

**Arkansas State Department of Health
Drinking Water Program**

Annual Report

Public Water System Violations Calendar Year 1996

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Introduction

Arkansas Land Use

Total area of Arkansas	34,036,672 acres
Total area of land	33,328,192 acres
Total area of water	708,480 acres
Total area of forest	15,950,000 acres
Total area of arable land	7,295,000 acres
Total area of wetland	820,619 acres
Total area of barren land	42,000 acres
Total area of developed land	205,340 acres

Characteristics of Arkansas's Water Systems

Population of Arkansas	2,483,769
Population served by public water systems	2,198,000
Population served by surface water systems	1,213,000
Population served by ground water systems	851,000
Population served by ground & surface systems	134,000
% population served by individual private wells	11.5 %
% population served by public water systems	88.5 %
Total number of public water systems	1,307
Number of community public water systems	723
Number of nontransient non-community public water systems	82
Number of transient non-community public water systems	502
Total water used by public water systems (MGD)	220
Number of systems using surface water	273
Number of systems using ground water	1,009
Number of systems using ground & surface	25

Purpose:

The purpose of this report is to summarize the Arkansas Public Water System violations data submitted to the Safe Drinking Water Information System (SDWIS/FED) for the calendar year 1996. The data include PWS inventory statistics, the incidence of Maximum Contaminant Level, Major Monitoring, and Treatment Technique violations, and the enforcement actions taken against violators. The report provides a total annual representation of the numbers of violations for each of the four categories listed in Section 1414(c)(3) of the Safe Drinking Water Act reauthorization. These four categories include MCLs, treatment techniques, variances and exemptions, and significant monitoring violations. This report is based on the data submitted by the Arkansas Department of Health to SDWIS/FED during the calendar year 1996.

The Statutory Origin:

The EPA established the Public Water System Supervision (PWSS) Program under the authority of the 1974 Safe Drinking Water Act (SDWA). Under the SDWA and the 1986 Amendments, EPA sets national limits for contaminant levels in drinking water to ensure that the water is safe for human consumption. These limits are known as Maximum Contaminant Levels (MCLs). For some regulations, EPA establishes treatment techniques in lieu of MCLs to control unacceptable levels of contaminants in water. The EPA also regulates how often public water systems (PWSs) monitor their water for contaminants and requires the monitoring results to be reported to the States or EPA. Generally, the larger the population served by a water system, the more frequent the monitoring and reporting (M/R) requirements. In addition, EPA requires PWSs to monitor for unregulated contaminants to provide data for future regulatory development. Finally, EPA requires PWSs to notify the public when they have violated these regulations. The 1996 Amendments to the SDWA require public notification to include a clear and understandable explanation of the nature of the violation, its potential adverse health effects, steps that the PWS is undertaking to correct the violation and the possibility of alternative water supplies during the violation.

The SDWA applies to the 50 States, the District of Columbia, Indian Lands, Puerto Rico, the Virgin Islands, American Samoa, Guam, the Commonwealth of the Northern Mariana Islands, and the Republic of Palau.

The SDWA allows States and Territories to seek EPA approval to administer their own PWSS Programs. The authority to run a PWSS Program is called primacy. To receive primacy, States must meet certain requirements laid out in the SDWA and the regulations, including the adoption of drinking water regulations that are at least as stringent as the Federal regulations and a demonstration that they can enforce the program requirements. Of the 57 States and Territories, all but Wyoming and the District of Columbia have primacy. The EPA Regional Offices administer the PWSS Programs within these two jurisdictions.

Violations Tables:

State: ARKANSAS
Reporting Period: January 1, 1996 - December 31, 1996

	SDWIS Codes	MCL (mg/l)	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
			Number of violations	Number of Systems with Violations	Number of Violations	Number of Systems with Violations	Number of Violations	Number of Systems With Violations
Inorganic Contaminants								
Fluoride	1025	4.0	1	1			0	0
Total nitrate and nitrite	1040	10 (as N)	2	2			0	0
Subtotal			3	3			0	0

State: ARKANSAS
Reporting Period: January 1, 1996 - December 31, 1996

	SDWIS Codes	MCL (mg/l)	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
			Number of violations	Number of Systems with Violations	Number of Violations	Number of Systems with Violations	Number of Violations	Number of Systems With Violations
Organic Contaminants								
TTHM	2950	0.10	2	1			0	0
Trichloroethylene	2984	0.005	2	1				
Tetrachloroethylene	2987	0.005	2	1				
Subtotal			6	3			0	0

State: ARKANSAS
Reporting Period: January 1, 1996 - December 31, 1996

	SDWIS Codes	MCL (mg/l)	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
			Number of violations	Number of Systems with Violations	Number of Violations	Number of Systems with Violations	Number of Violations	Number of Systems With Violations
Total Coliform Rule								
Acute MCL violation	21	Presence	28	24				
Non-Acute MCL violation	22	Presence	53	48				
Major routine monitoring	23						377	249
Major follow up monitoring	25						62	58
Sanitary survey	28						0	0
Subtotal			81	72			439	307

State: ARKANSAS
Reporting Period: January 1, 1996 - December 31, 1996

	SDWIS Codes	MCL (mg/l)	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
			Number of violations	Number of Systems with Violations	Number of Violations	Number of Systems with Violations	Number of Violations	Number of Systems With Violations
Surface Water Treatment Rule								
<u>Filtered Systems</u>								
Monitoring, routine/repeat	36						60	41
Treatment techniques	41				70	21		
<u>Unfiltered Systems</u>								
Monitoring, routine/repeat	31						0	0
Failure to filter	42				0	0		
Subtotal					70	21	60	41

