

## Washington State Department of Ecology Sediment Management Standards Rule Review/Comment Form

Please submit all comments to [RuleUpdate@ecy.wa.gov](mailto:RuleUpdate@ecy.wa.gov)

<b>Reviewer Name:</b>		Chris Waldron, PIONEER Technologies Corporation, 360.570.1700, <a href="mailto:waldronc@uspioneer.com">waldronc@uspioneer.com</a>
<b>Sections of Document Reviewed:</b>		SMS sections 173-204-200, -500 – 590
<b>Document Version/Date:</b>		Draft Revisions SMS – October 2011 original draft – November 2011 updated draft includes freshwater standards
<b>Page Number</b>	<b>Line Number</b>	<b>Comment</b>
General		This document reflects the majority of the discussions during the SMS Advisory Committee Process. There are still areas where the wording needs to be tightened up a bit (e.g., definition of site unit and its use throughout the document, issues associated with sediment recovery zones). If you have any questions regarding my comments, please contact me. Thank you for the opportunity to participate on the SMS Advisory Committee and to review and comment on the draft rule language.
General		Consider including a section on Model Remedies (see WAC 173-340-390). I recommend including the following Model Remedies as focal points of the SMS: <ol style="list-style-type: none"> <li>1.) Dredging</li> <li>2.) Capping</li> <li>3.) Enhanced Natural Recovery</li> </ol> The Model Remedies section should discuss the requirements/expectations for the Remedial Investigation/Feasibility Study/Cleanup (RI/FS/Cleanup) process necessary to implement the Model Remedies. Model Remedies should be used to expedite the RI/FS/Cleanup process.
General		Regional Background and Sediment Cleanup Units. These concepts are new additions to the Draft SMS Rule language and were introduced during the SMS Advisory Committee Process to help expedite cleanups and settle liability for sediment sites without the need to tackle the issue of baywide cleanups right away. However, in order for these concepts to be effective they require careful implementation by Ecology.  Regional Background concentrations are key to establishing the two-tiered framework for selecting Sediment Cleanup Standards for bioaccumulative contaminants because the health-based values for the upper and lower tiers are identical and the PQLs are identical. Consequently, if Ecology establishes Regional Background concentrations that are similar to Natural Background concentrations, then the Sediment Cleanup Standards for most sites with bioaccumulative contaminants will be based on Natural Background concentrations, which essentially means that the SMS will be based on a single-tiered framework (i.e., the lower end of the range of cleanup values).  The ability to for a PLP to settle liability for Sediment Cleanup Units is important to expediting cleanups. As currently written, the rule language severely limits or eliminates liability settlements for Sediment Cleanup Units for sites where the Sediment Cleanup Standard is not based on the Sediment Cleanup Objectives because it requires the establishment of Sediment Recovery Zones. Ecology should reconsider this. The language in WAC 173-204-590 (Sediment Recovery Zones) requires that Sediment Recovery Zones be created if the Sediment Cleanup Standard is not based on the Sediment Cleanup Objective, such as in when the Sediment Cleanup Standard is based on the Maximum Allowable Concentration. If a PLP implements active remediation (e.g., capping or dredging) to achieve concentrations less than or equal to the maximum allowable level (assuming the maximum allowable level is the Sediment Cleanup Standard), then they should be able to settle liability with Ecology and close out the site. A Sediment Recovery Zone should only be required when the PLP leaves contamination in place at concentrations greater than the maximum allowable level. For example, if Monitored Natural Recovery is selected for a site and current sediment concentrations are greater than the maximum allowable level, then a Sediment Recovery Zone should be required until the site sediment concentrations are less than or equal to the maximum allowable levels.
11	81	The definition of Maximum Allowable Level should be revised to explicitly state that the Maximum Allowable Level shall not be lower than the Maximum of regional background and the Practical Quantitation Limit (PQL).
14	173	The definition of Sediment Cleanup Objective should be revised to explicitly state that the Sediment Cleanup Objective shall not be lower than the Maximum of natural background and the PQL.
14	179	The definition of Sediment Cleanup Standard should be revised to explicitly state that the Sediment Cleanup Standard shall not be lower than the Maximum of natural/regional background and the PQL.
14	186	Sediment Impact Zones are defined on this page but I could not located anywhere in the SMS Rule where the concept/use/applicability of Sediment Impact Zones are discussed. For example, how do

