

**Incorporation of “Green Remediation” into  
UCD LEHR Superfund Site Remediation**

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At the March 10, 2009 UCD/DOE LEHR Superfund site RPM meeting, mention was made that “green remediation” would be incorporated into the final remedy selection for the UCD-proposed remediation of various waste management units at the LEHR site. As noted at that meeting, DTSC held a workshop devoted to green remediation of hazardous chemical sites. The workshop was webcast and archived as, “Global Perspectives on Green Remediation” at: <http://www.dtsc.ca.gov/OMF/GlobalPerspectives.cfm>. Those interested learning more about this approach to hazardous chemical site remediation may want to review that webcast. The overall message was that in developing remediation approaches consideration should be given to the overall carbon footprints associated with remediation alternatives.

It was also noted at the RPM meeting, however, that current regulations governing site cleanup can preclude adoption of the most “green” approaches for site remediation. It is recognized that in order to adopt “green” technologies for site remediation some changes in regulatory requirements may be needed. For some pollutants, such as truly hazardous, persistent chemicals like chloroform, clean up should be the maximum practicable. However, for situations like areas of the UCD LEHR site landfills in which the pollutants of concern are TDS and nitrate that have not migrated off site, it is appropriate to question whether large amounts of money and energy should be expended to remove the TDS and nitrate from the groundwater and to control future releases of these constituents. Opting not to remediate the current pollution caused by those constituents may be supported by principles of green remediation, i.e., not using energy to remediate/control pollutants in situations where there is little or no threat to public health, the environment, or other resources. This approach may be especially appealing considering the current financial situation faced by the state of California and the nation; limited resources should be directed to areas in greatest need of protection.

The remediation of the UCD campus landfills at the LEHR site could be a good demonstration project of how to more appropriately allocate financial resources available for site remediation. I recommend that the RPMs consider reviewing this approach for the LEHR site. At the March 10 RPM meeting I suggested that, as part of reviewing UCD LEHR site remediation approaches, an evaluation be made of the current pollutant releases from the UCD LEHR site landfills to evaluate the potential for releases from those landfills to increase the size of the polluted-groundwater plume if no remediation were undertaken other than the proper grading the landfill surfaces to prevent standing water pools on the top of the landfill. I recommended that the following remediation approach be evaluated: grade the landfill surface, and monitor the magnitude of the groundwater plume caused by the waste management unit to document whether the plume is stable or decreasing in size. This approach could become the basis of the green remediation discussed above.