

<p><b>Docket Number:</b> <u>58-0102-1401</u>  <b>Effective Date:</b> <u>2015 Sine die</u>  <b>Rules Title:</b> <u>Water Quality Standards</u>  <b>Agency Contact and Phone:</b> <u>Barry Burnell</u></p>	<p style="text-align: right;"><b>Public Notice</b></p> <p><b>Hearings:</b> [ ] Yes [X] No  <b>Locations and Dates:</b>  <b>Written Comment Deadline:</b> 10/3/14</p>
<p><b>Descriptive Summary of Rule as Initially Proposed:</b> This rulemaking docket has been initiated to update DEQ's Mixing Zone Policy in the Water Quality Standards to take into account modern tools for evaluating mixing, lessons learned from years of implementation, and to provide greater clarity for DEQ and the regulated community.</p> <p>A mixing zone is defined as "an area or volume of the receiving water surrounding or adjacent to a point source discharge where the receiving water, as a result of the discharge, may not meet all applicable water quality criteria or standards" (IDAPA 58.01.02.010.61). Mixing zones are granted to NPDES dischargers to calculate the "reasonable potential to exceed" (RPTE) water quality criteria, which serve as the basis for effluent limits in discharge permits. If a mixing zone is not granted by DEQ, the discharger receives end-of-pipe limits. End-of-pipe limits are much more stringent and typically require facilities to undertake technology upgrades, which can be very resource intensive. Mixing zones are used as a tool to help meet the goals of the Clean Water Act (CWA) while also giving the regulated community reprieve from meeting more stringent, and often very costly, effluent limits. Use of mixing zones is recognition that usually it is not necessary to meet ambient water quality everywhere in the receiving water in order to support beneficial uses.</p> <p>DEQ's current Mixing Zone Policy (IDAPA 58.01.02.060) was adopted over 20 years ago (1991) and contains language that is outdated and/or is no longer relevant. Since the inception of DEQ's Mixing Zone Policy in 1991, numerous updates to Idaho's water quality standards have been made. DEQ recognizes that some parts of the current rule need to be revised in order to meet the intent of related policies. DEQ has also determined from working with dischargers that the current mixing zone rule is ambiguous and does not clearly articulate mixing zone requirements.</p> <p>In recent years, there has been an increasing interest in, and investigation of, the agency's methods for establishing mixing zones. As technology and information availability have expanded and improved, the methods for establishing mixing zones have also changed. Changes to the rule were made to be reflective of current procedures and tools used to appraise the biological, chemical, and physical properties of the receiving water, and the proposed discharge, in order to best establish mixing zones.</p> <p>DEQ recommends that the Board adopt the rule, as presented in the final proposal, as a pending rule with the final effective date coinciding with the adjournment <i>sine die</i> of the First Regular Session of the Sixty-third Idaho Legislature. The rule is subject to review by the Legislature before becoming final and effective.</p>	<p><b>Negotiated Rule Making:</b> [X] Yes [ ] No</p> <p>Meeting sign-in sheets attached</p> <p><b>Costs To the Agency:</b> None anticipated.  <b>Costs To the Regulated Community:</b> There are no known costs associated with implementation of this rule change.</p> <p><b>Relevant Statutes:</b> Sections 39-105 and 39-107, Idaho Code</p> <p><b>Idaho Code § 39-107D Statement:</b> The standards included in this rule are not broader in scope, nor more stringent, than federal regulations and do not regulate an activity not regulated by the federal government.</p> <p><b>Fiscal Impact Statement:</b> The following is a specific description, if applicable, of any negative fiscal impact on the state general fund greater than ten thousand dollars (\$10,000) during the fiscal year: Not applicable.</p>

Temporary Rule	<input type="checkbox"/> Necessary to protect public health, safety or welfare <input type="checkbox"/> Compliance with deadlines in amendments to governing law or federal programs <input type="checkbox"/> Conferring a benefit
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Docket Number: <u>58-0102-1401</u>		
Section	Section Title	Summary of Rule Changes Based on Public Comment
<b>010</b>	<b>Definitions.</b>	<p>This section has been changed. See attached Response to Comments.</p> <p>The definition of the term “Outstanding Resource Water Mixing Zone” has been deleted for consistency with the rest of the proposed rule. This definition language is a repeat of the language that was in deleted Subsection 060.02.</p>
<b>060</b>	<b>Mixing Zone Policy.</b>	This section has been changed. See attached Response to Comments.

MIXING ZONE PROPOSED RULE – Response to Comments

Commenter 1 – Idaho Conservation League  
 Commenter 2 – Clearwater Paper  
 Commenter 3 – U.S. Fish and Wildlife Service  
 Commenter 4 – Idaho Mining Association  
 Commenter 5 – National Council for Air and Stream Improvement

Commenter 6 – J.R. Simplot  
 Commenter 7 – Idaho Association of Commerce and Industry  
 Commenter 8 – National Marine Fisheries Service (NOAA-NMFS)  
 Commenter 9 – U.S. EPA Region 10  
 Commenter 10 – Idaho Cattle Association

Rule Section	Commenter	Comment	Response
010.11	9	<p>EPA agrees with DEQ that there could be unreasonable interference from mixing zones that allow the bioaccumulation of certain pollutants (DEQ 2014).</p> <p>In our previous comments, EPA recommended DEQ explain the basis of the thresholds so stakeholders could provide more informed comments about this rule provision (EPA July 2014). DEQ responded that it “is currently reviewing literature sources and other arenas for more details about what is considered an appropriate threshold for defining bioaccumulation.” EPA recommends that in response to this comment DEQ provide the basis for the selected bioaccumulation pollutant thresholds, and particularly if the thresholds should be revised based on new information.</p>	<p>Thank you.</p> <p>DEQ has revised the definition of “<i>bioaccumulative pollutants</i>” so that a value of 1000 is used for both BAF and BCF. The values of 1000 is based on the Great Lakes Initiative definition of a “<i>Bioaccumulative chemical of concern</i>”(GLI, 40 CFR 132). BCF and BAF are different measures of a compound’s tendency to accumulate in the food chain. While BAF is generally preferred over BCF, BAFs are less easily measured and thus BCFs are more generally available. Therefore we chose to have dual thresholds.</p>
010.55	7	<p>LC50. The toxicant concentration or <b>thermal condition</b> killing fifty percent (50%) of exposed organisms at a specific time of observation (e.g., ninety-six hours (96) hours).</p>	<p>This definition has been deleted from rule as it is no longer used</p>
010.117	1	<p>The definition of ‘zone of initial dilution’ (ZID) provides that the ZID “shall be no larger than necessary” and provides some guidance about the potential maximum size of a ZID, based on limiting exposure to drifting or swimming organisms. However, DEQ has failed to provide any guidance as to how to judge what shall be deemed to be “no larger than necessary.” By what metric will the DEQ judge that a ZID is necessary at all – or that a ZID is some specific size is necessary as compared to a ZID of some smaller size?</p> <p>As discussed further down in our comments, the DEQ should develop a means of judging necessity akin to the demonstration of socioeconomic need for an action per the antidegradation rules.</p>	<p>The size of the ZID will be based on avoiding lethality. A size that would cause duration of exposure to a concentration of a toxin expected to cause lethality would be too large. It should also be recognized that the ZID size and overall mixing zone size are related. See also the response to comments regarding ensuring the size of the mixing zone is no larger than necessary.</p>
060.01	9	<p>EPA is concerned that the first sentence of this section could be misinterpreted. A literal reading of this sentence, without reference to the rest of the rule, implies that DEQ must authorize mixing zones. Other parts of the rule clearly specify circumstances when a mixing zone shall not be authorized, so there is a sound argument against such an interpretation. But, for purposes of clarity and to avoid a potential argument that DEQ has some sort of nondiscretionary duty (“must authorize”) to authorize mixing zones when permits are issued or renewed, EPA recommends the revisions identified below.</p> <p>EPA recommends clarifying the mixing zone authorization language referring to permit renewal and modification. The phrase stating the mixing zone authorization is valid “until permit renewal” could imply that the mixing zone authorization somehow continues independently of the permit, which is not the case. For instance, a permit may expire and not be administratively continued before being renewed. Or, the permit</p>	<p>We have rewritten the language in 060.01 to make it clearer that authorization of a mixing zone must be obtained from DEQ, not to imply that there is a non-discretionary duty to grant authorization.</p> <p>We have also added the phrase “materially modified” to clarify that reauthorization is needed only when modification of a permit would change the parameters of mixing.</p>

		<p>could be terminated or not renewed simply because the applicant never applied for a renewal.</p> <p>Additionally, stating the mixing zone is valid “until permit... modification,” without qualification, may also be problematic. There are cases where a permit modification could change permit conditions that don’t impact the mixing zone. These types of modifications should not be construed as affecting the validity of the mixing zone authorization.</p> <p>EPA recommends the following revisions to address the above points:</p> <p>01. Mixing Zones for Point Source Discharges. A mixing zone, including its size, configuration and location, <del>is must be</del> authorized by the Department <del>each at the</del> time a permit is issued, <del>or renewed, or materially modified</del> and is valid <del>until permit renewal or modification as long as the permit remains in effect.</del></p> <p>EPA continues to recommend including narrative criteria 200.03, “Deleterious Materials.” This addition would address the WQS Handbook’s recommendation that mixing zones be free from substances in concentrations that produce objectionable color, odor, taste, or turbidity (EPA 2012, Section 5.1.1). DEQ states that 200.05 is broad enough to include taste and odor effects (DEQ 2014). However, the definition of “Deleterious Material” (IDAPA 58.01.02.010.20) specifically addresses taste and odor effects, whereas 200.05 does not. Additionally, 200.05 addresses only “floating, suspended, or submerged” matter, which, arguably, would exclude dissolved matter. There are cases where dissolved matter impacts taste and odor.</p> <p>EPA recommends the following revision to address this concern:</p> <p>01. ...Narrative criteria in Subsections <u>200.03 and</u> 200.05 apply within the mixing zone.</p>	<p>We have moved mention of compliance with narrative criteria within the mixing zone to section 060.01.b, where we believe it better fits. We did add reference to our narrative for deleterious materials, 200.03.</p>
060.01.a	1	<p>If a MZ is to be utilized, we favor the provision that states that mixing zones shall not be authorized for a given pollutant when the receiving water does not meet water quality standards for that pollutant. This prohibition on a mixing zone in a 303d waterbody is necessary because such a waterbody has no assimilative capacity to dilute the pollutant concentration back down to a concentration that meets water quality standards. And, as a result, authorizing a mixing zone into a 303d waterbody results in, or contributes to, an exceedance of water quality standards in the receiving water.</p> <p>If an MZ is to be used for a pollutant when the receiving water does not meet water quality standards for that pollutant, that could be allowable provided that discharge is consistent with a TMDL and the germane WLA for the discharger. However, the notion that some other ‘applicable plans or analyses’ should be allowed to justify a mixing zone as a substitute for a TMDL is misplaced. TMDLs go through a defined, rigorous development process that includes public comment and EPA approval. These ‘other’ plans and analyses do not necessarily receive the same scrutiny and effort and thus should not be held up as equal. Because the EPA does not review and approve these “other” plans, it would be inappropriate for the EPA to approve a mixing zone rule that provided that future plans not reviewed and approved by the EPA could be relied upon in this manner.</p>	<p>Thank you. We think this is a very sensible restriction, perhaps self-evident but worth stating in rule.</p> <p>However, we also recognize that most assessments of water quality, as well as most TMDLs and other similar analyses, are done on a rather coarse scale. Thus it is possible that localized assimilative capacity exists at a point of discharge even though the larger assessment unit has been identified as impaired. There have been and likely will likely continue to be situations in which mixing is allowed in a waterbody listed as impaired. Two examples are: 1) where the rules specifically allow an increase, such as Idaho’s allowance for a 0.3°C increase above natural background temperature; and 2) where the listing as impaired and/or TMDL are based on conditions not representative of the location of the discharge such that there is localized assimilative capacity at the site of the discharge and the discharge does cause or contribute to impairment downstream. We have added language requiring a showing of assimilative capacity to make this section more clear.</p> <p>We believe there are many ways to demonstrate that assimilative capacity is available locally, and would expect such for non-conservative parameters such as heat or dissolved oxygen. Regardless of how local assimilative capacity is demonstrated, the analysis will be subject to public comment through the permitting process and would have to show protection of downstream water quality as well.</p>

