

COMMUNITY WORKING GROUP  
HOOKSTON STATION AND ADJACENT AREAS  
WEDNESDAY, JULY 26, 2006  
6:30 - 8:30 P.M.  
PLEASANT HILL CO-HOUSING, 2200 LISA LANE, PLEASANT HILL

PRESENT

Mary Rose Cassa, Water Board	Lucy Goodell, Colony Park
Chuck Headlee, Water Board	Don Mount, Colony Park
Elizabeth Allen, Water Board	Ron Block, Colony Park
James Kirwin, Water Board	Jan Melloni, Colony Park
Dick Nicoll, School District	Mary Burr, Colony Park
Erin Gabel, Senator Torlakson	Gene DeMar, Colony Park
Greg Bedard, Super DeSaulnier	Pam Lundgren, Colony Park
Jeff Roubal, City of Concord	Ron Johnson, Colony Park
Steve Wallace, City of Pleasant Hill	Colleen Goya, Colony Park
Amy Brownell, Co-Housing	Sherry Huddleston, Colony Park
Dorothy Callison, Co-Housing	

Prior to the meeting Mary Rose Cassa presented an informal demonstration of ground water mitigation through various representative soil layers.

Informal Meeting

Mary Rose Cassa welcomed all to the second Hookston Station Working Group meeting and asked those present to introduce themselves.

Welcome

Designated to represent Colony Park: Lucy Goodell, Don Mount, Ron Block and Jan Melloni with alternate Alice Burns. Representatives from Co-Housing: Amy Brownell and Dorothy Callison (Alternate). Representatives from the City of Pleasant Hill Steve Wallace and from the City of Concord Jeff Roubal. Lucy stated after the primary representatives brought their concerns to the table the floor would be open for comments from all present.

Designated Representatives

The objective of the meeting was to review the 580 page July 10 Feasibility Study presented by the responsible parties. Copies of the study are housed at the Pleasant Hill library. A lending hard copy and CD's were available at the meeting. A copy is also available on the Water Board Website.

Feasibility Study

Mary Rose began a summarization of the Feasibility Study or cleanup plan, which evaluates alternatives for the cleanup process. The cleanup process is at midpoint with the discovery of contamination, investigation and cleanup proposal completed. The cleanup, post cleanup and site closure will follow.

Cleanup Process

A public meeting is scheduled for August 10 at Fair Oaks School to present the Feasibility Study and consider comments. The public comment period will run from August 1 through September 1, 2006. Based on the comments the Feasibility Study may be approved as is, or changes could occur because of public comment. After approval, a Tentative Order will be prepared for adoption by the Water Board.

Public Meeting

Selection of cleanup technology is based on several factors. The EPA uses nine criteria, the Water Board looks for the long-term effectiveness and permanence, how much the toxin mobility and volume is reduced, what is the short-term effectiveness, is it cost effective and easy to implement and finally will the community accept the procedure.

Criteria for  
Cleanup

The Feasibility Study looks at several environmental concerns which came from the Risk Assessment such as the cleanup of the onsite and offsite groundwater and cleanup of the onsite soil. Indoor air, non-drinking water along with drinking water will be addressed.

Environmental  
Concerns

The Feasibility Study presents various alternative methods of cleanup from a zero-valent iron permeable reactive barrier in Zone A to using chemical oxidation in Zone B. It addresses vapor intrusion prevention systems in use under homes, removing private wells and prohibiting new private wells until cleanup is complete.

Methods of  
Cleanup

The favored system is a boomerang shaped permeable reactive barrier requiring a trench approximately 300' long 5' wide and 35' deep filled with zero-valent iron, located in Len Hester park and along Hookston Road. The chemical oxidation in Zone B requires 150 closely spaced injection wells into which potassium permanganate or another oxidizing chemical would be injected. As the barrier stops the contamination mass it allows the contamination down gradient to break down naturally. The public will be asked to evaluate all methods of cleanup and express their opinion to the Water Board.

Elements Common to all of the evaluated cleanup methods include institutional controls which place deed restrictions preventing use of groundwater onsite and a site management plan to control exposure to arsenic in the subsurface soil onsite. Offsite new well installation will be prohibited for a period of time. Removal of wells, annual indoor air monitoring over the core of the plume and installation as needed of vapor intrusion prevention systems are some forms of the short-term solutions to prevent exposure. Monitoring of groundwater soil vapor and contaminant mass removal will ensure the optimal system performance.

