

Lake Havasu Ave and Holly Ave 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 the Lake Havasu Ave and Holly Ave site of current site activities in Mohave County. If you receive your drinking water from Lake Havasu City, 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 History and Investigation

ADEQ recently added the Lake Havasu Ave and Holly Ave site to the Water Quality Assurance Revolving Fund (WQARF) Registry on December 4, 2017, with an eligibility and evaluation (E&E) score of 50 out of 120, due to the presence of soil and groundwater contamination. The Lake Havasu Ave and Holly Ave WQARF Site (the Site) is located in Lake Havasu City, Arizona, and is generally bounded to the north by Kiowa Boulevard, to the south by Holly Avenue, to the east by San Juan Drive, and to the west by Cactus Wren Drive (Figure 1, Page 4). The Site is in an urban setting that includes a mixture of commercial businesses, light industrial, warehouse and residential neighborhoods.

Manufacturing at the former McCulloch facility began in the late 1960s. Initially, it was used for assembly of Singer sewing machine motors and gyrocopters. In 1972, McCulloch purchased the property. The facility expanded over the years to include manufacturing of small gasoline powered equipment. McCulloch also manufactured products for parent companies, Black & Decker and ShopVac Corporation (ShopVac). A variety of chemicals were used at the facility

including a variety of solvents and vapor degreasing agents. Manufacturing continued until 1998 when McCulloch filed for bankruptcy. Following bankruptcy, ShopVac conducted investigative and remedial activities until 2008.

ShopVac ceased characterization and monitoring activities after 2008. ADEQ conducted sampling in 2014.

As of 2014, concentrations of one or more of the contaminants of concern exceed regulatory limits. Groundwater in this area occurs at depths ranging from 96 to 170 feet below the ground surface. Based on historic and recent data collected from the Site, the direction of groundwater flow is to the west-northwest.

The property is currently occupied by several small businesses.

What are the contaminants at this Site?

Groundwater and soil at the Site is contaminated with tetrachloroethene (PCE), trichloroethene (TCE), 1,1-dichloroethene (1,1-DCE), 1,2-dichloroethane (1,2-DCA), as well as nitrate and hexavalent chromium. PCE and TCE are man-made solvents which were used to degrease parts at the facility. TCE and PCE are present in the groundwater at levels that exceed the aquifer water quality standard (AWQS) of 5 micrograms per Liter ($\mu\text{g/L}$). Both 1,1-DCE and 1,2-DCA are breakdown products of PCE and TCE, and are also present in groundwater at levels exceeding the AWQS of 7 and 5 $\mu\text{g/L}$, respectively. Chromium, historically used in plating operations, is present in the groundwater at levels exceeding the

AWQS of 0.1 milligrams per Liter (mg/L). Specific regulatory standards have not yet been established for hexavalent chromium. Nitrate is present in the groundwater at levels exceeding the AWQS of 10 mg/L .

Exposure to PCE, TCE and chromium through contact with soil is unlikely. The soil in the area of the suspected release is covered with concrete, asphalt and buildings. However, asphalt and concrete may be removed or buildings demolished; additional soil vapor sampling for PCE and TCE and additional soil sampling for chromium will help ADEQ to better understand this exposure route and if there is a possible health risk.

What are the health risks associated with this contamination?

Studies indicate that drinking water containing concentrations of PCE, TCE, 1,1-DCE, 1,2-DCA, and hexavalent chromium in excess of regulatory limits over many years could cause health problems to the liver, kidneys, lungs, eyes and skin and may increase risk of cancer. Listing of the Site on the WQARF Registry will prompt further investigation and analysis at the Site, and does not necessarily represent a determination that the release of hazardous substances at the Site poses a current or future threat to public health or the environment.

There are eight (8) back up drinking water production wells approximately 3/4-mile west from the Site that are not in service at this time. Water supplied to the surrounding community by Lake Havasu City meets all federal and state drinking water standards.

Scope of Work, Outline of Community Involvement Plan, and Fact Sheet

Availability Notice Pursuant to Arizona Revised Statutes (A.R.S.) §49-287.03 (b) (c), ADEQ is announcing the availability of the scope of work, outline of a community involvement plan and fact sheet for the Lake Havasu Ave and Holly Ave WQARF Site.

