

What is a Superfund site?

The federal Superfund law was created to provide funding and regulatory authority for the U.S. Environmental Protection Agency (EPA) to study and cleanup contaminated sites throughout the country. There are five federal Superfund sites in the Phoenix metro area, including Scottsdale’s North Indian Bend Wash (NIBW) site.

History of the NIBW Superfund site

In 1981, groundwater contaminated from industrial chemicals – primarily trichloroethylene (TCE), a colorless liquid used as a solvent for cleaning metal parts – was discovered in several Scottsdale-area drinking water wells.

Investigation revealed that the contamination was the result of past improper chemical disposal by several industrial companies in the area. As a result, local water providers stopped using those wells for drinking water purposes. The EPA identified the potentially responsible parties and determined that a long-term cleanup effort would be required.

Who pays to clean up a Superfund site?

In short, Superfund policy is to “let the polluter pay.” In the case of the NIBW Superfund site, the three companies deemed the potentially responsible parties for the contamination are Motorola Solutions, Inc., GlaxoSmithKline (formerly SmithKline Beecham), and SMI Holding LLC (formerly Siemens).

Superfund cleanup status and timeline

Five treatment facilities have been constructed in the Scottsdale area to treat the contaminated groundwater. Scottsdale Water operates two of the facilities, the Central Groundwater Treatment Facility (CGTF) and the NIBW Granular Activated Carbon Treatment Facility (NGTF). In 2015, these facilities treated 8.9 billion gallons of water, or 24 million gallons a day. Over 86,000 pounds of TCE has been removed from the aquifers since 1994 and the upper aquifer is approaching cleanup completion.

It’s estimated that the cleanup will take approximately 40-60 years, but large portions of the groundwater plume cleanup should be completed before that time. In March 2013, the EPA announced that the upper aquifer plume has decreased in size by 84 percent, and the total mass of contaminants in the upper aquifer groundwater has decreased by over 97 percent.

NIBW Superfund site location

The NIBW site is designated by the EPA as the area overlaying the plume of contamination. The main designation area is from Chaparral Road to the north, Pima Road to the east, Scottsdale Road to the west, and McKellips Road to the south. In some locations, the groundwater contamination has extended beyond these boundaries.

Homeowners’ rights and responsibilities

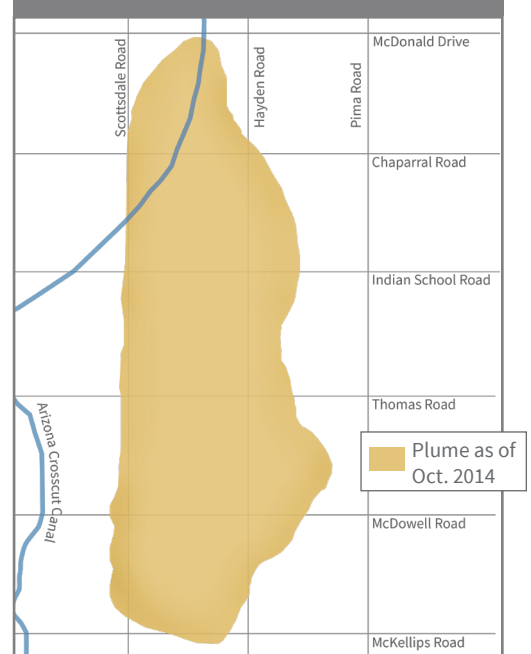
Residential property sellers or buyers who have not caused or contributed to the contamination are not liable for the cleanup. In addition to the federal law, Arizona has its own mini-Superfund law that protects innocent homeowners from cleanup liability.

Homeowners do, however, have disclosure responsibility. Superfund designation should be disclosed by either the seller or a real estate broker at the first discussion about the property. If you aren’t sure if your home is within the site, please call 480-312-8712.

Key entities involved in the NIBW Superfund site:

- U.S. Government:** The U.S. Environmental Protection Agency (EPA) monitors the contamination plume, identifies those parties potentially causing the contamination, establishes a cleanup remedy and directs the cleanup of the site.
- State of Arizona:** The Arizona Department of Environmental Quality and Arizona Department of Water Resources oversee the cleanup for the state.
- Potentially Responsible Parties:** Motorola Solutions, Inc., GlaxoSmithKline and SMI Holding LLC (as designated by the EPA) are responsible for management of the remedy and all costs associated with the cleanup.
- City of Scottsdale:** Scottsdale Water, the city’s water utility, operates two NIBW treatment facilities (CGTF and NGTF) and ensures the water produced by the plants meets or surpasses all federal and state standards for safe and healthful drinking water.