State: ARKANSAS	
Reporting Period: January 1, 1996 - December 31, 1996	

	SDWIS Codes	MCL (mg/l)	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
			Number of violations	Number of Systems with Violations	Number of Violations	Number of Systems with Violations	Number of Violations	Number of Systems With Violations
Lead and Copper Rule								
Initial lead and copper tap M/R	51						1	1
Follow-up or routine lead and copper tap M/R	52						1	1
Treatment Installation	58				0	0		
Public education	65				0	0		
Subtotal					0	0	2	2

State: ARKANSAS
Reporting Period: January 1, 1996 - December 31, 1996

	SDWIS Codes	MCL (mg/l)	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
			Number of violations	Number of Systems with Violations	Number of Violations	Number of Systems with Violations	Number of Violations	Number of Systems With Violations
Radionuclide MCLs								
Gross alpha	4000	15 pCi/l	0	0			0	0
Radium-226 and radium-228	4010	5 pCi/l	4	2			0	0
Gross beta	4101	4 mrem/yr	0	0			0	0
Subtotal			4	2			0	0

Definitions for the Violations Tables:

Filtered Systems: Water systems that have installed filtration treatment [40 CFR 141, Subpart H].

Inorganic Contaminants: Non-carbon-based compounds such as metals, nitrates, and asbestos. These contaminants are naturally-occurring in some water, but can get into water through farming, chemical manufacturing, and other human activities. EPA has established MCLs for 15 inorganic contaminants [40 CFR 141.62].

Lead and Copper Rule: This rule established national limits on lead and copper in drinking water [40 CFR 141.80-91]. Lead and copper corrosion pose various health risks when ingested at any level, and can enter drinking water from household pipes and plumbing fixtures. States report violations of the Lead and Copper Rule in the following six categories:

Initial lead and copper tap M/R: SDWIS Violations Code 51 indicates that a system did not meet initial lead and copper testing requirements, or failed to report the results of those tests to the State.

Follow-up or routine lead and copper tap M/R: SDWIS Violations code 52 indicates that a system did not meet follow-up or routine lead and copper tap testing requirements, or failed to report the results.

Treatment installation: SDWIS Violation Code 58 AND 62 indicate a failure to install optimal corrosion control treatment system (58) or source water treatment system (62) which would reduce lead and copper levels in water at the tap. [One number is to be reported for the sum of violations in these two categories].

Public Education: SDWIS Violation Code 65 shows that a system did not provide required public education about reducing or avoiding lead intake from water.

Maximum Contaminant Level (MCL): The highest amount of a contaminant that EPA allows in drinking water. MCLs ensure that drinking water does not pose either a short-term or long-term health risk. MCLs are defined in milligrams per liter (parts per million) unless otherwise specified.

Monitoring: EPA specifies which water testing methods the water systems must use, and sets schedules for the frequency of testing. A water system that does not follow EPA's schedule or methodology is in violations [40 CFR 141].

States must report monitoring violations that are significant as determined by the EPA Administrator and in consultation with the States. For purposes of this report, significant monitoring violations are major violations and they occur when no samples are taken or no results are reported during a compliance period.

A major monitoring violation for the surface water treatment rule occurs when at least 90% of the required samples are not taken or results are not reported during the compliance period.

Organic Contaminants: Carbon-based compounds, such as industrial solvents and pesticides. These contaminants generally get into water through runoff from cropland or discharge from factories. EPA has set legal limits on 54 organic contaminants that are to be reported [40 CFR 141.61].

Radionuclides: Radioactive particles, which can occur naturally in water or result from human activity. EPA has set legal limits on four types of radionuclides: radium-226, radium 228, gross alpha, and beta particle/photon radioactivity [40 CFR 141]. Violations for these contaminants are to be reported using the following three categories:

Gross alpha: SDWIS Contaminant Code 4000 for alpha radiation above MCL of 15 picocuries/liter. Gross alpha includes radium-226 but excludes radon and uranium.

Combined radium-226 and radium-228: SDWIS Contaminant Code 4010 for combined radiation from these two isotopes above MCL of 5 pCi/L.

Gross beta: SDWIS Contaminant Code 4101 for the combination of beta particles and photon radioactivity resulting from man-made radionuclides above 4 millirem/year.

Reporting Interval: The reporting interval for violations to be included in the first PWS Annual Compliance Report, which is to be submitted to EPA by January 1, 1998, is from July 1, 1996 through June 30, 1997. This interval will change for future annual reports.

SDWIS Code: Specific numeric codes from the Safe Drinking Water Information System (SDWIS) have been assigned to each violation type included in this report. The violations to be reported include exceeding contaminant MCLs, failure to comply with treatment requirements, and failure to meet monitoring and reporting requirements. Four-digit SDWIS Contaminant Codes have also been included in the chart for specific MCL contaminants.

Surface Water Treatment Rule: The Surface Water Treatment Rule establishes criteria under which water systems supplied by surface water sources, or ground water sources under the direct influence of surface water, must filter and disinfect their water [40 CFR 141, Subpart H]. Violations of the "Surface Water Treatment Rule" are to be reported for the following four categories:

Monitoring, routine/repeat (for filtered systems): SDWIS Violation Code 36 indicates a system's failure to carry out required tests, or to report the results of those tests.

Treatment techniques (for filtered systems): SDWIS Violation 41 shows a system's failure to properly treat its water.

Monitoring, routine/repeat (for unfiltered systems): SDWIS Violation Code 31 indicates a system's failure to carry out required water tests, or to report the results of those tests.

Failure to filter (for unfiltered systems): SDWIS Violation Code 42 shows a system's failure to properly treat its water. Data for this violation code will be supplied to the States by EPA.