4	<p>We appreciate DEQ's efforts in reworking this section to allow some flexibility for discharges to impaired waters when a TMDL or other facility-specific analysis occurs. In light of the way DEQ lists all tributaries to impaired water in its 303d list, however, we believe this section could be further clarified. We request that this provision apply only when the receiving water "immediately downstream of the discharge" does not meet the criteria for the pollutant. DEQ should not prohibit mixing zones if a waterbody is impaired many miles upstream or downstream from a discharge.</p> <p>Further, in the event a TMDL or other analysis authorizes a mixing zone, it is not clear from the proposed rule how the application of narrative criteria or compliance with chronic criteria at the edge of the mixing zone could further limit the ability to be granted a mixing zone.</p>	<p>Please see response immediately above.</p> <p>Water quality immediately downstream of a discharge, in the mixing zone, is expected to exceed water quality criteria. Further downstream, once the discharge has mixed, quality may approach but should not exceed water quality criteria. Thus available assimilative capacity is best judged by water quality just before the discharge begins mixing with a receiving stream.</p> <p>In our experience TMDLs do not authorize a mixing zone. This is because of their scale of analysis and lack of local particulars needed to determine the size and configuration of the mixing zone, even though the general location may be known.</p>
7	<p>In light of the Department's practice of listing impaired waters on a watershed basis, this provision should only apply when criteria is not met immediately downstream of the discharge. IACI supports the authorization of a mixing zone when the permitted discharge is consistent with an approved TM DL allocation or other applicable plans as provided in the proposed language in §060.01.a. Such a provision allows the consideration of a mixing zone for situations such as temperature (heat load) where natural conditions may exceed a criteria and/or the contaminant is non-conservative in the aquatic environment.<sup>1</sup> One additional aspect of water quality that needs to be considered for this portion of the rule are certain ubiquitous contaminants that exist from either natural conditions or sources beyond the control of the State of Idaho. Examples include mercury and polychlorinated organics.<sup>2</sup> As changes are made in the factors used to calculate water quality criteria, such as fish consumption rates, the criteria may become more stringent. Because of the nature of such contaminants, the concentrations in water bodies may exceed the new more stringent criteria. This will present new challenges as to how to regulate these trace concentrations in point sources including whether mixing zones will be allowed for such contaminants.</p> <p>To accommodate such situations, IACI recommends the following language for consideration.</p> <p style="padding-left: 40px;">".....however, the Department may authorize a mixing zone when the permitted discharge is consistent with an approved TMDL allocation or other applicable plans or analyses (such as 4b implementation plans, watershed loading analyses, or facility-specific water quality <b>contaminant management plans</b> analyses) that demonstrate that authorizing a mixing zone is consistent with achieving compliance with water quality standards in the receiving water."</p> <p>Subsection 060.01 .a: "provided, however, the Department" to "provided, however, that the Department".</p>	<p>Please see previous 2 responses. We have also modified our proposal in section 060.01.a to make it clear that whatever the form of the analysis it must demonstrate local assimilative capacity exists.</p> <p>We cannot ignore criteria exceedance even if due to distant sources. If water quality criteria are exceeded, or would be exceeded with added discharge then there is insufficient assimilative capacity to accommodate more discharge. The only exception currently is the allowance for an increase in temperature above natural background temperatures. Future such exceptions for other parameters are possible, e.g. dissolved oxygen. While this would take rulemaking, and EPA approval, it does not require modification of the mixing zone rule, nor does such a provision best fit here. Such an exception is unlikely to be justifiable for PCBs or other manmade pollutants. Mercury is difficult as it has both natural and manmade sources.</p> <p>Facility specific contaminant management plans are likely to be among the implementation tools we discuss and possibly endorse in the process of discussing how we will manage attainment with lower, possibly unachievable, criteria that may come out of current human health criteria update. DEQ did include in this section a reference to pollutant management plans.</p>
9	<p>In previous comments, EPA stated concerns regarding the proposed rule language in 060.01 .a. and the types of analyses that would allow authorization for mixing zones for a given pollutant when the receiving water does not meet water quality criteria for that pollutant (EPA July 2014).</p> <p>DEQ responded that it "does not believe that this language will impede the agency from restricting the size of a mixing zone where an established allocation or analysis exists. The intent of this language is to make clear that absent a TMDL, there may be equivalent processes that have already been undertaken and can be used to evaluate the impact of an authorized discharge to the receiving water body." (DEQ 2014)</p> <p>EPA continues to recommend that mixing zones only be authorized in impaired waters where the permitting authority can ensure that the authorized loadings will be in compliance with water quality standards. Given the current rule wording, EPA has concerns that "other applicable plans" are not defined. Important elements of TMDLs and 4b plans, which may provide a basis for mixing zones, includes analysis of loading from all sources and reasonable assurance that reductions from other sources exist. The latter is crucial to ensure that</p>	<p>We agree that mixing zones can be authorized in nominally impaired waters only where it can be shown that water quality standards will be met.</p> <p>Please see previous 3 responses as well.</p>

		<p>other sources are controlled and concentrations will be reduced below the applicable criteria or target, such that a mixing zone could be allowed. We are not aware of mechanisms which provide this assurance other than approved TMDLs and 4b plans, hence we recommend limiting consideration of mixing zones in impaired waters to circumstances where approved TMDLs or 4b plans are in place.</p> <p>In our experience, we have found that some wasteload allocations in TMDLs are set such that mixing zones are not appropriate. For that reason, we further recommend that, even if a TMDL or 4b plan is in place, the application of a mixing zone be evaluated on a case-by-case basis to verify that it is appropriate.</p> <p>EPA acknowledges there may be very limited cases where exceptions occur. We would expect DEQ to provide the specifics of these exceptions, in rule or guidance, thorough requirements for justification and supporting analysis, and an opportunity for public comment.</p>	
060.01.b	1	<p>We do not believe that it is ever appropriate for a portion of a waterbody to be allowed to exceed an acute water quality standard. We do not believe that zones of initial dilution should be authorized if the ZID will violate an acute water quality standard. Doing so would, by definition, cause 'unreasonable interference' with aquatic organisms.</p>	<p>We disagree. The area within a mixing zone is a recognized, authorized impact area. Furthermore, toxics criteria consist of a magnitude duration and frequency. Thus it is possible for a small area, the ZID, to exceed the magnitude (concentration) component of acute criteria without causing a time of exposure for drifting or swimming organisms that would violate acute criteria.</p>
060.01.c	1	<p>It is unclear to us how DEQ will judge whether or not a mixing zone is larger than 'necessary.' How does DEQ judge what is necessary? Will 'necessity' be judged by what is technologically possible, economically possible, or if economically desired by the applicant? What if a smaller mixing zone was technologically and economically feasible – but the operator did not wish to implement needed changes to reduce the size of the mixing zone and they thought that a larger MZ was 'necessary' to accommodate their desire to perpetuate the status quo? Judging what is, or is not, necessary will be inherently arbitrary and subjective if DEQ does not develop some metrics or framework to guide decision--making on these issues.</p> <p>To accomplish this, we recommend that DEQ adopt a socio economic analysis required similar to the test that DEQ utilizes in the antidegradation policy.</p>	<p>To address this concern we have added language to 060.01.c to say that "The Department shall not authorize a mixing zone that is determined to be larger than is necessary considering siting, technological, and managerial options available to the discharger." We do not believe judgment of necessity will be arbitrary. We do believe it will be case-specific, and thus impossible to provide fixed metrics in rule.</p>
	9	<p>EPA continues to recommend that the second sentence regarding "no larger than necessary" be identified as a stand-alone provision since it applies more broadly in the rule and would provide DEQ latitude with guidance development (EPA June, July 2014).</p> <p>DEQ did not incorporate these recommendations because the agency does not believe documentation justifying the mixing zone is necessary in every case. DEQ also responded that the clarification of "no larger than necessary" is more suited to a guidance document for further specifics. (DEQ 2014)</p> <p>EPA understands the appropriateness of providing greater detail in guidance. However, EPA does not agree that documentation justifying the mixing zone may not be necessary in every case. We believe that DEQ should have clear latitude to make a mixing zone determination and require additional justification as appropriate. Even if a discharger is not required to provide the Department with an analysis in every case, DEQ should be able to demonstrate that any mixing zone it authorizes is consistent with the substantive requirements of the mixing zone policy to protect existing and designated uses.</p> <p>The concept of "no larger than necessary," or "as small as practicable" as stated in the EPA Handbook (<a href="http://water.epa.gov/scitech/swguidance/standards/handbook/">http://water.epa.gov/scitech/swguidance/standards/handbook/</a>), serves as a fundamental principle to the mixing zone policy. In particular, as stated in EPA's previous comments, the restrictions described in Subsection 060.0.h. should not be used as default starting points for the mixing zone size. DEQ responded that clarification of the phrase "no larger than necessary" is more suited to a guidance document where it may be more fully described. (DEQ 2014)</p>	<p>See response immediately above.</p> <p>We continue to believe there will be situations – e.g. very small discharges –that do not demand the same level of scrutiny or effort that other discharges do. We will develop further details in guidance based on the rule language adopted.</p> <p>We agree that keeping mixing zones small is a fundamental principal, important to minimizing effects on aquatic resources in the waterbody as a whole.</p>

