**JULY 17 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.

**Definition of Simple vs. Complex Sites**

- General – are these bins (one or the other) or is it a continuum in between?
- General – maybe instead of the whole site being defined as simple or complex, some aspects of it could be considered simple and those aspects of the remedial investigation simplified.
- General – consider adding cost as another factor – i.e., the cost of doing a complicated investigation vs. just taking care of the cleanup if the remedy is fairly obvious and protective.
- General – you should not have to meet every criteria, some could be good enough on their own. In other cases, it could be general guidance on weight of evidence – leave room for judgment and not be too prescriptive.
- General – initial designation can be changed later if remedial investigation data identifies more complexity or areas that can be treated as simple.
- General – has site identification already occurred at this point? (yes).
- 1a) Differentiating on the basis of size or volume may not be such a great idea, particularly as it will be hard to know those things before the remedial investigation has been conducted. Area shouldn’t necessarily matter.
- 1b) Consider sediment transport into and out of the site, source control as complexity factors.
- 1c) Strong support for sediment cleanup units being able to be simple sites.
- 2a) Consider co-location of chemicals.
- 3a) Include magnitude of concentrations.
- General support for criteria 2, 3, and 4.

**Screening COPCs**

- General – address false positive/negative rates with respect to screening approaches.
- General – how should values below the practical quantitation limit be treated in screening – as “real” estimated values or non-detects?
- General – consider frequency of detection as part of screening.
- General – provide a short list of bioaccumulatives (take a look at existing DMMP lists and criteria as one place to start).
- General – stay more focused in terms of chemicals (but be careful about co-location). Use the concept of indicator hazardous substances in MTCA. Guidance should mention and discuss how to use this.
- General – make sure degree of source control is understood as part of screening.
- General – concern that if background derivation isn’t protective enough, screening will not be protective.
- 2a) Definitely need to allow for PLP driven efforts to define regional background.
2b) Consider using reference site approach rather than regional background, especially for freshwater sites. This could be a less onerous effort for a PLP to undertake and may be more realistic for freshwater environments. Use existing agency guidance on identifying reference areas.

3) General – need more guidance on compositing for tissue screening, shouldn’t be fish by fish. Base on SWAC approach.

3a) Need a comprehensive Puget Sound fish tissue survey like the BOLD survey. Look for grant funding opportunities.

Incorporating Simple vs. Complex into the Remedial Investigation

1) Add monitoring to the list of things that could be simplified.

1) For use and selection of indicator chemicals, consider both co-location and risk drivers, including those for different exposure pathways.

1) Consider coming back after implementation to ensure risk for all chemicals is reduced.

1) Indicator chemicals should help design remedy, but will still have cleanup goals for all chemicals.

2) Mixed points of view on whether default cleanup levels can hurt or help. Good compromise is the easy-to-use spreadsheets with default and/or customizable values.

3) Can simplify risk assessment if remedy is thorough.

3) May at some sites have a greater need to do risk assessment for risk communication purposes, but other agencies also share that mission.

3) Important to know how/whether the risk assessment will contribute to decision-making.

3) If defaulting to background, may not need risk assessment.

4) The size of the site is a factor with respect to the home range in whether or not to do ecorisk assessment or tissue sampling, particularly for small units within a large site.

4) General agreement that the need for tissue sampling is very site-specific.

5) Examples of things that may not be needed at every site – air sources, groundwater (e.g., metals, volatiles).

5) Generally, use conceptual site model to require only discussion of complete pathways in the remedial investigation.

6) Degree to which surrounding area needs to be characterized is considered a major issue.

6) In some cases, accept that the surrounding area may recontaminate it to a lower degree, but not related to the site unit activities or liability.

6) Like an early action area, with followup later by the larger PLPs.

6) There are 3 different scenarios -1) no larger site, 2) larger site unrelated to COCs and activities at the site unit, 3) site unit has higher concentrations and can be cleaned up as an early action but has some relationship to the larger site.

6) General concern that there is no way to prove you are not part of the larger site.

6) Request to allow PLPs an opportunity to approach Ecology with a comprehensive cleanup of a small site unit rather than conduct an exhaustive investigation.
• 7) Make sure any default parameters included in SCUM II evolve over time.
Passive Samplers

- General agreement that these could be useful to assess bioavailability in a weight-of-evidence approach, especially in the feasibility study.
- 1a) Don’t reinvent the wheel on this – ITRC guidance coming out next month, EPA guidance with SOPs and classes of samplers.
- 1a) Metals samplers may be less ready for use than organics samplers, which have shown good correlations with many (but not all) benthic organisms.
- 1a) Potential issues with PAH metabolism and/or toxicity creating species differences
- 1b) Better at predicting bioaccumulation than toxicity at this time.
- 1b) Use when it’s hard to collect enough tissue volume, especially in freshwater.
- 3a) Tim likes PE samplers; ARI is gearing up to use/analyze them – high surface area, used in Duwamish, can be deployed from a boat.
- 3b) Good for assessing cap effectiveness and breakthrough.

Ecorisk – BSAFs

- 1a) Agreement with not forcing BSAFs through the origin.
- 2a) Burkhart guidance provides some Q&A that helps walk the user through various approaches.
- 3b) If choosing default BSAFs, ensure that they are quality values (not just most conservative) and relevant to the site (species, etc.).
- 3b) Could some measure of the distribution of BSAFs be used instead of the most conservative, given how wide the ranges are?
- 3b) Look at previous Ecology work/conclusions on BSAFs from 1990s.
- 3b) Mercury, other metals, and polar compounds will be problematic.

Ecorisk – TTLs

- General – many concerns about the existing TTLs, including the endpoints included, use of NOAELs, mistakes, inability to find backup information, etc.
- General – sense that the existing values do not meet EPA guidance or appropriate standards of rigor and need to be reviewed again. Interest expressed in doing that.