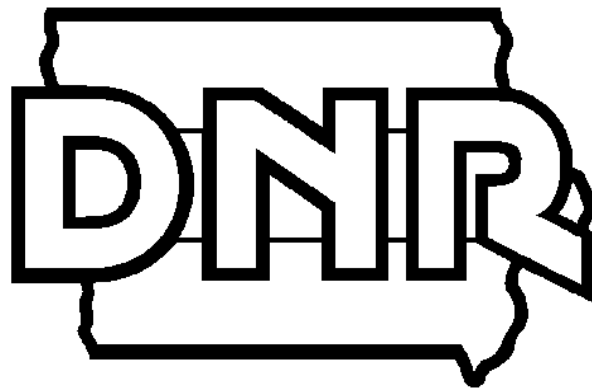


State of Iowa
Public Drinking Water Program
1998 Annual Compliance Report



Environmental Protection Division
Water Quality Bureau
Drinking Water Supply Section

June 1999

Iowa Department of Natural Resources
Paul W. Johnson, Director

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1998 Iowa Public Drinking Water Program

Introduction

The Iowa Department of Natural Resources (IDNR) - Environmental Protection Division administers the Public Drinking Water Program in Iowa under delegation of authority from the United States Environmental Protection Agency (EPA).

The 1996 reauthorized Safe Drinking Water Act (SDWA) required that each State with primary enforcement responsibility for the SDWA must prepare, make readily available to the public, and submit to the EPA an annual report on violations of national primary drinking water regulations by public water supply systems in the state.

This report fulfills this responsibility in Iowa for the 1998 calendar year.

Report Summary

The Annual Compliance Report

This is the annual report on violations of the national primary drinking water regulations by Iowa public water supply systems, prepared by the Iowa Department of Natural Resources (IDNR). The report includes violations of:

- Maximum Contaminant Levels (MCL),
- Treatment Technique Requirements (TT),
- Variances and Exemptions (not applicable in Iowa), and
- Monitoring and Reporting Requirements (M/R) – major violations only.

The 1998 Report Highlights

- No waterborne disease outbreaks or deaths were reported as being attributed to drinking water from regulated public water supply systems.
- Of the 1,977 active Iowa public water supply systems in 1998, 90% were in compliance with the drinking water quality maximum contaminant levels. Of the 408 MCL violations, 64% were coliform bacteria violations, 32% were nitrate violations, and 4% were other chemical violations. Of the MCL violations issued in 1998, 44.5% have achieved compliance.
- Nine of the 83 regulated compounds were found at levels above the MCL: arsenic, carbon tetrachloride, chloroform, coliform bacteria, fluoride, nitrate, nitrite, combined radium 226 & 228, and total trihalomethanes.
- Turbidity treatment technique violations were incurred at four PWS, all of which are now in compliance.
- Lead and/or copper action levels were exceeded in 3.2% of the 1,310 systems required to participate in the lead and copper program.

- Of Iowa's active public water supplies, 74.8% complied with monitoring and reporting requirements to a significant extent (i.e. no major violations). This is a reporting change from the previous two years' reports, in which only the supplies in significant non-compliance as determined by the U.S. Environmental Protection Agency (EPA) were listed. This year's report is more inclusive, and lists all Iowa PWSs that had one or more major or regular monitoring or reporting violation from Iowa's database. By May 1999, 90.4% of the 867 violations had been returned to compliance.

Specific details of the program and violation data are explained in the report.

Figure 1: MCL Compliance by Iowa PWS's in 1998

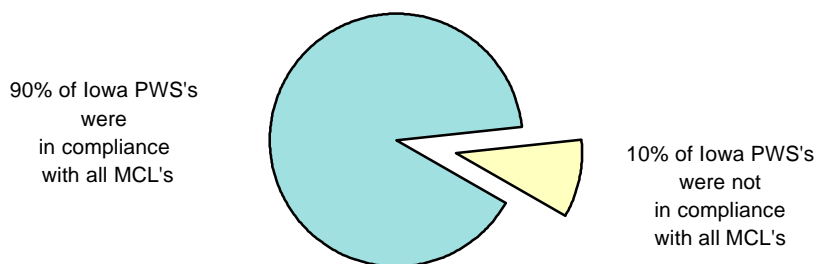
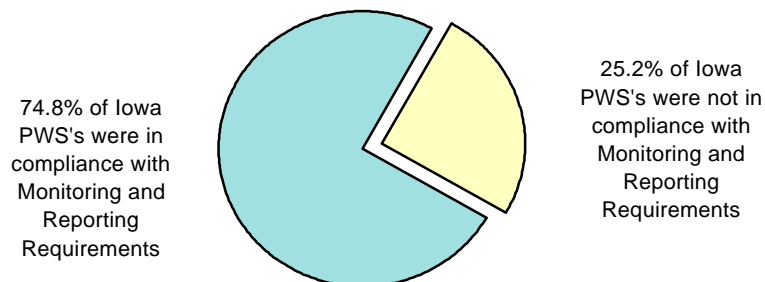


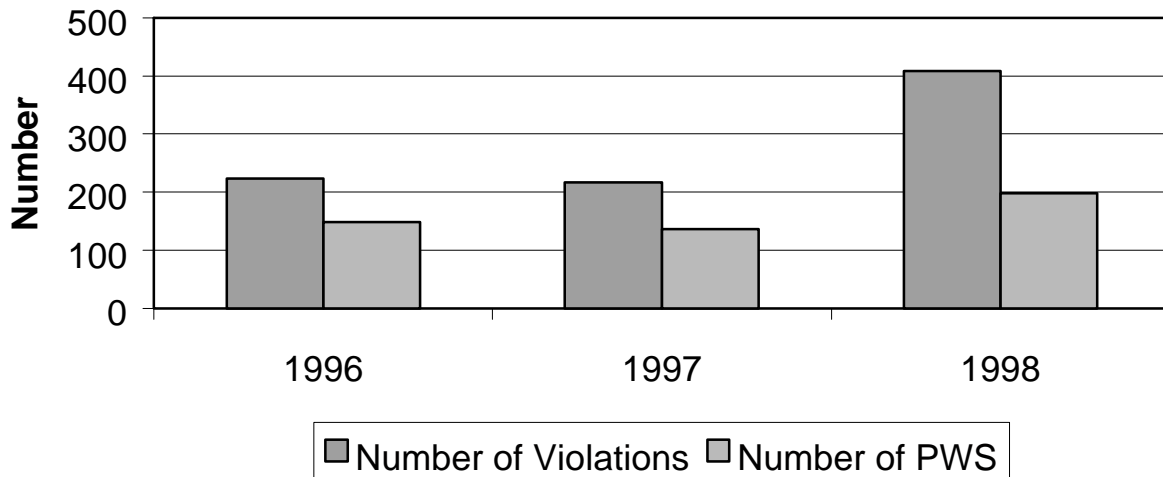
Figure 2: Monitoring & Reporting Compliance by Iowa PWS's in 1998



Comparison with Previous Years

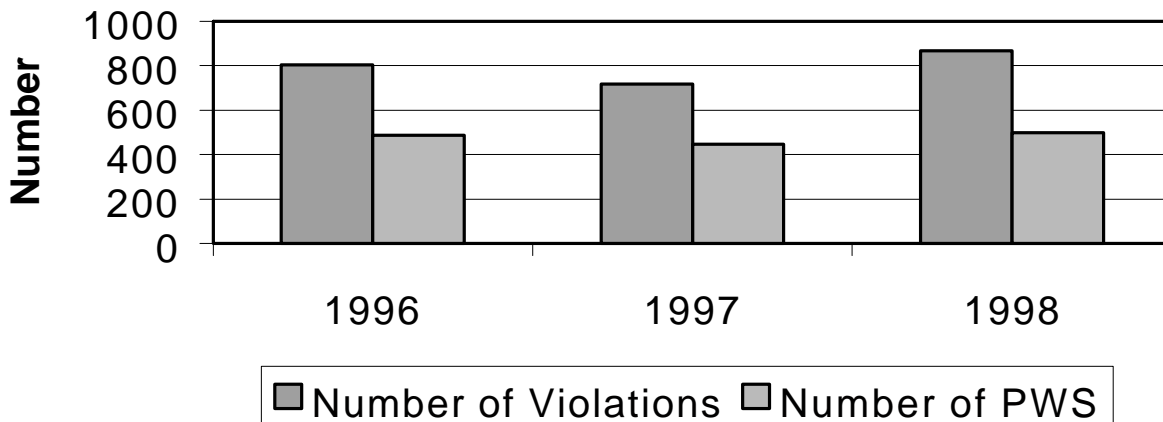
The updated data from the 1996/1997 Data Update (page 117) was used for the comparisons.

MCL VIOLATIONS BY YEAR



A comparison of the MCL violations shows an increase in 1998. Nitrate MCL violations accounted for the majority of this increase. In Iowa, a nitrate MCL violation is issued for each month that a PWS exceeds the MCL.

MAJOR MONITORING VIOLATIONS BY YEAR



A review of the major monitoring violations shows a slight increase in both the number of violations and the number of PWS involved.

Generally Iowa's drinking water supply is safe. Isolated occurrences of bacterial contamination are dealt with as they occur. The number of PWS affected by nitrate MCL violations have increased by more than 50 percent.

Iowa's Public Water Supplies

Type: Of Iowa's 1,977 active public water supplies in 1998,

- 59% are community public water supplies (municipality, subdivision, mobile home park).
- 7% are non-transient noncommunity public water supplies (industry, school, daycare).
- 34% are transient noncommunity public water supplies (park, restaurant, golf course).

Source: There are three drinking water source types in Iowa: surface water (rivers and reservoirs), groundwater, and groundwater under the direct influence of surface water (also called influenced groundwater). Since a PWS can use any combination of water sources in its system, the PWS is classified by its source most vulnerable to contamination.

- 92% of the PWSs have groundwater sources, which serve 63% of the state's population
- 7% of the PWSs have surface water sources, which serve 32% of the state's population
- 1% of the PWSs have groundwater sources under the direct influence of surface water, which serve 5% of the state's population

The IDNR Mission

The Environmental Protection Division of the Iowa Department of Natural Resources administers the Public Drinking Water Program in Iowa under delegation of authority from the EPA. The IDNR Public Drinking Water Program's mission is to protect and enhance public health and safety, and the quality of life for all persons by ensuring the public drinking water is safe to drink. This mission is accomplished by assuring the:

- drinking water quality is monitored on a routine basis at each public water supply,
- public water supply systems (PWSs) are designed, operated, and maintained to minimize the possibility of contamination, and
- public is notified when the water supply is not in compliance with the drinking water quality standards.

The IDNR Drinking Water Program

The IDNR has six components of the drinking water program: on-site inspection, compliance and enforcement, engineering, water use, water operator and laboratory certification, and legal services. The IDNR staff works in conjunction with the operators of the state's public water supply systems to ensure compliance with the drinking water regulations and to provide safe drinking water to the state's citizens. Listed below are the IDNR program components.

On-Site Inspection:

Each of the six state regions has environmental specialists, whose responsibilities are to:

- conduct site surveys for well and treatment facility placement,

- inspect every PWS in the state at least every five years, which includes examination of the operation and maintenance of the PWS system,
- provide technical assistance to water supply operators,
- respond to complaints from the public, and
- provide emergency response to spills that may threaten the water resources.

Operation Permit:

The compliance and enforcement specialists have the following responsibilities:

- issue the operation permits for each PWS at least every three years, which specify the individual monitoring and operation requirements,
- monitor the compliance by each PWS with the drinking water program requirements,
- prepare violations notices and enforcement actions when necessary, and
- provide technical assistance to the PWS.

Construction Permit:

The engineering staff has the following responsibilities:

- review design specifications for wells, distribution systems, and treatment plants,
- issue construction permits for PWS projects,
- determine project eligibility for the drinking water state revolving loan fund,
- review viability assessments, and
- assist PWSs and consulting engineers in various treatment technologies for specific water quality problems.

Water Use Permit:

The water use staff allocate and track the withdrawal of water from Iowa's aquifers and surface waters, and issue ten-year water use permits.

Operator and Laboratory Certification:

The **operator certification program** requires certified operators to successfully complete an initial examination and to earn continuing education credits every two years. There are various levels of certification available for both water treatment and water distribution systems. Currently all municipalities, state and federally owned systems, and systems served by surface waters or groundwaters influenced by surface water, must have a certified operator in direct responsible charge of the system.

The **laboratory certification program** requires all laboratories conducting analyses for drinking water program compliance purposes to be certified, which includes an on-site inspection every two years, and annual proficiency testing for each analyte.

Legal Services:

Legal services works with the drinking water staff when additional enforcement action is necessitated by a PWS who fails to comply with the drinking water requirements. This includes legal enforcement actions including negotiation, administrative order, penalty, and appeal processes.

The IDNR and operators of public water supply systems in Iowa are working together to ensure the safety of the state's 1,977 public water supplies. The annual compliance report contains the specific monitoring requirements for the state's drinking water supplies and lists all violations of maximum contaminant levels, treatment techniques, and major monitoring/reporting requirements. Contact Mike Wiemann at 515/281-3989, or mwieman@max.state.ia.us for copies of the report.

The Public Drinking Water Program: An Overview

The United States Environmental Protection Agency (EPA) established the Public Water System Supervision (PWSS) Program under authority of the 1974 Safe Drinking Water Act and subsequent amendments.

- EPA sets national limits on allowable contaminant levels in public drinking water supplies (PWS's) to ensure the water is safe for human consumption. These limits are known as Maximum Contaminant Levels (MCL's).
- For some contaminants, EPA establishes Treatment Techniques (TT's) or Action Levels (AL's) in lieu of a MCL to control unacceptable levels of contaminants in public drinking water.
- EPA also regulates how often PWS's monitor for contaminants and requires those monitoring results be reported to the agency administering the PWSS Program in the state or territory. Generally, the larger the population served by a PWS, the more frequent the monitoring and reporting (M/R) requirements.
- The SDWA also requires PWS's to monitor for unregulated contaminants to provide data for future regulation development.
- EPA requires PWS's to notify the public they serve when violations of the drinking water regulations occur. Public notification must include a clear and understandable explanation of the nature of the violation, potential adverse health effects resulting from the violation, steps the PWS is taking to correct the violation, and the availability and necessity of using alternative water supplies until the violation is corrected.

The SDWA applies to all 50 States, the District of Columbia, Native American 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 the PWSS Program within their state or territory, which is called primacy. To receive primacy, States must meet certain requirements set forth in the SDWA regulations, including adoption of drinking water regulations which are at least as stringent as federal regulations, and demonstration that the state or territory 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 those two jurisdictions.

Native American Indian Tribes must meet the same requirements as a state in order to receive primacy. To date, no Native American Indian Tribe has been granted primacy, and EPA administers the PWSS program on all tribal lands. The three PWS's operated by Native American Indian Tribes in Iowa have not received primacy, and are monitored directly by EPA. These three PWS's are the Winn-A-Vegas Casino in Sloan, Ia, located in Woodbury County, CasinOmaha in Onawa, Ia located in Monona County and the Sac & Fox Community in Tama, Ia, located in Tama County.

EPA regional offices report to the states any enforcement actions taken by EPA within their jurisdiction. All SDWA data for a state is stored in an automated database called the Safe Drinking Water Information System (SDWIS). This database currently contains an inventory of PWS's and violations data and individual analytical results.

Iowa's Public Water Supply Systems

In order to understand this report, definitions of the various types of public water supplies are needed.

A **public water supply system** is a system which provides piped water to the public for human consumption. The system must have at least 15 service connections or regularly serve an average of at least 25 individuals daily at least 60 days out of the year. A farmstead is an example of a **private water supply system** which does not meet the definition of a public water supply system.

There were 1,977 active PWS's in Iowa in 1998. A public water supply system is either a community water system or a noncommunity water system. A **community water system (CWS)** is a public water supply system which has at least 15 service connections used by year-round residents or regularly serves at least 25 year-round residents. Examples of CWSs include municipalities, subdivisions, and mobile home parks. There were 1,164 active CWSs in Iowa in 1998.

A **noncommunity water system** is a public water supply system that is not a community water system, and there are two types of regulated noncommunity water systems. A **nontransient noncommunity water system (NTNCWS or NTNC)** is a public water system which regularly serves at least 25 of the same persons four hours or more per day, for four or more days per week, for 26 or more weeks per year. Examples of NTNC's are schools, day-care centers, factories, and offices. Other service-oriented businesses, such as hotels, resorts, hospitals, and restaurants, are classified as NTNC's if they employ 25 or more people and are open for 26 or more weeks of the year. There were 146 active NTNC's in Iowa in 1998.

A **transient noncommunity water system (TNCWS or TNC)** is a public water system other than a CWS or NTNC which regularly serves at least 25 individuals daily at least 60 days out of the year. Examples of TNC's are convenience stores, bars, and restaurants with fewer than 25 employees, golf courses, camps, parks, and recreation areas. There were 667 active TNC's in Iowa in 1998.

Figure 3 illustrates the three types of PWS's in Iowa.

Figure 3: Types of Iowa Public Water Supplies in 1998

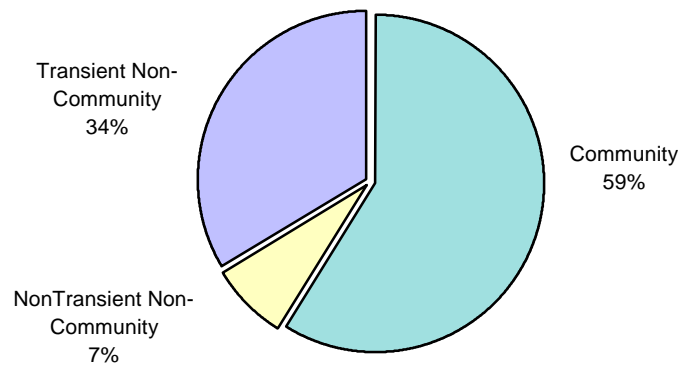


Figure 4 depicts the water source classifications of Iowa PWS's. See page 4 for details.

Figure 4: Water Sources of Iowa Public Water Supplies

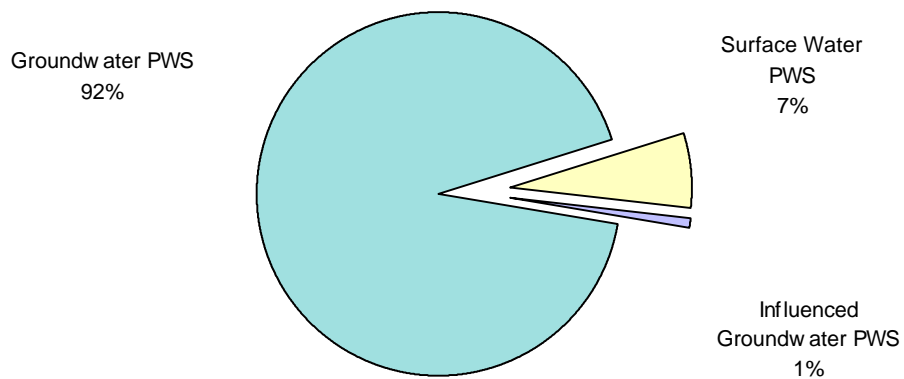
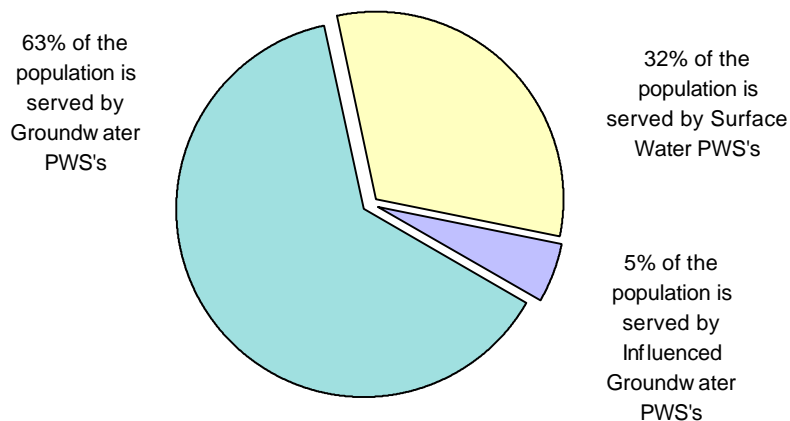


Figure 5 depicts the percentage of Iowa’s population which is served by the three types of public water supply sources.

Figure 5: Iowa Population Served by Various Public Water Supply Sources



Water systems are also classified according to the number of people they serve:

Description	Population Served	Number of PWS	% of Total PWS
Very Small Water System	25 - 500	1,410	71.3
Small Water System	501 - 3,300	454	23.0
Medium Water System	3,301 - 10,000	79	4.0
Large Water System	10,001 - 100,000	31	1.5
Very Large Water System	> 100,000	3	0.2

Maximum Contaminant Levels (MCL's)

The definitions of terms and enforcement actions listed in the following sections are from the Iowa Administrative Code (IAC).

Coliform Bacteria, including fecal coliforms and *E. coli*

567 IAC 41.2(1)

Non-Acute MCL: The MCL is determined by the presence or absence of total coliforms in a sample. Any coliform-positive routine or repeat/check sample that also is negative for fecal coliforms or *E. coli* constitutes a non-acute MCL based on the following criteria:

- If a routine sample is total coliform-positive, the PWS must collect a set of repeat/check samples within 24 hours of being notified of the positive result.
- For a PWS which collects 40 samples or more per month, no more than 5.0 percent of the samples collected during a month may be total coliform-positive.
- For a PWS which collects less than 40 samples per month, no more than one sample collected during a month may be total coliform-positive.

Acute MCL: When total coliforms are present in any sample, that sample is also analyzed for fecal coliform and *E. coli*. Any fecal coliform-positive repeat sample or *E. coli*-positive repeat/check sample, or any total coliform-positive repeat/check sample following a fecal coliform-positive or *E. coli*-positive routine sample is a violation of the MCL for total coliforms.

Contaminant	Number of PWS with Non-Acute MCL Violations in 1998	Number of PWS with Acute MCL Violations in 1998
Coliform Bacteria	133	57

Source of Contamination: Total coliforms are common in the environment and are generally not harmful themselves. Fecal coliforms and *E. coli* are generally not harmful but their presence in drinking water is serious because they usually are associated with sewage or animal waste. The presence of these bacteria in drinking water generally is a result of a problem with water treatment or the pipes which distribute the water, and indicates that the water may be contaminated with organisms that can cause disease (pathogens).

Health Effects: If the coliform MCL standard is violated, it indicates a pathway is present for microorganisms that are potentially pathogenic to enter the water system. At greatest risk are children, pregnant women, infants, elderly persons, and persons with compromised immune systems. Disease symptoms may include diarrhea, cramps, nausea, headaches, and fatigue. Chlorination of the drinking water will provide disinfection. Boiling water in the home is also an effective method of sterilizing the drinking water. Drinking water that meets the standard is associated with little risk to health and is considered safe with respect to these contaminants.

Out of Compliance: A PWS is out of compliance when the MCL is exceeded in any one compliance period assigned either as a monthly or quarterly (by calendar) requirement.

Returned to Compliance: A PWS is returned to compliance when repeat/check samples and follow-up sampling yield results which are free of coliform bacteria. A PWS must have six

months of levels below the MCL and no monitoring violations in order to be returned to compliance.

Nitrate/Nitrite---567 IAC 41.3 (455B)

Acute MCL: The MCL is the maximum allowable concentration of the Nitrate or Nitrite level in a sample, and is measured in milligrams per liter (mg/L). The MCL standards for Nitrate and Nitrite are as follows:

Contaminant	MCL, mg/L	Number of PWS with MCL Violations in 1998
Nitrate, as N*	10	37
Nitrite, as N	1	1

* Includes one individual combined nitrate-nitrite MCL violation.

Source of Contamination: These inorganic chemicals may result from the natural decay of organic materials such as leaves and crop residue, from the use of commercial fertilizers, and also are found in human sewage and wastes from farm animals.

Health Effects: Excessive levels of nitrate in drinking water have caused serious illness and sometimes death in infants under six months of age. Nitrate converts to nitrite, which interferes with the oxygen-carrying capacity in the child's blood (methemoglobinemia). This is an acute disease because symptoms can develop rapidly in infants. In most cases, health deteriorates over a period of days. Symptoms include shortness of breath and blueness of the skin. Clearly, expert medical advice should be sought immediately if these symptoms occur. Boiling the water will only concentrate nitrates in drinking water, and should not be attempted. Alternative sources of water should be used, such as Food and Drug Administration (FDA) approved bottled drinking water with low levels of nitrate clearly listed on the packaging. Drinking water that meets the standard is associated with little risk to health and is considered safe with respect to these contaminants.

Out of Compliance: A PWS is out of compliance when the MCL is exceeded in any one compliance period, assigned either as a monthly, quarterly, or yearly (by calendar) requirement. A violation of the nitrate or nitrite MCL is considered an acute violation with respect to public notification.

Returned to Compliance: A PWS is returned to compliance when the average of a confirmation sample result and the original sample are less than the MCL, or the results of successive monthly testing are below the MCL. A PWS must have six months of levels at or below the MCL and no monitoring violations in order to be returned to compliance.

Inorganic Chemicals---567 IAC 41.3 (455B)

Non-Acute MCL: Compliance with the MCL is generally determined using a running 12- month average of results compared to the maximum allowable concentration of the inorganic contaminant in a sample. Each result is measured in milligrams per liter (mg/L). The MCL's for the Inorganic Chemicals are listed in the following table.

Contaminant	MCL, mg/L	Number of PWS with MCL Violations in 1998
Antimony	0.006	0
Arsenic *	0.05	1
Barium	2	0
<i>Beryllium</i> **	0.004	0
Cadmium	0.005	0
Chromium	0.1	0
<i>Cyanide (as free cyanide)</i> **	0.2	0
Fluoride	4.0	2
Mercury	0.002	0
Selenium	0.05	0
Thallium	0.002	0

* Because EPA is currently promulgating new rules that may change the arsenic MCL, the IDNR currently requires a PWS with an arsenic MCL violation to conduct quarterly public notification and sample collection. Non-acute levels are found in Iowa.

** These compounds were included in the statewide interim monitoring waiver program, and were not required in 1998.

Source of Contamination: Inorganic contaminants generally leach into drinking water after dissolving from naturally occurring minerals in the ground, or from leaching and runoff from industry and landfills.

Health Effects: If the MCL is exceeded for any of the inorganic contaminants, it means that a long-term risk to health is possible. These chemicals may damage organs such as the kidneys and liver, damage the nervous system causing loss of feeling and control in the legs, and are sometimes associated with high blood pressure and cancer. High levels of fluoride may cause dental mottling (fluorosis) of the teeth.

Out of Compliance: Generally, a PWS is out of compliance when the running 12-month average exceeds the MCL.

Returned to Compliance: A PWS is returned to compliance when the running 12-month average is below the MCL. A PWS must have 6 months of levels at or below the MCL and no monitoring violations in order to be returned to compliance.

Organic Chemicals---567 IAC 41.5 (455B)

VOC/SOC - Non-Acute MCL: Compliance with the MCL is generally determined using the average annual concentration of four quarterly results, is compared to the maximum allowable concentration of the organic contaminant in a sample, and is measured in milligrams per liter (mg/L). The MCL's for the Regulated Organic Chemicals are listed in the following tables.