		<p>EPA remains concerned that the proposed language may not afford DEQ the latitude to adequately implement the rule intent for this provision. In DEQ’s previous mixing zone implementation guidance (DEQ 2009), there were public comments that DEQ should draw upon legally enforceable rule language for requirements, not a guidance document. EPA believes additional clarification in rule would prevent confusion and promote enforceability of the fundamental principle that mixing zones be no larger than necessary.</p> <p>For these reasons, EPA recommends the following language:</p> <p><u>xx. The Department shall determine if a mixing zone is appropriate on a case-by-case basis in accordance with the provisions of this section and shall not authorize a mixing zone that is determined to be larger than is necessary. The Department shall determine if a mixing zone is needed given siting, technological, and managerial options.</u></p>	<p>We have added language to section 060.01.c that captures the suggested second sentence here.</p>
060.01.d	6	<p>The proposed rule at 060.01.d provides language to describe what constitutes "unreasonable interference" with or danger to, beneficial uses. The proposed language is very problematic from the perspective of a regulated entity; it is not clear what technical demonstration must be done to determine whether or not granting a mixing zone causes "unreasonable interference." The comments provided by the Idaho Association of Commerce and Industry discuss in detail the uncertainty that exists with proposed language and offers alternate language for the Department to consider. Simplot supports those comments and recommended rule language.</p>	<p>The proposed revisions provide much more detail on what constitutes unreasonable interference than exists in current rule. We believe this is a big improvement in clarity. We acknowledge that we have not answered every possible question, nor do we think it is possible to do so. Rather we have tried to strike a reasonable compromise between detail and flexibility on what we will look for in gaging unreasonable interference.</p>
	7	<p>The concern from IACI’s membership is identifying what specific information or criteria must be met to satisfy the requirements for a mixing zone; in particular what constitutes “unreasonable interference” as described in §060.01 .d.i-iv.</p>	<p>Please see response immediately above.</p>
	9	<p>In previous comments, EPA recommended adding a separate provision for attraction behavior (EPA June, July 2014). DEQ responded that it “believes that all possible avenues of unreasonable interference that could occur because of attraction to the mixing zone are covered under other provisions of section 060.01 .d unreasonable interferences.” (DEQ 2014)</p> <p>In reviewing section 060.01.d, EPA believes several of the attraction behavior cases have been addressed. However, we continue to have concerns regarding attraction behavior due to organic material that could be a food source for aquatic life or wildlife. The EPA Handbook recommends for wastewater plumes that tend to attract aquatic life the incorporation of measures to reduce the toxicity (e.g., via pretreatment, dilution) to minimize lethality or any irreversible toxic effects on aquatic life (<a href="http://water.epa.gov/scitech/swguidance/standards/handbook/">http://water.epa.gov/scitech/swguidance/standards/handbook/</a>). In particular, the attraction can cause aquatic life and wildlife to hang around longer within a mixing zone and consequently, be exposed to higher concentrations of pollutants for longer periods of time. For example, this situation has been a concern in Alaska near seafood processing plant discharges. EPA continues to recommend DEQ address this type of attraction behavior in the rule provision.</p>	<p>We did not find EPA’s argument on attraction compelling. We know that certain organisms will be attracted to the warmer more productive environs of a mixing zone at times, and thus they may spend longer periods of time exposed to mixing zones conditions. This can be beneficial, benign or harmful. If it is harmful, and only then, we can deal with it through our provisions for unreasonable interference.</p>
	10	<p>The proposed changes to 060.01.d sets out to define “unreasonable interference” with, or danger to, beneficial uses. The proposed language of 060.01.d is concerning to regulated operations, as the language lacks clarity as to what technical demonstration “unreasonable interference” requires. ICA has the same concerns stated in comments submitted by the J.R. Simplot Company and the Idaho Association of Commerce and Industry, and supports and recommends consideration of the language suggested in said comments.</p>	<p>Please see response to commenter 6 in section 060.01.d above, and response immediately below.</p>
060.01.d.i	7	<p>“Causing injury” is ambiguous; “injury” is a very subjective concept.</p> <p>Furthermore, the language in “i” “... any life stage or other aquatic life...”</p>	<p>We expect that conditions within the mixing zone will generally not be the same as conditions that exist outside the mixing zone or prior to a discharge. Within the ‘footprint’ of the mixing zone we expect the benthic community will change or</p>

<p>“...causing injury to attached aquatic life....”</p> <p>implies the rule is not focused on protecting beneficial uses, but avoiding impact to any aquatic species including individual organisms. It is conceivable that any impact to aquatic life could be construed as the basis for limiting or prohibiting a mixing zone.</p> <p>By definition, if the acute criteria are not met at the interface of the diffuser and the receiving water and the chronic criteria are not met until the edge of the mixing zone, then there is the possibility of harm to individual aquatic life (organisms), including attached aquatic life.</p> <p>Furthermore, there are other provisions in the proposed rule that deal with topics in this section. For example:</p> <ul style="list-style-type: none"> <li>• §60.01 .b requires that the acute criteria be met at the edge of the initial dilution zone. This provision reduces the possibility of “injury” to aquatic life (§060.01 .d.i) and lethality (§060.01 .d.iv).</li> <li>• The restrictions in §060.01 .h on the size of the mixing zone and characteristics of a mixing zone (i.e., no shore hugging) reduce the likelihood of the mixing zone blocking or impeding passage of fish.</li> <li>• Other portions of the water quality rules limit thermal changes; §250.02.g and §401.01 limit the temperature increase that can result from a point source.</li> </ul> <p>Without clearly defined and understood terms in the rule, subjectivity will be a significant concern in the implementation as subsection 60.01 0.d.i-vi is intended to define “unreasonable interference.” IACI believes that modifications are needed to i-iv to clarify the “thresholds” for determining if a mixing zone causes “unreasonable interference with, or danger to, beneficial uses” and that the focus is on “beneficial uses” not “effects.” Therefore, we recommend the following language:</p> <ol style="list-style-type: none"> <li>i. <b>Impairment to the integrity of the indigenous aquatic community including interfering with successful spawning or blocking passage of aquatic life. There shall be a zone of passage around the mixing zone which shall not contain pollutant concentrations that exceed the chronic aquatic life values and does not exceed the temperature change at the mixing zone boundary specified in Sections 250.02.g and 401.01. Blocking or impeding passage to any life stage of fish or other aquatic life, preventing successful spawning, egg incubation or rearing, or causing injury to attached aquatic life.</b></li> <li><del>ii. Heat in the discharge that causes thermal shock, lethality or loss of cold water refugia.</del></li> <li>ii Pollutants which may persist in aquatic species within the mixing zone and cause harm to these species based upon exposure, toxicity and concentration of the pollutant.</li> <li><del>iii. Lethality to aquatic life passing through the mixing zone.</del></li> <li><del>iv. Concentrations of pollutants that exceed Maximum Contaminant Levels at drinking water intake structures.</del></li> <li><del>v. Conditions which impede or prohibit recreation in or on the water body. Mixing zones shall not be authorized for E. coli.</del></li> </ol> <p>To complement these proposed language changes, the following definition changes in §010 are recommended:</p> <p><del>Bioaccumulative Pollutants: A compound with a bioaccumulation factor of greater than one thousand (1,000) or a bioconcentration factor of greater than three hundred (300).</del></p> <p>LC50. The toxicant concentration or <b>thermal condition</b> killing fifty percent (50%) of exposed organisms at a specific time of observation (e.g., ninety-six hours (96) hours).</p> <p><b>Lethality. The LC50 or thermal condition killing fifty percent (5 0%) of exposed organisms at a specific time of</b></p>	<p>perhaps even loss of sessile species. Our main concern is on the effects that may extend beyond the edge of an authorized mixing zone and affect the biological community of the water body as a whole (though we will consider within mixing zone effects, e.g. avoiding known spawning beds or attached sensitive species such as snails.) Therefore we do not want to see within the mixing zone concentrations of toxins which because of their magnitude, along with the duration of exposure to drifting or swimming organisms, affect the community outside the mixing zone.</p> <p>While protecting beneficial uses is the imperative we believe for aquatic life protection that includes paying attention to individual species that make up an aquatic community. The loss of individual species may in certain circumstances have a significant impact on the aquatic community as a whole. This may be the case with respect to particular species in the community that are of ecological or economic importance, as well as species more sensitive to added impact due to depressed populations – salmon for example.</p> <p>We have incorporated some of IACI’s language regarding “Impairment to the integrity of the aquatic community” into section 060.01.d.i because DEQ does agree that it is important to look to impacts on the aquatic community as a whole. However, DEQ has not accepted other changes proposed by IACI.</p> <p>First, DEQ cannot focus on just indigenous species, there are several important non-indigenous species purposely introduced and/or managed in Idaho to provide for sport fishing – bass, walleye, perch, crappie, brown trout and even brook trout.</p> <p>Second, DEQ does not accept IACI’s description of the zone of passage. IACI’s language suggests that the focus for temperature and a zone of passage is only on sections 250.02.g (relating to bull trout) and 401.01 (which relates to natural background temperatures that exceed criteria). An adequate zone of passage is not defined only by reference to these two temperature related sections of the WQS.</p> <p>Third, water temperature is fundamental to the support and maintenance of cold water aquatic life common in Idaho, thus it is important to consider the effect of heat in causing unreasonable interference. For this reason, DEQ does not believe it is appropriate to remove the subparagraph that addresses heat in the discharge.</p> <p>Fourth, DEQ believes it is important to specifically address bioaccumulation. EPA guidance is clear that state mixing zone policies should address bioaccumulative pollutants. (EPA Water Quality Standards Handbook, at pages 5-8 and 5-9.) Bioaccumulation of toxins affects both health of aquatic life and human health. Although unclear, it appears that IACI has proposed language to address bioaccumulative pollutants by proposing language regarding pollutants which may persist in aquatic species. DEQ believes it is important to more directly and specifically address bioaccumulative pollutants, and has modified its proposed language to provide greater clarity regarding the circumstances under which</p>
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		<p>observation.</p>	<p>bioaccumulative pollutants in the discharge may affect the size or location of a mixing zone. See discussion in the response to commenter #2 below, this section.</p> <p>The definition of LC50 has been deleted; see section 010.55 above.</p>
060.01.d.ii	7	<p>What constitutes thermal shock? Though “thermal shock” is defined in §010, this definition of thermal shock lacks specificity regarding what constitutes a “rapid” change, or what is considered “disoriented” or “increased susceptibility” to predation or disease. Rapid may be quantifiable but disorientation and increased susceptibility are qualitative. It is also unclear if indirect effects of a temperature change (e.g. reduced dissolved oxygen concentration) are considered in the definition.</p> <p>Likewise “loss of cold water refugia” is problematic for similar reasons. How will cold water refugia be defined? On what basis will “loss” be evaluated? Is any loss “unreasonable?”</p>	<p>Because of differences in communities and seasonal and spatial difference in prevailing temperatures we would have to be quite conservative in specifying fixed quantitative values for temperature change and rate of change. To allow flexibility to deal with this variability we believe it is better to define thermal shock in terms of observed effects of disorientation and increased susceptibility to disease and predation.</p> <p>We will look to recent EPA guidance on cold-water refugia (EPA, 2012, EPA 910-C-12-001). We expect the issue of loss of cold water refugia to most likely come up in the siting of a new discharge or an increase in discharge.</p>
060.01.d.iii	2	<p>The language at 060.01 .d.iii is still confusing and it’s unclear what DEQ is intending by this section and how it will be implemented. Are the “aquatic organisms” referenced in 606.01.d.iii those within a proposed mixing zone? How large is the zone of impact of aquatic organisms for bioaccumulative pollutants to be considered in a mixing zone? For example, is it just within the proposed mixing zone, fifty feet downstream, five hundred feet downstream, or five miles downstream?</p> <p>Clearwater Paper believes that any issues with bioaccumulative pollutants are best addressed through revision to water quality criteria or via 303(d) listings and subsequent TMDL process – not in a mixing zone consideration. Aquatic life that provide a human health risk pathway are almost always transient along a stream segment while mixing zones are a small cross sectional area of a stream segment usually only a few hundred feet. The need for addressing bioaccumulative pollutants in Idaho waters via mixing zone rules is not well defined (so far) in this rulemaking and we urge DEQ to clarify how this section of rule will be implemented.</p> <p>Also noteworthy is that the current HHWQC derivation methodology (while calling for a BAF as an input parameter) actually uses BCF values because EPA lacks pollutant-specific guidance for BAFs. EPA has, quite recently, proposed to use BAFs instead of the old BCFs and to derive those BAFs using EPA’s EPI Suite model (predicated on the work of Arnot and Gobas). This part of EPA’s draft HHWQC update is controversial and is also complicated by the fact that model parameters used by EPA for estimating BAFs (e.g., water temperature, fish lipids, trophic structure, etc.) appear to be more representative of large lake ecosystems than flowing waters.</p> <p>How would BAFs be used to calculate water column criteria as described in this section? Also how would the proposed BAF definition be used in such a calculation? Further, the phrase “where tissue levels in aquatic organisms are higher than the criteria would predict” is confusing. Would such a condition require permittees to undertake detailed fish tissue surveys before obtaining a mixing zone? It appears that this section and the proposed BAF definition either needs to be substantially revised or deleted from the rule.</p>	<p>We will not be monitoring effects of bioaccumulation within an authorized mixing zone; we expect there to be effects within a mixing zone by virtue of allowing criteria to be exceeded in this limited area. For the benthic community we expect there will be some changes, perhaps even loss of sessile species, within the area of the mixing zone. For fish and other mobile species we expect most of their exposure to come from outside the mixing zone, due to the relatively small area of mixing zones. But even if significant exposure comes from time spent within the mixing zone, we are primarily concerned with effect we can observe beyond the edge of the authorized mixing zone.</p> <p>Our mixing zone guidance will provide details on monitoring and assessment of excess bioaccumulation.</p> <p>In the calculation of human health criteria, the threshold in tissue that is protective is divided by a BCF (currently) or BAF (preferred in EPA’s 2000 Human Health Criteria Guidance), to get a water concentration criterion. The BCF or BAFs used are drawn from literature and are average or typical values. How well they characterize bioaccumulation at a particular site can be gauged by measuring fish tissue levels, or by measuring both fish tissue and water column levels and determining the location specific strength of bioaccumulation. If the fish tissue contaminant level or local BAF is greater than the values that went into criteria calculation there is evidence of under-protection of human health. We have changed the wording in 060.01.d.iii to more directly state our concern with identifying situations that would not be protective of human health or aquatic life.</p>
	4	<p>We believe the provisions related to bioaccumulative pollutants are more stringent than the minimum requirements of the Clean Water Act and are, therefore, in violation of the stringency provisions of Idaho law. We are unfamiliar with the proposed definition of bioaccumulative pollutants or the basis for the selection of a bioaccumulation factor and bio concentration factor.</p> <p>DEQ is required to use “best available peer reviewed science and supporting studies” to support its rules [Idaho Code 39-107D(2)]. It is unclear from the record what the scientific basis is for DEQ’s definition or the</p>	<p>The tendency of a compound to increase in concentration in a food chain can be measured as a bio-concentration factor (BCF, excluding dietary exposure) or a bio-accumulation (BAF, including dietary exposure). These factors are used in the calculation of human health criteria to translate from a level of a toxic compound in fish tissue that is unsafe to a concentration in water.</p> <p>While any compound with a BCF or BAF &gt; 1 can be said to be bioaccumulative, we</p>

