

RSET ISSUE PAPER # 33

POLICY COMMITTEE: S. Stirling, Chair
(Stephanie.K.Stirling@NWS02.usace.army.mil); March 21, 2007

QUESTION/ISSUE: Should “regional conditions” be included in the SEF?

DISCUSSION:

While a unified manual is desirable for many reasons, it is difficult to achieve due to regional differences, including regulatory issues, physical characteristics, and stakeholder values. The current interim final SEF has gaps where agreement has not been reached (section 9, bioaccumulation evaluation), and conflicts with SEF guidance and existing state regulations are problematic for Washington (clean-up and contaminated sediments).

Addition of “regional conditions” in section 1.2 (Scope, Applicability, and Limitations) would allow inclusion of regional guidance/regulations applicable to guidance and guidelines within the SEF. Examples of conditions that states could provide include identification of conditions where existing state laws supersede SEF guidance or addition of chemicals of concern and guidelines where special regional characteristics are involved. This approach would be similar to the one adopted by the Corps for the Nation-Wide Permits (401), where each region’s regulatory authorities are allowed to include regional conditions. This approach would solve several outstanding issues.

First, the state of Washington has many existing regulations and the Department of Ecology is concerned about conflicts between existing cleanup/contaminated sediment regulations and the SEF. Inclusion of regional conditions would address these concerns.

Second, there are still major gaps in the interim final SEF that may not be resolved before the 2007 release date for the updated SEF. The SEF could publish approaches and values where agreement has been reached, and regional conditions can be used to cover remaining gaps where existing state guidelines are available. This approach would provide an interim measure until agreement is reached, or provide state guidelines/standards for issues where agreement cannot be forged. As the RSET agencies work on and reach agreement on guidance and guidelines, they can be incorporated into the SEF using the approach already provided in the SEF.

Policy questions:

REFERENCES:

RECOMMENDATION: Include regional conditions

PROPOSED LANGUAGE CHANGES: Add the state roles and responsibilities section from the ICP, providing guidance on each state’s limitations. This would fit well in section 1.2: Scope, Applicability, and Limitations.

PREPARERS: Laura Inouye

RSET ISSUE PAPER # 34

POLICY COMMITTEE: S. Stirling, Chair
(Stephanie.K.Stirling@NWS02.usace.army.mil); March 20, 2007

QUESTION/ISSUE: Inclusion of cleanup in the SEF

DISCUSSION: Washington State has specific laws regulating cleanup. The SEF cannot override these regulations, which include SMS and MTCA. These limitations must be discussed in section 1.2 (Scope, applicability and limitations), and wherever cleanup is discussed, the caveat in Washington State, the SEF is to be used as guidance only for dredged sediment assessment while evaluation of sediments for cleanup shall be in compliance with the SMS and MTCA.

Policy questions:

REFERENCES:

RECOMMENDATION: MTCA and SMS should be appended to the document and edits made as suggested in attachment below.

PROPOSED LANGUAGE CHANGES: see below

LIST OF PREPARERS: Laura Inouye, Chance Asher, David Sternberg

| General comment | SECTION/page | Specific example | Suggested response |
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| <p>Ecology needs it clear up front that existing state laws override any guidelines set forth in this manual. Wording has been changed in selected sections, but throughout the document there are areas where it is unclear on how the SEF would be applied to</p> | <p>Preface and Section 1</p> | <p>Preface section P-1 clearly states in the second paragraph of the SEF that for cleanup, SEF supports EVALUATION for cleanup. The end of section 1.1, first paragraph, brings in management and disposal (can be interpreted to be for only dredged materials or for CS and dredged). Section 1.2 last paragraph clearly expands the scope to CS management. By page 4-22, a discussion of evaluation and selection of management alternatives is presented, clearly extending beyond evaluation of sediments as first stated.</p> | <p>RSET needs to decide if cleanup wording should be removed/linked to existing regs within text. Ecology will be happy to assist with edits and provision of links. If decision is to leave it at it currently stands, Ecology may request removal of the Ecology logo (would still participate in RSET, but would not be held to SEF use). Suggested wording: SEF supports EVALUATION for dredging (omit cleanup).</p> |
| | <p>Section 1.2</p> | <p>Scope, Applicability, and Limitations section currently mentions no limits.</p> | <p>Add statement to emphasize that in the state of Washington, this SEF will be used as guidance for evaluation of dredged sediments only and evaluation of sediments for cleanup shall be in compliance with the SMS and MTCA. This sentence should be re-iterated in the sections where cleanup is mentioned.</p> |

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| | | | Note that a statement to this effect is made on page 1-6 (section 1.4, Framework objectives). "It does not apply to any CERCLA cleanups..." The statement should be expanded to include SMS/MTCA cleanups as well. Similar statement should be made in "Scope, applicability and Limitations" section. |
| | Figure 3-2 | What process is used to determine "suitable for evaluation under SEF" for projects within/near a cleanup site? It is never discussed and is key for Ecology to sign off. | Add text to clarify. Should include statement that in the state of Washington this SEF will be used as guidance for evaluation of dredged sediments only and evaluation of sediments for cleanup shall be in compliance with the SMS and MTCA. |
| | Section 3-9 | Therefore, a cleanup project may follow the process outlined here, but...deviations from the process are likely. | In the state of Washington this SEF will be used as guidance for evaluation of dredged sediments only and evaluation of sediments for cleanup shall be in compliance with the SMS and MTCA. |
| | Section 5.2 | Information required in a SAP; Instead of mixed dredge/cleanup presentation by topic, organize section to cover dredging, with add-on within each topic for CS project-specific differences, with the caveat that regional regulations must be taken into account; provide links to regs. | re-organize and provide links |

