

**MTCA/SMS Advisory Group
June 21, 2010
Status Summary of Issues**

This status summary provides a reference for MTCA SMS Advisory Group member and interested persons regarding the topics presented to the advisory group, where Ecology is in terms of evaluating the input, and identified next steps.

MTCA/SMS Advisory Group agenda topics were chosen to get timely feedback on priority issues. All advisory group meetings and science panel meetings are open to the public. Meeting materials (agendas, handouts, presentations, and technical analysis and discussion documents) are posted on the Ecology website. Input from group and audience members is collected into the meeting notes. (To find meeting materials for the various advisory groups, go to www.ecy.wa.gov, type “MTCA SMS rule update” in the search box, and click Go.)

Over the past six months, with input from this group, Ecology has been moving from broad issues and general ideas to refining the options while continuing the scientific and technical analysis, and identifying and working through implementation questions. This is a step toward producing rule language and supporting documentation. We have received from participants and audience members significant, well reasoned, and thoughtful input. In order to more directly consider the input received, we are in the process of adjusting the schedule for this rule making.

Issue	Status	Comments & Feedback	Next Steps
<p>Cleanup of contaminated sediments:</p> <ul style="list-style-type: none"> ▪ protecting human health & addressing background 	<p>In 2008, Ecology began identifying, reviewing and analyzing issues and options. The Department distributed several issue summaries in 2009 and received many comments on this particular issue. Ecology has discussed ideas and options with the Sediment Work Group and MTCA/SMS Advisory Group.</p> <p>Ecology identified two main options for protecting human health and incorporating background concentrations. Based on feedback from the advisory groups, Ecology identified common scenarios, and continues working with the Office of the Attorney General to solve implementation questions associated with these issues and options.</p> <p>On April 26 the MTCA/SMS Advisory Group discussed general guiding concepts (protectiveness; source control; technical feasibility; resolving liability) and a potential decision making framework structured around short and long term goals.</p>	<p>Ecology received numerous comments (at meetings and in writing) from advisory group and workgroup members on site definition, the definition of regional background, source control, appropriate cleanup levels, and resolving liability.</p> <p>Sediment Workgroup meeting materials, meeting notes, and comments received are posted on the Ecology website.</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Evaluate and analyze input from the Sediment Workgroup on the potential decision making framework. <input type="checkbox"/> Continue discussion on the framework idea/proposal with the MTCA/SMS Advisory Group on July 26. <input type="checkbox"/> Continue to synthesize and incorporate advisory group feedback into the potential decision making framework. <input type="checkbox"/> Sediment Workgroup members will provide feedback as the proposed decision making framework is updated. <input type="checkbox"/> Sediment Workgroup members suggested a follow up meeting (with members of the MTCA/SMS Advisory Group) in the fall.