	<p>proposed factors. In terms of the implementation of the proposed rule, DEQ proposes to ban mixing zones for discharges of bioaccumulative pollutants when “tissue levels in aquatic organisms are higher than applicable water quality criteria would predict.”</p> <p>This provision is difficult to comprehend. Does the applicable water quality criteria predict a particular tissue level? Where in the waterbody would the tissue levels in aquatic life be measured? Whatever this provision means, it is possible that tissue levels in aquatic species could be higher than what the “criteria predicts” or, indeed, may be high enough to trigger a fish consumption warning throughout a water body due to a variety of causes such as air deposition or legacy conditions.</p> <p>In such a situation it seems very burdensome to require a point source to meet very stringent criteria for the pollutant when the point source is not causing the higher tissue levels. Further, if a water body is really impaired for a bioaccumulative pollutant then the provisions for discharges to impaired water should address the situation. We are very concerned that DEQ is proposing a new aquatic species tissue standard in this proposed rule without any science to support it and contrary to various provisions of Idaho Code.</p>	<p>have defined bioaccumulative pollutants based on much higher values so as to focus concern on only those compounds that are highly bioaccumulative.</p> <p>The provision in section 060.01.d.iii applies only to such highly bioaccumulative compounds and for these compounds seeks to identify situations, that is a particular discharge and its receiving water, where bioaccumulation is enhanced, stronger than was used in criteria calculation. In such cases allowing the applicable criteria to be exceeded within the mixing zone might not provide the level of protection intended by the criteria at the edge of the mixing zone. Regardless of the cause of enhanced bioaccumulation, if it is evident then less protection is being provided than is intended by the criterion.</p> <p>DEQ does not agree that Idaho Code section 39-107D is applicable to the mixing zone rule making. 39-107D applies to rules which are broader in scope or more stringent than federal law or regulations, or propose to regulate an activity not regulated by the federal government. The federal government does regulate mixing zones in Water Quality Standards, but only includes the following authorization for states in the federal regulations: “States may, at their discretion, include in their State standards, policies generally affecting their application and implementation, such as mixing zones...” 40 CFR 131.13. This section provides an authorization for mixing zones, but creates no substantive standard or requirement that can be compared to DEQ’s mixing zone rule. Therefore, the mixing zone rule is not broader in scope or more stringent than any federal law or regulation and does not regulate an activity not regulated by the federal government.</p>
5	<p>NCASI is concerned that the proposed language for denying the use of a mixing zone for bioaccumulative pollutants could result in denial of a mixing zone under conditions when a beneficial use may in fact not be jeopardized. Conversely, the proposed language could result in allowance of a mixing zone when a designated use would in fact be jeopardized. There are several reasons for this.</p> <p><b>The definition of a bioaccumulative pollutant is inconsistent with EPA guidance.</b> IDEQ’s proposed rule defines a “<i>bioaccumulative pollutant</i>” as “<i>a compound with a bioaccumulation factor of greater than one thousand (1000) or a bioconcentration factor of greater than three hundred (300).</i>” The basis for these thresholds is not given and is inconsistent with EPA guidance which considers a chemical to be bioaccumulative if its bioconcentration factor (BCF) is greater than or equal to 1000 (USEPA Toxic Substances Control Act). IDEQ should provide some justification for using a different value if bioaccumulation is addressed in this rulemaking.</p> <p><b>Available bioaccumulation factors are unlikely to be representative of Idaho waters.</b> Bioaccumulation of any chemical is a phenomenon specific to each water body and is a function of the numbers and types of organisms present and their relationships in the food web. Ideally, Idaho would develop a set of bioaccumulation factors (BAFs) for each waterbody that could be used to develop water quality criteria (WQC). To our knowledge Idaho has not developed BAFs for state waters. Due to resource constraints most states simply adopt the BAFs (or bioconcentration factors, BCFs, that are currently used in lieu of BAFs) recommended by EPA.</p> <p>EPA recently developed an update to their recommended WQC for the protection of human health (HHWQC), including new BAF values for each chemical. These BAFs were developed using a mathematical model calibrated on data from a specific food web, that of the Great Lakes. The model EPA used was designed as a</p>	<p>In most cases, we do not expect concern for enhanced bioaccumulation to be a reason for denying a mixing zone; it may be a reason for reducing the size of the mixing zone.</p> <p>Please see response above to commenter 9 on section 010.11.</p> <p>We understand that bioaccumulation varies, is water body specific. Yet to calculate a water column criterion such factors are used (see response to commenter 2 above regarding section 060.01.d.iii). We are trying to recognize the location-specific nature of bioaccumulation in the face of criteria using available, location unspecific, factors.</p> <p>We are aware of issues with EPA’s EPI Suite model used to model BAFs for their national human health criteria proposal. Concerns about the modeled BAFs may lead us to stick with BCFs in our human health criteria update.</p> <p>The use of BCFs or BAFs in the context of the mixing zone rule is 1) to define highly</p>

