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Cleaning Up BAREC

By Carolyn Schuk

As voters consider whether to approve the Santa Clara Gardens development proposal for BAREC next week, the one thing everyone agrees about is the need to clean up the toxic chemicals in the site's soil, the legacy of eight decades of pesticide testing.

But that's where agreement ends.

The development plan includes a cleanup that will excavate the toxic soil, designed and supervised by the California Department of Toxic Substances Control (DTSC) and paid for by the state.

Opponents of the development proposal, headed by SaveBAREC, challenge that the DTSC's analysis as inadequate and the cleanup proposal as insufficient and a health risk.

Here are the basics about the proposed cleanup, objections to it, and alternatives that have been suggested.

Sources include the **Santa Clara Gardens Final Environmental Impact Report** (FEIR) prepared by the City of Santa Clara, the DTSC's **BAREC Fact Sheet and Responses to Public Comment for the Draft Removal Action Workplan (RAW) for BAREC**, **Comments on the Draft EIR for the Santa Clara Gardens Development Project** by MR Wolfe & Assoc. and ETIC Engineering, the EPA's **Phytoremediation Guide** and **Citizen's Guide to Phytoremediation**.

What's in the BAREC soil? Tests conducted by the DTSC in 2002 found unacceptable levels of arsenic and dieldrin (a pesticide used from the 1950s to the 1970s).

How did the DTSC test the soil? In its initial investigation, the DTSC inspected the site; interviewed former employees; reviewed historical documents, photographs and maps; and reviewed city and regulatory databases.

From this, they identified about 90 chemicals used at the site; 76 of which weren't considered to be of concern because their toxicity is low, they break down into non-toxic substances quickly, or they were used in very small quantities.

The DTSC tested for the remaining 14 chemicals in about 60 different locations, using EPA-DTSC sampling standards for schools built on formerly agricultural land. The samples were also tested for another 75 pesticides in common use before 1979. Only arsenic and dieldrin exceeded acceptable levels.

What's the opposition's objection? SaveBAREC calls the DTSC's plan "seriously flawed." They charge that, first, site investigation and health risk assessment was inadequate and did not follow protocol, and second, identification and testing of toxic chemicals – including for "unknown pesticides " -- was incomplete.

These criticisms are based on review of the Santa Clara Gardens Draft EIR by SaveBAREC's lawyer, MR Wolf & Assoc – a San Francisco law firm specializing in anti-development litigation – and ETIC Engineering, a Pleasant Hill, CA environmental consulting firm. The review doesn't indicate that ETIC performed any tests of the soil.

What's the DTSC's cleanup plan? Between 5,000 and 6,000 cubic yards (about 300 truckloads) of contaminated soil will be excavated from the site and disposed of at Newby island Landfill or Kirby Canyon Landfill. As the work is done, the DTSC will test the remaining soil to ensure that arsenic and dieldrin levels are below the cleanup goals and, if necessary, additional soil will be removed.

The DTSC will monitor air quality and dust levels during the excavation. To prevent toxic dust in the air,

as soil is dug up it will be stockpiled on plastic and covered. In addition, excavation will stop during high winds, and wind fences will be put up and soil wet down if necessary. Trucks will enter and leave the area from Winchester Blvd. and travel on Stevens Creek Blvd. and Interstate 880.

How long will it take? About two weeks.

What other cleanup alternatives were considered? The DTSC evaluated doing nothing, which would severely limit any use of the property; excavating the most toxic areas, paving over -- "capping" -- the rest and restricting future use; and excavating all the toxic soil.

The DTSC recommended excavation as "the most protective of public health and the environment." This will allow the land to be used for unrestricted development; unlike Santana Row, for example, which capped toxic soil with concrete and, as a result, has deed restrictions that prohibit housing at ground level.

What are the grounds for opposing the DTSC's cleanup plan? SaveBAREC says that the EIR fails to "quantify or meaningfully evaluate the potential human health impacts" from the excavation and that the acceptable background level of arsenic used by the DTSC was "not based on any credible source."