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| SEF needs clarification of what regulations take precedence under what conditions. | Section 2 | Figure 2-2 shows Oregon's relationship between regulations. | Provide similar outlines for other states. |
| | | It is unclear to novice what regs are for what situations (e.g. MTCA should state that it regulates levels for upland disposal; Endangered Species Act should provide link to species/maps) | Provide a new table with laws and where applicable (state and dredge vs. cleanup), with links to regulations |
| | | | Extremely important to state which laws come into play for cleanup. |
| "Purple" meeting discussion implied that manual is not a cleanup manual; this is in agreeance with Ecology. If true, these sections probably exceed the intent of the manual. | Section 4.6, page 4-21 | Level 2 for contaminated site assessments consists of sediment/site assessment, evaluation of management alternatives, verification and monitoring, and adaptive management and assessment, | Text must be added saying that in the state of Washington this SEF will be used as guidance for evaluation of dredged sediments only and evaluation of sediments for cleanup shall be in compliance with the SMS and MTCA. In Washington, if any SAP data from a dredged sediment evaluation shows contamination above dredge spoils open water disposal levels, the site will be referred to the Department of Ecology for evaluation in compliance with the SMS and MTCA. |

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| | Section 4.6.2: Evaluation and selection of management Alternatives | This section is deep in the cleanup realm. Links to state regulations must be included on page 4-23 ("Additional guidance..." sentence), and the caveat again added that at least for WA, these are general concepts to consider but NOT guidance for cleanup, which falls under set laws and regulations. | |
| | Section 4.2.4 (page 4-9) | | This section is unacceptable as it basically outlines an evaluation approach for contaminated sediment sites. This is what the SMS does. Even though the SMS does not have promulgated Freshwater chemical criteria, it does have direction for evaluation of contaminated sediment. Also, Ecology has regulatory authority over contaminated sediment sites in Washington - not RSET. |

RSET ISSUE PAPER #35

SEDIMENT QUALITY GUIDELINE COMMITTEE: ?, Chair
March 20, 2007

QUESTION/ISSUE: MDL vs. SL problem

DISCUSSION: For several compounds, the new freshwater guidelines are very close to or even below their method detection limit. While there may really be a toxicity issue at these low levels, these values do not make reasonable guidelines due to difficulties of detecting the compounds at the levels. Dieldrin and Heptachlor are two compounds with SLs below the listed MDLs, but several other compounds have SLs quite close to the MDLs and will probably have regularly reported non-detects. This was brought up in issue paper 32 in 2004 but still has not been addressed.

Policy questions: how do we deal with compounds that cannot be detected at the current SLs?

REFERENCES:

RECOMMENDATION:

PROPOSED LANGUAGE CHANGES:

LIST OF PREPARERS: Laura Inouye

RSET ISSUE PAPER #36

CHEMICAL ANALYTE COMMITTEE: ? T. Thornburg, Chair
(tthornburg@anchorenv.com); March 20, 2007

QUESTION/ISSUE: Changes in Table 7-1

DISCUSSION: Ongoing changes will be occurring to Table 7-1 as new values are generated. Until the tables are finalized, SEF should point to the web-site that will have the most up-to-date version.

Note that for specialized cases, such as in Puget Sound, values for several chemicals will still be in effect- for many, SEF does not have guidelines. The SEF needs to point readers to these guidelines.

Policy questions:

REFERENCES:

RECOMMENDATION: Mention in table header or footnote to header that tables are still being revised, and provide website for values. Additionally, it may be a good idea to point users to the limitations and other guidance as available (in specialized cases such as Puget Sound, and other guidance that states/agencies will use until the SEF values are agreed upon).

PROPOSED LANGUAGE CHANGES:

LIST OF PREPARERS: Laura Inouye

RSET ISSUE PAPER #37

POLICY COMMITTEE: S. Stirling, Chair
(Stephanie.K.Stirling@NWS02.usace.army.mil); March 20, 2007

QUESTION/ISSUE: Inconsistency with Level 1 and Level 2 usage

DISCUSSION: The SEF moves from the old 4-tiered approach to a new 2 level approach, based on the results of the SETAC Pellston workshop cited in the text. However, the use of the 2 level approach is inconsistent within the text (three different versions are used) and the least used version (outlined in figure 4-6) is the only one that actually fits the guidance of the Pellston workshop. Details of the issue and the sections changes will affect are provided in the attachment below.

Policy questions: The definition of the 2 level approach needs to be refined, keeping in mind the intent of the Pellston workshop guidance. This will result in changes throughout the manual.

REFERENCES: SETAC 2002. SETAC Pellston Workshop on the Use of Sediment Quality Guidelines and Related tools for the Assessment of Contaminated Sediments. Fairmont, MO. August 2002.