Regulated Volatile Organic Chemicals (VOC's)

Contaminant	MCL, mg/L	Number of PWS with MCL Exceedances in 1998
Benzene	0.005	0
Carbon tetrachloride	0.005	1
Chlorobenzene (mono)	0.1	0
1,2-Dichlorobenzene (ortho)	0.6	0
1,4-Dichlorobenzene (para)	0.075	0
1,2-Dichloroethane	0.005	0
1,1-Dichloroethylene	0.007	0
cis-1,2-Dichloroethylene	0.07	0
trans-1,2-Dichloroethylene	0.1	0
Dichloromethane	0.005	0
1,2-Dichloropropane	0.005	0
Ethylbenzene	0.7	0
Styrene	0.1	0
Tetrachloroethylene	0.005	0
Toluene	1	0
1,2,4-Trichlorobenzene	0.07	0
1,1,1-Trichloroethane	0.20	0
1,1,2-Trichloroethane	0.005	0
Trichloroethylene	0.005	0
Vinyl chloride	0.002	0
Xylenes (total)	10	0

Regulated Synthetic Organic Chemicals (SOC's)

Contaminant	MCL, mg/L	Number of PWS with MCL Exceedances in 1998
Alachlor (Lasso)	0.002	0
Atrazine (Atrex)	0.003	0
Benzo(a)pyrene	0.0002	0
<i>Carbofuran (Furadan)*</i>	0.04	0
<i>Chlordane*</i>	0.002	0
2,4-D	0.07	0
Dalapon	0.2	0
<i>1,2-Dibromo-3-chloropropane*</i>	0.0002	0

Regulated Synthetic Organic Chemicals (SOC's), continued

Contaminant	MCL, mg/L	Number of PWS with MCL Exceedances in 1998
Di(2-ethylhexyl)adipate	0.4	0
Di(2-ethylhexyl)phthalate	0.006	0
Dinoseb	0.007	0
<i>Diquat</i> *	0.02	0
<i>Endothall</i> *	0.1	0
<i>Endrin</i> *	0.002	0
<i>Ethylene dibromide</i> *	0.00005	0
<i>Glyphosate (Roundup)</i> *	0.7	0
<i>Heptachlor</i> *	0.0004	0
<i>Heptachlor epoxide</i> *	0.0002	0
<i>Hexachlorobenzene</i> *	0.001	0
<i>Hexachlorocyclopentadiene</i> *	0.05	0
<i>Lindane</i> *	0.0002	0
<i>Methoxychlor</i> *	0.04	0
<i>Oxamyl (Vydate)</i> *	0.2	0
Pentachlorophenol	0.001	0
Picloram (Tordon)	0.5	0
<i>Polychlorinated biphenyls (PCB's)</i> *	0.0005	0
Simazine	0.004	0
<i>2,3,7,8-TCDD (Dioxin)</i> *	0.00000003	0
<i>Toxaphene</i> *	0.003	0
2,4,5-TP (Silvex)	0.05	0

* These compounds were included in the statewide interim monitoring waiver program, and were not required in 1998.

Total Trihalomethanes

Contaminant	MCL, mg/L	Number of PWS with MCL Exceedances in 1998
Total Trihalomethanes (TTHM's)* (defined as the sum of the concentrations of bromodichloromethane, bromoform, dibromochloromethane, and chloroform, as measured at the point of maximum residence time in the distribution system)	0.10	1

* Only for systems serving populations > 10,000 and systems found to be vulnerable to TTHM exceedances.

Unregulated Volatile and Synthetic Organic Contaminants

Community water systems and nontransient noncommunity water systems monitor for the following unregulated contaminants at IDNR's discretion, and particularly if the PWS is found to be vulnerable to contamination of one of the following chemicals.

The EPA Health Advisory (HA) for lifetime exposure is defined as the concentration of a chemical in drinking water that is not expected to cause any adverse noncarcinogenic effects over a lifetime of exposure, with a margin of safety. The lifetime HA is used for unregulated contaminants when a MCL is not available. Exceedances of the HA for a contaminant are calculated in the same manner as the MCL for a similar compound type. If the HA is exceeded

for an unregulated or discretionary contaminant, the PWS is required to conduct public notification each quarter in which the exceedance is in effect.

Unregulated VOC and SOC Contaminants

Contaminant	Health Advisory/MCL, mg/L	Number of PWS with HA/MCL Exceedances in 1998
Acrylamide	0.05% dosed at 1 ppm	0
<i>Aldrin</i> *	0.002	0
Bromobenzene	**	**
Bromodichloromethane	0.1	0
Bromoform	0.1	0
Bromomethane	0.01	0
Butachlor	**	**
<i>Carbaryl</i> *	0.7	0
Chlorodibromomethane	0.1	0
Chloroethane	**	**
Chloroform	0.1	1
Chloromethane	0.003	0
o-Chlorotoluene	0.1	0
p-Chlorotoluene	0.1	0
Dibromomethane	**	**
Dicamba	0.2	0
1,3-Dichlorobenzene (meta)	0.6	0
1,1-Dichloroethane	**	**
1,3-Dichloropropane	**	**
2,2-Dichloropropane	**	**
1,1-Dichloropropene	**	**
1,3-Dichloropropene	0.02	0
<i>Dieldrin</i> *	0.002	0
Epichlorohydrin	0.01% dosed at 20 ppm	0
<i>Hydroxycarbofuran</i> *	**	**
<i>Methomyl</i> *	0.2	0
Metolachlor (Dual)	0.1	0
Metribuzin	0.2	0
Propachlor	0.9	0
1,1,1,2-Tetrachloroethane	0.07	0
1,1,2,2-Tetrachloroethane	**	**
1,2,3-Trichloropropane	0.4	0

* These compounds were included in the statewide interim monitoring waiver program, and were not required in 1998.

** No HA has been established

Discretionary Volatile Organic Series

Monitoring for the following compounds is only required at the discretion of the IDNR:

Discretionary VOC Contaminants

Contaminant	Health Advisory, mg/L	Number of PWS with HA Exceedances in 1998
Bromochloromethane	0.01	0
n-Butylbenzene	*	*
sec-Butylbenzene	*	*
tert-Butylbenzene	*	*
Dichlorodifluoromethane	1	0
Hexachlorobutadiene	0.001	0
Isopropylbenzene	*	*
p-Isopropyltoluene	*	*
Naphthalene	0.02	0
n-Propylbenzene	*	*
1,2,3-Trichlorobenzene	*	*
Trichlorofluoromethane	2	0
1,2,4-Trimethylbenzene	*	*
1,3,5-Trimethylbenzene	*	*

* no HA has been established

VOC/SOC - Sources of Contamination: Organic contaminants come from petroleum solvents, paint removers, degreasers, cleaning fluids, pesticides, gasoline, electrical transformers, manufacturing processes, chemical production, and the production of plastics. Agricultural runoff, improper waste disposal, and improper handling and storage techniques contribute to drinking water contamination via percolation of the contaminant through the soil into the groundwater.

VOC/SOC - Health Effects: If the MCL is exceeded for any of the organic contaminants, the exceedance represents a possible long-term risk to health. Cancer, as well as damage to the heart and liver, the nervous system, or the immune system may occur through long term exposure to these organic contaminants. Drinking water that meets the standard is associated with little risk to health and is considered safe with respect to these contaminants.

VOC/SOC -Health Advisory Exceedances: For contaminants with an established health advisory level, the IDNR requires quarterly public notice and sampling.

VOC/SOC - Out of Compliance: Generally, a PWS is out of compliance when the running 12-month average exceeds the MCL.

VOC/SOC - Returned to Compliance: A PWS is returned to compliance when the running 12-month average is below the MCL. A PWS must have 6 months of levels at or below the MCL and no monitoring violations in order to be returned to compliance. The EPA is promulgating new rules that may change the TTHM MCL; the IDNR currently requires a PWS with a TTHM MCL violation to conduct quarterly public notification and sampling.

Radionuclides---567 IAC 41.8 (455B)

Non-Acute MCL: Compliance with the MCL is determined using the average annual concentration of at least four quarterly results, is compared to the maximum allowable concentration of the contaminant in a sample, and is measured in either picocuries per liter (pCi/L) or as a dose in millirems per year (mrem/yr). A composite sample may be used in lieu of having four separate quarterly samples analyzed individually. The composite sample consists of four samples, each of which is collected in a specific quarter during a 12 month period. Those four samples are composited into one sample, which is then analyzed for radionuclide content. If the results of that composite sample exceed the MCL, it is a non-acute MCL violation.

Because EPA is currently promulgating new rules that may change the radionuclide MCL's, the IDNR currently requires a PWS with a radionuclide MCL violation to conduct quarterly public notification and collect a four-quarter composite sample every four years. Because of this sampling schedule, there are PWS's which had unresolved MCL violations in 1998 which initially occurred prior to 1998. The new radionuclide MCL violations in 1998, as well as the continuing unresolved MCL violations in 1998, are shown in the following table. Non -acute levels are found in Iowa.

Radionuclides

Contaminant	MCL	Number of PWS with new MCL Violations in 1998	Number of PWS with continuing unresolved MCL Violations in 1998
Gross Alpha Particle Activity (excluding Radon and Uranium)	15 pCi/L	1*	3*
Combined Radium-226 and Radium 228	5 pCi/L	3	27
Gross Beta Particle and Photon Activity	4 mrem/yr	0	0

* The PWS's which exceeded the gross alpha MCL also exceeded the combined radium MCL.

Source of Contamination: Radionuclides (alpha emitters) occur naturally in certain groundwaters in the state, particularly in the deeper aquifers. Beta emitters are usually the result of manmade sources or activities.

Health Effects: If the MCL is exceeded for any of the radionuclide contaminants, it represents a possible long-term risk to health from cancer. Drinking water that meets the standard is associated with little risk to health and is considered safe with respect to these contaminants.

Out of Compliance: A PWS is out of compliance when the annual average exceeds the MCL, assigned either as a once-per-4-year grab sample (single) or as a composite sample requirement.

Returned to Compliance: A PWS is returned to compliance when the previous 12 month average is below the MCL.

Public Notification (MCL)---567 IAC 41.10 (455B)

The SDWA requires a PWS to notify the state and the water consumers when a MCL has been exceeded.

To comply with the reporting and notification requirements of a violation, the PWS must do three things:

1. Notify the IDNR within 48 hours after the violation occurred;
2. Notify the consumers by the required public notification procedures; and
3. Provide proof of such public notice to the IDNR.

Health Effects: If a public notification requirement is not met, the public health is placed at risk because the public is unaware of the potential health effects of the water being consumed. Children, pregnant women, the elderly, and persons with compromised immune systems are at the greatest risk.

Out of Compliance: A PWS is in violation of the public notification rule when it does not issue public notification specific to its violation and does not provide proof of same to the IDNR.

Returned to Compliance: A PWS is returned to compliance when it publishes the appropriate public notification language within the required amount of time and provides proof of same to the IDNR.

Treatment Technique (TT) Requirements

EPA established treatment techniques in lieu of MCL's to control unacceptable levels of some contaminants. The Lead & Copper rule and the Surface Water Treatment Rule (SWTR) fall under this definition. If a PWS exceeds the action level of either lead or copper, that exceedance is a treatment technique violation. If a PWS exceeds the turbidity limit, does not meet the residual disinfectant requirements, or does not meet the contact time (CT) ratio, that PWS incurs a treatment technique violation.

Lead/Copper Action Levels---567 IAC 41.4 (455B)

Action Level Exceedance: Lead and Copper are regulated differently than other contaminants because they have an action level (AL) rather than a MCL. Compliance with the action level is based upon the number of samples collected. The lead action level is exceeded if the concentration of lead in more than 10 percent of tap water samples collected during any monitoring period is greater than 0.015 mg/L (i.e., if the "90th percentile" lead level is greater than 0.015 mg/L). The copper action level is exceeded if the concentration of copper in more than 10 percent of tap water samples collected during any monitoring period is greater than 1.3 mg/L (i.e., if the "90th percentile" copper level is greater than 1.3 mg/L). If the action level at the 90th percentile is exceeded for either lead or copper, it represents a long-term risk to health.

Contaminant	Action Level, mg/L	Number of PWS with AL Exceedances in 1998	Number of PWS with continuing unresolved AL Exceedances in 1998
Copper	1.3	19	73
Lead	0.015	21	37
Copper and Lead	(see above AL's)	2	12

Source of Contamination: Lead is a common metal found in lead-based paint, household dust, and certain types of pottery, porcelain, and pewter. It can be found in drinking water due to leaching from lead pipes, from lead solder on indoor plumbing, or from brass faucets and fixtures. Copper is often used to plumb residential and commercial structures that are connected to water distribution systems, and leaching of copper from these sources can result in contamination of the drinking water.

Health Effects: Lead builds up in the body over many years and can cause damage to red blood cells and kidneys, as well as damage to the brain, which causes mental retardation. Copper, at high levels, can cause stomach and intestinal distress, liver and kidney damage, and anemia. Drinking water that meets the standard for both lead or copper is associated with little risk to health and is considered safe with respect to these contaminants.

Out of Compliance: A PWS is out of compliance when the action level is exceeded in any one compliance period, assigned either as a 6-month (by calendar), annual, or triennial requirement. Once the action level is exceeded for either lead or copper, the PWS must collect water quality parameters, develop a corrosion control treatment study, and implement steps to control the corrosion in the water, plus collect additional samples to demonstrate return to compliance with the action level standard. Public education is also required which advises the water customers of the problem and how they can protect themselves during a lead action level exceedance. The public education requirement remains in effect until the PWS has one full valid sampling round which is less than the lead action level.

Returned to Compliance: Generally, a PWS is returned to compliance when the sample results for two compliance periods are under the action levels for both lead and copper. This process can take several years to accomplish because of the lengthy corrosion control process, which is followed by a year of sampling before a PWS can return to compliance.

Lead Action Level Exceedance Public Education Program

567 IAC 41.10(3) (455B)

The SDWA requires a PWS to notify the IDNR and the population served by the PWS when the action level for lead is exceeded.

1. Mandatory language must be provided to the consumers and general public every twelve months, in the following form:
 - a. Newspaper announcement;
 - b. Pamphlets and brochures to doctors, clinics, schools, daycare facilities, etc.;
 - c. Attachments to customers' water bills;

- e. A public service announcement must be issued to television and radio for broadcasting.
- 2. At least every six months, a public service announcement must be issued to television and radio for broadcasting.

Health Effects: If a public education requirement is not met, the public health is placed at risk because the public is unaware of the potential health effects of the water being consumed. All children are at risk from long term exposure to lead.

Out of Compliance: A PWS is out of compliance with the public education requirement when it does not issue public education and/or does not provide proof of same to the IDNR.

Returned to Compliance: A PWS is returned to compliance with the public education requirement when it publishes the appropriate public education materials in the required format at the required cycle of time and provides proof of same to the IDNR.

Turbidity Requirements---567 IAC 41.7 (455B)

Treatment Technique: The treatment technique requirements for turbidity are applicable to community and noncommunity PWS's using surface water or groundwater under the direct influence of surface water in whole or in part. For PWS's using conventional or direct filtration, the turbidity level of representative samples of a PWS's filtered water must be less than or equal to 0.5 nephelometric turbidity units (NTU) in at least 95% of the measurements taken each month, with no single sample result exceeding 5 NTU's. Violation of the turbidity standard is a treatment technique violation.

Contaminant	TT Criteria *	Number of PWS with TT Violations in 1998
Turbidity	5% of samples > 0.5 NTU	4
	any sample > 5.0 NTU	1

* > means "greater than"

Sources of Contamination: Turbidity, or cloudiness, of drinking water is a measure of the minute particles suspended in the water that can interfere with disinfection and testing for bacteria. It can also prevent maintenance of an effective disinfectant residual throughout the distribution system.

Health Effects: Excessive turbidity can allow disease-causing organisms such as viruses and protozoans (*Giardia lamblia* and *Cryptosporidium*) to enter the distribution system by masking their presence.

Out of Compliance: A PWS is out of compliance when the treatment technique levels are exceeded in any one month.

Returned to Compliance: A PWS is returned to compliance when turbidity results are consistently below the MCL standards, and it may take several months to a year for a PWS to be returned to compliance.

Residual Disinfectant Requirements---567 IAC 41.7 (455B)

Treatment Technique: All PWS's using a surface water source or a groundwater source under the direct influence of surface water must provide disinfection to provide inactivation or removal of 99.9% *Giardia lamblia* cysts and 99.99% viruses. The chlorine residual in drinking water is a measure of the amount of available chlorine in the water. It also allows the maintenance of an effective disinfectant agent throughout the PWS's distribution system.

1. The disinfectant entering the distribution system cannot be lower than 0.3 mg/L free residual chlorine for more than 4 hours.
2. The disinfectant within the distribution system, measured as total chlorine, combined chlorine, or chlorine dioxide, cannot be undetectable in more than 5% of the samples each month for any 2 consecutive months. This also applies to heterotrophic plate counts (HPC's), which could be done in lieu of disinfectant monitoring. The HPC must be less than or equal to 500 colony forming units per milliliter of sample in order to have acceptable disinfectant residual.

All PWS's using a surface water source or a groundwater source under the direct influence of surface water must determine their contact time (CT) on a daily basis.

1. The CT in drinking water is determined by multiplying the disinfectant concentration by the amount of time that the disinfectant is in contact with the water. Each system must achieve a specific CT depending on water quality parameters, which include the pH and temperature of the water.
2. Insufficient CT can allow disease-causing organisms such as *Giardia lamblia* or viruses to survive and thereby be distributed throughout the system.

Contaminant	TT Criteria*	Number of PWS with TT Violations in 1998
Residual Disinfectant	**	0
Contact Time	CT ratio of <1	0

* < means "less than"

** See previous section entitled "Residual Disinfectant Requirements - Treatment Techniques" for the criteria.

Health Effects: Insufficient chlorine or disinfectant residual levels can allow disease-causing organisms to survive and thereby be distributed throughout the system.

Out of Compliance: A PWS is out of compliance with the treatment technique standard when the CT ratio or residual disinfectant requirement is insufficient. If a PWS continues to experience treatment technique violations, that PWS could be required to make modifications to the treatment process to achieve compliance.

Returned to Compliance: A PWS is returned to compliance with the treatment technique standard when the CT ratio is sufficient, and the residual disinfectant requirements have been met. The PWS could be returned to compliance in the next month, or the time period could be longer, depending upon the action needed to correct the violation.

Public Notification (TT)---567 IAC 41.10 (455B)

The SDWA requires a PWS to notify the state and the water consumers when the following violations occur:

1. a required treatment technique has been violated;
2. a compliance schedule has not been met; or
3. a monitoring violation has occurred.

To comply with the reporting and notification requirements of a violation, the PWS must do three things:

1. Notify the IDNR within 48 hours after the violation occurred;
2. Notify the consumers by the required public notification procedures; and
3. Provide proof of such public notice to the IDNR.

Health Effects: If a public notification requirement is not met, the public health is placed at risk because the public is unaware of the potential health effects of the water being consumed. Children, pregnant women, the elderly, and persons with compromised immune systems are placed at the greatest risk.

Out of Compliance: A PWS is out of compliance rule when it does not issue public notification specific to its violation and/or does not provide proof of same to the IDNR.

Returned to Compliance: A PWS is returned to compliance with the public notification rule when it publishes the appropriate public notification language within the required amount of time and provides proof of same to the IDNR.

Variations and Exemptions

The IDNR, in accordance with the federal regulations, has the authority to issue variances or exceptions for certain exceedances of AL's, MCL's, or TT requirements. In Iowa, variances or exceptions are not allowed for exceedances of microorganism standards, acute concentrations of any contaminant, any violations of the Surface Water Treatment Rule, or lead exceedances. Basically, a variance or exception is a means to allow an extended schedule for a PWS to permanently correct the violation(s). In 1996, EPA requirements that the IDNR and PWS had to meet prior to granting a variance or exception made it impractical to utilize these provisions. Instead of issuing variance or exceptions, the IDNR used its authority to extend schedules for returning to compliance through the water supply operation permit program.

Iowa did not have rules on variances and exemptions for any contaminant during the reporting period of January 1, 1998 through December 31, 1998. Both historically and currently, Iowa does not issue variances and exemptions for violations of MCL's, TT's, AL's, or M/Rs.

Rule	Violation Type	Description
Rule		
	M/R, Major Repeat	No follow-up samples collected after a positive sample
Surface Water Treatment Rule	M/R, major (filtered)	Collected less than 10% of samples required during a compliance period
	M/R, major (unfiltered)	Collected less than 10% of samples required during a compliance period
Lead and Copper Rule	M/R Initial Lead and Copper Tap	Failure to collect the initial tap samples followed by a failure to correct that omission within three months for large systems, 6 months for medium systems, and 12 months for small systems, or the failure to submit the associated report.
	M/R Follow-up or Routine Lead and Copper Tap	Failure to collect 1 or more required samples.
Phase I, II, IIB, and V Rules	Regular Monitoring	Failed to collect any required samples
Total Trihalomethanes	Regular Monitoring	Failed to collect any required samples
Radionuclides	Regular Monitoring	Failed to collect any required samples

Coliform Bacteria

Monitoring/Reporting Requirement: All PWS's must collect total coliform samples at sites which are representative of water quality throughout their distribution systems according to a written sampling plan.

1. Community PWS's and noncommunity PWS's serving schools or daycare facilities must base the number of samples on the population served by the PWS. The minimum number of samples collected per month is determined by population groups as listed in 567 IAC 41.2(1)c(1)"3".
2. Regional PWS's, such as rural water districts, sample at a frequency based on miles of pipe in the distribution system, which is deemed equivalent to population.
3. Transient noncommunity PWS's, such as parks and rest areas, must monitor each calendar quarter at a minimum, or if the population served is over 1000 persons, monitor at the same frequency as a like-sized community PWS. EPA makes provisions for reducing the monitoring to annual, but in Iowa this is not considered sufficient protection for public health.
4. If a routine sample is total coliform positive, the PWS must collect repeat samples. That PWS must also collect a minimum of five routine samples during the next month the PWS is in operation.

	Violations in 1998	Major M/R Violations in 1998
Coliform Bacteria, Repeat	84	52
Coliform Bacteria, Routine	388	272

Out of Compliance: A PWS is out of compliance when the PWS fails to collect and have analyzed the required number of samples in any one compliance period.

Returned to Compliance: A PWS is returned to compliance when the samples are collected and the results are in the IDNR's database.

Nitrate/Nitrite

Monitoring/Reporting Requirement: All PWS's, including community, noncommunity, and transient noncommunity PWS's, must monitor to determine compliance with the MCL for nitrate and nitrite at the following frequency:

1. All PWS's must monitor for nitrate at least on an annual basis and for nitrite at least once.
2. If a PWS exceeds one-half the MCL for either nitrate or nitrite, it must monitor on a quarterly basis.
3. If a PWS exceeds the MCL for either nitrate or nitrite, it must monitor for that contaminant on a monthly basis.

Contaminant	Number of M/R Violations in 1998	Number of Individual PWS's with M/R Violations in 1998
Nitrate	333	258
Nitrite	9	9

Out of Compliance: A PWS is out of compliance when the PWS fails to collect the required number of samples in any one compliance period.

Returned to Compliance: A PWS is returned to compliance when the samples are collected and the results are in the IDNR's database.

Inorganic Chemicals

Monitoring/Reporting Requirement: Community and nontransient noncommunity PWS's must monitor to determine compliance with the MCL for inorganic contaminants. The IDNR issues a sampling schedule through an operation permit which may vary from quarterly to once every nine years, with the frequency determined by past analytical results.

Contaminant	Number of M/R Violations in 1998	Number of Individual PWS's with M/R Violations in 1998
Arsenic	1	1
Fluoride	3	1

Out of Compliance: A PWS is out of compliance when the PWS fails to collect the required number of samples in any one compliance period.

Returned to Compliance: A PWS is returned to compliance when the samples are collected and the results are in the IDNR's electronic database.

Organic Chemicals

Monitoring/Reporting Requirements: Community and nontransient noncommunity PWS's must monitor to determine compliance with the MCL for organic contaminants. The IDNR issues a sampling schedule through an operation permit which may vary from quarterly to once every five years, the schedule being based on past analytical results. Violations for Alachlor represent violations for the entire SOC series. Included in the Metolachlor total is one violation for the entire SOC series.

Contaminant	Number of M/R Violations in 1998	Number of Individual PWS's with M/R Violations in 1998
Bromochloromethane	1	1
Benzene	2	1
1,2-Dichloroethane	2	1
Napthalene	2	1
TTHM	3	3
Vinyl Chloride	3	1
Xylene	3	3
Atrazine	4	2
Metolachlor	4	2
Alachlor	10	10

Out of Compliance: A PWS is out of compliance when the PWS fails to collect the required number of samples in any one compliance period.

Returned to Compliance: A PWS is returned to compliance when the sample is collected and the results are in the IDNR's electronic database.

Lead/Copper

Monitoring/Reporting Requirement: All community and nontransient noncommunity PWS's must monitor to determine compliance with the Action Level for lead and copper at sites according to a written sampling plan which targets sites that have specific home plumbing materials with lead and copper. The number of samples collected is based on the population served. Additionally, water quality parameters and source water sampling are collected when the action level for either lead or copper is exceeded. Follow-up monitoring is continued on a routine schedule regardless of analytical results.

Contaminant	Number of M/R Violations in 1998	Number of Individual PWS's with M/R Violations in 1998
Lead & Copper	17	16

Out of Compliance: A PWS is out of compliance when the PWS fails to collect the required number or type of samples in any one compliance period, either six-month, annual, or triennial.

Returned to Compliance: A PWS is returned to compliance when the samples are collected, the results are in the IDNR's electronic database, and the 90th percentile report has been received by the IDNR.

Turbidity, Residual Disinfectant, and CT Ratio

Monitoring/Reporting Requirements: All PWS's using surface water or groundwater under the direct influence of surface water in whole or in part are required to conduct turbidity monitoring and report the results to the IDNR on a monthly basis. The number of samples is based on the population served, and must be either collected every four hours or be continuously monitored. Residual disinfectant sampling requirements are applicable to community and noncommunity PWS's using surface water or groundwater under the direct influence of surface water in whole or in part. When a coliform bacterial sample is collected, that sample must be analyzed for residual disinfectant immediately. The residual disinfectant must also be measured at a minimum of every four hours at the entry point to the distribution system. Depending upon the size of the system, continuous monitoring may be required. The CT ratio must be calculated and recorded daily, and the lowest ratio in each month must be reported.

Contaminant	Number of M/R Violations in 1998	Number of Individual PWS's with M/R Violations in 1998
Turbidity	6	2

Out of Compliance: A PWS is out of compliance when the PWS fails to collect the required number of samples in any one compliance period.

Returned to Compliance: A PWS is returned to compliance when the samples are collected and the results are reported to the IDNR.

Radionuclides

Monitoring/Reporting Requirement: Community PWS's must monitor to determine compliance with the MCL for radionuclides. The IDNR issues a sampling schedule which may vary from a quarterly sample to a composite sample once every four years, depending on past results.

Contaminant	Number of M/R Violations in 1998	Number of Individual PWS's with M/R Violations in 1998
Gross Alpha	9	9

Out of Compliance: A PWS is out of compliance when the PWS fails to collect the required number of samples in any one compliance period.

Returned to Compliance: A PWS is returned to compliance when the sample is collected and the result is in the IDNR's database.

M/R Public Notification

Reporting Requirement: All PWS's must issue public notification for failure to monitor; exceeding a MCL or an AL; failure to achieve a TT; or failure to meet a compliance schedule for remediation for a MCL, AL, or TT violation. The IDNR issues a Notice of Violation (NOV) which includes the Public Notification instructions and mandatory language example for the public notification.

Out of Compliance: A PWS is out of compliance when the PWS fails to issue any required public notification.

Returned to Compliance: A PWS is returned to compliance when the PWS issues the required public notification and submits a copy of same to the IDNR.

Public Education Program for Lead

Reporting Requirement: All community and nontransient noncommunity PWS's must conduct a public education program if they exceed the lead action level. Note that Public Education is not the same as public notification. Public notification is a portion of public education but the reverse is not true. Public education includes several different methods of public notification, all of which are critical to the public education effort.

Returned to Compliance: A PWS is returned to compliance when the PWS initiates or resumes the required public education and submits a copy of same to the IDNR.

Distribution of this Report

The SDWA requires both summary and detailed reports from the states to be accessible to the EPA, the Governor of the State, and the public. The State of Iowa has determined that the following options will be utilized to make this report readily available to the public. The IDNR will:

- Supply the detailed report to the EPA Headquarters in Washington, DC, by the statutory deadline.
- Supply the detailed report to the EPA Regional Headquarters in Kansas City, KS.
- Supply the detailed report to the Office of the Governor of Iowa.
- Publish an official notice of report availability.
- Include notices of availability on the IDNR internet website.
- Make the detailed report available for downloading from the IDNR internet website.
- Supply the detailed report to the public water systems identified in the detailed report.
- Make the detailed and summary report available for individuals and organizations upon request.

