"Friends sometimes disagree."

–President Obama, March 17, 2010

Purpose of this "roadmap"

Updating the MTCA cleanup regulation and integrating the MTCA and SMS rules are significant and important projects for TCP. A small number of Ecology staff are working full time on this project, with technical input, analysis, and discussion being provided by a much larger team.

At this point in the process, we are especially interested in meaningful dialog with people outside the agency who are familiar with the two rules. Ecology is working to make updates to the cleanup regulation that will enable more effective cleanups that result in protecting human health and the environment. There are numerous complex issues under evaluation. Part of our evaluation includes a careful look at the recent science and addressing how new scientific information will affect cleanup decisions. Most significantly, recent scientific information indicates that in many circumstances, concentrations that protect human health will be below background. One of the regulatory questions Ecology is considering is how this affects cleanup decisions.

As part of this discussion, Ecology is addressing numerous related questions. The MTCA cleanup regulation, and our goal for changes to the SMS rule, is to provide a comprehensive and flexible structure that enables sensible and protective cleanup decisions.

Ecology recognizes that each of these complex issues can be approached from a variety of perspectives. It is our goal, by convening these workgroups, to hear from people who have thought through the issues. We are looking for feedback from knowledgeable people who have struggled with implementing the cleanup regulation in a variety of situations.

This roadmap indicates Ecology's (updated) schedule for addressing our priority topics. Although not every member of the advisory groups may consider each of these issues a priority, Ecology has concluded that they are of sufficient import to warrant inclusion. Multiple people rely on the MTCA rule; the public; local and tribal governments; other agencies; Ecology site managers; PLPs; and environmental professionals doing the cleanup work. The issues Ecology is addressing in this rulemaking reflect the various concerns represented by these perspectives.

Advisory Groups

Multiple committees are advising Ecology on the MTCA/SMS rule update. The composition of these groups and how they fit together reflects specific questions being asked of each group.

Ecology staff takes input and feedback from these discussions, including any written comments that members wish to provide, and uses this to refine the early draft preliminary rule amendments. We have not asked for written committee reports at this phase of the process because the primary purpose of the advisory group is to help shape the direction that the rule drafting will take.

Not all issues are being addressed in the same manner. In many situations we have started drafting rule language; in others we have waited until after hearing from the advisory groups. In all situations, the experience represented by the group members helps shape Ecology's thinking.

The two rule advisory groups began meeting in November, 2009. Currently they are scheduled to meet in March, April, and May, with a possible joint meeting in June. Because the February MTCA/SMS Advisory Group meeting was cancelled an additional meeting will be considered.

Ecology initially intended the final meeting in June to review preliminary draft rule language. This preliminary draft would reflect the discussion from both internal teams and external advisory groups. Based on work to date, we are still figuring out the timing of this discussion.

Ecology is delighted to have professional facilitators who will be assisting in shaping how the conversation and feedback can best be provided. We expect to have some dialog about the process. This document proposes one possible approach, with meeting topics and advisory group deliverables being organized more specifically around issues that need further discussion.

MTCA/SMS Advisory Group

Members of the Advisory Group were chosen to represent interests throughout the state, and bring a variety of backgrounds and expertise. This larger perspective is critically valuable in order to identify workable and effective solutions.

In addition to discussing cleanup-related issues, this group should provide critical review of ideas, options, and proposals developed by Ecology. Ecology asks this group for feedback on options being analyzed and whether there are other options that should be included. With respect to sediments, this group can look at how sediment cleanup best fits into larger cleanup issues, including risk to human health, remedy selection, institutional controls, cost-related questions, and net environmental benefit.

Sediment Workgroup

This is a technical workgroup providing scientific, technical and policy evaluations on issues related to establishing a clear and feasible framework for cleanup of contaminated sediments.