MTCA Cleanup Regulation Update & Integrating the MTCA & SMS Rules

<ul style="list-style-type: none"> Protecting biota from bioaccumulative chemicals 	<p>Ecology recognizes the problem that current criteria are based only on benthic toxicity and do not include impacts to biota and higher trophic levels from bioaccumulative chemicals.</p> <p>Ecology plans to add to the SMS rule a narrative criteria directing that bioaccumulative pathways be considered. The specifics will be included in guidance.</p> <p>The Sediment Workgroup at the June 2, 2010 meeting discussed and provided to Ecology preliminary input on a draft narrative addressing ecological risk from bioaccumulatives.</p>	<p>Ecology has heard repeatedly that cleanup standards need to address bioaccumulative effects.</p> <p>Workgroup members suggested that the narrative not be limited to bioaccumulatives: they recommended that toxicity to higher trophic levels be included in the narrative.</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Ecology is revising the early draft to include input from the Sediment Workgroup. <input type="checkbox"/> Discuss with MTCA/SMS Advisory Group for policy level feedback & input. <input type="checkbox"/> Develop guidance.
<ul style="list-style-type: none"> Freshwater sediment standards 	<p>Ecology has been working for the past several years to update sediment quality guidelines. Recent analysis and reliability testing is completed. A draft technical report has been peer reviewed by the Sediment Workgroup and Oregon DEQ. Ecology proposes to move ahead and adopt the freshwater chemical and biological criteria as standards in rule.</p> <p>The Sediment Workgroup (in January, March, May, and June) discussed and provided feedback on the methodology, QA/QC, and reliability analysis. They discussed their peer review of the technical report on May 3 and June 2.</p>	<p>In addition to input provided during the Sediment Workgroup meeting, Ecology received written comments from several Workgroup members (Patmont; Word; and Rude).</p> <p>Meeting materials and comments received are posted on the Ecology web site under Sediment Workgroup information, 5/3/10 and 6/2/10.</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Present results of the analysis and a summary of the Sediment Workgroup discussions to the MTCA/SMS Advisory Group on June 21. <input type="checkbox"/> Identify implementation and policy concerns and develop recommendations.
<p>Integrating the MTCA and SMS rules</p>	<p>This issue was presented to the MTCA/SMS Advisory Group and the Sediment Workgroup at the initial joint kickoff meeting on Nov 11, 2009.</p> <p>Draft rule language on terminology and definitions was reviewed and discussed by the Sediment Workgroup on May 3, 2010.</p>	<p>Meeting materials and comments received are posted on the Ecology web site Sediment Workgroup information, 5/3/10.</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Ecology has reviewed input from the Sediment Workgroup on terminology and definitions and is updating language. <input type="checkbox"/> Revisit proposed language to ensure consistency with related policy and implementation decisions.
<p>Vapor Intrusion</p>	<p>Ecology completed draft guidance in Fall 2009. Information was presented to and discussed by the MTCA/SMS Advisory Group in December, 2009. Some group members expressed interest in forming a vapor workgroup.</p> <p>The MTCA Science Panel (March 2010) agreed that Ecology should incorporate recent inhalation risk</p>	<p>Feedback on the Issue Summary and from advisory and workgroup members generally agrees that a rule section is appropriate. However, most comments prefer that Ecology not specify too much detail in rule to maintain flexibility for site specific evaluation and response.</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Finish compiling responses on risk issues identified during the May 13 Vapor Workgroup meeting. <input type="checkbox"/> The second meeting of the Vapor Workgroup is scheduled for June 24, 2010. Topics for discussion: inhalation toxicity; compliance monitoring.