Summary Report

The **Violations Summary Report**, listed in Table A, is strictly a numerical summary of all the violations of each contaminant being monitored for SDWA compliance. Discretionary and unregulated organic compounds are not listed in this table, since they do not have MCL's. This report lists the number of violations of each contaminant categorized by both MCL and Monitoring/Reporting Violations.

Report Legend

Column (from left to right)	Description of Heading
1	The first column identifies the contaminant name
2	The second column identifies the MCL for that contaminant
3	The third column identifies the number of MCL violations for that contaminant
4	The fourth column identifies the number of PWS's with MCL violations for that contaminant
5	The fifth column identifies the number of TT violations
6	The sixth column identifies the number of PWS's with TT violations
7	The seventh column identifies the number of M/R violations for that contaminant
8	The eighth column identifies the number of PWS's with M/R violations for that contaminant

TABLE A: VIOLATIONS SUMMARY REPORT

NOTE: This is an EPA formatted table.

State: **Iowa** Reporting Interval: **January 1, 1998 through December 31, 1998**

Organic Contaminants	MCL (ng/L)	MCL's		Treatment Techniques		Significant	
		Number of Violations	Number of Systems with Violations	Number of Violations	Number of Systems with Violations	Number of Violations	Number of Systems with Violations
1,1,1-Trichloroethane	0.2	-0-	-0-			-0-	-0-
1,1,2-Trichloroethane	0.005	-0-	-0-			-0-	-0-
1,1-Dichloroethylene	0.007	-0-	-0-			-0-	-0-
1,2,4-Trichlorobenzene	0.07	-0-	-0-			-0-	-0-
1,2-Dibromo-3-chloropropane (DBCP)	0.0002	-0-	-0-			-0-	-0-
1,2-Dichloroethane	0.005	-0-	-0-			2	1
1,2-Dichloropropane	0.005	-0-	-0-			-0-	-0-
2,3,7,8-TCDD (Dioxin)	0.00000008	-0-	-0-			-0-	-0-
2,4,5-TP	0.05	-0-	-0-			-0-	-0-
2,4-D	0.07	-0-	-0-			-0-	-0-
Acrylamide		NA	NA			0	0
Alachlor	0.002	-0-	-0-			10	10
Atrazine	0.003	-0-	-0-			4	2
Benzene	0.005	0	0			-2	1
Benzo[a]pyrene	0.0002	-0-	-0-			-0-	-0-
Carbofuran	0.04	-0-	-0-			-0-	-0-
Carbon tetrachloride	0.005	1	1			-0-	-0-

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Contaminant	MCL (mg/L)	MCL's		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
Chlordane	0.002	-0-	-0-			-0-	-0-
cis-1,2-Dichloroethylene	0.07	-0-	-0-			-0-	-0-
Dalapon	0.2	-0-	-0-			-0-	-0-
Di(2-ethylhexyl)adipate	0.4	-0-	-0-			-0-	-0-
Di(2-ethylhexyl)phthalate (Total Phthalates)	0.006	0	0			0	0
Dichloromethane	0.005	-0-	-0-			-0-	-0-
Dinoseb	0.007	-0-	-0-			-0-	-0-
Diquat	0.02	-0-	-0-			-0-	-0-
Endothall	0.1	-0-	-0-			-0-	-0-
Endrin	0.002	-0-	-0-			-0-	-0-
Epichlorohydrin		NA	NA			0	0
Ethylbenzene	0.7	-0-	-0-			-0-	-0-
Ethylene dibromide	0.00005	-0-	-0-			-0-	-0-
Glyphosate	0.7	-0-	-0-			-0-	-0-
Heptachlor	0.0004	-0-	-0-			-0-	-0-
Heptachlor epoxide	0.0002	-0-	-0-			-0-	-0-
Hexachlorobenzene	0.001	-0-	-0-			-0-	-0-
Hexachlorocyclopentadiene	0.05	-0-	-0-			-0-	-0-
Lindane	0.0002	-0-	-0-			-0-	-0-
Methoxychlor	0.04	-0-	-0-			-0-	-0-

1998 Iowa Drinking Water Supply Program Annual Compliance Report

Contaminant	MCL (mg/L)	MCL's		Treatment Techniques		Significant	
		Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations
Monochlorobenzene	0.1	-0-	-0-			-0-	-0-
o-Dichlorobenzene	0.6	-0-	-0-			-0-	-0-
Oxamyl (Hydate)	0.2	-0-	-0-			-0-	-0-
para-Dichlorobenzene	0.075	-0-	-0-			-0-	-0-
Pentachlorophenol	0.001	-0-	-0-			-0-	-0-
Picloram	0.5	-0-	-0-			-0-	-0-
Simazine	0.004	-0-	-0-			-0-	-0-
styrene	0.1	-0-	-0-			-0-	-0-
Tetrachloroethylene	0.005	0	0			-0-	-0-
Toluene	1	-0-	-0-			-0-	-0-
Total polychlorinated biphenyls	0.0005	-0-	-0-			-0-	-0-
Toxaphene	0.003	-0-	-0-			-0-	-0-
trans-1,2-Dichloroethylene	0.1	-0-	-0-			-0-	-0-
Trichloroethylene	0.005	-0-	-0-			-0-	-0-
Vinyl chloride	0.002	-0-	-0-			3	1
Xylenes (total)	10	-0-	-0-			3-	3
Total trihalomethanes	0.10	1	1			3	3

1998 Iowa Drinking Water Supply Program Annual Compliance Report

Contaminant	MCL (mg/L)	MCL's		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							
Antimony	0.006	-0-	-0-			-0-	-0-
Arsenic	0.05	3	1			-1-	1
Asbestos	7 million fibers/ 10 µm long	-0-	-0-			-0-	-0-
Barium	2	-0-	-0-			-0-	-0-
Beryllium	0.004	-0-	-0-			-0-	-0-
Cadmium	0.005	0	0			-0-	-0-
Chromium	0.1	-0-	-0-			-0-	-0-
Cyanide (as free cyanide) *	0.2	-0-	-0-			-0-	-0-
Fluoride	4.0	7	2			3	1
Mercury	0.002	-0-	-0-			-0-	-0-
Nitrate	10 (as Nitrogen)	128	37			333	258
Nitrite	1 (as Nitrogen)	1	1			9	9
Selenium	0.05	-0-	-0-			-0-	-0-
Thallium	0.002	-0-	-0-			-0-	-0-
Total nitrate and nitrite	10 (as Nitrogen)	1	1			-0-	-0-

* No monitoring was required in 1998 for this parameter.

1998 Iowa Drinking Water Supply Program Annual Compliance Report

Contaminant	MCL	MCL's *		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 MCL's							
Gross alpha	15 pCi/L	-0-	-0-			9	9
Radium-226 and radium-228	5 pCi/L	3	3			-0-	-0-
Gross beta	4 mrem/year	-0-	-0-			-0-	-0-
Subtotal		3	3			9	9

* These are the new violations incurred in 1998, and do not include the continuing unresolved violations from previous years.

Contaminant	MCL (mg/L)	MCL		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	Presence	62	57				
Non-acute MCL violation	Presence	200	133				
Major routine and follow up monitoring							
Sanitary survey						474	303
Subtotal		262	190			474	303

1998 Iowa Drinking Water Supply Program Annual Compliance Report

Contaminant	MCL (mg/L)	MCL's			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	Number of Violations	Number of Systems With Violations
Surface Water Treatment Rule *									
Filtered systems *									
Monitoring, routine/repeat								6	2
Treatment techniques				7		4			
Unfiltered systems *									
Monitoring, routine/repeat									
Failure to filter									
Subtotal				7		4		6	2

* All surface water PWS's in Iowa have filtration.

Contaminant	Action Level	Action Level Exceedance *			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	Number of Violations	Number of Systems With Violations
Lead and Copper Rule	Lead: 0.015 mg/L Copper: 1.3 mg/L	Lead: 26 Copper: 28	Lead: 23 Copper: 21	Lead: 26 Copper: 28	Lead: 23 Copper: 21	Lead: 23 Copper: 21		-0-	-0-
Initial lead and copper tap M/R								-0-	-0-
Follow-up or routine lead and copper tap M/R								17	16
Treatment installation								-0-	-0-
Public education								-0-	-0-
Subtotal		Lead: 26 Copper: 28	Lead: 23 Copper: 21	Lead: 26 Copper: 28	Lead: 23 Copper: 21	Lead: 23 Copper: 21		17	16

* These are the new violations incurred in 1998, and do not include the continuing unresolved violations in 1998 from previous years.

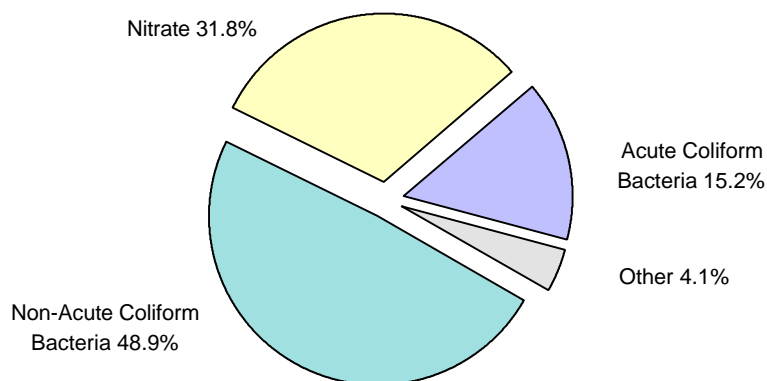
Statistical Summary

The MCL and M/R violation data are summarized in various charts in this section.

Maximum Contaminant Level Violations

Maximum contaminant level (MCL) violations are listed in Table B. For this reporting period there were a total of 408 MCL violations incurred by 198 PWSs. There were 1,977 active PWSs in the State of Iowa in 1998, and 10% of those PWS's incurred a new MCL violation for at least one contaminant in 1998. Figure 6 only includes the new 1998 MCL violations.

Figure 6: MCL Violations by Contaminant



Contaminant	Number of Violations	Number of PWS's with Violations	% Violations (# Viol./Total # Viol.)
Chloroform	1	1	0.25
Carbon Tetrachloride	1	1	0.25
Nitrite	1	1	0.25
Total Trihalomethanes (TTHM)	1	1	0.25
Radium 226 & 228	3	3	0.75
Arsenic	3	1	0.75
Fluoride	7	2	1.70
Coliform Bacteria - Acute MCL	62	57	15.20
Nitrate**	129	37	31.70
Coliform Bacteria - Non-Acute MCL	200	133	48.90
Total	408	198*	100.00

*Some PWS's had MCL violations for more than one contaminant, and are only counted once in the total.

** Includes one individual combined nitrate-nitrite MCL violation.

The number and types of the most current enforcement actions for each of the 408 MCL violations in 1998 are listed in Figure 7.

Figure 7: Enforcement Actions for 1998 MCL Violations

Type of Enforcement Actions	Number of Enforcement Actions
Public Notification Received	31
Administrative Order with Penalty	32
Administrative Order without Penalty	40
Formal Notice of Violation	50
Bilateral Compliance Agreement Signed	73
Compliance Achieved	182

The total number of samples collected compared to the number of 1998 MCL violations by contaminant are shown in Figure 8.

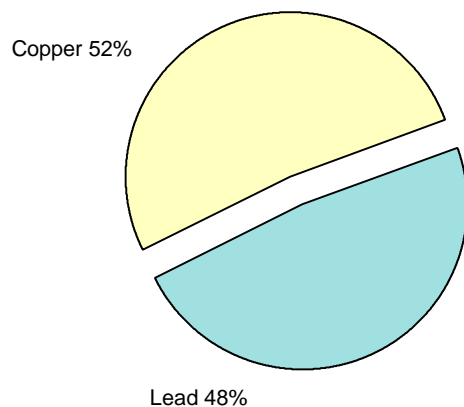
Figure 8: MCL Violations and Total Number of Samples Collected for each Contaminant

Contaminant	Number of MCL Violations	Total Number of Samples Collected	% of MCL Violations/Total Samples
Chloroform	1	423	0.24
Carbon Tetrachloride	1	154	0.65
Nitrite	1	532	0.19
Total Trihalomethanes (TTHM's)	1	374	0.27
Radium 226 & 228	3	48	6.25
Arsenic	3	131	2.30
Fluoride	7	426	1.60
Nitrate *	129	3,495	3.70
Coliform Bacteria	262	50,075	0.52
Total	409	55,658	0.73

* Includes one individual combined nitrate-nitrite MCL violation.

Action Level Exceedances for Lead & Copper in 1998 are listed in Figure 9.

Figure 9: Lead and Copper Action Level Exceedances in 1998



Contaminant	# of AL Exceedances in 1998	# of PWS with AL exceedances in 1998	# of Continuing Unresolved AL Exceedances	# of PWS's with Continuing Unresolved Exceedances
Copper	26	19	85	73
Lead	24	21	49	37
Copper & Lead	2	2	-	12
Total	52	42	134 total # of violations	122 total # of PWS's in violation

Treatment technique violations of the Surface Water Treatment Rule (SWTR) are shown in Figure 10.

Figure 10: 1998 SWTR Treatment Technique Violations

Type of Treatment Technique	Number of Violations	Number of PWS's with Exceedances
Residual Disinfectant	0	0
CT Ratio	0	0
Turbidity (average)	6	4
Turbidity(sample > 5.0 NTU)	1	1
Total	7	4

Monitoring and Reporting Violations

Monitoring and Reporting (M/R) Violations that are major (as determined by the EPA Administrator in consultation with the States, are listed in Table A and itemized in Table D.

For this reporting period there were 867 M/Rs incurred by 499 PWS's which met the criteria as major.

Figure 11 lists the M/R violations for each specific contaminant.

Figure 11: 1998 M/R Violations by Contaminant

Contaminant	Number of Violations	Number of PWS's with Violations	% Violations (# Violations/Total)
Arsenic	1	1	0.12
Bromochloromethane	1	1	0.12
Napthalene	2	1	0.24
Benzene	2	1	0.24
1,2-Dichloroethane	2	1	0.24
Xylene	3	3	0.35
TTHM	3	3	0.35
Fluoride	3	1	0.35
Vinyl Chloride	3	1	0.35
Atrazine	4	2	0.47
Metolachlor	4	2	0.47
Turbidity	6	2	0.69
Gross Alpha	9	9	1.00
Nitrite	9	9	1.00
Alachlor	10	10	1.15
Nitrate	333	258	38.32
Coliform Bacteria	472	303	54.54
Total	867	499*	100

* A PWS can have M/R violations for more than one contaminant.

The most recent enforcement action for each of the 867 M/R violations in 1998 are shown in Figure 12.

Figure 12: Most Recent Enforcement Action for Each M/R Violation

Types of Enforcement Actions	Number of Enforcement Actions
Referred for Administrative Order	1
Administrative Order without Penalty	1
Referred to Attorney General (AG)	3
Administrative Order with Penalty	4
Public Notice Received	4
Intentional No Action	6
Bilateral Compliance Agreement Signed	28
Notice of Violation Issued	36
Compliance Achieved	784

The types of the various M/R violations are listed in Figure 13.

Figure 13: Number and Types of M/R Violations

Violation Type	Number of Violations
Repeat (coliform) MAJOR Monitoring Violation	84
Routine (coliform) MAJOR Monitoring Violation	388
Regular Monitoring Violation (all other non-coliform contaminants)	395
Total	867

The violations for failure to monitor and for failure to report the 90th percentiles for the Lead & Copper program in 1998 are listed in Figure 14.

Figure 14: Lead & Copper Monitoring and Reporting Violations

Violation Type	Number of Violations	Number of PWS with Violations
Lead & Copper 90th Percentile Reporting Violation	1	1
Lead & Copper Monitoring Violation	16	15
Total	17	16

Full Report

The Full Report is a detailed listing of all the MCL, M/R, Lead & Copper Rule, and TT violations of each regulated SDWA contaminant, along with the name of the PWS which incurred that violation. Violations can be resolved in a number of ways, as discussed below. The individual reports are listed in Tables B - Table G.

1998 MCL Violations Report

The **1998 MCL Violations Report**, shown in Table B ([page 47](#)), lists all of the MCL violations within the 1998 reporting period.

Report Legend for Table B

PWS NAME	Business name of the Public Water System
PWSID NUMBER	Public Water System Identification number, a unique and dedicated number permanently assigned to each PWS
POP.	Population which could use the water, reported to IDNR by the PWS. For municipal systems, it is the most recent official census
COUNTY	County location of PWS
NAME OF CONTAMINANT	An analyte which is monitored under the SDWA
VIOL. NUMBER	A unique and dedicated identification number assigned to each violation as it occurs. (IDNR use only)
DATE OF VIOLATION	Date or time period the violation occurred
TYPE OF ENFORCEMENT	Most recent action taken by the PWS and/or the IDNR in response to the violation
DATE OF ACTION	Date the follow-up action or enforcement action occurred

General Description of MCL Violations and Enforcement Actions

A MCL violation can occur for any regulated contaminant where EPA has determined a MCL. The monitoring frequency is dependent upon both the type of contaminant and the levels previously found in a particular PWS for that contaminant. The most frequent possible occurrence of a MCL violation is once a month. Once a MCL violation has occurred, a supply must have six consecutive months without a MCL or M/R violation for that contaminant before it is considered to be returned to compliance. The violation is then coded Compliance Achieved in the database.

For multiple repeat MCL violations of a contaminant, the IDNR may issue a revised operation permit with conditions that require the PWS to remediate the MCL violation by correcting operation deficiencies, adding treatment, blending water sources, or obtaining an alternative source of drinking water. Alternative sources may include construction of a new well or

connection to another PWS. The violation is coded BCA (Bilateral Compliance Agreement) Signed. Once the violation is resolved, it is coded Compliance Achieved in the database.

A BCA is a Water Supply Operation Permit which has an appendix attached that assigns a compliance schedule for remediation of the MCL violation. For coliform bacteria, if two or more violations occur in a 12-month period, the IDNR may issue a revised operation permit with conditions that require that PWS to remediate the MCL problem. The violation is coded as BCA Signed, and once the violation is resolved, it is coded as Compliance Achieved in the database. When the conditions warrant, the IDNR may issue an AO to install chlorination immediately

If three acute nitrate/nitrite MCL violations occur in a 12-month period, the IDNR issues a revised operation permit with conditions that require that PWS to remediate the MCL problem. The violation is coded as BCA Signed, and once the violation is resolved, it is coded as Compliance Achieved in the database.

When a PWS continues to violate the MCL for a particular contaminant or is unwilling or unable to remediate the MCL, the IDNR issues an Administrative Order (AO), which is the next step in legally enforcing the BCA. The violation is coded as AO w/ Penalty (Administrative Order with monetary Penalty) or AO w/o Penalty (Administrative Order without monetary Penalty). AO's are generally issued without a monetary penalty, but may be issued with a penalty under certain circumstances. AO's issued to a PWS due to MCL violations are usually accompanied by a BCA which outlines the compulsory schedule for remediation.

For those PWS's listed in this report that show Compliance Achieved, BCA Signed, AO With Penalty (AO w/ Penalty), AO Without Penalty (AO w/o Penalty), Referred to Attorney General (AG), or Formal Notice of Violation Issued (NOV), under the TYPE OF FOLLOW-UP ACTION, appropriate enforcement actions have been taken by the State.

The other follow-up actions listed indicate the most recent action taken by the PWS. Those PWS's listed in this report that show Public Notice Requested or Public Notice Received under the TYPE OF FOLLOW-UP ACTION, have not been returned to compliance as of the date of this report. All of these PWS's are currently being tracked by the IDNR. When the criteria for Compliance Achieved are met, the violation is appropriately coded. Failure to achieve compliance may result in the issuance of a BCA with a schedule for remediation and/or an AO with penalty.

There were 408 new MCL violations from 198 PWS's for this reporting period.

The **Continuing Combined Radium 226 and 228 MCL Violations (Pre-1998) Report**, shown in Table C (page 66), lists the PWS's with these unresolved violations.

Report Legend for Table C

PWS NAME	Business name of the Public Water System
PWSID NUMBER	Public Water System Identification number, a unique and dedicated number permanently assigned to each PWS
POPULATION	Population which could use the water, reported to IDNR by the PWS. For municipal systems, it is the most recent official census.
COUNTY	County location of PWS
BEGINNING DATE OF COMPLIANCE SAMPLE	Date of the first of four consecutive quarter samples which comprise the composite sample
COMPLIANCE STATUS	Compliance status - all of the violations are currently unresolved

1998 Monitoring/Reporting Violations Report

The **1998 M/R Violations Report**, listed in Table D (page 68), specifies the Monitoring and Reporting (M/R) violations that are significant as determined by the EPA Administrator in consultation with the States. The M/R data does not include any data from the Lead & Copper Rule.

Report Legend for Table D

PWS NAME	Business name of the Public Water System
PWSID NUMBER	Public Water System Identification number, a unique and dedicated number permanently assigned to each PWS
POP.	Population which could use the water, reported to IDNR by the PWS. For municipal systems, it is the most recent official census.
COUNTY	County location of PWS
NAME OF CONTAMINANT	An analyte which is monitored under the SDWA
VIOL. TYPE	Type of violation
VIOL. NUMBER	A unique and dedicated identification number assigned to each violation as it occurs (IDNR use only)
DATE OF VIOLATION	Date or time period the violation occurred, which has already been converted during data transmission from WSFL to SDWIS/FED to reflect the beginning of the monitoring period when the sample was due
TYPE OF ENFORCEMENT	Most recent action taken by the PWS and/or the IDNR in response to the violation
DATE OF ACTION	Date the follow-up action or enforcement action occurred

General Description of M/R Violations and Enforcement Actions

The monitoring requirements for the contaminant types vary, depending upon the specific contaminant type as well as the historic levels of each specific contaminant found in the water supply. The most frequent monitoring requirement is for a monthly sample, and the least frequent monitoring requirement is for one sample every nine years.

The criteria for referral for legal action is dependent upon the number of M/R violations assigned to the PWS for a given contaminant.

Monthly monitoring requirements:

The criteria for an Administrative Order with Penalty (AO/P) for M/R violations is four or more monthly M/R violations in a 12-month period. If the PWS meets this criteria, the IDNR will issue an AO/P for failure to collect the required monthly compliance samples.

Quarterly monitoring requirements:

The criteria for an Administrative Order (AO) for M/R violations is two or more quarterly M/R violations in a 12-month period. If the PWS meets this criteria, the IDNR will issue an AOP for failure to collect the required quarterly compliance samples.

Six-month or less frequent monitoring requirements:

If a M/R violation occurs for a contaminant on a six-month, annual, once per three years, once per four years, once per five years, or once per nine years sampling frequency, a NOV and a BCA is issued by the IDNR with a stipulated schedule for sample collection, which is usually one additional calendar quarter. If the PWS does not meet this deadline, the IDNR will immediately issue an AO/P for failure to collect the required compliance sample.

There were 867 M/R violations for 499 PWS's in this reporting period.

1998 Treatment Techniques Violations Report

The **1998 Treatment Techniques Violations Report**, listed in Table E ([page 106](#)), specifies the Treatment Technique Violations for Iowa PWS's in 1998. These violations include both the Lead and Copper Rule and the Surface Water Treatment Rule.

Report Legend for Table E

PWS NAME	Business name of the Public Water System
PWSID NUMBER	Public Water System Identification number, a unique and dedicated number permanently assigned to each PWS
POP.	Population which could use the water, reported to IDNR by the PWS. For municipal systems, it is the most recent official census.
COUNTY	County location of PWS
TT VIOLATION TYPE	Specific type of treatment technique which was not achieved
DATE OF VIOLATION	Time period the violation occurred
TYPE OF ENFORCEMENT/ NEXT REQUIRED ACTION	Most recent enforcement action taken by the PWS and/or the IDNR in response to the violation; or next required action by the PWS
DATE OF ACTION	Date the most recent follow-up or enforcement action occurred

There were 59 TT violations from 46 Iowa PWS's in this reporting period, which includes the TT violations from the Surface Water Treatment Rule and Lead & Copper Program.

The Lead and Copper program requires remediation of the action level exceedances which may take several years to implement. Until the PWS has two acceptable sampling rounds after exceeding an action level, it is considered to be out of compliance. Those PWS's which had an unresolved action level exceedance in 1998 are listed in Table F (page 110): **Continuing Lead and Copper Action Level Exceedances (Pre-1998)**.

Report Legend for Table F

PWS NAME	Business name of the Public Water System
POP.	Population which could use the water, reported to IDNR by the PWS. For municipal systems, it is the most recent official census.
PWSID NUMBER	Public Water System Identification number, a unique and dedicated number permanently assigned to each PWS
COUNTY	County location of PWS
EXCEEDANCE: LEAD / COPPER	Contaminant which exceeded the action level
CURRENT CORROSION CONTROL & SAMPLING STATUS	Action: Next action required of the PWS for both corrosion control program and sample collection Due Date: Date when the action must be completed

In 1998, there were 136 pre-1998 continuing unresolved action level exceedances from 123 Iowa PWS's.

1998 Treatment Techniques M/R Violations Report

The **1998 Treatment Techniques Monitoring/Reporting Violations Report**, listed in Table G (page 116), specifies the PWS's who incurred monitoring/reporting violations in 1998. These violations were all for the Lead and Copper Rule.

Report Legend for Table G

PWS NAME	Business name of the Public Water System
PWSID NUMBER	Public Water System Identification number, a unique and dedicated number permanently assigned to each PWS
POP.	Population which could use the water, reported to IDNR by the PWS. For municipal systems, it is the most recent official census.
COUNTY	County location of PWS
MONITORING PERIOD	98ra or rt: June 1 - September 30, 1998 98Q1&2: January 1 - June 30, 1998 98Q3&4: July 1 - December 31, 1998
VIOLATION	Type of violation
TYPE OF ENFORCEMENT	Most recent enforcement action taken by the PWS or IDNR, or current status of the violation
DATE OF ACTION	Date of the most recent action

There were 17 TT monitoring/reporting violations from 16 Iowa PWS's in this reporting period.