		<p>screening tool to rank the bioaccumulation potential of chemicals. Thus, these proposed recommended BAFs provide at best a gross estimate of bioaccumulation, and as such are not likely to accurately represent any specific water body outside of the Great Lakes. For a variety of reasons related to the unique nature of Great Lakes food webs, it is likely that these BAFs over-predict bioaccumulation potential for most waters.</p> <p><b>The rule provides no guidance on monitoring to assess bioaccumulation.</b> For example, for which organisms would tissue residue-equivalent concentrations have to exceed a water quality criterion? Aquatic life criteria are typically based on toxicity to specific organisms, so these would need to be specified in the rule language or other guidance. For water quality criteria for the protection of human health, species consumed by humans would be of sole interest. These need to be defined. How many organisms would be required to constitute a sample of sufficient size? What percentage of the organisms tested would have to exceed a criterion? The proposed language fails to address any of these important issues and creates a situation where a mixing zone could be allowed or denied based on erroneous, incomplete or inappropriate data.</p>	<p>bioaccumulative compounds; and 2) for a discharge of such compounds, to monitor the location-specific strength of bioaccumulation.</p> <p>We intend to cover details on monitoring of bioaccumulation in a companion guidance document, as we did in our adoption of a fish tissue methylmercury criterion. Our implementation guidance for the methylmercury fish tissue criterion addresses such sampling issues as species to sample, how many individuals, compositing of samples and averaging of results to get a sample representative of a location. We expect to borrow heavily from that existing guidance.</p>
	7	<p>As for the bioaccumulation of pollutants are the “aquatic organisms” referenced those within a proposed mixing zone? Or, is this determination to be made further downstream?</p> <p>The method of determining “bioaccumulation resulting in tissue levels in aquatic organisms higher than the applicable water column criteria would predict” is not clear. Also, the “factors” for bioaccumulation/bioconcentration (“enrichment factor”) vary by organism and water type. Thus, it is not clear how practicable this type of analysis might be.</p>	<p>We are generally concerned with bioaccumulation beyond the mixing zone, but would not expect sampling to be so far from the discharge that other factors – such as an inflowing tributary, change in aquatic community or other sources – would confound assessment of bioaccumulation.</p> <p>Please see responses above as well.</p>
	9	<p>As stated in our previous comments, EPA recommends a thorough description, in rule or guidance, of how DEQ will implement this rule provision. In particular, EPA concerns include: impacts that may extend beyond the boundaries of a given mixing zone with resulting impairment of a water body’s beneficial uses, particularly where stationary species or life stages are present; where uncertainties exist regarding the assimilative capacity of a water body; or where bioaccumulation in the food chain is known to be a problem. EPA’s concerns also extend to wildlife in addition to aquatic life. Further, EPA recommends the guidance address sediment contamination as well as water column toxicity. As noted in our previous comments, the effects of persistent and bioaccumulative pollutants may not be detected for some distance from the point of discharge, well outside the mixing zone, or possibly not in the water column at all.</p>	<p>It is our intent to look beyond the mixing zone boundaries as we expect effects in the mixing zone by virtue of allowing some exceedance of criteria in this zone. We do not intend to monitor sediment as we have no sediment criteria. We will evaluate bioaccumulation based on tissue levels in aquatic life, most likely fish at the top of the aquatic food chain.</p> <p>DEQ will more fully address issues of sampling, measurement of bioaccumulation, and application of section 060.01.d.iii in companion guidance.</p>
060.01.d.iv	1	<p>This section prohibits the authorization of a mixing zone that causes lethality to aquatic life passing through the mixing zone. This appears to conflict with prior sections which authorize ZIDs that violate the chronic WQS for a pollutant. We believe that the protections that this section is attempting to secure should negate the authorization of ZID that violates acute WQSs and as such, the prior section authoring ZIDs should be stricken.</p>	<p>While aquatic criteria may be exceeded in the ZID, we expect the ZID to remain small enough that lethality to drifting or swimming organisms is avoided. See response above under section 010.117.</p>
060.01.f	7	<p>Subsection 060.01.f.: Change “zones can be” to “zones may be”.</p>	<p>OK.</p>
060.01.g	1	<p>This section prohibits overlapping mixing zones for independent activities. We believe that this section should be strengthened by providing some minimum distance between two such mixing zones. This minimum distance between mixing zones will lessen the impact on aquatic life and will also ensure that the mixing zones do not inadvertently overlap as stream channel morphology, flow volume and stream temperature change.</p>	<p>While some distance between mixing zones would possibly lessen the impact on mobile forms of aquatic life, we have no basis for a distance. As mixing zones are sized based on low receiving stream flow and maximum design discharge, conditions infrequently occur, the possibility of overlap is remote and actually would provide for distance between adjacent almost all the time.</p>
060.01.h	1	<p>This section provides that mixing zones shall meet certain restrictions, then states that DEQ may authorize mixing zones that vary from these restrictions per 0.60.01.i. We do not believe that DEQ should be authorized to approve any mixing zones that vary from the restrictions in 0.60.01.h. There needs to be a clear understanding and certainty about the maximum size of a potential mixing zone. Ensuring a maximum limit on size will make DEQ’s job more practical and consistent when DEQ is asked to judge what size mixing zone is ‘necessary’. Further, it may prove very difficult EPA to approve this mixing zone language and for the NMFS and the FWS to</p>	<p>The maximum allowable size of a mixing zone is to use 100% of the receiving waterbody for dilution. We do not expect this to be typical, but it could be justified on a case-by-case basis.</p> <p>The size of a mixing zone is at the discretion of the authorizing entity, i.e. DEQ. We recognize that mixing zones are area of impact to aquatic life and thus our intent is</p>

		<p>undertake ESA consultation if there is no hard limit on mixing zone size.</p> <p>This section limits the size of mixing zones – then it provides that larger mixing zones may be authorized.</p> <p>It is our belief that it is not appropriate to allow mixing zones that are larger than authorized in Section 0.60.01.h.i.1 or Section 0.60.01.h.i.2. To do so intersects the arbitrary judgment of what is ‘necessary’ as described in other portions of our comments.</p> <p>Further, by failing to place a hard cap on the size of a mixing zone, the DEQ is making it virtually impossible for the USFWS and for the NMFS/NOAA to conduct the required ESA consultation on these rules. The Services only recourse will be to issue a jeopardy decision for mixing zones in ESA fish bearing waters because DEQ has failed to limit impacts to a known size.</p>	<p>they be no larger than necessary so as to minimize their effects and maintain uses of the waterbody as a whole. But we also recognize there will be places and pollutants for which a mixing zones greater than 25%, as much as 100%, may be justified.</p> <p>Even if we had a fixed maximum on size, we would not have a fixed maximum on number. When NOAA assessed the effect on listed species of Idaho’s aquatic life toxics criteria they assumed a worse case exposure of water quality at criteria everywhere all the time. A similar approach to mixing is likely even if far from reality.</p>
	9	<p>EPA previously recommended clarification that the restrictions described in Subsection 060.0.h. are not the default starting points for the mixing zone size (EPA June, July 2014). We contended the wording in Subsection 060.01.i. could imply that if a demonstration is not done to justify either a smaller or larger mixing zone, then a mixing zone at the 25% thresholds presented in Subsection 060.01.h. would likely be authorized.</p> <p>It is our understanding in DEQ’s response that the rule does not preclude the agency from determining that a smaller mixing zone may be appropriate or even not necessary “...given site-specific conditions and analyses, including modifications or upgrades to treatment” (DEQ 2014). Further, it is our understanding based on DEQ’s response that the restrictions described in Subsection 060.0.h. will not be used as default starting points for the mixing zone size. EPA continues to recommend DEQ ensure the rule provision clearly allows the agency to expand on details in guidance and fully implement the rule’s intent as described in the <i>Negotiated Rule Summary</i> (DEQ 2014).</p>	<p>Sections 060.01.c. and d. are independent provisions that apply in addition to 060.01.h. The language DEQ has chosen allows the agency the flexibility to adjust the level of analysis required to reflect the size and complexity of the discharge and receiving water at issue. For new mixing zones 25% will likely be the point of departure for further analysis.</p>
060.01.h.i(1)	1	<p>What is the justification for allowing a mixing zone to extend to up to 25% of the width of the stream? Why not 10%?</p> <p>Also, the width of a stream is often dependent on the amount of water in the stream at any particular time. Section 0.60.01.h.i.2 contains provisions that base certain aspects of mixing zones on various low flow conditions. We believe that 0.60.01.h.i should similarly contain some means of determining which stream width DEQ is talking about – does DEQ mean the width of the stream at flood stage or at the width observed when the low flow design discharge condition occurs? In the name of consistency, it would seem reasonable to utilize the stream width that would be present when the low flow design discharge condition is observed.</p>	<p>This was presented during rule negotiations (June 12, 2014 meeting). The foundation is in the 1968 ‘Green Book’ as a width sufficient to allow for fish passage. See the discussion paper DEQ prepared on unreasonable interference: <a href="http://www.deq.idaho.gov/media/1117518/58-0102-1401-discussion-paper1-0614.pdf">http://www.deq.idaho.gov/media/1117518/58-0102-1401-discussion-paper1-0614.pdf</a>.</p> <p>Stream width is that under design conditions. For toxics this is a low flow design condition as specified in section 210.03 of the water quality standards. For other non-toxic pollutants, e.g. sediment and nutrients, the design conditions may be more typical flows, such as annual or seasonal mean flow. Never would we look at flood flows as design conditions for a mixing zone.</p>
060.01.h.i(2)	1	<p>What is the justification for allowing a mixing zone to include to up to 25% of the “low flow design discharge condition” of the stream flow? Why not 10%?</p>	<p>Flow and width are linked. See response immediately above.</p>
	7	<p>Subsection 060.01 .h.i.(2).: Change to “The mixing zone shall not include more than twenty-five percent (25%) of the <b>design low flow downstream of the effluent, as defined by the applicable</b> low flow design discharge conditions set forth in Subsection 210.03.b. of these rules.”</p>	<p>Downstream does not work as it includes the flow of the discharge; the discharge provides no dilution of itself.</p>
060.01.h.ii	1	<p>We do not believe that mixing zones should be allowed in ‘nonflowing waters’ as this is likely to result in a relatively stationary zone in which the WQS is violated. Aquatic organisms may inadvertently spend too much time in this stationary mixing zone and be exposed to pollutants for periods of time that ultimately prove harmful to the organism. Mixing Zones (with and without ZIDs) in nonflowing waters also have the potential to settle or hug the bottom of the nonflowing waterbody. In such circumstances, the lack of flow or current could result in a stagnant area with elevated pollutant concentration blanketing the bottom of the waterbody and</p>	<p>We recognize that mixing zones in non-flowing waters are, generally speaking, stationary; so is the mixing zone in a flowing water body. The important difference is that in non-flowing waters the receiving water provides little or no kinetic energy to promote mixing, thus mixing occurs more slowly.</p> <p>Whether a discharge plume attaches to the bottom depends mainly on depth of</p>

