

# Ground Water & Underground Storage Tanks



## Key Message

### why USTs matter to ground water...

USTs continue to be a big deal because each installation has the potential to leak, threatening human health and the environment. Leaked product contaminates ground water used for drinking and other uses and, on occasion, enters surface water. Today's improved UST systems are the product of federal and state requirements and programs, as well as improved technologies and a heightened awareness on the part of tank owners and operators. However, leaks still occur, albeit far less frequently, and we must stay vigilant in order to prevent tank systems from leaking in the first place and to ensure that leaking systems are reported immediately and cleaned up expeditiously.

Underground storage tank (UST) systems that contain fuels, chemicals, and wastes are numerous and widespread and pose a significant threat to ground water quality in the United States. Currently, there are more than 640,000 federally regulated active USTs that store fuels or hazardous substances. These systems can and do leak, and when they leak they contaminate soil and ground water—even hydrologically connected surface water. These leaks often occur in populated areas, where public and domestic water supplies are concentrated, and it is difficult and expensive to clean them up, particularly if they involve a public source of drinking water.

Since 1985, federal and state UST programs have significantly reduced the risk of new releases by implementing release-prevention and leak-detection requirements and establishing improved design, installation, and operational technical standards. Federal and state leaking underground storage tank (LUST) programs have overseen the cleanup of nearly 351,000 leaking tank sites. At the same time, states have had to respond to new contamination problems from fuel constituents such as

methyl *tert*-butyl ether (MTBE). The continued widespread use of UST systems (including large numbers of heating fuel storage tanks that are not federally regulated) requires that existing regulations be fully enforced and that additional regulatory, land-use, and engineering measures be developed and fully implemented to further minimize threats to public health and safety, the economy, and the environment.



*A leaking underground storage tank is removed from gasoline-contaminated ground water.*



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*A new UST system is being installed.*

• Leak prevention depends on proper system installation and then on proper operation and maintenance once the system is in service. More careful siting of new USTs away from drinking water sources also helps reduce risk potential.

*Petroleum product from a LUST that contaminated ground water and then impacted surface water. The white areas are absorbent materials used for soaking up the hydrocarbons in the water.*



## Recommended Actions



### To Congress:

- Appropriate LUST Trust Fund money so that it can be sufficiently used for the purposes intended by Congress.
- Appropriate the funds necessary for states to carry out the new measures of the Energy Policy Act.
- Appropriate LUST Trust Fund money to the states for implementing the UST provisions of the Energy Policy Act (i.e., inspections, enforcement).
- Reevaluate the feasibility of including tank systems not currently covered by federal UST regulations, such as heating oil tanks and aboveground storage tanks not covered by Spill Prevention Control and Countermeasures rules.

### To USEPA:

- Continue to encourage states to target UST enforcement and LUST response activities in areas of high-priority ground water (e.g., wellhead protection areas); over significant or single-source aquifers; near springs, sinkhole areas, and other karstic features; and in proximity to private wells.
- Modify the current UST regulations (40 CFR 280) so that standards meet today's technological capabilities.

### To State Agencies:

- Adopt siting requirements for new UST facilities, including the establishment of minimum setback requirements in relation to water supply wells and high-priority ground water areas, and more protective requirements for existing tanks in high-priority ground water areas (e.g., site-grading requirements to keep storm water away from fueling areas).
- Prioritize UST inspections, compliance, and enforcement efforts for facilities within source water areas, near private drinking water wells, and over high-priority aquifers.

- Of the federally regulated petroleum storage tanks, as of September 2006, there were about 465,000 confirmed releases (leaks) and 436,000 cleanups initiated, of which 351,000 had been completed (USEPA, 2007). However, cleanup efforts haven't even begun for more than 32,000 sites, many comprising what are considered to be abandoned tanks with no identified responsible party (USGAO, 2005). Many forgotten buried steel tanks have yet to be discovered that may still contain product or may have leaked.

This summary sheet is taken from the "Underground Storage Tanks" chapter of the Ground Water Protection Council's (GWPC) *Ground Water Report to the Nation: A Call to Action*. Contact GWPC for the full Report.