TABLE B: 1998 MCL VIOLATIONS REPORT

PWS NAME	PWSID NUMBER	POP.	COUNTY	NAME OF CONTAMINANT	VIOL. NUMBER	DATE VIOL. CREATED	TYPE OF ENFORCEMENT	DATE OF ACTION
4 WAY TAP	IA3158740	27	DUBUQUE	Non-Acute Bacteria	98-1936	9/16/1998	AO w/o Penalty	9/28/1998
			DUBUQUE	Acute Bacteria	98-1952	9/21/1998	AO w/o Penalty	9/28/1998
AG PROCESSING INCORPORATED	IA9774002	75	WOODBURY	Non-Acute Bacteria	98-1023	6/1/1998	Compliance Achieved	12/21/1998
AINSWORTH WATER WORKS	IA9203007	506	WASHINGTON	Radium 226 & 228 Combined	98-1027	6/4/1998	NOV Issued	6/4/1998
ALCOA-CRISSEY HOUSE	IA8278801	32	SCOTT	Non-Acute Bacteria	98-1111	7/22/1998	Compliance Achieved	7/22/1998
ALGONA COUNTRY CLUB	IA5502832	47	KOSSUTH	Non-Acute Bacteria	98-1793	9/4/1998	NOV Issued	9/4/1998
			KOSSUTH	Non-Acute Bacteria	99-5	10/5/1998	NOV Issued	10/5/1998
			KOSSUTH	Non-Acute Bacteria	99-35	10/19/1998	NOV Issued	10/19/1998
AMERICAN LEGION	IA5285205	25	JOHNSON	Non-Acute Bacteria	99-259	11/23/1998	NOV Issued	11/23/1998
ANCHOR INN (GARBER)	IA2232776	35	CLAYTON	Nitrate	98-1764	12/22/1998	BCA Signed	12/22/1997
			CLAYTON	Non-Acute Bacteria	99-288	1/1/1999	BCA Signed	12/22/1997
			CLAYTON	Non-Acute Bacteria	99-286	1/1/1999	BCA Signed	12/22/1997
ANKENY, CITY OF	IA7709053	25000	POLK	Non-Acute Bacteria	98-720	4/7/1998	PN Received	5/21/1998
ANTIQUA ACRES	IA0709637	28	BLACK HAWK	Nitrate	98-572	2/1/1998	AO w/o Penalty	8/1/1997
			BLACK HAWK	Nitrate	98-316	2/1/1998	AO w/o Penalty	8/1/1997
			BLACK HAWK	Nitrate	98-693	4/1/1998	AO w/o Penalty	8/1/1997
			BLACK HAWK	Nitrate	98-910	5/1/1998	AO w/o Penalty	8/1/1997
			BLACK HAWK	Nitrate	98-951	6/1/1998	AO w/ Penalty	8/1/1997
			BLACK HAWK	Nitrate	98-1450	8/1/1998	AO w/ Penalty	8/1/1997
			BLACK HAWK	Nitrate	98-1563	9/1/1998	AO w/ Penalty	8/1/1997
			BLACK HAWK	Nitrate	98-1960	10/1/1998	AO w/ Penalty	8/1/1997
BLACK HAWK	Nitrate	99-31	11/1/1998	AO w/ Penalty	8/1/1997			

TABLE B: 1998 MCL VIOLATIONS REPORT

PWS NAME	PWSID NUMBER	POP.	COUNTY	NAME OF CONTAMINANT	VIOL. NUMBER	DATE VIOL. CREATED	TYPE OF ENFORCEMENT	DATE OF ACTION
ANTIQUE ACRES	IA0709637	28	BLACK HAWK	Nitrate	99-247	12/1/1998	AO w/ Penalty	8/1/1997
	IA709637		BLACK HAWK	Nitrate	99-357	1/1/1999	AO w/ Penalty	8/1/1997
ARTHUR MUNICIPAL WATER SUPPLY	IA4703068	272	IDA	Nitrate	98-1016	8/1/1998	BCA Signed	8/1/1997
			IDA	Nitrate	98-1117	8/1/1998	BCA Signed	8/1/1997
			IDA	Nitrate	98-1463	8/1/1998	BCA Signed	8/1/1997
			IDA	Nitrate	98-1762	9/1/1998	BCA Signed	8/1/1997
			IDA	Nitrate	98-1957	10/1/1998	BCA Signed	8/1/1997
			IDA	Nitrate	99-256	10/23/1998	BCA Signed	8/1/1997
			IDA	Nitrate	99-34	11/1/1998	BCA Signed	8/1/1997
			IDA	Nitrate	99-373	12/24/1998	BCA Signed	8/1/1997
AVOCA WATER WORKS	IA7803080	1497	POTTAWATTAMIE	Non-Acute Bacteria	98-1038	6/11/1998	Compliance Achieved	12/8/1998
BACKBONE STATE PARK - CABINS	IA2821903	40	DELAWARE	Non-Acute Bacteria	99-289	12/14/1998	PN Received	12/29/1998
BALLTOWN SHERRILL CATHOLIC SCH	IA3183592	26	DUBUQUE	Non-Acute Bacteria	98-906	4/20/1998	Compliance Achieved	3/15/1999
			DUBUQUE	Non-Acute Bacteria	98-1948	9/21/1998	Compliance Achieved	3/15/1999
			DUBUQUE	Acute Bacteria	98-1963	9/28/1998	Compliance Achieved	3/15/1999
BEAVER HILLS COUNTRY CLUB	IA0709886	107	BLACK HAWK	Non-Acute Bacteria	99-115	11/3/1998	Compliance Achieved	2/25/1999
BELMOND WATER SUPPLY	IA9905003	2500	WRIGHT	Non-Acute Bacteria	99-361	12/21/1998	NOV Issued	12/21/1998
BEN HAVEN MOBILE HOME PARK	IA1074601	100	BUCHANAN	Non-Acute Bacteria	98-311	1/12/1998	Compliance Achieved	8/5/1998
			BUCHANAN	Non-Acute Bacteria	98-553	2/10/1998	Compliance Achieved	8/5/1998
BLAIRS FERRY MANOR	IA5784316	75	LINN	Non-Acute Bacteria	98-1473	7/27/1998	NOV Issued	7/27/1998
			LINN	Non-Acute Bacteria	99-395	1/22/1999	PN Received	2/18/1999
BOXHOLM WATER SUPPLY	IA0825036	214	BOONE	Acute Bacteria	98-1754	8/24/1998	Compliance Achieved	2/22/1999

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PWS NAME	PWSID NUMBER	POP.	COUNTY	NAME OF CONTAMINANT	VIOL. NUMBER	DATE VIOL. CREATED	TYPE OF ENFORCEMENT	DATE OF ACTION
BOXHOLM WATER SUPPLY	IA0825036	214	BOONE	Non-Acute Bacteria	99-263	11/30/1998	Compliance Achieved	2/22/1999
BRADDYVILLE WATER WORKS	IA7324038	219	PAGE	Acute Bacteria	98-1749	8/24/1998	Compliance Achieved	4/7/1999
			PAGE	Non-Acute Bacteria	98-1965	9/28/1998	Compliance Achieved	4/7/1999
BROGAN'S PUB & GRUB	IA5765201	60	LINN	Acute Bacteria	98-1477	7/27/1998	NOV Issued	7/27/1998
BROOKLYN 80	IA7909707	320	POWESHIEK	Non-Acute Bacteria	98-640	3/2/1998	Compliance Achieved	7/22/1998
BROWN BOTTLE RESTAURANT	IA0709201	225	BLACK HAWK	Nitrate	98-1491	7/30/1998	BCA Signed	10/6/1998
			BLACK HAWK	Nitrate	98-1788	9/2/1998	BCA Signed	10/6/1998
			BLACK HAWK	Nitrate	99-1	10/1/1998	BCA Signed	10/6/1998
			BLACK HAWK	Nitrate	99-97	10/6/1998	BCA Signed	10/6/1998
BRUSHY CREEK RECREATION	IA9400971	27	WEBSTER	Non-Acute Bacteria	99-33	10/16/1998	NOV Issued	10/16/1998
BUFFALO BILL ESTATES, INC. MHP	IA2300601	80	CLINTON	Non-Acute Bacteria	98-1019	5/29/1998	Compliance Achieved	11/9/1998
CAMP CONESTOGA NO3	IA8264447	128	SCOTT	Non-Acute Bacteria	98-1945	9/21/1998	Compliance Achieved	2/17/1999
CAMP COURAGEOUS OF IOWA	IA5343408	100	JONES	Nitrate	98-1153	7/17/1998	Compliance Achieved	1/4/1999
CARGILL, INC. (EDDYVILLE)	IA6222101	600	MAHASKA	Nitrate	98-1035	6/11/1998	PN Received	6/19/1998
CASEYS GENERAL STORE	IA5221201	706	JOHNSON	Non-Acute Bacteria	98-750	4/10/1998	BCA Signed	5/4/1998
			JOHNSON	Non-Acute Bacteria	98-1001	5/18/1998	BCA Signed	5/4/1998
CEDAR FALLS MOBILE HOME VILLAGE	IA0709600	440	BLACK HAWK	Non-Acute Bacteria	99-265	11/30/1998	NOV Issued	11/30/1998
CHEROKEE RWS CHEROKEE SUBSYS	IA1811001	2095	CHEROKEE	Non-Acute Bacteria	98-1942	9/18/1998	Compliance Achieved	3/15/1999
CHESTNUT RIDGE	IA5784312	50	LINN	Non-Acute Bacteria	98-1447	7/17/1998	Compliance Achieved	7/17/1998
COAL VALLEY WATER DISTRICT	IA0819303	100	BOONE	Non-Acute Bacteria	98-1476	7/27/1998	Compliance Achieved	1/11/1999
CORALVILLE LAKE MANOR	IA5200825	170	JOHNSON	Non-Acute Bacteria	98-511	2/2/1998	Compliance Achieved	7/30/1998
			JOHNSON	Non-Acute Bacteria	99-276	12/8/1998	PN Received	12/21/1998

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PWS NAME	PWSID NUMBER	POP.	COUNTY	NAME OF CONTAMINANT	VIOL. NUMBER	DATE VIOL. CREATED	TYPE OF ENFORCEMENT	DATE OF ACTION
CORALVILLE LAKE-WEST OVERLOOK	IA5225411	1263	JOHNSON	Non-Acute Bacteria	98-1122	6/29/1998	PN Received	7/10/1998
			JOHNSON	Non-Acute Bacteria	99-37	10/19/1998	NOV Issued	10/19/1998
COUNTRY HEIGHTS	IA7073301	91	MUSCATINE	Non-Acute Bacteria	99-260	11/23/1998	PN Received	12/17/1998
			MUSCATINE	Non-Acute Bacteria	99-376	12/28/1998	NOV Issued	12/28/1998
COUNTRY TERRACE MOBILE HOME COURT	IA0800601	160	STORY	Acute Bacteria	99-257	11/23/1998	AO w/ Penalty	2/5/1999
			STORY	Acute Bacteria	99-354	12/19/1998	AO w/ Penalty	2/5/1999
CRESTWOOD ACRES	IA5784314	142	LINN	Non-Acute Bacteria	99-16	10/9/1998	PN Received	10/30/1998
CUMMING WATER TREATMENT PLANT	IA9123047	132	WARREN	Non-Acute Bacteria	98-1109	6/16/1998	Compliance Achieved	1/14/1999
			WARREN	Non-Acute Bacteria	98-1744	7/16/1998	Compliance Achieved	1/14/1999
D & S LAND COMPANY	IA1750761	36	CERRO GORDO	Acute Bacteria	98-715	3/30/1998	Compliance Achieved	8/5/1998
			CERRO GORDO	Non-Acute Bacteria	98-904	4/18/1998	Compliance Achieved	8/5/1998
DAKOTA MHP	IA5200618	172	JOHNSON	Acute Bacteria	99-19	10/9/1998	Compliance Achieved	3/17/1999
			JOHNSON	Non-Acute Bacteria	98-2272	10/17/1998	Compliance Achieved	3/17/1999
DOERFER ENGINEERING COMPANY	IA0709205	80	BLACK HAWK	Nitrate	99-88	10/28/1998	BCA Signed	1/29/1999
			BLACK HAWK	Nitrate	99-287	12/14/1998	BCA Signed	1/29/1999
DOT-3 (I-29 RA 027W ONAWA)	IA6739710	205	MONONA	Acute Bacteria	98-1149	7/17/1998	Compliance Achieved	5/4/1999
			MONONA	Non-Acute Bacteria	98-1748	8/24/1998	Compliance Achieved	5/4/1999
			MONONA	Non-Acute Bacteria	99-27	10/13/1998	Compliance Achieved	5/4/1999
DYERSVILLE GOLF AND COUNTRY CLUB	IA3130883	82	DUBUQUE	Nitrate	98-1469	7/22/1998	AO w/ Penalty	11/19/1998
			DUBUQUE	Nitrate	98-1508	8/6/1998	AO w/ Penalty	11/19/1998
EARLVILLE MUNI WATER SUPPLY	IA2825099	822	DELAWARE	Nitrate	98-1483	7/27/1998	BCA Signed	12/18/1998
			DELAWARE	Nitrate	98-1495	8/3/1998	BCA Signed	12/18/1998

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PWS NAME	PWSID NUMBER	POP.	COUNTY	NAME OF CONTAMINANT	VIOL. NUMBER	DATE VIOL. CREATED	TYPE OF ENFORCEMENT	DATE OF ACTION
EARLVILLE MUNI WATER SUPPLY	IA2825099	822	DELAWARE	Nitrate	99-110	11/2/1998	BCA Signed	12/18/1998
			DELAWARE	Nitrate	99-375	12/28/1998	BCA Signed	12/18/1998
EASTERN IA PORK MANUFACTURING INC	IA2825101	80	DELAWARE	Nitrate	98-580	2/19/1998	Compliance Achieved	2/2/1999
			DELAWARE	Nitrate	98-754	4/13/1998	Compliance Achieved	2/2/1999
			DELAWARE	Nitrate	98-755	4/13/1998	Compliance Achieved	2/2/1999
			DELAWARE	Nitrate	98-930	6/14/1998	Compliance Achieved	2/2/1999
			DELAWARE	Nitrate	98-1036	7/14/1998	Compliance Achieved	2/2/1999
			DELAWARE	Nitrate	98-1133	8/14/1998	Compliance Achieved	2/2/1999
			DELAWARE	Nitrate	98-1507	9/14/1998	Compliance Achieved	2/2/1999
ELLIOTT WATER SUPPLY	IA6915015	399	MONTGOMERY	Non-Acute Bacteria	99-124	11/6/1998	NOV Issued	11/6/1998
EVERLY WATER SUPPLY	IA2115029	706	CLAY	Nitrate	98-308	1/7/1998	BCA Signed	1/23/1998
			CLAY	Nitrate	98-516	3/23/1998	BCA Signed	1/23/1998
			CLAY	Nitrate	98-650	4/23/1998	BCA Signed	1/23/1998
			CLAY	Nitrate	98-743	5/23/1998	BCA Signed	1/23/1998
			CLAY	Nitrate	98-1464	8/23/1998	BCA Signed	1/23/1998
			CLAY	Nitrate	98-1506	9/23/1998	BCA Signed	1/23/1998
			CLAY	Nitrate	99-15	11/1/1998	BCA Signed	1/23/1998
			CLAY	Nitrate	99-275	1/23/1999	BCA Signed	1/23/1998
FARMINGTON WATER SUPPLY	IA8930038	655	VAN BUREN	Nitrate	98-565	2/12/1998	AO w/o Penalty	5/11/1998
			VAN BUREN	Nitrate	98-566	2/12/1998	AO w/o Penalty	5/11/1998
			VAN BUREN	Nitrate	98-644	3/4/1998	AO w/o Penalty	5/11/1998
			VAN BUREN	Nitrate	98-738	4/9/1998	AO w/o Penalty	5/11/1998

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PWS NAME	PWSID NUMBER	POP.	COUNTY	NAME OF CONTAMINANT	VIOL. NUMBER	DATE VIOL. CREATED	TYPE OF ENFORCEMENT	DATE OF ACTION
FARMINGTON WATER SUPPLY	IA8930038	655	VAN BUREN	Nitrate	98-933	5/5/1998	AO w/o Penalty	5/11/1998
			VAN BUREN	Nitrate	98-1025	6/4/1998	AO w/o Penalty	5/11/1998
			VAN BUREN	Nitrate	98-1147	7/16/1998	AO w/o Penalty	5/11/1998
			VAN BUREN	Nitrate	98-1514	8/6/1998	AO w/o Penalty	5/11/1998
			VAN BUREN	Nitrate	98-1954	9/22/1998	AO w/o Penalty	5/11/1998
			VAN BUREN	Nitrate	99-51	10/21/1998	AO w/o Penalty	5/11/1998
			VAN BUREN	Nitrate	99-253	11/18/1998	AO w/o Penalty	5/11/1998
			VAN BUREN	Nitrate	99-291	12/16/1998	AO w/o Penalty	5/11/1998
FARMLAND INDUSTRIES/EAGLE GROVE	IA9926101	40	WRIGHT	Non-Acute Bacteria	98-1101	6/15/1998	AO w/o Penalty	7/27/1998
			WRIGHT	Non-Acute Bacteria	98-1451	7/15/1998	AO w/o Penalty	7/27/1998
FERRY LANDING	IA5868946	27	MUSCATINE	Acute Bacteria	98-1640	8/21/1998	Compliance Achieved	9/14/1998
FOREST RIDGE - CENTER	IA3290601	60	EMMET	Acute Bacteria	98-1752	8/24/1998	Compliance Achieved	2/10/1999
FOUNTAIN SPRINGS-DELAWARE CONSERVATION	IA2839907	25	DELAWARE	Acute Bacteria	98-1099	6/15/1998	Compliance Achieved	6/26/1998
FREDDIES	IA1694203	27	CEDAR	Non-Acute Bacteria	98-1024	6/1/1998	NOV Issued	6/1/1998
FRIENDLY FAIRWAYS	IA4283810	28	HARDIN	Non-Acute Bacteria	98-1757	8/24/1998	NOV Issued	8/24/1998
FT MADISON MUNI WATER WORKS	IA5625062	11618	LEE	Acute Bacteria	98-1485	7/28/1998	Compliance Achieved	3/4/1999
			LEE	Non-Acute Bacteria	98-1515	8/7/1998	Compliance Achieved	3/4/1999
FUNCREST	IA5225203	25	JOHNSON	Non-Acute Bacteria	98-1566	8/17/1998	Compliance Achieved	10/2/1998
G S MARINA	IA5225201	79	JOHNSON	Non-Acute Bacteria	98-1033	5/22/1998	Compliance Achieved	11/24/1998
GEORGE WATER SUPPLY	IA6028081	1066	LYON	Nitrate	98-1780	8/31/1998	BCA Signed	3/6/1996
GLOECKNERS SUBDIVISION	IA3128387	44	DUBUQUE	Non-Acute Bacteria	99-98	10/30/1998	Compliance Achieved	4/20/1999
GORDER'S SERVICE AND CAFE	IA3509753	41	FRANKLIN	Acute Bacteria	98-914	4/28/1998	Compliance Achieved	12/18/1998

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PWS NAME	PWSID NUMBER	POP.	COUNTY	NAME OF CONTAMINANT	VIOL. NUMBER	DATE VIOL. CREATED	TYPE OF ENFORCEMENT	DATE OF ACTION
GORDER'S SERVICE AND CAFE	IA3509753	41	FRANKLIN	Non-Acute Bacteria	98-1105	6/15/1998	Compliance Achieved	12/18/1998
GRANDMA'S SNACK SHOP	IA1211821	46	BUTLER	Acute Bacteria	98-1146	7/14/1998	PN Received	7/30/1998
GRANDVIEW COUNTRY CAFE	IA5842721	210	LOUISA	Acute Bacteria	98-1638	8/20/1998	Compliance Achieved	1/11/1999
GRISWOLD WATER SUPPLY	IA1528010	1049	CASS	Nitrate	98-761	4/14/1998	Compliance Achieved	10/6/1998
HANK'S TAVERN	IA2268768	32	CLAYTON	Acute Bacteria	98-1120	6/29/1998	Compliance Achieved	2/2/1999
			CLAYTON	Non-Acute Bacteria	98-1484	7/22/1998	Compliance Achieved	2/2/1999
HARPER WATER SUPPLY	IA5428031	147	KEOKUK	Non-Acute Bacteria	98-1500	8/3/1998	Compliance Achieved	2/9/1999
HART RIDGE GOLF COURSE	IA2839203	167	DELAWARE	Nitrate	98-1020	6/1/1998	BCA Signed	6/3/1998
			DELAWARE	Nitrate	98-1787	9/3/1998	BCA Signed	6/3/1998
			DELAWARE	Nitrate	99-108	10/30/1998	BCA Signed	6/3/1998
HENDERSON WATER DEPARTMENT	IA6529043	206	MILLS	Acute Bacteria	98-1113	6/18/1998	Compliance Achieved	3/9/1999
			MILLS	Acute Bacteria	98-1460	7/21/1998	Compliance Achieved	3/9/1999
HICKORY HILLS SUBDIVISION #2	IA8215303	376	SCOTT	Non-Acute Bacteria	99-4	10/5/1998	Compliance Achieved	3/14/1999
HIDDEN ACRES CHRISTIAN CENTER	IA9425401	1409	WEBSTER	Non-Acute Bacteria	99-128	11/9/1998	NOV Issued	11/9/1998
HIDDEN VALLEY MOBILE HOME COURT	IA9200600	46	WASHINGTON	Non-Acute Bacteria	98-753	4/7/1998	Compliance Achieved	11/1/1998
			WASHINGTON	Acute Bacteria	98-1030	6/8/1998	Compliance Achieved	11/1/1998
HILLS SCHOOL-IC COMM SCHOOLS	IA5221519	285	JOHNSON	Non-Acute Bacteria	99-255	11/20/1998	NOV Issued	11/20/1998
			JOHNSON	Non-Acute Bacteria	99-283	12/10/1998	NOV Issued	12/10/1998
HOLLAND WATER SUPPLY	IA3839052	120	GRUNDY	Acute Bacteria	98-1747	8/24/1998	Compliance Achieved	2/9/1999
HONEY CREEK CAMPGROUNDS	IA7822443	51	POTTAWATTAMIE	Acute Bacteria	98-1480	7/27/1998	Compliance Achieved	2/15/1999
HORNICK WATER SUPPLY	IA9738057	222	WOODBURY	Non-Acute Bacteria	98-1745	7/13/1998	Compliance Achieved	2/8/1999
			WOODBURY	Acute Bacteria	98-1144	7/13/1998	Compliance Achieved	2/8/1999

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PWS NAME	PWSID NUMBER	POP.	COUNTY	NAME OF CONTAMINANT	VIOL. NUMBER	DATE VIOL. CREATED	TYPE OF ENFORCEMENT	DATE OF ACTION
HORNICK WATER SUPPLY	IA9738057	222	WOODBURY	Non-Acute Bacteria	98-1520	8/10/1998	Compliance Achieved	2/8/1999
HOWARD RESIDENTIAL CARE FACILITY	IA4500901	73	HOWARD	Nitrate	98-1486	7/28/1998	Compliance Achieved	2/2/1999
IMMANUEL LUTHERAN CHURCH	IA4884810	25	IOWA	Non-Acute Bacteria	99-94	10/29/1998	AO w/o Penalty	3/9/1999
			IOWA	Non-Acute Bacteria	99-135	11/12/1998	AO w/o Penalty	3/9/1999
INDEPENDENCE MOBILE HOME PARK	IA1000600	60	BUCHANAN	Acute Bacteria	99-134	11/12/1998	NOV Issued	11/12/1998
IOWA CO PK-IOWA CONSERVATION	IA4840959	52	IOWA	Non-Acute Bacteria	98-1124	6/29/1998	AO w/o Penalty	2/2/1999
			IOWA	Non-Acute Bacteria	98-1751	8/14/1998	AO w/o Penalty	2/2/1999
IZAAK WALTON LEAGUE-IOWA CITY	IA5225803	34	JOHNSON	Non-Acute Bacteria	99-111	11/2/1998	NOV Issued	11/2/1998
JERICO JO'S	IA1951201	28	CHICKASAW	Acute Bacteria	98-1003	5/18/1998	Compliance Achieved	2/8/1999
			CHICKASAW	Non-Acute Bacteria	98-1097	6/13/1998	Compliance Achieved	2/8/1999
JEWEL'S FOOD & SPIRITS	IA5786890	29	LINN	Nitrate	98-1039	6/12/1998	Compliance Achieved	1/21/1999
			LINN	Acute Bacteria	98-1100	6/15/1998	Compliance Achieved	1/21/1999
			LINN	Non-Acute Bacteria	98-1448	7/17/1998	Compliance Achieved	1/21/1999
			LINN	Non-Acute Bacteria	98-1452	7/20/1998	Compliance Achieved	7/20/1998
			LINN	Nitrate	98-1482	7/27/1998	Compliance Achieved	1/21/1999
			LINN	Acute Bacteria	98-1481	7/27/1998	Compliance Achieved	1/21/1999
			LINN	Non-Acute Bacteria	98-1569	8/18/1998	Compliance Achieved	1/21/1999
			LINN	Nitrate	98-1937	9/17/1998	Compliance Achieved	1/21/1999
			LINN	Non-Acute Bacteria	98-1943	9/18/1998	Compliance Achieved	1/21/1999
			LINN	Acute Bacteria	98-1961	9/28/1998	Compliance Achieved	1/21/1999
			LINN	Nitrate	99-56	10/22/1998	Compliance Achieved	1/21/1999
JEWELL SKATE COUNTRY	IA9630204	104	WINNESHIEK	Non-Acute Bacteria	99-293	12/17/1998	NOV Issued	12/17/1998

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PWS NAME	PWSID NUMBER	POP.	COUNTY	NAME OF CONTAMINANT	VIOL. NUMBER	DATE VIOL. CREATED	TYPE OF ENFORCEMENT	DATE OF ACTION
JIM ARENSON CHEVROLET	IA5718201	75	LINN	Non-Acute Bacteria	98-1763	8/26/1998	BCA Signed	11/2/1998
			LINN	Non-Acute Bacteria	98-1941	9/18/1998	BCA Signed	11/2/1998
			LINN	Non-Acute Bacteria	99-107	10/30/1998	BCA Signed	11/2/1998
JOHN DEERE CO SUPERVISOR CLUB	IA0790104	103	BLACK HAWK	Non-Acute Bacteria	98-1976	9/30/1998	AO w/o Penalty	1/4/1999
			BLACK HAWK	Non-Acute Bacteria	99-90	10/26/1998	AO w/o Penalty	1/4/1999
			BLACK HAWK	Non-Acute Bacteria	99-258	11/25/1998	AO w/o Penalty	1/4/1999
			BLACK HAWK	Non-Acute Bacteria	99-270	12/3/1998	AO w/o Penalty	1/4/1999
			BLACK HAWK	Non-Acute Bacteria	99-292	12/17/1998	AO w/o Penalty	1/4/1999
KESSLER'S HOMEOWNERS ASSN.	IA5200802	63	JOHNSON	Non-Acute Bacteria	98-1015	5/27/1998	Compliance Achieved	11/14/1998
KIMS KAFE	IA0922201	82	BREMER	Acute Bacteria	98-1127	6/30/1998	Compliance Achieved	12/8/1998
			BREMER	Non-Acute Bacteria	98-1492	7/31/1998	Compliance Achieved	12/8/1998
KINDERFARM PRESCHOOL	IA5225572	45	JOHNSON	Non-Acute Bacteria	98-921	5/4/1998	Compliance Achieved	11/6/1998
			JOHNSON	Non-Acute Bacteria	99-136	11/12/1998	NOV Issued	11/12/1998
KLEMME RECREATION CLUB	IA4155201	50	HANCOCK	Non-Acute Bacteria	98-1458	7/21/1998	Compliance Achieved	4/6/1999
			HANCOCK	Non-Acute Bacteria	98-1777	8/31/1998	Compliance Achieved	4/6/1999
KOUNTRY SCHOOL	IA0375301	76	CLAYTON	Nitrate	98-571	1/28/1998	Compliance Achieved	6/25/1998
KRAUS'S SERENE WOODED ACRES	IA4848601	51	IOWA	Acute Bacteria	98-1143	7/13/1998	Compliance Achieved	2/2/1999
			IOWA	Non-Acute Bacteria	98-1445	7/17/1998	Compliance Achieved	7/21/1998
			IOWA	Non-Acute Bacteria	98-1531	8/12/1998	Compliance Achieved	2/2/1999
LAKE MACBRIDE STATE PARK-BEACH	IA5282944	60	JOHNSON	Acute Bacteria	98-1958	9/25/1998	PN Received	9/30/1998
			JOHNSON	Non-Acute Bacteria	98-2273	10/17/1998	NOV Issued	10/19/1998
LAKEVIEW GOLF COURSE, INC.	IA3300769	41	FAYETTE	Nitrate	98-1000	5/18/1998	Compliance Achieved	5/18/1998

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PWS NAME	PWSID NUMBER	POP.	COUNTY	NAME OF CONTAMINANT	VIOL. NUMBER	DATE VIOL. CREATED	TYPE OF ENFORCEMENT	DATE OF ACTION
LANSING VALLEY MOBILE HOME PK	IA0300600	46	ALLAMAKEE	Non-Acute Bacteria	98-1519	8/10/1998	Compliance Achieved	2/22/1999
			ALLAMAKEE	Non-Acute Bacteria	98-1794	9/8/1998	Compliance Achieved	2/22/1999
LEWIS WATER SUPPLY	IA1535078	433	CASS	Nitrate	98-1939	9/17/1998	Compliance Achieved	4/13/1999
LINK'S	IA2307201	25	CLINTON	Nitrate	99-30	10/16/1998	PN Received	11/13/1998
LISBON WATER SUPPLY	IA5748086	1650	LINN	Nitrate	98-639	3/2/1998	Compliance Achieved	9/28/1998
LJ SALOON	IA4569201	50	HOWARD	Non-Acute Bacteria	98-1940	9/18/1998	Compliance Achieved	2/16/1999
			HOWARD	Non-Acute Bacteria	98-1967	9/28/1998	Compliance Achieved	2/16/1999
LONG BRANCH MAINTENANCE CORP.	IA3900300	350	GUTHRIE	Fluoride	98-927	5/4/1998	NOV Issued	5/4/1998
			GUTHRIE	Fluoride	99-281	6/11/1998	PN Received	6/11/1998
			GUTHRIE	Fluoride	99-282	11/30/1998	PN Received	11/30/1998
LONG GROVE MUNI WATER SUPPLY	IA8251096	605	SCOTT	Non-Acute Bacteria	98-1785	8/31/1998	Compliance Achieved	2/4/1999
LYNCH LIVESTOCK	IA4515202	27	HOWARD	Non-Acute Bacteria	98-1765	8/27/1998	AO w/o Penalty	12/3/1998
			HOWARD	Acute Bacteria	98-1783	8/31/1998	AO w/o Penalty	12/3/1998
			HOWARD	Acute Bacteria	99-267	11/30/1998	AO w/o Penalty	12/3/1998
MACEDONIA WATER SUPPLY	IA7841014	262	POTTAWATTAMIE	Non-Acute Bacteria	98-907	4/20/1998	AO w/o Penalty	1/4/1999
			POTTAWATTAMIE	Non-Acute Bacteria	98-1011	5/26/1998	AO w/o Penalty	1/4/1999
			POTTAWATTAMIE	Non-Acute Bacteria	98-1946	9/21/1998	AO w/o Penalty	1/4/1999
			POTTAWATTAMIE	Non-Acute Bacteria	99-18	10/9/1998	AO w/o Penalty	1/4/1999
			POTTAWATTAMIE	Non-Acute Bacteria	99-133	11/10/1998	PN Received	12/3/1998
			POTTAWATTAMIE	Non-Acute Bacteria	99-296	12/18/1998	PN Received	1/28/1999
MAGGIE'S DINER	IA2258201	41	CLAYTON	Acute Bacteria	98-1784	8/31/1998	Compliance Achieved	4/19/1999
MALONE CREEK ESTATES, INC.	IA1000902	30	BUCHANAN	Acute Bacteria	98-1523	8/5/1998	Compliance Achieved	9/16/1998

