

Comments on West Van Buren Feasibility Studies

Global Comments to Both Feasibility Studies

- Harmful exposure to VOCs is the principal concern of community members of the WVB area and impacted locations beyond. While both studies suggest that there is no imminent health risk posed by the site, it would be helpful if the reports more specifically call out quantified risks to the community. An analysis of exposure risk should not be done in isolation from other exposure sources in the community; for community members to judge the risk posed by the site, it would be helpful to provide:
 - An estimate of background risk from exposure to non-site VOCs in the area based on available drinking water and air quality data;
 - An estimate of the added risk resulting from VOC contamination and remediation of the WVB site;
 - A quantification, in the form of a percentage, of how much the background risk in the community is increased as a result of VOC contamination and ongoing/planned remediation of the WVB site.
 - VOCs at the WVB site are primarily present in groundwater that is hundreds of feet below the ground surface, that contains relatively low levels of contaminants (ppb range), and that is not used as a source of drinking water at present. Thus, the risk posed to community members by subsurface contamination is expected to be low but increases as the contaminated water is brought to the surface for irrigation purposes, remediation, or both. For community members it is difficult to accept, that cleanup of the site may actually result in a net increase of their health risk from site VOCs. It is desirable to keep further increases in health risks to community members at an absolute minimum as site cleanup progresses.
- A secondary important concern of the community is the availability of water for reasonable future use. Water is a critical resource for the larger Phoenix area and its value likely will increase further in the future. It would be desirable to state explicitly in the reports what the minimum extraction volumes of water are estimated to be in order to contain the contaminant plume. Planned treatment strategies should focus on containing the plume and treating the extracted water without unnecessary depletion of the water resource.
- For members of the WVB community, it is important to understand what the time horizon of site activities will be beyond 2025. Community members have incurred known exposures from the site over several decades. In view of this long time period, and in view of the fact that the contaminant plume will exist for several additional decades into the future, it is desirable to communicate more clearly what actions are planned and will be taken past 2025, which is only 10 years away from today.

Specific Comments to West Van Buren Group Feasibility Study

- Given the size of the document, inclusion of an Executive Summary of the FS is absolutely essential. The Executive Summary should capture all relevant aspects of the report, including the results of the health risk assessment and the impact of planned interventions on overall health risks to the community.
- How much pumping is necessary to contain the plume?
- How much VOC mass will be released into the community as a result of pumping for plume containment?
- If extracted water is not treated, what is the percent increase in risk that community members can expect to incur relative to known background risks from non-site VOCs in the study area?
- Under the 'More Aggressive Alternative,' the installation of additional wells is proposed. Such an installation would be more expensive (unfavorable cost profile) but from a technical standpoint, installation of a new well is straightforward and 'practical.' In the 'Comparative Evaluation' of the different scenarios, the 'Reference Remedy' and the 'More Aggressive Alternative' are both equally 'practical.' However, the latter is more expensive.

Specific Comments to Roosevelt Irrigation District Feasibility Study

- Cleanup of groundwater contamination is most effective when it focuses on extraction and treatment of contaminant hotspots, where treated water volumes are small and concentrations are high. Groundwater production wells (like the ones extant in the RID well field) with long screens generally are inefficient for use in remediation, as they require the treatment of a lot of water containing diluted levels of contaminants. It would be desirable to understand what a groundwater extraction well field designed for remediation would look like and how much water would need to be treated to remove contaminants. What would be the cost of targeted removal of contaminants from remediation wells relative to treatment of groundwater extracted from irrigation wells?
- Provide an estimate of the actual mass of VOCs annually captured and removed/destroyed as a result of remediation efforts. Capture/treatment of VOCs seems to have been diminished from 2012 -2014.
- What was the time course of annual VOC release into the community from water/air pollution before and during and after installation of treatment units?
- How much pumping is necessary to contain the plume?
- How much VOC mass will be released into the community as a result of pumping (and treating) for plume containment?
- What is the percent increase in risk that community members can expect to incur relative to the known background risks from non-site VOCs in the study

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area, if water was extracted and treated or, alternatively, extracted and not treated?