Overall, the change to a hydrologic-based segmentation system has received positive feedback and makes intuitive sense to people who work in the water quality field. To be clear, the NHD system will go into effect when EPA approves the 2014 Assessment and candidate 303(d) List. After EPA approval, any permit ramifications will not occur simultaneous with approval, but rather will occur when each permit is up for renewal. It is not clear to us what your concerns are in relation to transitional time needed for permittees. Any requirements built into the permit will be applied to the spatial extent of the new segment, similar to how they were applied to the previous segment system.</i></p>
<p>WDOT-3: WSDOT recommends that Ecology develop a consistent process for managing the permitting issues that arise due to differences between the DNR and NHD layers. To this end, we would welcome the opportunity to work cooperatively with you to further explain these concerns and learn how we can help during this transitional period. In addition, we recommend developing and documenting a standardized methodology and process for making corrections to the NHD layer. We recognize that Anita Stohr is the Washington State NHD Data Steward and we plan to</p>	<p><i>Comment noted. We appreciate your assistance in working with Anita Stohr, the Washington State NHD Data Steward, on consistency issues related to the NHD layers.</i></p>

COMMENTS RECEIVED	ECOLOGY RESPONSE
work closely with her to provide future recommendations regarding the NHD data.	
<p>WDOT-4: WSDOT is concerned that minimum quality assurance/quality control (QA/QC) requirements for data used in WQAs and TMDLs remain undocumented in policy, State statutes, or code. Decisions based on insufficient information may lead to misdirected or unwarranted actions resulting in wasted resources and loss of credibility and public support for water quality management efforts. WSDOT believes that credible data provides the crucial foundation for effective WQA and TMDL programs.</p>	<p><i>We agree that credible data provides the foundation for effective Assessment and TMDL programs, and we would point out that there are state statutes and policies in place to ensure credible data is used. Water Quality Policy 1-11, Chapters 1 and 2, provide requirements and guidance for ensuring credible data and setting minimum QA/QC requirements for data used in the Assessment and TMDLs. Chapter 1 describes how waterbody segments will generally be assessed to determine attainment with Chapter 173-201A-WAC (surface water quality standards) and Chapter 173-204-WAC (sediment management standards) and then placed in various categories based on this determination. Chapter 1 also provides specification for data submittal and data quality necessary for inclusion in the assessment. Chapter 2 was established in September 2006 in accordance with the Water Quality Data Act (WQDA) codified in RCW 90.48.570 through 90.48.590, and describes the Quality Assurance measures, guidance, regulations, and existing policies that help ensure the credibility of data and other information used in agency actions based on the quality of state surface waters.</i></p>
<p>WDOT-5: The proposed WQA increases Category 5 listings by 43%, which will trigger TMDLs and associated implementation actions. Such actions can be costly to implement and the success rate of these actions at improving water quality is anecdotal, especially in complex watersheds. To maximize water quality benefits, WSDOT believes the WQA and TMDL procedures must reduce uncertainty, establish appropriate water quality objectives, and focus improvement efforts on key causes of water quality impairment for each water body.</p>	<p><i>Comment noted. We appreciate and embrace your suggestions to maximize water quality benefits. The Water Quality Assessment fulfills a report to Congress on the status of water quality in the state based on statutory objectives outlined in Clean Water Act sections 303(d) and 305(b). The TMDL program then takes results on the 303(d) List and works in specific watersheds to establish appropriate water quality objectives and focus improvement efforts on key sources of water quality impairment. We appreciate your concerns regarding actions to improve water quality in complex watersheds and encourage you to work with our agency on TMDL developments that will lead to improvements in compromised watersheds. For example, stormwater discharges have been well documented as a significant pollution source, and we appreciate the efforts from your agency and those of others to protect and improve water quality.</i></p>
<p>WDOT-6: Ecology must standardize and improve transparency of WQA and TMDL development methodologies to be consistent with current and applicable EPA quality related regulations, policy, and guidance. This will help ensure that monitoring efforts provide defensible and scientifically credible data of known quality, sufficient quantity, and are appropriate for the intended use.</p>	<p><i>Comment noted. We work closely with EPA to ensure that Assessments and TMDLs that are submitted to EPA for approval meet federal requirements. Given that EPA must take an approval action on both programs, we take that approval as confirmation that we are meeting the appropriate federal regulations, policy and guidance.</i></p>