This group is working on:

- Methods for evaluating freshwater sediments and establishing freshwater sediment standards
- Methods for evaluating bioaccumulation in marine settings
- The regulatory framework for addressing human health impacts from contaminated sediments, including statistics applicable to evaluating background
- Integrating the SMS and MTCA rules to provide a consistent decision making framework

Because the questions and answers deliberated in this group have broad and statewide implication, Ecology plans that conclusions and recommendations reached by this group (as well as any areas of disagreement) be brought back to the MTCA/SMS Advisory Group. (See the discussions on proposed topics for the May and June MTCA/SMS Advisory Group, below.)

Other possible *ad hoc* workgroups

Ecology is considering whether or not it will be useful to create additional small workgroups to address issues that warrant further in-depth discussion. A vapor intrusion workgroup is being considered; in fact, Ecology is in the early phases of putting this group together. (We are looking at staff resources and competing priorities, and are determining areas where a workgroup would be

most helpful. A preliminary proposal for the vapor intrusion workgroup is being drafted.) We are also hoping to ask this workgroup to help us with several risk assessment issues associated with new EPA guidelines.

Ideas for other workgroups will be considered over the next two or three months.

As Ecology works through the critical topics (see the list below) and evaluates input from the MTCA/SMS Advisory Group, Sediment Workgroup, and vapor intrusion Workgroup

Workgroups formed will include a balance of viewpoints and meetings will be open to the public.

The MTCA Science Panel

The MTCA Science Advisory Board (SAB) met until 2009. Ecology has convened a science panel to advise TCP on scientific cleanup-related issues. The MTCA Science Panel meets quarterly; they are currently focused on how to evaluate and account for the effects of exposure to carcinogens in early life increasing cancer risk later in life. Meetings are open to the public and meeting materials are posted on the Ecology web site.

Critical Topics

Ecology has identified the following topics as needing further input and discussion. In some situations Ecology has an idea of what draft rule language might be, but this early language should be seen as a starting point for further discussions. In a couple of situations Ecology has already determined changes that will be proposed as amendments. Ecology will identify these; it is not our intent to have conversations – at this time – over topics where our position is already determined. Ecology convened the workgroups is to provide an early feedback for areas where we know we need to make some changes and are struggling to figure out the best solution.

These priority topics are (in alphabetical order):

- Children's increased susceptibility to chemical carcinogens (whether to apply age adjustments to all carcinogens or only those operating via a mutagenic mode of action)
- Fish consumption rates
- Freshwater sediment standards
- Inhalation risk guidelines (including how to establish toxicity for chemicals lacking inhalation toxicity data)
- Integrating the MTCA and SMS rules
- Method A updates and related risk issues
- Sediment cleanup levels: how to protect human health when background concentrations are significant
- UECA updates (for example, paying for periodic reviews)
- Vapor intrusion

There are additional topics where, although not as high a priority, Ecology would like input. For example, Ecology is considering ways to clarify the process for evaluating whether contaminated groundwater is impacting surface water or sediments.

MTCA/SMS Advisory Group Topic – Status Update

Ecology is using the feedback from the advisory group meetings as we evaluate and analyze options for rule amendments. The following sections describe how Ecology is responding to the input received to date, identifies where we think further dialog will be helpful, and provides some detail on how the remaining meetings will be organized.

Topics addressed at the December 18, 2009 meeting

Sediments: Human health and background.

The Sediments Workgroup has met five times. They continue to work on this topic and have been looking in considerable detail at the options. The difficult issue revolves around that in order to establish sediment concentrations protective of human health, the risk based concentrations end up being significantly above background concentrations. This is further complicated by questions of how to define, measure, or estimate background in a marine environment.

Early discussions with the Sediment Workgroup and MTCA/SMS Advisory Group focused on the definition of background and various ways of characterizing background concentrations (including questions about at applicable statistical methods and metrics). Recently the focus of the Sediment Workgroup discussions have shifted to key implementation issues associated with making decisions on sediment cleanup within a general framework. This shift was made in response to feedback from both the Sediment Workgroup and the MTCA/SMS Advisory Group. The major implementation issues are: how to define cleanup sites; how to reach decisions on specific cleanup areas located within broader contaminated areas; and what level of predictability on future cleanup can be provided when it is likely that cleanup areas will become recontaminated due to ongoing releases from other sources.

