

## **Toxic Groundwater Plan for Livermore: Progress, Danger and What to do Next**

By Marylia Kelley

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Nuclear weapons activities at the Livermore Lab main site have polluted the air, water and soil since 1952. Toxic and radioactive materials from Livermore Lab operations have been found in the area's agricultural products, local parks and city sewer sludge, among other places.

In 1987, the federal EPA placed the Livermore Lab main site on its National Priorities List, commonly called the Superfund list, of most contaminated locations in the nation. Soil and/or groundwater at the Livermore Lab main site was found to be polluted with volatile organic compounds, hexavalent chromium, Freon, radioactive tritium, plutonium, and a host of other dangerous wastes. The cleanup, begun in the 1980s, is expected to take another 50 years or more to complete.

Still, there is much to celebrate. Soil and groundwater treatment facilities on site have been constructed and successfully employed to remove pollutants, although there is much more to be done and several pollutants (like tritium) pose novel challenges to the cleanup process.

Perhaps most hopeful are the ways in which public comment has served to improve the Lab's Superfund cleanup. The plan for the off-site contaminated groundwater plume under our homes is one such success, though its story is still in-progress. Indeed, your input at this juncture can help us write a happy ending for it.

The story begins 5 years ago, when the Lab began a so-called "pilot project" to deal with the toxic contamination at the "leading edge" of the off-site plume, which extends about a half-mile into the community. The plume runs under various city streets and the Arroyo Seco, across Charlotte Way, and under Big Trees Park and the community swimming pool.

The Lab began pumping toxic water from the aquifer at Big Trees Park – and then dumped the water directly into the sewer line that runs along Charlotte Way. Problem was, this did not clean it up! The water was ending up in the San Francisco Bay, untreated.

After Tri-Valley CAREs and other community members objected, the Lab withdrew the plan. This was a huge victory for community input. However, it left the Lab without a plan for remediating the leading, or outer, edge of the off-site contaminant plume.

Again the community stepped up and participated in the Superfund process, and a consensus plan has been developed that involves construction of a pipeline out to the

edge of the plume, pumping the tainted water and then piping it back to the Lab for on-site treatment. This plan represents a major success and is due to community input. But, now, we must address one of the remaining dangers.

The main contaminant in the leading edge of the off-site plume is PCE, a volatile organic compound. According to some reports, the leading edge may also contain hexavalent chromium and TCE, which are pollutants that have been found in other groundwater locations affected by the Lab.

The good news is that the hazardous constituents in the off-site plume can be pulled out of the water at an on-site treatment facility using well-understood methods. The bad news is that the Lab will have to build its pipeline through soils known to be contaminated with plutonium, a long-lived radioactive element that is dangerous in minute quantities. And, the Lab's detailed design for the pipeline project does not adequately address this hazard.

Tri-Valley CAREs is hosting a community meeting on Nov. 3 at 7 PM. A main goal is to gather public comment on the importance of protecting workers and the community during the pipeline construction. Environmental scientist Peter Strauss will discuss dust suppression and air monitoring for contaminants. Tri-Valley CAREs' Executive Director, Marylia Kelley, will offer an overview of the Superfund cleanup and share ways we can impact decisions. And, board member and attorney Loulena Miles will have sample comments ready for participants to consider.

This important meeting will be held near the leading edge of the off-site plume, and a "plume tour" with flashlights will be available to those who wish to go.

We hope you will take this opportunity to ensure that your voice is heard. It will make a difference!