

Protecting Drinking Water Through Underground Injection Control

Drinking Water Pocket Guide #2



EPA

United States
Environmental Protection
Agency

Office of Ground Water and
Drinking Water (4606-M)
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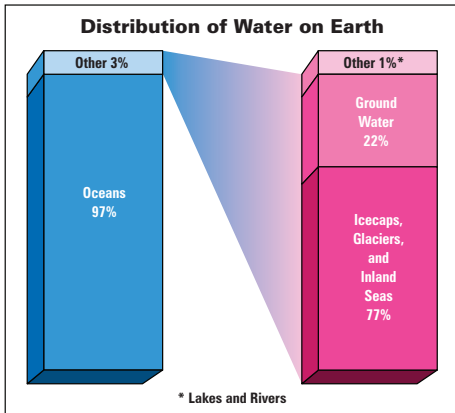
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Contents

Importance of Drinking Water	1
Safe Drinking Water Act (UIC Related Sections)	3
Key Concepts	5
SDWA UIC Program Principles	6
EPA Injection Well Classification System	7
UIC Historical Timeline	8
The Five Pathways of Contamination	9
Class I-V wells	11
Class V Rule	21
EPA UIC Strategic Program Priorities	23
UIC Program Implementation Milestones	24
Importance of UIC Program to source water and other watershed activities	25
Did you know?	26
Glossary	27
Agencies Responsible for Implementing the UIC Program	30
Contacts	31

Importance of Drinking Water

Water is our most vital resource. It is essential for life. Eighty-seven percent of the earth is covered by water. Most water fit for drinking is frozen in glaciers. The remaining fresh water is largely found below our feet in aquifers. More than 90 percent of all public drinking water systems rely on water found in aquifers to supply the population with drinking water. Aquifers also supply water for agriculture, feed our lakes, and provide recharge to our streams and rivers. In addition, millions of Americans living in rural areas rely on private wells. Protecting this resource from source to tap is essential to the health of the public and the economic health of communities.



At the same time, Americans generate large amounts of waste fluids. More than 750 billion gallons of hazardous and non-hazardous fluids are disposed of safely through underground injection. The Underground Injection Control (UIC) Program insures that these fluids are disposed of safely and cost effectively while fulfilling our mission to protect underground sources of drinking water (USDWs) from contamination by regulating the location, construction, operation and closure of injection wells. This booklet outlines UIC Program basics and the minimum federal requirements for an effective UIC Program.

Safe Drinking Water Act (UIC Related Sections)

Sections of the SDWA require the EPA to provide safeguards so that injection wells do not endanger current and future USDWs.

Section	Description
1421	Identifies what state regulations must include – Sets out the framework for the minimum federal requirements that states will have to meet in order to have primary enforcement for the UIC Program. Regulations must contain minimum requirements for effective programs (e.g., inspection, monitoring and record-keeping) to prevent underground injection that endangers underground sources of drinking water.
1422	Outlines the process for state primary enforcement applications – including timelines, and public participation requirements. If a state does not assume primacy, EPA will assume direct implementation responsibility. This section also allows tribes to assume primary enforcement authority.

1423	Sets forth enforcement of the program – Civil and criminal actions are described, including the amount of any penalty levied.
1425	Describes optional demonstrations a state may make for the portion of the UIC program relating to oil and natural gas operations – Allows EPA approval of existing state oil and gas programs if the state can show that the program is effective in preventing endangerment of drinking water sources.
1426	Requires the Administrator to determine the applicability of monitoring methods – and calls for EPA to submit a Report to Congress for Class V wells. The Report to Congress required information on Class V inventory, well types, design and construction recommendations and risks associated with wastes discharged.
1431	Authorizes emergency powers for EPA – to take action in a state if there is an imminent and substantial endangerment.
1442	Addresses EPA's authority to conduct research, studies, training and demonstrations – specifically looking at improved methods for protecting USDWs.
1443	Establishes grants for Primacy Programs

Key Concepts

Aquifer: An underground geologic formation, or group of formations, containing usable amounts of groundwater that can supply drinking water wells or springs