Total Coliform Rule (TCR): The Total Coliform Rule establishes regulations for microbiological contaminants in drinking water. These contaminants can cause short-term health problems. If no samples are collected during the one-month compliance period, a significant monitoring violation occurs. States are to report four categories of violations:

Acute MCL violation: SDWIS Violation Code 21 indicates that the system found fecal coliform or E. coli, potentially harmful bacteria, in its water, hereby violating the rule.

Non-acute MCL violation: SDWIS Violation code 22 indicates that the system found total coliform in samples of its water at a frequency or at a level that violates the rule. For systems collecting fewer than 40 samples per month, more than one positive sample for total coliform is a violation. For systems collecting 40 or more samples per month, more than 5% of the samples positive for total coliform is a violation.

Major routine and follow-up monitoring: SDWIS Violation Codes 23 AND 25 show that a system did not perform any monitoring. [One number is to be reported for the sum of violations in these two categories.]

Sanitary Survey: SDWIS Violation Code 28 indicates a major monitoring violation if a system fails to collect 5 routine monthly samples if sanitary survey is not performed

Treatment Techniques: A water disinfection process that EPA requires instead of an MCL for contaminants that laboratories cannot adequately measure. Failure to meet other operational and system requirements under the Surface Water Treatment and the Lead and Copper Rules have also been included in this category of violation for purposes of this report.

Unfiltered Systems: Water systems that do not need to filter their water before disinfecting it because the source is very clean [40 CFR, Subpart H].

Violation: A failure to meet any state or federal drinking water regulation.

Public Water System: A Public Water System (PWS) is defined as a system that provides water via piping or other constructed conveyances for human consumption to at least 15 service connections or serves an average of at least 25 people for at least 60 days each year. There are three types of PWSs. PWSs can be community (such as towns), nontransient non-community (such as schools or factories), or transient non-community systems (such as rest stops or parks). For this report when the acronym “PWS” is used, it means systems of all types unless specified in greater detail.

Variations and Exemptions: Variations and exemptions to specific requirements under the Safe Drinking Water Act Amendments of 1996 may be granted under certain circumstances. If, due to the characteristics of the raw water sources reasonably available, a PWS cannot meet the MCL, a primacy State can grant the PWS a variance from the applicable primary drinking water regulation on the condition that the system install the best available technology, treatment techniques, or other means which the Administrator finds are available (taking costs into account). The state must find that the variance will not result in an unreasonable risk to health, and shall prescribe, at the time the variance is granted, a schedule (including increments of progress) in accordance with which the PWS must come into compliance with the MCL. Small systems (serving 3,300 or fewer persons; or 10,000 or fewer persons with the Administrator’s approval) may be granted variances if they cannot afford (as determined by application of the Administrator’s affordability criteria) to comply with certain MCLs (non-microbial, promulgated after January 1, 1986) by means of treatment, alternative source of water, or restructuring or consolidation. Small systems must, within 3 years, install and operate EPA approved small system variance technology. The variance must ensure adequate protection of human health, and the variance shall be reviewed not less than every 5 years to determine whether the system remains eligible for the variance. A primacy State may by exemption relieve a PWS of its obligation to comply with an MCL, treatment technique, or both if the system’s noncompliance results from compelling factors (which may include economic factors, the system was in operation on the effective date of the MCL or treatment technique requirement) or if not in operation by that date, only if no reasonable alternative source of drinking water is available to such new systems, management or restructuring changes cannot reasonably be made that will result in compliance with the SDWA or improvement of water quality, and the exemption will not result in an unreasonable risk to public health. The State will require the PWS to comply with the MCL or treatment technique as expeditiously as practicable, but not later than 3 years after the otherwise applicable compliance date. **No variances or exemptions were issued to any public water system in Arkansas during the calendar year 1996.**

Summary:

- No violations occurred during 1996 for the contaminants and rules not shown in the violation tables.
- Twenty-four (24) PWSs had microbiological acute MCL violations. Seventeen (17) PWSs were transient non-community and seven PWSs were small public water systems. Total population served by the water systems having microbiological acute violations was 2,361 (0.1% of the total population served by public water systems in Arkansas).
- Forty-eight (48) PWSs had microbiological MCL violations. Most of these PWSs were small, transient non-community, or non-transient non-community public water systems. Total population served by these PWSs was 39,188 (1.78% of the total population served by public water systems in Arkansas).
- Two hundred and forty-nine (249) PWSs had at least one major routine microbiological monitoring violation. Two hundred and fourteen (214) of these systems were non-community (mostly transient) public water systems.
- Fifty-eight PWSs had at least one major follow up microbiological monitoring violation. Forty-four of these systems were non-community (mostly transient) public water systems.
- Forty-one (41) PWSs had at least one monitoring violation under the surface water treatment rule.
- Twenty-one (21) PWSs had at least one treatment technique violation under the surface water treatment rule.
- Two (2) PWSs had exceeded an inorganic contaminant MCL, one system for fluoride and another system for total nitrate.
- Two (2) PWSs had exceeded an organic contaminant MCL, one system for TTHM and another system for Trichloroethylene and Tetrachloroethylene.
- Two (2) PWSs had exceeded the radium-226/228 MCL.
- Two (2) PWSs had a monitoring violation under the lead and copper rule, one system for initial tap water monitoring and one system for routine tap water monitoring.
- **No variances or exemptions were issued to any public water system in Arkansas during the calendar year 1996.**

Conclusions:

- The microbiological MCL violations were mostly among small community and non-community public water systems. The systems having these violations served only 1.78% of the total population served by public water systems in Arkansas. 84% of the microbiological monitoring violations were among non-community public water systems.
- 99.75% of the public water systems in Arkansas did not have an organic (SOC, VOC, TTHM) MCL violation. Two systems that exceeded Organic MCLs are currently on a quarterly monitoring schedule.
- 99.92% of the public water systems in Arkansas did not have a nitrate MCL violation. Only one system (transient non-community) had a total nitrate MCL violation.
- 99.75% of the public water systems did not exceed the radium-226/228 MCL. Only two (2) PWSs exceeded the MCL. These PWSs are currently on a quarterly monitoring schedule for radium-226/228.
- There were no monitoring violations for chemicals covered under Phases I, II, IIB, & V. The Arkansas Department of Health performs monitoring of these chemicals on behalf of the public water systems.
- The compliance rate for the contaminants and rules not shown on the violation tables was 100%.