Although sediments present a unique set of challenges, approaches used at upland sites may help to identify approaches for dealing with these types of issues in a sediment cleanup setting, and Ecology plans to bring this topic back to the MTCA/SMS Advisory Group at the April 26th meeting for additional discussion.

Vapor intrusion

Ecology plans to create a new rule section that establishes a process for evaluating the vapor intrusion pathway. What this new section contains is still being evaluated. Ecology believes that the draft vapor intrusion guidance provides a solid foundation for rule revisions. There are, however, a number of implementation issues that still need to be resolved. Ecology is also revising the MTCA rule air cleanup equations to be consistent with recent EPA guidance.

Some members were interested in forming a workgroup to look more closely at this issue. Ecology recognizes that a number of the group members have considerable experience grappling with this topic at cleanup sites and will be interested in their feedback on initial ideas for rule language.

Ecology is in the process of identifying needs and goals for a vapor intrusion workgroup. Current ideas are that this workgroup would meet weekly or every other week for a defined period of time. Details remain to be worked out, but at least some meetings would be held at Ecology headquarters in Lacey. Participation via telephone is a possibility. Care will be taken to have a balance of viewpoints. Meetings could be organized as follows:

VI Workgroup meeting topics (straw version)

Meeting 1. Establish goals. Review and discuss Ecology draft guidance and rough outline of a new rule section; discuss what should be in guidance verses what belongs in rule; identify and discuss inhalation risk-related issues.

Meeting 2. Continue previous discussion. Discuss rule issues; review and discuss preliminary draft rule topics. Discuss further: site characterization requirements; addressing background; establishing cleanup levels protective of indoor air; situation requiring mitigation; institutional controls; compliance monitoring.

Meeting 3. Continue previous discussion. Review Ecology proposed rule language. Apply draft rule to specific cases; look at different sites; evaluate decision making.

Meeting 4. Continue previous discussion. Other topics as needed. Finalize recommendations to Ecology.

Recommendations from this workgroup group will presented to the MTCA/SMS Advisory Group, although how much discussion the larger group will need or want depends on available time and other the status of discussions on other topics.

Remedy selection

Early rule language presented. Topic presented and discussion completed. Written comments received from a couple of advisory group members. Ecology has reviewed the feedback and comments received, and in some cases, have made adjustment to the rule language.

We will provide a summary of comments and feedback at the March 22, 2010 meeting, but are not anticipating further discussion of this topic with the full MTCA/SMS Advisory Group.

Topics addressed at the January 11 meeting

Background

A table showing the questions and issues that arise regarding background for various media was presented and discussed, putting this discussion into the larger context of decision making framework.

Ecology is still grappling with this topic. Background is an issue at many sites. Ecology is still working on how to create a decision making framework based on background. The sediment workgroup is working through this issue, but the questions that arise are the same for other media (for example, soil and vapor). We will be returning to these issues as we look at how to account for children's increased susceptibility to chemical carcinogens. It turns out that accounting for the increased toxicity to children pushes cleanup levels, in some situations, to below background.

In general, the science-based updates under consideration mean that questions around background need to be addressed. Ecology is in the process of determining which sections of the MTCA rule will need to be looked at in light of this issue. We are not certain at this time that changes will be required; it's likely that minor updates to the statistics sections will be made in order to accommodate recent statistical methodologies and our improved understanding (for example, on how to deal with non-detects).

We are not intending to bring background up as a separate issue; it does however, factor into a number of the other discussions. Ecology will ask for feedback on background-related issues as we discuss risk, children's' susceptibility, fish consumption rates, and Method A updates.

