

## **JULY 31 SCUM II WORKSHOP NOTES**

These notes are intended to be a snapshot of comments made during the workshop and are not a comprehensive record of the discussion. The order of the notes follows each presentation.

### **Natural Background**

- General – Natural background values are having unintended consequences for restoration and beneficial use projects. It is difficult to find sources of material below these values. Also true for capping projects.
- 1b) Straits/coastal natural background should be different from Puget Sound. However, using smaller data sets makes results less statistically valid; there is also a total organic carbon/grain size effect.
- 1c) For freshwater, maybe have statewide default natural background and then give guidance on establishing reference areas for specific projects. This may be more doable for organic compounds than for metals, which vary more regionally.
- 2a) Need a Bold-like effort for developing tissue natural background values. Need to have a wider variety of tissues included to match up with risk assessments and more COCs than Lower Duwamish effort.
- 2a) Several votes for not trying to use existing data. Lower Duwamish focused on 4 main COCs, had problems with non-synoptic data, practical quantitation limits, different sampling methods, etc.
- 2b) First step might be to develop a work plan and budget so that funding sources can be pursued.
- 2b) Suggestion to combine forces with PSAMP, as they have samples they can't afford to analyze.

### **Regional Background**

- General – uncertain about definition of regional background vs. area background.
- General – take a step back – the current program is not working. Use agency discretion to set regional background higher. Still have the considerations that have to be taken into account to move from sediment cleanup objective to cleanup screening level – only one part of setting the cleanup level.
- General – RB should be defined as larger areas (e.g., Upper Columbia, Puget Sound).
- 3a) EPA has hydrodynamic model (IDZ models) for outfall dilution – includes sediments. Basic but could be helpful.
- 3a) Harder to find depositional zone with sampling, especially for small unpermitted outfalls, which should be included in regional background and probably should be considered not to have a depositional zone.
- 3a) King County has some basic calculation methods they developed to identify the depositional area near outfalls (Jeff)
- 3b) Use chemistry data to determine where to sample (as we are doing).

- 3c) Floyd-Snyder proposal on determining regional background statewide. Use urban density and zoning to categorize bays, then use existing data to develop RB for different categories of bays. Belief that the current approach is not capturing diffuse sources. Responses expressing concerns about the sufficiency, quality, and recency of data, but liking the simple approach and getting it done quicker. Could be used to develop defaults in the absence of specific values for a bay.
- 4a) Describe the core principles that should apply everywhere, but allow for a balance between predictability and flexibility. Be more transparent about why approaches have differed in different areas.
- 4a) Clarify the language about when you could sample within a cleanup site (e.g., already cleaned up, naturally recovered, for a different chemicals, etc.).
- 4b) Differences in river systems include more active transport through bedload, temporal variations in deposition. Estuaries are also quite different than upstream riverine areas.

### **Determining Compliance with NB or RB**

- General – PGST still opposed to 90/90 UTL, prefers 95UCL. Thinks it is more representative and consistent with EPA guidance.
- General – Lon wants more info on false positives and negatives. Concerned about how high RB may go. Believes there is some way to use a distribution to compare to a bright line standard, will write it down.
- General - Statistical discussions – inappropriate to compare mean or 95UCL to 90/90 UTL – discussion of bright-line cleanup standards.
- General – Questions about using NDs in summed values (off-topic).
- General – May not want to use the terms “Method A and B” for compliance to avoid confusion with MTCA cleanup standards.
- General – Don’t be too prescriptive about which approach to use when. Provide several tools or choices and guidance on the conditions under which they can be used.
- 1b) Retain flexibility to use point-by-point for simple sites, not just for benthic exposures.
- 1d) Add some statistical basis for a reasonable/expected number of exceedances.
- 2a) In addition to consumption, SWAC should also be applied to dermal exposures during beach recreational use, clamming, etc.
- 2b) Consider the size of the site in the context of the size of the exposure when determining SWAC.
- 3a) IC can be abused, e.g., at heterogeneous sites. Need to be sure that it is applied appropriately in areas that are expected to be homogeneous, both in terms of chemistry and in terms of exposures. Need archived samples in case of a problem.
- 3b) Sampling guidance is available (ITRC, EPA) and decision units are important.
- 3b) Need to give guidance on sample processing issues (drying, milling, sieving) that have come up with soil samples.
- 4a) General concern about using tissue data for compliance – too affected by other media.
- 4a) No obvious way to make these decisions, depends on site-specific factors.

- 4a) In some instances, may need to give greater weight to tissue than sediments (e.g., when using sediment amendments).
- 4a) Regardless, it's important to monitor for large sites for informational purposes (risk communication, remedy effectiveness).
- 4a) Potentially only useful for larger sites.
- 4a) Same statistical issues raised re: comparisons with tissue background.
- 4a) Since this is used widely during remedial investigations put more tissue guidance in the manual.
- 4b) Give precedence to species associated with human health risks and sedentary species.

### **Practical Quantitation Limits (PQL)**

- General – questions about how the PQL-based cleanup standards were developed; what do the values that the laboratories reported represent? Concerned about them reflecting pristine samples vs. real-world. PQLs vary from sample to sample. Definitions of PQLs may be different for metals, organics, and dioxins.
- General - If 2-3 labs can achieve a PQL, why not use that? Or MDL to be protective?
- General – Why would the PQL used in the RI differ from that used as a cleanup standard?
- General – Cost issues should be considered; almost any PQL can be achieved depending on cost.
- 1a) The basic issue is the terminology and the ways in which the various values are being calculated.
- 1a) General support for some kind of lab discussion w/Ecology to resolve this issue.
- 2a) Major issue. Lots of questions even in the workshop. Need to do a better job of explaining PQLs in the RI vs. PQL-based cleanup standards.
- 2a) People confuse even MDL and PQL. Add more info for site managers, consultants on what they should use and request.
- 2b) No suggestions provided, but it was considered important to establish when or why a site-specific PQL-based cleanup standard might vary from the programmatic one.
- 3b) It is considered important to have the PQL considered when setting cleanup standards due to the accuracy and variability issues at low concentrations.
- 4) Provide better advice on summing TEQs w/non-detects.
- 4b) Yes, human health-based TEFs are appropriate for use. Others are not well-developed enough.