Protecting The Nation's Drinking Water From Leaking Underground Storage Tanks

Report on EPA Cross-Program Initiative:

Source Water Areas (SWAs) And Underground Storage Tanks (USTs)

One Year Later

July 2004 - July 2005

Reducing the risk of USTs to drinking water sources presents an important opportunity to work together to coordinate the source water assessment results with UST programs, to make the best use of our resources, and to increase public health protection.

--EPA Joint Memorandum of July 20, 2004
www.epa.gov/oust/swaustmemo.pdf

U.S. EPA Office of Underground Storage Tanks

U.S. EPA Office of Ground Water and Drinking Water

Top 10 Things To Know About Drinking Water And Underground Storage Tanks

10. Underground storage tanks (USTs) are found in every community and are as close as your nearest gas station.

9. USTs can leak petroleum or other toxic substances into the groundwater and soil.

8. Groundwater is the source of drinking water for close to 50% of the U.S. population (approximately 147 million people).

7. 35 states report that leaks from USTs are the top threat to groundwater.

6. There are 660,000 active USTs in the U.S., many of them in or near drinking water sources.

5. Inspecting the thousands of USTs in or near water sources protects the nation's drinking water.

4. When Source Water and UST programs work together, more USTs near drinking water sources are targeted for inspection.

3. Source Water and UST programs should share data and combine resources to better protect public health.

2. Cooperation of Source Water and UST programs encourages similar program cooperation at the state government level.

1. As a result, Americans would enjoy safer drinking water.

Protecting Our Drinking Water Is A National Priority

Virtually every lake, river, and aquifer in this country is or could be used as a drinking water source. Protecting these source waters from contaminants is a major national priority in protecting public health through ensuring a clean, safe drinking water supply. The1996 Amendments to the Safe Drinking Water Act (SDWA) require states to assess known and potential sources of contamination to the sources of public drinking water. The states, EPA, and other key players at the local and regional levels are implementing source water protection programs based on this information. Every community should request this valuable information from their state.

Protecting source waters from contaminants is a major national priority in protecting public health.

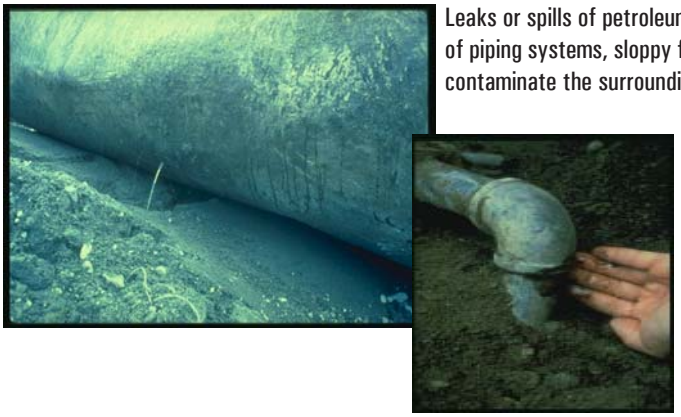
States have identified drinking water source areas and inventoried known and potential sources of contamination within these areas. A community's Source Water Area (SWA) is the area from which water is drawn for drinking water for that community. A source water assessment identifies potential sources of contamination of the water as well as other useful information.

The area from which a community draws its drinking water can contain many potential sources of contamination. One of the greatest sources of contamination is petroleum and other toxic substances that leak or spill from underground storage tanks, such as those found at gas stations.

One of the greatest threats to the nation's groundwater is leaking underground storage tanks. Groundwater is the source of drinking water for close to 50% of the U.S. population (approximately 147 million people).

Drinking water sources can be vulnerable to a variety of contaminants from a variety of activities. Groundwater is the source of drinking water for close to 50% of the U.S. population (approximately 147 million people). One of the greatest threats to the nation's groundwater is leaking underground storage tanks. Large underground storage tanks store enormous quantities of

Underground storage tanks are found in every community, and they are as close as your nearest gas station.



Leaks or spills of petroleum through corroded tank parts, improper installation, failure of piping systems, sloppy fuel deliveries, and improper operation and maintenance can contaminate the surrounding soil and groundwater.

35 states have identified underground storage tanks as the top threat to groundwater.

petroleum and other toxic substances at businesses, factories, gas stations, schools, and marinas. These tanks can leak and release contaminants into the soil and groundwater. In surveys of state water programs, 35 states have identified underground storage tanks as the top threat to groundwater (U.S. EPA, *National Water Quality Inventory: 2000 Report*). Underground storage tanks are found in every community, and they are as close as your nearest gas station.

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Leaks or spills of petroleum and other toxic substances through corroded tank parts, improper installation, failure of piping systems, sloppy fuel deliveries, and improper operation and maintenance can contaminate the surrounding soil and groundwater. There are currently about 660,000 active underground storage tanks in the U.S., and many of these tanks are in or near Source Water Areas.

EPA's Souce Water and UST programs are working closely together to better protect public health.

