

Community concern or issue: *Groundwater Contamination* of Salina's drinking water supplies

How does this issue impact citizen health or the environment?

When European settlers first came to the Kansas territory, essentially all streams, rivers, lakes, springs, and groundwater were of good quality and could be used for human consumption without the need for treatment. With growth of the human population and spread of modern agricultural, and commercial and industrial practices, much of our surface water and groundwater must now be treated to be fit for human consumption. Groundwater contamination can be costly to clean up or remove. It can render water supplies unusable, greatly affecting a community's ability to provide the quantity or quality of water needed for residents or local industries.

Existing controls or standards

The Safe Drinking Water Act (SDWA) protects public health by regulating the nation's public drinking water supply and requires many actions to protect drinking water and its sources: rivers, lakes, reservoirs, springs, and ground water wells. It establishes maximum contaminant levels (MCL) for contaminants in public drinking water supplies or establishes required treatment techniques to remove contaminants.

How is this issue impacting Salina?

Unfortunately, chemicals from several industrial and commercial operations such as former dry-cleaning sites, grain silos, and petroleum underground storage tanks have been spilled or disposed of improperly within the Salina city limits. Much of the local drinking water is groundwater; several wells are close to areas where contaminants have been detected. Some well water has to be treated to eliminate volatile contaminants and there are currently air-stripper treatment systems in place managing the problem. If

contaminants spread, more groundwater will be affected, ultimately resulting in greater treatment costs. Residences, schools, and businesses located in the vicinity of these contaminated areas (known as "contaminant plumes") could experience vapor intrusion into their homes or buildings, allowing direct inhalation of the volatile contaminants.

What factors and behaviors contribute to this problem?

Current treatment methods (air strippers) are managing the situation and result in operating and maintenance costs for the community. State and federal regulators have limited time and funding to clean up, or to compel responsible parties to clean up the multiple areas of contamination in the community and at abandoned sites. Although responsible parties are addressing some of the issues, it is a slow process. If contaminant plumes are not adequately managed, they will spread and contaminate more groundwater, increasing potential for human exposure to volatile contaminants from vapor intrusion into homes, commercial businesses, and schools.

Potential solutions – how can the community help with this issue?

The cost of cleaning up contaminated groundwater is very expensive, and our community is working with EPA and KDHE to enforce regulations to have responsible parties clean up the contamination. In addition, we should seek funds from the federal Superfund or Brownfield's program and/or the Kansas water plan or similar programs to investigate and remediate contaminated sites. It would also be beneficial to provide education about volatile organic contamination of groundwater and vapor intrusion into buildings.

NOTE: This fact sheet was taken from an issue paper developed by Wes McCall and Mark Boyle.

The detailed fact sheet can be accessed at www.sbeap.org/CARE