TABLE B: 1998 MCL VIOLATIONS REPORT

PWS NAME	PWSID NUMBER	POP.	COUNTY	NAME OF CONTAMINANT	VIOL. NUMBER	DATE VIOL. CREATED	TYPE OF ENFORCEMENT	DATE OF ACTION
MAPLE LANE RV CAMPSITE	IA5815801	27	LOUISA	Non-Acute Bacteria	98-1102	6/15/1998	Compliance Achieved	4/12/1999
MAPLETON MUNICIPAL WATER PLANT	IA6727028	1294	MONONA	Non-Acute Bacteria	98-310	1/12/1998	Compliance Achieved	7/14/1998
			MONONA	Nitrate	98-1010	5/25/1998	Compliance Achieved	11/10/1998
MARTENSDALE WATER SUPPLY	IA9147047	491	WARREN	Acute Bacteria	98-1013	5/26/1998	Compliance Achieved	11/24/1998
MEDIAPOLIS WATER SUPPLY	IA2948062	1637	DES MOINES	Non-Acute Bacteria	99-60	10/26/1998	AO w/o Penalty	12/29/1998
			DES MOINES	Acute Bacteria	99-129	11/9/1998	AO w/o Penalty	12/29/1998
MESERVEY WATER SUPPLY	IA1754073	292	CERRO GORDO	Acute Bacteria	99-360	12/21/1998	PN Received	1/7/1999
			CERRO GORDO	Non-Acute Bacteria	99-610	1/22/1999	NOV Issued	1/22/1999
MILES WATER DEPARTMENT	IA4953078	409	JACKSON	Non-Acute Bacteria	99-126	11/9/1998	AO w/o Penalty	1/4/1999
MINNEISKA # 1 NORTH	IA0330631	25	ALLAMAKEE	Acute Bacteria	98-1944	9/21/1998	PN Received	9/30/1998
			ALLAMAKEE	Non-Acute Bacteria	98-2269	10/17/1998	NOV Issued	10/17/1998
MONTI-VIEW MOBILE HOME PARK	IA5300688	75	JONES	Non-Acute Bacteria	99-17	10/9/1998	NOV Issued	10/9/1998
MOOREHEAD PARK #2	IA4728959	25	IDA	Acute Bacteria	99-3	10/2/1998	NOV Issued	10/2/1998
			IDA	Non-Acute Bacteria	98-2271	10/17/1998	NOV Issued	10/17/1998
			IDA	Non-Acute Bacteria	99-246	11/16/1998	PN Received	11/20/1998
MORGAN CREEK PARK	IA5715973	30	LINN	Non-Acute Bacteria	99-20	10/12/1998	PN Received	10/29/1998
MOUNT AYR WATER TREATMENT PLANT	IA8055014	1796	RINGGOLD	Total Trihalomethanes	98-302	1/2/1998	NOV Issued	1/2/1998
MOVILLE WATER SUPPLY	IA9753022	1306	WOODBURY	Non-Acute Bacteria	98-751	4/13/1998	Compliance Achieved	11/3/1998
MUSCATINE MUNI GOLF COURSE	IA7048837	260	MUSCATINE	Non-Acute Bacteria	98-1753	8/24/1998	Compliance Achieved	4/6/1999
NEOWA FS, INC.	IA1031201	41	BUCHANAN	Nitrate	99-379	12/16/1998	BCA Signed	1/27/1999
NEW HORIZON RESIDENTIAL	IA1600901	55	CEDAR	Non-Acute Bacteria	98-1125	6/29/1998	Compliance Achieved	6/29/1998
			CEDAR	Non-Acute Bacteria	98-1454	7/20/1998	Compliance Achieved	3/29/1999

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PWS NAME	PWSID NUMBER	POP.	COUNTY	NAME OF CONTAMINANT	VIOL. NUMBER	DATE VIOL. CREATED	TYPE OF ENFORCEMENT	DATE OF ACTION
NEW HORIZON RESIDENTIAL	IA1600901	55	CEDAR	Non-Acute Bacteria	98-1795	9/8/1998	Compliance Achieved	3/29/1999
			CEDAR	Non-Acute Bacteria	98-1966	9/28/1998	Compliance Achieved	3/29/1999
NEWBURG SERVICE ASSOCIATION	IA5057048	114	POWESHIEK	Acute Bacteria	98-1796	9/8/1998	PN Received	9/18/1998
NISHNA VALLEY RECREATION CLUB	IA1528809	43	CASS	Non-Acute Bacteria	98-1145	7/13/1998	Compliance Achieved	2/15/1999
NOB HILL SUPPER CLUB	IA9630780	65	WINNESHIEK	Nitrate	99-14	10/9/1998	NOV Issued	10/9/1998
NORTHWOOD WATERWORKS	IA9855077	1940	WORTH	Acute Bacteria	98-1471	7/24/1998	Compliance Achieved	2/16/1999
			WORTH	Non-Acute Bacteria	98-1746	8/22/1998	Compliance Achieved	2/16/1999
NORWAY CITY WATER SUPPLY	IA0656081	583	BENTON	Radium 226 & 228 Combined	98-634	2/26/1998	NOV Issued	2/26/1998
OAKWOOD PARK WATER ASSOCIATION	IA1700352	25	CERRO GORDO	Arsenic	98-547	2/9/1998	PN Received	3/25/1998
			CERRO GORDO	Non-Acute Bacteria	98-1564	8/17/1998	NOV Issued	8/17/1998
			CERRO GORDO	Arsenic	98-1755	8/24/1998	NOV Issued	8/24/1998
			CERRO GORDO	Arsenic	99-687	1/29/1999	PN Received	2/4/1999
OBIES WEST	IA4938205	64	JACKSON	Acute Bacteria	98-1148	7/17/1998	AO w/o Penalty	7/27/1998
OELWEIN CITY PARK	IA3353492	102	FAYETTE	Non-Acute Bacteria	98-1107	6/15/1998	NOV Issued	6/15/1998
OGDEN MUNICIPAL UTILITIES	IA0858090	1909	BOONE	Acute Bacteria	98-1123	6/29/1998	Compliance Achieved	1/19/1999
OKOBOJI VU GOLF	IA3070868	127	DICKINSON	Non-Acute Bacteria	98-1734	8/3/1998	Compliance Achieved	5/3/1999
			DICKINSON	Non-Acute Bacteria	98-1504	8/3/1998	Compliance Achieved	5/3/1999
OLDTIMERS # 3 SOUTH	IA0330632	25	ALLAMAKEE	Non-Acute Bacteria	98-935	5/7/1998	NOV Issued	5/7/1998
OPEN BIBLE CONFERENCE GROUND	IA1785421	100	CERRO GORDO	Non-Acute Bacteria	98-1459	7/21/1998	Compliance Achieved	1/8/1999
			CERRO GORDO	Acute Bacteria	98-1522	8/10/1998	Compliance Achieved	1/8/1999
ORCHARD WATER WORKS	IA6668001	93	MITCHELL	Non-Acute Bacteria	99-612	1/22/1999	NOV Issued	1/22/1999
OTTOSEN WATER SUPPLY	IA4652011	72	HUMBOLDT	Non-Acute Bacteria	98-1931	9/14/1998	Compliance Achieved	3/22/1999

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PWS NAME	PWSID NUMBER	POP.	COUNTY	NAME OF CONTAMINANT	VIOL. NUMBER	DATE VIOL. CREATED	TYPE OF ENFORCEMENT	DATE OF ACTION
OXBOW PARK	IA4622401	100	HUMBOLDT	Acute Bacteria	98-500	1/30/1998	Compliance Achieved	10/5/1998
			HUMBOLDT	Non-Acute Bacteria	98-926	5/4/1998	Compliance Achieved	10/5/1998
P.M. PARK TRUSTEES-EAST	IA1716422	25	CERRO GORDO	Non-Acute Bacteria	99-91	10/28/1998	NOV Issued	10/28/1998
PALO COMMUNITY CENTER	IA5765001	38	LINN	Nitrate	98-1018	4/2/1998	BCA Signed	4/2/1998
			LINN	Nitrate	98-932	4/2/1998	BCA Signed	4/2/1998
			LINN	Nitrate	98-1494	4/2/1998	BCA Signed	4/2/1998
			LINN	Nitrate	99-82	10/27/1998	BCA Signed	4/2/1998
			LINN	Nitrate	99-269	12/3/1998	BCA Signed	4/2/1998
PALO MINIMART	IA5765203	25	LINN	Nitrate	98-319	1/21/1998	AO w/ Penalty	3/27/1998
			LINN	Nitrate	98-551	2/10/1998	AO w/ Penalty	3/27/1998
			LINN	Nitrate	98-704	3/26/1998	AO w/ Penalty	3/27/1998
			LINN	Nitrate	98-1017	3/27/1998	AO w/ Penalty	3/27/1998
			LINN	Nitrate	98-772	4/17/1998	AO w/ Penalty	3/27/1998
			LINN	Nitrate	98-1119	6/29/1998	AO w/ Penalty	3/27/1998
			LINN	Nitrate	98-1466	7/22/1998	AO w/ Penalty	3/27/1998
			LINN	Nitrate	98-1775	8/28/1998	AO w/ Penalty	3/27/1998
			LINN	Nitrate	98-1956	9/24/1998	AO w/ Penalty	3/27/1998
			LINN	Nitrate	99-81	10/27/1998	AO w/ Penalty	3/27/1998
			LINN	Nitrate	99-262	11/30/1998	AO w/ Penalty	3/27/1998
			LINN	Nitrate	99-366	12/23/1998	AO w/ Penalty	3/27/1998
PANORA WATER WORKS	IA3971026	1100	GUTHRIE	Nitrate	98-931	5/6/1998	Compliance Achieved	1/8/1999
			GUTHRIE	Nitrate	98-1037	7/11/1998	Compliance Achieved	1/8/1999

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PANORA WATER WORKS	IA3971026	1100	GUTHRIE	Nitrate	98-1140	8/11/1998	Compliance Achieved	1/8/1999
PARK HILLS UTILITY	IA6361301	70	MARION	Non-Acute Bacteria	98-718	4/6/1998	Compliance Achieved	12/21/1998
PATHWAY CHRISTIAN SCHOOL	IA9233501	92	WASHINGTON	Non-Acute Bacteria	98-925	2/20/1998	Compliance Achieved	12/14/1998
PETERSEN PROPERTIES	IA8222174	950	SCOTT	Acute Bacteria	99-26	10/12/1998	Compliance Achieved	3/15/1999
PICTURED ROCKS METHODIST CAMP	IA5343413	29	JONES	Non-Acute Bacteria	98-641	3/2/1998	Compliance Achieved	11/23/1998
			JONES	Non-Acute Bacteria	98-713	3/5/1998	Compliance Achieved	11/23/1998
			JONES	Non-Acute Bacteria	98-1446	5/5/1998	Compliance Achieved	11/23/1998
			JONES	Non-Acute Bacteria	98-1152	7/17/1998	Compliance Achieved	7/17/1998
PINE GROVE MENNONITE SCHOOL	IA4509501	45	HOWARD	Non-Acute Bacteria	99-38	10/20/1998	PN Received	12/29/1998
PINE LAKE CHRISTIAN CENTER	IA4236404	25	HARDIN	Acute Bacteria	98-1121	6/29/1998	Compliance Achieved	1/8/1999
			HARDIN	Non-Acute Bacteria	98-1499	8/3/1998	Compliance Achieved	1/8/1999
PINICON RIDGE C	IA5720907	150	LINN	Non-Acute Bacteria	98-1641	8/21/1998	PN Received	8/31/1998
PONDEROSA TRUCK STOP	IA6525769		MILLS	Nitrate	98-1953	9/23/1998	Compliance Achieved	4/22/1999
QUAKERDALE	IA4271901	35	HARDIN	Acute Bacteria	98-1951	9/21/1998	Compliance Achieved	4/8/1999
			HARDIN	Non-Acute Bacteria	98-2270	10/17/1998	Compliance Achieved	4/8/1999
RADCLIFFE MUNICIPAL WATER	IA4283067	574	HARDIN	Non-Acute Bacteria	98-1778	8/31/1998	Compliance Achieved	4/20/1999
			HARDIN	Non-Acute Bacteria	99-6	10/5/1998	Compliance Achieved	4/20/1999
REGENCY WEST SUBDIVISION	IA3126308	46	DUBUQUE	Non-Acute Bacteria	98-1773	6/5/1998	Compliance Achieved	2/22/1999
			DUBUQUE	Non-Acute Bacteria	98-1118	6/26/1998	Compliance Achieved	2/22/1999
			DUBUQUE	Non-Acute Bacteria	98-1770	8/27/1998	Compliance Achieved	2/22/1999
RICE LAKE GOLF & COUNTRY CLUB	IA9545202	100	WINNEBAGO	Non-Acute Bacteria	98-1517	8/10/1998	NOV Issued	8/10/1998
RICH-SPECTOR FARMS COMMERCIAL PARK	IA8222180	173	SCOTT	Non-Acute Bacteria	98-548	2/9/1998	Compliance Achieved	11/7/1998

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PWS NAME	PWSID NUMBER	POP.	COUNTY	NAME OF CONTAMINANT	VIOL. NUMBER	DATE VIOL. CREATED	TYPE OF ENFORCEMENT	DATE OF ACTION
RICH-SPECTOR FARMS COMMERCIAL PARK	IA8222180	173	SCOTT	Non-Acute Bacteria	98-938	5/11/1998	Compliance Achieved	11/7/1998
			SCOTT	Non-Acute Bacteria	98-1104	6/15/1998	Compliance Achieved	11/7/1998
RIDGEROAD DEVELOPMENT	IA3218301	31	EMMET	Non-Acute Bacteria	98-1502	8/3/1998	BCA Signed	1/14/1999
			EMMET	Non-Acute Bacteria	98-1781	8/31/1998	BCA Signed	1/14/1999
			EMMET	Non-Acute Bacteria	99-243	10/26/1998	BCA Signed	1/14/1999
RIPPEY MUNI WATER SUPPLY	IA3754088	275	GREENE	Non-Acute Bacteria	98-1453	7/20/1998	Compliance Achieved	1/11/1999
			GREENE	Radium 226 & 228 Combined	99-130	11/10/1998	NOV Issued	11/10/1998
ROCK VALLEY WATER SUPPLY	IA8482096	2540	SIOUX	Nitrate	98-1516	8/5/1998	PN Received	8/24/1998
			SIOUX	Nitrate	98-1938	9/17/1998	PN Received	9/30/1998
ROCKY NOOK RESORT	IA2817710	50	DELAWARE	Nitrate	98-1110	6/17/1998	BCA Signed	6/24/1998
			DELAWARE	Nitrate	98-1487	8/24/1998	BCA Signed	6/24/1998
ROME WATER SUPPLY	IA4475001	124	HENRY	Acute Bacteria	98-1761	8/25/1998	Compliance Achieved	1/4/1999
RUSTIC OAKS HOMEOWNERS ASSN.	IA8215399	62	SCOTT	Non-Acute Bacteria	98-1130	7/6/1998	Compliance Achieved	3/2/1999
			SCOTT	Acute Bacteria	99-7	10/5/1998	Compliance Achieved	3/2/1999
			SCOTT	Non-Acute Bacteria	98-2274	10/17/1998	Compliance Achieved	3/2/1999
RUTLAND WATER SUPPLY	IA4675012	149	HUMBOLDT	Non-Acute Bacteria	99-611	12/14/1998	NOV Issued	1/22/1999
			HUMBOLDT	Acute Bacteria	99-294	12/17/1998	PN Received	12/21/1998
SENTRAL COMMUNITY SCHOOL	IA5515527	350	KOSSUTH	Non-Acute Bacteria	98-1924	9/12/1998	NOV Issued	9/12/1998
			KOSSUTH	Non-Acute Bacteria	98-1930	9/14/1998	NOV Issued	9/14/1998
			KOSSUTH	Non-Acute Bacteria	99-264	11/23/1998	PN Received	12/8/1998
SEVEN PONDS PARK	IA2974615	648	DES MOINES	Non-Acute Bacteria	98-1455	7/20/1998	NOV Issued	7/20/1998
SHAMBAUGH MUNI WATER SUPPLY	IA7380036	190	PAGE	Non-Acute Bacteria	98-1151	7/17/1998	Compliance Achieved	2/4/1999

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SHAMBAUGH MUNI WATER SUPPLY	IA7380036	190	PAGE	Acute Bacteria	98-1474	7/27/1998	Compliance Achieved	2/4/1999
			PAGE	Non-Acute Bacteria	98-1750	8/24/1998	Compliance Achieved	2/4/1999
SHELBY WATER SUPPLY	IA8369038	637	SHELBY	Non-Acute Bacteria	98-1501	8/3/1998	Compliance Achieved	4/5/1999
SHELBY'S	IA1003202	27	BUCHANAN	Acute Bacteria	98-1565	8/17/1998	Compliance Achieved	2/1/1999
SIDNEY WATER SUPPLY	IA3661048	1253	FREMONT	Non-Acute Bacteria	99-122	11/6/1998	Compliance Achieved	5/10/1999
SIouxLAND RESIDENTIAL INC.	IA9700901	90	WOODBURY	Non-Acute Bacteria	99-36	10/19/1998	Compliance Achieved	4/27/1999
SKY LINE INN	IA3100720	40	DUBUQUE	Non-Acute Bacteria	98-1472	7/24/1998	PN Received	8/27/1998
SLATER MUNI WATER DEPT	IA8580057	1268	STORY	Acute Bacteria	98-1475	7/27/1998	NOV Issued	7/27/1998
SMALL'S FRUIT FARM INC.	IA4349801	26	HARRISON	Non-Acute Bacteria	98-1935	9/14/1998	NOV Issued	9/14/1998
SOMERS WATER WORKS	IA1381073	161	CALHOUN	Acute Bacteria	98-1756	8/24/1998	Compliance Achieved	2/11/1999
SOUTH HIGH POINT WELL ASS'N 2	IA5200324	29	JOHNSON	Non-Acute Bacteria	98-1758	8/24/1998	Compliance Achieved	2/22/1999
SOUTHPARK	IA4260601	26	HARDIN	Chloroform	99-851	3/1/1999	NOV Issued	3/1/1999
			HARDIN	Carbon Tetrachloride	99-846	3/1/1999	PN Received	3/10/1999
SPRING LAKE STATE PARK	IA3742950	61	GREENE	Non-Acute Bacteria	98-1782	8/31/1998	NOV Issued	8/31/1998
SPRINGBROOK COUNTRY CLUB	IA2330847	86	CLINTON	Nitrate	98-1772	8/27/1998	BCA Signed	8/27/1998
ST MARY'S CHURCH	IA3420503	55	FLOYD	Nitrate	98-494	1/28/1998	BCA Signed	4/15/1998
			FLOYD	Nitrate	98-660	2/23/1998	BCA Signed	4/15/1998
			FLOYD	Nitrate	98-744	4/9/1998	BCA Signed	4/15/1998
			FLOYD	Nitrate	99-28	10/15/1998	BCA Signed	4/15/1998
STANHOPE WATER DEPARTMENT	IA4045090	447	HAMILTON	Non-Acute Bacteria	98-1920	9/12/1998	Compliance Achieved	3/2/1999
STICKLE SALVAGE FEED INC	IA5307101	120	JONES	Nitrate	99-378	12/29/1998	BCA Signed	1/21/1999
STRAWBERRY POINT INDUSTRIAL PARK	IA2279101	102	CLAYTON	Nitrate	98-706	3/27/1998	BCA Signed	4/16/1998

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PWS NAME	PWSID NUMBER	POP.	COUNTY	NAME OF CONTAMINANT	VIOL. NUMBER	DATE VIOL. CREATED	TYPE OF ENFORCEMENT	DATE OF ACTION
STRAWBERRY POINT INDUSTRIAL PARK	IA2279101	102	CLAYTON	Nitrate	98-770	4/16/1998	BCA Signed	4/16/1998
			CLAYTON	Nitrate	98-950	5/15/1998	BCA Signed	4/16/1998
			CLAYTON	Nitrate	98-1467	7/22/1998	BCA Signed	4/16/1998
			CLAYTON	Nitrate	98-1478	7/29/1998	BCA Signed	4/16/1998
			CLAYTON	Nitrate	98-1637	8/20/1998	BCA Signed	4/16/1998
			CLAYTON	Nitrate	98-1959	9/25/1998	BCA Signed	4/16/1998
			CLAYTON	Nitrate	99-55	10/22/1998	BCA Signed	4/16/1998
			CLAYTON	Nitrate	99-254	11/18/1998	BCA Signed	4/16/1998
			CLAYTON	Nitrate	99-290	12/16/1998	BCA Signed	4/16/1998
SYLVAN ACRES	IA0732301	26	BREMER	Acute Bacteria	98-1014	5/26/1998	Compliance Achieved	11/12/1998
TARA HILLS COUNTRY CLUB	IA0685201	27	BENTON	Non-Acute Bacteria	99-114	11/2/1998	NOV Issued	11/2/1998
			BENTON	Non-Acute Bacteria	99-285	12/7/1998	NOV Issued	12/7/1998
THE HEIGHTS	IA5343202	56	JONES	Non-Acute Bacteria	98-923	5/4/1998	Compliance Achieved	3/8/1999
			JONES	Non-Acute Bacteria	98-1026	6/4/1998	Compliance Achieved	3/8/1999
THE PIT STOP	IA6634202	42	MITCHELL	Non-Acute Bacteria	98-905	4/18/1998	BCA Signed	7/15/1998
			MITCHELL	Non-Acute Bacteria	98-934	5/7/1998	BCA Signed	7/15/1998
			MITCHELL	Non-Acute Bacteria	98-1128	7/2/1998	BCA Signed	7/15/1998
			MITCHELL	Acute Bacteria	98-1797	7/15/1998	BCA Signed	7/15/1998
THE SPORTSMEN	IA3300770	187	FAYETTE	Non-Acute Bacteria	98-752	4/13/1998	Compliance Achieved	11/18/1998
			FAYETTE	Non-Acute Bacteria	98-916	5/1/1998	Compliance Achieved	11/18/1998
			FAYETTE	Non-Acute Bacteria	98-1022	6/1/1998	Compliance Achieved	11/18/1998
			FAYETTE	Non-Acute Bacteria	98-1129	6/12/1998	Compliance Achieved	11/18/1998

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PWS NAME	PWSID NUMBER	POP.	COUNTY	NAME OF CONTAMINANT	VIOL. NUMBER	DATE VIOL. CREATED	TYPE OF ENFORCEMENT	DATE OF ACTION
TIMBER VALLEY ESTATES	IA8215384	169	SCOTT	Non-Acute Bacteria	98-646	3/9/1998	Compliance Achieved	9/15/1998
TIMBERLAKE	IA5200810	52	JOHNSON	Non-Acute Bacteria	99-50	10/21/1998	Compliance Achieved	5/15/1999
			JOHNSON	Non-Acute Bacteria	99-252	11/18/1998	Compliance Achieved	5/15/1999
TWIN LAKES UTILITIES & POLL.	IA1300101	170	CALHOUN	Acute Bacteria	98-1791	9/3/1998	Compliance Achieved	3/24/1999
UNDERWOOD MOTEL	IA7869801	27	POTTAWATTAMIE	Nitrate+Nitrite	98-502	2/2/1998	AO w/ Penalty	10/26/1998
			POTTAWATTAMIE	Nitrate	98-1115	6/22/1998	AO w/ Penalty	10/26/1998
			POTTAWATTAMIE	Nitrate	98-1134	7/8/1998	AO w/ Penalty	10/26/1998
			POTTAWATTAMIE	Nitrate	99-125	11/9/1998	AO w/ Penalty	10/26/1998
			POTTAWATTAMIE	Nitrate	99-274	12/4/1998	AO w/ Penalty	10/26/1998
UP ELECTRONICS	IA7078101	95	MUSCATINE	Non-Acute Bacteria	98-1029	6/8/1998	Compliance Achieved	11/17/1998
VALLEY HIGH SCHOOL	IA3338500	585	FAYETTE	Non-Acute Bacteria	98-911	4/27/1998	Compliance Achieved	2/1/1999
			FAYETTE	Non-Acute Bacteria	98-1006	5/19/1998	Compliance Achieved	2/1/1999
VISTA HILLS WATER ASSOCIATION	IA8209359	39	SCOTT	Non-Acute Bacteria	98-1518	8/10/1998	Compliance Achieved	2/8/1999
VOLGA WATER SUPPLY	IA2285055	306	CLAYTON	Nitrate	98-1790	9/3/1998	BCA Signed	12/8/1998
			CLAYTON	Nitrate	99-89	10/28/1998	BCA Signed	12/8/1998
			CLAYTON	Nitrate	99-266	11/30/1998	BCA Signed	12/8/1998
			CLAYTON	Nitrate	99-284	12/8/1998	BCA Signed	12/8/1998
WALLACE FOUNDATION LEARNING CENTER	IA7856901	27	CASS	Non-Acute Bacteria	98-1929	9/14/1998	Compliance Achieved	3/16/1999
WALNUT ACRES CAMPGROUND	IA5343203	50	JONES	Acute Bacteria	98-929	5/5/1998	Compliance Achieved	10/15/1998
			JONES	Non-Acute Bacteria	98-1007	5/19/1998	Compliance Achieved	10/15/1998
			JONES	Non-Acute Bacteria	98-1103	6/15/1998	Compliance Achieved	10/15/1998
WALNUT ACRES ESTATES	IA5343602	35	JONES	Non-Acute Bacteria	98-1786	8/31/1998	PN Received	9/14/1998

TABLE B: 1998 MCL VIOLATIONS REPORT

PWS NAME	PWSID NUMBER	POP.	COUNTY	NAME OF CONTAMINANT	VIOL. NUMBER	DATE VIOL. CREATED	TYPE OF ENFORCEMENT	DATE OF ACTION
WENDY OAKS MHP	IA5715601	41	LINN	Non-Acute Bacteria	98-714	3/30/1998	Compliance Achieved	10/8/1998
			LINN	Acute Bacteria	98-771	4/16/1998	Compliance Achieved	10/8/1998
WESTSIDE TAP IN TORONTO, CORP.	IA2383201	127	CLINTON	Non-Acute Bacteria	99-113	11/2/1998	Compliance Achieved	5/3/1999
			CLINTON	Non-Acute Bacteria	99-261	11/23/1998	Compliance Achieved	5/3/1999
WHITE OAKS HOMEOWNERS ASSOCIATION	IA7709302	40	POLK	Fluoride	98-493	3/31/1998	AO w/ Penalty	10/28/1997
			POLK	Fluoride	98-1513	8/6/1998	AO w/ Penalty	10/28/1997
			POLK	Fluoride	98-1511	8/6/1998	AO w/ Penalty	10/28/1997
			POLK	Fluoride	99-121	1/1/1999	AO w/ Penalty	10/28/1997
WHITTEMORE COUNTRY CLUB	IA5595815	55	KOSSUTH	Non-Acute Bacteria	98-1131	7/6/1998	Compliance Achieved	7/13/1998
WILLIAMSBURG PUBLIC WATER SUPPLY	IA4884023	2380	IOWA	Nitrite	98-918	5/4/1998	Compliance Achieved	12/28/1998
WOODLYN HILLS GOLF COURSE	IA3050876	54	DICKINSON	Non-Acute Bacteria	98-1792	9/3/1998	Compliance Achieved	4/21/1999
			DICKINSON	Non-Acute Bacteria	98-1962	9/28/1998	Compliance Achieved	4/21/1999