RECOMMENDATION: see attachment below

PROPOSED LANGUAGE CHANGES: see attachment below

LIST OF PREPARERS: Laura Inouye

| Issue | | SECTION/page | COMMENT | |
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| 2 level approach | Throughout manual, what is included in level 1 vs. level 2 is very unclear- Both within and between chapters, figures disagree with written text, and written text is in conflict with written text. | Section 1.5/page 1-7 | The two tiered/level approach is mentioned for the first time, Pellston workshop cited as the reason for the change. A CLEAR explanation of the 2 level (what is included in each level) should be presented in the introductory section and followed consistently throughout | |
| | | | Three separate, conflicting versions of levels are presented in section 4. (1) level 1 is existing data only, level 2 is when new data need to be collected (section 4.5 intro paragraph, figure 4-3) (2) a level is a stage that concludes in a decision to exit or continue evaluation (text definition, page 4-13, using this definition actually results in three levels), and (3) Figure 4-6 defined level 1 as including gathering of existing data and additional chemical/physical data, level 2 as special tests (toxicity bioaccumulation etc). | Note that only version 3 fits the guidance of the Pellston workshop, which was the reason why the SEF went from the traditionally used 4 tier method to a new 2 level method. |
| | text/figure conflict | Figure 4-3 | Level 1 apparently goes up to SAP development, but not SAP implementation. Figure should be altered to either match text definition of level (would be 3 level approach, see comment below) or revised definition as presented in Figure 4-6. | Revise to fit Figure 4-6, or delete level 1 and level 2 marks on the figure. |
| | | page 4-13 | TEXT definitions of level: a stage that concludes with a decision to (1) exit the assessment (sufficient data exists) or (2) continue the assessment (insufficient data). By this definition, Figure 4-3 represents a 3-level process. Level 1 ends prior to SAP development (existing data sufficient for decision), level 2 should be collection of data from developed SAP (leads to decision point), and level 3 would be the more detailed test if data collected from SAP is insufficient.. | What is definition of levels? Is it really what was defined on page 4-13, or is it "level 1 = tools used for <u>characterization</u> of exposure or effects (gathering existing and new chemical/physical data), level 2 = tools for <u>interpretation</u> of exposure or effects" (toxicity, bioaccumulation, special assessments), similar to what is defined in the cited Pellston workshop? A lot less clear, but that was the gist of the Pellston 2-level assessment recommendation which was cited as the reason for the change to a 2-level approach. |
| | | Figure 4-6 | "Detail of level 1 tasks" conflicts with figure 4-3, as it includes collection of chemical/biological data as developed in SAP. By definition on page 4-13, figure 4-6 represents 3 levels. Using definition above, this would represent level 1 tasks. | This is the only level definition that fits Pellston 2-level approach. Leave the figure as it is. |

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| | page 4-14 | "If existing data satisfy the CSM, they are adequate for management decision-making purposes and there is no need to proceed to level 2." Sentence implies that Level 1 is "pre-existing data" only, which agrees with Figure 4-3 but not 4-6. | Revise to fit Figure 4-6 |
| | Section 4-4 Level 1 | Wording is unclear whether collection of new data falls under Level 1. Wording such as "collecting and analyzing existing and PRELIMINARY biological or chemical data" imply that an SAP was designed, samples taken and analyzed. | Revise to fit Figure 4-6 |
| | Section 4-5 Level 2 | Definition of level 2 in conflict with Figure 4-6 | Revise to fit Figure 4-6 |
| level 1 vs. pre-existing information | Section 5.2 | header of "level 1 information" should be changed to "preexisting information/Historical information" | revise to "Pre-existing information" or "Historical information" |
| | Section 5.3 | reference to level 1 should be altered to "pre-existing information" | |
| text condensation and clarification | page 4-15 | Section is headed as "transition to level 2", where level definitions again conflict with text definition presented on page 4-13. Section is also internally inconsistent. Early on, section states "transition...occurs when screening of <u>collected</u> data... indicates the need for additional tasks to reach a management decision, whether it is assessment of direct toxicity, indirect bioaccumulation effects, or other tasks..." ; this appears to be consistent with Figure 4-6, since "additional tasks" do not include chemical/physical data. Several sentences later section states, "however, if no information exists or it does not support the CSM... project proponent will be required to prepare and submit a SAP...". This is still level 1 according to the figure, but is implied to be level 2 by the position of the sentence within the paragraph. | This section seems to be redundant with sections 4.4 and 4.5. A re-write of section 4.3 to better define levels and what are included could easily incorporate this information, and reduce inconsistencies. |

RSET ISSUE PAPER #38

POLICY COMMITTEE: S. Stirling, Chair
(Stephanie.K.Stirling@NWS02.usace.army.mil); March 20, 2007

QUESTION/ISSUE: General editorial issues

DISCUSSION: Several sentences/section are unclear and need the committee to review suggested changes to ensure they retain the original meaning. Other sections are missing needed information. Additionally, suggestions are made that could reduce redundancies between figures. Also note that there is an additional attachment with chemistry qualifiers being used for the EIM database, which is mentioned as the database RSET will be using. These should be added somewhere in the SEF so that chemistry data will be input with appropriate qualifiers.