Underground Source of Drinking Water (USDW): An aquifer or portion of an aquifer that

- Supplies any public water system or contains a quantity of ground water sufficient to supply a public water system, and
- Currently supplies drinking water for human consumption, or
- Contains fewer than 10,000 mg/L total dissolved solids and is not an exempted aquifer

Well:

- A bored, drilled or driven shaft whose depth is greater than the largest surface dimension, or
- A dug hole whose depth is greater than the largest surface dimension, or
- An improved sinkhole, or
- A subsurface fluid distribution system

Well Injection: Subsurface discharge of fluids through a well

SDWA UIC Program Principles

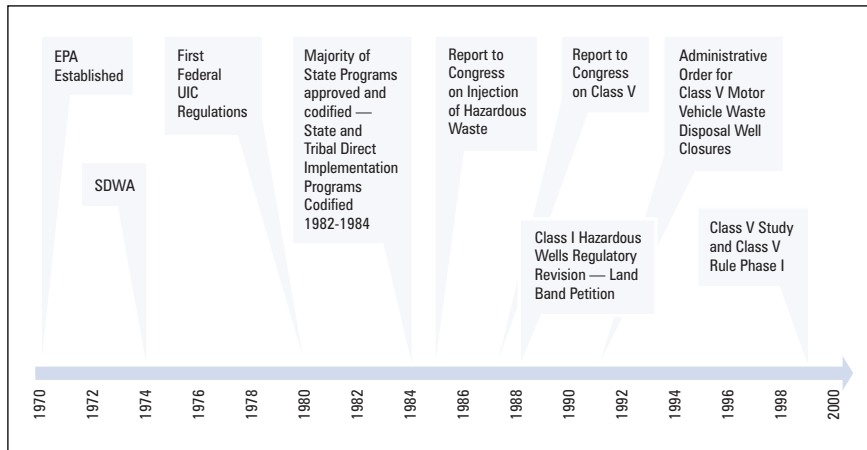
Non-Endangerment: The Safe Drinking Water Act prohibits injection which endangers an underground source of drinking water. Underground injection endangers drinking water sources if such injection may result in the presence in underground water that supplies, or can reasonably be expected to supply, any public water system of any contaminant, and if the presence of such contaminant may result in such system's not complying with any national primary drinking water regulation or may otherwise adversely affect the health of persons.

Primacy: EPA is directed to establish minimum federal requirements for state and tribal UIC programs. States and tribes then apply to EPA to obtain primary enforcement responsibility, or primacy, to administer the UIC program. Primacy programs must meet the minimum federal requirements, and may have more stringent requirements. To date, 33 states, Guam, the Commonwealth of the Mariana Islands, and Puerto Rico have obtained primacy for all classes of injection wells. Seven states share primacy with EPA. For the remaining states, the Virgin Islands, American Samoa, and Indian Country, EPA is directly implementing their UIC programs. (See map on page 29)

EPA Injection Well Classification System

Well Class	Injection Well Description	Approximate Inventory
Class I	<ul style="list-style-type: none">– Inject hazardous wastes beneath the lowermost USDW– Inject industrial non-hazardous liquid beneath the lowermost USDW– Inject municipal wastewater beneath the lowermost USDW	500
Class II	<ul style="list-style-type: none">– Dispose of fluids associated with the production of oil and natural gas– Inject fluids for enhanced oil recovery– Inject liquid hydrocarbons for storage	147,000
Class III	Inject fluids for the extraction of minerals	17,000
Class IV	Inject hazardous or radioactive waste into or above a USDW. This activity is Banned. These wells can only inject as part of an authorized cleanup	40 sites
Class V	Wells not included in the other classes. Inject non-hazardous liquid into or above a USDW.	Range from > 500,000 to > 685,000

UIC Historical Timeline



The five pathways of UIC

The fundamental purpose of the UIC program is to protect current fluids within the well and the intended injection zone to prevent leakage through five major pathways.

