

West Central Phoenix Water Quality Assurance Revolving Fund Site

This fact sheet is a publication of the Arizona Department of Environmental Quality (ADEQ) to inform community members near West Central Phoenix Water Quality Assurance Revolving Fund (WQARF) site of current site activities in Maricopa County. If you receive your drinking water from the City of Phoenix, your current drinking water is not affected by the groundwater contamination at the site.

A glossary of terms is located at the end of this fact sheet.

Site Boundaries and History

The West Central Phoenix (WCP) WQARF site is located in the western portion of Phoenix and is generally bounded to the north by Highland Avenue, to the south by Van Buren Street, to the west by 55th Avenue, and to the east by 27th Avenue.

Based upon data collected during investigations conducted within the WCP, ADEQ has identified five sites where groundwater contamination is present (Figure 2); 1) North Plume; 2) North Canal Plume (NCP); 3) East Grand Avenue (EGA); 4) West Grand Avenue (WGA); 5) West Osborn Complex (WOC).

WCP is located in an urban setting that includes a mixture of commercial businesses, light industrial, warehouses, and residential neighborhoods.

ADEQ placed these sites on the WQARF Registry in 1998 and re-evaluated them in 2000. Cleanup and investigative work at these sites is funded and managed by WQARF, which is the state Superfund program.

Activities have included researching facilities that used hazardous substances, collecting soil and soil vapor samples,



Figure 1 - Installation of soil vapor extraction wells at the North Plume.

installing and sampling groundwater monitoring wells, conducting aquifer testing, initiating early response actions (ERAs) and utilizing soil vapor extraction (SVE) methodology to remediate contamination while the five sites are being fully characterized.

Investigations have been conducted by ADEQ and by private parties overseen by ADEQ. Groundwater within WCP is generally found at depths ranging from approximately 120 feet below ground surface (bgs) to 160 feet bgs.

What are ADEQ's future plans at this site?

The five sites within the WCP are in different stages of investigation. They are as follows:

The North Plume and EGA are both in the process of finalizing the Feasibility Study (FS) for each site. Upon completion

of each FS, ADEQ will initiate a Proposed Remedial Action Plan (PRAP). During the PRAP, ADEQ will analyze the remedial alternatives presented in the FS and select a remedial alternative best suited for the sites.

The NCP is currently in the Remedial Investigation (RI) phase. Additional investigations are being completed to finalize characterization and study of land and water uses in the area. Upon completion of the RI, ADEQ will initiate the FS. During the FS, ADEQ analyzes potential cleanup methods for achieving the cleanup goals determined during the RI.

The WGA and WOC are currently in the process of finalizing the PRAP for each site. After the PRAP is finalized, ADEQ will prepare Record of Decisions (ROD) to initiate remediation.

What are the health risks associated with this contamination?

The groundwater under WCP is not used in the public drinking water system. If you are connected to a public drinking water system, your public water provider is required by law to provide water that meets all state and federal drinking water standards. The City of Phoenix conducts regular testing of your drinking water to ensure the standards are met and to ensure safe drinking water is delivered.

For more information on your water quality, contact the Phoenix Water Services Department at (602) 262-6251.

If you have a private well near the site, please contact Rebecca Kearney or Kevin Snyder, ADEQ Project Managers, at (602) 771-4226 or (602) 771-4186, respectively. Any risks associated with exposure to contaminated groundwater are principally through drinking the contaminated water.

People who drink water containing tetrachloroethene (PCE) and trichloroethene (TCE), in excess of the Arizona Aquifer Water Quality Standards (AWQS), over many years could experience problems with their liver, kidneys, or nervous system, and may have an increased risk of getting cancer.

Salt River Project (SRP) occasionally pumps its wells within WCP for well maintenance or irrigation use and samples the water in the canal for contamination. The listing of the WCP on the WQARF Registry does not necessarily represent a determination that the release of a hazardous substance at the site poses a threat to human health or the environment.