Policy questions: Policy committee needs to decide on whether to include several suggested changes, including suggested edit of Section 9 (the section provides no framework or guidance- current information belongs in an appendix).

REFERENCES:

RECOMMENDATION: see below

PROPOSED LANGUAGE CHANGES: see below

LIST OF PREPARERS: Laura Inouye

| SECTION/page | COMMENT | Suggested response | |
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| S1.2, pg 1-2 | Paragraph starting with "Dredging is necessary", second sentence: "It is also necessary to ensure... at CS sites". The sentence should be eliminated. If "IT" refers to dredging, the sentence as the subject is covered in a later sentence in a clearer form. If not, the sentence generic and out of place and should be removed. | Delete sentence starting with "It is also necessary to ensures...". | |
| Section 1 page 1-10/11 | Figure 1-2 and text on pages 1-10 and 1-11 contain errors. | Page 1-11 starts with "RSET reports to the Navigation Steering committee and OMC". Is this correct, or was it meant that they report to RSC and NSC? | Fix figure if text is correct (currently RSET linked indirectly to RSC and NSC but not to OMC), or fix text if figure is correct. |
| | | Page 1-11 states that OMC is responsible for support and development of databases. Given above comment and the fact that OMC is made up of senior managers who probably do not manage databases, I think the RSC is the correct acronym/committee. | Check section carefully to be sure the roles and relationships are correct in both text and figures. |
| | | Figure 1-2 labels tiers 1 through 4, which are not discussed in text. | Remove tiers from figures (addition of tiers into text may cause confusion with old DMEF tiered approach discussions). |
| Section 1.6.6 | On page 1-11, the SEF states that OMC is responsible for database management, but statement in section 1.6.6 implies RSET will manage the database. | Does this section really need to be present? | Be clear who is managing the database (RSET or OMC or neither). |
| | Reference to decision making process in chapter 12, which doesn't cover the topic; what is covered is EIM, which is managed by Ecology | | Remove reference to Chapter 12 unless a new section in Chapter 12 is added to address decision making process. |
| Section 3.4, page 3-2 | <i>"Figure 3-1 illustrates the standard regulatory process... (the example presented is for a generic dredging project). This process involves a SECOND INTEGRATED PROCESS, which is the sediment material evaluation process described below."</i> The process described is the regulatory section, not the evaluation, which is a different section. | The sentence may be referring to processes described in section 3-5; if so, change the sentence ("as described in section 3-5). If not, remove the sentence. | |

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| Figure 3-1 | RSET sub loop looks like it has no output (all arrows lead in, none lead out). | | Arrow leading out (I think it is the one on the right) should be fixed to only be out arrow, not both ways. Feedback back into the RSET review is still implied by the two-way arrow between "permit application" and "contact RSET" boxes. |
| Figure 3-2 | What process is used to determine "suitable for evaluation under SEF"? | | Add text to clarify. Should include statement that if it is a cleanup project, SEF should only be used as a toolbox and proper agencies should be consulted. |
| Page 4-13 | "In many cases, management decisions may be possible during level 1 of an assessment when the elements of the CSM have been completed and a decision is possible." | | The sentence is redundant and needs to be clarified. Did the writer mean that management decisions may be made with existing data? |
| Page 4-13 | "Thus arrangement is summarized... in additional detail in Figures 4-4 and 4-5" | | "Thus arrangement is summarized... in additional detail in Figures 4-4, 4-5, and 4-6 " |
| Page 4-15 | Formatting issues- "Transition to level 2" is the only place where bolded header is used- it should be removed for consistence. | section can probably be eliminated | See "Inconsistency with Level 1 and Level 2 usage" issue paper; section 4.3 should be re-written to fix inconsistencies with "level" definitions. |
| Figure 4-3, 4-4, 4-5 and 4-6 | If definition of "level" is fixed, these should be organized into overview (Figure 4.3), detailed level 1 tasks (currently figure 4-6), and detailed level 2 tasks for dredging (currently in figure 4-4), and detailed level 2 tasks for CS assessment (currently figure 4-5). This would avoid a lot of redundancies on the "site investigation to SAP results" portion of the flow charts. | | This would consolidate a lot of miscellaneous figures that appear to have a lot of similarities, but would also require a section re-write (which is also needed; see technical issue comments)). |
| Table 5-1 | Should mention in table heading that "available data" should fall under "recency" requirements. | CHECK IF THIS IS TRUE! | |
| Table 5-3 | "No test" volumes, if from the latest PSDDA, are different than the table. No test volume for low ranking sediments is listed in SEF as 10,000cy, PSDDA cites 8,000 CY no test volume for low ranking sediments (both original PSDDA and PSDDA 2000 reports are consistent with this value) | | Fix table |