		<p>causing impairment to relatively stationary life forms – such as plants, mussels and crawfish. We would argue that a Mixing Zone does not belong in nonflowing water because species may occupy the mixing zone for sufficient time to cause mortality and/or result in a portion of the waterbody that causes unreasonable interference to organisms.</p> <p>This section does not speak to whether or not a ZID would be allowed in a nonflowing water. We would argue that a ZID does not belong in nonflowing water because species may occupy a ZID for sufficient time to cause mortality and/or result in a portion of the waterbody that causes unreasonable interference to organisms.</p>	<p>discharge and buoyancy of the plume.</p> <p>While we considered prohibiting mixing in nonflowing waters, we decided that would be too restrictive, especially given we have several existing discharges to nonflowing waters. We did tighten the restrictions on new discharges to nonflowing waters based on a survey of how other states limit the extent of mixing in such waters.</p>
	9	<p>EPA remains concerned that the “nonflowing waters” provisions only address new discharges (EPA July 2014). In DEQ’s response, the agency stated that “As existing dischargers to non-flowing waters renew permits, the size and necessity of the mixing zone can be re-examined to determine if it complies with the draft Section 060.01 .d” (DEQ 2014). This could be interpreted to mean that there are no longer any numeric size restrictions for mixing zones for existing discharges to nonflowing waters.</p> <p>Therefore, EPA continues to strongly recommend that the proposed size and location restrictions for mixing zones in nonflowing waters apply to all discharges (new and existing), except for the requirement to use diffusers. At a minimum, EPA strongly recommends DEQ grandfather existing dischargers to lakes and reservoirs such that subsequent evaluations of whether mixing zones are appropriate and needed will be done within the existing, not to exceed, size restrictions for mixing zones in such waters.</p> <p>ii. For all new discharges to nonflowing waters <u>authorized after July 1, 2015:</u></p> <p>(1) The size of the mixing zone is not to exceed five percent (5%) of the total open surface area of the water body or one hundred (100) meters from the point of discharge, whichever is smaller;</p> <p>(2) Shore-hugging plumes are not allowed; and</p> <p>iii. <u>For all new discharges to nonflowing waters authorized after July 1, 2015:</u></p> <p>(Diffusers shall be used.</p>	<p>We have added anew paragraph – 060.01.h.iii – to make it expressly clear that existing discharges to nonflowing waters will have to go on meeting the same requirements they do under our existing rule.</p>
060.01.h.ii(1)	1	<p>What is the justification for allowing a mixing zone to occupy 5% of the surface area of the waterbody? What is the justification of to allow the mixing zone to occupy an area up to 100 meters? Why not 1% and 10 meters?</p>	<p>The basis is a survey of how other states limit the extent of mixing in such waters. A range of options were found and a policy choice was made to settle on values that were mid-range. This was presented at the third rulemaking meeting.</p>
060.01.h.ii(3)	1	<p>DEQ should state what the intent of using a diffuser is – this way DEQ can be sure that the diffuser is designed to achieve the desired affect.</p>	<p>The purpose of a diffuser is to promote rapid mixing near the point of discharge. This helps minimize the size of the mixing zone that results with a given dilution rations and is especially important in lentic waters where little kinetic energy is available beyond that due to the discharge.</p>
060.01.h.iii	1	<p>What is the justification for saying a reservoir with a mean detention time of 15 days or greater is considered ‘nonflowing water?’ From a water quality perspective, what is the difference between 15 days and 14 days? Or 10 days?</p>	<p>Consistency with the application of our dissolved oxygen criterion in lakes and reservoirs.</p>
060.01.i.i	1	<p>Language in this section implies that DEQ needs to justify the authorization of a mixing zone that is smaller than the 25% width and volume criteria. These seems backwards to us. The mixing zone should be presumed to be “0” and any increase above this should need to be justified.</p>	<p>This section is included to ensure it is clear that smaller mixing zones may be required based upon other sections of the rule.</p>
060.01.i.ii	1	<p>It is unclear how DEQ will judge when a larger mixing zone, or any mixing zone, is ‘needed.’ As discussed in our comments above, DEQ needs to develop some metrics to differentiate between when a larger mixing zone is ‘needed’ vs merely desired. There is virtually no situation where the size of a mixing zone could not be decreased</p>	<p>We have added language to section 060.01.c that addresses this.</p>

		<p>via the application of additional resources for treatment. How will DEQ determine when a discharger actually 'needs' a larger mixing zone vs the discharger has just decided that they do not want to spend the money that is required to clean up their effluent?</p> <p>Also, as discussed above, these provisions authorizing larger mixing zones will make it very challenging EPA to approve this language and for the Services to conduct ESA consultation on these rules.</p>	
060.01.j.ii	9	<p>EPA appreciates the addition of "other aquatic life" to the rule language and strongly supports DEQ plans to provide more information regarding shore-hugging plumes in guidance. However, the potential impacts of shore-hugging plumes are not limited to aquatic life, wildlife can be impacted as well (EPA June, July 2014). Furthermore, in addition to being a source of food and cover for aquatic life, shorelines can provide other features, such as spawning habitat.</p> <p>As mentioned in our previous comments, often, shoreline plumes do not mix as well with receiving water and, therefore, do not dilute as well as plumes located away from the shoreline. Therefore, shore-hugging plumes could result in pockets of poorly mixed effluent along the shoreline, potentially causing adverse impacts to aquatic life and/or human health. For these reasons, shore-hugging plumes can present cases where a mixing zone may need to be very restrictive or prohibited.</p> <p>Therefore, we strongly recommend these considerations be addressed in the rule with additional clarification in guidance, if necessary, to prevent confusion concerning enforceable requirements.</p>	<p>Thank you. We know there are other uses of shoreline areas; our language, choice of words, was not meant to be all inclusive, only to point out the importance of shoreline areas.</p> <p>A shore hugging plume causing interference with a beneficial use can be handled under section 060.01.d dealing with unreasonable interference.</p>
060.02	4	<p>Many of our members currently discharge stormwater pursuant to EPA general permits. Mines are often located in remote areas covering large areas of land. Management of stormwater can often be a challenge and, depending on the severity of the weather, it is often necessary to discharge large volumes of storm water which come into contact with native mineralized materials.</p> <p>Because of the intermittent nature of stormwater events, the EPA storm water permits do not require numeric water quality limits prior to discharge but rather require best management practices. Allowing a mixing zone for storm water discharges makes sense because of their intermittent nature and the fact that such discharges occurs during high flow conditions. We believe the proposed rule should make clear that mixing zones are authorized for stormwater discharges unless DEQ determines in its 401 certification that mixing zones are not authorized because of impacts to beneficial uses.</p>	<p>Stormwater discharged under a general permit would most likely be handled under the proposed section 060.02. An individual stormwater permit, provided the details of the discharge were suitable, would be as any other point source discharge under section 060.01, and mixing would be authorized on a case-by-case basis.</p> <p>If there is insufficient information to specify numeric effluent limits there is likely insufficient information to specify the size, configuration and location of a typical point source mixing zone. In this case section 060.02 would be applied.</p>
	6	<p>The provision for utilization of "points of compliance" as alternatives to mixing zones (see 060.02) is a very workable approach for certain sources while ensuring that beneficial uses are supported. Simplot supports this provision.</p> <p>While 060.02 can apply to stormwater discharges, <b>Simplot also recommends that the rule include a specific provision that allows for a mixing zone for a stormwater discharge as long as the requirements of 060.01 are met.</b></p>	<p>We see no need to specifically call out stormwater, or any other type of point sources. Please see response above.</p>
	7	<p>As stated in earlier comments by IACI members, there should be an explicit provision for allowing a mixing zone for permitted stormwater discharges. This is consistent with IDEQ current practice of certifying that general stormwater permits comply with water quality standards and anti-degradation. As the stormwater program continues to evolve in complexity, there should be a presumption that mixing zones are authorized for stormwater discharges. IACI proposes the following language for such situations:</p> <p><b>(New 02.) A mixing zone for stormwater discharges shall be authorized consistent with subsections 060.01 .h and 060.01 .i unless the Department determines such discharges cause unreasonable interference to beneficial uses.</b></p>	<p>Please see two previous responses.</p>

		Subsection 060.02 03 (Points of Compliance as Alternatives to Mixing Zones). IACI supports the proposed provisions in §060.03. This provision has worked very well, especially with 404 dredge and fill activities.	
	9	<p>Although points of compliance are referred to as alternatives to mixing zones, EPA believes they are functionally the same as mixing zones because they authorize dilution of a discharge in the receiving water and define areas where certain water quality criteria are allowed to be exceeded. Therefore, EPA continues to recommend revisions to ensure consistent implementation and protection of beneficial uses (EPA July 2014).</p> <p>Specifically, EPA recommends DEQ clarify that the points of compliance shall be appropriately located to minimize localized impacts. EPA believes that the narrative criteria in Subsections 200.03 and 200.05, and the considerations for impaired waters at 060.01 .a., should be applicable to the points of compliance concept, in addition to Subsection 060.01.d. Where appropriate, DEQ could further clarify the implementation of points of compliance in guidance.</p> <p><b>02. Points of Compliance as Alternatives to Mixing Zones.</b> Specification of mixing zones for some 404 dredge and fill activities, stormwater, and nonpoint source discharges may not be practicable due to the generally intermittent and diffuse nature <u>of these discharges</u>. Rather, the Department may <u>allow limited dilution of the discharge by</u> establishing points for monitoring compliance with ambient water quality criteria. These alternatives to a mixing zone are still subject to requirements outlined in Subsections <u>060.01 .a</u>, 060.01 .d, <u>200.03 and 200.05, and shall be appropriately located to the discharge so as to minimize localized impacts.</u></p>	<p>We see ‘authorizing dilution’ , as implied in section 060.02, and specifying the size, configuration and location of a mixing zone, as in section 060.01, as two quite different exercises, with different data needs and different complexity. Points of compliance are a practical means to handle the mixing that occurs with the great many discharges we look at that are intermittent, short -term, or diffuse in nature.</p> <p>We have incorporated EPA’s suggestions except for the statement on minimizing localized impacts. Points of compliance will be driven by the location and nature of the activity.</p>
	10	<p>First, we feel the provision in 060.02, allowing “points of compliance” as alternatives to mixing zones, is a reasonable approach. However, as 060.02 has the potential to apply to storm water discharge, ICA recommends a specific provision allowing for storm water discharge mixing zones only if the requirements in 060.01 have been met.</p>	Thank you. See response above to commenter #4 above in this section.
General Comments	1	<p>ICL does not support the use of mixing zones. We do not believe that it is appropriate to authorize the violation of water quality standards in portions of a water body. If a discharger wishes to discharge at levels that will violate current water quality standards, we believe that the discharger should seek a variance or a site---specific water quality standard. If the discharger is able to demonstrate that the receiving water and the designated uses can be protected by the application of a site-specific criteria less stringent than the regular water quality standard then they should proceed in this manner, rather than operate under a ‘mixing zone’ construct. If they are not able to successfully apply for and receive a variance or a site-specific criteria for the area in which they discharge, they should comply with existing water quality standards (WQS).</p> <p>Additionally, we believe that it is never appropriate for the <i>acute</i> water quality standards to be violated within a waterbody. With regard to this proposed rule language, we do not believe that the violation of acute WQS should be allowed in a zone of initial dilution.</p> <p>It is not clear how Idaho’s antidegradation rules and this proposed mixing zone rule will work together. DEQ may want to consider adding a section that discusses the use of mixing zones in Tier 2 water.</p> <p>DEQ’s antidegradation policy adheres to a ‘waterbody by waterbody’ approach. However, DEQ’s mixing zone policy seeks to take advantage of a ‘pollutant by pollutant’ approach. To this end, mixing zones should not be authorized for any pollutants when a receiving water is not in compliance for any pollutant; even if the pollutant in the discharge is different than the pollutant that is exceeding water quality criteria. This inconsistency needs to be resolved to ensure constant water quality protection.</p>	<p>Thank you for your comment. We do not see it is necessary that every bit of a waterbody need meet criteria to support the uses for which the water body is designated. It is also impractical to develop site-specific criteria, or a variance, for the small area of a water body allowed to exceed criteria with an authorized mixing zone.</p> <p>Tier 2 waters will have assimilative capacity, thus room for mixing. The effect on degrading water quality by allowing a new mixing zone, or increasing the size of an existing mixing zone, would need to be evaluated under the antidegradation rules.</p>
	3	As currently written, the proposed rule does not provide adequate protections to ESA-listed species/critical habitat such that ESA compliance could be assured through subsequent S7 consultation with the EPA.	We disagree. We believe the rule provides us a basis for protecting ESA-listed species and other sensitive species via the provisions for avoiding unreasonable

