

LINDON PARK NEIGHBORHOOD ASSOCIATION

December 30, 2008

Jennifer Edward Thies
Project Manager, Remedial Projects Unit
Waste Program Division
Arizona Department of Environmental Quality
1110 W. Washington St. , MC4415B-1
Phoenix, AZ 85007



RE: Public Notice Arizona Department of Environmental Quality (ADEQ)
60-Day Comment Period, Notice of Release of the Draft Remedial Investigation Report
for the West Van Buren Area Water Quality Assurance Revolving Fund (WQARF) Site

Dear Ms. Thies:

The Lindon Park Neighborhood Association (LPNA) is respectfully requesting an extension to the Public Comment Period for the above referenced Draft Remedial Investigation (RI) Report for the West Van Buren Area WQARF Site. The Draft RI Report does not appear to meet minimum requirements of readability, thoroughness or consistency. The following are a few examples of language in the Draft RI Report that was found to be troubling:

- Page 1-2, 1.3.1 Site Description. "The WVBA extends from 7th to 75th Avenues and from Buckeye Road to Interstate 10 (Figure 1-1). Figure 1-1 does not show Interstate 10. Someone unfamiliar with the streets in Phoenix would read the above sentence and look for I-10 to be below Buckeye Road. Convention has boundaries called out or described East to West and North to South. ADEQ's Site Description, dated 06/2008, describes the site as being bounded "approximately by McDowell Road to the north, 7th Avenue to the east, Buckeye Road to the South and 75th Avenue to the west." Unfortunately the Draft RI Report is not as clear in its description nor in the attached figure.
- Page 1-1, 1.1 Purpose of Report, states "The WVBA is the real projection of the western portion of a large commingled plume of contaminated groundwater in Phoenix, Arizona (Figure 1-1). The WVBA extends from 7th to 75th Avenues and from Buckeye Road to Interstate 10. Contributors to this plume include both industrial facilities and contaminated groundwater from the east, as regional groundwater flow is generally westward. The initial primary contaminants of concern (COC) for the WVBA include the following volatile organic compounds (VOCs): tetrachloroethene (PCE), trichloroethene (TCE), 1,1,1-trichloroethane (TCA), cis 1,2-dichloroethene (cis ,2-DCE), 1,1-dichloroethane (1,1-DCA), and 1,1-dichloroethene (1,1-DCE). To a limited extent, chromium is also considered a COC." This small selection is representative of too many poorly written sections throughout this document. It is another instance of a confusing description of the boundaries. It makes the statement about "a large commingled plume" without specifying what is commingled. Do we have groundwater commingled with benzene, toluene, ethylbenzene, and xylenes at a UST area of the site? Do we have contaminants from the north commingled with contamination in the West Van Buren Area? Do we have Motorola 52nd Street Superfund contaminants commingled with contamination from facilities within the West Van Buren Area? Do we simply have many different facilities and sources within the West Van Buren Area commingling among themselves? The reader should be learning this from the Draft RI Report, not having to supply their own conjectures as to what the writers meant.

- * Although the assertion is made on Page 1-1 that, "BTEX was eventually dropped from the COC list because the contaminants were limited to leaking underground storage tank (LUST) facilities regulated by ADEQ's Underground Storage Tank (UST) Program and limited in extent to beneath the above ground storage tanks at the Phoenix Terminal," no data are presented to substantiate that the BTEX has not or will not reach the groundwater and that there is no existing or no potential for commingling of the COCs with the BTEX.. On Page 1-5, 1.3.2.3. the Phoenix Terminal Group is described as "a petroleum storage and distribution facility located between 51st and 55th Avenues south of West Van Buren Street. Numerous releases of petroleum compounds have occurred from storage tanks and piping owned by various companies that have operated at the site (ENSR, 1988). Contamination from these releases has extended to groundwater. Groundwater monitor wells have been installed to evaluate the extent of contamination at the site. SVE systems have been used to remediate soil contamination, while skimmers have been installed to remove free product." Is this not a basic example of how commingling can occur? How was BTEX dropped as a COC under these circumstances? Why are no data presented to substantiate this action?
- * The well location figures and elevation contour maps are difficult if not nearly impossible to adequately interpret as no outline or colored shading is provided to help define the site boundaries. It is important for readers, who do not work with the site, to be able to locate wells which are within and those that are beyond the present boundaries of the West Van Buren Area WQARF, and to determine the direction of groundwater flow within the site. Superimposing the site boundaries on these figures and maps would help make this possible.
- * Data contained in Appendix Y Historical COC Trends is unreadable. Unfortunately the color graphs were made into black and white graphs in this appendix. All 117 graphs show PCE, TCE and DCE. Since the symbol and line for DCE appears as white in all 117 of the black and white graphs, it is only visible when it is superimposed over another (darker) symbol or line in the graph. The Draft RI Report should not be a puzzle to be solved by the readers. Legible graphs that present all the data must be a minimum requirement in a RI Report.
- * A complete list of contaminants of concern (COC) must be clearly presented. As the eastern portion of the West Van Buren Area is a continuation of the Motorola 52nd Street (M52) Superfund Site all the COC identified in the Motorola 52nd Street Superfund Site should be COC at the West Van Buren Area WQARF Site. How can any determination be made of the extent of contamination from M52 if all the M52 COC (organic and inorganic) are not investigated? The statement on page 4-7 that, "The COC for OU3 are TCE and TCA" is not correct as it is incomplete. The Draft RI Report even states that, "WVBA groundwater data indicate that TCE and 1,1-DCE groundwater contamination originates from the OU3 area east of Seventh Avenue and flow into the WVBA WQARF site from the east." The WVBA WQARF COC list must be expanded to include the organic and inorganic COC list from other contributing contaminated areas such as the M52 Superfund Site.
- * A consistent list of contaminants of concern (COC) must be presented. While the Draft RI Report lists PCE, TCE, TCA, cis 1,2-DCE, 1,1-DCA, 1,1-DCE and "to a limited extent, chromium is also considered a COC," the Public Notice lists only PCE, TCE, DCA, cis-1,2-DCE, cis-1,1-DCE and chromium. The Public Notice COC list and the Draft RI Report COC list need to be identical.
- * On page 1-9 the 1120 West Watkins Street painting shop (one of four properties of ChemResearch Co., Inc. (CRC)) the Draft RI Report states that, "The City of Phoenix has owned the property since 1996 when CRC ceased operations. The City of Phoenix currently uses it for storage and as an area to house homeless people." Page 2-26 states that, "Groundwater samples collected from the downgradient wells have contained chromium at concentrations greater than the AWQS on occasion and have consistently contained PCE at concentrations greater than the AWQS. . . CRC continues to collect groundwater samples from the groundwater monitor wells on a quarterly basis." As homeless people are being housed at this site the question arose why no discussion of a vapor intrusion investigation in this area was proposed.