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		Sediment Impact Zones specifically affect the RI/FS/Cleanup process?
14	196	Definition of Sediment Recovery Zones. This definition is inconsistent with my recollection of our discussions of Sediment Recovery Zones and Sediment Cleanup Units. My expectation was that if Sediment Cleanup Units were remediated to the Sediment Cleanup Standard then the Potentially Liable Party (PLP) would have liability protection for that unit. However, the Sediment Recovery Zone definition and WAC 173-204-590 (Sediment Recovery Zones) indicate that the PLP cannot settle liability with Ecology and close out the site if the Sediment Cleanup Standard is based on the Maximum Allowable Level (i.e., the upper end of the range for establishing cleanup standards) and not the Sediment Cleanup Objective (i.e., the lower end of the range for establishing cleanup standards). This is a significant concern because Sediment Cleanup Objectives do not take into account regional background, which will ultimately drive the Sediment Cleanup Standards for bioaccumulative constituents. The wording in this section and WAC 173-340-590 should be carefully reviewed and revised so that Sediment Recovery Zones are not required for sites that are remediated to the upper end of the range cleanup standards.
17	46	Recommend replacing the phrase “by natural currents” with “by natural processes.”
17	54	Recommend replacing the last word on this line (i.e., “and”) with “and/or.”
18	94 – 95	Recommend including Maximum Allowable Levels in the title of this section and in the discussion that follows the title.
18-19	99 – 124	Incorporate concept of including a discussion regarding using Maximum Allowable Levels to develop Sediment Cleanup Standards (to follow previous comment regarding the title).
20	1	Recommend including a Purpose or Introductory section that explains this screening step. This section begins with the Sediment Quality Standards Inventory (line 9) but does not explain how, why, or who responsible for performing the work.
20	16 – 34	This section is unclear. Recommend rewriting the section.  This states that the stations with the three highest concentrations should form the station cluster of potential concern. Line 31 states, “If the average chemical contaminant concentration for any three stations identified in (a) of this subsection, exceeds the applicable cleanup screening level in...” Recommend revising the text in this section to include a geographic component to identifying and evaluating station clusters. It does not make sense to combine stations that are not geographically proximate to calculate an average concentration.
24	39	See my previous comment regarding 3 stations with the highest concentrations.
24	49 – 52	This section states that station clusters that “ <u>meet the criteria</u> ...shall be defined as cleanup sites for potential further investigation.” This is inconsistent with other parts of the rule. In most cases, when criteria are “met” no further action is required. If criteria are exceeded, then further action is required. For example, see lines 56 – 58 on page 24. Recommend that all language in the rule be reviewed and standardized as described in this comment (i.e., exceed/fail criteria requires further action, pass/meet criteria does not require further action).
24 – 25	36 – 72	The text is unclear. Do all conditions/criteria need to be met in order to identify a site for further action or does just one condition/criterion need to be met to required further action? Could this section be rewritten as follows:  Cleanup sites that require further investigation are identified as follows: 1.) Chemical concentration average was > CSL; or 2.) Biological standards in 572(3) – 573(3) were exceeded; or 3.) Chemical concentrations at three or more stations exceeded the maximum allowable level.
26	1	Recommend changing the title of this section to “Evaluating and <u>listing</u> of sites.”
29 – 30	1	Recommend deleting this section from the SMS Rule and referencing MTCA (i.e., WAC 173-340-510 through 540) to eliminate duplication.
31 – 38	1	Recommend deleting this section from the SMS Rule and referencing MTCA (i.e., WAC 173-340-350)

