

For information contact:

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Ground Water Management Section
John F. Kennedy Federal Building
One Congress Street
Boston, MA 02203 (617)565-3615

Region 2

Underground Injection Control Section
26 Federal Plaza, Room 853
New York, NY 10278 (212)264-1547

Region 3

Underground Injection Control Section
841 Chestnut Building (3WM43)
Philadelphia, PA 1910 (215)597-9928

Region 4

Underground Injection Control Section
(GWP-3)
345 Courtland Street N.E.
Atlanta, GA 30365 (404)347-3379

Region 5

Underground Injection Control Section
(WD-17J)
77 W. Jackson Street
Chicago, IL 60604 (312)886-1492

Region 6

Underground Injection Control Program
(6W-SE)
1445 Ross Avenue
Dallas, TX 75202-2733 (214)655-7160 or
(214)655-7165

Region 7

Underground Injection Control Section
726 Minnesota Avenue
Kansas City, KS 66101 (913)551-7369

Region 8

UIC Program/Enforcement Section
(8WM-DW)
999 18th Street - Suite 500
Denver, CO 80202-2466 (303)293-1413

Region 9

Source Water Protection Section (W-6-2)
75 Hawthorne Street
San Francisco, CA 94105 (415)744-1838

Region 10

Ground Water Section (WD-133)
1200 Sixth Avenue
Seattle, WA 98101 (206)553-1369

United States

EPA 813-F-94-003

Environmental Protection

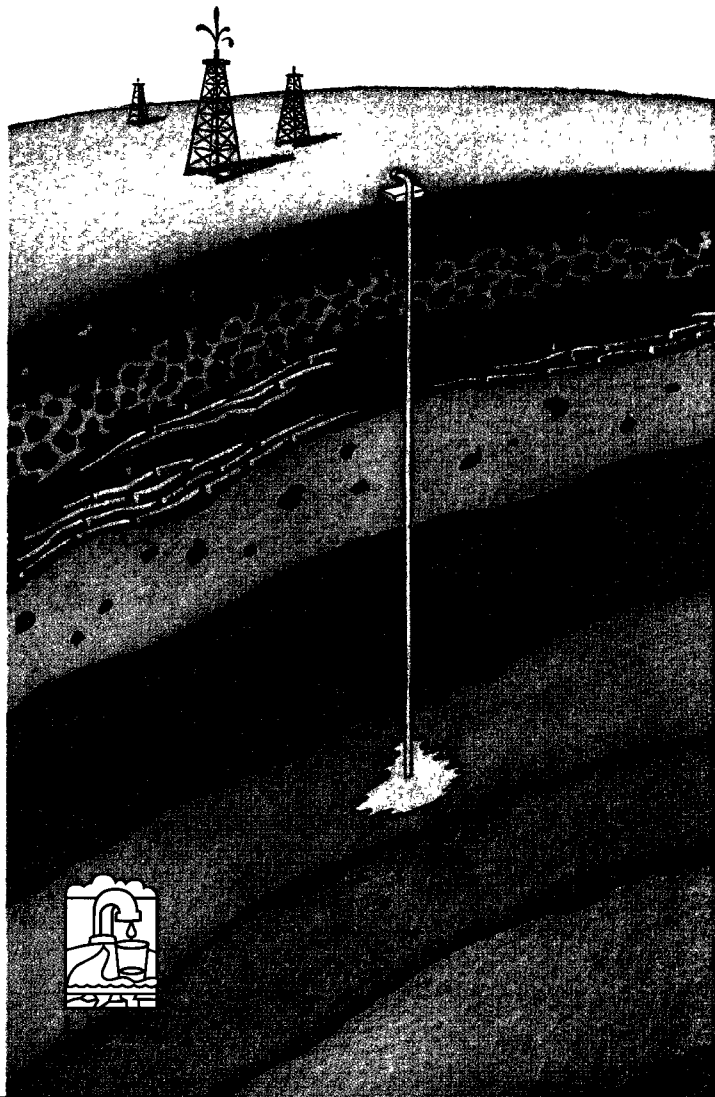
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Agency

Office of Water (4602)



Class II Injection Wells and Your Drinking Water



More than 89 percent of U.S. public water supply systems draw some or all of their drinking water from sources found underground in rock, sand, and gravel. Ground water also feeds rivers, lakes, and streams used for drinking water. Ground water has no respect for state boundaries. It continually moves, sometimes recharging surface waters hundreds of miles away from where it started.

Most ground water used for drinking is located near the earth's surface and is easily contaminated. Of major concern is the potential contamination of underground sources of drinking water (USDWs) by any of the hundreds of thousands of injection wells nationwide. Injection wells dispose of approximately 11 percent of the nation's fluid waste.

