

Summary of responses to substantive comments from technical reviewers of the May 2008 draft of the Science Advisory Board (SAB) Committee on Valuing the Protection of Ecological Systems and Services (C-VPES)

Working notes provided by the C-VPES Chair and Vice-Chair

Response to comments from Tom Dietz

P. 1:

Key Messages

- "There are several key messages ..." -- This seems like a mere observation, so there is no need for response.
- "EPA capacity in this area ..." -- Dietz suggests here and elsewhere that we should call for an increase in the number of social scientists (other than economists) at EPA. The text has not been changed on this point because the whole committee may not agree and the recommendation may not be an appropriate recommendation for this committee
- "EPA should build mechanism to communicate ..." -- new language has been added in the introduction and Chapter 7 to this effect.
- "These are the changes that will allow ..." -- Dietz here suggests that we need to be clearer and bolder regarding our key messages." The Executive Summary and Chapter 7 have been revised to clarify the main points
- "Multiple methods. ..." -- Dietz here wants us to say even more about the reasons why EPA should put more emphasis on non-monetary methods. Text has been revised to reflect more accurately the consensus of the committee.

P. 2:

- "Analytic deliberation ..." -- A reference to the new NRC report has been added in Chapter 5. Dietz, however, also suggests that our approach to public deliberation is not "clear and consistent across the report." Chapter 5.1 and the conclusion have been revised
- "Building capacity ..." Language has been added in both the Executive Summary and Chapter 7 about the need for setting research priorities and identifying low hanging fruit.
- "It would also be useful to recommend that all valuation efforts at EPA should have an evaluation component ..." Language concerning evaluation of valuation in the national rulemaking context has been strengthened in the Executive Summary, Chapter 6, and the conclusion
- "Communicating and coordinating. ..." -- Text has been added to both the Executive Summary and Chapter 7 in response to this comment.

P. 3

- "Coordination with NSF might be especially useful ..." A footnote has been added regarding the specific values of LTERs to the LTER discussion in Chapter 3. All references to NEON have been deleted from the report.
- "Muddling methods and purposes ..." Language has been inserted in paragraph 1 of section 4.2 that states clearly the distinction between purposes and methods (what to try to measure vs. how to measure it), but notes that in practice there is a close mapping of concepts of value and methods (shown in Table 2). Section 4.3.2 has been revised to note that surveys can be used with a variety of different methods (not just attitudes, etc.) By making more reference throughout the report to the survey appendix (now on the web), new text addressed his concern that the discussion is unbalanced. The document has been updated to include some cross-referencing to deliberative processes.
- "a methods section or annex..." This comment refers primarily to surveys. Text has been clarified in 4.2 to show that surveys are applicable to multiple methods.

- “the conceptual rationale...” Table 2 refers back to the theories that drive use of the methods, which is now noted explicitly in 4.2.

P. 4

- "Understanding drivers ..." Information about the importance of ecosystem processes is emphasized in chapter 3. The importance of communicating information about the nature, status, and changes in ecological systems and services is clarified in section 5.4 and 5.4

Other large points

- "Benefits transfer ..." A definition of "value transfers" has been added to the Executive Summary and the text. The text also refers more consistently to "value transfers" and "benefit transfers."
- "I wonder if the IPCC ..." -- Appropriate language has been added to Chapter 5.
- "Surveys are a cross-cut. ..." -- Chapter 4 clarifies that surveys cross-cut a variety of methods
- "Even 'Total monetized economic benefits' ..." Appropriate changes have been made to the Executive Summary and Chapter 7 and other sections.
- "The public and local officials may have a very different..." A reference to his paper cited here has been added to the introduction to Chapter 3.

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Detailed comments

- Comments on Chapter 2:
 - The gendered language has been changed, text also now references Dietz's paper when referring to the theories underlying attitude-based judgments, and p. 14 is fixed
 - The text already refers to deliberative processes in the description of constructed preferences in 2.1.3. The revised text includes the reference to 5.1 as a cross-reference.
 - Revisions to chapter 2 do not include a detailed discussion of the analytic deliberative approach in the description of steps. It is not appropriate to include this as a separate step, and the committee is likely not to be willing to state that all valuations following our process should involve a deliberative approach. The text makes reference to the need for an analytic and transparent process reflecting public concerns.
- 3: Language has been added to emphasize the non-linearities and discontinuities more.
- 3.4.1. A footnote has been added emphasizing that the indicators focus on impacts and not stressors.
- 3.4.2. Responsive changes have been made
- 3.5. All references to NEON have been deleted. Also added is a new paragraph on looking to the social sciences to see possible ways of developing data-sharing capacity.
- 3.5.1. The heading now clarifies the use of the term "transfer."