The greatest issue for SaveBAREC, however, is that "environmentally superior," and non-invasive alternatives were not considered for cleanup – specifically, bio- and phytoremediation to degrade and remove contaminants.

SaveBAREC hasn't put forward an alternative plan. They have submitted several documents describing phytoremediation methods and projects, including one in Morgan Hill.

What are bio- and phytoremediation? Both are biological methods for cleaning contaminated soil and take months -- even years -- to remove toxics.

Bioremediation uses bacteria to break down toxics. To promote bacterial growth, nutrients and water are added to surface soil, which is periodically tilled.

Phytoremediation uses plants to filter, stabilize or extract toxics from the soil. After the plants grow, they're harvested and incinerated or composted. Ash from incineration is disposed of in hazardous waste landfills. To remove toxics below root levels, the soil must be tilled and replanted.

Why weren't these methods considered? Bio- and phytoremediation methods have their own drawbacks, rivaling or even surpassing those of excavation, say the City Planning Department and the DTSC.

In bioremediation, soil nutrients – lime, cow manure, fertilizer – are added to promote decomposition, producing unpleasant odors for extended periods of time.

Phytoremediation requires repeated harvesting. Because arsenic is found in the BAREC soil as deep as four feet, successive layers of soil must be brought to the surface – resulting in repeated cycles of planting, harvesting and tilling.

A further consideration is that some plants used in phytoremediation are food plants, opening the risk of poisoning ecosystems, wildlife and people. Finally, one plant used to extract arsenic, the bracken fern, is a highly invasive species.

If the Santa Clara Gardens development isn't approved, will the state pay for the cleanup? No. According to the California Department of General Services, "The State would not clean the site of the two contaminants identified in the Remedial Action Workplan of the State Department of Toxic Substances Control until new funding is provided, which currently only exists through a sale of the property."

For more information: You can find the BAREC EIR and all comments and responses on the City website at www.santaclaraca.gov/city_gov/city_gov_current_issues.html. DTSC documents are available at www.envirostor.dtsc.ca.gov/public/profile_report.asp?global_id=43010031. SaveBAREC has an archive of history and reporting on the BAREC question at www.savebarec.org. You can learn about toxics cleanup at the EPA's Clu-In site at www.clu-in.org.

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BAREC Basics

Measures A and B on next week's ballot are zoning changes that will allow the Santa Clara Gardens development to go forward on the BAREC land. Here's a quick review.

What is BAREC? The 17 acre Bay Area Research and Extension Center on Winchester Blvd. (across from Valley Fair) was a University of California agricultural research station from 1928 until it was closed in 2003 and the state put the land up for sale. Currently there is no activity on the site.

Why was BAREC closed? When UC decommissioned the agricultural station in 2003, the reason given was that the usefulness of the site had decreased because the area was no longer primarily agricultural.

Some say that the station was closed as a result of “backroom deals” in 1999 when UC officials “traded BAREC for a $2 million annual funding increase” for the financially strapped UC Cooperative Extension, according to a story in the October 19, 2005 edition of the San Jose Metro.

Who owns it? Although BAREC is within Santa Clara city limits, the property is owned by the state of California and classified as surplus land.

Why is the state selling the land? The state determined that no other state agency had a need for it and put the land – valued at $2 to $4 million an acre – on the market. Proceeds from this sale will go to the state’s general fund.

What control does the city of Santa Clara have over the site? The Santa Clara City controls the zoning of the land and is designated the lead agency for the proposed Santa Clara Gardens project, with primary authority for approval. Currently the land is zoned agricultural. In June 2007, the City Council approved zoning changes for the development.

Why are we voting on this? Last summer SaveBAREC led a successful petition drive to put the issue before the voters.

What’s Santa Clara Gardens? The City of Santa Clara has entered into an agreement to buy six acres of BAREC at below market price through its Redevelopment Agency Affordable Housing Fund. One acre will be set aside for a public park.

Two non-profits – Charities Housing and the Santa Clara Methodist Foundation – are partnering with the city to build about 165 apartments for low income and very low-income seniors. The remaining 10 acres will be sold to Summerhill Homes to build 110 single family, market rate homes.

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