

Phoenix-Goodyear Airport North

EPA National Priorities List (NPL) Site

Boundaries:

The Phoenix-Goodyear Airport (PGA) Superfund Site (Site) is located approximately 17 miles due west of Phoenix in Goodyear, Arizona. The Site is divided into a northern portion ([PGA-North](#)) and a southern portion (PGA-South). Contamination from these two areas is not contiguous. The Site consists of the [Unidynamics](#) property and groundwater contamination originating from the property.

Site Status Update:

[Crane Co.](#) (the corporate successor to Unidynamics) continues to perform activities as outlined in the [consent decree](#) between the U.S. [Environmental Protection Agency](#) (EPA) and Crane Co. dated March 2006. In essence, Crane Co. is performing activities that are conducted during the course of a [remedial investigation/feasibility study](#) (RI/FS). The monitoring well network continues to be enhanced with the installation of new [monitor wells](#). Conduit wells are being abandoned, soil and facility structures are being examined for possible continuing sources of contamination, the [soil vapor extraction](#) (SVE) system continues to operate, and the buildings at the site have been examined for explosives residue.



Main Treatment System

During 2009, Crane Co. will focus, among other things, on an expansion of the Main Treatment System (MTS) located on the Unidynamics site. Enhancements are designed to increase the MTS capacity to treat contaminated groundwater.

Community Involvement Activities:

A [community advisory group](#) (CAG) was formed in January 2001 in conjunction with the [PGA-South Superfund](#) and [Western Avenue WQARF](#) sites and meets on a regular basis. CAG members are only selected from [applications](#) that are received. Details of meeting agendas and [minutes](#) for 2008 and 2009 can be viewed at the Arizona Department of Environmental Quality (ADEQ) Web site. These meetings are open to the public. EPA publishes regular [fact sheets](#) that are sent to the community involvement area regarding site progress, and the latest can be viewed on the ADEQ Web site.

Site History:

1963-1981: Unidynamics operated a research, design and manufacturing facility for ordnance and related equipment from 1963 to 1993. Several different chemicals, including [solvents](#) such

as [trichloroethene](#) (TCE), [acetone](#) and [methyl-ethyl-ketone](#) (MEK), were used in manufacturing devices and were reportedly disposed of in [drywells](#) on site. The [Arizona Department of Health Services](#) (ADHS) discovered the groundwater contamination in 1981.

1983: EPA added the PGA Site to the [National Priorities List](#) (NPL) in [September 8, 1983](#).

1984: EPA began an RI of the area now known as the [Phoenix-Goodyear Airport](#) to characterize the Site, discover the extent of the contamination, and identify possible sources. From this study, the Site was divided at Yuma Road into a north and a south portion.

1990: In September, EPA issued an Administrative Order directing Unidynamics to proceed with soil and groundwater remediation as described in EPA's 1989 [Record of Decision](#) (ROD). The groundwater portion of the remediation program involves extracting the groundwater, removing the contaminants by [air stripping](#) with emissions control, and reinjecting the treated water into the same aquifer [upgradient](#) of the plume or discharging the treated water to the Roosevelt Irrigation Canal.



SVE System on UPI Site

1994: For treatment of soil contamination, an SVE system began operation and included a thermal oxidation unit equipped with an exhaust scrubber to reduce emissions.

1998: [Perchlorate](#) contamination was discovered and began to be included in the current groundwater monitoring regime.

2002-2003: The Phase II groundwater investigation conducted by EPA in 2002-2003, yielded valuable data; however, additional investigation was needed to further characterize the nature and extent of the groundwater contamination and the soils at the Unidynamics facility.

2004-2006: EPA and ADEQ worked with Crane Co. to finalize a subsurface soil gas investigation to better understand the distribution and movement of soil gas contamination at and around the Unidynamics facility; conducted air sampling to study potential indoor and outdoor air contamination at and near the Unidynamics facility (no problems found); re-started the SVE system with carbon treatment to address soil gas contamination; continued to investigate the nature and extent of TCE and perchlorate contamination; and continued to study the effectiveness of treating perchlorate-contaminated groundwater at the City of Goodyear's wastewater treatment plant (due to contractual and capacity issues, Crane Co. ultimately decided to install an [ion-exchange](#) system to treat perchlorate rather than treating perchlorate-contaminated groundwater at the City's wastewater treatment plant).



Well 33A Treatment System

2005: EPA and Crane Co. concluded negotiations and entered into a consent decree (early 2005) that commits Crane Co. to repay EPA for past expenses and directs Crane Co. to continue investigation and clean up of the Site.

2006: Crane Co installed nine monitor wells, one groundwater [extraction well](#) and one groundwater re-[injection well](#).

2007: An extraction well (EA-06) and treatment system located at the [Goodyear Community Park](#) was installed in December to address expansion of the northeast portion of the plume.

2008: An extraction well (EA-05) and treatment system located on [Maricopa Flood Control District](#) lands north of I-10 near Litchfield Road was operational at the end of March. This extraction and treatment system was designed to further address the eastern migration of the contaminant plume.

Contaminants:

The current contaminants of concern at the Site include [chlorinated solvents](#), mainly [trichloroethene](#) (TCE), and [perchlorate](#). TCE is present in the subsurface soils located within the Unidynamics property, as well as in the groundwater. Perchlorate was discovered in the groundwater in August 1998. Contaminants of concern at the Site may change as new data become available.

Public Health Impact:

Potential health risks may exist for individuals who ingest the contaminated groundwater. The [City of Goodyear](#), [City of Avondale](#), [Litchfield Park Service Company](#) (LPSCo) and other entities regularly monitor their drinking water supply wells, as required by law.

Site Hydrogeology:

The Site lies within the Basin and Range physiographic province, consisting of [alluvial](#) basins interspersed by mountain ranges. The alluvial deposits of the western Salt River Valley consist of the Upper Alluvial Unit (UAU), the Middle Fine-grained Unit, or Middle Alluvial Unit (MAU) and the Lower Conglomerate Unit, or Lower Alluvial Unit (LAU).

The UAU is approximately is divided into three subunits: Subunit A, Subunit B, and Subunit C. Subunit A contains the bulk of the groundwater contamination beneath this site. Groundwater contained within Subunit C is pumped for use as drinking water and for agricultural purposes.

Groundwater flow direction within both aquifers is largely influenced by pumping as there are multiple domestic, municipal, irrigation, and [remediation](#) (extraction and injection) wells in the vicinity of the Site.

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*In Arizona, but outside the Phoenix area, call toll-free (800) 234-5677.

**Call EPA's toll-free message line at (800) 231-3075.

Information Repository:

Interested parties can review select site documents at the [Avondale Public Library](#) located at 328 W. Western Avenue in Avondale, (623) 333-2665.

Site files are also located at the ADEQ Main Office located at 1110 W. Washington Street, Phoenix. Site information at ADEQ is available for review Monday through Friday from 8:30 a.m. to 4:30 p.m. with 24 hour notice. To arrange for a time to review the public site file, please call the ADEQ Records Management Center (602) 771-4380 or (800) 234-5677.

The complete official site file can be reviewed at the EPA Region IX, [Records Center](#), Mail Stop SFD-7C, 95 Hawthorne Street, Room 403, San Francisco, CA 94105, (415) 536-2000.



Drywell Investigation on the Unidynamics Facility