Pp. 5-8

- Comments on Chapter 4:
 - “The discussion of indicators...” A footnote has been added in the section on biophysical ranking methods.
 - Refs for ecological footprint: references have been added/changed.
 - Section 4.2.3 has been revised. Text also added to refer to the Dietz, Fitzgerald, Shwom paper in 2.1.3, on first discussion of the many concepts of value.

- 4.2.4 “This section skips over...” Text says elsewhere (chp 5) that these methods do not yield values consistent with those derived from economic methods (because they are based on different underlying assumptions), so these methods have not been included here
- 4.2.5 first par has been revised.
- “The term ‘citizen juries’ seems...” Text now organized under category "civic valuation" Definition of a citizen jury is clear. Report says they incorporate elements of deliberation but does not suggest that all deliberative processes are of this type.
- 4.2.6 “These are very important methods...” Text in section revised to clarify variety of methods.
- 4.3.3 “The value of benefits transfer...” This seems more of a comment than a suggested change. The new section 4.3.4 notes that experts could be used to suggest appropriate forms and values for benefits transfer.

P. 8

- 5. "survey methods are a cross-cut." Text throughout the report clarifies that surveys are dealt with in a paper on the Web site
- 5.2.3. Suggested point is added.
- 6.1.3.1.
 - 6.1.3.1: “The analytic deliberative...” Text already notes the role that deliberative processes could play a role, for example, in identifying public concerns. Text also notes the role of these processes in providing information.
 - “More emphasis on Category 5 is needed...” Language has been clarified.

Response to comments from Mark Schwarz

P. 1

- "Different people within the EPA need to read different portions. ..." Paragraph added at the end of Chapter 1 to provide a general sense of who should read what
- The executive summary: Schwartz makes the suggestion that the executive summary should "take on the question of what changes need directives from the Washington DC and require a policy shift in EPA operating procedures, and which can be implemented by project staff." Executive summary and conclusion identifies implementation recommendations in the national, regional, and site-specific contexts
- Chapter 1: He doesn't see a need for any other specific changes here.
- Chapter 2: No change. The discussion here is necessary to sort out all of the things that the committee has had to address when thinking about ecological valuation.
- Chapter 3: Schwartz makes two points here. The first is that we need more specifics, and we shouldn't wait until Chapter 6. This would require some major changes to the structure of the report. The second point is that we should have a "set apart definition of 'production function. A dedicated paragraph identifying what a production function is has been added."
- Chapter 4: Subsections in chapter 4 have been re-ordered but the chapters have not been reordered. Language has been added to distinguish between methods and concepts so they are not "muddled" and it seems important to lay out the concepts before identifying methods for measuring those concepts. The reference lists have been cut down in chapter 4.
- Chapter 5: The heading of Chapter 5 has been changed to respond to this criticism.
- Chapter 6: Providing more guidance about choosing methods. Language has not been changed. Although the chair and vice-chair agree that this would have been very useful, it did not seem possible with this committee, which has provided as much guidance as it could collectively develop.

Response to comments from Alan Krupnick:

- “I broadly endorse...” This is mainly just a comment, except for the last sentence, where it is stated that more space be devoted to non-use values. No change made here. Non-use values may be the most important issue. This is the message throughout the report.
- “The call for a better merging...” Again, just an observation. No response needed.
- “The biggest problem with the report...” It is clear that C-VPESS cannot adopt the suggestion here that the report should focus on economic valuation rather than considering all the various concepts of value.
- “Another problem is that...” Issue of repetitiveness in the uncertainty chapter and need to reference other sources on uncertainty addressed in chapter 5.
- “Another overarching comment” on setting priorities for recommendations: Executive summary and conclusion identify the major recommendations.
- “Finally, the report does not...” Report highlights the importance of STAR grants.

Specific Comments:

- “This report is meant...” Again, an observation. No changes made in response to this.