- * Page 6-11 of the Draft RI Report states that, "Typically, vapor intrusion will occur at or near the contaminant (in this case VOC) source area, but can also occur via off-gassing from the groundwater. The likelihood of vapor intrusion via this pathway decreases with increasing depth to groundwater." The statement is repeated on Page 5-3. Recent developments in the study of vapor intrusion show that presently there is no substitute for investigation and sampling is even more crucial due to observed spatial and temporal variability in sites.
- * ADEQ's West Van Buren WQARF February 2006 Fact Sheet states that, "The depth to groundwater in the area of the site is between 90 and 140 feet below ground surface for the upper aquifer and 200 to 400 feet below ground surface for the middle aquifer." The Draft RI Report on Page 3-3 states that the Upper Alluvial Unit (UAU) "ranges between 200 and 500 feet in thickness and" and on Page 3-6 that "UAU1 ranges in thickness from approximately 170 feet to 310 feet bgs" and that "UAU2 is encountered at depths ranging from approximately 170 feet to 310 feet bgs." The UAU1 and UAU2 descriptions do not appear consistent with ADEQ's own fact sheet nor with the Cross-Section Figure 3-4. UAU1 and UAU2 need to be accurately and consistently described in the Draft RI Report.
- * Consistency between the West Van Buren Area WQARF site and the Motorola 52nd Street Superfund Site is desirable. Geologic unit descriptions should be similar from one site to the other as this would be important in understanding the movement of COC from OU3 into the WVBA. The M52 COC list should be used as the starting point for the WVBA COC investigations. If these data do not exist they need to be collected in the eastern portion of the site to be used to show the potential impact of OU3 on the WVBA.
- * The Draft RI Report reflects a consistent lack of quantification and lack of data to support statements made in the report. Some examples of this follow:
 - (1) Page 2-8 "Twenty-nine domestic wells were identified in or near the WVBA; of these, five are located within the WVBA and are functional," which leaves unanswered questions such as: How many wells within the WVBA were nonfunctional and what does nonfunctional or functional mean? Could those nonfunctional wells still be sampled, perhaps with a portable pump?
 - (2) On the same page the Draft RI Report states that, "No VOCs were detected in any of these groundwater samples." What was the analytical method and detection limit used for these samples?
 - (3) On Page 2-10, 2.2.2.2 Passive Diffusion Bag Samplers the Draft RI Report states, "Good correlation between the traditional and PDB samples was observed." Does this correlation hold for all the concentration ratios? What is the concentration range that this correlation is applicable to?
 - (4) On Page 2-10, 2.2.2.3 Additional Well Development the statement is made that, "However, analytical results for dissolved chromium analyses were less than or slightly greater than the laboratory reporting limits." What were the laboratory reporting limits? "ADEQ believes that the detected chromium in most of the wells may be due to deterioration of the stainless steel well casing or naturally occurring in subsurface soils." Which wells had stainless steel well casings? All wells? What were the observed chromium concentrations?
 - (5) On Page 2-11 the Draft RI Report states, "Well RID-84 contained the highest concentrations of PCE of the sampled RID wells and was subsequently selected for further investigation. The groundwater sample collected from well RID-92 contained the highest TCE concentration of the sampled RID wells and was also subsequently selected for further investigation." What were the concentrations of PCE and TCE?
- * On Page 4-3, 4.2 Source Investigations, states "The following is a discussion of COC contamination concentrations segregated into different portions of the WVBA," however, no COC concentration data are provided for many of the investigated facilities especially when settled with ADEQ or ADEQ completed the remediation.

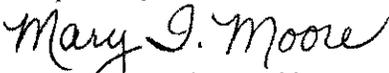
- * Page 5-3, 5.1.3 Surface Water, states "Concentrations of VOCs in canal water in the vicinity of select wells exceed the AWQSs but because the end use of the RID canal water is agricultural there are no applicable surface water standards." Although there are no numeric standards for those contaminants they may be subject to narrative water quality standards. Narrative water quality standards may be used when the contaminants are toxic to humans, animals, plants or other organisms (A.A.C. R18-11-108).
- * Appendix K Land and Water Use Study states on page 1 that "Remedial Objectives (ROs)" will be proposed. Hopefully a more complete COC list will be incorporated before the RO/FS is considered. The Process Overview on page 1 does not specify the opportunity for public review and comment nor which activities are likely to be performed sequentially at this site.
- * The records review of EPA and ADEQ files must include the M52 Superfund Site to ascertain a complete picture of the site including sources of contamination as well as contaminants. Page 1-22 of the Draft RI Report states that, "The investigation consisted of a review of the PRP site files, former 202 facility files, ADEQ records collections and EPA records for information on releases of the WVBA COC." This methodology seems predisposed to not finding the full nature and extent of the contamination and the sources of contamination. If the full nature and extent of the contamination is not identified then current and potential impacts to public health may not be identified. Current and reasonably foreseeable uses of land and waters of the state may be skewed and additional information necessary of identification and comparison of alternative remedial actions may not be obtained and evaluated.

The ADEQ West Van Buren WQARF February 2006 Fact Sheet defines a Remedial Investigation as "an in-depth investigation designed to (1) establish the nature and extent of the contamination and the source(s) of contamination; (2) identify current and potential impacts to public health, welfare, and the environment; (3) identify current and reasonably foreseeable uses of land and waters of the state; and (4) obtain and evaluate any other information necessary for identification and comparison of alternative remedial actions." This Draft RI Report fails to meet the four requirements in ADEQ's own definition pursuant to A.A.C. R18-16-406.

This letter formalizes LPNA's request that the West Van Buren Area WQARF Site Draft RI Report be rewritten to fulfill the purpose of the report and then simultaneously be reissued to all parties who originally obtained copies (both hard copies and CDs) with publication of the notice for the public comment period.

Please do not hesitate to contact LPNA if you have any questions regarding this matter.

Respectfully Submitted,



Mary Moore, Vice President
Lindon Park Neighborhood Association
4839 East Brill Street
Phoenix, AZ 85008

enclosures

cc: Delfina Olivarez, ADEQ Community Involvement Coordinator
Kevin C. Snyder, R.G., ADEQ, West Van Buren WQARF Site
Janet Rosati, EPA Project Manager, Motorola 52nd Street Superfund Site OU3
John Lucey, EPA Project Manager, Motorola 52nd Street Superfund Site OU3
Leah Butler, EPA Project Manager, Motorola 52nd Street Superfund Site OU1, OU2
Vicki Rosen, EPA Community Involvement Coordinator

