

November 3, 2015

WAC 173-350-325, Soil and Sediment Criteria and Use - Workgroup Conference Call

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Agenda

- **Background numbers**
- **cPAH**
- **Dioxins/Furans**
- **PCB**
- **Pesticides**
- **Missing parameters? Salinity/EC**
- **Rule Language**
- **Miscellaneous**
- Scientific formula or number?

- 208 Designated Sole Source Aquifer
 - Wellhead protection zones, water supply areas
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Bulleted items that are not italicized are comments from the meeting. *Italicized wording represent the issues discussed.*

Background numbers

Marni continues to look more closely at background limits for selenium and others to address concerns that current clean SSLs are not realistic. For selenium, detection limits are often too high to measure down to the SSL, which means test results are not meaningful.

- Background limits for arsenic, lead, and selenium are specific concerns.
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cPAH

cPAH SSL of 0.4 ppm is higher than the cleanup level of 0.1 ppm. 0.4 ppm is based on levels found in soils in Seattle neighborhoods. Ecology's cleanup program staff acknowledges the studies findings but has not prioritized adjusting cleanup levels to this background limit. They did advise Marni to look more closely at the study, as results showed cPAH from a mix of areas and the cPAH SSL should be based on areas not impacted by industrial activities. Marni did this and found that the highest cPAH results were actually from areas described as all residential, and so is inclined to leave the SSL at 0.4 ppm. It is uncertain whether allowing levels over 0.1 ppm could lead to creation of a cleanup site. Marni will continue to talk this over with cleanup program staff.

Dioxins/furans

Dioxins:

Unrestricted (now "clean"): 0.0000052 mg/kg (5.2E-06). Background, otherwise 0.000002 mg/kg (2E-06) for MTCA Eco wildlife (see explanation below)

Limited Access (now "limited use") >2': 0.0000052 mg/kg (5.2E-06). Background, otherwise 3E-06 for protection of groundwater (see explanation below)

Limited Access (now "limited use") =<2': 0.000013 mg/kg (1.3E-05). Based on MTCA Meth B (see explanation below)

Clean must account for ecologic impacts. As such, must obtain separate values for dioxins, furans, and dioxin-like PCBs. Value above is the sum of the TEF equivalency for 7 dioxin congeners as compared to chlorinated dibenzo-p-dioxins (2,3,7,8-TCDD).

Limited use does not account for ecologic impacts. As such, value above is the sum of the TEF equivalency for 7 dioxin congeners, 10 furan congeners, and if PCB is of concern, 12 dioxin-like PCBs as compared to chlorinated dibenzo-p-dioxins (2,3,7,8-TCDD).

Furans:

Unrestricted (now "clean"): 0.0000052 mg/kg (5.2E-06). Background, otherwise 2E-06 for MTCA Eco wildlife (see explanation below).

Limited Access (now "limited use"): NA (See dioxins above)

Clean must account for ecologic impacts. As such, need to obtain separate values for dioxins, furans, and dioxin-like PCBs. Value above is the sum of the TEF equivalency for 10 furan congeners as compared to chlorinated dibenzofurans (total).

- Alex had concerns about testing dioxins as the test is expensive. Marni pointed out that the draft rule will require no additional testing than what is required for sediment under WAC 173-204.
 - Dioxins/furans are primarily a concern for stakeholders managing sediment. Alex has sent around proposed SSLs for review by sediment folks and committed to providing feedback to Marni by next week.
 - After the meeting, Marni asked Jen, who missed the meeting, to do the same.
 - Someone suggested Marni talk to Pete Adolphson, which has dioxin expertise for Ecology's cleanup program.
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PCB

Dioxin-like PCB:

Unrestricted (now "clean"): 0.0000052 mg/kg (5.2E-06). Background, otherwise 2E-06 for MTCA Eco wildlife (see explanation below).

Limited Access (now "limited use"): NA (See dioxins above)

Clean must account for ecologic impacts. As such, need to obtain separate values for dioxins, furans, and dioxin-like PCBs. Value above is the sum of the TEF equivalency for 12 dioxin-like PCB congeners as compared to chlorinated dibenzo-p-dioxins (2,3,7,8-TCDD).

PCB Congener/Total Aroclors:

Unrestricted (now "clean"): 0.06 mg/kg. Based on protection of groundwater.

Limited Access (now "limited use") >2': 0.06 mg/kg. Based on protection of groundwater.