Chapter 2:

- “It is clear from the report...” An observation. No change.
- “Still the report’s multiple definitions...” Again, this is mainly observation. Section 2.1.3 revised to clarify that bio-physical values are only values in the sense that they measure the contribution of ecological changes to a pre-specified bio-physical goal. The committee has reached agreement on the methods to discuss in chapter 4.
- “Finally, (5) I take issue...” Krupnick is stating his view here. The report acknowledges that there is debate about this. No change made.
- “It can be argued, however,...” The position Krupnick is taking here is already stated in the section on stated-preference methods and reference is made to more detailed discussion in the survey appendix. No change made.
- “The bottom line is that...” References to both sides of the debate added in 2.1.4.
- 2.1.4 “The section mentions...” Text revised to eliminate these phrases, and to be explicit that we are interested in the valuation of changes, not total ecosystems.
- “As for the phrase ‘valuation should seek...’” Language added to 2.1.4 to try to clarify what the committee intended by this language. Two issues are more clearly separated: public vs. experts’ values, and the amount of information the public has.
- “Related to the value definition...” Language clarified in the Executive summary
- “Because the report tries...” Again, Krupnick’s observation or view. No change made.
- “Implementation of valuation prescriptions...” Recommendation about evaluating pilot evaluation methods more developed in the Executive Summary, chapter 2, and chapter 6.
- “In characterizing recommendations...” Recommendations regarding uncertainty addressed.
- “Policy prescriptions...” The committee did not develop different weights for different methods, so this comment cannot be addressed.

Chapter 3:

- “further analysis will improve benefit transfer” Language added
- “Merely saying that uncertainty exists is not an excuse for delay.” Chapter 2, chapter 5 language added discussing value of information analysis in more detail

Chapter 4:

- “p. 39. Third bullet” Language added here to clarify what is intended.
- “Table 2 and supporting text...” No change. See response above.
- “I note how careful...” An observation. No change.

- “p. 44. Are behavioral observation...” Language clarified regarding relationship between behavioral observation methods and revealed preference methods.
- “p. 46, top.” Language qualified to make description of willingness-to-pay and willingness-to-accept more parallel.
- “I don’t know if...” Many economists think of “existence value” as a type of value based on intrinsic rights. Language has been changed to clarify that economic valuation does not capture types of value that are not based on the concept of substitutability.
- “Income and WTP...” The sentence about the role of income is deleted. A similar statement might be made about other measures of value. For example, in a survey about attitudes, it might be that higher income people tend to believe that water quality is of “high importance” more often than low income people, who might be more concerned about other things. Given that all values (not just economic values) could conceivably vary with income, it seemed inappropriate in retrospect to single out economic values in this way.

4.3 “Value Transfer” No change needed.

Chapter 5:

- RFF reference added
- Pg. 64. "I take issue with the phrase: “asking people for ecological value in dollars will likely elicit those values that are most readily expressed in dollars.” Language clarified and related research discussed.
- "Expert elicitation (EE) is not necessarily or perhaps even generally a substitute for Monte Carlo simulation (MCS). It may well be a complement" Language added
- Directing recommendations to OMB. Report is for EPA; communication strategy for final report may reach out to OMB.

Chapter 6:

- P. 70, “The Mitchell-Carson study...” These other services are noted as well.
- P. 71 “The report says...” Sentence is deleted. The limitations of using this study are clear from what remains in the text.
- P. 71-72 “In this case, half a loaf...” Language added stating it is better to value some services than none.
- P. 72-73 “Does the public really need to know...” Language added stating that the public needs to understand the magnitude and nature of the changes they are being asked to value. This is consistent with the changes in Chapter 2.
- “A big deal is made....” Section 6.1.3.1 recommends that EPA look at transcripts or summaries of public hearings to glean information about public concerns. Revised language adds these could be from participatory processes as well.
- P. 74-75: “I reject the argument...” Report already says that these do not give a measure of WTP, but language has been added to make this more explicit, noting explicitly now that these types of indicators don’t reflect tradeoffs.
- P. 75: “Only the Mitchell-Carson study...” Endnote added about Huber-Viscusi.
- P. 77: “This recommendation should be eliminated...” Recommendation related to EPA's use of benefit transfers
- P. 77 “While, in general, I agree...” In some sense bio-physical values could be thought of in terms of cost-effectiveness. No change made here.
- Section 6.1.3. "Too much emphasis on stakeholder involvement" Language clarified throughout the report to replace term "stakeholder" with "public" because "public" valuation is the principal focus of the report.

Response to comments from Trudy Cameron:

Most, if not all, of the editorial changes were made. None were substantive.