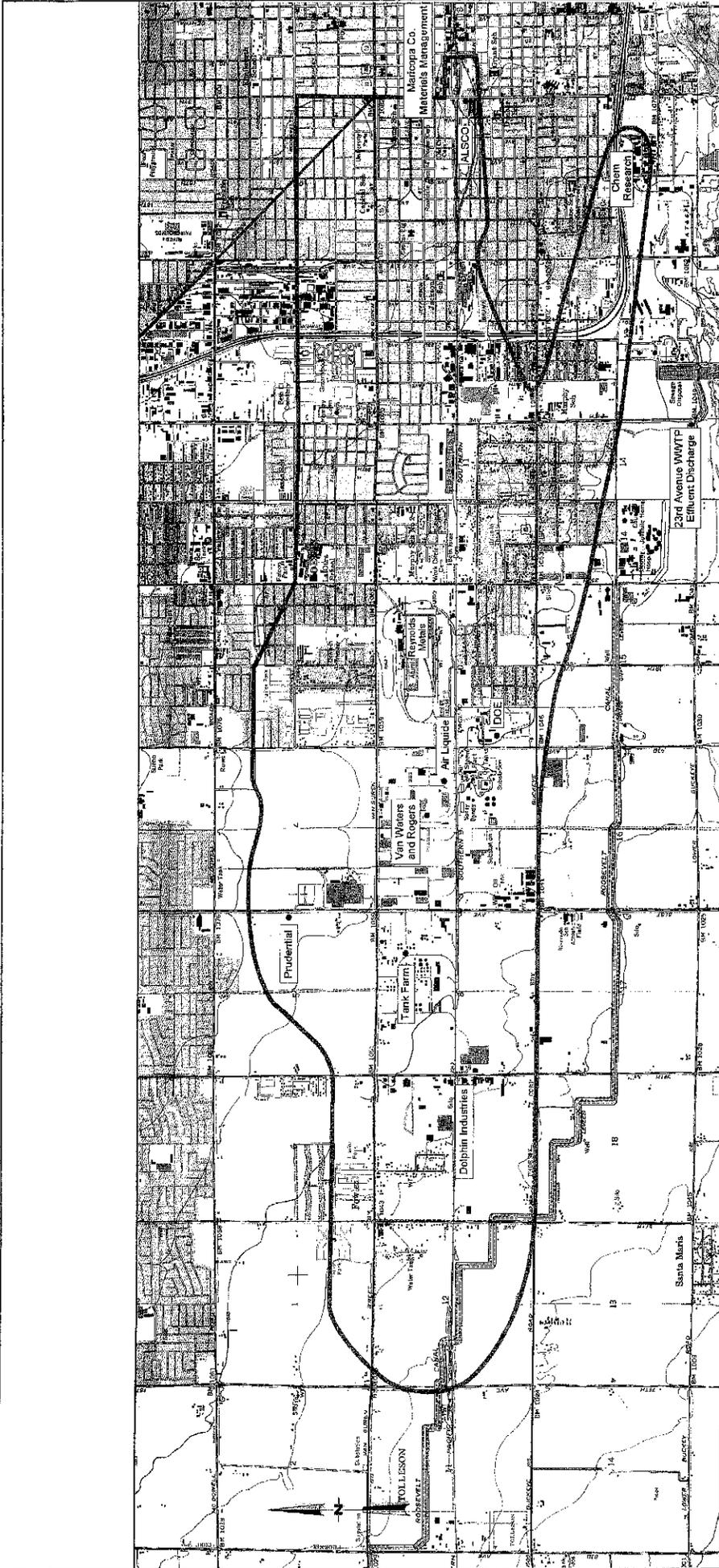


FIGURE 1-1
SITE BOUNDARY
WEST VAN BUREN WQARF SITE
PHOENIX, ARIZONA



PROJ. #:	03103154-16	DATE:	11/30/05
DRAWN BY:	JTA	SCALE:	AS SHOWN
DESIGNED BY:	JTA		
APPROVED BY:	AUG		

NOTE
 SOURCE DATA FOR BASEMAP FROM THE USGS
 7.5 SERIES TOPOGRAPHIC QUADRANGLE MAPS
 FOWLER AND PHOENIX.

LEGEND
 ——— ESTIMATED WEST VAN BUREN BOUNDARY

VPFILEPROJ03103154\FPhase 1\681 Report\Figures\Figure 1.1 Site Boundary.corr

PUBLIC NOTICE
ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY
60-DAY PUBLIC COMMENT PERIOD

NOTICE OF RELEASE OF THE DRAFT REMEDIAL INVESTIGATION REPORT FOR THE
WEST VAN BUREN AREA
WATER QUALITY ASSURANCE REVOLVING FUND (WQARF) SITE

Ref: OU # 09-040

PLEASE TAKE NOTICE: The Arizona Department of Environmental Quality (ADEQ), pursuant to Arizona Revised Statute (ARS) §49-287.03, has released the draft remedial investigation (RI) report for the West Van Buren Area WQARF Site in Phoenix, Arizona. An RI report is prepared to identify the nature and extent of contaminated soil and waters of the state and the sources thereof; identify current and potential impacts to public health, welfare and the environment; identify present and reasonably foreseeable future uses of the land and groundwater; and obtain and evaluate any other information necessary for identification and comparison of alternative remedial actions.

The West Van Buren Area WQARF Site boundaries are defined by the extent of the groundwater contaminant plume, which generally extends to Interstate 10 to the north, 7th Avenue to the east, 75th Avenue to the west and Buckeye Road to the south. The current contaminants of concern in the groundwater include tetrachloroethene (PCE), trichloroethene (TCE), 1, 1-dichloroethane (DCA), cis-1,2-dichloroethene (cis- 1,2-DCE), 1,1-dichloroethene (DCE) and chromium. Contaminants of concern at the site may change as new data become available.

A copy of the draft RI report will be available for review at the Harmon Branch, Phoenix Public Library at 411 West Yavapai, Phoenix, Arizona, (602) 262-4636. The report is also available at the ADEQ office in Phoenix. With 24-hour notice, an appointment to review the public file is available, Monday through Friday from 8:30 a.m. until 4:30 p.m., at the ADEQ Records Management Center, 1110 W. Washington Street in Phoenix, Arizona. Please call (602) 771-4380 or (800) 234-5677 to schedule an appointment to review this and other documents. A public meeting of the Community Advisory Board (CAB) is scheduled for Tuesday, November 18, 2008 at 6:00 p.m. at the Arizona Department of Environmental Quality Building, located at 1110 W. Washington Street Room 145, Phoenix, AZ. 85007. At this time ADEQ will solicit public comments on the draft RI report.

PARTIES WISHING TO MAKE COMMENTS regarding the draft RI report for the West Van Buren Area WQARF Site may make such comments in writing to ADEQ, Attention: Jennifer Edwards Thies, Waste Program Division, 1110 W. Washington Street, MC4415B-1, Phoenix, Arizona, 85007 and by referencing this listing. All comments received will be compiled in a responsiveness summary to be included in the final RI report.

Comments must be postmarked to ADEQ by Tuesday, December 30, 2008.

Dated this 31st day of October, 2008

Jennifer Edwards Thies, Project Manager, Remedial Projects Unit
Arizona Department of Environmental Quality

*ESTE REPORTE NO ESTÁ DISPONIBLE EN ESPAÑOL – Para información en español sobre este reporte, favor de ponerse en contacto con Delfina Olivarez de ADEQ al (602) 771-4710.

AVISO PÚBLICO
EL DEPARTAMENTO DE CALIDAD AMBIENTAL DE ARIZONA
NOTIFICA QUE HA Y UN PLAZO DE 60 DÍAS PARA QUE EL PÚBLICO PUEDA HACER
SUS COMENTARIOS

ESTA NOTIFICACION ES CON REFERENCIA AL INFORME PRELIMINAR SOBRE LA
INVESTIGACION CORRECTIVA DEL AREA LOCALIZADA AL OESTE DE VAN BUREN
DEL
FONDO ROTATIVO PARA LA GARANTÍA DE LA CALIDAD DEL AGUA (WQARF, POR SUS
SIGLAS EN INGLÉS)

Ref: OU # 09-040

FAVOR DE TOMAR NOTA: El Departamento de Calidad Ambiental de Arizona (ADEQ por sus siglas en Inglés), de acuerdo a los Estatutos del Estado de Arizona (ARS) §49-287.03, ha hecho entrega de un informe preliminar sobre la Investigación Correctiva referente al sitio WQARF del Área Oeste de Van Buren en Phoenix, Arizona. El informe de Investigación Correctiva se prepara para identificar el tipo y el grado de contaminación del suelo y el agua del estado y sus causas; identificar los impactos actuales y futuros que la contaminación puede tener en la salud pública, el bienestar y el medio ambiente. También para identificar de qué manera se están usando la tierra y el agua actualmente y que uso razonable se les puede dar a futuro; y obtener y evaluar cualquier otra información necesaria para identificar y comparar acciones correctivas alternativas.

