



FAQ

NORTH INDIAN BEND WASH

WHAT IS TCE?

TCE or trichloroethylene is a synthetic chemical that was developed in 1864 and first produced commercially in the United States in 1925. TCE has been widely used in the medical, industrial, agricultural, and food production industries since that time. TCE is a common solvent used in industry to degrease machinery and a primary ingredient in a variety of consumer products such as rug cleaners, spot removers, typing correction fluids and adhesives. In the past, TCE was also used for general and obstetrical anesthesia, dry-cleaning, and decaffeinating coffee.

ARE THERE HEALTH HAZARDS RELATED TO TCE AT THE NIBW SITE?

No, there are no known or documented health hazards attributed to TCE in soil, groundwater, or air at the NIBW Site. In fact, there have been extensive independent studies by government health experts confirming there are no health problems resulting from Motorola operations or TCE in the groundwater. For more information, download the [NIBW Health Studies Fact Sheet](#).

IS THE PUBLIC DRINKING WATER SAFE?

Yes! All groundwater extracted as part of the cleanup is fully treated to remove TCE in the water supply to levels safely below the drinking water standards. Drinking water standards are conservatively set to protect the public against substances that may be harmful if consumed for long periods. The treated water at the NIBW site is rigorously tested to assure the water is safe. All of the NIBW treatment facilities routinely treat the incoming water to remove all detectable traces of TCE from the groundwater. Contact your water supplier for more information regarding drinking water quality.

WHO PAYS FOR THE CLEANUP? HAVE OUR WATER RATES INCREASED BECAUSE OF THE NEED FOR TCE TREATMENT?

Motorola (now Motorola Solutions) and other responsible companies paid for the construction of all groundwater treatment facilities and continue to pay for operation and maintenance of the treatment plants. According to both the City of Scottsdale (COS) and EPCOR, the NIBW Site cleanup has not caused increased water rates for their customers.

HOW LONG WILL IT TAKE TO CLEAN UP THE TCE IN GROUNDWATER?

The NIBW groundwater extraction and treatment systems have been cleaning up the groundwater since 1994. During this time, more than 122 billion gallons of groundwater have been treated. Collectively, these systems are projected to remove the bulk of the TCE in groundwater, over 90 percent of the estimated mass, within the next 20 years. It may take 30 years or longer to remove the remaining residual TCE.

WHAT ARE CONDUIT WELLS? ARE THEY A PROBLEM?

Most water supply wells have casing perforations extending over large depth intervals and across multiple aquifers to maximize water production. When the wells are not pumping, the open perforated interval of these wells provides a conduit within the well bore for water movement between aquifer zones. In the NIBW Site, there is typically a downward hydraulic gradient (or driving force) for groundwater movement. As such, these water supply wells become conduit wells under non-pumping conditions because they can cause migration of groundwater and any dissolved substances like TCE from upper intervals to lower intervals of the aquifer.

Motorola and other responsible companies have conducted an extensive investigation of conduit wells and their impacts and have concluded that TCE transport currently taking place via conduit wells is not detrimental to the NIBW cleanup. In fact, conduit flow generally assists the cleanup via the downward movement of TCE in groundwater into zones that are more readily remediated.

WHAT IS LAND SUBSIDENCE?

Land subsidence is the settling or lowering of the land surface. In Arizona, the principal cause of land subsidence is excessive withdrawal of groundwater. Large-scale pumping of groundwater, at rates far in excess of the rate of recharge, causes the long-term lowering of water levels in the aquifer. This means that the land surface is less supported, which may result in subsidence and surface cracks.

IS THE NIBW CLEANUP CAUSING LAND SUBSIDENCE?

No! However, Motorola has investigated the potential for land subsidence in the NIBW Site and area to the north. Over the last 50 years, this area has been extensively pumped by a number of water providers, resulting in groundwater levels declining as much as 300 feet and increasing the risk of subsidence. The Arizona Department of Water Resources has indicated that there is minimal land subsidence within the NIBW Site. However, parts of North Scottsdale, North Phoenix, and Paradise Valley, in the area north and northwest of the NIBW Site, have documented land subsidence. According to reports issued by the City of Phoenix Engineer's Office, subsidence and earth cracks have been observed near two City of Phoenix municipal well fields where past pumping caused groundwater levels to decline more than 300 feet.

As a result, we have worked with all area water providers to coordinate the NIBW remedial actions with their water production. The NIBW cleanup does not, in any significant way, increase groundwater withdrawal in the basin. Instead, the NIBW remedy includes groundwater extraction from wells already being pumped by the COS, SRP (Salt River Project), and EPCOR into a coordinated program of hydraulic capture of groundwater impacted with TCE.

HAS THE NIBW SITE CAUSED A NEGATIVE IMPACT ON PROPERTY VALUES?

There is no evidence that property values have been negatively affected at all because of TCE in the groundwater or the Superfund site. The COS commissioned an independent appraisal company to conduct two property value studies in 1992 and 1995 to assess whether being within the NIBW Superfund site had affected property values. Both studies showed that the Superfund designation had no effect on property values. Copies of both studies are available by calling the City of Scottsdale Environmental Planning and Design Office at (480) 312-7000.

Research by the Arizona State University (ASU) Arizona Real Estate Center showed that the South Scottsdale area has the highest appreciation rate for single-family homes, 3.5% per year from 1981 through 1999, in the entire metropolitan area. The appreciation rate for townhomes and condominiums in South Scottsdale is the second highest in the Valley - 2.4% per year - over the same period, and the Valley's highest - 4.6% per year - from 1986 through 1999. The study is available through the ASU Center for Business Research.

WHO SHOULD I CONTACT FOR MORE INFORMATION?

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