<p>WDOT-7: Ecology must define and apply appropriate QA/QC levels for data used in the WQA or TMDL development. This will help establish data comparability and representativeness.</p>	<p><i>We agree and note that the agency's Environmental Information Management (EIM) database requires that QA/QC levels for data be identified before the data is entered into EIM. When we pull data for use in the Assessment, we only use data that meets QA requirements outlined in Policy 1-11. Chapter 1, starting at page 9, outlines general minimum requirements for data submission.</i></p>

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	<p><i>Any TMDL study as well as any grant that collects water quality data, must do so under an Ecology-approved Quality Assurance Project Plan (QAPP). We encourage you to review QA requirements outlined in Policy 1-11 so that you fully understand the breadth of data requirements that are in place for the Assessment and TMDL programs.</i></p>
<p>WDOT-8: WSDOT is concerned with the category 5 listings for bioassessment. Current biological sample designs, collection of supplemental data, and statistical methods used to establish impairment thresholds and 303(d) listings are not clearly articulated in policy... State statutes, or code. As a result, the biologic assessment lacks justification for the temporal or spatial sample requirements and locally derived thresholds used to determine impairment. Additionally, numerous (non-pollutant) stressors can affect stream biota; therefore, listing determinations based solely on biologic monitoring may lead to TMDLs that lack scientific support, resulting in ineffective TMDL implementation efforts. To address this, WSDOT believes that Ecology must:</p> <ul style="list-style-type: none"> • Employ a public process to help define the methodology and QA/QC protocols utilized for biologic monitoring efforts, and • Require stressor identification before category 5 listing determinations are made for biological data. 	<p><i>Ecology has provided a rationale for how the Benthic Index of Biotic Integrity (B-IBI) numeric thresholds were established based on scientific and statistical analysis of the data. This is included in the WQA submittal package to EPA and will also be used as the basis for inclusion in updates to Policy 1-11 after EPA approves this Assessment. To make listings using bioassessment data, we relied on EPA 2006 Integrated Report Guidance, which clearly states that if a designated use is not supported and the segment is impaired or threatened, the fact that the specific pollutant is not known does not provide a basis for excluding the segment from Category 5. The guidance goes on to state that those segments must be listed unless the state can demonstrate that no pollutant(s) causes or contribute to the impairment. We point out that water quality standards are comprised of designated uses, criteria, and anti-degradation. Bioassessments provide an indication of whether the designated use of that waterbody is being impaired, therefore a listing based on impairment of the designated use is valid. EPA 2006 Guidance further states that if there is a clear indication that the designated use is impaired, the listing should go into Category 5 even if the pollutant is unknown. The guidance then suggests that prior to establishing a TMDL for such segments the pollutant causing the impairment should be identified. If the assessment of the new data and information demonstrates that the use impairment is not associated with a pollutant and is attributable only to other types of pollution (e.g., flow or habitat alteration) the segment may be placed into Category 4c. EPA suggests that as part of starting the TMDL process for Category 5 bioassessment listings where the pollutant is unknown, a stressor identification be done to determine the pollutant.</i></p> <p><i>We appreciate your suggestion to employ a public process to define the methodology and QA/QC protocols for biologic monitoring. Updates to Policy 1-11 for listing with bioassessment data will be discussed in further detail with stakeholders as we move forward with the next Assessment cycle. One of the first steps will be to update Policy 1-11 which will go through a full public review. We do appreciate concerns that stakeholders have expressed for the different categories based on bioassessments and we are committed to having more stakeholder meetings so that we can ensure a transparent process and clarity with how bioassessment data is used for listing purposes and TMDL development. We will continue to engage stakeholders in how bioassessment listings will be implemented in TMDLs and other Water Quality Programs as we move forward.</i></p>

COMMENTS RECEIVED	ECOLOGY RESPONSE