The U.S. Environmental Protection Agency (EPA) is working in partnership with state and local governments to prevent injection wells from contaminating your drinking water resources. You can help by learning about EPA's Underground Injection Control (UIC) program so that you can identify injection wells in your community that may contaminate your drinking water.

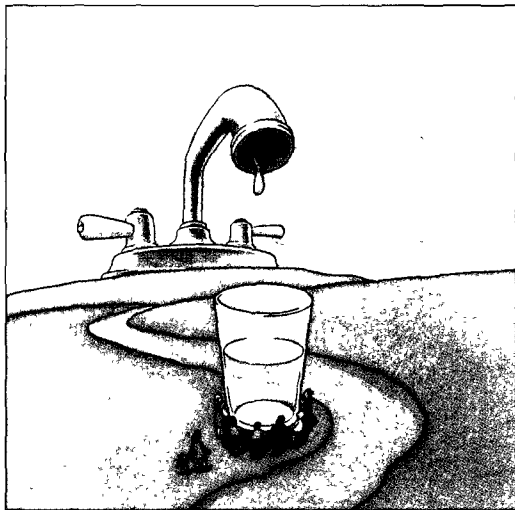
Basically, injection wells are man-made or improved "holes" in the ground, which are deeper than their widest surface dimension and are used to discharge or dispose of fluids underground. When properly sited, constructed, and operated, injection wells can be an effective and environmentally safe means of fluid waste disposal. There are many different types of injection wells, but they are all similar in their basic function.

What is a Class II Well?

Class II wells inject fluids associated with oil and natural gas production. Most of the injected fluid is brine that is produced when oil and gas are extracted from the earth (about 10 barrels of brine for every barrel of oil). The brine is reinjected to increase production, or for disposal. Some Class II wells are used to store hydrocarbon products. Class II wells inject 300 billion gallons of fluid each year.

Under the UIC Program, EPA and the states regulate more than 400,000 injection wells. Class II wells comprise 41 percent of the injection wells in the U.S.

Texas has more Class II wells than any other State. However, California, Kansas, Ohio, and Oklahoma each have a large number of operating Class II wells.



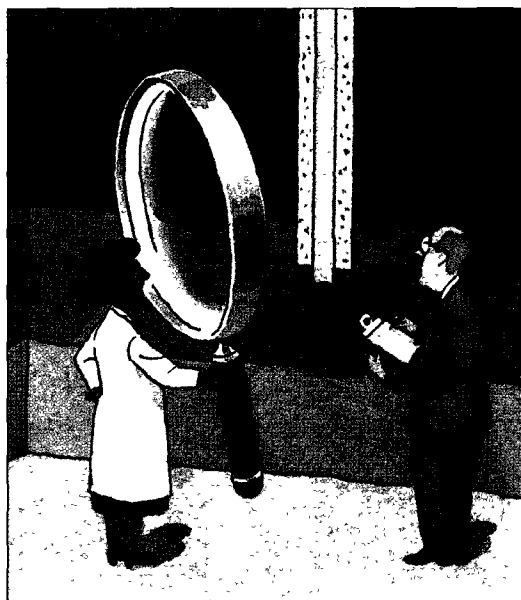
How Does EPA Protect Your Drinking Water from Class II Wells?

Although Class II injection wells penetrate underground sources of drinking water, they do not significantly threaten them, provided that the wells are sited properly, used correctly, and tested regularly. The brine they inject is often saltier than sea water and can contain toxic metals and radioactive substances. Therefore, if brine were to leak from the well or to move from the injection zone, it could contaminate underground drinking water sources.

Ninety percent of Class II wells are located in rural areas, where most people get their drinking water from underground sources. The failure of even one Class II well could threaten the health of thousands of people. For this reason, and to ensure the purity of all underground sources of drinking water, EPA closely oversees Class II injection practices.

Federal regulations set minimum national standards for siting, constructing, operating, and testing these wells. States with EPA approved underground injection control programs can adopt more stringent regulations, as necessary. At a minimum, Class II operators must test the casing of the well for leaks at least once every five years. In addition, EPA or the state authority periodically inspects Class II wells to confirm that operators are adhering to Class II regulations.

To continue preventing Class II wastes from contaminating underground drinking water sources, EPA is developing more stringent construction and testing standards for Class II wells.



EPA
United States
Environmental Protection Agency
(4602)
Washington, DC 20460

Official Business
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\$300

How Can You Help?

Federal and state UIC programs help protect drinking water resources, but must have local support. Local governments and citizens themselves often are in the best position (and have the great-est incentive) to ensure that injection wells do not endanger underground drinking water sources, public health, and the environment. To find out more about the UIC program and what you can do to protect your drinking water, contact your EPA Regional Office.