Los límites del Sitio WQARF del Area Oeste de Van Buren están definidos por la extensión de la columna de contaminación del agua subterránea, la cual generalmente se extiende hasta la carretera Interestatal 10 (al norte), hasta 7 Avenida (al este), 75 Avenida (al oeste) y Buckeye Road (al sur). Los actuales contaminantes de preocupación que se detectaron en el agua subterránea incluyen tetracloroetano (PCE), tricloroetano (TCE), 1,1-dicloroetano (DCA), cis-1,2-dicloroetano (cis-1,2-DCE), 1,1-dicloroetano (DCE) y cromo. Los contaminantes de preocupación en el sitio pueden cambiar conforme se van haciendo disponibles más datos.

Una copia del informe preliminar de Investigación Correctiva está disponible en la Biblioteca Harmon Branch, localizada en 411 West Yavapai, Phoenix, Arizona, (602) 262-4636. Otra copia de este informe se encuentra disponible en las oficinas de ADEQ en Phoenix. Con un aviso de 24 horas de anticipación, cualquier persona puede obtener una cita para revisar el archivo público en el Centro de Gestión de Archivos de ADEQ ubicado en 1110 W. Washington Street en Phoenix, Arizona. Las Oficinas están abiertas de 8:30 a.m. a 4:30 p.m. Favor de llamar al Centro de Gestión de Archivos de ADEQ al (602) 771-4380 o sin cobro al (800) 234-5677 en Arizona para hacer una cita para revisar este y otros documentos. Una reunión pública del Consejo Comunitario de Consulta (CAB por sus siglas en Inglés) está prevista para el martes, 18 de Noviembre del 2008 a las 6:00 p.m. en el Departamento de Calidad Ambiental de Arizona, ubicado en el 1110 W. Washington Street cuarto de conferencias no. 145, Phoenix, AZ. 85007. Durante esta sesión, ADEQ solicitará sus comentarios sobre el informe preliminar de Investigación Correctiva correspondiente.

LAS PERSONAS QUE DESEEN HACER ALGUN COMENTARIO sobre el Informe preliminar de Investigación correctiva del sitio WQARF del Área Oeste de Van Buren deben hacerlos por escrito y enviarlos a ADEQ, Atención: Jennifer Edwards Thies, Waste Program División, 1110 W. Washington Street, MC4415B-1, Phoenix, Arizona, 85007 con referencia al sitio listado. Todos los comentarios recibidos serán puestos a consideración y se incluirán en el informe final.

Los comentarios deben llegar a ADEQ matasellados antes del Martes, 30 de Diciembre del 2008.

Fechado el día 31 de Octubre del 2008

Jennifer Edwards Thies, Gerente de Proyecto, Unidad de Proyectos Correctivos
Departamento de Calidad Ambiental de Arizona

***ESTE REPORTE NO ESTÁ DISPONIBLE EN ESPAÑOL – Para información en español sobre este reporte, favor de ponerse en contacto con Delfina Olivarez de ADEQ al (602) 771-4710.**

West Van Buren Water Quality Assurance Revolving Fund Site February 2006

The Arizona Department of Environmental Quality (ADEQ) is sending this fact sheet to inform community members within and near the West Van Buren Water Quality Assurance Revolving Fund (WQARF) site in Phoenix about the contamination present at the site and the process for investigation and cleanup of the contamination.

WHAT IS THE WATER QUALITY ASSURANCE REVOLVING FUND (WQARF)?

The state's Superfund program is known as the WQARF Program. The WQARF Program was established by Arizona law to conduct statewide surface and groundwater monitoring, study health effects of *contamination**, perform emergency cleanup actions and conduct long-term cleanup programs. The WQARF Program is funded with state monies, civil and criminal penalties, and funds recovered from parties responsible for contamination.

WHAT IS THE WQARF REGISTRY?

ADEQ has established a Registry of sites in Arizona where groundwater and/or soil contamination are known to be present. Sites appearing on this Registry qualify for funds available from the state's WQARF for investigation, cleanup of contamination or both. The West Van Buren WQARF site is included on this Registry because of *solvent* contamination in the *groundwater*. Sites on the Registry are given a numeric score based in part upon the type of contaminant(s) present, the location of the contaminant(s) and the number of people that may be affected by the contaminant(s). Scores are used to help determine relative risk at the site and do not necessarily mean that there is a direct risk to humans or the environment. The score of the West Van Buren WQARF site is 50 out of a possible 120.

For further information on this site or other WQARF sites, please visit the ADEQ Web site at www.azdeq.gov. Click on Waste Programs Division, then click on Superfund Programs, and follow the prompts for the information you need.

WHAT ARE THE CONTAMINANTS AT THE WEST VAN BUREN WQARF SITE?

Six contaminants are currently known to be present above regulatory levels in the groundwater of the West Van Buren WQARF site. The contaminants are the industrial solvents tetrachloroethene (PCE), commonly used in dry cleaning processes and as a degreaser; trichloroethene (TCE), primarily used in metal degreasing and cleaning operations; 1,1-dichloroethene (1,1-DCE), used to make certain plastics, as a fire retardant, and can be a breakdown product of other solvents; cis-1,2 dichloroethene (cis-1,2-DCE), used to produce solvents and in chemical mixtures, and can also be a breakdown product of other solvents; 1,1-dichloroethane (1,1-DCA), used to make other

chemicals, paint, varnish and finish remover, and can also be a breakdown product of other solvents; and chromium, a metal commonly used in plating facilities.

GROUNDWATER INVESTIGATION WITHIN THE WEST VAN BUREN WQARF SITE:

ADEQ is currently conducting a remedial investigation within the West Van Buren WQARF site. Approximately 115 groundwater monitoring wells have been installed and are sampled on a quarterly to semi-annual basis. The groundwater contamination plume drawn on the map is based upon the presence of PCE and TCE in concentrations above the regulatory limit of five parts per billion (ppb) for both.

The aquifer beneath the site is divided into three sections - the upper alluvial unit (UAU), middle alluvial unit (MAU) and the lower alluvial unit (LAU). The UAU and MAU have been affected by contamination from the site. Currently PCE contamination above the regulatory limit is present in the MAU down to approximately 400 feet below ground surface.

During September of 2005 ADEQ collected groundwater samples from 76 monitoring and 10 Roosevelt Irrigation District (RID) wells. During this sampling event, the highest TCE and PCE concentration detected in the UAU was 150 ppb and 90 ppb, respectively. The highest detected TCE and PCE concentration in the MAU was 130 ppb and 42 ppb, respectively. The highest detected TCE and PCE concentration in the RID wells was 99 ppb and 13 ppb, respectively.

ADEQ is currently working toward finishing the remedial investigation of the West Van Buren WQARF site which includes installation of additional monitoring wells and preparing the draft remedial investigation report. A considerable amount of time and effort has been spent to interpret the complicated lithology beneath the site and identify potential source areas.