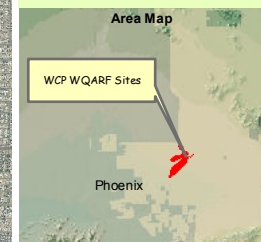
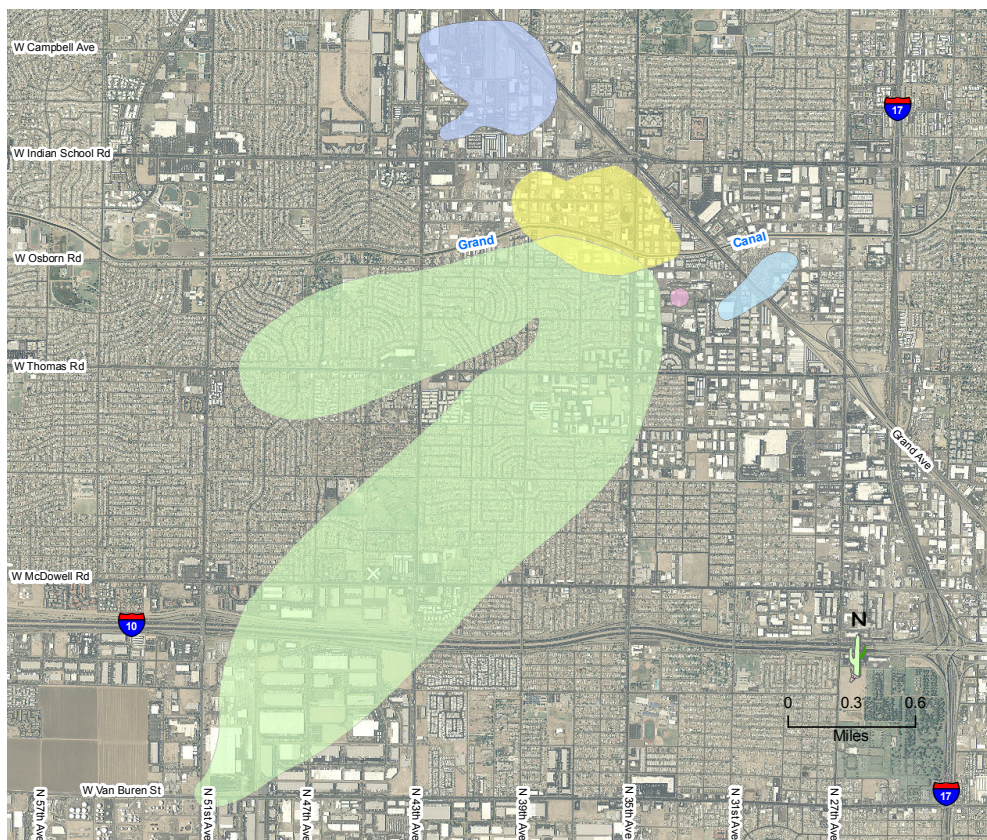
What are the contaminants at this site?

Chemicals of concern (COC) contained in the groundwater include the volatile organic compounds (VOCs) PCE and TCE. PCE is a clear, colorless, nonflam-

mable solvent that evaporates at room temperature. PCE is widely used for dry cleaning of fabrics and degreasing and drying of metals. TCE is a colorless liquid used as a solvent, metal degreasing agent, and in other industrial applications. TCE is also a breakdown product of PCE. Contaminants of concern at the site may change as new data becomes available.

COMMUNITY INVOLVEMENT

ADEQ will keep the public informed through a variety of means including fact sheets and public meetings. ADEQ is assembling a mailing list and forming a Community Advisory Board (CAB) to advise ADEQ and the public of issues and concerns related to investigations and remediation of the site. The purpose of the CAB will be to:



- Legend**
- East Grand Avenue Plume
 - North Canal Plume
 - North Canal Plume
 - West Grand Avenue Plume
 - West Osborn Complex Plume

Map Date:
January, 2012

WASTE PROGRAMS
DIVISION
GIS and Data
Management Unit

Map produced by Arizona
Department of Environmental
Quality (ADEQ), GIS and Data
Management Unit,
TS Summers

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Project2014.mxd
web name: allplumesmap

Data Sources: Arizona
Department of Environmental
Quality, Arizona Land
Resources Information
System, Arizona Department
of Transportation. Map
Updated: March, 2014
Projection: UTM, Nad 83, Meters

Site boundaries depicted on the site map represent ADEQ's interpretation of data available at the time the map was constructed. The map is intended to provide the public with basic information as to the estimated geographic extent of known contamination as of the date of map production. The actual extent of contamination may be different. Therefore, the geographic boundaries for this site may change in the future as new information becomes available.

Figure 2 - West Central Phoenix Plume Map

West Central Phoenix (WCP) WQARF Site - Phoenix, Arizona



Figure 3 - Trenching and installation of groundwater treatment pumping lines at the North Plume.

- provide comments to ADEQ on the cleanup and investigation issues related to the WCP site;
- represent a diversified cross-section of the community in and around the WCP site;
- participate in outreach to the community; and
- make site visits if desired.

CAB Members Needed

ADEQ is currently looking for members of the public to serve on the CAB.

- Are you concerned about the environment and protecting public health?
- Do you live, work, own property or a business in the area of the site and/or are you interested in the site?
- Do you have a minimum of two hours a day four times a year to volunteer?