TABLE C: CONTINUING COMBINED RADIUM 226 and 228 MCL VIOLATIONS (PRE-1998)

PWS NAME	PWSID	POPULATION	COUNTY	BEGINNING DATE OF COMPOSITE SAMPLE*	COMPLIANCE STATUS**
AINSWORTH WATER WORKS	IA920300	506	WASHINGTON	9/5/1997	Continuing MCL Violation
BELLEVUE MUNI UTILITIES	IA491000	2239	JACKSON	1/14/199	Continuing MCL Violation
BROOKLYN WATER DEPARTMENT	IA790904	1439	POWESHIEK	8/27/199	Continuing MCL Violation
BURT WATER SUPPLY	IA551006	575	KOSSUTH	2/18/199	Continuing MCL Violation
CALLENDER WATER SUPPLY	IA941706	384	WEBSTER	3/25/199	Continuing MCL Violation
CLERMONT WATER SUPPLY	IA331704	523	FAYETTE	12/11/19	Continuing MCL Violation
DENMARK MUNIC WATER SUPPLY***	IA561702	337	LEE	8/21/199	Continuing MCL Violation
GALT MUNICIPAL WATER SUPPLY	IA993207	43	WRIGHT	8/21/199	Continuing MCL Violation
HOMESTEAD WATER SUPPLY	IA483003	200	IOWA	7/10/199	Continuing MCL Violation
KLEMME WATER WORKS	IA415503	587	HANCOCK	5/12/199	Continuing MCL Violation
LANSING WATER SUPPLY	IA034505	1007	ALLAMAKEE	4/24/199	Continuing MCL Violation
LARCHWOOD WATER SUPPLY	IA605005	739	LYON	5/8/1995	Continuing MCL Violation
LE GRAND WATER WORKS	IA645707	854	MARSHALL	2/5/1996	Continuing MCL Violation
LEHIGH WATER SUPPLY	IA945307	534	WEBSTER	12/9/199	Continuing MCL Violation
MARQUETTE WATER SUPPLY	IA225604	479	CLAYTON	4/29/199	Continuing MCL Violation
MASON CITY WATER DEPARTMENT	IA175004	29040	CERRO GORDO	7/21/199	Continuing MCL Violation
MORNING SUN WATER DEPARTMENT	IA585701	841	LOUISA	3/28/199	Continuing MCL Violation
MOUNT PLEASANT MUNICIPAL UTILITIES	IA445301	8027	HENRY	7/25/199	Continuing MCL Violation
NORWAY CITY WATER SUPPLY***	IA065608	583	BENTON	1/26/199	Continuing MCL Violation
ODEBOLT WATER SUPPLY***	IA814408	1158	SAC	1/22/199	Continuing MCL Violation
PLANTATION VILLAGE MHP	IA290060	110	DES MOINES	12/31/19	Continuing MCL Violation
QUALITY WATER, INC. #2	IA312630	70	DUBUQUE	4/25/199	Continuing MCL Violation
ROCKWELL CITY WATER SUPPLY	IA137609	1981	CALHOUN	5/22/199	Continuing MCL Violation

TABLE C: CONTINUING COMBINED RADIUM 226 and 228 MCL VIOLATIONS (PRE-1998)

PWS NAME	PWSID	POPULATION	COUNTY	BEGINNING DATE OF COMPOSITE SAMPLE*	COMPLIANCE STATUS**
SHERMANS WATER & ROAD, INC.	IA963030	73	WINNESHIEK	4/24/199	Continuing MCL Violation
STATE CENTER MUNI WATER DEPT	IA648409	1248	MARSHALL	7/11/199	Continuing MCL Violation
WALDENBERG COMMUNITY WATER SYSTEM	IA480230	90	IOWA	9/3/1996	Continuing MCL Violation
WELLMAN MUNICIPAL WATERWORKS	IA927609	1155	WASHINGTON	4/16/199	Continuing MCL Violation

* A composite sample requires one sample in each of four consecutive quarters. This date is the date the first sample was collected.

** Quarterly public notification and one four quarter composite sample every four years are required at this time.

*** Also exceeded Gross Alpha MCL of 15 pCi/L.

TABLE D: 1998 MONITORING/REPORTING VIOLATIONS REPORT

PWS NAME	PWSID NUMBER	POP.	COUNTY	NAME OF CONTAMINANT	VIOL. TYPE	VIOL. NUMBER	DATE OF VIOLATION	TYPE OF ENFORCEMENT	DATE OF ACTION
10TH HOLE FOOD & SPIRITS	IA2320201	25	CLINTON	Coliform (TCR)	Routine Major	98-846	1/1/1998	Compliance Achieved	6/9/1998
			CLINTON	Nitrate	Routine Major	99-737	4/1/1998	BCA Signed	2/10/1999
			CLINTON	Coliform (TCR)	Routine Major	98-2070	7/1/1998	Compliance Achieved	12/1/1998
			CLINTON	Coliform (TCR)	Repeat Major	99-557	10/1/1998	Compliance Achieved	1/22/1999
4 WAY TAP	IA3158740	27	DUBUQUE	Nitrate	Routine Major	98-1555	4/1/1998	Compliance Achieved	8/12/1998
			DUBUQUE	Coliform (TCR)	Routine Major	98-1670	7/1/1998	Compliance Achieved	8/17/1998
ACORN PARK GOLF & COUNTRY CLUB	IA6673201	52	MITCHELL	Coliform (TCR)	Routine Major	98-1329	4/1/1998	Compliance Achieved	9/28/1998
AEROPLANE INN	IA7836201	25	POTTAWATTAMIE	Coliform (TCR)	Routine Major	98-871	1/1/1998	Compliance Achieved	8/14/1998
			POTTAWATTAMIE	Coliform (TCR)	Routine Major	98-1337	4/1/1998	Compliance Achieved	8/14/1998
			POTTAWATTAMIE	Nitrate	Routine Major	98-1456	4/1/1998	Compliance Achieved	9/14/1998
			POTTAWATTAMIE	Nitrite	Routine Major	98-1457	6/1/1998	Compliance Achieved	9/14/1998
			POTTAWATTAMIE	Coliform (TCR)	Routine Major	99-525	10/1/1998	NOV Issued	1/25/1999
AGRI PROCESSORS, INC.	IA0375180	175	ALLAMAKEE	Coliform (TCR)	Routine Major	98-1264	4/1/1998	Compliance Achieved	7/9/1998
AINSWORTH 4 CORNERS RESTAURANT	IA9203760	400	WASHINGTON	Nitrate	Routine Major	98-1137	4/1/1998	Compliance Achieved	7/20/1998
AIRPORT NATIONAL PUBLIC GOLF COMPLEX	IA5715202	260	LINN	Coliform (TCR)	Routine Major	98-2106	4/1/1998	Compliance Achieved	9/8/1998
ALBERT CITY MUNI WATER SUPPLY	IA1103009	779	BUENA VISTA	Coliform (TCR)	Routine Major	98-1050	5/1/1998	Compliance Achieved	6/18/1998
			BUENA VISTA	Coliform (TCR)	Routine Major	98-1658	7/1/1998	Compliance Achieved	8/11/1998
ALBION WATER DEPARTMENT	IA6403011	585	MARSHALL	Nitrate	Routine Major	98-2013	7/1/1998	Compliance Achieved	10/17/1998
			MARSHALL	Nitrate	Routine Major	99-434	12/1/1998	Compliance Achieved	2/4/1999
ALBRECT ACRES	IA3183401	27	DUBUQUE	Coliform (TCR)	Routine Major	98-1294	4/1/1998	Compliance Achieved	7/29/1998
			DUBUQUE	Nitrate	Routine Major	98-1540	4/1/1998	Compliance Achieved	10/12/1998
ALBURNETT COMMUNITY SCHOOL	IA5784531	106	LINN	Coliform (TCR)	Routine Major	98-863	2/1/1998	Compliance Achieved	3/16/1998
ALBURNETT WATER SUPPLY	IA5704012	489	LINN	Nitrate	Routine Major	99-623	4/1/1998	Compliance Achieved	2/2/1999

TABLE D: 1998 MONITORING/REPORTING VIOLATIONS REPORT

PWS NAME	PWSID NUMBER	POP.	COUNTY	NAME OF CONTAMINANT	VIOL. TYPE	VIOL. NUMBER	DATE OF VIOLATION	TYPE OF ENFORCEMENT	DATE OF ACTION
ALBURNETT WATER SUPPLY	IA5704012	489	LINN	Coliform (TCR)	Routine Major	98-1675	7/1/1998	Compliance Achieved	8/31/1998
			LINN	Coliform (TCR)	Routine Major	99-318	11/1/1998	Compliance Achieved	1/19/1999
			LINN	Coliform (TCR)	Routine Major	99-503	12/1/1998	Compliance Achieved	1/22/1999
ALCOA-CRISSEY HOUSE	IA8278801	32	SCOTT	Coliform (TCR)	Routine Major	98-1912	7/1/1998	Compliance Achieved	9/22/1998
ALEXANDER WATER DEPT	IA3503014	170	FRANKLIN	Nitrate	Routine Major	99-279	1/1/1998	Compliance Achieved	12/29/1998
ALGONA COUNTRY CLUB	IA5502832	47	KOSSUTH	Coliform (TCR)	Repeat Major	99-585	10/1/1998	Compliance Achieved	12/7/1998
			KOSSUTH	Coliform (TCR)	Repeat Major	99-584	10/1/1998	Compliance Achieved	12/7/1998
			KOSSUTH	Coliform (TCR)	Routine Major	99-351	10/1/1998	Compliance Achieved	12/7/1998
ALTA VISTA HOMEOWNER'S ASSOCIATION	IA8503303	39	STORY	Coliform (TCR)	Repeat Major	98-1430	6/1/1998	Compliance Achieved	11/30/1998
			STORY	Coliform (TCR)	Routine Major	98-1687	7/1/1998	Compliance Achieved	11/30/1998
			STORY	Coliform (TCR)	Routine Major	98-1732	7/1/1998	Compliance Achieved	11/30/1998
			STORY	Coliform (TCR)	Routine Major	98-1853	8/1/1998	Compliance Achieved	11/30/1998
			STORY	Coliform (TCR)	Routine Major	98-2143	9/1/1998	Compliance Achieved	11/30/1998
			STORY	Coliform (TCR)	Routine Major	99-192	10/1/1998	Compliance Achieved	11/30/1998
AMBER WATER SUPPLY	IA5303038	60	JONES	Coliform (TCR)	Routine Major	99-172	10/1/1998	Compliance Achieved	11/3/1998
			JONES	Coliform (TCR)	Repeat Major	99-582	12/1/1998	Compliance Achieved	2/10/1999
AMERICAN LEGION	IA5285205	25	JOHNSON	Coliform (TCR)	Routine Major	98-1312	4/1/1998	Compliance Achieved	7/15/1998
			JOHNSON	Nitrate	Routine Major	99-833	10/1/1998	BCA Signed	2/25/1999
AMERICAN LEGION POST #130	IA9433807	27	WEBSTER	Coliform (TCR)	Routine Major	98-880	1/1/1998	Compliance Achieved	12/17/1998
AMES WATER TREATMENT PLANT	IA8503039	42970	STORY	TTHM	Routine Major	98-1219	4/1/1998	Compliance Achieved	7/23/1998
ANCHOR INN (BELLEVUE)	IA4910793	54	JACKSON	Nitrate	Routine Major	98-781	1/1/1998	Compliance Achieved	9/15/1998
			JACKSON	Nitrate	Routine Major	98-1183	4/1/1998	Compliance Achieved	9/15/1998
			JACKSON	Coliform (TCR)	Routine Major	98-2095	7/1/1998	Compliance Achieved	11/16/1998

TABLE D: 1998 MONITORING/REPORTING VIOLATIONS REPORT

PWS NAME	PWSID NUMBER	POP.	COUNTY	NAME OF CONTAMINANT	VIOL. TYPE	VIOL. NUMBER	DATE OF VIOLATION	TYPE OF ENFORCEMENT	DATE OF ACTION
ANCHOR INN (GARBER)	IA2232776	35	CLAYTON	Coliform (TCR)	Routine Major	98-672	2/1/1998	Compliance Achieved	5/5/1998
			CLAYTON	Nitrate	Routine Major	98-664	2/1/1998	Compliance Achieved	3/3/1998
			CLAYTON	Coliform (TCR)	Routine Major	98-845	3/1/1998	Compliance Achieved	5/5/1998
			CLAYTON	Coliform (TCR)	Repeat Major	99-554	12/1/1998	Compliance Achieved	2/16/1999
			CLAYTON	Coliform (TCR)	Repeat Major	99-555	12/1/1998	Compliance Achieved	2/16/1999
			CLAYTON	Nitrate	Routine Major	99-416	12/1/1998	Compliance Achieved	1/22/1999
ANGLERS BAY RESORT	IA3070601	25	DICKINSON	Nitrate	Routine Major	99-664	7/1/1998	NOV Issued	1/28/1999
ANTHON MUNICIPAL WATER SYSTEM	IA9704060	638	WOODBURY	Nitrate	Routine Major	98-1626	4/1/1998	Compliance Achieved	9/2/1998
ANTHONY'S RESORT	IA3183877	50	DUBUQUE	Coliform (TCR)	Repeat Major	98-1086	5/1/1998	Compliance Achieved	7/31/1998
APPLE RIDGE ORCHARD	IA4260207	27	HARDIN	Coliform (TCR)	Routine Major	98-2087	7/1/1998	Compliance Achieved	10/5/1998
ARGYLE RURAL WATER DISTRICT	IA5603701	175	LEE	Nitrate	Routine Major	98-1586	1/1/1998	Compliance Achieved	9/14/1998
			LEE	Coliform (TCR)	Routine Major	98-1845	8/1/1998	Compliance Achieved	9/2/1998
ARION WATER SUPPLY	IA2402063	148	CRAWFORD	Atrazine	Routine Major	98-1211	4/1/1998	Compliance Achieved	12/23/1998
			CRAWFORD	Atrazine	Routine Major	98-2032	7/1/1998	Compliance Achieved	12/23/1998
			CRAWFORD	Coliform (TCR)	Routine Major	98-1837	8/1/1998	Compliance Achieved	9/22/1998
			CRAWFORD	Coliform (TCR)	Routine Major	99-156	10/1/1998	Compliance Achieved	12/30/1998
			CRAWFORD	Coliform (TCR)	Routine Major	99-311	11/1/1998	Compliance Achieved	12/30/1998
ART'S-WAY MANUFACTURING, CO., INC.	IA3203101	215	EMMET	Nitrate	Routine Major	99-92	7/1/1998	Compliance Achieved	11/9/1998
ASHLEY INN MOTEL & TRAILER CT.	IA1700649	40	CERRO GORDO	SOC Reg Series	Routine Major	99-403	7/1/1998	Referred for AO	5/25/1999
AUBURN WATER SUPPLY	IA8104076	283	SAC	Nitrate	Routine Major	98-1628	1/1/1998	Compliance Achieved	8/26/1998
AVALON SUPPER CLUB & HOUSING	IA3128314	140	DUBUQUE	Nitrate	Routine Major	99-840	4/1/1998	BCA Signed	3/1/1999
BACKBONE GOLF AND COUNTRY CLUB	IA2279854	64	CLAYTON	Coliform (TCR)	Routine Major	98-2069	7/1/1998	Compliance Achieved	10/19/1998
BACKBONE STATE PARK - CABINS	IA2821903	40	DELAWARE	Nitrate	Routine Major	99-422	10/1/1998	Compliance Achieved	2/4/1999

TABLE D: 1998 MONITORING/REPORTING VIOLATIONS REPORT

PWS NAME	PWSID NUMBER	POP.	COUNTY	NAME OF CONTAMINANT	VIOL. TYPE	VIOL. NUMBER	DATE OF VIOLATION	TYPE OF ENFORCEMENT	DATE OF ACTION
BAGLEY WATER SUPPLY	IA3902083	303	GUTHRIE	Coliform (TCR)	Routine Major	98-1059	5/1/1998	Compliance Achieved	6/30/1998
			GUTHRIE	Nitrate	Routine Major	99-46	7/1/1998	Compliance Achieved	10/28/1998
BAILEY'S FORD PARK	IA2839910	25	DELAWARE	Coliform (TCR)	Routine Major	99-482	10/1/1998	Compliance Achieved	2/16/1999
BAILEY'S FORD PARK II	IA2839911	28	DELAWARE	Nitrate	Routine Major	98-1991	7/1/1998	Compliance Achieved	11/30/1998
			DELAWARE	Coliform (TCR)	Routine Major	98-2075	9/1/1998	Compliance Achieved	11/30/1998
			DELAWARE	Coliform (TCR)	Routine Major	99-112	10/1/1998	Compliance Achieved	11/30/1998
BALLTOWN SHERRILL CATHOLIC SCH	IA3183592	26	DUBUQUE	Coliform (TCR)	Routine Major	98-1840	8/1/1998	Compliance Achieved	9/8/1998
BART'S FULL SERVICE STATION	IA9100765	106	WARREN	Coliform (TCR)	Routine Major	98-692	1/1/1998	Compliance Achieved	3/24/1998
BEACHLAND INN	IA2800622	40	DELAWARE	Nitrate	Routine Major	99-59	7/1/1998	Compliance Achieved	10/26/1998
BEATRICE CHEESE, INC. (FREDERICKSBURG)	IA1940101	400	CHICKASAW	Nitrate	Routine Major	99-883	7/1/1998	Compliance Achieved	3/9/1999
BEEDS LAKE STATE PARK SOUTH	IA3544931	102	FRANKLIN	Nitrate	Routine Major	99-893	7/1/1998	Compliance Achieved	3/22/1999
BELLEVUE GOLF CLUB	IA4910201	64	JACKSON	Nitrate	Routine Major	99-667	4/1/1998	BCA Signed	1/28/1999
BETHEL REFORMED CHURCH	IA1207851	56	BUTLER	Nitrate	Routine Major	99-771	7/1/1998	Compliance Achieved	4/4/1999
			BUTLER	Coliform (TCR)	Routine Major	99-476	10/1/1998	Compliance Achieved	1/6/1999
BIG ROCK COUNTRY CLUB	IA3342890	52	FAYETTE	Nitrate	Routine Major	98-667	2/1/1998	Compliance Achieved	3/31/1998
			FAYETTE	Coliform (TCR)	Routine Major	98-996	4/1/1998	Compliance Achieved	6/10/1998
			FAYETTE	Nitrate	Routine Major	98-1043	5/1/1998	Compliance Achieved	6/10/1998
			FAYETTE	Nitrate	Routine Major	98-1649	7/1/1998	Compliance Achieved	8/18/1998
			FAYETTE	Nitrate	Routine Major	99-300	11/1/1998	Compliance Achieved	12/29/1998
BLAIRS FERRY MANOR	IA5784316	75	LINN	Atrazine	Routine Major	98-1212	4/1/1998	Compliance Achieved	11/4/1998
			LINN	Coliform (TCR)	Repeat Major	98-992	4/1/1998	Compliance Achieved	6/22/1998
			LINN	Nitrate	Routine Major	98-1200	4/1/1998	Compliance Achieved	11/4/1998
			LINN	Atrazine	Routine Major	98-2033	7/1/1998	Compliance Achieved	11/4/1998

TABLE D: 1998 MONITORING/REPORTING VIOLATIONS REPORT

PWS NAME	PWSID NUMBER	POP.	COUNTY	NAME OF CONTAMINANT	VIOL. TYPE	VIOL. NUMBER	DATE OF VIOLATION	TYPE OF ENFORCEMENT	DATE OF ACTION
BLUFF LAKE CATFISH FARM	IA4950794	125	JACKSON	Coliform (TCR)	Routine Major	98-973	4/1/1998	Compliance Achieved	6/22/1998
BLUFF VIEW	IA6562201	615	MILLS	Coliform (TCR)	Routine Major	98-977	4/1/1998	Compliance Achieved	5/12/1998
			MILLS	Nitrate	Routine Major	99-54	7/1/1998	Compliance Achieved	10/21/1998
BOONDOCKS TRUCK HAVEN CAFE	IA4070201	945	HAMILTON	Nitrate	Routine Major	99-876	7/1/1998	Compliance Achieved	5/3/1999
BOWLAWAY LANES	IA1970204	84	CHICKASAW	Coliform (TCR)	Routine Major	98-843	1/1/1998	Compliance Achieved	9/4/1998
			CHICKASAW	Nitrite	Routine Major	98-1533	3/1/1998	AO w/ Penalty	2/23/1999
			CHICKASAW	Coliform (TCR)	Routine Major	98-1280	4/1/1998	Compliance Achieved	9/4/1998
			CHICKASAW	Nitrate	Routine Major	98-1532	4/1/1998	AO w/ Penalty	2/23/1999
BRAYTON WATER SYSTEM	IA0510040	148	AUDUBON	Coliform (TCR)	Routine Major	98-593	1/1/1998	Compliance Achieved	2/23/1998
			AUDUBON	Coliform (TCR)	Routine Major	98-835	3/1/1998	Compliance Achieved	4/21/1998
			AUDUBON	Coliform (TCR)	Routine Major	98-964	4/1/1998	Compliance Achieved	5/12/1998
			AUDUBON	Nitrate	Routine Major	99-43	7/1/1998	Compliance Achieved	3/22/1999
			AUDUBON	Coliform (TCR)	Routine Major	99-151	10/1/1998	Compliance Achieved	1/12/1999
			AUDUBON	Coliform (TCR)	Routine Major	99-308	11/1/1998	Compliance Achieved	1/12/1999
			AUDUBON	Coliform (TCR)	Routine Major	99-466	12/1/1998	Compliance Achieved	1/22/1999
BREDA WATER SUPPLY	IA1409041	467	CARROLL	Coliform (TCR)	Routine Major	99-309	11/1/1998	Compliance Achieved	12/1/1998
BREWSKI'S BAR & GRILL	IA9609774	28	WINNESHIEK	Coliform (TCR)	Routine Major	98-1352	4/1/1998	Compliance Achieved	7/14/1998
BRISTOW MUNI WATER SUPPLY	IA1222044	200	BUTLER	Coliform (TCR)	Repeat Major	98-2157	9/1/1998	Compliance Achieved	10/7/1998
BRITTANY ESTATES HOMEOWNER'S	IA5715301	105	LINN	Coliform (TCR)	Routine Major	98-2108	9/1/1998	Compliance Achieved	10/20/1998
BROGAN'S PUB & GRUB	IA5765201	60	LINN	Nitrate	Routine Major	98-783	1/1/1998	Compliance Achieved	4/6/1998
			LINN	Coliform (TCR)	Routine Major	98-1322	6/1/1998	Compliance Achieved	7/13/1998
			LINN	Coliform (TCR)	Routine Major	98-2114	9/1/1998	Compliance Achieved	10/5/1998
			LINN	Coliform (TCR)	Routine Major	99-320	11/1/1998	Compliance Achieved	1/12/1999

TABLE D: 1998 MONITORING/REPORTING VIOLATIONS REPORT

PWS NAME	PWSID NUMBER	POP.	COUNTY	NAME OF CONTAMINANT	VIOL. TYPE	VIOL. NUMBER	DATE OF VIOLATION	TYPE OF ENFORCEMENT	DATE OF ACTION
BROGAN'S PUB & GRUB	IA5765201	60	LINN	Coliform (TCR)	Routine Major	99-510	12/1/1998	Compliance Achieved	1/22/1999
BRONSON WATER SUPPLY	IA9709046	209	WOODBURY	Nitrate	Routine Major	99-673	7/1/1998	Compliance Achieved	3/29/1999
BROOKE AMOCO PLAZA MHP	IA1600605	45	MUSCATINE	Coliform (TCR)	Repeat Major	98-1862	8/1/1998	Compliance Achieved	9/8/1998
BROOKLYN 80	IA7909707	320	POWESHIEK	Nitrate	Routine Major	99-968	7/1/1998	Compliance Achieved	4/19/1999
BROWN BOTTLE RESTAURANT	IA0709201	225	BLACK HAWK	Nitrate	Routine Major	98-583	1/1/1998	Compliance Achieved	2/26/1998
			BLACK HAWK	Nitrate	Routine Major	98-1181	6/1/1998	Compliance Achieved	7/29/1998
			BLACK HAWK	Nitrate	Routine Major	99-298	11/1/1998	Compliance Achieved	12/2/1998
BUBBA'S BAR & GRILL	IA4515782	42	HOWARD	Coliform (TCR)	Repeat Major	98-2184	4/1/1998	Compliance Achieved	9/8/1998
			HOWARD	Nitrate	Routine Major	98-1557	4/1/1998	Compliance Achieved	8/24/1998
BUFFALO BILL ESTATES, INC. MHP	IA2300601	80	CLINTON	Nitrate	Routine Major	98-1609	4/1/1998	Compliance Achieved	8/31/1998
			CLINTON	Coliform (TCR)	Repeat Major	98-1082	5/1/1998	Compliance Achieved	6/8/1998
BUFFALO CREEK COUNTRY CLUB	IA1093897	60	BUCHANAN	Coliform (TCR)	Routine Major	98-1273	4/1/1998	Compliance Achieved	8/6/1998
			BUCHANAN	Nitrate	Routine Major	99-760	4/1/1998	BCA Signed	2/12/1999
BUFFALO SHORES-SCOTT CONSERVATION	IA8251903	25	SCOTT	Coliform (TCR)	Routine Major	98-2139	7/1/1998	NOV Issued	10/19/1998
BURNS BROTHERS INC. (STOCKTON)	IA8263801	369	SCOTT	Coliform (TCR)	Routine Major	98-2140	7/1/1998	Compliance Achieved	10/20/1998
CAMP ALDERSGATE	IA6985401	62	MONTGOMERY	Coliform (TCR)	Routine Major	98-1330	4/1/1998	Compliance Achieved	8/31/1998
CAMP C S KLAUS BOY SCOUT CAMP	IA2809812	76	DUBUQUE	Nitrate	Routine Major	99-363	4/1/1998	NOV Issued	12/21/1998
			DUBUQUE	Coliform (TCR)	Routine Major	98-2074	7/1/1998	NOV Issued	10/19/1998
CAMP CONESTOGA NO2 (STAFF HOUSE)	IA8264446	150	SCOTT	Nitrate	Routine Major	99-843	10/1/1998	Compliance Achieved	3/1/1999
CAMP CONESTOGA NO3	IA8264447	128	SCOTT	Nitrate	Routine Major	99-741	10/1/1998	Compliance Achieved	2/22/1999
CAMP EWALU-CEDAR LODGE WELL #1	IA2279960	72	CLAYTON	Coliform (TCR)	Routine Major	98-1284	4/1/1998	Compliance Achieved	7/7/1998
CAMP EWALU-STONE CENTER WELL 7	IA2279967	26	CLAYTON	Coliform (TCR)	Routine Major	98-1285	4/1/1998	Compliance Achieved	7/28/1998
CAMP FOSTER YMCA INC.	IA3070481	150	DICKINSON	Nitrate	Routine Major	98-1620	4/1/1998	Compliance Achieved	9/8/1998