To obtain copies, contact Wendy Flood at 602-771-4410; 1-800-234-5677 Ext: 6027714410

What are ADEQ's future plans at this Site?

ADEQ's tentative plans for the Site are to begin a remedial investigation (RI). Although substantial characterization and monitoring have been conducted, further work is needed to completely characterize the nature and extent of contamination. When studies are completed, ADEQ will consolidate all the existing Site characterization data, combined with a study of land and water uses in the area, into an RI Report. This information will then be used to determine a clean-up method.

Pursuant to A.R.S. §49-287.03, ADEQ has developed a fact sheet, a community involvement plan outline and a scope of work for the remedial investigation and feasibility study at the site. These documents are available for public inspection. Any person, by agreement with the department, may develop and implement a work plan for the remedial investigation and the feasibility study. Any person who wishes to enter into an agreement can contact the project manager.

How can the public be involved?

ADEQ will keep the public informed throughout the WQARF process through fact sheets, public meetings and mailings. Please sign up for our mailing list to be notified of Site progress, upcoming meetings and to let us know if there are others who should be provided notice using the enclosed mailing list information card.

Community Advisory Board (CAB) Members Needed

ADEQ is currently looking for members of the public to serve on the CAB. The purpose of the CAB will be to:

- Provide comments to ADEQ on the RI Report, and other cleanup and investigation of this Site;
- represent a diversified cross-section of the community in and around the Site;
- participate in outreach to the community.

CAB members should be:

- Concerned about the environment and protecting public health;
- live, work, own property or a business in the area of the Site and/or interested in the Site;
- have a minimum of two hours a day, four times a year to volunteer.

To apply to be a member of the CAB, please fill out and complete the enclosed application and mailing list information card. For more information or to request a meeting please call the ADEQ Community Involvement Coordinator listed in this fact sheet.

Information Repository

With 48-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)771-4380 to schedule an appointment to review these documents. Select Site related documents will also be made available on-line at: <http://www.azdeq.gov/programs/waste/WQARF>.

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 early remedial actions; and
4. conduct long-term remedial action programs.

The WQARF Registry includes Sites in Arizona where groundwater and/or soil contamination is present.

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For further information on this Site or other WQARF Sites, please visit the ADEQ Web Site at: <http://www.azdeq.gov>. Click on Waste Programs, and then click on Superfund/WQARF programs. Follow the links to get the information you need.

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.

Cleanup

Actions taken that deal with a release or threats of a release of a hazardous substance that could affect people or the environment. The term “cleanup” is sometimes used interchangeably with the terms remedial action, removal action, response action, remedy, remediation or corrective action.

Contamination

Any hazardous substance released into the environment.

Chromium

Chromium is a hard, lustrous, brittle metallic element which is poisonous, particularly in its hexavalent form. It is commonly used for electroplating various metals and also as an alloy in steel to provide corrosion resistance. Compounds of chromium are commonly used as pigments and dyeing agents.

1-2 Dichloroethane (1,2-DCA)

A colorless, oily solvent that is primarily used to make other chemicals, including plastic and vinyl products, and as an industrial degreaser. It is also a degradation product of other chlorinated solvents.

1-1 Dichloroethylene (1,1-DCE)

A colorless solvent commonly used to make certain plastics, packaging materials, and flame-retardant coatings. It is also a degradation product of other chlorinated solvents.

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.

Nitrate

A colorless, odorless, and tasteless compound that is present in groundwater. Nitrates form when microorganisms break down fertilizers, decaying plants, manures, or other organic residues. Usually plants take up these nitrates, but sometimes rain water can leach them into groundwater. Although nitrate occurs naturally in some groundwater, higher levels are thought to result from human activities. Common sources include fertilizers and manure, animal feedlots, municipal waste and sludge, and septic systems.

Remedial Investigation (RI)

A process to establish the nature and extent of the contamination and the sources; identify current and potential impacts to public health, welfare, and the environment; identify current and reasonable foreseeable uses of land and waters of the state; and obtain and evaluate 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.”

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 for dry 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).