MTCA Cleanup Regulation Update & Integrating the MTCA & SMS Rules

	<p>methodology. Ecology has prepared initial revisions to the air cleanup equations based on new EPA guidance.</p> <p>Ecology formed a workgroup to evaluate and provide feedback on vapor-related rule updates; the first meeting of the Vapor Workgroup was May 13, 2010. At this meeting, Ecology distributed a draft (straw) outline of a new rule section on vapor intrusion. Topics identified for discussion: inhalation toxicity; establishing cleanup levels; addressing background; compliance monitoring; and getting to NFA. The workgroup will look into approaches being used by other states.</p>	<p>Meeting notes and materials from the Vapor Workgroup are posted on the Ecology website.</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Work with members of the Vapor Workgroup to identify and resolve rule and guidance issues <input type="checkbox"/> Provide a status update to the MTCA/SMS Advisory Group at the July 26 meeting. <input type="checkbox"/> Use results from Vapor Workgroup discussions to prepare draft rule language for review by the full MTCA/SMS Advisory Group in Fall 2010.
<p>Remedy Selection:</p> <ul style="list-style-type: none"> ▪ Revisions to Chapter 173-240 WAC Sections 350 – 390 	<p>Draft preliminary draft rule language was distributed to the MTCA/SMS Advisory Group, and discussed December 18, 2009.</p> <p>Besides verbal input, Ecology asked for written comments if group members wished to provide them.</p>	<p>Group members expressed a range of opinions.</p> <p>In addition to comments provided by advisory group members (and audience) during the MTCA/SMS advisory group meetings, Ecology received written comments from several members (Boyden, Hendrickson, Newlon, Trim, Steffensen, and Waldron).</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Ecology staff continues working through comments and identifying areas that need further research and/or discussion. <input type="checkbox"/> Post written comments received. <input type="checkbox"/> The preliminary draft rule amendments (target fall 2010) will reflect input received to date. <input type="checkbox"/> Ecology will prepare a focus sheet identifying and explaining proposed changes
<p>Institutional Controls and Periodic Reviews:</p> <ul style="list-style-type: none"> ▪ Revisions to Chapter 173-240 WAC Sections 420 and 440 	<p>Ecology distributed preliminary draft rule language updating institutional controls and periodic review sections consistent with the Uniform Environmental Covenant Act to the MTCA/SMS Advisory Group for review and comment. Proposed revisions addressed both implementation issues and new requirements. The draft rule revisions were reviewed and discussed at the January 11, 2010 meeting.</p> <p>Ecology is reviewing and updating the environmental covenant boilerplate, which may lead to additional rule changes.</p>	<p>Group members expressed a range of opinions.</p> <p>In addition to comments provided by advisory group members (and audience) during the MTCA/SMS advisory group meetings, Ecology received written comments from several members (Brincefield, Boyden, Dunn, Hurst, Mauermann, Newlon, Trim; and Waldron).</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Ecology staff are working through comments and identifying areas that need further research and/or discussion. <input type="checkbox"/> Post written comments received. <input type="checkbox"/> Coordinate rule updates with environmental covenant boilerplate language. <input type="checkbox"/> Consider comments on institutional controls and covenants when developing draft vapor intrusion provisions; and discusses with the Vapor Workgroup.
<p>Updates based on new scientific information and regulatory guidance:</p> <ul style="list-style-type: none"> ▪ Early life adjustments 	<p>The MTCA Science Panel discussed this issue at their November 2009 and March 2010 meetings. They concurred that scientific evidence exists regarding children’s susceptibility to chemical carcinogens.</p> <p>Prior to the March 22, 2010 MTCA/SMS Advisory Group meeting, Ecology distributed <i>Early Life Exposure to Chemical Carcinogens: Looking at Benzo[a]pyrene</i></p>	<p>Advisory group members (and audience members) provided comments on this issue during the January and March meetings. Ecology has also received written comments on this issue from several members (Boyden/Stoner, Dunn, Ernst and Newlon).</p> <ul style="list-style-type: none"> ▪ Several members support the application of early life exposure age adjustments for all carcinogens. 	<ul style="list-style-type: none"> <input type="checkbox"/> Continue discussion with respect to Method A updates at June 21 MTCA/SMS Advisory Group Meeting. <input type="checkbox"/> Prepare short discussion paper summarizing Ecology’s proposal and rationale. Distribute to the MTCA/SMS Advisory Group