NIBW Groundwater Contamination



Scottsdale's NIBW Treatment Facilities

Scottsdale Water operates two treatment facilities as part of the NIBW Superfund site remedy, the Central Groundwater Treatment Facility (CGTF) and the NIBW Granular Activated Carbon Treatment Facility (NGTF). The water from both plants is treated to exceed federal and state drinking water standards under the oversight of the EPA in cooperation with ADEQ. The facilities remove TCE from the water to a level that is considered non-detect (less than 0.5 parts per billion) and is far below the EPA standard of 5 parts per billion.

Scottsdale's NIBW Treatment Facilities at a Glance

	CGTF	NGTF
Owned by	City of Scottsdale	Motorola Solutions, Inc.
Operated by	City of Scottsdale	City of Scottsdale
Location	Thomas and Pima roads	McDonald and Cattletrack roads
Built by	Potentially Responsible Parties	Motorola Solutions, Inc.
Treats water from	Four NIBW groundwater wells	One NIBW groundwater well
Year completed	1995	2013
Treatment technology	Air stripping	Granular Activated Carbon
Treatment capacity	13.6 million gallons per day	4.5 million gallons per day

Treatment Processes

CGTF Treatment Process

- Water is pumped from the wells and passed through one of three treatment columns.
- The columns “strip” the water of contaminants by mixing the water with air. As the water and air mix, the contaminants transfer into the air.
- The air used during this treatment process is passed through activated carbon filters to remove the TCE before the clean air is released.

NGTF Treatment Process

- Water is pumped from one well and passed through large vessels containing granular activated carbon.
- The carbon adsorbs the TCE, removing it from the water. The carbon is then recycled through a regeneration process

Finished water

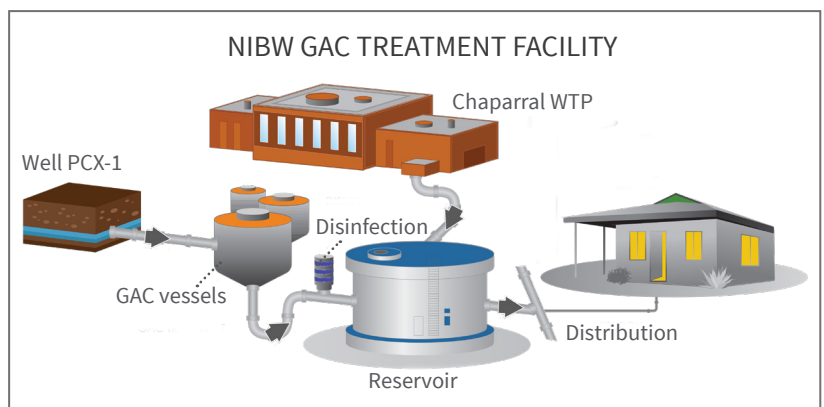
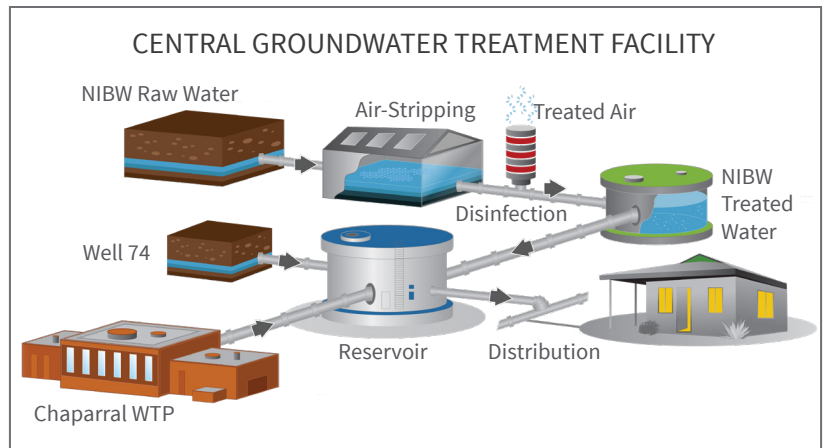
- In both cases, the “stripped” water is then disinfected with chlorine in a water storage reservoir, mixed with other treated water sources and distributed to customers.

ADDITIONAL INFORMATION

Susan Butler
 Scottsdale Water
 480-312-8712

Carolyn d’Almeida
 USEPA NIBW Project Manager
 415-972-3150 or 800-231-3075

Wayne Miller
 ADEQ NIBW Project Manager
 602-771-4121 or 800-234-5677 (option #3)



ScottsdaleAZ.gov/Water

Search “Superfund”



For information on the quality of any water served by the city of Scottsdale, see the latest Water Quality Report at ScottsdaleAZ.gov/Water or call 480-312-8732 to request a printed copy.

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