Cleanup standards and toxicity: Human health risks

Ecology provided a preview of the science of children's increased susceptibility to chemical carcinogens (also referred to as early life stage exposure) and how this could potentially impact cleanup levels. Ecology also provided an update on lead toxicity.

These presentations were intended as a preview for upcoming meetings, and based on the discussion Ecology understands that further information and clarity is needed. These topics are being addressed in considerable detail on March 22, with follow up discussion in April and May anticipated.

Institutional controls and periodic reviews

Ecology presented early and preliminary draft rule language. A number of group members submitted written comments. (Ecology accepted comments on this topic until March 12, 2010.)

After reviewing comments, Ecology will evaluate and make changes to the preliminary draft rule as appropriate. We may follow up with individual advisory group members as we work through their comments; w are not, however, intending to have further discussions with the full advisory group on this topic at this time.

(Please keep in mind that this is early input; Ecology will circulate a preliminary draft of the rule and will solicit feedback. Discussions at this point have been to get the general concepts; input on wording and more specifics will be accepted during an upcoming informal review period.)

February 22, 2010

Meeting cancelled. (A make-up meeting will be proposed.)

Topics being address at the March 22, 2010 meeting

- Cleanup levels and risk-related issues.

  This is a broad topic and weaves together many of the topics discussed to date. Risk issues and how they relate to establishing and implementing cleanup standards is a thread that Ecology expects will continue for the remaining meetings. Ecology is looking for feedback and discussion on the technical merits of key concepts.

- Children's susceptibility to chemical carcinogens.

  Ecology expects to revise section 708 and other cleanup standard sections based on new EPA guidance and recent scientific information. Ecology expects a robust discussion on human health risk issues, with a focus for now essentially on soil cleanup levels. (We recognize, however, that many of the issues apply to other media.) We are interested in the implications of factoring in new toxicity data, accounting for children's increased susceptibility to chemical carcinogens (by using age dependant adjustment factors). B[a]P provides a vehicle for discussing the potential effects on decision making.

- Updates to lead cleanup levels.

Ecology is considering incorporating site-specific use of the IEUBK model for establishing lead cleanup levels. We are asking for feedback on how this will affect cleanup decisions.

Over the past several years Ecology has worked with scientists on several risk-related issues. The MTCA Science Panel has considered: adjusting the risk-based cleanup equations to account for children's increased susceptibility to chemical carcinogens using early life stage adjustments (discussions are ongoing); the definition of carcinogens (June 2008); and lead-contaminated soils (2004 and March 2009). Ecology will be discussing early life adjustments and risk issues with the MTCA Science Panel on March 25, 2010.

Our goal for this meeting is for feedback both on Method A tables and implications for Method B equations. We have completed a preliminary evaluation to identify needed updates and chemical specific issues. We are asking, at this meeting, for input on the science, underlying policies, implications, and workability of making these updates. Results will be used to identify the need for and, if needed, define the scope and direction for a potential "risk issues" workgroup.

Homework. (1) Ecology asks that group members bring, to the April meeting, potential cleanup scenarios. (2) Submit any written comments on lead cleanup levels by April 22, 2010.[1]

April 26, 2010: looking ahead

- Sediment cleanup levels that protect human health: factoring in background considerations.
- Fish consumption rates for high fish consuming populations.

  Ecology recognizes that fish consumption is a topic of enormous importance to many people, including WA tribes. Ecology understands that establishing fish consumption rates for tribal scenarios is larger than just a cleanup question. For example, how it relates to water quality criteria and health messages. We understand that a single conversation will not solve the issue. With this discussion we want to acknowledge and recognize the factors involved, explore how the cleanup question can address the issue, and identify possible next steps.

  Our goal for this meeting is to have a discussion that identifies some of the various viewpoints, different agency regulatory constraints, and moves to a productive outcome. One possible outcome could be a recommendation for a narrative criteria in rule establishing the importance of considering tribal fish consumption rates on a site specific basis. Although Ecology is open to other options, we are also aware that conversations regarding setting agency-wide or state-wide approaches to fish consumption rates is a dialog that probably best includes a great many more voices.
- Continue discussion on Method A updates and related risk issues.