	<p><i>as an Example for Updates to the Model Toxics Control Act Cleanup Regulation.</i></p> <p>At that meeting, Ecology asked for feedback on the scientific and regulatory information, policy questions, and implementation concerns.</p> <p>Ecology has prepared (for discussion on June 21) a draft proposal for updates to the Method A groundwater tables. When preparing this proposal, Ecology has (consistent with EPA policy) applied early life adjustments to carcinogens with a mutagenic mode of action (MOAs).</p>	<p>Reasons for this approach include (1) Lack of uniformity on defining mutagenic MOA; (2) biological reasons for increased child sensitivity; and (3) the importance of erring on side of caution.</p> <ul style="list-style-type: none"> • Some members believe policy should be limited to carcinogens with mutagenic MOA. In general, these members believe that applying the EPA guidance is a reasonable first step that complies with the MTCA statute. They provided reasons for not applying to all carcinogens (rapid pace of research, conclusive evidence for few compounds, etc.). • Several members identified technical and policy issues associated with applying this policy to benzo[a]pyrene/ PAH compounds. These include (1) large uncertainties in extrapolating from high to low doses; (2) existing MTCA policies include conservative features; (3) adjustments lead to cleanup levels below background; (4) draft EPA mixtures policy and (5) the 2007 MTCA amendments already factored in early life susceptibility. 	<p>prior to the July 26 meeting.</p>
<p>Updates based on new scientific information and regulatory guidance:</p> <ul style="list-style-type: none"> ▪ Concurrent soil exposure pathways 	<p>The MTCA Science Panel discussed this issue at their June and November 2009 meetings. They concluded that Ecology's methodology for evaluating concurrent soil exposure is consistent with current scientific information.</p> <p>Prior to the March 22, 2010 MTCA/SMS Advisory Group meeting, Ecology distributed <i>Early Life Exposure to Chemical Carcinogens: Looking at Benzo[a]pyrene as an Example for Updates to the Model Toxics Control Act Cleanup Regulation</i>. In this document, Ecology discusses potential revisions to the equations used to calculate soil cleanup levels based on the direct contact pathway.</p>	<p>Members expressed a wide range of opinions on this issue (ranging from; always consider both soil ingestion and dermal pathways; consider both soil ingestion and dermal contact for some chemicals; to never consider both pathways and base cleanup levels on soil ingestion only).</p> <p>Several members noted the large uncertainties and limited data for dermal absorption.</p>	<p><input type="checkbox"/> Ecology will consider comments on this issue when preparing draft updates to the Method A soil cleanup levels for discussion at the July 26 MTCA/SMS Advisory Group meeting.</p>
<p>Updates based on new scientific information and regulatory guidance:</p> <ul style="list-style-type: none"> ▪ Hierarchy of toxicological information 	<p>Ecology distributed a <i>Preliminary Review of Method A Cleanup Levels for Groundwater and Soil</i> for the March 22, 2010 MTCA/SMS Advisory Group meeting. In that document, Ecology discussed revisions to the hierarchy of toxicological information.</p> <p>The MTCA Science Panel discussed this issue at their</p>	<p>Advisory group members (and audience members) provided comments on this issue during the January and March meetings. Ecology has also received written comments on this issue from several members (Boyden/Stoner, Dunn, and Waldron). The MTCA Science Panel and several members of the Vapor Workgroup (Trejo and Tomlinson) have also provided</p>	<p><input type="checkbox"/> Ecology hopes to get additional feedback on this issue when discussing Method A updates at June 21 MTCA/SMS Advisory Group Meeting.</p> <p><input type="checkbox"/> Ecology plans to finish compiling responses on this issue. This topic is scheduled for discussion at the May 24, 2010 Vapor</p>

	<p>March 2010 meeting.</p> <p>Ecology distributed a status report on risk-related issues at the April 26, 2010 MTCA/SMS meeting.</p> <p>Ecology distributed a discussion paper at the May 13, 2010 Vapor Workgroup meeting. Ecology is currently compiling responses from individual members.</p>	<p>feedback on this issue.</p> <p>There appears to be general agreement on the following:</p> <ul style="list-style-type: none"> • IRIS toxicity values represent the “gold standard” • HEAST values are often out-of-date because EPA no longer maintains this database. • Values published by NCEA are generally reliable and identified as an acceptable source of toxicity values in the current rule. <p>There is a wide range of opinion on the use of the EPA Regional Screening Tables. Some members believe this is a reliable source of toxicity parameters. However, many other members were concerned that some of the values included in the Regional Screening Tables were developed through processes with limited peer and public review. They recommend that Ecology either (1) not use values from other sources (e.g., CalEPA) or (2) not automatically use these values without additional review of individual parameters.</p>	<p>Workgroup meeting.</p> <p><input type="checkbox"/> Ecology plans to develop draft rule language (revisions to Section 708) that takes into account comments on earlier materials. This will be included in discussion materials for the July 26 MTCA/SMS Advisory Group meeting.</p>
<p>Updates based on new scientific information and regulatory guidance</p> <ul style="list-style-type: none"> ▪ EPA Cancer Guidelines (2005) ▪ Inhalation Risk Assessment Guidance (2009) 	<p>Ecology distributed a <i>Preliminary Review of Method A Cleanup Levels for Groundwater and Soil</i> for the March 22, 2010 MTCA/SMS Advisory Group meeting. In that document, Ecology discussed revisions based on the new EPA guidance (updating the definition of carcinogen, air cleanup levels, etc.)</p> <p>The MTCA Science Panel discussed this issue at their March 2010 meeting.</p> <p>Ecology distributed a status report on risk-related issues at the April 26, 2010 MTCA/SMS meeting.</p> <p>Ecology distributed a discussion paper at the May 13, 2010 Vapor Workgroup meeting. Ecology is currently compiling responses from individual members.</p>	<p>Advisory group members (and audience members) provided comments on this issue during the March meeting. Ecology has also received written comments from several members (Boyden/Stoner, Dunn, and Waldron). The MTCA Science Panel and several members of the Vapor Workgroup (Trejo and Tomlinson) have also provided feedback on these issues.</p> <p><u>Definition of Carcinogen:</u> Written comments support revising the definition based on the assumption that the change will not significantly impact cleanup levels and screening levels.</p> <p><u>Equations for Air Cleanup Levels and Screening Levels:</u> Written and verbal comments support revised equations. However, reviewers raised several issues related to specific parameters and exposure scenarios.</p> <p><u>Route-to-Route Extrapolation:</u> Written and verbal comments also support not using oral toxicity values to estimate inhalation risks (and vice versa) without making appropriate dosimetric adjustments. One member recommended that Ecology clearly state this policy in the rule.</p>	<p><input type="checkbox"/> Ecology will continue reviewing responses on this issue. This topic is scheduled for discussion at the May 24, 2010 Vapor Workgroup meeting.</p> <p><input type="checkbox"/> Ecology plans to develop draft rule language (revisions to Sections 200, 708 and 750) that takes into account comments on earlier materials. This will be included in discussion materials for the July 26 MTCA/SMS Advisory Group meeting.</p> <p><input type="checkbox"/> Ecology will consider comments on this issue when developing draft rule amendments for discussion with the MTCA/SMS Advisory Group in Fall 2010.</p>