CLEANUP ACTIONS WITHIN THE WEST VAN BUREN WQARF SITE:

Several facility cleanup actions occurred during the course of the West Van Buren WQARF site investigation. Cleanup actions include: *soil vapor extraction (SVE)*, *air sparging*, and *groundwater pump and treat systems* and are as follows:

- Van Waters & Rogers, Inc. began operations of an SVE system in November 1992. ADEQ authorized system shut down in 2002 and issued a No Further Action for soil.
- Maricopa County began operation of an SVE system in 1997. The system was shut down after six months of operation due to soil contaminant levels being reduced to below regulatory standards.

**Italicized terms are defined in the glossary located at the end of this notice.*

THE NEXT CAB MEETING WILL BE ON APRIL 11TH AT 6:00 P.M. AT THE ADEQ BUILDING LOCATED AT 1110 WEST WASHINGTON, ROOM 145, IN PHOENIX

- American Linen Supply Company at 720 West Buchanan settled with ADEQ in 1997. ADEQ began an early response action in 2001 which included an SVE/air sparge system and a groundwater pump and treat system. Over 900 pounds of VOCs were removed and the SVE/AS system was shut down in October 2002. The groundwater pump and treat system was shut down in September 2003 after treating approximately 118 million gallons of groundwater.
- Dolphin Incorporated began operation in 1998 of an SVE/AS at their facility. In April 2004, Dolphin received authorization from ADEQ to shut down the system.
- Reynolds, Inc. removed contaminated soil from their site and received a No Further Action from ADEQ in 2000.

WHAT IS THE QUALITY OF YOUR DRINKING WATER IF YOU LIVE WITHIN THE BOUNDARIES OF THE WEST VAN BUREN WQARF SITE?

The depth to groundwater in the area of the site is between 90 and 140 feet below ground surface for the upper aquifer and 200 to 400 feet below ground surface for the middle aquifer. The water under the site is not used in the public drinking water system. Drinking water is provided by the City of Phoenix and meets all regulatory drinking water standards. The majority of risk associated with contaminated groundwater from this site comes from long term-direct exposure to the water by drinking or bathing. Without a route of exposure, such as drinking the water, there is no risk to you. If you are connected to a public drinking water system, your public drinking water provider is required by law to provide water that meets all state and federal drinking water standards. The water provider conducts regular testing of your drinking water to ensure that standards are met and to ensure that safe drinking water is delivered to the community. For more information concerning your drinking water quality please contact your water provider. The City of Phoenix Water Services number is (602) 262-6251.

DO YOU OWN A PRIVATE GROUNDWATER WELL?

If you are using a private well located within the boundary of the West Van Buren WQARF site, please call Jennifer Edwards, ADEQ Project Manager at (602) 771-4703 or, toll free at (800) 234-5677. Groundwater located within the West Van Buren WQARF site boundary should be sampled and tested regularly if being used for domestic purposes. If you have a well located within the West Van Buren WQARF site and you are concerned about the water quality, please contact the ADEQ Project Manager.

WHAT ARE THE FUTURE PLANS FOR THIS SITE?

Currently, ADEQ is conducting a *remedial investigation* at the site. This involves determining the extent of the groundwater contamination and collecting the information necessary to evaluate area wide *remediation* and cleanup options. ADEQ plans to complete the remedial investigation field work for the West Van Buren WQARF site by June 2006. When the remedial investigation is completed, final cleanup options will be developed and analyzed in a *feasibility study* report.

Input from the public will be sought through newsletters, pub-

lic open houses and other means to ensure that ADEQ is aware of local plans and concerns of the affected community, and to ensure that the public understands and accepts the proposed remedy. ADEQ has formed a Community Advisory Board (CAB) to ensure that citizens in the area of the site have the opportunity to be involved in the decision-making process. The CAB meets on a regular basis. If you would like to become involved in this process or would like additional information, please see the insert in the middle of this notice.

WHAT ARE THE RISKS ASSOCIATED WITH THIS CONTAMINATION?

There are risks associated with exposure to these contaminants, principally through drinking the contaminated water. Most risks associated with contaminated groundwater come from long-term direct exposure to the water by drinking or bathing. Without a direct route of exposure, such as drinking the water, there should be no risk to you.

People who drink water containing PCE and/or 1, 1, DCA in excess of the regulatory levels over many years could experience problems with their liver, kidneys, or nervous system. People who drink water containing TCE and/ or 1,1, DCE in excess of the regulatory level over many years could experience problems with their liver or kidneys. People who drink water containing cis,1,2-DCE in excess of the regulatory level over many years could experience problems with their liver, circulation or nervous system. People who drink water containing chromium in excess of the regulatory level over many years could experience problems with their liver or kidneys or experience stomach upsets or ulcers.

People who drink water containing PCE, TCE, 1,1-DCE, 1,1-DCA or chromium in excess of the regulatory level over many years may have an increased risk of getting cancer. In addition to the substances that have been detected above regulatory levels, other substances have been detected below regulatory levels or have no regulatory standards. Any substances that are present below regulatory levels are presumed to be harmless to the public.

For more information about health issues, please call the Department of Health Services, Office of Environmental Health, (602) 364-3118 or (800) 367-6412.

ADEQ CONTACTS

Records Center: With 24 hour notice, an appointment to review relating documentation is available Monday through Friday from 8:30 a.m. to 4:30 p.m., at the ADEQ Records Management Center, 1110 W. Washington Street in Phoenix, Arizona. Please contact (602) 771-4380 or (800) 234-5677 to schedule an appointment to review these documents.

Jennifer Edwards
Project Manager
ADEQ
Phone: (602) 771-4703
(800) 234-5677 (AZ toll free)
Fax: (602) 771-4272
E-Mail: slr@azdeq.gov

Wendy Flood
Community Involvement Coordinator
ADEQ
Phone: (602) 771-4410
(800) 234-5677 (AZ toll free)
Fax: (602) 771-4138
E-Mail: wv1@azdeq.gov

Please visit ADEQ's Web site at www.azdeq.gov for more information about Arizona's environment.
Hearing-impaired individuals call our TDD line: (602) 771-4829.

GLOSSARY

Air sparging - A treatment technology in which air is injected into the ground below a contaminated area, forming air pockets that rise and carry trapped and dissolved contaminants to the surface, where they are captured by a soil vapor extraction system. Air sparging may work well at sites contaminated with solvents and other VOCs.

Aquifer - An underground geological formation composed of sand, soil, gravel or porous rock that can store and supply groundwater to wells and springs.

Contamination - The presence of any contaminant, including hazardous substances, in groundwater, surface water or soil above a regulatory level.

Feasibility study (FS) - The evaluation of potential remediation methods for achieving the cleanup goals determined during a remedial investigation. Under the federal Superfund program, the alternative methods are evaluated using the following criteria: overall protection of human health and the environment; ability to achieve regulatory standards or site-specific standards developed during a site-specific risk assessment; short-term effectiveness; long term effectiveness or permanence of result; reduction of toxicity, mobility or volume of hazardous substance through treatment; feasibility and reliability; and community acceptance.

Groundwater - Water found beneath the Earth's surface. This includes water that fills the spaces within and between materials such as sand, soil, clay, gravel or fractured bedrock as well as water found in underground streams. In aquifers, groundwater occurs in sufficient quantities that it can be used for drinking water, irrigation and other purposes.

Monitor wells - Wells which are installed for the purpose of obtaining information about the groundwater at a specific location such as water quality, depth to water and groundwater flow direction. Data is usually gathered over a period of time to help determine trends in flow direction and contaminant plume movement. Monitor wells may be used as sentinel wells for an "early warning system" to protect drinking water wells.