  In the context of looking at various scenarios, what are the implications of factoring in accounting for children's increased susceptibility?
- Possible reorganization of certain MTCA rule sections to more explicitly identify and address exposure pathways.

[1] Please note that comments are on this early analysis; Ecology will provide opportunity for review of the preliminary draft rule after the advisory groups conclude meetings, and will engage in a formal public comment process after formally proposing amendments.

Ecology distributed an issue summary and received a wide range of comments on this issue. We reviewed the comments and are developing a conceptual outline of the exposure pathway organization.

Related improvements and updates being evaluated are how other pathways (including vapor and TEE) should be factored in. Ecology is thinking about how (relatively) minor organizational changes might make the rule easier to navigate. We are still working on this, and will be asking for feedback on groundwater and soil sections reorganized around exposure pathways.

Several advisory group members submitted comments on the issue summary, and have thought through the larger framework questions. Ecology will be talking to these people before the April meeting to clarify and follow up on comments.

May 24, 2010: looking ahead

Details of the agenda for this meeting will depend on previous meetings. Probable topics include:

- Integrating the MTCA and SMS rules
- Freshwater cleanup standards
- Method A updates

  Ecology expects that previous discussions will have provided considerable input to how the Method A updates are being approached. A number of implementation-related questions are possible, and Ecology will be asking for feedback on what the effects of these updates are for people making decisions at cleanup sites. (Discussions on this topic may continue into June.)

  Continued discussion on sediment cleanup levels that protect human health: factoring in background considerations.

  This discussion will build on previous meetings and connect with discussion from the sediment workgroup. Ecology will share recent analysis on site definition and how this relates to implementation challenges when establishing risk-based cleanup levels when those concentrations approach background levels.

June 21, 2010: looking ahead

Tentative final meeting. This is currently scheduled as a joint meeting with the Sediment Workgroup. Details of the agenda for this meeting will depend on previous meetings. Probable topics include:

- Sediment issues, including human health and background
- Contaminated groundwater affecting surface water
- Report from the vapor intrusion workgroup
- Other topics to be determined

Extra Meeting

A make-up from the cancelled February MTCA/SMS Advisory Group meeting. Date and topics to be determined.

Next Steps

In summary, Ecology expects that the MTCA/SMS Advisory Group will continue meeting monthly. It's possible that a small number of workgroups will address specific selected topics where Ecology needs additional input. A "make-up" meeting will be proposed; Ecology will ask for input on when is the preferred time. At the final meeting, Ecology will walk through the major changes being proposed. (Whether this is a joint meeting with the Sediments Workgroup in June, or a later meeting, has not yet been determined.)

Based largely on feedback received from the advisory groups between now and June, Ecology will adjust the schedule and timeframe for ensuing conversations. At some point after the final meeting of the advisory groups, Ecology intends to provide an opportunity to read and review the preliminary draft rule language by offering a 45 day comment period. Having this early comment period on the preliminary draft is intended to enable all interested persons a chance to look and analyze topics being address before the formal public comment period accompanying formally proposed rule amendments.

Getting to Preliminary Draft Rule Language

Ecology is intending to fold the input from the advisory groups into our initial preliminary draft rule language. The preliminary draft rule will reflect input from a great many sources:

- MTCA/SMS Advisory Group
- Sediment Workgroup
- MTCA Science Panel
- Ecology site managers
- Ecology's Toxics Cleanup Program management team
- Scientists at EPA and DOH
- Persons who provided comments on the Issue Summaries
- Persons who over the years have corresponded with TCP about problems they have encountered at cleanup sites
- Many others

We believe that having conversations as we go through the process enables strong and vigorous debate and deliberation about both the feasibility and effectiveness of proposed rule changes.