Institutional  
Controls

Other cleanup technologies discussed in the feasibility study are in-situ methods, which don't require removing ground water saving cost and energy (Natural attenuation, bioremediation, permeable reactive barrier and chemical oxidation). Also discussed were pump and treat as ex-situ method.

In-Situ

Monitored natural attenuation is a natural process in which contaminants degrade. It requires extensive monitoring wells and groundwater is not brought to the surface; however it could create more toxic by-products and will take a longer period of time for cleanup.

Bioremediation stimulates the microorganisms in the soil which use the contaminants as a food source. This method also requires an extensive injection and monitoring well network. The groundwater is not brought to the surface but the method may create more toxic by-products and there is the possibility that the process could stall.

Bioremediation

The permeable reactive barrier or trench is a system which the groundwater flows through and is treated chemically as it does so. The groundwater is not brought to the surface. The barrier is expensive to install and some iron material may need to be replaced. The drawback may be the presence of extensive underground utilities in the target area which could make installation more difficult

Permeable  
Reactive Barrier

Chemical oxidation requires oxidants introduced into the ground through injection wells and a monitoring well network. The groundwater is not brought to the surface. This system may be effective over a shorter period of time and can achieve complete destructions. Potassium permanganate is injected into the subsurface, which turns the water purple for a short period of time until used up by the reaction process.

Chemical Oxidation

Pump and treat uses above ground tanks and brings the groundwater to the surface via extraction wells cleans and disposes the water. It is an established technology and easier to control.

Pump and Treat

If the permeable reactive barrier is used in Zone A within three to four years we should see a decline to the indoor vapors, and within thirty years the groundwater should be up to drinking water standards. The chemical oxidation in Zone B would take thirty or more years to bring the water up to drinking water standards. The vapor intrusion prevention systems could be removed in three to four years if Alternative 4 is used and in approximately thirty years the final groundwater cleanup would be completed and the restrictions on new wells would be lifted.

Time Line

If Alternative 4 is used the barrier installation and well capping would take place by the end of this year along with the Hookston Station site management plan. The pre-design work plan, implementation would begin in September and be completed by mid-2007. Mid-2007 the remedial design should be completed so the permits for utility clearance can be approved. Implementation target date for the start of cleanup is the end of 2007.

Alternative 4

In the final phase the Water Board will receive and consider comments from the public comment period and prepare a tentative order for final site cleanup. After another thirty day comment period the Water Board can adopt the final cleanup plan at a public hearing and begin implementation under a legally enforceable schedule.

Water Board Decision

The Water Board has directed the responsible parties to send requests to homes in a specific area requesting permission to test for vapors in the home.

Indoor Air Monitoring

During the investigative stage the responsible parties found three small areas of arsenic six inches into the soil on the Hookston property. A high concentration, ten times normal, was found in one test two feet below ground surface. The Water Board requested that the sites be tested again. This limited contaminated area will be left in place. Arsenic occurs naturally in the Bay Area.

Arsenic

The additional soil vapor samples taken last month tested out non-detectable.

Additional Soil Samples

On April 19 the responsible parties presented a work plan to go the west of Vincent Road on private property and conduct soil vapor sampling to get an idea of the extent of the PCE concentration. One property owner has agreed to the testing and other two property owners have not responded.

Vincent Road

NEXT MEETING

Wednesday, August 30 2006, 6:30-8:00, at Pleasant Hill Co-Housing, 2200 Lisa Lane

Next Meeting

PUBLIC MEETING

Thursday, August 10, 2006, 6:30 p.m. Fair Oaks School

Public Meeting

ADJOURNMENT

Having no further business the meeting adjourned at 8:15 p.m.

Adjournment

HANDOUTS:

Handouts

Draft Agenda and Purpose of Hookston Working Group  
Hookston Station and Adjacent Areas Groundwater Basics July 26, 2006  
Hookston Station and Adjacent Areas Groundwater Project Status July 26, 2006  
Hookston Station and Adjacent Areas Summary of Feasibility Study July 26, 2006  
A Citizen's Guide to Permeable Reactive Barriers  
Groundwater crossword puzzle and word search puzzle.  
Water Board Staff Summary Report July 12, 2006 (Site of Cleanup Program Status Report)  
Groundwater Fact Sheets from University of Texas  
Responses to Questions May 25, 2006  
Evaluation Form - Community Working Group Meeting