Pathway

Owner/Operator Must Demonstrate

1: Faulty Well Construction:
Leaks in well casing or fluid escaping between well's outer casing and well bore.

No significant leaks or fluid migration between well casing and bore (mechanical integrity evaluation required)

2: Nearby Wells: Fluids from pressurized area in injection zone may escape through wells in injection area.

Properly construct or plug wells in injection zone. Submit plans for abandonment with permit application and P&A reports prior to closing a well

3: Faults or Fractures in Confining Strata: Fluids may leak out of pressurized area through faults/fractures in confining beds.

Wells are sited to inject below confining bed. Monitor injection pressure to prevent fractures in injection zone and confining bed.

4: Direct Injection: Inject fluids into or above USDWs.

Fluids do not endanger. Must demonstrate no migration prior to injection.

5: Displacement: Fluid may be displaced from injection zone into hydraulically connected USDWs.

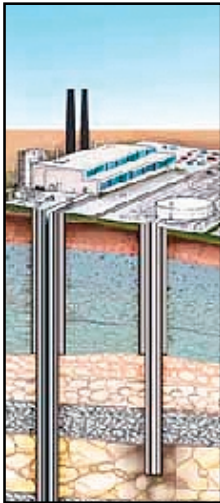
Proximity of injection wells to USDWs must be demonstrated permitting authority can confirm. Control injection pressure; conduct monitoring and testing to track future fluid migration

Prevention of contamination

current and potential drinking water resources by keeping injected fluids from preventing endangerment. Injected fluids can contaminate USDWs

Demonstrate	UIC Program Requirements
fluid movement in well (annular space) every 5 years.	Permits; Mechanical integrity tests (MIT); Inspections; File reviews; Corrective action (CA) on wells with MIT failure; Enforcement; Closures
g wells that penetrate casing and plans for plugging and abandonment applications. Submitting any well.	Permits; File reviews; CA on problem wells in area of review; Inspections; Enforcement; Closures
below an unfractured zone or in injection pressure to	Permits; File reviews; MITs; Inspections; Monitoring record reviews; CA on wells with MIT failure; Enforcement; Closures
Must submit inventory	Permits; Outreach and compliance assistance; Inspections; Enforcement; Closures; Inventory
to USDWs so confirm proper siting. e; conduct monitoring e fluid migration.	Permits; MITs; CA on wells with MIT failure; Inspections; Enforcement; Closures

Class I wells – Isolate hazardous, industrial and municipal wastes through deep injection.



Purpose:

Regulate and manage safe injection of industrial or municipal waste beneath the lowermost USDW

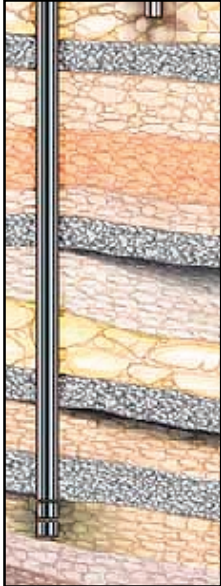
Examples of Fluids:

- Manufacturing and mining wastewater
- RCRA hazardous waste
- Treated municipal effluent
- Radioactive waste

Protective Requirements:

Construction and siting

- Cased and cemented to prevent movement of fluids into USDWs
- Tubing and packer appropriate for injected wastewater



- Determine impact of placing a new well close to existing wells. Minimum area of review is 2 miles for hazardous waste wells and ¼ mile for non-hazardous waste wells
- Sited in geologically stable areas

Monitoring and testing

- Hazardous Wells – Internal mechanical integrity test (MIT) every year, External MIT every 5 years
- Non-hazardous Wells – Internal and external MIT every 5 years
- Yearly monitoring required of injection operation
- Monitoring wells to supplement ambient monitoring are authorized

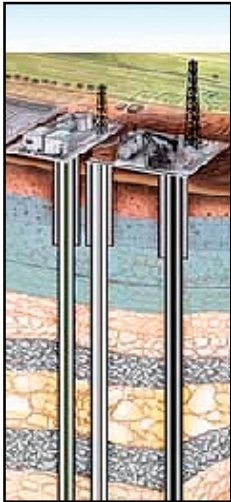
Recordkeeping and Reporting

- Plan for safe plugging and abandoning of wells, including demonstration of financial responsibility

Regulatory Citations:

- 40 CFR 144 General Provisions
- 40 CFR 146.11 to 146.14, 146.61 to 146.73
- 40 CFR 148 (all) for hazardous waste wells

Class II wells – Inject oil and gas production waste and materials.