Parts per billion (ppb) - a unit of concentration commonly used to express low concentrations of contaminants. For example, 1 ounce of TCE in one billion ounces of water is 1µg/L (microgram per Liter) or ppb. If one drop of TCE is mixed in a competition size swimming pool, the water will contain about 1ppb of TCE.

Plume - The portion of the groundwater in an aquifer which is contaminated. It is usually determined by data from monitor wells.

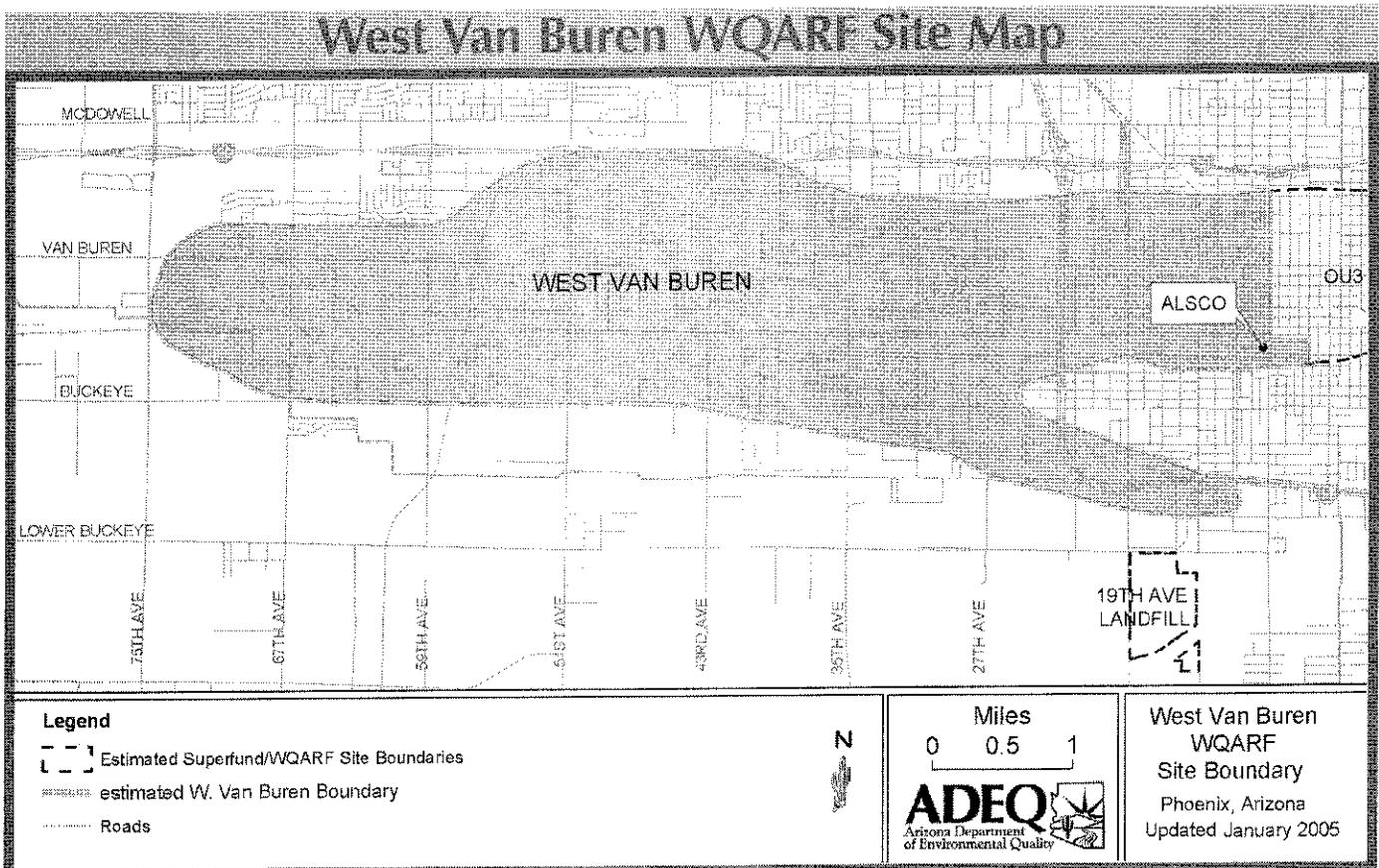
Pump and treat - A remedial action that involves installing wells at strategic locations to extract contaminated groundwater, treating it aboveground to remove the contaminants, and reinjecting it into the aquifer. Other uses for the water or part of the water may be an option such as watering golf courses and dust control.

Remedial investigation (RI) - An in-depth investigation designed to (1) establish the nature and extent of the contamination and the source(s) of contamination; (2) identify current and potential impacts to public health, welfare, and the environment; (3) identify current and reasonably foreseeable uses of land and waters of the state; and (4) obtain and evaluate any other information necessary for identification and comparison of alternative remedial actions.

Remediation - Remediation is the action(s) taken to deal with the release of a hazardous substance that could affect people or the environment. The term "cleanup" is sometimes used interchangeably with the terms remedial actions, removal actions, response action or remedy.

Solvent - Solvents are chemical products, usually liquid, that are used to dissolve or disperse other compounds/substances. PCE is a common solvent used in dry cleaning and for cleaning auto and airplane parts.

Volatile organic compounds (VOCs) - A large group of carbon-containing chemicals that readily evaporate at room temperature. Examples of VOCs are isopropyl alcohol (rubbing alcohol), carbon tetrachloride (spot remover), acetone (found in some nail polish removers) and the solvents PCE and TCE (dry cleaning and metal degreasing).



Unclean Getaway

Maricopa County dumped hazardous waste at its property for years. But don't expect the county to pay for it -- ADEQ has already let it off the hook.

By Chris Farnsworth

Published: September 18, 1997

Maricopa County continued pumping cancer-causing toxins into the ground for four years after the Arizona Department of Environmental Quality warned it to stop. The county Board of Supervisors and top administrators were aware that an oil/water separator at a fuel-storage site discharged--probably illegally--pollutants into a dry well on the property, internal county documents and a former county official reveal.

Those contaminants may have contributed to a massive plume of fouled groundwater which now threatens future drinking-water supplies.

But Maricopa County probably won't ever be held accountable. The county never told the state it was continuing to dump. Instead, it claims that the problem was solely caused years earlier by other operators at the site, which for decades was owned by Southern Pacific Railroad.

And ADEQ has bought it. The county was released from its liability for the White Mountain Fuel Storage site last year by ADEQ after it submitted a report which claimed that it wasn't responsible for any contamination--without mentioning the years of dumping.

That's nothing new for the county and ADEQ. For years, ADEQ has allowed Maricopa County to stall, stonewall and haggle over cleaning up after itself in the West Van Buren area, a 35-square-mile patch of state-designated environmental problems that stretches from Seventh Avenue to 83rd Avenue.

At a county materials management facility in the same area, the county already has spent more than \$200,000 of taxpayer money on legal bills and public relations costs to convince the state it's not responsible for the mess there. Meanwhile, Southern Pacific already has forked over nearly \$300,000 to the county to help cover costs, none of which has gone toward actual cleanup.

At stake for the county is potentially millions of dollars in cleanup costs. The law requires



polluters to pay their share of cleaning up contaminated sites.