Appendix A - PWS's with microbiological acute MCL violations

PWS Name	PWS ID	SDWIS code	Population
101 TRADING POST	T0484	21	25
AMERICAN LEGION HUT	T0026	21	50
BASS HAVEN RESORT	T0065	21	50
BEAR'S DEN	T0230	21	25
BODCAW GROCERY	T0082	21	200
C J'S COUNTRY KITCHEN	T1019	21	25
COUNTRY MOBILE ESTATES	576	21	53
CROSSOVER CLUB	T0172	21	25
DELAPLAINE WATERWORKS	224	21	175
HILLCREST APTS COMPLEX	834	21	35
HOG HAVEN	T0296	21	50
JORDAN GROCERY	T0286	21	100
LAKESIDE GROCERY	T0317	21	25
LANSDOWN GROCERY	T1029	21	25
MAYFIELD STORE	T0292	21	25
NEW HOPE ONE STOP	T1042	21	25
NORTH CARBON CITY WATER ASSOC	331	21	150
O'BRIEN'S PIZZA PUB	T0968	21	70
OARK GEN STORE	T0391	21	50
OZARK NATURAL SCIENCE CENTER	T0992	21	25
SCRANTON WATERWORKS	330	21	750
SHADY ACRES MOBILE HOME PARK	540	21	118
SURF CLUB	151	21	260
WHISKEY CREEK SMOKEHOUSE	T1048	21	25

Appendix B - PWS's with microbiological MCL violations

PWS Name	PWS ID	SDWIS code	Population
AHTD-BRENTWOOD REST AREA	T0007	22	25
AR-SCENIC SPRING COMPANY	N0083	22	200
BOY SCOUT CAMP PIONEER	T0088	22	230
BRUNNER HILL WATER ASSOC	837	22	493
CARLISLE WATERWORKS	339	22	2600
CENTRAL WATER ASSOCIATION	503	22	1070
CORNING WATERWORKS	96	22	3650
COUNTRY MOBILE ESTATES	576	22	53
DEER WATER ASSOCIATION	670	22	840
ELAINE WATERWORKS	418	22	1700
FELSENTHAL WATER ASSOCIATION	545	22	558
FOLL-NESBITT WATER SYSTEM	843	22	25
FOUNTAIN HILL WATERWORKS	16	22	189
GARFIELD WATERWORKS	47	22	305
GENOA CENTRAL SCHOOL	N0025	22	800
GIRL SCOUT CAMP KARLTON KEMP	T1045	22	25
GIRL SCOUT CAMP STOREY	T0238	22	90
GRAND PRAIRIE WATER USERS	734	22	2750
GRUBBS WATERWORKS	267	22	607
HACKETT WATERWORKS	505	22	550
HARMONY GROVE WATER ASSOC	402	22	2954
HARTFORD WATERWORKS	506	22	721
HILLCREST APTS COMPLEX	834	22	35
JESSIEVILLE SCHOOLS	N0036	22	724
JESSIEVILLE WORK CENTER	N0127	22	75
KIBLER WATER SYSTEM	140	22	2000
KINGSTON SCHOOL	N0037	22	328
LESTER FLATT MEMORIAL PARK	T0326	22	25
LITTLE RIVER COUNTRY CLUB	467	22	250
LUXORA WATERWORKS	361	22	1350
MORO WATERWORKS	314	22	448
MORROW WATERWORKS	810	22	66
NORFORK LAKE ESTATES WATER SYS	793	22	60
POOR FOLKS RESTAURANT	T0441	22	54
SILOAM SPRINGS WATERWORKS	56	22	8499
STAMPS WATERWORKS	296	22	2897
STANDARD-UMPSTEAD WATER ASSOC	408	22	906

Appendix B - PWS's with microbiological MCL violations

PWS Name	PWS ID	SDWIS code	Population
SUBURB-B-QUE	T1059	22	25
TABLE ROCK LAKE ESTATES	824	22	36
TANYARD SPRINGS VILLAGE RESORT	T0981	22	25
THE BREAD BASKET	T0903	22	25
THE GREAT PASSION PLAY	N0088	22	50
USCOE BWP25 DAM SITE	T0605	22	25
USCOE PB108 MOORES BAYOU	T0736	22	25
USFS REDDING	T0806	22	25
USFS WHITE ROCK	T0821	22	25
USFS WOLF PEN	T0823	22	25
WATALULA WATER ASSOCIATION	606	22	800

