

**Charge to the Peer Reviewers of  
“Procedures for the Derivation of Site-Specific  
Equilibrium Partitioning Sediment Benchmarks (ESBs)  
for the Protection of Benthic Organisms: Nonionic Organics”**

**BACKGROUND**

This equilibrium partitioning sediment benchmark (ESB) document describes procedures to derive site-specific concentrations for nonionic organic chemicals in sediment which are protective of the presence of freshwater and marine benthic organisms. The equilibrium partitioning (EqP) approach was chosen for the derivation of sediment benchmarks because it accounts for the varying biological availability of chemicals in different sediments and allows for the incorporation of the appropriate biological effects concentration. This provides for the derivation of benchmarks that are causally linked to the specific chemical, applicable across sediments, and appropriately protective of benthic organisms. The emphasis of this document is to provide a summary of procedures for deriving site-specific ESBs.

**QUESTIONS FOR REVIEWERS**

To assist in your review, we have developed a selection of broad questions by document section. Feel free to respond to these questions or to use your own. (*NOTE: Comments on all sections of the document of a technical and/or editorial nature are appreciated, although reviewers also are welcome to direct their comments only to specific sections or topics for which they are most familiar.*)

**Front Matter: Foreword, Abstract, Table of Contents, Executive Summary, etc.**

Does this series of brief sub-sections provide an acceptable opening to the document and provide the reader with sufficient preliminary information for understanding the material that follows? What specific additions or deletions to this section would you suggest?

**Section 1: Introduction**

Does this section provide adequate background on the Equilibrium Partitioning Sediments Benchmarks (ESBs) and explain the rationale for this site-specific ESB document? What specific improvements to this section would you suggest?

**Section 2: Procedures for Deriving Site-Specific ESBs**

Does this section provide sufficient information about the derivation of conventional ESBs? What specific improvements to this section would you suggest?

Does this section discuss the site-specific approaches in sufficient detail for someone unfamiliar with the methodologies to better understand the principles of how the site-specific tools operate and the type of information they produce? What specific improvements to this section would you suggest?

**Section 3: *Example Calculations of Site-Specific ESBs***

Are the examples illustrative of the different types of results generated by the site-specific tools? Do the tables provide clear and useful information?

Are there other examples or other aspects of the current examples that would better convey how to use the document and site-specific tools?

**Section 4: *Implementation of Site-Specific ESBs***

Is the tiered approach described in this section useful as an example of how to implement the use of site-specific ESBs?

**Section 5: *References***

Is the cited literature sufficiently comprehensive?

Please provide your written comments to me no later than **August 31, 2011**. Comments may be sent by regular mail to the address below, or by e-mail to [houk.virginia@epa.gov](mailto:houk.virginia@epa.gov).

If you have any questions concerning the draft report or the charge, please feel free to contact me. We sincerely thank you for your input to our peer review process.

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