<p>WFPA-1: We urge the Department of Ecology to place waters that have been determined to be out of compliance with water quality standards into category 4(b), when those waters are on or flowing through lands where forestry activities are regulated by the Washington Forest Practices Act. Category 4(b) is the appropriate category for waters having a cleanup program in place. We believe the Washington State Forest Practices Habitat Conservation Plan and state forest practices rules, along with the regulatory processes, adaptive management program, and multi-agency oversight constitute a pollution control program that qualifies as a Pollution Control Project under the Clean Water Act. Criteria for meeting Category 4B are outlined in the letter.</p>	<p><i>Category 4B listings based on an alternative pollution control program have specific elements that must be met before a waterbody segment can be placed in Category 4B. The mere existence of pollution controls, such as through the Washington State Forest Practices Habitat Conservation Plan and state forest practices rules, are not sufficient to qualify a waterbody segment for this category. To qualify, for example, the program must be waterbody-specific, have reasonable time limits established to correct the problem, have a monitoring component, and must be actively and successfully implemented so that progress can be shown. It may be that there are some local efforts occurring that can meet these elements, but they must be presented for that given waterbody or watershed. For example, the Gifford Pinchot National Forest Restoration Effectiveness Monitoring program efforts on Yellowjacket Creek have been successful in achieving Category 4B status, and efforts have led to improvements that are working towards achievement of compliance with state water quality standards. We suggest that you look at some of the 4B Analyses that are on the Assessment website to understand what is involved with a project that qualifies for Category 4B.</i></p>
<p>WFPA-2: WFPA members strongly urge the Department of Ecology to take this opportunity to fully recognize the water quality improvement efforts and ongoing progress toward full compliance with water quality standards that are in place and successful on state and private forest lands. EPA approved water quality assurances, the federal services approval of the Forest Practices Habitat Conservation Plan, and the documented success of the program is sufficient evidence to put impaired waters on lands subject to the Washington State Forest Practices Act from Category 5 to Category 4(b).</p>	<p><i>We are in support of placing impaired waterbodies on state and private forest lands into Category 4B where the essential qualifying requirements for the category are met. Blanket 4B designations are not an appropriate application of the water quality category. Category 4B designations are to be applied on an individual basis to assessment units resulting from a detailed analysis which verifies that 4B qualifying factors are met for a specific assessment unit. At this time we do not have the information necessary to make additional Category 4B determinations for any impaired waterbodies, such as those on state and private forest lands. We encourage you to continue to communicate with Ecology staff who work on forest water quality protection practices issues in order to explore which pathways would be the most efficient in achieving water quality standards for those forest-land waterbodies that are currently water quality limited.</i></p>
<p>White Salmon-1: The City is actively developing a Department of Ecology (Ecology) Office of Columbia River funded aquifer storage and recovery (ASR) project that would divert water from Buck Creek during the winter/spring, when flows are higher and temperatures lower, and store it in a hydraulically confined aquifer using an existing City well, with the intent of using stored water to help meet peak summer demands. The City is concerned that permitting of this project could be delayed by the proposed Category 5 303(d) listing and possible implementation of a total maximum daily load (TMDL) study. The City requests coordination between the City, Water Quality Program, and</p>	<p><i>In general, a 303(d) listing and subsequent TMDL would not result in delayed or denied authorization of an ASR project unless there were reasons to believe that the ASR project would directly cause or contribute to impairment of designated uses. In this case, we do not believe that the ASR project involving Buck Creek will contribute to water quality standards violations in Buck Creek or the downstream receiving waters (i.e. White Salmon River).</i></p>

COMMENTS RECEIVED	ECOLOGY RESPONSE
<p>OCR to incorporate the ASR project under development and not delay authorization until a TMDL study, if required, is completed. The City believes this request is reasonable given that diversions under the ASR project would be limited to wintertime flows and would result in reduced diversions during critical summer flow periods, benefiting instream flow and temperature conditions in the creek.</p>	
