Missouri Coalition for the Environment
6267 Delmar Blvd. Suite 2E, St. Louis, MO 63130, (314) 727-0600

Ms. Debbie Kring, Community Involvement Coordinator
U.S. EPA, Region VII
901 N. 5th St.
Kansas City, KS 66101
Via Email: kring.debbie@epa.gov; wall.daniel@epa.gov

April 9, 2008

RE: Comments on Proposed Plan for West Lake Landfill Superfund Site, Bridgeton, MO

Dear Ms. Kring:

Thank you for this opportunity to again address the EPA's Proposed Plan for the West Lake Landfill.

I submit these comments on behalf of the Missouri Coalition for the Environment, our members, and board. I reiterate our comments dated December 29, 2006 previously submitted on this issue and incorporate them by reference. I provide additional comments herein.

The groundwater risks at the West Lake Landfill are insufficiently characterized at the site to draw the conclusions of risk and safety that the EPA has drawn. As noted previously, the high-level, radioactive and radiotoxic materials dumped at the site in 1973 are not contained in any meaningful way.

The waste is sitting in the alluvial floodplain, atop groundwater (and *in* groundwater) that flows toward private wells, the Missouri River, and public drinking water intakes on the Missouri River as detailed in the December 29, 2006 comment letter and the documents pertaining to this site. Notably, the Feasibility Study Report on the West Lake site submitted to the EPA by Paul Rosasco of Environmental Management Support Inc. dated May 6, 2006 admits this major deficiency in characterizing risks of the site:

> "the **RI [Remedial Investigation] was neither designed to, nor considered all of the investigations and evaluations that would be required to support definitive conclusions about the potential for contaminants to leach to groundwater** over time. Therefore, leaching of radionuclides and possibly other chemicals such as metals or VOCs, to groundwater is considered to be a potential pathway of concern." (P. 20)

And again:

> "The results of the RI investigations indicate that the radiological and non-radiological contaminants present in the OU-1 waste materials may not be fully contained." (P. 21) …"Therefore**, leaching to groundwater** represents a potential migration pathway to be address [sic] by the remedial actions that may be taken at the Site." (P. 21)

Despite the fact that the Remedial Investigation (RI) did not fully investigate and explore groundwater contamination, the EPA concludes the groundwater is safe. How can this be?

The Proposed Plan draws conclusions with inadequate and insufficient data to support those conclusions. For example, Figure 2-9 in the Feasibility Study shows that at least 11 monitoring wells on the perimeter of the site are noted as "no longer exists" and one is noted as damaged. That shows that the EPA is relying on **1 monitoring well** on the western edge of Area 2 (and none on the north side, though groundwater flows northwest toward the Missouri River) from which to draw broad conclusions that groundwater is safe. Whatever information that might be gleaned from perimeter monitoring cannot be accessed now, old data cannot be verified, and current conditions cannot be monitored for changes over time. Why do these wells that would demonstrate migration of contaminants toward the Missouri River via groundwater off site no longer exist? Why have they not been replaced?

In the public hearing, EPA staff repeatedly claim that no contaminated groundwater plume exists or that no plume is moving off-site. How adequate is the groundwater monitoring network when one entire side of the most contaminated part of the site is unmonitored? What data does the EPA rely on? Is it data from these non-existent wells?

Groundwater is not only present in the river alluvium soil. The Feasibility Study admits that groundwater is also present in the bedrock (p. 9). What evidence does the EPA rely on to conclude that bedrock aquifers are 1) not impacted by radiotoxic materials; and 2) not likely to be impacted by radiotoxic materials?

The risk assessment did not address irrigation scenarios from groundwater either for the dreamed-of vineyard to the east or the crop lands to the west. Nor did it address risks when floodwaters carry radionuclides onto crop fields. The risk assessment took a very short view of very long-lived wastes. Thus, it was inadequate and should not guide decisions about this site.

Water Moves Radionuclides

The EMS Feasibility Study states that a berm "on the northern portions of Area 2 controls runoff to the adjacent properties..." which are the Ford and Crossroads properties including the Buffer Zone (p. 6). However, adjacent properties are contaminated because nothing "controls" the runoff. The "control" is inadequate, as the Feasibility Study admits: "During major storm events, a very small portion of Area 2 can potentially drain down the landfill berm onto the Ford property." (P. 7). In fact, the same study notes that the adjacent properties now have ***3,600 cubic yards*** of eroded material containing radionuclides from the surface of West Lake Area 2 (p. 12) in just 35 years. What volume can we expect to erode leaving the waste on site for thousands of years?

The Feasibility Study also describes erosion of surface sediments occurring *on* site: "An additional 17,200 square feet in the northeastern portion of Area 2 contains soil/sediment eroded from the surface of Area 2." (p. 12) And the Feasibility Study offers still more evidence of erosion: "Occurrences of radionuclides were found in surficial (6-12 inches or

less) **soil at the toe** and immediately adjacent to the landfill berm as a result of the historic erosion from Area 2." (p. 12)

Radionuclides on the surface at the toe of the landfill poses a concern as well because Missouri DNR Director Doyle Childers admits in a February 21, 2008 letter that floodwaters would be "just touching the toe of the landfill at Area 2" if the Earth City levee was breached by a flood the size of the '93 flood. That suggests that a levee failure, however improbable in the short-term (and however likely in the 10,000-700,000 year time frame), would bring floodwater in contact with radionuclides for future generations.

The Feasibility Study also describes the site as being located "2 miles east of the river". The site is actually ½ mile closer to the river than the Feasibility Study states. If the 2-mile assumption figures into the EPA's risk assessments – particularly those relating to groundwater - they must be adjusted to fit reality. Does this impact EPA's calculations on the number and type of domestic and irrigation wells within a certain range? Residents in St. Charles County who rely on alluvial wells downstream from West Lake are concerned that they may face some risks if contaminated groundwater reaches them.

EPA must revisit its Proposed Plan and investigate options that would remove the radioactive waste from the Missouri River floodplain and contain it away from water and away from people. The hazardous lifespan of these poisons extends hundreds of thousands of years into the future. Whatever the limits of our knowledge, they do not excuse us from our responsibility to act on the knowledge we have today. And we know this:

- The atomic weapons wastes at West Lake will be dangerous for more than 700,000 years.
- The wastes are toxic, cause cancer, and cause genetic damage in animals and humans.
- The wastes are this generation's responsibility.
- Humans rely on floodplains for growing crops and building settlements.
- Humans rely on rivers for drinking water and irrigation.
- Humans use groundwater for drinking water and irrigation.
- These realities have been true for millennia and are unlikely to change, therefore

the radioactive waste should not remain in the Missouri River floodplain. Instead, it should be carefully removed, and stored at a licensed waste repository where it is isolated and monitored.

Please keep me posted about activities and decisions regarding this site.

Yours truly,

Kathleen Logan Smith, Executive Director