For the county, the expensive question of responsibility involves who contributed to a giant plume of contaminated groundwater that is flowing under South Phoenix. Hazardous chemicals--such as solvents and petroleum products linked to cancer and other illnesses--have been detected above legal limits. The drinking water of the city of Tolleson is at risk because of the spills, and the contaminated groundwater is already used in agricultural canals. More important, the polluted underground water supply is expected to be needed as drinking water for the city of Phoenix in the future.

No one from the county or state will talk about the county's involvement in the West Van Buren area. ADEQ staffers have been instructed not to speak to the press. Pieces of ADEQ's files on the matter are missing. County staffers have locked down public records, saying the matter is "in negotiation." Both the county and state offer assurances that they're taking all the appropriate measures.

But those measures don't yet include dealing with the contamination. Even though the county often forces businesses and citizens to follow environmental rules and regulations, Maricopa County still hasn't started cleaning up after itself.

Last year, Maricopa County quit using the White Mountain Fuel Storage Facility. But contaminants linger under the site--and so do the questions about what the county did to contribute to the pollution.

In 1982, Maricopa County leased the property at 5146 West Monroe from Southern Pacific for use as a fuel storage facility. An oil/water separator on the site was used to dispose of contaminated water by pumping it into a dry well.

In 1989, ADEQ told the county to quit. "Some sort of preventative measures [should] be undertaken to avoid such an event (i.e., subsurface contamination from a dry well) in the future," ADEQ wrote the county, according to a chronology prepared by county staff.

Other companies that also stored fuel in the area disconnected their dry wells when asked by ADEQ, the chronology notes. But for four years after that warning from ADEQ, the county continued dumping contaminated water into the dry well.

Maricopa County's former environmental liabilities manager Roland Bergen told the county's Board of Supervisors of the problems at the site in an executive session on November 16, 1993. On March 23, 1994, Bergen wrote a memo about what had been going on at the site.

"We raised concerns about potential liability of the Board of Supervisors and management due to on-going disposal of BTEX (i.e. benzene, toluene, total xylenes) contaminated water from an on-site oil/water separator connected to a dry well at the facility since its construction in the early 1980s," Bergen wrote.

"Our research of the record indicates that on 22 March 1989 Maricopa County was advised by ADEQ to adopt 'some sort of preventative measures . . . to avoid' contamination of the groundwater from our oil/water separator."

But the county ignored ADEQ's request.

"Rather than act immediately on this information, Maricopa County continued to dispose of BTEX contaminated water in the on-site dry well until the mid part of November," Bergen wrote. "This appears to be a violation of ARS 13-1603 (Criminal littering or polluting)."

According to another county document, the oil/water separator was ordered disconnected in October 1993. But this order was ignored, too, and no follow-up was done for another month when the oil/water separator was finally disconnected from the well.

Bergen, when reached by New Times, didn't remember writing the memo but confirmed its contents.

"I don't remember the exact dates, but I know it wasn't disconnected when it should've been. But that was not me, you understand," he says. "It was not me that even got the memo in '89 . . . just so you know I'm not going out dumping hazardous waste down dry wells."

Bergen has since left county government to take a position with Intel. For the most part, he says, he's proud of the work he did while with Maricopa County. He tried to deal with problems as quickly and honestly as possible, he says.

"When I was there, we ran into a lot of things. And we cleaned them up, to the letter of the law. We found some real messes," Bergen says. "My approach was always comply with the letter and spirit of the law and in as comprehensive and as economical a manner as possible. And that's what I did."

Bergen took the same approach with the White Mountain facility, he says.

"There's a lot of problems with the county, and that was one of them," Bergen says. "I guess when we discovered it . . . in '93, we sounded the alarm bells, tried to get it fixed. And we got it fixed, as quickly as we could."

Maricopa County's current risk manager, Rocky Armfield, won't comment on the White Mountain facility, which was already out of the county's operations when he took over.

But ADEQ was never informed of the possible criminal violation, according to Richard Olm, the ADEQ project manager responsible for the area which includes White Mountain.

In 1996--more than a year after the county attorney, county administrator and Board of Supervisors were informed that the county had dumped contaminated water at the White Mountain facility--Maricopa County argued it shouldn't be responsible for cleanup since it had never polluted the groundwater.

"Throughout 1995, concentrations of BTEX . . . TCE . . . PCE . . . and . . . DCE have been detected in groundwater samples collected from the on-site wells," according to a report prepared for the county by James Clarke, a geologist with Brown and Caldwell, a consulting firm hired by the county.

Clarke concluded that the chemical contamination was not the county's fault. And in a letter sent to ADEQ on the county's behalf, Clarke said Maricopa County would not participate in cleanup efforts.

Clarke's letter and report never disclosed Maricopa County's four years of dumping on the site. The letter ends by asking ADEQ not to release the letter publicly. Clarke declined to comment for this story.

The letter and report, however, convinced ADEQ to release the county from any liability at the White Mountain facility.

Now, ADEQ officials say they would need to review the county's internal memos before deciding whether to investigate illegal dumping activities.

"I would need to read the memo and understand how it relates back to the site. That's my comment now," Olm, the ADEQ project manager, says.

But White Mountain isn't the only place where the county has found it convenient to ignore environmental problems in the West Van Buren area.

The other is the Maricopa County Materials Management Warehouse at 301 West Lincoln in South Phoenix, a storage/utility site that the county purchased from Southern Pacific in 1974. The site formerly housed a solvent-recycling facility, which used many hazardous chemicals in its processes.

Maricopa County was supposed to monitor the levels of toxins in the groundwater at its materials management warehouse. A series of wells were drilled, at taxpayer expense, for that purpose.

For a year, Maricopa County let the wells gather dust.

"The Arizona Department of Environmental Quality is concerned about the lack of progress of remedial activities at the Maricopa Materials Management Center," ADEQ's Olm wrote on February 9, 1994. Olm notes that the state asked Maricopa County to start monitoring the groundwater wells in June 1993.

"ADEQ did not receive a response to this request but believe the county is not monitoring groundwater elevations or collecting groundwater samples," Olm wrote.

The county's response: You're right, but we've been busy.

"As indicated in your letter dated 9 February 1994," a county staffer replied, "Maricopa County is not currently collecting groundwater samples . . . nor is it monitoring groundwater levels at that site. Despite massive financial and management burdens, Maricopa County . . . [is] planning to issue RFP's for these activities in May, interview consultants in June and award contracts in July 9 (our new budget year)."

The county's responsibility for the materials management warehouse is still under negotiation with ADEQ.

Maricopa County's defense against ADEQ's demands that it pay for the contamination from the site is well-known to any kindergartner: It's someone else's fault.

In this case, the county is pointing its finger at Southern Pacific, the original owner of both properties. The contamination at Materials Management, the county has argued in letters to

ADEQ, predates Maricopa County's ownership of the property, or comes from other sources, and the county shouldn't be held responsible for it.

But if it really is Southern Pacific's fault, then the county has already collected from it to the tune of \$282,376.

In 1994, a deputy county attorney suggested pulling Southern Pacific into the negotiations with ADEQ for the West Van Buren area.

"[E]very effort should be made to draw as many 'potentially responsible parties' into the [West Van Buren Group] as possible," the attorney said in a memo. "Because the Southern Pacific Company owned the materials warehouse property . . . the railroad clearly bears a considerable share of the responsibility for any contamination . . ."

