Meeting Summary

Discussion of Potential Model Remedies - Sites with Petroleum Impacts to Groundwater

August 26, 2015, 1:00 – 3:30, Room ROA-32

Department of Ecology Headquarters

300 Desmond Drive SE

Introduction

The primary purpose of the meeting was to give participants an opportunity to provide feedback on what they feel the scope of the model remedy effort should be and whether they had specific recommendations for changes to Ecology policy or practices. This summary does not represent a complete record of the meeting, but rather is intended to capture the key discussion points.

Introductory Comments by Jim Pendowski – TCP Program Manager

Jim indicated that it was no longer possible to use a "boutique" (i.e. a handcrafted or start from scratch) approach for addressing contaminated sites. Instead, Ecology needs to be able to move sites from site discovery to cleanup more quickly. Jim mentioned that the soil model remedy guidance document has been completed and becomes effective on September 1st. He said it is Ecology's intention to waive VCP review fees for sites requesting Ecology feedback. If the initial review identifies concerns, those issues should be addressed and Ecology will provide a second review without charging fees as well. After that, requests for assistance will not be eligible for a fee waiver.

Jim mentioned this meeting is somewhat different than last time in that Ecology is seeking upfront feedback on issues that should be evaluated as part of this effort. He expects that trying to address some of these issues will be difficult and time consuming, but an important component of model remedy development. Finally, Jim stated that Ecology does not expect to revise the MTCA rule any time soon because of other priorities, so model remedies will play an important role in the interim. The anticipated date for finalizing the model remedies guidance document is summer, 2016.

Summary of Past Cleanup Decisions – Sites with Petroleum Impacts to Groundwater

The statute requires that any model remedies developed by Ecology must meet the cleanup standards and the requirements for remedy selection set forth in MTCA. To help ensure compliance with these requirements, Ecology evaluated data for sites with petroleum impacts

to groundwater that have received an NFA letter since January, 2012. This information is summarized in Attachment 1.

Feedback and Suggestions for Improving the Site Investigation and Cleanup Process

After presenting the information compiled from review of the NFA letters and other available documents, Ecology asked for feedback on the overall scope of the model remedy effort, including potential changes to current practices. In addition, Ecology expressed interest in whether anyone had data that would allow for consideration of other options for model remedy development. The following provides a brief summary of each issue identified.

1. *Monitored Natural Attenuation (MNA)* – Very few sites appear to have achieved an NFA using MNA which is not consistent with the approach used by many other states. It was suggested that at a minimum, one model remedy should consist of MNA if contamination is limited to the source property and the plume is stable or receding. The existing MNA rule requirements would need to be met which include: 1) source control to the maximum extent possible, 2) remaining contaminants cannot pose an unacceptable threat during the restoration timeframe, 3) there is evidence that natural biodegradation is occurring and will continue at a reasonable rate, 4) appropriate monitoring requirements are conducted, and 5) the cleanup actions conducted will not result in a significantly greater threat than other alternatives. Consideration should also be given to issuing NFA's if the site is on a "glide path" to meeting the standards, but has not actually achieved them.

2. *Implementation of a "low-threat policy"* – Participants stated that many petroleum sites do not pose a risk following remediation because a majority of the contamination has been removed and groundwater is not being used for drinking water purposes. They suggested that procedures in other states (such as California) be evaluated with the goal of developing risk based criteria that if met, would result in the issuance of an NFA letter.

3. *Conditional Point of Compliance (POC)* – Many sites with petroleum impacts are very small (frequently well under an acre) with potential sources close to the property line. As a result, it is not uncommon for groundwater impacts to be present in the right-of-way (ROW). The rule provisions in MTCA for POC's often preclude these sites from achieving an NFA because residual contamination exists on an adjacent property.

4. *Use of Environmental Covenants* – As discussed above, contamination is frequently present in the right-of-way beyond the property boundary. Even though the groundwater is not being used for drinking water purposes, the rules require that

drinking water standards be met in order to achieve an NFA. Participants also pointed out that even when allowed by rule, it is very difficult to get an adjacent property owner to file an environmental covenant on their property. This is especially true when contamination is limited to the right-of-way. Other states have developed various options for addressing this situation and Washington should evaluate whether any of these approaches have merit.

5. *Reasonable Restoration Timeframe* – Some participants felt that 10 years has been arbitrarily used as the standard timeframe while others indicated that a more stringent restoration timeframe is often required. There was general agreement that using a specific number was not appropriate since site conditions can vary significantly and that development of additional guidance on how to determine a reasonable restoration timeframe, including what criteria should be considered, would be helpful.

6. *Silica Gel Cleanup* – One participant indicated that the use of silica gel cleanup techniques should be allowed when groundwater samples are being analyzed for TPH, particularly for diesel range constituents. He pointed out that other states allow this option and utilizing this approach would result in additional sites being able to achieve an NFA that can't now. He also indicated that there has been significant research into this issue and the data support allowing the use of this approach. Several other participants stated that this issue needs to be resolved.

7. *Evaluate Why Sites Have Stalled* – Participants felt that there would be merit in evaluating why the cleanup process has stalled for a number of sites with petroleum impacts. If one or more reasons are identified that routinely affect the progress at these sites, then additional efforts could be focused on resolving those particular issues.

8. *Streamline the Process for Submitting Documents* – Consideration should be given to developing a standard format and checklist for submitting reports associated with LUST sites. It was felt this could streamline the data transfer process and also result in all the necessary information being provided up-front so the time and effort required to compile information is minimized.

9. *Definition of Non-potability* – The process for determining whether an aquifer meets the rule provisions for non-potability needs better definition. For example, there is not a "standard" timeframe over which the yield test needs to be completed. There is also currently no guidance for how to calculate a Method B direct contact groundwater cleanup level when a non-potability determination is made. The other concern is that a groundwater restriction is required if groundwater concentrations exceed the potable cleanup levels. This often results in on-going groundwater monitoring at sites where a non-potability determination has been made. It was suggested that the development of

a Frequently Asked Questions document to answer these and other related issues would be very helpful.

10. *Technical Impracticability of Removing LNAPL* – Consideration should be given to incorporating recent research on the assessment and remediation of sites where LNAPL is present into several Ecology guidance documents. In particular, the expectations for addressing LNAPL in monitoring wells screened in soils with relatively low hydraulic conductivity should be clarified.

11. *Vapor Intrusion* – Ecology's draft vapor intrusion guidance is from 2009 and does not account for the significant research completed since that time on sites with petroleum contamination. Both ITRC and U.S. EPA have recently issued guidance (October, 2014 and June, 2015) that provide similar recommendations for assessing the potential for vapor intrusion from petroleum releases. Ecology should adopt the use of one of these documents or revise the draft guidance to incorporate the concepts provided.

12. *Small Releases* – It was pointed out that a number of sites have relatively small releases from either the piping system, the pump island or fueling spills which primarily impact soil. Although sampling may reveal high concentrations, the amount of contaminant mass present can often be limited. Guidelines should be developed on how to evaluate whether the mass of contamination presents a significant risk to other potential pathways of concern.

<u>Next Steps</u>

Ecology indicated that the suggestions and feedback would be presented to the TCP Program Management Team at their September meeting to obtain direction on which issues should be addressed during the development of the next phase of model remedies.