

TO: Connecticut Department of Energy and Environmental Protection  
RE: [Evaluation of Risk-Based Decision Making](#)” prepared by CDM Smith  
COMMENTS FROM: Rivers Alliance of Connecticut  
DATE: September 30, 2014

Thank you for sponsoring this report and for the chance to comment.

Rivers Alliance has participated in some of the workshops associated with the proposed transformation of remediation programs. We appreciate the importance of these programs to human and environmental health and to the economy. We are not expert in the science, so will restrict these comments to general principles and a few questions.

This is a sophisticated and valuable report, and we regret not having the resources at the moment to delve into it fully. However, we would be pleased to participate in ongoing study and discussion.

#### COMMENTS

**There are two common reasons for changing remediation standards:** 1) research demonstrates that the target contaminant is either more or less harmful than previously known; 2) there is no change in the assessment of the contaminant, but existing clean-up goals are regarded as unsatisfactory because they are impossible to achieve or do not reduce potential harm, or are regarded as too burdensome given other socio-political goals. It is important to be clear about the reason and evidence for recommending and/or implementing a change.

---

In the introductory section the report states that it:

**“... makes suggestions, based on these best practices, for the reform of *health* risk-based contaminated property assessment and management in Connecticut.”**  
[emphasis added]

This will imply to some readers that the risks to be examined are primarily risks to human health; we ask that risks to ecological health be examined and explained more fully. Granted that subsequently the report gives somewhat more weight to ecology, we still worry that it is short-changed. Thus, **“Our research has indicated that perhaps the best default criteria are those promulgated by British Columbia, as part of their Contaminated Sites Regulation .... These criteria are appropriately protective of both public health and *some* aspects of ecological health (primarily with regard to soil invertebrates, such as earthworms, and plants).”** [emphasis added]

Ecological health gets more attention perhaps in the second-choice sources: **“And, as recommended by the soil and sediment workgroup cited above (Hogan, Trombly, et**

*al.*, 2012), states such as Massachusetts, New Jersey, Pennsylvania, and Wisconsin have well developed programs that provide ecologically-based guidance for risk-based site assessment and management. “

---

“ [The] most important attributes of **best practices** for site risk assessment and management are **Scientific Accuracy** and **Knowledgeable Stakeholder Involvement**.”

Definitions of *best management practices* in the Connecticut scheme of law tend to muddle scientifically optimal practices with “not-too-expensive” practices. Both types of consideration are important but they are not interdependent. “Knowledgeable Stakeholder Involvement” should only mean obtaining expert opinion on what the best existing practices are. Non-expert community stakeholders will, of course, play a role in deciding what is actually done and when.

---

Estimates of exposure and risk should clarify how exposure is being measured. Is the exposure being averaged out over a year even though it is actually only seasonal or even more limited? There is a kind of mathematics that can transform a lethal dose of arsenic into a therapeutic remedy. It is also should be clear to what extent exposure will be riskier for certain populations: pregnant women, infants, pets, etc. The following paragraph raises red flags.

**“Next, with regard to protection of public health and the “reasonably maximally exposed individual” (RMEI) in particular, we note that British Columbia’s CSR default criteria for known or suspected carcinogens are established at a human health risk estimate-limit of 1 in 100,000 (10<sup>-5</sup>) per chemical, rather than at 1 in 1,000,000 (10<sup>-6</sup>); and that, based on the judgment of the local public health official, the clean-up criteria can be less (but not more) stringent than the default criteria.”**  
[emphasis in the original]

Who is this RMEI? Am I an RMEI? Is the potency of carcinogens really one-tenth of what has been assumed? Which local health official do you have in mind here? Our health districts are not presently up to the task of assessing health threats on contaminated sites. This reference to health officials is contradicted later by the recommendation that risk assessment be transferred entirely to DEEP.

More generally, the criteria and standards for clean-up should be generally available to the public, electronically.

---

The use of (LEPs) licensed environmental professionals for assessment, planning, and management of contaminated sites has been intensely debated in Connecticut in the last three years. If the person responsible for the contamination or the person owning an interest in the site is the person who chooses, supervises, and pays the LEP, the conflict of interest will overwhelm good intentions.

---

In the recommendations, the emphasis on non-standard solutions is worrisome. This approach resembles some of the alternative mitigation plans proposed when a project is going to destroy, say, a wetland. The typical (but not inevitable) result is a destroyed wetland and a new, mostly dead pond somewhere. Any use of non-standards solutions should be based on a rigorous enforcement plan and process.

---

Flexible, site-specific solutions are only as good as the people framing and managing the plans. Connecticut has an unsatisfactory record on brownfield clean-up. How will DEEP and others put together teams that are scientifically and politically capable of achieving safe, transparent clean-ups?

---

Connecticut has made a large investment in protecting its high quality surface water sources. It is important that these assets be given full attention when assessing contamination.

---

Thank you,  
Rivers Alliance of Connecticut  
Margaret Miner, Executive Director  
[rivers@riversalliance.org](mailto:rivers@riversalliance.org)  
860-361-9349