Lead Cleanup Levels

The options and implications for updating the lead soil cleanup levels were presented and discussed at the January 11, 2010 and March 22, 2010 MTCA/SMS Advisory Group meetings.

To support discussions on this issue, Ecology distributed *Updating Cleanup Levels for Lead Contaminated Soils* prior to the March meeting.

Advisory group members (and audience members) provided comments on this issue during the March meeting. Ecology has also received written comments from several members (Boyden/Stoner, Ernst, Dunn and Waldron/Grimstead).

Policy Choice on Target Blood Lead Level: Several members recommended that Ecology continue to base cleanup levels on a blood lead level of 10 ug/dL until EPA and/or CDCP update federal policy. Other members expressed the opinion that there was a clear and convincing rationale for using a lower value. One member suggested that Ecology consider levels of 5 ug/dL or less; another member suggested that Ecology consider levels as low as 5 ug/dL.

Policy Choice on Probability of Exceedance: Several members recommended that Ecology use the 95th percentile value typically used with the IEUBK model. Others stated that the exceedance policy needs to be coordinated with decisions on the target blood lead level.

Soil Exposure Model: Several members recommended that Ecology use a soil exposure model consistent with approaches used for other hazardous substances.

Use of IEUBK Model: Several members recommended that Ecology clarify in rule how the IEUBK model can be used to establish site-specific cleanup levels.

Impacts on Cleanup Sites and Actions: Several members urged Ecology to fully evaluate the cost and implementation issues associated with a revised cleanup level. In particular, they expressed concerns about impacts on the cleanup of roadside areas and areas near structures with lead-based paint.

Cleanup Levels for Ground Water and Industrial Soils: Several members recommended maintaining the current ground water and industrial soil cleanup levels even if Ecology decides to lower the Method A soil cleanup level for unrestricted land uses.

- Ecology is currently reviewing the MTCA/SMS Advisory Group comments.
- The results of this review will be presented to the advisory group in separate materials and discussed at the July 26 meeting.
- Ecology will consider the feedback received at the July 26 meeting when preparing the Fall 2010 draft rule amendments.
- Ecology plans to discuss draft rule revisions with the MTCA Science Panel at a meeting later this Fall.
- Ecology will be evaluating the benefits and costs associated with the draft rule revisions when preparing the environmental and economic analyses required by state law. .