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PWS NAME	PWSID NUMBER	POP.	COUNTY	NAME OF CONTAMINANT	VIOL. TYPE	VIOL. NUMBER	DATE OF VIOLATION	TYPE OF ENFORCEMENT	DATE OF ACTION
CAMP HAVEN-EAST WELL	IA3502002	116	HARDIN	Nitrate	Routine Major	99-393	7/1/1998	Compliance Achieved	5/25/1999
CAMP HITAGA	IA5792401	84	LINN	Coliform (TCR)	Routine Major	99-511	10/1/1998	Compliance Achieved	2/3/1999
CAMP INGAWANIS-MAPLE WELL	IA0990401	406	BREMER	Nitrate	Routine Major	98-1551	4/1/1998	Compliance Achieved	8/24/1998
CAMP IODISECA	IA5282802	25	JOHNSON	Coliform (TCR)	Routine Major	98-2101	7/1/1998	Compliance Achieved	10/20/1998
			JOHNSON	Nitrate	Routine Major	99-834	10/1/1998	BCA Signed	2/25/1999
CAMP SACAJAWEA-MUSCATINE COUNTY	IA7048435		MUSCATINE	Coliform (TCR)	Routine Major	98-1331	4/1/1998	Compliance Achieved	9/22/1998
CAMP WA-SHAWTEE	IA3621485		FREMONT	Nitrite	Routine Major	98-1611	4/1/1998	Compliance Achieved	3/22/1999
CAMP WYOMING	IA5396409	95	JONES	Coliform (TCR)	Routine Major	98-1313	4/1/1998	Compliance Achieved	7/28/1998
			JONES	Nitrate	Routine Major	98-1642	4/1/1998	Compliance Achieved	9/15/1998
			JONES	Nitrate	Routine Major	98-1643	4/1/1998	Compliance Achieved	9/15/1998
CARPENTER BAR/GRILL	IA6616772	52	MITCHELL	Coliform (TCR)	Routine Major	98-1328	4/1/1998	Compliance Achieved	10/28/1998
			MITCHELL	Nitrate	Routine Major	98-1177	4/1/1998	Compliance Achieved	10/28/1998
			MITCHELL	Coliform (TCR)	Routine Major	98-2118	7/1/1998	Compliance Achieved	10/28/1998
			MITCHELL	Nitrate	Routine Major	98-2014	7/1/1998	Compliance Achieved	10/26/1998
			MITCHELL	Nitrite	Routine Major	99-882	12/1/1998	NOV Issued	2/16/1999
CASCADE MUNICIPAL WATER SUPPLY	IA3118080	1812	DUBUQUE	Nitrate	Routine Major	99-877	10/1/1998	Compliance Achieved	3/10/1999
CASEY'S GENERAL STORE, INC. -	IA1074201	60	BUCHANAN	Coliform (TCR)	Routine Major	98-1272	4/1/1998	Compliance Achieved	8/24/1998
CASEYS GENERAL STORE	IA5221201	706	JOHNSON	Coliform (TCR)	Routine Major	98-1438	4/1/1998	Compliance Achieved	9/15/1998
			JOHNSON	Coliform (TCR)	Routine Major	99-497	10/1/1998	NOV Issued	1/25/1999
CATTLEMEN'S STEAK & PROVISIONS	IA9905786	44	WRIGHT	Nitrate	Routine Major	99-895	10/1/1998	Compliance Achieved	3/30/1999
CEDAR BEND GOLF	IA3405895	75	FLOYD	Coliform (TCR)	Routine Major	98-2083	7/1/1998	Compliance Achieved	4/26/1999
			FLOYD	Coliform (TCR)	Routine Major	99-488	10/1/1998	Compliance Achieved	4/26/1999
CEDAR HILLS APARTMENTS	IA3100823	60	DUBUQUE	Nitrate	Routine Major	99-627	10/1/1998	Compliance Achieved	2/4/1999

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PWS NAME	PWSID NUMBER	POP.	COUNTY	NAME OF CONTAMINANT	VIOL. TYPE	VIOL. NUMBER	DATE OF VIOLATION	TYPE OF ENFORCEMENT	DATE OF ACTION
CEDAR LANE ESTATES, INCORPORATED	IA3700901	39	GREENE	Coliform (TCR)	Routine Major	98-1298	6/1/1998	Compliance Achieved	7/6/1998
CEDAR RAPIDS LIGHTHOUSE INN, LTD.	IA5715206	25	LINN	Coliform (TCR)	Routine Major	98-860	1/1/1998	Compliance Achieved	4/27/1998
			LINN	Coliform (TCR)	Routine Major	99-504	10/1/1998	Compliance Achieved	1/28/1999
CEDARCREST GOLF & COUNTRY CLUB	IA5815825	146	LOUISA	Coliform (TCR)	Routine Major	98-1324	4/1/1998	Compliance Achieved	8/24/1998
			LOUISA	Nitrate	Routine Major	99-717	4/1/1998	Compliance Achieved	5/3/1999
CENTER FOR ALCOHOL & DRUG SERVICES	IA8209801	30	SCOTT	Nitrate	Routine Major	99-841	4/1/1998	Compliance Achieved	3/22/1999
CENTRAL BAPTIST CHURCH	IA7820851	101	POTTAWATTAMIE	Coliform (TCR)	Routine Major	98-2128	7/1/1998	Compliance Achieved	11/2/1998
CENTRAL PK-JONES CONSERVATION	IA5315967		JONES	Nitrate	Routine Major	99-853	4/1/1998	BCA Signed	3/1/1999
			JONES	Coliform (TCR)	Routine Major	98-2104	7/1/1998	Compliance Achieved	10/26/1998
CHARLIE'S SUPPER CLUB	IA5502731	85	KOSSUTH	Coliform (TCR)	Routine Major	98-859	1/1/1998	Compliance Achieved	7/30/1998
			KOSSUTH	Coliform (TCR)	Routine Major	98-1314	4/1/1998	Compliance Achieved	7/30/1998
			KOSSUTH	Coliform (TCR)	Routine Major	99-501	10/1/1998	Compliance Achieved	2/3/1999
CHESTER WATER SUPPLY	IA4509024	158	HOWARD	Coliform (TCR)	Routine Major	98-2092	9/1/1998	Compliance Achieved	10/7/1998
CITY OF MCCLELLAND	IA7845010	25	POTTAWATTAMIE	Nitrate	Routine Major	99-804	10/1/1998	Compliance Achieved	3/9/1999
CLARENCE WATER SUPPLY	IA1630028	936	CEDAR	Coliform (TCR)	Routine Major	98-598	1/1/1998	Compliance Achieved	2/18/1998
CLARKSVILLE RECREATION DEV INC	IA1228803	50	BUTLER	Coliform (TCR)	Routine Major	99-478	10/1/1998	Compliance Achieved	4/7/1999
CLARMOND COUNTRY CLUB	IA9905872	40	WRIGHT	Nitrate	Routine Major	99-868	7/1/1998	Compliance Achieved	3/2/1999
CLAYTON CO FAIRGROUNDS	IA2228936	25	CLAYTON	Coliform (TCR)	Routine Major	98-1281	4/1/1998	Compliance Achieved	7/13/1998
			CLAYTON	Nitrate	Routine Major	98-1169	4/1/1998	Compliance Achieved	7/13/1998
CLINTON MUNICIPAL AIRPORT	IA2326005	38	CLINTON	Coliform (TCR)	Routine Major	98-1286	4/1/1998	Compliance Achieved	7/10/1998
CLUB SHAGNASTY'S	IA5751201	457	LINN	Coliform (TCR)	Routine Major	98-1319	4/1/1998	Compliance Achieved	7/20/1998
COACH ROAD WELL ASSOCIATION	IA1600301	40	CEDAR	Nitrate	Routine Major	99-40	7/1/1998	Compliance Achieved	11/23/1998
COATS SUBDIVISION WATER SUPPLY	IA9433348	158	WEBSTER	Coliform (TCR)	Routine Major	98-613	1/1/1998	Compliance Achieved	2/24/1998

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PWS NAME	PWSID NUMBER	POP.	COUNTY	NAME OF CONTAMINANT	VIOL. TYPE	VIOL. NUMBER	DATE OF VIOLATION	TYPE OF ENFORCEMENT	DATE OF ACTION
COFFMAN CARTS	IA1716201	70	CERRO GORDO	Nitrate	Routine Major	99-783	10/1/1998	NOV Issued	2/15/1999
COLLINS WATER SUPPLY	IA8515060	475	STORY	Coliform (TCR)	Routine Major	98-2144	9/1/1998	Compliance Achieved	10/15/1998
COLO WATER SUPPLY	IA8520061	771	STORY	Coliform (TCR)	Routine Major	98-878	2/1/1998	Compliance Achieved	3/4/1998
COLONY INN/COLONY INVESTMENTS, L.P.	IA4884201	63	IOWA	Coliform (TCR)	Routine Major	98-853	1/1/1998	Compliance Achieved	4/29/1998
COOPERS COVE	IA7633906	25	POCAHONTAS	Coliform (TCR)	Routine Major	98-2125	7/1/1998	Compliance Achieved	11/20/1998
CORNING MUNI WATER DEPARTMENT	IA0220075	1950	ADAMS	TTHM	Routine Major	99-445	10/1/1998	Compliance Achieved	1/26/1999
COUNTRY ACRES WATER ASSOC. # 1	IA8222302	31	SCOTT	Nitrate	Routine Major	98-1595	4/1/1998	Compliance Achieved	8/24/1998
			SCOTT	Nitrate	Routine Major	98-1594	4/1/1998	Compliance Achieved	8/24/1998
COUNTRY AIR MOBILE COURT	IA0600673	50	BENTON	Coliform (TCR)	Routine Major	98-594	1/1/1998	Compliance Achieved	2/26/1998
			BENTON	Coliform (TCR)	Routine Major	98-836	3/1/1998	Compliance Achieved	4/28/1998
			BENTON	Coliform (TCR)	Routine Major	98-1049	5/1/1998	Compliance Achieved	10/7/1998
			BENTON	Coliform (TCR)	Routine Major	98-1265	6/1/1998	Compliance Achieved	10/7/1998
			BENTON	Coliform (TCR)	Routine Major	98-1656	7/1/1998	Compliance Achieved	10/7/1998
			BENTON	Coliform (TCR)	Routine Major	98-1831	8/1/1998	Compliance Achieved	10/7/1998
			BENTON	Coliform (TCR)	Routine Major	98-2058	9/1/1998	Compliance Achieved	10/7/1998
COUNTRY MANOR ESTATES	IA5784307	196	LINN	Gross Alpha	Routine Major	98-1251	4/1/1998	Compliance Achieved	8/5/1998
			LINN	Nitrate	Routine Major	99-635	4/1/1998	Compliance Achieved	2/16/1999
COUNTRY PUMPKIN	IA2432201	50	CRAWFORD	Nitrate	Routine Major	99-48	7/1/1998	Compliance Achieved	1/11/1999
COUNTRY TERRACE MOBILE HOME COURT	IA0800601	160	STORY	Nitrate	Routine Major	99-273	7/1/1998	Compliance Achieved	12/31/1998
			STORY	Coliform (TCR)	Repeat Major	99-381	12/1/1998	Compliance Achieved	1/25/1999
CRESCO GOLF AND COUNTRY CLUB	IA4515778	36	HOWARD	Coliform (TCR)	Routine Major	98-1304	1/1/1998	Compliance Achieved	4/28/1998
			HOWARD	Nitrate	Routine Major	98-955	4/1/1998	Compliance Achieved	5/28/1998
			HOWARD	Nitrate	Routine Major	98-1174	6/1/1998	Compliance Achieved	9/21/1998

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PWS NAME	PWSID NUMBER	POP.	COUNTY	NAME OF CONTAMINANT	VIOL. TYPE	VIOL. NUMBER	DATE OF VIOLATION	TYPE OF ENFORCEMENT	DATE OF ACTION
CRESCO GOLF AND COUNTRY CLUB	IA4515778	36	HOWARD	Nitrate	Routine Major	98-1651	7/1/1998	Compliance Achieved	9/21/1998
			HOWARD	Nitrate	Routine Major	98-1805	8/1/1998	Compliance Achieved	9/21/1998
CROOKED CREEK CHRISTIAN CAMP	IA9271801	77	WASHINGTON	Nitrate	Routine Major	99-847	10/1/1998	Compliance Achieved	3/22/1999
CRYOTECH DEICING	IA5625142	30	LEE	Nitrate	Routine Major	98-1581	1/1/1998	Compliance Achieved	8/31/1998
D & S LAND COMPANY	IA1750761	36	CERRO GORDO	Nitrate	Routine Major	99-3427	7/1/1998	NOV Issued	5/18/1999
			CERRO GORDO	Coliform (TCR)	Routine Major	99-479	10/1/1998	Compliance Achieved	2/10/1999
DAIRY DELIGHTS	IA5285202	61	JOHNSON	Coliform (TCR)	Routine Major	98-856	1/1/1998	Compliance Achieved	10/2/1998
			JOHNSON	Coliform (TCR)	Routine Major	98-1311	4/1/1998	Compliance Achieved	10/2/1998
DANBURY WATER SUPPLY	IA9729099	430	WOODBURY	Coliform (TCR)	Routine Major	98-1079	5/1/1998	Compliance Achieved	6/8/1998
			WOODBURY	Nitrate	Routine Major	98-1048	5/1/1998	Compliance Achieved	7/13/1998
			WOODBURY	Coliform (TCR)	Routine Major	99-326	11/1/1998	Compliance Achieved	12/9/1998
DAVENPORT COUNTRY CLUB	IA8271827	105	SCOTT	Nitrate	Routine Major	99-672	4/1/1998	Compliance Achieved	2/8/1999
DEDHAM WATER SUPPLY	IA1433016	264	CARROLL	Coliform (TCR)	Routine Major	98-1275	6/1/1998	Compliance Achieved	7/7/1998
			CARROLL	Nitrate	Routine Major	99-414	10/1/1998	Compliance Achieved	2/2/1999
DEER CREEK HOA OF STORY COUNTY	IA8538301	100	STORY	Coliform (TCR)	Routine Major	98-1688	7/1/1998	Compliance Achieved	10/21/1998
DEER VALLEY HOMEOWNERS ASSOC.	IA8215325	45	SCOTT	Coliform (TCR)	Routine Major	98-681	2/1/1998	Compliance Achieved	3/23/1998
DELOIT MUNI WATER SUPPLY	IA2421025	296	CRAWFORD	Nitrate	Routine Major	99-44	7/1/1998	Compliance Achieved	11/9/1998
DES MOINES YMCA CAMP	IA0819492	190	BOONE	Nitrate	Routine Major	99-639	4/1/1998	Compliance Achieved	3/15/1999
			BOONE	Nitrate	Routine Major	99-640	4/1/1998	Compliance Achieved	3/15/1999
DOLLIVER STATE PARK	IA9453964	340	WEBSTER	Nitrate	Routine Major	98-1180	4/1/1998	Compliance Achieved	7/26/1998
			WEBSTER	Coliform (TCR)	Routine Major	98-1077	5/1/1998	Compliance Achieved	7/31/1998
DONAHUE MUNI WATER SYSTEM	IA8227045	316	SCOTT	Nitrate	Routine Major	99-365	7/1/1998	Compliance Achieved	3/22/1999
			SCOTT	Coliform (TCR)	Routine Major	99-188	10/1/1998	Compliance Achieved	11/16/1998

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PWS NAME	PWSID NUMBER	POP.	COUNTY	NAME OF CONTAMINANT	VIOL. TYPE	VIOL. NUMBER	DATE OF VIOLATION	TYPE OF ENFORCEMENT	DATE OF ACTION
DONAHUE MUNI WATER SYSTEM	IA8227045	316	SCOTT	Coliform (TCR)	Routine Major	99-528	12/1/1998	Compliance Achieved	1/25/1999
DORCHESTER SUPPER CLUB	IA0315707	46	ALLAMAKEE	Coliform (TCR)	Routine Major	98-834	1/1/1998	Compliance Achieved	5/5/1998
DORELL DRIVE HOME OWNERS	IA3544301	32	FRANKLIN	Coliform (TCR)	Routine Major	98-603	1/1/1998	Compliance Achieved	2/25/1998
DOT-3 (I-29 RA 027W ONAWA)	IA6739710	205	MONONA	Coliform (TCR)	Routine Major	98-2266	9/1/1998	Compliance Achieved	10/8/1998
			MONONA	Coliform (TCR)	Repeat Major	99-215	10/1/1998	Compliance Achieved	12/29/1998
			MONONA	Coliform (TCR)	Repeat Major	99-217	10/1/1998	Compliance Achieved	12/29/1998
			MONONA	Coliform (TCR)	Repeat Major	99-216	10/1/1998	Compliance Achieved	12/29/1998
			MONONA	Coliform (TCR)	Routine Major	99-352	11/1/1998	Compliance Achieved	12/29/1998
DOT-6 (I-80 RA 003S WILTON)	IA7078790	2000	MUSCATINE	Nitrate	Routine Major	98-1603	4/1/1998	Compliance Achieved	8/26/1998
DOT-6 (I-80 RA 004N WILTON)	IA7078791	2400	MUSCATINE	Nitrate	Routine Major	98-1604	4/1/1998	Compliance Achieved	8/26/1998
DOUBLE BAR SEVEN	IA7820203	43	POTTAWATTAMIE	Nitrate	Routine Major	99-371	7/1/1998	Compliance Achieved	1/13/1999
DUBUQUE COUNTY FAIR ASSOC	IA3126980	250	DUBUQUE	Nitrate	Routine Major	99-665	4/1/1998	Compliance Achieved	2/3/1999
DUBUQUE SPORTS COMPLEX	IA3126208	27	DUBUQUE	Coliform (TCR)	Routine Major	99-483	10/1/1998	NOV Issued	1/25/1999
DUBUQUE YMCA CAMP	IA3126489	80	DUBUQUE	Nitrate	Routine Major	99-869	4/1/1998	BCA Signed	3/5/1999
DUCKS BAR & GRILL	IA1211739	25	BUTLER	Coliform (TCR)	Routine Major	99-477	10/1/1998	Compliance Achieved	2/2/1999
DUNCAN HEIGHTS, INC.	IA4100901	51	HANCOCK	Coliform (TCR)	Routine Major	98-1300	6/1/1998	Compliance Achieved	7/20/1998
EAGLE LANE CORPORATION	IA8215308	87	SCOTT	Coliform (TCR)	Routine Major	98-680	2/1/1998	Compliance Achieved	4/22/1998
			SCOTT	Coliform (TCR)	Routine Major	98-875	3/1/1998	Compliance Achieved	4/22/1998
			SCOTT	Coliform (TCR)	Routine Major	98-1068	5/1/1998	Compliance Achieved	6/23/1998
EAST SIDE ACRES	IA9700630	65	WOODBURY	Nitrate	Routine Major	99-713	10/1/1998	Compliance Achieved	3/22/1999
EASTERN IA PORK MANUFACTURING INC	IA2825101	80	DELAWARE	Nitrate	Routine Major	98-584	1/1/1998	Compliance Achieved	2/16/1998
ECONO LODGE	IA7073707	50	MUSCATINE	Nitrate	Routine Major	98-1596	4/1/1998	Compliance Achieved	8/31/1998
EDDYVILLE MUNI WATER DEPT	IA9049001	1036	WAPELLO	SOC Reg Series	Routine Major	98-1579	1/1/1998	Compliance Achieved	8/30/1998

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PWS NAME	PWSID NUMBER	POP.	COUNTY	NAME OF CONTAMINANT	VIOL. TYPE	VIOL. NUMBER	DATE OF VIOLATION	TYPE OF ENFORCEMENT	DATE OF ACTION
EDDYVILLE MUNI WATER DEPT	IA9049001	1036	WAPELLO	SOC UnReg Series	Routine Major	98-1580	1/1/1998	Compliance Achieved	8/30/1998
ELGIN MUNICIPAL WATER SUPPLY	IA3338010	637	FAYETTE	Nitrate	Routine Major	98-1194	4/1/1998	Compliance Achieved	8/3/1998
ERTL COMPANY	IA3130101	650	DUBUQUE	Coliform (TCR)	Routine Major	98-2078	7/1/1998	Compliance Achieved	2/9/1999
			DUBUQUE	Coliform (TCR)	Routine Major	99-487	10/1/1998	Compliance Achieved	2/9/1999
ESTHERVILLE GOLF CLUB	IA3218402	89	EMMET	Coliform (TCR)	Routine Major	98-1297	4/1/1998	Compliance Achieved	7/28/1998
			EMMET	Nitrate	Routine Major	98-1616	4/1/1998	Compliance Achieved	9/16/1998
EXIT 284 LAND DEVELOPMENT CO INC	IA8285742	100	SCOTT	Nitrate	Routine Major	99-723	4/1/1998	Compliance Achieved	2/22/1999
F W KENT PARK	IA5260966	1169	JOHNSON	Nitrate	Routine Major	99-695	4/1/1998	Compliance Achieved	2/17/1999
FAIRFAX HANDIMART	IA5731201	504	LINN	Coliform (TCR)	Routine Major	99-507	10/1/1998	Compliance Achieved	2/8/1999
FAIRFIELD WATER SUPPLY	IA5131033	9955	JEFFERSON	TTHM	Routine Major	98-811	1/1/1998	Compliance Achieved	5/14/1998
			JEFFERSON	Turbidity	Routine Major	99-77	1/1/1998	Compliance Achieved	12/22/1998
			JEFFERSON	Turbidity	Routine Major	99-78	2/1/1998	Compliance Achieved	12/22/1998
			JEFFERSON	Turbidity	Routine Major	99-79	3/1/1998	Compliance Achieved	12/22/1998
			JEFFERSON	Turbidity	Routine Major	99-80	4/1/1998	Compliance Achieved	12/22/1998
			JEFFERSON	Turbidity	Routine Major	99-75	7/1/1998	Compliance Achieved	12/22/1998
FAR HORIZONS SUBDIVISION	IA5225386	80	JOHNSON	Coliform (TCR)	Routine Major	98-1308	6/1/1998	Compliance Achieved	7/1/1998
FARMLAND INDUSTRIES/EAGLE GROVE	IA9926101	40	WRIGHT	Coliform (TCR)	Repeat Major	98-2248	7/1/1998	Compliance Achieved	12/17/1998
			WRIGHT	Coliform (TCR)	Repeat Major	98-2250	7/1/1998	Compliance Achieved	12/17/1998
			WRIGHT	Coliform (TCR)	Repeat Major	98-2249	7/1/1998	Compliance Achieved	12/17/1998
			WRIGHT	Coliform (TCR)	Repeat Major	98-2251	7/1/1998	Compliance Achieved	12/17/1998
			WRIGHT	Coliform (TCR)	Repeat Major	98-2247	7/1/1998	Compliance Achieved	12/17/1998
FAWN CREEK COUNTRY CLUB	IA5307811	50	JONES	Nitrate	Routine Major	98-1645	1/1/1998	Compliance Achieved	9/1/1998
FERNALD WATER SUPPLY	IA8562345	95	STORY	Coliform (TCR)	Routine Major	98-1072	4/1/1998	Compliance Achieved	5/11/1998

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PWS NAME	PWSID NUMBER	POP.	COUNTY	NAME OF CONTAMINANT	VIOL. TYPE	VIOL. NUMBER	DATE OF VIOLATION	TYPE OF ENFORCEMENT	DATE OF ACTION
FILLMORE BAR AND GRILL	IA3118729	55	DUBUQUE	Nitrate	Routine Major	99-845	7/1/1998	Compliance Achieved	3/12/1999
FONTANA PARK-PICNIC AREA	IA1031401	37	BUCHANAN	Coliform (TCR)	Routine Major	98-839	1/1/1998	Compliance Achieved	4/13/1998
FOREMOST FARMS USA (CRESCO)	IA4515201	42	HOWARD	Coliform (TCR)	Routine Major	98-1303	4/1/1998	Compliance Achieved	9/21/1998
FOREST MANOR SUBDIVISION	IA8209308	160	SCOTT	Nitrate	Routine Major	99-250	7/1/1998	Compliance Achieved	12/2/1998
			SCOTT	Nitrate	Routine Major	99-249	7/1/1998	Compliance Achieved	12/2/1998
FREMONT GOLF COURSE	IA3661884	129	FREMONT	Nitrate	Routine Major	98-1993	7/1/1998	NOV Issued	10/19/1998
FRIENDLY FAIRWAYS	IA4283810	28	HARDIN	Coliform (TCR)	Repeat Major	98-2179	7/1/1998	Compliance Achieved	4/20/1999
GALLERY ACRES WEST	IA5282306	50	JOHNSON	Coliform (TCR)	Routine Major	98-1310	6/1/1998	Compliance Achieved	7/27/1998
GASSMAN'S MHP & SPRUCE HARBOR INN	IA4910200		JACKSON	Nitrate	Routine Major	98-728	1/1/1998	Compliance Achieved	5/15/1998
GEORGIA PACIFIC CORP GYPSUM DIV.	IA9433188	160	WEBSTER	Coliform (TCR)	Routine Major	98-622	1/1/1998	Compliance Achieved	2/23/1998
			WEBSTER	Coliform (TCR)	Routine Major	98-612	1/1/1998	Compliance Achieved	2/23/1998
			WEBSTER	Coliform (TCR)	Routine Major	98-1076	5/1/1998	Compliance Achieved	7/29/1998
			WEBSTER	Coliform (TCR)	Routine Major	98-1349	6/1/1998	Compliance Achieved	7/29/1998
			WEBSTER	Nitrate	Routine Major	99-806	7/1/1998	PN Received	3/10/1999
GILMORE CITY WATERWORKS	IA7607088	560	POCAHONTAS	Nitrate	Routine Major	98-2021	7/1/1998	Compliance Achieved	11/3/1998
			POCAHONTAS	Coliform (TCR)	Routine Major	99-181	10/1/1998	Compliance Achieved	11/3/1998
GLOECKNERS SUBDIVISION	IA3128387	44	DUBUQUE	Coliform (TCR)	Repeat Major	99-202	10/1/1998	Compliance Achieved	11/9/1998
			DUBUQUE	Coliform (TCR)	Repeat Major	99-203	10/1/1998	Compliance Achieved	11/9/1998
			DUBUQUE	Coliform (TCR)	Routine Major	99-348	11/1/1998	Compliance Achieved	12/14/1998
			DUBUQUE	Coliform (TCR)	Routine Major	99-486	12/1/1998	Compliance Achieved	1/22/1999
GORDER'S SERVICE AND CAFE	IA3509753	41	FRANKLIN	Coliform (TCR)	Repeat Major	98-1388	4/1/1998	Compliance Achieved	8/26/1998
			FRANKLIN	Coliform (TCR)	Routine Major	98-1724	7/1/1998	Compliance Achieved	8/26/1998
GRANDMA'S SNACK SHOP	IA1211821	46	BUTLER	Coliform (TCR)	Repeat Major	98-1363	4/1/1998	Compliance Achieved	7/30/1998