If you answered yes to any of the questions and would like to apply to be a member of the CAB, please fill out and complete the enclosed application. For more information on community involvement activities at the site please call Wendy Flood, ADEQ Community Involvement Coordinator, (602) 771-4410 or 1-800-234-5677 Ext. 771-4410.

Information Repository

Within 24-hour notice, an appointment to review related documentation is available Monday through Friday from 8:30 a.m. to 4:30 p.m. at ADEQ Records Management Center, 1110 West Washington Street in Phoenix. Please contact (602) 771-4389 to schedule an appointment to review these documents.

What is WQARF and the Registry?

The WQARF Program was established by Arizona law to:

1. conduct statewide surface and groundwater monitoring;
2. study health effects;
3. perform emergency remedial actions; and
4. conduct long-term remedial action programs.

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 for investigation and/or cleanup of contamination. The WCP sites are included on this registry. For further information on this site or other WQARF sites, please visit the ADEQ Web site at:

www.azdeq.gov.

Click on Waste Programs, then click on Superfund/WQARF programs. Follow the links to get to the information that you need.

ADEQ Contacts:

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Wendy Flood, ADEQ Community

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Hearing impaired persons may call
ADEQ's TDD line at (602) 771-4829.

Para información en español sobre este sitio, comuníquese con Ray Ortega al (602) 771-4189.

Glossary

Aquifer Water Quality Standard (AWQS)

These are standards set to protect the quality of the water in aquifers for present and foreseeable uses, including consumption of the water by humans.

Contamination

Any hazardous substance released into the environment.

Cyanide

Cyanide is a very poisonous chemical usually found joined with other chemicals to form compounds. Examples of simple cyanide compounds are hydrogen cyanide, sodium cyanide, and potassium cyanide. Cyanide and hydrogen cyanide are used in electroplating, metallurgy, production of chemicals, photographic development, making plastics, fumigating ships, and some mining processes.

Early Response Action (ERA)

Refers to a remedial action performed prior to the final remedy, and often prior to the remedial investigation. An ERA addresses current risks to public health, welfare, and the environment; protects or provides a supply of water; addresses sources of contamination; or controls or contains contamination where such actions are expected to reduce the scope or cost of the remedy needed at the site.

Feasibility Study (FS)

A process to identify a reference remedy and alternative remedies that appear to be capable of achieving the remedial objectives for the site. It is often done as part of a two-phase investigation in conjunction with a remedial investigation (RI/FS).

Groundwater

Water found beneath the earth's surface that fills pores between materials such as sand, clay, or gravel. In aquifers, groundwater occurs in sufficient quantities that it can be used for drinking water, irrigation, and other purposes.

Proposed Remedial Action Plan (PRAP)

A document which reviews the cleanup alternatives presented in the site feasibility study and identifies ADEQ's preferred alternative. Selection of a preferred alternative is not a closed-end commitment to use that alternative; rather, it is a way for the agency to indicate, based on experience and expertise, which alternative is the most likely course of action. ADEQ must actively solicit public review of and comment on all the alternatives under consideration.

Record of Decision (ROD)

A legal document that announces and explains the cleanup methods ADEQ will use at a Superfund/WQARF site. The ROD is based on information and technical analysis generated during the remedial investigation and feasibility study, and on consideration of comments received during the public comment record for the proposed remedial action plan.

Remedial Investigation (RI)

Establishes the nature and extent of the contamination and the sources; identifies current and potential impacts to public health, welfare, and the environment; identifies current and reasonable foreseeable uses of land and waters of the state; and obtains and evaluates any information necessary for identification and comparison of alternative remedial actions.

Remediation

Actions taken to deal with the release of a hazardous substance that could affect people or the environment. Also see the term "cleanup."

Soil Vapor (Soil Gas)

Gaseous elements and compounds that occur in the small spaces between soil particles. Such gases can move through or leave the soil or rock, depending on changes in concentrations or pressure.

Tetrachloroethene (PCE)

A clear, colorless, nonflammable solvent that readily evaporates at room temperature. PCE is widely used for dry cleaning of fabrics and degreasing/drying of metals.

Trichloroethene (TCE)

TCE is a nonflammable, colorless solvent that readily evaporates at room temperature. TCE is used mainly for degreasing/drying of metals and cleaning of fabrics.

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), acetone (found in some nail polish removers), and the solvents PCE and TCE (used in dry cleaning and metal degreasing).

Water Quality Assurance Revolving Fund (WQARF)

A program administered by ADEQ to (1) conduct statewide surface and groundwater monitoring; (2) study health effects; (3) perform emergency remedial actions; and (4) conduct long-term remedial action programs. Also known as "State Superfund Program."