Appendix C - PWS's with microbiological monitoring violations

PWS name	PWS ID	SDWIS code	Population
ACROSS THE CREEK	T0006	23	30
AHTD-DERMOTT REST AREA	T0009	23	25
AHTD-WALDRON NORTH REST AREA	T0017	23	25
AHTD-WALDRON SOUTH REST AREA	T0018	23	25
ALEXANDER GROCERY	T0022	23	40
ALPEN DORF MOTEL	T0024	23	50
AMERICAN LEGION POST 336	T0025	23	50
AMERICAN WATER COMPANY	N0098	23	25
ANDERSON'S COUNTRY STORE	T0028	23	40
ANNA'S COUNTRY KITCHEN	T0404	23	100
ARK ST PARK-LAKE CATHERINE	T0035	23	1000
BAMBOO GARDEN RESTAURANT	T0059	23	25
BARBED WIRE CANTINA	T0343	23	55
BEAR CREEK SPRGS QUICK STOP	T0069	23	40
BEAVER DAM STORE	T0071	23	30
BELL'S WILD GOOSE	T0855	23	50
BIG OAK RESORT	T0978	23	25
BIRDSONG WHITTEN WATER ASSOC	417	23	532
BLACK OAK RESORT	T0076	23	25
BLEVINS WATERWORKS	233	23	314
BLUE MOUNTAIN WDA - AGFC	T1023	23	25
BLUZY Q'S	T1014	23	25
BODCAW GROCERY	T0082	23	200
BOIS D'ARC WATER SYSTEM	178	23	105
BOLL WEEVIL	T0885	23	300
BOOGER HOLLOW CHUCK WAGON	T0085	23	25
BOY SCOUT CAMP DESOTO	T0086	23	190
BOY SCOUT CAMP PIONEER	T0088	23	230
BRADY MTN ONE STOP	T0003	23	25
BRANDING IRON FAMILY STEAK	T0960	23	75
BUCK'S GROCERY	T1044	23	25
BUFFALO OUTDOOR CENTER	T1047	23	25
BULLFROG MARINA	T0998	23	25
BUNDER'S SMOKEHOUSE	T0324	23	25
BUTCH'S ONE STOP	T0099	23	70
BYRD'S CANOE RENTAL	T0102	23	25

Appendix C - PWS's with microbiological monitoring violations

PWS name	PWS ID	SDWIS code	Population
C AND W BAIT SHOP	T0105	23	25
C J'S COUNTRY KITCHEN	T1019	23	25
CAMP BEAVERFORK	T0112	23	100
CAMP JOSEPH PFEIFER	T0119	23	25
CAMP YORKTOWN BAY	T0128	23	120
CARROLL COUNTY REC ASSN	T0548	23	25
CARROLL'S	T0154	23	30
CARTHAGE WATERSEWER COMMITTEE	165	23	460
CATFISH WILLIES CRYSTAL CAFE	T0135	23	30
CEDAR AND HARDWOOD	N0135	23	25
CEDAR CREEK COUNTRY STORE	T0136	23	25
CEDAR FALLS MOTEL	T1003	23	25
CEDARCREEK APTS WATER SYSTEM	828	23	110
CENTER POINT WILDERNESS CAMP	T0127	23	25
CHARLESTON WATERWORKS	200	23	2428
CHURCHILL GROCERY	T0205	23	25
CINNAMON VALLEY RESORT	T1004	23	25
COBB'S CORNER MARKET	T1057	23	25
COON CREEK RESORT	T0156	23	25
COTTAGE INN	T0159	23	100
COUNTRY JUNCTION STORE	T0162	23	50
COUNTRY SCHOOL INN	T0164	23	25
COUNTRY STORE 50	T0166	23	100
COUNTRY STORETHE 67	T0167	23	75
CRAWDAD HOLE THE	T0170	23	25
CROSSOVER CLUB	T0172	23	25
CV'S FAMILY FOODS	N0113	23	25
CV'S FOODLINER	N0112	23	25
CV'S IGA	N0111	23	25
CV'S IGA FAMILY FOODS	N0110	23	25
CV'S IGA WATER MACHINE	N0085	23	25
DAISY MOTEL	T1051	23	25
DARDANELLE WATERWORKS	601	23	3964
DARI-DELIGHT	T1032	23	25
DAVID-N-DAVID	T0970	23	40
DE QUEEN COUNTRY CLUB	T0188	23	25
DEER WATER ASSOCIATION	670	23	840

Appendix C - PWS's with microbiological monitoring violations

PWS name	PWS ID	SDWIS code	Population
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DILLARD'S SHELL	T1049	23	25
DINNER BELL BAR B-Q	T1027	23	25
DRUMCO	N0132	23	25
DURBON'S NOE CREEK RESORT	T0201	23	25
EDEN POND - NORTHGATE	807	23	40
EL TORO MEXICAN RESTAURANT	T0106	23	25
ELIZABETH GROCERY	T0991	23	25
EMERSON'S GROCERY	T0988	23	30
EUREKA SPRINGS WATERWORKS	75	23	2522
FARR SHORES POA	761	23	235
FELSENTHAL NAT WILDLIFE REF	T1009	23	25
FISH BOWL RESTAURANT	T0216	23	25
FISH FIDDLE RESORT	T0215	23	30
FLIPPIN WATERWORKS	351	23	3133
FOLL-NESBITT WATER SYSTEM	843	23	25
FREEDOM WATER ASSOCIATION	812	23	900
FRONTIER MOTEL	T0228	23	40
GARY'S QUICK STOP	T0866	23	30
GASTON'S WHITE RIVER RESORT	T0231	23	500
GAYLE'S FAMILY RESTAURANT	T0920	23	50
GENO'S RESTAURANT	T0302	23	50
GENOA GROCERY 46	T0233	23	75
GRUBBS WATERWORKS	267	23	607
HACKETT WATERWORKS	505	23	550
HARRY'S COUNTRY MARKET	T0989	23	25
HELEN'S DRIVE IN	T0251	23	100
HILL COUNTRY GOLF	T1046	23	25
HILLCREST APTS COMPLEX	834	23	35
HIWASSE COUNTRY STORE	T0256	23	30
HOG HAVEN	T0296	23	50
HOLIDAY HILLS RESORT	T0258	23	25
HORIZON RESTAURANT	T1052	23	25
HUNTINGTON WATERWORKS	508	23	715
HUSH PUPPY RESTAURANT	T0394	23	100
J C'S COUNTRY COOKIN	T0269	23	25
JERRY'S BAR-B-Q	T0985	23	25
JOE PAUL GROCERY	T0280	23	25