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		to eliminate duplication.
39	11	See my previous comment regarding Sediment Recovery Zones. The rule language in this section reflects the SMS Advisory Committee’s discussions regarding the two-tiered framework; however, if the Sediment Cleanup Standards for a site are based on the upper end of the range (i.e., maximum allowable levels), then a Sediment Recovery Zone appears to be required (see page 65 lines 17 – 18). Is this Ecology’s intention? Recommend removing the Sediment Recovery Zone requirement unless the Sediment Cleanup Standard is set above the Maximum Allowable Level (e.g., sites where monitored natural recovery is the selected remedy).
43	37 – 44	Does this mean that, at sites with a single carcinogenic chemical, the individual chemical risk can be set at 1E-05 because this would be the same as the total site risk of 1E-05? Currently, MTCA requires that the carcinogenic risk for individual chemicals not exceed 1E-06.
43	54 – 59	Recommend deleting this section and referencing to MTCA (i.e., WAC 173-340-708 (7) & (8)) to eliminate duplication.
44	30	Global comment. Recommend revising all text in the SMS Rule to eliminate the terms “above the” or “below the” when referring to comparisons to cleanup levels or cleanup standards. These terms should be replaced with “greater than” or “less than or equal to,” respectively.
44	31	Recommend inserting the phrase “may result” in the following sentence, “...cleanup screening level correspond to sediment quality that <u>may result</u> in minor adverse effects...”
45	38	Global comment. Recommend revising all text in the SMS Rule to eliminate the terms “above the” or “below the” when referring to comparisons to cleanup levels or cleanup standards. These terms should be replaced with “greater than” or “less than or equal to”, respectively.
45	55	Recommend replacing the phrase “at or below” with “equal to or less than.”
48	88	Global comment. Recommend revising all text in the SMS Rule to eliminate the terms “above the” or “below the” when referring to comparisons to cleanup levels or cleanup standards. These terms should be replaced with “greater than” or “less than or equal to”, respectively.
48	94 – 95	The text on line 95 was revised to state “and the following” instead of “or one of the following...” Is this correct? Are A through D all required (i.e., lines 96 through 112) or is just one of A through D required?
49	125 – 127	Bullet numbering is off – lines 125 & 126 should be (A) and (B), respectively. Line 127 should be (d), etc.
53	19, 22, 30, and 32	Global comment. Recommend revising all text in the SMS Rule to eliminate the terms “above the” or “below the” when referring to comparisons to cleanup levels or cleanup standards. These terms should be replaced with “greater than” or “less than or equal to”, respectively.
56	108, 112, and 114	Global comment. Recommend revising all text in the SMS Rule to eliminate the terms “above the” or “below the” when referring to comparisons to cleanup levels or cleanup standards. These terms should be replaced with “greater than” or “less than or equal to”, respectively.
56	121	Recommend revising the first sentence to state “(ii) <u>Establish</u> the freshwater sediment quality...”
56	120 and 123	Are these steps required? If so there should be an “and” at the end of lines 120 and 123. If only one step is required, then there should be an “or” at the end of lines 120 and 123.
56	116 – 138	Why are these steps different than WAC 173-204-572 (3) (c) on page 49?
60 – 63	1 – 114	Recommend deleting this section and referencing MTCA (i.e., WAC 173-340-360) to eliminate duplication. This section could be revised to focus on unique characteristics of Selecting Cleanup Actions at Sediment Sites. If this is not an option, then it would be preferable for this section to be revised so that this rule uses that same terminology as WAC 173-340-360 (e.g., Threshold Requirements and Other Requirements).
64	8	Recommend revising this sentence to “...appropriate information to <u>identify</u> the appropriate cleanup standards, extent of cleanup...”
65	15 – 18	As written this section appears to be very onerous and restricting. Recommend revising this section as follows:

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		<p>“The standards of this section are applicable to cleanup action decisions made pursuant to WAC 173-204-580 through 173-204-585 where selected actions leave in place marine, low salinity, or freshwater sediments that exceed the applicable sediment cleanup standard of WAC 173-204-570 (2). <del>sediment cleanup objective of WAC 173-204-570.</del>”</p> <p>The wording, as originally proposed by Ecology, would require that Ecology establish Sediment Recovery Zones for sediment sites that were cleaned up to regional background or the maximum allowable level. This was not the intent of the SMS Advisory Committee. If a PLP implements active remediation (e.g., capping or dredging) to achieve concentrations less than or equal to the maximum allowable level (assuming the maximum allowable level is the Sediment Cleanup Standard), then they should be able to settle liability with Ecology and close out the site. A Sediment Recovery Zone should only be required when the PLP leaves contamination in place at concentrations greater than the maximum allowable level. For example, if Monitored Natural Recovery is selected for a site and current sediment concentrations are greater than the maximum allowable level, then a Sediment Recovery Zone should be required until the site sediment concentrations are less than or equal to the maximum allowable levels.</p>
66	32 – 36	<p>Recommend deleting the following requirements from WAC 173-340-590 (3):</p> <p>“(d) All discharges within the area encompassed by the sediment recovery zone shall be treated with all known, available, and reasonable methods of treatment prior to the discharge. This includes stormwater discharges;</p> <p>(e) Best management practices shall be used for activities resulting in diffuse, nonpoint discharges within the sediment recovery zone;”</p> <p>I am concerned that there may be protracted litigation at sediment sites if Ecology requires other entities, who are not PLPs, to meet the (d) and (e) requirements for Sediment Recovery Zones.</p>