Purpose:

Regulate and manage safe injection of fluid brought to the surface in connection with oil and gas related production, or for enhanced recovery of oil or natural gas, or liquid hydrocarbon storage.

Examples of Fluids:

- Produced high salinity brine
- Crude oil (for storage)
- Polymers and viscosifiers for enhanced recovery wells
- Drilling fluids and muds

Protective Requirements:

Construction and siting

- Cased and cemented to prevent movement of fluids into USDWs
- Construction and design of well (casing, tubing, and packer) varies



Monitoring and testing

- Internal/External MIT
- Periodic monitoring and reporting

Recordkeeping and Reporting

- Plan for safe plugging and abandoning of wells, including demonstration of financial responsibility

Regulatory Citations:

- 40 CFR 144 General Provisions
- 40 CFR 146 General Provisions
- 40 CFR 146.21 to 146.24

Class III wells – *Minimize environmental impacts from solution mining operations*



Purpose:

Regulate and manage safe injection of fluids or leaching agents to dissolve specific salt/minerals for extraction and recovery.

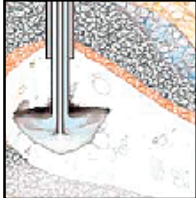
Examples of Fluids:

- Fresh water to extract salt (NaCl)
- Sodium bicarbonate to extract uranium salts
- Steam to extract sulfur
- Proprietary solutions to extract other minerals and metals

Protective Requirements:

Construction and siting

- Cased and cemented to prevent movement of fluids into USDWs
- Tubing and packer appropriate for injected fluids



Monitoring and testing

- Nature of the injected fluid
- Injection pressure or injectate rate or volume
- Internal/external MIT
- Frequent testing of fluids in the injection zone
- Monitoring wells in adjacent USDWs

Recordkeeping and Reporting

- Plan for safe plugging and abandoning of wells, including demonstration of financial responsibility

Regulatory Citations:

- 40 CFR 144
- 40 CFR 146.4, 146.6, 146.8 and 146.10
- 40 CFR 146.31 to 146.34

Class IV wells – Prevent ground water contamination by prohibiting the shallow injection of hazardous waste except as part of authorized cleanup activities.



Class IV wells were used to inject hazardous or radioactive wastes into or above USDWs. **The use of Class IV wells to dispose of waste was banned in 1984.** However, these wells are authorized when operated to inject treated contaminated ground water back into the original aquifer as part of a clean-up effort and may only be operated with federal or state approval under the Resource Conservation and Recovery Act (RCRA) or Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA or Superfund) programs. Owners and operators of Class IV wells must still meet all UIC Program requirements.

Class V wells – Manage the shallow injection of non-hazardous fluids.

Purpose:

Regulate and manage the safe injection of non-hazardous fluids through on-site disposal systems such as dry wells, septic systems, leach fields and similar types of drainage wells, and deeper wells that inject into or above USDWs.



Examples of Fluids:

- *Wastewater disposal* – storm water runoff, incidental and process wastes from industry, car wash water, food processing wastes, treated sanitary wastes*, drainage from agricultural activities, and aquifer remediation.
- *Beneficial uses* – aquifer recharge, aquifer storage and recovery, subsidence control, saline intrusion barrier, and brine return from mineral recovery and energy production.

Protective Requirements:

- Cannot endanger USDW's
- Submit inventory information
- Additional specific requirements for motor vehicle waste disposal wells and large capacity cesspools (see *Class V Rule*, page 21)

Monitoring:

- States and EPA can require any well owner to obtain a permit, monitor injectate or close the well if there is a potential to endanger USDWs.