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| Page 5-2 | SAP section- need to add analytical methods, personnel responsibilities, and chain of custody to the list of things that should be included in an SAP | Add text |
| Table 6-1 | Table needs to be cleaned up. | Footnotes- the "/" should be replaced with "." or ")" (I've never seen a backslash used like this). "Container" column needs to have cells merged appropriately (1-liter glass (combined) should cover down to the "semi-volatiles" row, rather than leaving them blank as in current version). Ditto for "Archived" column. |
| Page 6-7 | Previous section introduced core sampling first (6.4.1) followed by grab sampling (6.4.2). For consistency, switch the paragraph order on page 6-7 to match the earlier presentation order. | change order |
| Page 6-8, section 6.5.5 | First paragraph, last sentence needs revision. "Compositing might be a practical... way to obtain average sediment characteristics for a particular site, but not to dilute a heavily contaminated sample". Sentence as written means "compositing is not a practical way to dilute a sample", rather than intended meaning. | Change to "Compositing might be a practical... way to obtain average sediment characteristics for a particular site, but should not be used to dilute a heavily contaminated sample |
| Page 7-1 | Paragraph 2, "In addition, the presence of contaminants not accounted for in the dataset...may trigger bioassay testing". Sentence is not clear- What dataset is being referred to- the list of contaminants of concern, or something else? If list, state so. Also, how is it determined that unaccounted contaminants should be analyzed for- reason to believe? If true, state clearly. | clarify sentence |
| Table 7-1 | Updated version needs to be included in SEF | Include updated version |
| Table 7-1 | Definitions of SL1/SL2s should be included either as footnotes to the table, in the header of the table (as easy as adding "see section 7.8 for details"), or at the very least, in the text where table 7-1 is first cited (page 7-1). | Add information in appropriate place. |
| Section 7.6 | Tissue testing section should have a short intro section on when tissue analysis would be expected. | add intro |
| Section 7.7.3 | May need to add the EIS qualifier listing if EIS will be the main repository of data. | new list is available for EIS chemistry data qualifiers (see next attachment following this table) |

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| Section 7.8.5 | Marine SQV's are mentioned twice in relation to table 7-1; if acronym use is appropriate (shouldn't it be SQGs?) then it needs to be added to the acronym list | fix text |
| Page 8-1 | Is it necessary to include reference to level 1 and level 2 in the first paragraph? Given the inconsistencies (see technical issues sheet), it may be best to edit them out here. | remove reference to levels |
| Page 8-5 | "Bioassay-Specific Procedures-Marine" should probably read "Bioassay-Specific Performance Standards-Marine", since the section does not address specific procedures (generally outlined in section 8.2.1). Or leave as is, and add a short sentence referring readers to PSEP 1995 for details of assay procedures. Ditto for same section for Freshwater. | change headers |
| Page 8-8 | Second paragraph of section 8.2.4 needs to cite table 8-2. The whole discussion of one and two hit failures makes little sense without first looking at the table. | Second sentence, second paragraph, change to "These are known as "one-hit" and "two-hit" failures (see table 8-2)". |
| Section 9.8 | Is this whole section too detailed and too preliminary for inclusion in a guidance document? Should it be an appendix rather in the evaluation framework, since it is really still in progress? | Section seems more scientific than framework. If section deleted, be sure to remove appropriate citations from reference section (be sure not to delete ones that are cited elsewhere) |
| Section 9.8 and 9.9 | No guidance is mentioned for bioaccumulation triggers. If this is a guidance manual, and no guidance is available yet, rather than long sections on "how we hope to deal with this", a statement that these are being worked on (see appropriate appendix for details) and guidance will be provided when decisions are made. | add appropriate text |
| Page 10-3 | Paragraph beginning with "There are currently estuarine and ocean sites...". Paragraph ends with "Table 10-1 gives descriptions and coordinates of these sites". The table actually only gives PSDDA site information, not the other sites included in the preceding sentence. | Add other site information to Table 10-1 (preferred solution), or replace "these sites" with "PSDDA sites". |
| Section 10.5.2 | The section consistently refers to "riverbed"- are thin caps ONLY for river system, and if so state it up front. If not, correct to be more general (river, bay, etc.) | correct text |

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| Figure 10.7 | The figure shows disposal options that are not discussed in the document (Island) and options discussed much later in the document (upland). | Is figure needed? | If not critical to discussion, delete the figure. If it needs to remain, something should be included to the effect that island CDF's are beyond the scope of this manual and upland will be discussed in section 10.8.2. |
| Page 12-1 | Bottom of page, #2 "Habitat Protection Plans" are never addressed in the document. Need a brief description of what this is, somewhere in document. | | add discussion |