Appendix C - PWS's with microbiological monitoring violations

PWS name	PWS ID	SDWIS code	Population
JOHN HENRY GROCERY	T0281	23	35
JUG'S GENERAL STORE	T0288	23	25

K B'S COUNTRY CORNER	T0138	23	50
K T'S CAFE	T0289	23	50
KELLER'S COUNTRY DORM	T0294	23	50
KETTLE CAMPGROUND	T0297	23	30
KIDD GROCERY STATION	T0298	23	25
KINFOLK'S COOKIN	T0242	23	25
KING OF CLUBS	T0303	23	50
KIRBY KWIK STOP	T1028	23	25
KOA CAMPGROUND STORE	T0308	23	40
KORNER STORE	T0101	23	25
KOUNTRY FOLKS KITCHEN	T0863	23	50
KOUNTRY KORNER STORE	T1043	23	25
LAKE NORFORK INN	T0313	23	25
LAKESIDE GROCERY	T0317	23	25
LANGLEY STORE THE	T0322	23	25
LANSDOWN GROCERY	T1029	23	25
LAZY SUSANS'S CORNER GROCERY	T1050	23	25
LINDA'S COUNTRY STORE	T0054	23	25
LITTLE PINES GENERAL STORE	T0331	23	25
LITTLE RIVER WATER ASSOCIATION	371	23	1035
LIZ'S SEAFOOD	T0336	23	25
LOST BRIDGE VILLAGE RESTAURANT	T0829	23	25
MACK'S PINES CAFE	T0340	23	25
MARBLE STORE	T0344	23	25
MARTIN'S COUNTRY STORE	T0187	23	50
MAYFIELD STORE	T0292	23	25
MC BRIDE'S RESORT	T0350	23	52
MC CANN'S BREAD BASKET	T0351	23	50
MC CASKILL WATERWORKS	229	23	91
MC CLARD'S SHOPPING CENTER	T0371	23	80
MENIFEE WATER DEPARTMENT	118	23	375
MIDWAY PARK RESTAURANT	T0361	23	25
MILLER'S GROCERY	T0364	23	25
MOCKING BIRD RESORT	T0370	23	25
MOUNTAIN VALLEY RETREAT CENTER	T0053	23	3500

Appendix C - PWS's with microbiological monitoring violations

PWS name	PWS ID	SDWIS code	Population
MT SHERMAN WATER ASSOCIATION	680	23	587
NASHVILLE COUNTRY CLUB ASSN	T0362	23	25
NASHVILLE STOCKYARD CAFE	T0487	23	75
NEW HOPE ONE STOP	T1042	23	25

NORTH SHORE RESORT	T0385	23	25
NORTH SIDE TEXACO	T0386	23	25
NW ARKANSAS CHILDREN'S SHEL	T0997	23	30
O'BRIEN'S PIZZA PUB	T0968	23	70
OARK GEN STORE	T0391	23	50
OIL TROUGH WATERWORKS	247	23	240
OMAHA WATERWORKS	64	23	525
OZARK EMPORIUM	T0400	23	35
OZARK GIFT SHOP	T0401	23	25
OZARK NATURAL SCIENCE CENTER	T0992	23	25
OZONE TRADING POST	T0408	23	50
PAUL REVERE PIZZA	T1006	23	25
PEACE VALLEY	T1025	23	40
PETERS GENERAL STORE	T0446	23	25
PETTIGREW HARDWARE GROCERY	T0423	23	25
PICKLES GAP VILLAGE	T0424	23	25
PINE RIDGE RV PARK	T1018	23	25
PLEASANT VIEW WATER ASSOC	202	23	1200
POOR FOLKS RESTAURANT	T0441	23	54
POWELL GROCERY	T0444	23	60
PRESCOTT RACEWAY	T0448	23	50
RATCLIFF WATERWORKS	329	23	1104
REED WATERWORKS	173	23	389
RICHWOOD WATER ASSN	835	23	1212
RIM SHOALS TROUT RESORT	T0463	23	25
RITA'S COUNTRY INN	T1012	23	25
RIVER VALLEY LIVESTOCK MARKET	T0465	23	25
RIVERSIDE MOBILE HOME PARK	29	23	35
RIVERVIEW MOTEL	T0469	23	25
ROCKY BRANCH RESORT	T0473	23	30
ROGER'S BOY SCOUT CAMP	T0476	23	25
RUSH'S BAIT SHOP	T0482	23	30
RUSSELL WATERWORKS	591	23	440

Appendix C - PWS's with microbiological monitoring violations

PWS name	PWS ID	SDWIS code	Population
SARATOGA SCHOOL	N0060	23	330
SCOTT VALLEY DUDE RANCH	T0492	23	25
SHACK DRIVE INN	T0495	23	50
SHADY ACRES MOBILE HOME PARK	540	23	118
SHADY OAKS	T0496	23	30
SHOAL CREEK CAMP	T0500	23	25