ADEQ will take reasonable measures to provide access to department services to individuals with limited ability to speak, write, or understand English and/or to those with disabilities. Requests for language interpretation services or for disability accommodations must be made at least 48 hours in advance by contacting: 7-1-1 for TDD; 602-771-2215 for Disability Accessibility; or Ian Bingham, Title VI Nondiscrimination Coordinator at 602-771-4322 or ldb@azdeq.gov. Disclaimer: Any ADEQ translation or communication in a language other than English is unofficial.

ADEQ tomará medidas razonables para proveer acceso a los servicios del departamento para personas con capacidad limitada para hablar, escribir o entender Inglés y / o para las personas con discapacidad. Las solicitudes de servicios de interpretación del lenguaje o de alojamiento de discapacidad deben hacerse por lo menos 48 horas de antelación poniéndose en contacto con Ian Bingham, Title VI Nondiscrimination Coordinator al 602-771-4322 o ldb@azdeq.gov. Cualquier traducción o comunicado de ADEQ en un idioma diferente al inglés no es oficial.



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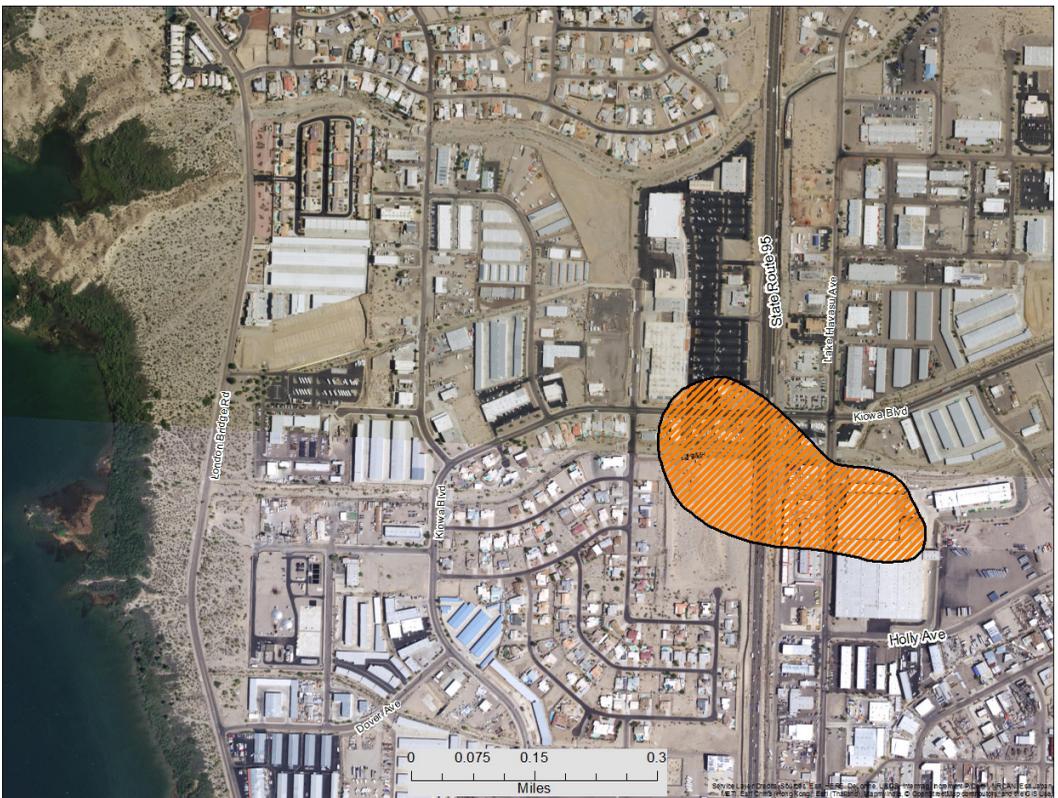
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Lake Havasu Ave and Holly Ave WQARF Site - Mohave County

ADEQ  **FACT SHEET**
 Arizona Department of Environmental Quality





**Water Quality Assurance
 Revolving Fund Site
 (WQARF)**

Plume Data Update: 07/01/2015

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Plume 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 plume for this site may change in the future as new information becomes available.

Date Map Saved: 2017-09-28

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Figure 1 - Lake Havasu Ave and Holly Ave Site map