| EIM Qualifiers | |
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| B ^b | Analyte detected in sample and method blank. Reported result is sample concentration without blank correction or associated quantitation limit. |
| B1 ^b | Analyte detected in sample and method blank. Reported result is blank-corrected. |
| G* | Value is likely greater than the reported result. Reported result may be biased low. |
| E | Estimates above calibration range |
| J | Analyte was positively identified. The reported result is an estimate. |
| JG | Analyte was positively identified. Value may be greater than the reported estimate. |
| JK | Analyte was positively identified. Reported result is an estimate with unknown bias. |
| JL | Analyte was positively identified. Value may be less than the reported estimate. |
| JT ^a | Analyte was positively identified. Reported result is an estimate below the associated quantitation limit but above the MDL. |
| JTG | Analyte was positively identified. Value may be greater than the reported result, which is an estimate below the associated quantitation limit but above the MDL. |
| JTK | Analyte was positively identified. Reported result is an estimate with unknown bias, below the associated quantitation limit but above the MDL. |
| JTL | Analyte was positively identified. Value may be less than the reported result which is an estimate below associated quantitation limit but above MDL. |
| K* | Reported result with unknown bias. |
| L* | Value is likely less than the reported result. Reported result may be biased high. |
| N* | There is evidence the analyte is present in the sample. Tentatively identified analyte. |
| NJ | There is evidence that the analyte is present in the sample. Reported result for the tentatively identified analyte is an estimate . |
| NJT | There is evidence the analyte is present in the sample. Reported result for the tentatively identified analyte is an estimate below the associated quantitation limit but above the MDL. |
| NU | There is evidence the analyte is present in the sample. Tentatively identified analyte was not detected at or above the reported result. |
| NUJ | There is evidence the analyte is present in the sample. Tentatively identified analyte was not detected at or above the reported estimate. |
| REJ | Data are unusable for all purposes. Sample results rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified. |
| T* | Reported result below associated quantitation limit but above MDL |
| U ^a | Analyte was not detected at or above the reported result. |
| UJ | Analyte was not detected at or above the reported estimate |
| UJG | Analyte was not detected at or above the reported estimate with likely low bias. |
| UJK | Analyte was not detected at or above the reported estimate with unknown bias. |
| UJL | Analyte was not detected at or above the reported estimate with likely high bias. |

Footnote:

1. *: G, L, K, N, and T are always used together with J or U qualifier for a reported numeric result.

2. ^a If the sample result is reported with qualifiers containing U or as estimates below PQL with JT qualifier, PQL for that sample shall be provided.

Here are the definitions of MDL and PQL by MTCA.

"MDL: minimum concentration of a compound that can be measured and reported with 99% confidence that the value is greater than zero

PQL: lowest concentration of a compound that can be reliably measured within specified limits of precision, accuracy, representativeness, completeness, and comparability during routine laboratory operating conditions, using department approved methods."

Here is the information for how most analysts with the Ecology Manchester Laboratory calculate the PQL.

"PQL is the lowest non-zero standard in the initial calibration curve used to quantitate results and adjusted by dilution factor and individual sample dry weight or TOC . The calibration standard is then compared to the calibration curve to verify it is within 10 to 20% of the true value, depending on the method.

To calculate the PQL of a sample the following formula is used:

$$\text{PQL ug/kg} = \text{Cal Std Value ug/ml} \times (\text{Final Volume ml/Initial Volume g}) \times (\text{Dilution Factor/\%Solids or TOC}) \times (1000\text{g/kg})"$$

3. ^b Recommend to replace B and B1 qualifiers with U qualifier or no qualifier based on the EPA Functional Guidelines.

<http://yosemite.epa.gov/R10/OEA.NSF/webpage/QA+Data+Review+SOP+Documents>

Listed below is the example for Organic Contaminants:

(A) **Common Laboratory Contaminants:** Acetone, 2-Butanone, Methylene chloride, Toluene, Phthalate esters

If > 10x the maximum amount detected in any blank, sample results considered as positive results

If ≤ 10 x the maximum amount detected in any blank, chemical not detected in the particular sample, reported with U qualifier at PQL if lower than PQL or detected concentration in the sample if higher than PQL

(B) **Non-Common Laboratory Contaminants:**

○ If > 5x the maximum amount detected in any blank, sample results considered as positive results

○ If ≤ 5 x the maximum amount detected in any blank, chemical not detected in the particular sample, reported with U qualifier at PQL if lower than PQL or detected concentration in the sample if higher than PQL

RSET ISSUE PAPER #39

POLICY COMMITTEE: S. Stirling, Chair
(Stephanie.K.Stirling@NWS02.usace.army.mil); March 20, 2007

QUESTION/ISSUE: missing Acronyms in “Acronym and Abbreviation” list

DISCUSSION: Several acronyms in the SEF that were not in the table. The missing items and their definitions where they could be found are provided in the attachment below (missing acronyms). Additionally, there were a few acronyms whose inclusion may or may not be warranted (Acronym issues). The lists are included in the reference section, in separate tables.

Policy questions: The inclusion of some acronyms (see acronym issues) needs to be discussed.

REFERENCES: none

RECOMMENDATION: Add acronyms

PROPOSED LANGUAGE CHANGES:

LIST OF PREPARERS: Laura Inouye

| Missing Acronyms | |
|---|---|
| AET | Apparent Effects Threshold |
| ARAR | Applicable or relevant and Appropriate Requirements |
| BMF | biomagnification Factor |
| BMP | best management Practice |
| CAD | confined Aquatic Disposal |
| CDF | Confined Disposal Facility |
| CERCLA | Comprehensive Environmental Response, Compensation, and Liability Act |
| Check entire figure 1-2... several missing agencies that don't appear in text and are not explained | RA, RD, MARAD, CE, |
| cPAHs | carcinogenic polycyclic aromatic hydrocarbons |
| DOD | Department of Defense |
| DOT | Department of Transportation (pg 1-10) |
| DOTS | Dredging Operations Technical Support |
| DRED | Dredging Elutriate Test |
| EC50 | concentration of a compound where 50% of its maximal effect is observed |
| EIM | Environmental Information Management |
| EIS | Environmental Impact Statement |
| ERB | Equipment Rinsate Blank |
| FONSI | Finding of No significant Impacts |
| g | grams |
| HPAH | high molecular weight polycyclic aromatic hydrocarbons |
| IDAPA | Idaho Administrative Procedures Act |
| Kow | Octanol Water Partition Coefficient |
| LC50 | concentration of a compound where 50% of lethality is observed |
| LPAH | low molecular weight polycyclic aromatic hydrocarbons |
| LR10 | section 9.8.1 |
| LR50 | section 9.8.1 |
| LSMG | Local (Corps district) Sediment Management Groups |
| MDL | Minimum detection limit |
| MET | Modified Elutriate Test |
| MTCA | Model Toxics Control Act |
| NCMA | Normalized Combined Mortality and abnormality |
| NSC | Navigation Steering Committee |
| NWRSEF | Northwest Region Sediment RSC Evaluation Framework |
| OAR | ? Not defined, on page 2-11 under section 2.5.6 |
| PCDD | Polychlorinated dibenzodioxins |
| PCDF | polychlorinated dibenzofurans |
| PIANC | International Navigation Association |
| PSWQAT | Puget Sound Water Quality Action Team |
| QAPP | quality Assurance Project Plan |
| REM | Risk Evaluation Manual |
| RI | Remedial Investigation |
| RPD | Redox Potential Discontinuity |
| RSC | Regulatory Steering Committee |
| RSM | Regional Sediment Management |
| SEDQUAL | Sediment Quality Information System |
| SET | Standard elutriate Test |

| | |
|------|--|
| SFA | sustainable fisheries act |
| SoF | Statement of Findings |
| SOP | Standard Operating Procedure |
| SQL | Sediment Quantitation Limit |
| SQV | Add, if still needed after editorial changes |
| TBT | tributyltin |
| TCDD | 2,3,7,8-tetrachlorodibenzo[p]dioxin |
| TOC | Total Organic Carbon |
| TVS | Total Volatile Solids |
| VOA | volatile Organic Analysis |
| VOC | Volatile Organic Carbon |
| VPH | ? Listed on page 6-10, under 6.1.1 "trip blanks" |
| VTS | USCG Vessel Traffic Service |
| WDOE | Washington Department of Ecology (cited in issue paper 16) |
| WHO | World Health Organization |
| WQC | water quality Criteria |

Acronym issues:

| | |
|---|--|
| ? AADAMS (are STFATE, DREDGE, CORMIX and PLUMES definitions also needed?) | Should these be included? |
| ? DDT/DDD/DDE? Need to add? | If TCDD was defined, should these be as well? |
| ? NOTE: ROC is out of order on the list (in the middle of the P section). | |
| ? SQV | Listed in section 7.8.5, page 7-10. Probably should change text to SQG rather than add SQV |
| ? Are acronyms in formulas and in appendices to be included? | |

RSET ISSUE PAPER #40

POLICY COMMITTEE: S. Stirling, Chair
(Stephanie.K.Stirling@NWS02.usace.army.mil); March 20, 2007

QUESTION/ISSUE: Non-functional Web-links and Links that need to be added

DISCUSSION:

1) While it is desirable to provide web-links to various regulations and documents, several are no longer functional. The non-functional links are listed in the attachment below. Most bad links are due to major site re-organizations for various states and federal agencies.

2) Missing links that should be included- each state/federal regulation cited in section 2.4 should have a link if available.

Policy questions: If there is a RSET page that is maintained by one of the RSET agencies, can actual documents that are being referred to be stored as PDFs to avoid migrating state and federal web-pages? At the very least, down-loadable publicly available documents that are cited could be stored in this manner.

REFERENCES: none

RECOMMENDATION: fix links, provide selected documents at RSET site

PROPOSED LANGUAGE CHANGES:

LIST OF PREPARERS: Laura Inouye

Non-functional web-links

http://www.deq.state.id.us/water/surface_water/401%20Guidance.pdf.

http://www.nws.usace.army.mil/dmmo/8th_arm/tbt_96.htm

<http://www.deq.state.or.us/wmc/cleanup/hh-intro.htm>

<http://www.deq.state.or.us/wmc/cleanup/ecocover.htm>.

EPA. 1989. Risk Assessment Guidance for Superfund, Volume 1 – Human Health Evaluation Manual, Part A, Interim Final. EPA/540/1-89/0002. Publication 9285.7-01A. Office of Emergency and Remedial Response, Washington, D.C. Available at: <http://www.epa.gov/superfund/programs/risk/tooltrad.htm#gdec>.

EPA. 1997. Ecological Risk Assessment Guidance for Superfund: Process for Designing and Conducting Ecological Risk Assessments (interim final). Environmental Response Team, Edison, NJ. Available at:

<http://www.epa.gov/superfund/programs/risk/tooltrad.htm#gdec>.

U.S. Army Corps of Engineers. 1999. Risk Assessment Handbook Volume I: Human Health Evaluation. EM 200-1-4. Available at:

<http://www.usace.army.mil/inet/usace-docs/engmanuals/em200-1-4/toc.htm>.