SISTER CREEK RESORT 03	T0504	23	25
SNUFFY'S QUICK STOP	T0489	23	70
SOUTH MOUNTIAN WATER ASSN	815	23	417
SPRING RIVER OAKS CAMP	T0513	23	25
SPRING VALLEY WATER CO	N0078	23	25
SPRUELL'S GROCERY	T0517	23	50
SUMMERS STORE	T0309	23	25
SUNRISE POINT RESORT	T0524	23	30
SUPPLY COUNTRY STORE	T0526	23	25
SWIFTON WATERWORKS	265	23	900
T K CONVENIENCE STORE	T0996	23	25
TANYARD SPRINGS RESTAURANT	T0533	23	25
TANYARD SPRINGS VILLAGE RESORT	T0981	23	25
TEEN CHALLENGE RANCH	T0304	23	25
THE LORD'S RANCH	N0126	23	150
THE OUTPOST	T0399	23	50
THE POINT	T1040	23	25
THE ROCK STATION	T1058	23	25
THOMPSON IGA	T0549	23	25
TIMBERLINE RV PARK	T0563	23	25
TONY C'S BAYWATCH CAFE	T0544	23	30
TRAIL'S END RESORT	T0558	23	25
TUCKER'S LUMBER CO GROCERY	T0560	23	50
USCOE BSWP110 TUCKER HOLLLOW	T0589	23	25
USCOE BWP POWER HOUSE	T0974	23	25
USCOE BWP26 DAM SITE	T0606	23	25
USCOE DW03 CABIN CREEK	T0636	23	25
USCOE DW11 CANE CREEK	T0639	23	25
USCOE MIP3- BEARDS BLUFF	T0681	23	25
USCOE NF HOWARD COVE	T1053	23	25
USCOE OC JOPLIN HAND WELL 4	T0950	23	25

Appendix C - PWS's with microbiological monitoring violations

PWS name	PWS ID	SDWIS code	Population
USCOE OWP1 CITADEL BLUFF	T0732	23	25
USFS BEAVER POINT	T0768	23	25
USFS HAW CREEK	T0787	23	25
USFS LONE PINE CAMP	T0798	23	25
USFS LONG POOL	T0799	23	25
USFS MAPLE FLAT	T0800	23	25
USFS WHITE ROCK	T0821	23	25
VALENTINO'S	T0984	23	30

WAGON WHEEL RESTAURANT	T0832	23	150
WALKER SPRING WATER CO	N0086	23	50
WAR EAGLE MILL	T0836	23	100
WARM SPRINGS CHRISTIAN CENTER	T0994	23	25
WATER FRESH FAYETTEVILLE CONSU	N0114	23	25
WATER FRESH FAYETTEVILLE IGA S	N0118	23	25
WATER FRESH FAYETTEVILLE IGA W	N0120	23	25
WATER FRESH HARRISON CONSUMERS	N0115	23	25
WATER FRESH PEA RIDGE IGA MONT	N0119	23	25
WATER FRESH ROGERS CONSUMERS	N0116	23	25
WATER FRESH SILOAM SPRINGS IGA	N0117	23	25
WATER WHEEL GIFT SHOP	T0841	23	25
WHISKEY CREEK SMOKEHOUSE	T1048	23	25
WHITE HOLE ACRES RESORT	T0850	23	25
WHITE OAK GRO	T0851	23	50
WHITE RIVER CAMPGROUND	T0852	23	25
WIDENER WATERWORKS	538	23	810
WILD BILL'S CANOE RENTAL	T0930	23	30
WINSLOW WATERWORKS	332	23	1375
WOLFE CREEK CAMP	T0864	23	50

Appendix D - PWS's with microbiological monitoring violations (followup)

PWS name	PWS ID	SDWIS code	Population
ACROSS THE CREEK	T0006	25	30
AHTD-MALVERN REST AREA	T0016	25	25
AMERICAN LEGION POST 336	T0025	25	50
BEAR'S DEN	T0230	25	25
BODCAW GROCERY	T0082	25	200
BOIS D'ARC WATER SYSTEM	178	25	105
BRIGHT STAR SCHOOL	N0013	25	250
CAMP CANFIELD	T0114	25	100
CAMP TAHKODAH	T0125	25	150
CASH WATERWORKS	130	25	330
CEDAR CREEK COUNTRY STORE	T0136	25	25
CLIFTY STORE 44	T0979	25	30
CROSSOVER CLUB	T0172	25	25
DE QUEEN COUNTRY CLUB	T0188	25	25
DELAPLAINE WATERWORKS	224	25	175
DEVITO'S RESTAURANT	T0191	25	100
DILLARD'S SHELL	T1049	25	25
FRED'S TRUCK STOP	T0227	25	100
HAUGHT'S GENERAL STORE	T0393	25	25
HOG HAVEN	T0296	25	50
HOUSTON WATERWORKS	414	25	500
JD'S FISH BAIT	T0134	25	25
KAY'S GROCERY GAS INC	T0291	25	25
KING OF CLUBS	T0303	25	50
KIRBY KWIK STOP	T1028	25	25
LAKE NORFORK INN	T0313	25	25
LAKESIDE GROCERY	T0317	25	25
LYDESDALE WATER ASSOCIATION	713	25	386
LYNN WATERWORKS	299	25	650
MANY ISLAND CAMP	T0341	25	200
MARBLE STORE	T0344	25	25
MC LAUGHLIN VILLAGE MHP	712	25	85
MOUNT EAGLE CHRISTIAN CENTER	T0122	25	50
NASHVILLE STOCKYARD CAFE	T0487	25	75
O'KEAN WATERWORKS	473	25	270
OARK FEED LOT	T0904	25	25

Appendix D - PWS's with microbiological monitoring violations (followup)