Reducing the risk of leaking underground storage tanks to drinking water sources presents an important opportunity for EPA's Source Water and Underground Storage Tank programs to work together to coordinate their efforts and to make the best use of resources to increase public health protection. In July 2004, the two programs issued a joint memorandum outlining the actions both programs would take to coordinate their efforts.

The memorandum set in motion a number of meetings and agreements between underground storage tank and source water staffs at both the federal and state levels. Coordinated program efforts were focused on sharing data, maps, and resources to identify tanks that threatened drinking water supplies. Once these tanks are identified, they become a high priority for EPA and state tank inspections. Several states and EPA Regions have made progress on coordinating their program efforts and identifying underground storage tanks that could potentially affect drinking water sources. Here is a list of their accomplishments in just the first year of this ongoing effort.

One Year Later:
Accomplishments Of The Joint EPA Office of Ground Water And Drinking Water— Office Of Underground Storage Tanks Initiative

July 2005

More USTs Affecting Source Water Protection Are Targeted For Inspection

Many EPA Regional underground storage tank (UST) and water programs have taken steps to monitor more closely the compliance of tanks located in or near source water areas (SWAs). These USTs pose a great threat to drinking water, and it is essential to ensure that they do not leak and contaminate groundwater. Region 1 has led the way by targeting nearly half of its Regional UST inspections in SWAs. Regions 4, 5, 6, and 10 are using source water assessment data to identify high-risk public drinking supply systems and to target their UST compliance assistance and enforcement actions accordingly. Other Regions are working in house and with their states to accomplish this compliance goal.

GIS Systems Target USTs That May Affect Source Water

Geographic information systems (GIS) have proven to be a valuable tool in assisting Regions and states in targeting UST compliance efforts in SWAs. These systems can provide accurate locational data for both tanks and source water areas. Regions 2 and 10 utilize GIS to locate and then target for inspection USTs that pose a significant threat to drinking water. Many states are developing GIS databases that will be very useful in this effort in the near future.

State And Federal Water And UST Programs Formalize Coordination With MOUs

MOUs (memoranda of understanding) are a vehicle for formalizing cooperation between different agencies and programs at both the federal and state levels and are an official way of defining future coordination. Regions 1, 3, and 5 and their states are leading the way in the development of MOUs among various government entities responsible for USTs and source water protection. Minnesota has an MOU signed by the commissioners of four state departments to cooperate to identify and target USTs near vulnerable groundwater areas for inspection.

Existing Source Water And UST Program Relationships Were Strengthened

Meetings between federal and state source water and UST programs have been held in Regions 1, 5, and 6; these meetings provided a forum for discussing ways to reduce

potential drinking water contamination from leaking USTs. The programs proposed ways to better coordinate their efforts through more data sharing, the creation of MOUs, and focusing on identifying and prioritizing for inspection USTs threatening source water. Program managers from all six Region 1 states have met to discuss ways to reduce potential drinking water contamination from USTs.

New Cross-Program Relationships Are Being Forged

In Regions and states where there is no definitive history of coordination between the UST and water programs, efforts are underway to initiate new cross-program relationships that will lead to better protection of drinking water. Colorado, Illinois, Montana, and Utah have expressed interest in talks between their UST and source water protection programs to determine the necessary steps in coordinating their official work. Region 4 initiated talks with its states to encourage state source water programs to discuss shared delineated areas with the UST programs.

Source Water And UST Programs Implemented Outreach Efforts

It is essential to emphasize to all UST and source water stakeholders the importance of protecting our nation's drinking water from leaking USTs. A session solely devoted to the link between USTs and SWAs was held at the 2005 UST/LUST National Conference in Seattle, WA. Staff members from Regions 3 and 6 have presented information at state and tribal meetings to highlight the importance of this initiative. The New England Interstate Water Pollution Control Commission (NEIWPCC) has created excellent outreach materials for municipal officials to alert them to the threat to drinking water posed by leaking USTs (available at www.neiwpcc.org).

Headquarters And Regional EPA Offices Are Committed To Fostering UST And Source Water Program Coordination

EPA HQ and Regional staff are facilitating state UST/SWA workshops to better foster cross-program coordination in every Region. Regions 1, 3, 5, and 6 have already met with at least one state in their Region. Meetings are scheduled to take place in Regions 4, 6, and 8 between July and October 2005. Regions 2, 9, and 10 are also working to schedule a meeting with at least one of their states by the spring of 2006.

This Coordinated UST And Source Water Effort Will Continue And Improve

EPA HQ and Regions and the states are strongly encouraged to continue their promising efforts to better protect public health by focusing on the compliance of USTs located in or near SWAs. Efforts to identify and target USTs in SWAs for federal or state inspection will continue and improve. State UST programs will be encouraged to notify the owners/operators of public water systems and, where possible, owners of private wells, when a permitted UST is installed or replaced or in the event of a leak. Regional and state UST and source water programs should continue to work closely together to monitor source water assessment and leaking UST data and results. Regional SWA and UST programs are encouraged to formalize their commitment to this joint effort with MOUs. Regions and states should work to integrate Underground Injection Control (UIC) programs into this ongoing UST/source water effort.