U.S. Army Corps of Engineers. 1996. Risk Assessment Handbook Volume II: Environmental Evaluation. EM 200-1-4. Available at:

<http://www.usace.army.mil/inet/usacedocs/eng-manuals/em200-1-4vol2/>.

NOTE: This link name is correct; fails to go to web-site due to carriage return.

<http://www.psat.wa.gov/Publications/protocols/protocol.html>.

<http://www.el.ercd.usace.army.mil/dots/budm/>

http://www.nws.usace.army.mil/publicmenu/DOCUMENTS/BCoC_Technical_Appendix_0

Waldeck , R.D., Chapman, J., Cordell, J., and Sytsma, J. 2003. Interim Report. Lower Columbia River, Aquatic Nonindigenous Species Survey 2001-2003. Appendices. http://www.clr.pdx.edu/projects/cr_survey/cr-docs/LCRANSInterimReport.pdf.

RSET ISSUE PAPER #41

POLICY COMMITTEE: S. Stirling, Chair
(Stephanie.K.Stirling@NWS02.usace.army.mil); March 20, 2007

QUESTION/ISSUE: **Typological and Reference citation errors**

DISCUSSION: Several references cited in the text are missing in the reference section. The list is provided in the attachment below. Also included are some typological errors on tables that are rather critical.

Policy questions:

REFERENCES: see below

RECOMMENDATION: Add or delete references to the reference listing as suggested.

PROPOSED LANGUAGE CHANGES:

LIST OF PREPARERS: Laura Inouye

Reference errors

| SECTION/page | COMMENT | SUGGESTED CHANGES |
|--------------|---|--|
| Figure 4.1 | Figure 4.1 (Dredging generic CSM) has citations errors. Correct or remove them from figure. | 1) EPA/Corps. 2003. Upland testing Manual , ERD/EL TR-03-01. 2) Reference missing. (EPA 1998, guidance for In situ subaqueous Capping) Be sure that it is labeled "EPA. 1998a.", and note that all other EPA 1998 citations must be changed throughout the document (currently one other). |
| Figure 4-4 | Figure 4-4 (general dredging flow chart) cites Inland Testing manual (EPA/Corps 1994), which is missing from reference list | Add to reference list |
| Page 5-12 | No test volumes section cites PSDDA 1989, Kendall 1990, and Stirling 1995 for table 5-3 values. In reference section, PSSDA 1989 is missing, Stirling 1995 is incomplete, and personal communication with Kendall and reviewing paper copies of documents indicated that Kendall 1990 should not be cited as it is reflected in the published PSDDA 1989 document. Should cite most recent PSDDA (2000), which also agrees with the cited 1989 document. NOTE COMMENT BELOW. | Cite the most recent PSDDA on page 5-15 in addition to PSDDA 1989 and Stirling 1995; REOMOVE KENDALL 1990 reference. Add most recent PSDDA document to reference list, add PSDDA 1989 to reference list, add full Stirling 1995 to reference list. |
| Table 5-3 | Since the only cited reference that could be found (PSDDA 1989) lists "low ranking" sediment "no test" volume at less than 8,000 cy, it is assumed that the table contains a typological error rather than a decision on the part of the RSET group to increase the value to less than 10,000 cy. | Change "no test" volume for low rank sediment to "less than 8,000 cy", or provide justification and citations for the change in value. |
| Page 6-3 | NAD 1983 cited, missing in reference section | Add reference |
| Page 6-6 | PSEP 1997 cited, missing in reference section | Add reference |
| Page 6-8 | Keith 1993 cited, missing in reference section | Add reference |

| | | |
|---------------|--|---|
| Page 6-8 | PSEP 1997 cited, missing in reference section | Add reference |
| Page 6-9 | SETAC 2000 cited, missing in reference section | Add reference |
| Page 8-4 | EPA 1994 cited for freshwater bioassays. Current EPA 1994 listed in references is for BCoC's, not freshwater testing. New reference needs to be added to reference section, and individual citations of EPA1994 need to be checked as to which one is refers to (differentiate with 1994a and 1994b) | Add reference, check entire document for alter EPA 1994 to 1994a or 1994b, being sure the correct reference is cited. |
| Section 8.2.4 | Throughout the section EPA/Corps 2000 is cited as "EPA/Corps 2000, a PSDDA User's Manual". This can be shortened to "EPA/Corps 2000". | Three changes: Page 8-8, end of paragraph 3, page 8-9, end of paragraph 2, page 8-9, middle of paragraph 3. |
| Section 9.4 | Ocean Testing Manual and Inland Testing Manual need to be properly cited in first sentence (Inland is missing from reference section). | Add reference citation in text and be sure they are in reference section |
| section 12.2 | A book is cited with full listing, it should be added to reference list | Add reference |
| Page 14-8 | Moore et al., 1994 in reference section but not cited in text | remove reference |
| Page 14-11 | Salazar and Salazar 1995 in reference section but never cited in text. | remove reference |
| Page 14-11 | SETAC reference (Pellston conference) listed in text as 2001, in reference section as 2002. | Change in-text citation to correct publication year (2002). |