	<p>According to the IDEQ<sup>2</sup>, specific ESA language was removed because, "...protecting aquatic life beneficial uses inherently includes all aquatic organisms, including those listed as endangered or threatened." While we applaud IDEQ's desire to protect cold water aquatic life (CWAL) beneficial uses, the current proposed language falls short in fully meeting the intent of the ESA through enhanced conservation efforts for species at risk of extinction. The CWAL beneficial use places emphasis on ensuring water quality is appropriate for the protection and maintenance of a viable aquatic life <i>community</i> for cold water species; it is not necessarily designed to provide specific protections to individual organisms as required by the ESA. The intent of the ESA is to ensure populations do not go extinct and that protections are afforded to individual organisms via section 7 when an action may adversely affect its ability to feed, reproduce, or seek shelter. Thus, aquatic organisms in general may be adequately protected, but specific conservation measures aimed at protecting ESA-listed individuals are lacking.</p> <p>It is our understanding that the IDEQ removed specific ESA language because the agency contends it does not have the authority nor the expertise to perform the type of effects analyses considered necessary to document ESA compliance. We believe a clear understanding of the value and importance of such analyses is necessary for all partners engaged in informing, implementing, and reviewing NPDES permits and the associated water quality criteria they are meant to address. We also believe it is important to address these issues as early in the process as possible. Thus, whether acting in concert with EPA or as an agency ultimately responsible for the NPDES program, IDEQ should clarify its role in ensuring ESA compliance through the drafting of proposed water quality rules. Draft rules authorizing specific mixing zone criteria must reflect a clear understanding of ESA obligations.</p> <p>Additional clarification in the rule would prevent confusion regarding ESA requirements and would support details in a subsequent guidance document. Recognizing that sometimes regulatory language lacks specificity in deference to providing flexibility, the lack of clarity in the proposed mixing zone rule elevates the level of concern for our agency which is relying on rules such as this to provide protection to resources of mutual interest. The ambiguity in the following language does not provide a high level of confidence that effects to species listed under the ESA will be adequately addressed: 1) "exceeding" chronic and acute water quality criteria (by how much and under what circumstances?); 2) the size of mixing zones will be no larger "than necessary"; and 3) "unreasonable" interference with, or danger to, beneficial uses, (how will necessary and unreasonable be determined?). Another example of language that can be (mis)interpreted addresses the potential automatic authorization for using 25% of the critical streamflow volume for dilution, although the IDEQ later indicates that it is not its intent to automatically authorize the use of 25% of the critical streamflow volume for dilution. Such ambiguity leads to a decreased ability to appropriately analyze potential effects of mixing zones on listed species/critical habitat.</p> <p>Where possible, it would be prudent for the rule to identify specific conservation language, measures, or strategies that would address the enhanced protections afforded listed species/critical habitat under the ESA. If specific conservation measures or areas of important resource overlap cannot be meaningfully identified at this time, a potential solution would be a binding strategy that identifies procedural steps involving the Service that would be undertaken prior to approval of a specific mixing zone request. Establishing a coordination process would maximize the potential to ensure all appropriate conservation measures have been adequately considered relative to ESA-listed species when reviewing mixing zone requests. And although a strategy/coordination process does not in and of itself enhance protections for listed species, such language included in the rule may provide sufficient confidence that the needs of individuals and habitat would have an opportunity to be appropriately addressed, and that any ensuing section 7 consultation on adopting the rule may proceed more expeditiously.</p> <p>In the absence of clear ESA-related conservation measures or a meaningful ESA-related strategy in the rule,</p>	<p>interference. We would not consider an aquatic community to be protected if a keystone species such as salmon, steelhead or bull trout were not also protected.</p>
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	<p>we recommend a provision be included that recognizes EPA's oversight of individual permits where ESA issues ("may affect" situations) are anticipated. EPA oversight in these situations ensures a separate section 7 consultation process will be initiated where specific conservation measures could be outlined. The Service is seeking certainty that ESA concerns will be appropriately addressed. Absent that certainty, subsequent consultations with EPA may be protracted and difficult.</p>	
4	<p>We are concerned that the costs to permittees to fund the studies necessary to demonstrate compliance with the new concepts in the proposed rule will be significant. Although DEQ asserts in its notice that the proposed rule is simply a clarification of the existing rule, it is clear the proposed rule will make it more difficult to obtain a mixing zone in the future. This will impose significant treatment costs on permittees in order to achieve water quality criteria prior to discharge.</p> <p>It appears that many of the new provisions in the proposed rule noted above exceed the requirements of the Clean Water Act and are, therefore, inconsistent with Idaho's stringency provisions at Idaho Code Section 39-3601. We ask that DEQ's Deputy Attorney General specifically review this issue to determine whether the proposed rule is, in fact, compliant with the statutory stringency provision.</p> <p>Finally, it appears that many of the provisions in the proposed rule were designed to avoid jeopardy or destruction of critical habitat for aquatic species protected under the Endangered Species Act. Assuming the validity of such an approach under the ESA in this proposed rule, it is likely that only a small percentage of NPDES permits discharge to waters containing ESA protected species. The proposed rule, however, is broadly worded to prohibit impacts to all aquatic species. We are very concerned that the proposed rule's focus is no longer based on protection of beneficial uses in the receiving water but rather on individual biota in the receiving water. Such an approach basically defeats the purpose of a mixing zone.</p>	<p>We agree the proposed rule could create the need for more data in the permitting process. We do not agree that the proposed rule would make it less likely for a discharger to be granted a mixing zone or that it will necessarily demand any more treatment than at present. With the exception of impaired waters – and this is currently the situation – we most definitely do not see that permittees will have to achieve water quality criteria prior to discharge.</p> <p>The Clean Water Act is silent about mixing zones. Please see response to commenter #4 above, in section 060.01.d.iii.</p> <p>It is true that we have tried to craft a rule that will allow consideration of ESA-listed species, as part of the aquatic community. We do not see how we could say we are protecting the beneficial use of aquatic life without protecting key species whether ESA-listed or not. Protecting particular species does not necessarily prevent a mixing zone, though it may affect its size, configuration and location.</p>
7	<p>Subsection 010.54. (now 010.55.): Change "LC-50" to "LC50" to be consistent with its use in 58.01 .02</p>	<p>This definition has been deleted as it is not used in the rule.</p>
8	<p>As written, the proposed rule language does not provide assurance that ESA-listed species and their designated critical habitats (hereinafter collectively referred to as ESA-listed resources) will be adequately protected. Language addressing ESA-listed resources was included in the first draft negotiated rule, was modified in subsequent drafts, and has since been omitted from the proposed rule language.</p> <p>While it is appropriate to conclude salmon and steelhead species are components of the cold water aquatic life (CWAL) beneficial use, it is not correct to conclude that protecting for the general CWAL beneficial use ensures protection of ESA-listed resources. This logic is flawed for two reasons. First, species that are Federally-recognized as endangered or threatened are at critically low population levels and are unable to adapt as readily to human impacts in comparison to species whose populations are functioning appropriately. The ESA came to fruition because Congress recognized that without the added protections afforded to endangered or threatened species (including the ecosystems upon which they depend) many of those species would become extinct. Second, the CWAL beneficial use places emphasis on ensuring water quality is appropriate for the protection and maintenance of a viable aquatic life <i>community</i> for cold water species. Arguably, it is not designed to provide specific protections to species or individuals of a particular species where such protections are warranted. The intent of the ESA is to ensure populations do not go extinct, and it also specifically affords protections to individuals. This is supported by review of specific water quality criteria for the protection of ESA-listed species. Examples include the aquatic life toxics criteria (NMFS Tracking Number 2000-1484) and the bull trout temperature criteria in Idaho.</p> <p>NMFS is not asking IDEQ to determine whether actions jeopardize a species or adversely modify their critical habitat; however, it is critical for IDEQ to have the authority and expertise to ensure impacts to ESA-listed resources are minimized as much as possible when authorizing mixing zones. As we review this rule change,</p>	<p>We do not believe any rule language could in itself assure adequate protection of ESA-listed species and their designated habitat. Implementation of any rule is where such assurances will come from. Largely this is due to the great variety of settings in which a rule must be applied. We firmly believe the rule as we have proposed gives DEQ the latitude and flexibility it needs to assure protection of ESA-listed species as we authorize mixing. It is our intent to assure adequate protection.</p>