Limited Access (now "limited use") =>2': 2 mg/kg. Based on need to manage as "special waste" under WAC 173-303 if over 2 mg/kg.

Comparison to SSL can be based on analysis for 209 PCB congeners (Method 1668) or analysis for Total Aroclors (Method 8082).

- Alex has sent around proposed SSLs for review by sediment folks and committed to providing feedback to Marni by next week.
- After the meeting, Marni asked Jen, who missed the meeting, to do the same.
- Regarding Table 235-A, PCBs must be tested if heavy fuels and oil or mineral oil is present. PCBs have been banned since 1977, so when one knows the product release, why would PCBs need testing? Marni stated that the PCB test and tie to petroleum detections came from a petroleum contaminated soils guidance. Marni will check into this.

- Jake noted that they have not found PCBs in King County street waste.
 - Most on the workgroup said PCBs were not much of a concern since they avoid accepting materials with PCBs.
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Pesticides

- Pesticides are primarily a concern for sediment. Alex has sent around proposed SSLs for review by sediment folks and committed to providing feedback to Marni by next week.
 - After the meeting, Marni asked Jen, who missed the meeting, to do the same.
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Missing parameters

- No one could think of a parameter that was missing from the SSL table.
 - The list of parameters may be too long. Concentration is on only a few SSLs and worry that those parameters not receiving focus may be flawed.
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Rule Language

- Changes/additions to terminology and other clarifications in the red-line draft were generally acceptable.
- Other changes were discussed and Marni will incorporate them into the next draft.
- Marni had not updated SSLs for review prior to the meeting as she continues to look into several parameters.
- Definition of release:
 - add “...entry of any contaminant, *as defined...*” A contaminant is only a contaminant if it increases concentrations above natural background. This will help clarify that not every material moved from one place to another means a release has occurred. This may also assuage concerns about minor leaks at any construction project (e.g. from equipment leakage) being considered a release.
 - Add language at the end stating that placement of clean soil/sediment or limited use soil/sediment in accordance with this rule is not a release.
- Marni mentioned that she will look into backwash solids (sandy filtering media at drinking water facilities) for addressing in the section. Additives in the material will likely be the focus.
- Similar to PCBs, testing for cPAHs should not be triggered based on the detection of heavy oil, which is a very sensitive test. Marni will look into this.
- Detection limits and test methods may be problematic. Some projects complete testing long before they plan to move soils and may not use most current/appropriate method. Test results provided may not list the detection limit or test method. Specifying the test method and detection limit in the rule was suggested, but several test methods are often okay and methods and limits change regularly. Triggering a rule revision to account for such changes is not realistic.
- Some noted that when the SSL and detection limits are close, more sampling is needed to ensure results are accurate.
- Concerns remain over several issues:
 - The “catch 22” of performing due diligence and finding no release, but tests show above SSLs.

- For limited use sites over 2', 10' separation from groundwater is too limiting. Marni explained that this offers a buffer given that groundwater levels fluctuate over time (not just seasonally). John stated that the majority of land use, zoning, and municipal authorities allow fill placement with only 5' separation from groundwater.
 - Requiring 15' of clean soil/sediment over a limited use site is too limiting.
 - Clean SSLs are not realistic.
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Miscellaneous

- Scientific formula or number? Group decided a hybrid would be best. For SSLs that are only a few digits, use a number. For SSLs that are several digits, use scientific formula.
 - People outside the workgroup have expressed concern over the rule not addressing limited use soil/sediment over sole source aquifers, wellhead protection zone or water supply areas, or limiting well installation through limited use soil/sediment. While these are potential issues, the consensus is that they would be better addressed at the local level and not in a statewide rule.
 - We briefly discussed what might trigger a review by a local agency for acceptance of limited use soil/sediment at a site. This rule will not trigger review through SEPA as there is no permit required. For DNR reclamation sites, likely review only triggered by new sites.
 - John stated that the information he hoped to get from reports to provide help with background numbers was not quantitative and so will not be useful after all.
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Close

- Reminder that the workgroup draft will be finalized December 1.
- Rule language is close to completion. Marni will adjust based on feedback from this meeting, and will adjust SSLs based on new research into background numbers.
- Alex and Jen need to get feedback to Marni ASAP on SSLs that may be a concern for sediment.
- Next meeting, and perhaps the last, will be a conference call.