PWS name	PWS ID	SDWIS code	Population
PINE REST MOBILE HOME PARK	113	25	90
POINTE WEST RESORT	T0438	25	75
PONCA BIBLE CAMP	T0439	25	70
POWELL GROCERY	T0444	25	60
PROMISE LAND RESORT	T0450	25	100
PURIFOY'S GROCERY	T0451	25	25
RAY'S GROCERY 51	T0459	25	75
RECTOR WATERWORKS	93	25	2820
ROCKING CHAIR RANCH	T0472	25	30
S P G WATER ASSOCIATION	678	25	488
SARATOGA SCHOOL	N0060	25	330
SHOAL CREEK CAMP	T0500	25	25
SPRING RIVER OAKS CAMP	T0513	25	25
SW REGION WILDERNESS CAMP	N0109	25	37
SWEET BASIL GOURMET SHOPPE	T1031	25	25
SWIFTON WATERWORKS	265	25	900
TANGLEWOOD LODGE	T0532	25	30
USCOE BWP20 INDIAN CREEK	T0603	25	25
USFS WHITE ROCK	T0821	25	25
WATER FRESH FAYETTEVILLE CONSU	N0114	25	25
WHITE RIVER RURAL WATER ASSOC	578	25	5682
WILLISVILLE WATERWORKS	650	25	500

Appendix E - PWS's with SWTR monitoring violations

PWS name	PWS ID	SDWIS code	Population
ALPENA WATERWORKS	58	36	550
AR-SCENIC SPRING COMPANY	N0083	36	200
BRUSHY ISLAND WATER ASSOC	777	36	450
BUCK'S GROCERY	T1044	36	25
BUFFALO OUTDOOR CENTER	T1047	36	25
CAMP JOSEPH PFEIFER	T0119	36	25
CAMP OZARK	T0123	36	300
CHARLESTON WATERWORKS	200	36	2428
DARDANELLE WATERWORKS	601	36	3964
DECATUR WATERWORKS	52	36	1100
EUREKA SPRINGS WATERWORKS	75	36	2522
FOLL-NESBITT WATER SYSTEM	843	36	25
GREENWOOD WATERWORKS	504	36	3984
GUM SPRINGS WATER ASSOCIATION	86	36	900
HACKETT WATERWORKS	505	36	550
HOUSTON WATERWORKS	414	36	500
HUNTINGTON WATERWORKS	508	36	715
LYDESDALE WATER ASSOCIATION	713	36	386
MANSFIELD WATERWORKS	509	36	1700
MIDWAY PARK RESTAURANT	T0361	36	25
MILLTOWN-WASHBURN WATER ASSN	773	36	3000
MOUNTAIN PURE WATER-GOLD STAR	N0094	36	25
MOUNTAIN VALLEY RETREAT CENTER	T0053	36	3500
OAK FORREST MOBILE HOME PARK	850	36	147
OLA WATERWORKS	604	36	1121
OLD BELLA VISTA POA	753	36	90
OZARK WATERWORKS	201	36	3330
PEA RIDGE WATERWORKS	53	36	1977
PERRYVILLE WATERWORKS	413	36	1330
PLEASANT VIEW WATER ASSOC	202	36	1200
RATCLIFF WATERWORKS	329	36	1104
SOUTH OZARK WATER ASSOCIATION	674	36	4500
SPRING VALLEY WATER CO	N0078	36	25
TAWANEE WATER COMPANY	N0082	36	25
THE LINKS APARTMENTS	849	36	800
VAN BUREN COUNTY W U A	727	36	1500
WATALULA WATER ASSOCIATION	606	36	800

Appendix E - PWS's with SWTR monitoring violations

PWS name	PWS ID	SDWIS code	Population
WHITE RIVER RURAL WATER ASSOC	578	36	5682
WINSLOW WATERWORKS	332	36	1375
WITT SPRINGS PUBLIC SCHOOL	N0066	36	126
WYE MOUNTAIN WATER ASSOCIATION	410	36	1120

Appendix F - PWS's with SWTR treatment technique violations

PWS name	PWS ID	SDWIS code	Population
BALD KNOB WATERWORKS	584	41	3440
CAMDEN WATERWORKS	404	41	16394
CAMP OZARK	T0123	41	300
DECATUR WATERWORKS	52	41	1100
EVENING SHADE WATERWORKS	525	41	605
GLENWOOD WATER DEPARTMENT	422	41	1800
GRAY ROCK WATER ASSOCIATION	76	41	780
GREEN VALLEY BIBLE CAMP	T0980	41	200
HECTOR WATERWORKS	442	41	1300
HOT SPR NAT PK HAPPY HOLLOW SP	T0915	41	25
HOT SPR NAT PK WHITTINGTON SPR	T0916	41	25
JUDSONIA WATERWORKS	582	41	3003
LITTLE RIVER CO RDA	787	41	2550
MELBOURNE WATERWORKS	256	41	3338
MIDWAY PARK RESTAURANT	T0361	41	25
MULBERRY WATERWORKS	136	41	1525
NORMAN WATERWORKS	391	41	1225
OZARK WATERWORKS	201	41	3330
PARIS WATERWORKS	328	41	3674
USCOE MIP4 SARATOGA	T0898	41	25
WALDRON WATERWORKS	498	41	2800

Appendix G - PWS's with organic & inorganic MCL violations

PWS name	PWS ID	SDWIS code	Population
DRUMCO	N0132	1025	25
HIWASSE COUNTRY STORE	T0256	1040	30
BELLA VISTA POA	39	2950	13827
VILLAGE SQUARE SHOPPING CENTER	N0121	2984	2500
VILLAGE SQUARE SHOPPING CENTER	N0121	2987	2500
EAST NEWTON COUNTY WATER ASSN	768	4010	1200
MT SHERMAN WATER ASSOCIATION	680	4010	587

Appendix H - PWS's with lead and copper rule violations

PWS name	PWS ID	SDWIS code	Population
SOUTH MOUNTAIN WATER ASSN	815	51	417
RATCLIFF WATERWORKS	329	52	1104