Regulatory Citation:

- 40 CFR 144 Subpart G.

* The Underground Injection Control Program does not regulate individual residential septic systems and cesspools and nonresidential septic systems and cesspools with the capacity to serve fewer than 20 persons per day and inject only sanitary waste.

Class V Rule

In 1999, EPA finalized the *Underground Injection Control Regulations for Class V Injection Wells, Revisions* (FR Vol. 46 No. 234 pp. 68546-68573), known as the Class V Rule, Phase 1. The Class V Rule establishes minimum federal standards for two subtypes of Class V wells: large-capacity cesspools and motor vehicle waste disposal wells.

Large-capacity Cesspools

Definition: Typically a drywell with an open bottom and/or perforated sides that receives untreated sanitary waste. A *large-capacity* cesspool is any residential cesspool used by multiple dwellings, community or regional establishments, or non-residential cesspools that have the capacity to serve 20 or more people.

Protective Requirements:

- New large-capacity cesspools are banned (2000)
- Existing large-capacity cesspools nationwide must close by 2005
- Owners and operators must notify the UIC Program Director 30 days prior to closing their large capacity cesspool

Motor Vehicle Waste Disposal Wells

Definition: Shallow waste disposal systems that receive or have received fluids from vehicular repair or maintenance activities, such as auto body or automotive repair, car dealerships, or other vehicular repair work.

- New motor vehicle waste disposal wells are banned (2000)
- Existing motor vehicle waste disposal wells are banned in regulated areas. States may allow owners and operators to seek a waiver from the ban and obtain a permit.
- Owners and operators must notify the UIC Program Director 30 days prior to closing their motor vehicle waste disposal well.



EPA UIC Strategic Program Priorities

Base Program – Classes I-IV

- Maintain and improve the core program
- Establish a meaningful and useful data management system

Class V

- Implement the Class V, Phase 1 Rule
- Build a credible and robust Class V, Phase 2 Program
- Develop a comprehensive inventory

All Classes

- Better integrate the UIC Program with SDWA and other programs (i.e., Clean Water Act, RCRA and CERCLA or Superfund)
- Expand outreach and education

UIC Program Implementation Milestones

Well Class	Date	Activity
Class I Hazardous	March 2001	Study of Risks Associated with Class I Underground Injection Wells
Class I Municipal	Spring 2002 Spring 2002	South Florida Waste Water Study Class I Municipal Well Final Rule
Class II	Winter 2002	Coal Bed Methane Hydro-Fracture Study Phase I
Class V Phase 1 Rule Implementation	April 2000 April 2005 April 2000 – Jan. 2008	<ul style="list-style-type: none">• New Large Capacity Cesspools Banned• New Motor Vehicle Waste Disposal Wells Banned• Existing Large Capacity Cesspools Closed• Existing Motor Vehicle Waste Disposal Wells Close or Obtain a Permit in Regulated Areas
Class V Phase 2 Determination	April 2001 May 2002	<ul style="list-style-type: none">• Proposal• Final

Importance of UIC Program to source water and other watershed activities

Underground Injection Control is one of many activities that help ensure tap water is safe to drink. A variety of safeguards, from the drinking water source to the consumer's tap, form multiple barriers against contamination. The UIC Program works to protect underground sources of drinking water from contamination by regulating the construction, operation, and closure of injection wells. Other protective barriers include assessing the vulnerability of drinking water sources to contamination; adopting community drinking water programs to protect wells and collection systems; making sure water is treated by qualified operators; ensuring the integrity of distribution systems; setting regulations to control the level of contaminants in tap water; and making information available to the public on drinking water quality. EPA, states, tribes, drinking water utilities, communities and citizens share the responsibility of protecting America's drinking water.

Did you know?

- 89 percent of the hazardous waste that is land disposed is through Class I Wells
- More than 700 million gallons of fluids are injected into Class II wells each year
- Typically, 10 gallons of brine are produced for each gallon of oil
- 50 percent of the salt used in America is extracted through Class III wells
- 80 percent of the uranium is extracted using Class III wells
- The majority of Class V well owners are small businesses and municipalities
- The two most numerous types of Class V wells are storm water drainage and large-capacity septic systems.

