AUGUST 7 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.

Cleanup Levels – Adjusting Upwards

- General – need to clarify in SCUM II the "and/or" question for these two considerations.
- 1a) Concern about overlap between Water Quality Program and Cleanup Program. Should be getting improvements in water quality from the watershed down, not the other way around. Need to avoid pitting PLPs against municipalities, lose-lose.
- 1a) On the other hand, recognition that Water Quality Program not looking at all the COCs and need to deal with historic sources.
- 1a) Need strong coordination between Water Quality Program and Cleanup Program.
- 1a) Need to achieve AKART, work out with Water Quality Program. Use Phase I/II municipal permits. If you have recontamination despite compliance, then it is not technically possible to achieve better for cleanup.
- 1a) Will need to use modeling to establish the effects of sources at complex sites and gather data to support the modeling.
- 1a) Could you have cleanup levels that vary over time as sources are expected to be controlled, based on long-term Water Quality Program plans?
- 1b) If RB is based mainly on stormwater, it should be considered what is technically possible at this time.
- 2) Include impacts on the community, quality of life issues, fisheries, a temporal component (e.g., number of dredging seasons), sensitivity of the habitat, difficulty of access (e.g., destruction of riparian habitat).
- 2) Include examples but be flexible.
- 2) Evaluate whether these are typical impacts of cleanup vs. over and above the usual.
- 3) Include small legacy site adjacent to municipal outfall with no data (typical case).
- 3) Include a case study for wetlands, creeks.

Cleanup Standards – Area-Based Exposures

- 1a) Yes – different types of exposure. Should at a minimum have benthic standards and area-based exposure standards.
- 1a) Direct contact is a challenge. Probably should be SWAC; may need its own area/depth of compliance.
- 1c) Have the option of multiple cleanup standards available for larger/more complex sites.
- 1c) Even if you do not have multiple cleanup standards, need to document the levels for the various routes of exposure in the RI for clarity.
- 2) Add spatial area of compliance in developing the cleanup standard for area-based exposures (including direct contact).

Cleanup Standards – Biologically Active Zones (BAZ)

- General – don't call them BAZs for human health, use point of compliance.
- General – how to analyze in cobble, other hard sediments?
- 1a) Substrate, grain size, habitat, community, energy of the system are all relevant to determining the freshwater BAZ.
- 1a) SPI could be helpful in defining the BAZ in softer substrates.
- 1b) Nancy thinks there may be enough data to do it, or we could develop the data over time. Potentially could at least have some ranges in initial guidance.
- 1b) A general statement that freshwater is shallower.
- 1b) "Simplicity good."
- 1b) What about the need for consistent data among sites for larger-scale analyses?
- 2b) Site-specific – need to know to what depths shellfish are being exposed as well as the depths to which people are exposed during clamming.
- 2c) For fish-based exposures, use same BAZ as for benthic organisms.

Remedy Selection - Technologies

- General – Dredging is difficult when there is debris, limited access, existing structures to protect, hard bottom, bridge pylons, and historic sediment retention structures. These are really technical feasibility issues rather than hierarchy issues.
- 1a) Residuals (and technical feasibility issues increasing residuals) reduce short-term effectiveness and possibly long-term effectiveness.
- 1a) Dredging should be lower on the hierarchy when it impacts habitats that can't be easily restored, e.g., eelgrass, riparian areas, wetlands, or when there could be cultural/historical artifacts.
- 1a) The long-term effectiveness hierarchy should be more weighted toward risk reduction (surface concentrations) rather than volume, which will tend to collapse the alternatives.
- 2) For in situ amendments, what should be considered "long-term"? 20 years, 100 years, forever?
- 2) Studies are showing some potential benthic impacts of in situ amendments, but highly dependent on particle size and amendments.
- 2) Remember that reopeners are available. Take more risk in cleanups for innovative approaches. Take a pilot project approach, potentially increasing contingency set-asides and conducting more intensive monitoring. Learn from failures as well as successes.
- 2) However, watch out for cases where the cost of fixing a failed remedy may be more than the original cost.
- 2) Remedies seldom fail completely; adjustments can be made.
- 3) Riverine sites require more transport modeling; cost determines what you get out of it. Tailor the model to the complexity of the site.
- 3) Depositional and erosional areas require different remedies. Focus on getting meaningful risk reduction.

Remedy Selection – Feasibility Study

- General – clarify that cost is not a net environmental benefit factor (confusion due to current text formatting).
- 1a) Add case studies that do not focus on dredging – more capping and enhanced monitored natural recovery.
- 1b) If weighting factors are fairly well developed at this point, simply put them in the manual as what should generally be used. Sensitivity analysis has shown that they don't make that much difference.
- 1c) Use risk reduction as the main metric, including a timeframe. This leads to a more spatial approach rather than volume. Alternatives will be distinguished by risk reduction in a given time.
- 2) Use the simple vs. complex approach for the feasibility study. Consider the MTCA approach of presumptive remedies. Examples could be redevelopment projects or sites with very high habitat value, where only one remedy is really reasonable.
- 2) Should be able to skip the disproportionate cost analysis and alternatives analysis if proposing a highly protective remedy, particularly when there is a clear site use.
- 2) Add tools and guidance for doing a focused feasibility study.
- 2) Again remember the Ecology can reopen if the land-use changes.
- 2) Recommendation to get binding agreement of land use and intended cleanup action early to ensure that the focused feasibility study remedy remains protective.
- 2) Should be able to do this with site units as well as sites.