Cleanup Standards: updates to Method A

Ecology distributed a *Preliminary Review of Method A Cleanup Levels for Groundwater and Soil* at the March 22, 2010 MTCA/SMS Advisory Group meeting.

Advisory group members (and audience members) provided comments on this issue during the January and March meetings. Ecology has also received written

- Continue discussion with respect to updates to Method A ground water cleanup levels and Method A use/ applicability at June

<ul style="list-style-type: none"> ▪ Method A Soil tables ▪ Method A Groundwater tables ▪ Use and applicability of Method A 	<p>Ecology distributed outlines of proposed changes to the groundwater and soil cleanup standards sections of the MTCA rule at the April 26, 2010 MTCA/SMS Advisory Group meeting. The outline identified potential revisions to the criteria for the use and applicability of Method A.</p> <p>After reviewing comments, Ecology prepared <i>Draft Revisions-Method A Groundwater Cleanup Levels</i> (June 2010).</p>	<p>comments from Patty Boyden/Mike Stoner.</p> <ul style="list-style-type: none"> • There appears to be general agreement that Ecology should update the Method A tables based on new scientific information and regulatory requirements. • Several members emphasized that Ecology needs to look at MCLs, background concentrations, and PQLs when evaluating whether new toxicity information necessitated revisions to the Method A tables. • Several members recommended that Ecology base rule updates on final toxicity values – not draft values undergoing peer and public review. • Several members explicitly supported Ecology’s preliminary conclusion to maintain most of the current Method A values. These members also supported Ecology’s plan to raise the Method A value for EDB and thought changes to the values for naphthalene, chromium and ethylbenzene were premature. • Many members recommended that Ecology evaluate the impact on cleanup actions before making final decisions on updating Method A values. 	<p>21 MTCA/SMS Advisory Group Meeting.</p> <ul style="list-style-type: none"> <input type="checkbox"/> Review feedback and previous comments when preparing draft updates to Method A soil cleanup levels for July 26th meeting. <input type="checkbox"/> Continue discussion on updates to Method A soil cleanup levels at July 26 MTCA/SMS Advisory Group Meeting. <input type="checkbox"/> Ecology will consider the feedback received at the July 26 meeting when preparing the Fall 2010 draft rule amendments. <input type="checkbox"/> Ecology plans to discuss draft rule revisions with the MTCA Science Panel at a meeting later this Fall. <input type="checkbox"/> Ecology will be evaluating the benefits and costs associated with the draft rule revisions when preparing the environmental and economic analyses required by state law.
<p>MTCA Rule Framework:</p> <ul style="list-style-type: none"> ▪ Organizing cleanup standards around exposure pathways to improve usability 	<p>Ecology distributed outlines of proposed changes to the groundwater and soil cleanup standards sections of the MTCA rule. This framework reflects Ecology’s belief that site evaluation and cleanup are best organized around identifying and addressing exposure pathways.</p> <p>Outlines distributed at the April 26, 2010 MTCA/SMS Advisory Group meeting.</p>	<p>Early feedback from stakeholders recommended targeted efforts to improve the usability and readability of the rule.</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Discuss outlines and obtain feedback from the MTCA/SMS Advisory Group at the June 21, 2010 meeting. <input type="checkbox"/> Use input to develop rule language.
<p>Fish Consumption Rates</p>	<p>Fish consumption rates are used to establish MTCA surface water cleanup standards; the MTCA Science Advisory Board (in 2008) agreed with Ecology that the current default value of 54 g/day is not protective of high fish consuming populations (especially tribal and other ethnic groups).</p>	<p>Advisory group members (and audience members) provided comments on this issue during the April 26, 2010 MTCA/SMS Advisory Group meeting. Ecology also received written comments from several members (Boyden/Stoner, Dunn, and Waldron).</p> <p>There are a variety of opinions regarding changing the default fish consumption rate used in for setting surface</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Ecology is evaluating work done by the Oregon DEQ fish & shellfish consumption rate project as a potential model. <input type="checkbox"/> TCP is working with other Ecology programs to prepare a briefing for senior Ecology managers on this issue for late