<p>White Salmon-2: Should Ecology's final 303(d) list determine that Buck Creek is indeed a Category 5 impaired surface water due to human causes rather than natural processes, the City then requests that Ecology incorporate the ASR project under development and not delay authorization until a TMDL study is completed. The City believes this request is reasonable given that diversions under the ASR project would be limited to wintertime flows and would results in reduced diversions during critical summer flow periods, benefiting instream flow and temperature conditions in the creek.</p>	<p><i>The proposed category designation for Listing 21594 (lower Buck Creek in WRIA 29) has been changed from category 5 to category 3 in recognition that the temperature data leading to the category 5 designation was collected from a portion of Buck Creek that was inundated due to the Conduit dam and with the removal of the dam the data is not likely to represent current hydrological characteristics in lower Buck Creek.</i></p>
<p>WSID-1: In October of 2011 Condit Dam was breached returning the White Salmon to a free flowing natural river. This has since reintroduced anadromous salmonid species into buck creek. The Irrigation district has a 90 year diversion on buck creek and a dam that does not currently allow for fish passage. We are currently working with the Underwood Conservation District, Yakama Nation, Department of Ecology, Department of Natural Resources, Klickitat County, and the Washington State Recreation and Conservation Office to bring the dam into compliance with fish passage requirements. We request that due to this hydrographic limitation that the reaches remain separate and distinct as is shown in the 2012 spatial extent until such time that the dam if in full fish compliance.</p>	<p><i>We appreciate your comment. All assessment units for streams in the state are being delineated on the basis of the National Hydrography Dataset for this assessment. We do not think that using the old assessment units for Buck Creek in this assessment would result in significant water quality protection benefits and therefore decline to change the assessment unit delineation.</i></p>
<p>WSID-2: We request that the designated use for Buck Creek remain as a 17.5C stream for Salmonid Spawning, Rearing, and Migration until such time as Ecology allows data from October 2011 and onward into the allowed dataset for Buck Creek. The removal of Condit Dam has significantly altered the hydrography, and habitat of the White Salmon River. The White Salmon Irrigation District will not oppose the lowering of stream temperature to 16C for Core Summer Salmonid Habitat during the next assessment so long as data from October 2011 and onward is the only accepted data.</p>	<p><i>The designated uses for Buck Creek (tributary to the lower White Salmon River) are defined in the state water quality standards. The designated uses and associated water quality criteria were defined during a standards update process prior to the initiation of this water quality assessment. Defining a designated use is not within the scope of the water quality assessment and therefore we do not have the ability to assess the data to a different set of criteria.</i></p>
<p>WSID-3: The Irrigation District requests that your remand Buck Creek into two segments and the listing be changed to Category 3. We fully realize and understand the immensity of your undertaking with this project and applaud your efforts. We the district feel the special circumstances with the removal of one of the largest fish passage barriers in history warrants further consideration and review in this matter.</p>	<p><i>We appreciate your comment. We commend you for your contributions towards improving the fishery resources in the White Salmon River watershed. All assessment units for streams in the state are being delineated on the basis of the National Hydrography Dataset for this assessment. We do not think that using the old assessment units for Buck Creek in this assessment would result in significant water quality protection benefits and therefore decline to change the assessment unit delineation.</i></p>

COMMENTS RECEIVED	ECOLOGY RESPONSE
<p>WSID-4: Lastly, we are aware that the Water temperature gauging station WQ-2 was washed away with the breaching of Condit Dam. This puts into question the reliability and quality of all of the data taken from this station. The potential influence from the inundation of Northwestern Lake compromises the Quality Assurance that gives the ecology assessment credence.</p>	<p><i>The proposed category designation for Listing 21594 (lower Buck Creek in WRIA 29) has been changed from category 5 to category 3 in recognition that the temperature data leading to the category 5 designation was collected from a portion of Buck Creek that was inundated due to the Conduit dam and with the removal of the dam the data is not likely to represent current hydrological characteristics in lower Buck Creek.</i></p>