Recontamination – Evaluation and Source Control

- General – it's important to evaluate what scale recontamination is occurring at (diffuse sources vs. specific outfalls).
- General – some see this as inextricably related to regional background. The lower regional background is, the more recontamination will be an issue at all sites, which can disincentivize cleanup.
- General – important not to forget about recontamination sources that are not pipes – pilings, vessel traffic, sediment resuspension and transport, upstream deposition.
- 1a) Most people thought evaluation of recontamination/source control was more of a feasibility study activity than remedial investigation. Nature and extent = remedial investigation, cleanup levels = feasibility study.
- 1c) Sample at end of pipe and combine with simple modeling to avoid being impacted by other sources nearby.
- 2a) Evaluate as if no other sources are present to see whether the site's own sources alone would cause recontamination. Is this reasonable? Yes.
- 2a) Some sites can use purely engineering demonstrations to show that their sources are controlled (legacy sites).
- 2a) Larger sites (e.g., Duwamish, Commencement Bay) may have concerted watershed wide source control efforts. Scale issue – don't do for smaller sites.

- 2b) Burden of proof seems too high – concern that resources will be diverted to source control, which should be a Water Quality Program issue.

Recontamination – PLP Responsibilities

- General – one approach could be that if monitoring data are below a remediation level, just continue monitoring. But if above, then take contingency action. I.e., not every exceedance results in immediate action.
- General – lack of trust that Ecology will follow statement of intent, and also that other PLPs will not drag people back in through contribution actions. Could avoid by defining recontamination as a "new site".
- General – creating multiple classes of PLPs (municipal vs. industrial). Can avoid by setting regional background higher.
- A site shouldn't recontamination above regional background if it's been set properly. Could be this is more fear than reality. Unknown until we try it.
- 1a) One component of the concern is that on upland sites, Ecology has made people evaluate offsite sources not under their control (e.g., groundwater flowing onto their property).
- 1a) Add area-weighted averaging concept over a specific spatial scale for monitoring, consistent with other steps.
- 2b) Do not monitor areas inside depositional zones for compliance, unless it is for informational purposes only.
- 2b) Could area-weighted averaging be used for benthic too? (concern about exceeding at a point or two).
- 2c) Contribution protection at some point in the process before the end of monitoring would be very helpful, given how long the monitoring timeframes are becoming. For example, at the end of confirmation monitoring. Do this as part of a comprehensive monitoring plan that includes contingencies, plans for sediment recovery zones, etc.

Sediment Recovery Zones

- General – have chemical-specific sediment recovery zones or chemicals that can be closed out from monitoring within sediment recovery zones once they have reached the cleanup level.
- General – make sediment recovery zones a last resort; look for other alternatives. Sediment impact zones have never been implemented; don't assume this will work either.
- 1a) Fox River was described as an example of compliance monitoring being separated from long-term monitoring, which involved separate financing and is mainly informational.
- 1a) Site-specific decision, whichever approach (combined or separated) is most efficient based on the fact pattern and PLPs. For some sites where recontamination from the site is a concern or monitored natural recovery is being used, already have long-term (e.g., 30-year) monitoring plans with the same PLP.
- 2a) Evaluating trends is important for sediment recovery zones and any long-term monitoring.

- 2b) PLPs believe that if you have done all you can, and there is no recovery or trend is still upward, the agency should be able to decide that you are done. Ecology pointed out this is like a technical infeasibility waiver, which the State may not have the option to give.
- 2b) A possibility is reevaluation of the current status of the area to see if the regional background was determined correctly (or has gone up). This could lead to changing the cleanup standard during a review process, which could allow a sediment recovery zone to be closed.
- 2b) Alternative, the area could be reevaluated to see if it would meet site identification criteria. If not, Ecology may have some flexibility to reclassify as a "low concern" area.
- 2b) A downward trend should allow closure.
- 2b) Consider providing a cash-out option in lieu of establishing a sediment recovery zone, due to the potential impacts on property transfers, municipal operations, etc. Was discussed early on but not recently. Cash-out could fund long-term monitoring by municipalities, state.

General Comments

- Colville discussion of how SCUM II did not really address freshwater, metals, or rural areas well, leading them to focus on efforts to promulgate tribal standards. They hope to work with Ecology to implement these standards in areas of the state that affect them. They believe the Upper Columbia needs to be addressed as a whole.
- General support for continuing to update SCUM II, continuing to work more collaboratively as a group, perhaps in some kind of pre-SMARM workshop. Thanks for having these workshops.