Glossary

Aquifer Exemption — A regulatory or administrative waiver to allow injection into all or part of a USDW that is not currently being used and will not be used in the future as a drinking water source. Without an aquifer exemption, certain types of energy production, mining, or waste disposal into USDWs would be prohibited under UIC regulations.

Casing — Pipe material placed inside the borehole that transmits fluids through the well into the injection zone. Casing is usually distinguished from tubing with respect to its function and its location in the well. Casing refers to the outer pipe string, often cemented in place to maintain the structural integrity in the borehole.

Drywell — A well, other than an improved sinkhole or subsurface fluid distribution system, completed above the water table so that its bottom and sides are typically dry except when receiving fluids.

Improved Sinkhole — A naturally occurring karst depression or other natural crevice found in volcanic terrain and other geologic settings which have been modified by man for the purpose of directing and emplacing fluids into the subsurface.

Mechanical Integrity Test (MIT) — One means of measuring the adequacy of construction of an injection well is by requiring a demonstration that a well has mechanical integrity. A well is deemed to have mechanical integrity if there is no significant leak in the casing, tubing, or packer, and there is no significant fluid movement into an underground source of drinking water through vertical channels adjacent to the injection wellbore.

Packer — Mechanical devices used to provide a seal between the tubing and the casing or the tubing and the open hole. Packers can be used to separate multiple injection zones, to protect casing from injection pressure and fluids, to isolate a given injection zone, to isolate casing leaks, or to facilitate subsurface safety control.

Public Water System — A water system that provides water to the public for human consumption through pipes or other constructed conveyances, if such a system has at least 15 service connections or regularly serves at least 25 people.

Sanitary Waste — Liquid or solid wastes originating solely from humans and human activities, such as wastes collected from toilets, showers, wash basins, sinks used for cleaning domestic areas, sinks used for food preparation, clothes washing operations, and sinks or washing machines where food and beverage serving dishes, glasses, and utensils are cleaned. Sources of these

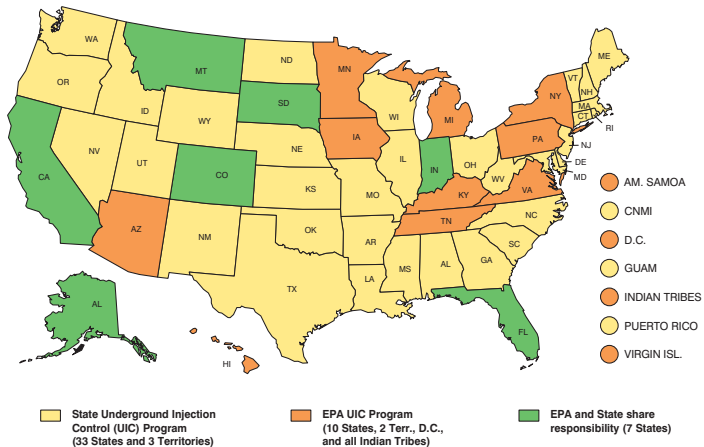
wastes may include single or multiple residences, hotels and motels, restaurants, bunkhouses, schools, ranger stations, crew quarters, guard stations, campgrounds, picnic grounds, day-use recreation areas, other commercial facilities, and industrial facilities provided the waste is not mixed with industrial waste.

Septic System — A “well” that is used to emplace sanitary waste below the surface and is typically comprised of a septic tank and subsurface fluid distribution system or disposal system.

Subsurface Fluid Distribution System — An assemblage of perforated pipes, drain tiles, or other similar mechanisms intended to distribute fluids below the surface of the ground.

Tubing — The innermost pipe string through which injection usually takes place. It is often separated from concentric strings of casing by an annular fluid and can be removed easily from the well. In wells without tubing, the innermost casing can be referred to as the injection casing.