	<p>IDEQ is actively seeking NPDES primacy. When the state achieves primacy, NMFS will no longer consult on individual NPDES permits; therefore, to facilitate a smooth transition, IDEQ must be able to ensure adequate protection of ESA-listed resources.</p> <p>The proposed rule language could be broadly interpreted to mean that no unreasonable interference to the CWAL beneficial use is occurring as long as the authorized mixing zone is configured such that the waterbody <i>as a whole</i> is providing adequate spawning, rearing, and egg incubation, and the mixing zone allows for some level of passage. There is no certainty that mixing zone requests in areas containing ESA-listed resources will be reviewed with a higher level of scrutiny.</p> <p>At a minimum, the rule should afford the IDEQ an irrefutable mechanism to ensure adverse effects to ESA-listed resources are minimized. To provide clarity for the section 7 consultation process that will ultimately be undertaken by the EPA, NMFS strongly advises the following language be incorporated into the rule:</p> <p style="text-align: center;"><u><a href="#">060.01.XX. Mixing zones shall be designed to avoid or minimize adverse effects to species and critical habitat listed under the Endangered Species Act.</a></u></p> <p>As previously stated, there is potential to broadly interpret the proposed language during implementation. Although not an exhaustive list, NMFS is unclear how the following aspects of the rule will be implemented<sup>2</sup>: (1) Determination of whether a mixing zone is larger than necessary; (2) selection of a threshold that is considered to impede fish passage; (3) determination of what it means to prevent successful spawning, egg incubation, or rearing; and (4) evaluation of lethality to aquatic life passing through the mixing zone (e.g., it is unclear whether the concept of delayed, indirect mortality would be considered). In addition, the rule appears to set up a process that would allow for the automatic authorization for using 25% of the critical streamflow volume for dilution without a critical review.</p> <p>Where there is uncertainty in our evaluation of how and to what extent a particular action may affect a species, NMFS employs the precautionary principle. Legislative history and court decisions indicate that NMFS generally should resolve uncertainty in favor of an ESA-listed species. This is often referred to as "giving the species the benefit of the doubt" or as "institutionalized caution." Because there is uncertainty and the potential to interpret the rule broadly, it is important to develop and finalize an implementation guidance document that can be referenced during the consultation process. For example, the IDEQ<sup>3</sup> indicated that it is not their intent to automatically authorize the use of 25% of the critical streamflow volume for dilution. If this intent was clearly communicated in the guidance, then NMFS would have greater certainty automatic mixing zone approvals using this level of dilution would be unlikely. Furthermore, this guidance should have adequate regulatory basis to be consistently applied in determining mixing zones.</p> <p>In closing, NMFS would like to point out that we have not been alone in making these recommendations to the IDEQ throughout the negotiated rulemaking process. The EPA has also made similar comments with respect to ESA-specific language and the timing of guidance document development. Under Section 7(a) of the ESA, the EPA has responsibilities to conserve ESA-listed species and to ensure their actions are not likely to jeopardize the continued existence of ESA-listed species or result in the destruction or adverse modification of their habitats. In order to accomplish these goals, EPA has a responsibility to ensure programs or rules that they approve are designed not only to avoid or minimize adverse effects, but also to design programs that emphasize the conservation of ESA-listed species and their critical habitats. Such conservation could promote species recovery and potentially lead to future delisting proposals.</p> <p>programs or rules that they approve are designed not only to avoid or minimize adverse effects, but also to design programs that emphasize the conservation of ESA-listed species and their critical habitats. Such</p>	
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	<p>conservation could promote species recovery and potentially lead to future delisting proposals.</p> <p>NMFS has participated in the negotiated rulemaking process in good-faith to provide early input regarding our concerns about protection of ESA-listed resources. We hope that our recommendations are given meaningful consideration, as they are intended to facilitate the forthcoming consultation.</p>	
9	<p>In previous comments, EPA raised concerns and provided recommendations regarding how the Idaho Mixing Zone Rule may address threatened and endangered species and critical habitat for such species (EPA May, June, July 2014).</p> <p>The proposed rule has removed all references to ESA listed species and critical habitat. DEQ responded that it “believes that protecting aquatic life beneficial uses inherently includes all aquatic organisms, including those listed as endangered or threatened.” Additionally, the agency stated concerns that adding ESA language might suggest that “DEQ is required to perform analysis similar to that done by the Services for Section 7 of the ESA.” The agency noted that “DEQ does not have the authority or the expertise to implement provisions of the ESA” (DEQ 2014).</p> <p>EPA agrees with the general premise that protection of aquatic life beneficial uses includes the protection of all aquatic organisms, such as ESA listed species. However, EPA believes it is important for the rule language to specifically reference protections for ESA listed species to make it clear that DEQ has the authority to ensure those species are protected when authorizing mixing zones. This recommendation is consistent with a number of EPA policy documents, such as EPA’s Technical Support Document for Water Quality-Based Toxics Control, EPA guidance on mixing zones, and the Advance Notice of Proposed Rule Making (ANPRM, EPA 1998), which address the need to assess and ensure mixing zones are limited in a manner that protect ESA listed species.</p> <p>In addition, EPA is not recommending that DEQ revise the rule so that ESA Section 7 federal procedural requirements would be binding on the State. EPA is aware of other states that include reference to specific protections for ESA listed species in their water quality regulations and develop or follow state coordination procedures and processes to implement such provisions.</p> <p>EPA recommends the following rule provision to ensure mixing zones are established in a manner that protects ESA listed species:</p> <p><u><a href="#">060.01.xx. Mixing zones shall be sized, configured and located to avoid or minimize adverse effects to ESA-listed species and critical habitat designated for those species.</a></u></p>	Please see response immediately above.

**MEETING SIGN-IN SHEET**

Meeting Title: NEGOTIATED RULEMAKING

Water Quality Standards, Docket No. 58-0102-1401

Meeting Date and Location: 5/1/14 - Coeur d'Alene, Idaho

Phone participation: AT&T call in number (225)383-8961/participant code 172938

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**MEETING SIGN-IN SHEET**

Meeting Title: NEGOTIATED RULEMAKING

Water Quality Standards, Docket No. 58-0102-1401

Meeting Date and Location: 5/1/14 - Pocatello, Idaho

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# MEETING SIGN-IN SHEET

Meeting Title: **NEGOTIATED RULEMAKING**  
 Water Quality Standards, Docket No. 58-0102-1401  
 Meeting Date and Location: **5/1/14 - Boise, Idaho**  
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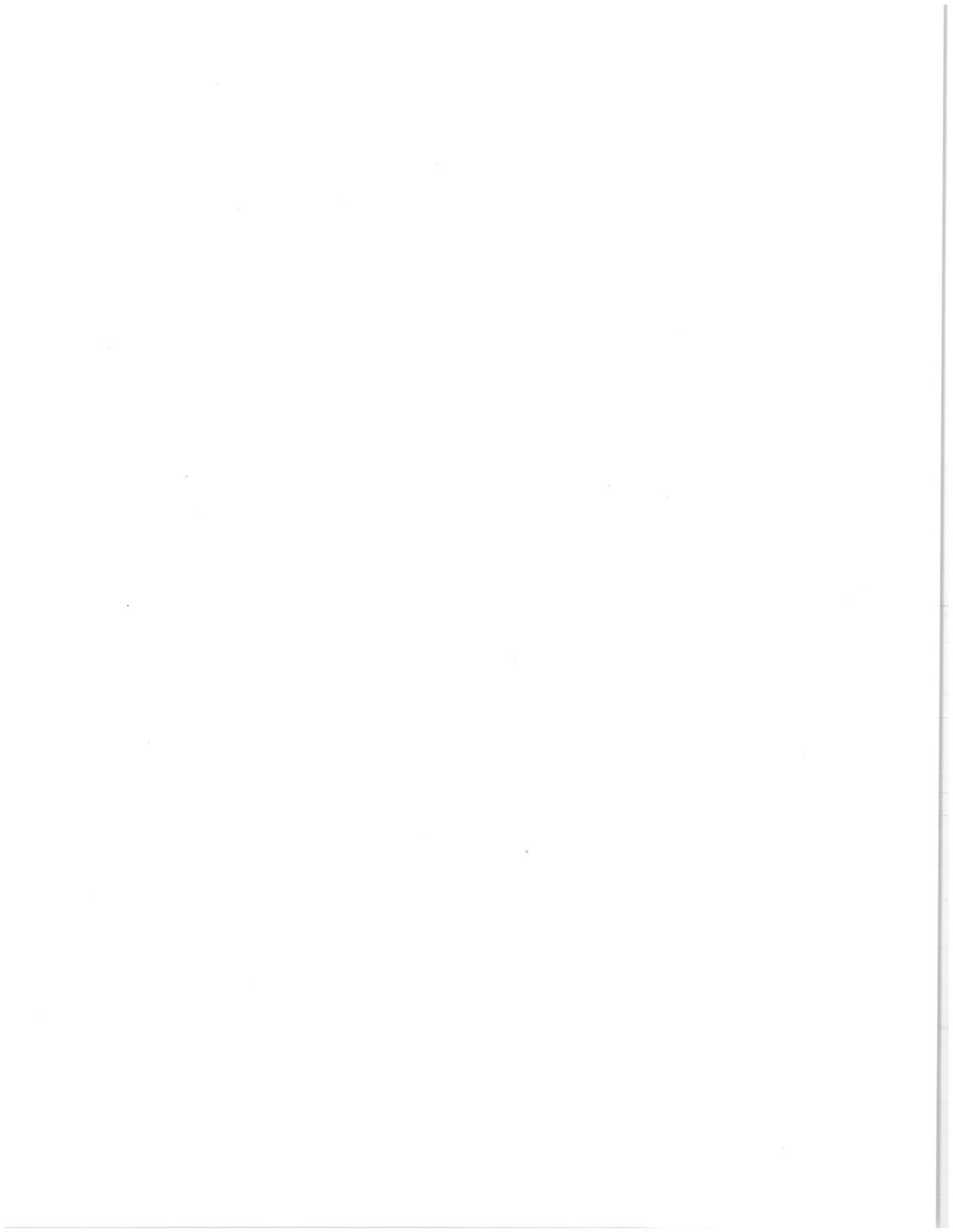
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# MEETING SIGN-IN SHEET

Meeting Title: NEGOTIATED RULEMAKING

Water Quality Standards, Docket No. 58-0102-1401

Meeting Date and Location: 6/12/14 - Coeur d'Alene, Idaho

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**MEETING SIGN-IN SHEET**

Meeting Title: NEGOTIATED RULEMAKING

Water Quality Standards, Docket No. 58-0102-1401

Meeting Date and Location: 6/12/14 - Pocatello, Idaho

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# MEETING SIGN-IN SHEET

**Meeting Title: NEGOTIATED RULEMAKING**  
**Water Quality Standards, Docket No. 58-0102-1401**  
**Meeting Date and Location: 6/12/14 – Boise, Idaho.**  
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Boise 6/12/14

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**MEETING SIGN-IN SHEET**

Meeting Title: NEGOTIATED RULEMAKING

Water Quality Standards, Docket No. 58-0102-1401

Meeting Date and Location: 7/10/14 -- Coeur d'Alene, Idaho

Phone participation: AT&T call in number (225)383-8961/participant code 328328

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**MEETING SIGN-IN SHEET**

Meeting Title: NEGOTIATED RULEMAKING

Water Quality Standards, Docket No. 58-0102-1401 - Mixing Zones

Meeting Date and Location: 7/10/14 - Pocatello, Idaho

Phone participation: AT&T call in number (225)383-8961/participant code 328328

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# MEETING SIGN-IN SHEET

Meeting Title: **NEGOTIATED RULEMAKING**  
 Water Quality Standards, Docket No. 58-0102-1401  
 Meeting Date and Location: **7/10/14 – Boise, Idaho**  
 Phone participation: **AT&T call in number (225)383-8961/host code 410227(participant code 328328)**

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