Maricopa County was successful. After negotiations, the railroad plunked down more than a quarter of a million dollars in 1996 to assist with the costs of dealing with the site. None of the railroad's money has gone to actual cleanup costs, and ADEQ is still negotiating, largely because Maricopa County insists the railroad is responsible.

The county won't say much about the delays. Rocky Armfield, the county's risk manager, declines to answer most questions about the county's sites in the West Van Buren area because the matter is still in discussion with ADEQ. He will say, however, that fixing the blame for an environmental hazard generally takes a lot longer than fixing the problem.

"If you look at the history of environmental liabilities, and you look at the length of investigation, you realize it's generally a lot longer process than the actual remediation," Armfield says.

The state's environmental watchdog defends the county, however; Maricopa County is no worse than anyone else, ADEQ says.

"There's sites that we have that nobody's doing anything on, and contamination was discovered before [Maricopa County]," says Olm. "Would it be nice if things happened quicker? I would say yes. But the process, length of time with the county is not particularly different than other sites."

Still, other polluters in the area aren't using taxpayer dollars to pay the legal bills to drag out the process. The county has already spent \$207,203 on legal fees and public relations costs alone for the Materials Management site. Another \$654,195 has paid for testing to confirm and monitor the contamination.

Just three weeks ago, the county finally approved \$92,000 to remove vapors from the soil at the Materials Management warehouse. (The vapors are not considered to be a health threat until they migrate into the air or water, according to consultants' reports done on the site.)

But there's no indication from Maricopa County or ADEQ when chemicals will be removed from the groundwater--if ever.

Treated reservoir water now meets the city's needs, but groundwater is supposed to be

considered a source of drinking water--at least in the eyes of the law. The groundwater under Phoenix and the surrounding area is reserved for future generations, who are expected to drink it.

Future generations had better budget for Evian.

For years, numerous businesses and manufacturers contributed to hundreds of different spills and dumps of chemicals, many of which trickled their way down to the water trapped below layers of sediment and rock. The result is that the groundwater in this area is contaminated with numerous chemicals, many that are harmful.

In 1986, the Arizona Legislature passed laws which regulated the testing and cleanup of the state's groundwater. Those laws also created the Arizona Department of Environmental Quality. One of the agency's missions was to ensure that the chemistry experiment under the ground stopped, and got cleaned up.

Over the past 10 years, regulators have tried, with varying zeal and success, to carry out their mandate. But at least some of the worst spills--such as Motorola's decades-long history of leaks and dumping--are now on the way to being cleaned up.

And some responsible parties in the West Van Buren area are further along than others.

The City of Phoenix, another polluter in the West Van Buren area, has entered into a consent decree which has settled its liability. The American Linen Supply Company, after going through its own haggling period with ADEQ, has entered into a consent decree and paid \$2 million to the state.

Those sites as well as both county properties are part of the West Van Buren Water Quality Assurance Revolving Fund (WQARF, pronounced "wharf") area. WQARF areas, sometimes known as state Superfund sites, are supposed to eliminate the pollution within their boundaries.

The West Van Buren WQARF area's responsibility is the West Van Buren plume, a contaminated, underground tide approximately one and a half miles wide that stretches from Seventh Avenue to about 83rd Avenue.

The plume contains a stew of toxins: trichloroethylene, or TCE, chromium, dichloroethane, or DCE, and benzene, toluene, ethylbenzene and xylene, known collectively as BTEX.

These chemicals have been linked with cancer and other adverse health effects.

Benzene is known to cause leukemia and is believed to cause tumors. Toluene, another component of BTEX, can damage the central nervous system and bone marrow. Xylenes might also damage bone marrow and present a threat to unborn babies. Most people come into contact with BTEX while fueling up their cars--but it's also in Phoenix's groundwater.

TCE is classified as a carcinogen, and chronic exposure may cause damage to internal organs. Chromium is also considered a cancer-causing agent, even at the minimum limit set by the federal Occupational Safety and Health Administration.

The plume containing these contaminants threatens the drinking water of the city of Tolleson, which still relies on groundwater wells for its municipal supply. The polluted groundwater is also being released into the air and into irrigation canals used to water crops.

That could be a more immediate concern, according to Karen Florini, a senior attorney with the Environmental Defense Fund. "Whatever you've got in [the water] is going to [disperse in the air]," she says. "It just depends on the levels."

Benzene, for example, makes an easy passage from water to the air to the bloodstream, one CDC study shows. The benzene-tainted water being poured into the canals could be releasing the chemical into the air, Florini says.

"You've got a potentially significant exposure to benzenes there," she says. Maricopa County has done no testing to determine the health effects of exposure to the groundwater being poured into the canals. And no testing is being done of the water in the irrigation canals, according to the Roosevelt Irrigation District.

Despite the contamination, no cleanup of the groundwater in the West Van Buren area is under way or planned for any set date.

ADEQ considers remediation "infeasible because unmanageably large volumes of groundwater would require treatment and disposal," according to the ADEQ project summary.

Translation: So much groundwater has been fouled, we can't afford to clean it all.

But the possible health hazards of the plume seem to concern the county less than the legal battle to get out of paying for them.

Even an internal county document draws that conclusion. In a memo detailing the chronology of the county's role in the West Van Buren area, a staffer says that the county got bogged down in bickering, while the more important issue--removing a potential health hazard from the public's water--was ignored.

". . . [I]t appears that the Materials Management Department was unprepared to respond to either the environmental or human health issues in the West Van Buren WQARF (both at the tank farm and materials warehouse)," the staffer wrote. "Additionally, it appears that the County Attorney's Office focused almost exclusively upon legal issues . . . no department initiated the remedial investigation, risk assessment, and feasibility studies that are common to effectively define and/or limit the scope of exposures in this arena."

However, the county will "comprehensively" address health issues in the future, the memo promises.

The memo was written in 1993.

A recent letter to New Times from county administrator David Smith talks up the county's commitment to dealing with its environmental problems.

"The county is thoroughly committed to addressing its environmental responsibilities in order

to protect public health, safety and welfare, while at the same time acting as a prudent steward of public monies," Smith wrote.

But when it comes to one of those responsibilities, ADEQ and Maricopa County can't think of anything to say. Both are reluctant at best to discuss the problems in the West Van Buren area. ADEQ's Olm would only answer a few questions before he told New Times he'd been instructed not to respond to any inquiries. "Now I'm starting to wonder if I'm defying . . . DEQ administration by continuing this conversation," he says.

The county's risk manager says he can't comment as long as the matter is in negotiation. The spokesman for the Maricopa County Board of Supervisors and administration, Scott Celley, referred questions back to the risk manager.

Neither ADEQ nor Maricopa County will talk about the potential violation of law the county committed by dumping the hazardous waste at White Mountain.

The White Mountain site is considered a closed case. ADEQ has released Maricopa County from the group of responsible parties. Those who are left are now proposing "natural attenuation" as a solution--basically, letting the tainted groundwater flow away. ADEQ is considering the proposal.

Roland Bergen, the former liabilities manager, says that the county did dig up the dry well and dispose of the contaminated soil at White Mountain, though there is no record of this at ADEQ. Bergen can't explain why the county would not inform others about problems like the one he discovered at White Mountain.

The EDF's Karen Florini would offer a comment on the dumping, however. "Who was stupid enough to do this?" she asks. "Unless this dry well it's been going down has a permit to receive hazardous waste, that disposal is illegal. And somebody's potentially in a lot of trouble.