Agencies Responsible for Implementing the UIC Program



Contacts

EPA REGION 1	(617) 918-1614
Connecticut Department of Environmental Protection (Classes I-V)	(860) 424-3018
Maine Department of Environmental Protection (Classes I-V)	(207) 287-7814
Massachusetts Department of Environmental Protection (Classes I-V)	(617) 574-6855
New Hampshire Department of Environmental Services (Classes I-V)	(603) 271-2858
Rhode Island Department of Environmental Management (Classes I-V)	(401) 222-6820
Vermont Department of Environmental Conservation (Classes I-V)	(802) 241-4455 ext. 7552
Indian Lands in Region 1 States — EPA Region 1 (Classes I-V)	(617) 918-1614
EPA REGION 2	(212) 637-3766
New Jersey Department of Environmental Protection (Classes I-V)	(609) 292-0407
New York — EPA Region 2 (Classes I-V)	(214) 637-3766
Puerto Rico Environmental Quality Board (Classes I-V)	(787) 767-8181
Virgin Islands — EPA Region 2 (Classes I-V)	(212) 637-3766
Indian Lands in Region 2 States — EPA Region 2 (Classes I-V)	(212) 637-3766

EPA REGION 3	(215) 814-5445
Delaware Department of Natural Resources & Env. Control (Classes I-V)	(302) 739-4762
Maryland Department of Environment (Classes I-V)	(410) 631-3662
Pennsylvania — EPA Region 3 (Classes I-V)	(215) 814-5445
Virginia — EPA Region 3 (Classes I-V)	(215) 814-5445
West Virginia Division of Environmental Protection (Classes I, III-V)	(304) 558-2108
West Virginia Division of Environmental Protection (Class II)	(304) 759-0514
District of Columbia — EPA Region 3 (Classes I-V)	(215) 814-5445
 EPA REGION 4	 (404) 562-9438
Alabama Department of Environmental Management (Classes I, III-V)	(334) 271-7844
Alabama State Oil and Gas Board (Class II)	(205) 349-2852
Florida Department of Environmental Protection (Classes I, III-V)	(850) 921-9417
Florida — EPA Region 4 (Class II)	(404) 562-9352
Georgia Environmental Protection Division (Classes I-V)	(404) 656-3229
Kentucky — EPA Region 4 (Classes I-V)	(404) 562-9423
Mississippi Department of Environmental Quality (Classes I, III-V)	(601) 961-5640
Mississippi Oil and Gas Board (Class II)	(601) 354-7142
North Carolina Department of Environment and Nat. Resources (Classes I-V)	(919) 715-6165
South Carolina Department of Natural Resources (Classes I-V)	(803) 898-3549

Tennessee — EPA Region 4 (Classes I-V)	(404) 562-9473
Indian Lands in Region 4 States — EPA Region 4 (Classes I-V)	(404) 562-9473

EPA REGION 5 (312) 886-1492

Illinois Environmental Protection Agency (Classes I, III-V)	(217) 782-6070
Illinois Department of Natural Resources (Class II)	(217) 782-1689
Indiana — EPA Region 5 (Classes I, III-V)	(312) 886-1492
Indiana Department of Natural Resources (Class II)	(317) 232-4058
Michigan — EPA Region 5 (Classes I-V)	(312) 886-1492
Minnesota — EPA Region 5 (Classes I-V)	(312) 886-1492
Ohio Environmental Protection Agency (Classes I, III-V)	(614) 644-2752
Ohio Department of Natural Resources (Class II)	(614) 265-7079
Wisconsin Department of Natural Resources	(608) 266-2438
Indian Lands in Region 5 States — EPA Region 5	(312) 886-1492

EPA REGION 6 (Classes I, III-V) (214) 665-7165

EPA REGION 6 (Class II) (214) 655-7165

Arkansas Department of Environmental Quality (Classes I, III-V)	(501) 682-0646
Arkansas Oil and Gas Commission (Class II)	(870) 862-4965
Louisiana Department of Natural Resource (Classes I, III-V)	(225) 342-5515
Louisiana Office of Conservation (Class II)	(225) 342-5515

New Mexico Environment Department (Classes I, III-V)	(505) 827-2936
New Mexico Oil Conservation Division (Class II)	(505) 476-3466
Oklahoma Department of Environmental Quality (Classes I, III-V)	(405) 702-5100
Oklahoma Corporation Commission (Class II)	(405) 522-2751
Texas Natural Resource Conservation Commission (Classes I, III-V)	(512) 239-6633
Texas Railroad Commission (Class II)	(512) 463-6780
Indian Lands in Region 6 States — EPA Region 6 (Classes I-V)	(214) 665-7165
EPA REGION 7	(913) 551-7030
Iowa — EPA Region 7 (Classes I-V)	(913) 551-7030
Kansas Department of Health and Environment (Classes I, III-V)	(785) 296-5560
Kansas Corporation Commission (Class II)	(316) 337-6197
Missouri Department of Natural Resources (Classes I-V)	(573) 368-2170
Nebraska Department of Environmental Quality (Classes I, III-V)	(402) 471-0096
Nebraska Oil and Gas Conservation Commission (Class II)	(308) 254-6919
Indian Lands in Region 7 States — EPA Region (Classes I-V)	(913) 551-7030
EPA REGION 8	(800) 227-8917
Colorado — EPA Region 8 (Classes I, III-V)	(800) 227-8917
Colorado Oil and Gas Conservation Commission (Class II)	(303) 894-2011 ext. 105

Montana — EPA Region 8 (Classes I, III-V)	(800) 227-8917
Montana Board of Oil and Gas Conservation (Class II)	(406) 656-0040
North Dakota Department of Health (Classes I, III-V)	(701) 328-5210
North Dakota Industrial Commission (Class II)	(701) 328-8020
South Dakota — EPA Region 8 (Classes I, III-V)	(800) 227-8917
South Dakota Department of Environment and Natural Resources (Class II)	(605) 773-6296
Utah Department of Environmental Quality (Classes I, III-V)	(801) 538-6023
Utah Department of Natural Resources (Class II)	(801) 538-5297
Wyoming Department of Environmental Quality (Classes I, III-V)	(307) 777-7095
Wyoming Oil and Gas Conservation Commission (Class II)	(307) 234-7147
Indian Lands in Region 8 States — EPA Region 8 (Classes I-V)	(800) 227-8917
EPA REGION 9	(415) 972-3538
Arizona — EPA Region 9 (Classes I-V)	(415) 972-3543
California — EPA Region 9 (Classes I, III-V)	(415) 972-3537
California Division of Oil, Gas and Geothermal Resources (Class II)	(916) 323-1781
Commonwealth of N. Mariana Islands Div. of Environmental Quality (Classes I-V)	(670) 234-1012
Guam Environmental Protection Agency — EPA Region 9 (Classes I-V)	(617) 472-8863
Hawaii — EPA Region 9 (Classes I-V)	(415) 972-3531
Nevada Division of Environmental Protection (Classes I-V)	(775) 687-4670 ext. 3137

Indian Lands in Region 9 States — EPA Region 9 (Classes I-III)	(415) 972-3544
Indian Lands in Region 9 States — EPA Region 9 (Classes IV-V)	(415) 972-3532

EPA REGION 10 (206) 553-1200

Alaska — EPA Region 10 (Classes I, III-V)	(206) 553-1200
Alaska Oil and Gas Conservation Commission (Class II)	(907) 279-1433
Idaho Department of Water Resources (Classes I-V)	(208) 327-7900
Oregon Department of Environmental Quality (Classes I-V)	(503) 229-5696
Washington Department of Ecology (Classes I-V)	(360) 407-6000
Indian Lands in Region 10 States — EPA Region 10 (Classes I-V)	(206) 553-1200

EPA HEADQUARTERS — OFFICE OF GROUND WATER AND DRINKING WATER, PROTECTION BRANCH (202) 564-3869

For More Information

**EPA Office of Ground Water
and Drinking Water**

www.epa.gov/safewater

EPA/OGWDW: (202) 564-3750