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PWS NAME	PWSID NUMBER	POP.	COUNTY	NAME OF CONTAMINANT	VIOL. TYPE	VIOL. NUMBER	DATE OF VIOLATION	TYPE OF ENFORCEMENT	DATE OF ACTION
GRANDMA'S SNACK SHOP	IA1211821	46	BUTLER	Coliform (TCR)	Repeat Major	98-2156	7/1/1998	Compliance Achieved	12/28/1998
GRANDVIEW COUNTRY CAFE	IA5842721	210	LOUISA	Nitrate	Routine Major	99-832	10/1/1998	BCA Signed	2/25/1999
GREEN CASTLE RECREATION AREA	IA6469906	25	MARSHALL	Nitrate	Routine Major	99-680	4/1/1998	Compliance Achieved	5/12/1999
GREENE LANES	IA1253851	41	FLOYD	Coliform (TCR)	Routine Major	98-2063	7/1/1998	Compliance Achieved	12/3/1998
			FLOYD	Nitrate	Routine Major	99-775	10/1/1998	NOV Issued	2/15/1999
GRIMES UNITED METHODIST CHURCH	IA7736801	207	POLK	Fluoride	Routine Major	98-1157	4/1/1998	Compliance Achieved	3/17/1999
			POLK	Fluoride	Routine Major	99-865	7/1/1998	Compliance Achieved	3/17/1999
			POLK	Coliform (TCR)	Routine Major	98-1850	8/1/1998	Compliance Achieved	9/14/1998
			POLK	Fluoride	Routine Major	99-866	10/1/1998	Compliance Achieved	3/17/1999
			POLK	Coliform (TCR)	Routine Major	99-519	12/1/1998	Compliance Achieved	1/19/1999
GRIMES WATER SUPPLY	IA7736011	4177	POLK	Nitrate	Routine Major	99-758	7/1/1998	Compliance Achieved	3/3/1999
HAMPTON COUNTRY CLUB	IA3544823	42	FRANKLIN	Nitrate	Routine Major	99-828	4/1/1998	Compliance Achieved	3/30/1999
HANCOCK COUNTY FAIRGROUNDS	IA4103201	27	HANCOCK	Coliform (TCR)	Routine Major	98-849	1/1/1998	Compliance Achieved	6/1/1998
			HANCOCK	Coliform (TCR)	Routine Major	99-490	10/1/1998	Compliance Achieved	4/21/1999
HANCOCK WATER SUPPLY	IA7833025	201	POTTAWATTAMIE	Coliform (TCR)	Routine Major	98-978	4/1/1998	Compliance Achieved	5/11/1998
HANK'S TAVERN	IA2268768	32	CLAYTON	Coliform (TCR)	Repeat Major	98-2164	4/1/1998	Compliance Achieved	9/29/1998
			CLAYTON	Coliform (TCR)	Repeat Major	98-2165	4/1/1998	Compliance Achieved	9/29/1998
			CLAYTON	Coliform (TCR)	Repeat Major	98-2166	4/1/1998	Compliance Achieved	9/29/1998
			CLAYTON	Coliform (TCR)	Repeat Major	98-2167	4/1/1998	Compliance Achieved	9/29/1998
			CLAYTON	Coliform (TCR)	Repeat Major	98-2168	4/1/1998	Compliance Achieved	9/29/1998
HARCOURT WATER SUPPLY	IA9442027	306	WEBSTER	Xylene	Routine Major	98-1227	1/1/1998	Compliance Achieved	4/1/1998
HARDY WATER SUPPLY	IA4634028	26	HUMBOLDT	Coliform (TCR)	Repeat Major	98-1392	4/1/1998	Compliance Achieved	7/21/1998
			HUMBOLDT	Nitrate	Routine Major	99-874	10/1/1998	Compliance Achieved	3/26/1999

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HARMONY BIBLE CHURCH	IA2915885	155	HENRY	Coliform (TCR)	Routine Major	98-2076	7/1/1998	Compliance Achieved	10/13/1998
HARPER'S MARINA/JOLLY	IA5200830	71	JOHNSON	Coliform (TCR)	Routine Major	98-1307	4/1/1998	Compliance Achieved	5/19/1999
			JOHNSON	Nitrate	Routine Major	99-945	4/1/1998	Compliance Achieved	5/19/1999
			JOHNSON	Nitrate	Routine Major	99-948	4/1/1998	Compliance Achieved	5/19/1999
			JOHNSON	Coliform (TCR)	Routine Major	98-2098	7/1/1998	Compliance Achieved	5/19/1999
HART RIDGE GOLF COURSE	IA2839203	167	DELAWARE	Nitrate	Routine Major	98-1648	7/1/1998	Compliance Achieved	8/28/1998
			DELAWARE	Nitrate	Routine Major	98-1990	9/1/1998	Compliance Achieved	10/28/1998
			DELAWARE	Coliform (TCR)	Routine Major	99-481	10/1/1998	Compliance Achieved	3/24/1999
			DELAWARE	Nitrate	Routine Major	99-299	11/1/1998	Compliance Achieved	3/24/1999
HICKORY ESTATES	IA8227301	44	SCOTT	Coliform (TCR)	Routine Major	98-877	3/1/1998	Compliance Achieved	4/1/1998
			SCOTT	Coliform (TCR)	Routine Major	99-529	12/1/1998	Compliance Achieved	1/27/1999
HICKORY GROVE (GOLF COURSE)	IA3353746	28	FAYETTE	Nitrate	Routine Major	98-1045	5/1/1998	Compliance Achieved	6/1/1998
			FAYETTE	Coliform (TCR)	Routine Major	98-1899	7/1/1998	Compliance Achieved	4/26/1999
HICKORY HILLS SUBDIVISION #2	IA8215303	376	SCOTT	Nitrate	Routine Major	99-41	7/1/1998	Compliance Achieved	10/27/1998
HIDDEN ACRES CHRISTIAN CENTER	IA9425401	1409	WEBSTER	Coliform (TCR)	Routine Major	99-609	10/1/1998	Compliance Achieved	2/11/1999
HIDDEN ACRES COUNTRY CLUB	IA9778840	74	PLYMOUTH	Nitrate	Routine Major	99-670	1/1/1998	NOV Issued	1/28/1999
HIDDEN HILLS GOLF COURSE	IA8209802	25	SCOTT	Nitrate	Routine Major	99-842	4/1/1998	BCA Signed	3/1/1999
HIDDEN VALLEY MOBILE HOME COURT	IA9200600	46	WASHINGTON	Coliform (TCR)	Repeat Major	98-993	4/1/1998	Compliance Achieved	6/10/1998
			WASHINGTON	Coliform (TCR)	Repeat Major	98-994	4/1/1998	Compliance Achieved	6/10/1998
			WASHINGTON	Coliform (TCR)	Routine Major	98-1095	5/1/1998	Compliance Achieved	6/10/1998
HIGHLAND HIGH SCHOOL	IA9260528	305	WASHINGTON	Coliform (TCR)	Routine Major	98-1075	5/1/1998	Compliance Achieved	6/23/1998
HILLTOP SOUTH HOA	IA7048308	55	MUSCATINE	Coliform (TCR)	Routine Major	98-2122	9/1/1998	Compliance Achieved	12/21/1998
			MUSCATINE	Coliform (TCR)	Routine Major	99-177	10/1/1998	Compliance Achieved	12/21/1998

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PWS NAME	PWSID NUMBER	POP.	COUNTY	NAME OF CONTAMINANT	VIOL. TYPE	VIOL. NUMBER	DATE OF VIOLATION	TYPE OF ENFORCEMENT	DATE OF ACTION
HILLTOP SOUTH HOA	IA7048308	55	MUSCATINE	Nitrate	Routine Major	99-891	10/1/1998	Compliance Achieved	3/30/1999
			MUSCATINE	Coliform (TCR)	Routine Major	99-323	11/1/1998	Compliance Achieved	12/21/1998
HITTER'S SPORTS PARK	IA5715204	400	LINN	Coliform (TCR)	Routine Major	98-2107	7/1/1998	Compliance Achieved	4/27/1999
HONEY CREEK CAMPGROUNDS	IA7822443	51	POTTAWATTAMIE	Coliform (TCR)	Routine Major	98-2129	9/1/1998	Compliance Achieved	10/16/1998
HOWARD RESIDENTIAL CARE FACILITY	IA4500901	73	HOWARD	Coliform (TCR)	Routine Major	98-1842	8/1/1998	Compliance Achieved	9/2/1998
			HOWARD	Nitrate	Routine Major	98-1804	8/1/1998	Compliance Achieved	9/21/1998
HUMBOLDT COUNTRY CLUB	IA4641884	82	HUMBOLDT	Nitrate	Routine Major	99-799	4/1/1998	Compliance Achieved	2/24/1999
HUNTS CEDAR RIVER CAMPGROUND	IA1689411	42	CEDAR	Nitrate	Routine Major	99-705	4/1/1998	Compliance Achieved	4/19/1999
IBP INC COLUMBUS JCT	IA5815101	1300	LOUISA	Coliform (TCR)	Routine Major	98-865	3/1/1998	Compliance Achieved	4/1/1998
			LOUISA	Coliform (TCR)	Routine Major	98-1323	6/1/1998	Compliance Achieved	7/1/1998
IDA GROVE WATER UTILITY	IA4728067	2357	IDA	1,2-Dichloroethane	Routine Major	99-457	10/1/1998	Compliance Achieved	3/2/1999
			IDA	1,2-Dichloroethane	Routine Major	99-458	10/1/1998	Compliance Achieved	3/2/1999
			IDA	Benzene	Routine Major	99-462	10/1/1998	Compliance Achieved	3/2/1999
			IDA	Benzene	Routine Major	99-461	10/1/1998	Compliance Achieved	3/2/1999
			IDA	Vinyl Chloride	Routine Major	99-453	10/1/1998	Compliance Achieved	3/2/1999
			IDA	Vinyl Chloride	Routine Major	99-454	10/1/1998	Compliance Achieved	3/2/1999
			IDA	Vinyl Chloride	Routine Major	99-455	10/1/1998	Compliance Achieved	3/2/1999
IMMANUEL LUTHERAN CHURCH & SCHOOL	IA0965501	105	BREMER	Coliform (TCR)	Routine Major	98-1832	8/1/1998	Compliance Achieved	9/14/1998
INDIAN HILLS GOLF & COUNTRY CLUB	IA5879826	60	LOUISA	Nitrate	Routine Major	99-692	4/1/1998	Compliance Achieved	4/7/1999
INDIAN VILLAGE	IA8150716	105	SAC	Nitrate	Routine Major	98-1624	4/1/1998	Compliance Achieved	10/29/1998
			SAC	Coliform (TCR)	Routine Major	98-2132	7/1/1998	Compliance Achieved	10/29/1998
INGHAM LAKE LUTHERAN CAMP	IA3290400	87	EMMET	Coliform (TCR)	Routine Major	98-2081	7/1/1998	PN Received	11/2/1998
IOWA CITY REHABILITATION & HEALTH	IA5200847	128	JOHNSON	Nitrate	Routine Major	98-1589	1/1/1998	Compliance Achieved	8/31/1998

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IOWA CO PK-IOWA CONSERVATION	IA4840959	52	IOWA	Coliform (TCR)	Repeat Major	98-1759	7/1/1998	Compliance Achieved	9/21/1998
			IOWA	Coliform (TCR)	Repeat Major	98-2194	7/1/1998	Compliance Achieved	10/19/1998
IOWA HAM CANNING INC	IA1037101	280	BUCHANAN	Coliform (TCR)	Routine Major	98-2061	7/1/1998	Compliance Achieved	3/10/1999
			BUCHANAN	Coliform (TCR)	Routine Major	99-473	10/1/1998	Compliance Achieved	2/10/1999
IZAACK WALTON LEAGUE-DAVENPORT	IA8222801	50	SCOTT	Coliform (TCR)	Routine Major	98-2136	7/1/1998	Compliance Achieved	10/24/1998
IZAACK WALTON LEAGUE-IOWA CITY	IA5225803	34	JOHNSON	Coliform (TCR)	Repeat Major	98-2203	7/1/1998	Compliance Achieved	10/15/1998
J WOOD PARK	IA2234441	25	CLAYTON	Coliform (TCR)	Routine Major	98-1282	4/1/1998	Compliance Achieved	7/13/1998
			CLAYTON	Nitrate	Routine Major	98-1535	4/1/1998	Compliance Achieved	9/21/1998
			CLAYTON	Nitrate	Routine Major	98-1534	4/1/1998	Compliance Achieved	9/21/1998
JACKSON HEIGHTS GOLF COURSE	IA9661201	27	WINNESHIEK	Nitrate	Routine Major	99-83	7/1/1998	Compliance Achieved	11/9/1998
JERICO JO'S	IA1951201	28	CHICKASAW	Coliform (TCR)	Routine Major	98-969	4/1/1998	Compliance Achieved	5/4/1998
			CHICKASAW	Nitrate	Routine Major	98-1168	4/1/1998	Compliance Achieved	8/19/1998
			CHICKASAW	Nitrate	Routine Major	99-415	10/1/1998	Compliance Achieved	2/8/1999
JEWEL'S FOOD & SPIRITS	IA5786890	29	LINN	Coliform (TCR)	Routine Major	98-864	1/1/1998	Compliance Achieved	6/8/1998
			LINN	Nitrate	Routine Major	98-784	1/1/1998	Compliance Achieved	6/3/1998
JIM ARENSON CHEVROLET	IA5718201	75	LINN	SOC Reg Series	Routine Major	98-1505	4/1/1998	Compliance Achieved	8/11/1998
K MART	IA3353201	875	FAYETTE	Nitrate	Routine Major	98-1044	5/1/1998	Compliance Achieved	7/20/1998
			FAYETTE	Nitrate	Routine Major	99-301	11/1/1998	Compliance Achieved	12/7/1998
KALONA GOLF COURSE	IA9233801	44	WASHINGTON	Coliform (TCR)	Routine Major	98-1348	4/1/1998	AO w/ Penalty	8/26/1998
			WASHINGTON	Coliform (TCR)	Routine Major	98-2146	7/1/1998	NOV Issued	10/19/1998
			WASHINGTON	Nitrate	Routine Major	99-380	7/1/1998	NOV Issued	1/5/1999
KAMMERER TRAILER COURT	IA7000686	97	MUSCATINE	Nitrate	Routine Major	98-1190	4/1/1998	Compliance Achieved	8/3/1998
			MUSCATINE	Nitrate	Routine Major	98-1197	4/1/1998	Compliance Achieved	8/3/1998

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KEOTA WATER DEPT	IA5440028	1000	KEOKUK	Nitrate	Routine Major	98-1605	4/1/1998	Compliance Achieved	8/24/1998
KIRACOFE STATION	IA5285204	42	JOHNSON	Nitrate	Routine Major	99-831	4/1/1998	NOV Issued	2/25/1999
KIRKMAN WATER SUPPLY	IA8350033	98	SHELBY	Coliform (TCR)	Routine Major	98-610	1/1/1998	Compliance Achieved	2/11/1998
KIRKWOOD SOFTBALL COMPLEX	IA5715902	150	LINN	Nitrate	Routine Major	98-2005	7/1/1998	Compliance Achieved	4/12/1999
KLEMME RECREATION CLUB	IA4155201	50	HANCOCK	Coliform (TCR)	Repeat Major	98-2178	7/1/1998	Compliance Achieved	10/20/1998
			HANCOCK	Coliform (TCR)	Repeat Major	98-2177	7/1/1998	Compliance Achieved	10/20/1998
			HANCOCK	Nitrate	Routine Major	99-794	10/1/1998	Compliance Achieved	2/17/1999
KOCH'S MEADOW LAKE CAMPGROUNDS	IA1600624	31	CEDAR	Coliform (TCR)	Routine Major	98-2065	7/1/1998	NOV Issued	10/19/1998
KOPPER KETTLE (MINDEN)	IA7849701	265	POTTAWATTAMIE	Nitrate	Routine Major	99-679	1/1/1998	Compliance Achieved	2/8/1999
KOUNTRY SCHOOL	IA0375301	76	CLAYTON	Nitrate	Routine Major	98-776	3/1/1998	Compliance Achieved	4/13/1998
KRAUS'S SERENE WOODED ACRES	IA4848601	51	IOWA	Coliform (TCR)	Repeat Major	98-1708	7/1/1998	Compliance Achieved	9/14/1998
			IOWA	Coliform (TCR)	Repeat Major	98-1709	7/1/1998	Compliance Achieved	9/14/1998
KUENNEN'S QUARRY	IA9855402	100	WORTH	Nitrate	Routine Major	99-810	10/1/1998	Compliance Achieved	5/3/1999
KUM & GO STORE #443	IA4884784	162	IOWA	Coliform (TCR)	Routine Major	98-1305	4/1/1998	Compliance Achieved	7/31/1998
			IOWA	Nitrate	Routine Major	99-875	7/1/1998	Compliance Achieved	3/15/1999
L T TAP	IA1957201	25	CHICKASAW	Coliform (TCR)	Repeat Major	98-1368	4/1/1998	Compliance Achieved	12/17/1998
			CHICKASAW	Coliform (TCR)	Routine Major	98-1435	4/1/1998	Compliance Achieved	12/17/1998
			CHICKASAW	Coliform (TCR)	Routine Major	98-2066	7/1/1998	Compliance Achieved	12/17/1998
			CHICKASAW	Nitrate	Routine Major	98-1984	7/1/1998	Compliance Achieved	12/17/1998
LA PORTE GOLF COURSE	IA0743888	40	BLACK HAWK	Coliform (TCR)	Routine Major	99-469	10/1/1998	Compliance Achieved	4/6/1999
LAKE CREEK COUNTRY CLUB	IA1178800	140	BUENA VISTA	Coliform (TCR)	Routine Major	98-596	1/1/1998	Compliance Achieved	2/2/1998
LAKE HUNTINGTON ESTATES	IA8230302	75	SCOTT	Coliform (TCR)	Routine Major	98-1686	7/1/1998	Compliance Achieved	8/10/1998
LAKE LAJUNE ESTATES	IA4728301	40	IDA	Coliform (TCR)	Routine Major	98-852	3/1/1998	Compliance Achieved	4/28/1998

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LAKE MCBRIDE HTS HOME OWNERS	IA5282305	75	JOHNSON	Coliform (TCR)	Routine Major	98-1309	6/1/1998	Compliance Achieved	7/1/1998
			JOHNSON	Coliform (TCR)	Repeat Major	98-1711	7/1/1998	Compliance Achieved	8/31/1998
LAKE ODESSA CABIN OWNERS ASSOC.	IA5879424	41	LOUISA	Nitrate	Routine Major	99-836	7/1/1998	BCA Signed	2/25/1999
LAKE RIDGE, INCORPORATED	IA5225315	100	JOHNSON	Xylene	Routine Major	98-2046	7/1/1998	Compliance Achieved	12/15/1998
LAKESIDE GOLF	IA3730886	42	GREENE	Nitrate	Routine Major	99-729	4/1/1998	Compliance Achieved	5/17/1999
LAKESIDE MANOR PARK	IA8200605	89	SCOTT	Coliform (TCR)	Routine Major	99-187	10/1/1998	Compliance Achieved	11/19/1998
LAKEVIEW GOLF COURSE, INC.	IA3300769	41	FAYETTE	Nitrate	Routine Major	98-954	4/1/1998	Compliance Achieved	5/6/1998
			FAYETTE	Nitrate	Routine Major	98-1164	6/1/1998	Compliance Achieved	7/15/1998
			FAYETTE	Nitrate	Routine Major	98-1802	8/1/1998	Compliance Achieved	9/30/1998
LAKEVIEW HEIGHTS	IA7785301	319	POLK	Turbidity	Routine Major	99-32	7/1/1998	Compliance Achieved	8/1/1998
LAKEVIEW MOBILE HOME COURT	IA3300600	100	FAYETTE	Nitrate	Routine Major	99-426	10/1/1998	Compliance Achieved	2/1/1999
LAKESIDE UTILITIES	IA9433324	200	WEBSTER	Gross Alpha	Routine Major	99-768	7/1/1998	Compliance Achieved	3/9/1999
LAMPLIGHT INN	IA7048732	25	MUSCATINE	Nitrate	Routine Major	99-306	11/1/1998	Compliance Achieved	12/21/1998
LAND 'O LAKES RESEARCH FARM	IA4063102	78	HAMILTON	Coliform (TCR)	Routine Major	99-489	10/1/1998	Compliance Achieved	2/5/1999
LANESBORO WATER WORKS	IA1449053	182	CARROLL	Coliform (TCR)	Routine Major	98-968	4/1/1998	Compliance Achieved	5/20/1998
			CARROLL	Coliform (TCR)	Routine Major	98-1276	6/1/1998	Compliance Achieved	9/23/1998
			CARROLL	Coliform (TCR)	Routine Major	98-1660	7/1/1998	Compliance Achieved	9/23/1998
			CARROLL	Coliform (TCR)	Routine Major	98-1835	8/1/1998	Compliance Achieved	9/23/1998
LARCHWOOD WATER SUPPLY	IA6050059	739	LYON	Nitrate	Routine Major	99-714	7/1/1998	Compliance Achieved	3/9/1999
LIDDERDALE WATER SUPPLY	IA1453080	202	CARROLL	Coliform (TCR)	Routine Major	98-1836	8/1/1998	Compliance Achieved	9/2/1998
LIGHTHOUSE MARINA	IA6769422	30	MONONA	Coliform (TCR)	Routine Major	98-1679	7/1/1998	Compliance Achieved	8/26/1998
LINK'S	IA2307201	25	CLINTON	Nitrate	Routine Major	98-1801	8/1/1998	Compliance Achieved	9/23/1998
LINN HOLLOW MHP	IA9200601	100	WASHINGTON	Coliform (TCR)	Routine Major	98-984	4/1/1998	Compliance Achieved	6/12/1998

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PWS NAME	PWSID NUMBER	POP.	COUNTY	NAME OF CONTAMINANT	VIOL. TYPE	VIOL. NUMBER	DATE OF VIOLATION	TYPE OF ENFORCEMENT	DATE OF ACTION
LINN HOLLOW MHP	IA9200601	100	WASHINGTON	Nitrate	Routine Major	99-45	7/1/1998	Compliance Achieved	12/7/1998
LIVING HISTORY FARMS-1900 FARM	IA7727988	204	POLK	Coliform (TCR)	Routine Major	99-518	10/1/1998	Compliance Achieved	2/2/1999
LIVING HISTORY FARMS-CONFERENCE CTR	IA7727986	152	POLK	Coliform (TCR)	Routine Major	99-517	10/1/1998	Compliance Achieved	2/2/1999
LJ SALOON	IA4569201	50	HOWARD	Coliform (TCR)	Routine Major	98-1902	7/1/1998	Compliance Achieved	8/24/1998
LONG BRANCH TAVERN	IA4955725	35	JACKSON	Coliform (TCR)	Routine Major	98-854	1/1/1998	Referred to AG	6/20/1997
			JACKSON	Coliform (TCR)	Routine Major	98-1306	4/1/1998	Referred to AG	6/20/1997
			JACKSON	Coliform (TCR)	Routine Major	98-2096	7/1/1998	Referred to AG	6/20/1997
			JACKSON	Coliform (TCR)	Routine Major	99-495	10/1/1998	NOV Issued	1/25/1999
LOWELL'S LANDING COMPANY	IA2268837	25	CLAYTON	Nitrate	Routine Major	99-712	7/1/1998	BCA Signed	2/8/1999
LUND'S CAMP INC	IA0300641	72	ALLAMAKEE	Coliform (TCR)	Routine Major	98-1262	6/1/1998	Compliance Achieved	8/4/1998
LYN-DEN HEIGHTS HOMEOWNERS ASSOC.	IA5225301	84	JOHNSON	Nitrate	Routine Major	98-1583	1/1/1998	Compliance Achieved	2/4/1999
			JOHNSON	Nitrate	Routine Major	99-621	10/1/1998	Compliance Achieved	2/4/1999
			JOHNSON	Coliform (TCR)	Repeat Major	99-579	12/1/1998	Compliance Achieved	2/4/1999
LYNCH LIVESTOCK	IA4515202	27	HOWARD	Coliform (TCR)	Repeat Major	99-569	10/1/1998	Compliance Achieved	2/1/1999
			HOWARD	Coliform (TCR)	Routine Major	99-349	10/1/1998	Compliance Achieved	2/1/1999
MACEDONIA WATER SUPPLY	IA7841014	262	POTTAWATTAMIE	Coliform (TCR)	Repeat Major	99-219	10/1/1998	Intentional No Action	11/16/1998
			POTTAWATTAMIE	Coliform (TCR)	Repeat Major	99-222	10/1/1998	Intentional No Action	11/16/1998
			POTTAWATTAMIE	Coliform (TCR)	Repeat Major	99-220	10/1/1998	Intentional No Action	11/16/1998
			POTTAWATTAMIE	Coliform (TCR)	Repeat Major	99-221	10/1/1998	Intentional No Action	11/16/1998
MALONE CREEK ESTATES, INC.	IA1000902	30	BUCHANAN	Coliform (TCR)	Routine Major	98-1891	8/1/1998	Compliance Achieved	9/16/1998
			BUCHANAN	Coliform (TCR)	Routine Major	98-1833	8/1/1998	Compliance Achieved	9/16/1998
MALVERN WATER SUPPLY	IA6545020	1210	MILLS	Nitrate	Routine Major	98-958	4/1/1998	Compliance Achieved	5/19/1998
MANCHESTER LIVESTOCK	IA2839202	123	DELAWARE	Nitrate	Routine Major	98-936	1/1/1998	Compliance Achieved	5/18/1998

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MANCHESTER LIVESTOCK	IA2839202	123	DELAWARE	Nitrate	Routine Major	98-1989	7/1/1998	Compliance Achieved	10/23/1998
MANILLA MUNI SERVICE DEPT	IA2436023	898	CRAWFORD	Coliform (TCR)	Routine Major	98-1053	5/1/1998	Compliance Achieved	6/1/1998
MAPLE HEIGHTS GOLF & COUNTRY CLUB	IA4525201	27	HOWARD	Coliform (TCR)	Routine Major	99-494	10/1/1998	Compliance Achieved	2/1/1999
MAPLE HILLS COUNTRY CLUB	IA0975895	55	BREMER	Coliform (TCR)	Routine Major	98-1268	4/1/1998	Compliance Achieved	8/5/1998
MAPLES RESORT INC	IA2800837	25	DELAWARE	Coliform (TCR)	Routine Major	98-1289	4/1/1998	BCA Signed	10/29/1998
			DELAWARE	Coliform (TCR)	Routine Major	98-2073	7/1/1998	BCA Signed	10/29/1998
			DELAWARE	Nitrate	Routine Major	99-93	7/1/1998	BCA Signed	10/29/1998
MAQUOKETA CAVES STATE PARK #3	IA4950923	40	JACKSON	Nitrate	Routine Major	99-660	4/1/1998	BCA Signed	1/28/1999
			JACKSON	Nitrate	Routine Major	99-662	4/1/1998	BCA Signed	1/28/1999
MARENGO GOLF CLUB	IA4843897	35	IOWA	Nitrate	Routine Major	98-1138	4/1/1998	Compliance Achieved	9/14/1998
MARR PARK	IA9203461	148	WASHINGTON	Coliform (TCR)	Routine Major	98-2145	7/1/1998	Compliance Achieved	10/5/1998
MARTIN ORCHARDS	IA7820801	310	POTTAWATTAMIE	Coliform (TCR)	Routine Major	98-1335	4/1/1998	Compliance Achieved	8/26/1998
			POTTAWATTAMIE	Nitrate	Routine Major	98-1629	4/1/1998	Compliance Achieved	8/26/1998
MASSENA WATER SUPPLY	IA1558055	372	CASS	Coliform (TCR)	Routine Major	98-597	1/1/1998	Compliance Achieved	2/23/1998
MASSEY MARINA	IA3126438	206	DUBUQUE	Coliform (TCR)	Routine Major	98-971	4/1/1998	Compliance Achieved	6/8/1998
			DUBUQUE	Coliform (TCR)	Routine Major	98-1058	5/1/1998	Compliance Achieved	6/8/1998
MATSELL BRIDGE A	IA5720914	150	LINN	Coliform (TCR)	Routine Major	98-1908	7/1/1998	Compliance Achieved	11/9/1998
			LINN	Nitrate	Routine Major	99-103	7/1/1998	Compliance Achieved	10/19/1998
			LINN	Nitrate	Routine Major	99-101	7/1/1998	Compliance Achieved	10/19/1998
			LINN	Coliform (TCR)	Routine Major	99-174	10/1/1998	Compliance Achieved	11/9/1998
MAURICE MUNI WATER SUPPLY	IA8458057	243	SIOUX	Gross Alpha	Routine Major	99-8	7/1/1998	PN Received	11/2/1998
MEADOW HILLS GOLF COURSE	IA4260807	44	HARDIN	Coliform (TCR)	Routine Major	98-2088	4/1/1998	Compliance Achieved	7/6/1998
MEADOW KNOLLS ADDITION	IA5751301	59	LINN	Coliform (TCR)	Routine Major	98-976	4/1/1998	Compliance Achieved	6/29/1998

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PWS NAME	PWSID NUMBER	POP.	COUNTY	NAME OF CONTAMINANT	VIOL. TYPE	VIOL. NUMBER	DATE OF VIOLATION	TYPE OF ENFORCEMENT	DATE OF ACTION
MEADOW KNOLLS ADDITION	IA5751301	59	LINN	Coliform (TCR)	Routine Major	98-1063	5/1/1998	Compliance Achieved	6/29/1998
			LINN	Coliform (TCR)	Routine Major	98-2112	9/1/1998	Compliance Achieved	10/26/1998
			LINN	Coliform (TCR)	Routine Major	99-509	12/1/1998	Compliance Achieved	1/27/1999
MEADOW VIEW COUNTRY CLUB	IA5722748	42	LINN	Coliform (TCR)	Routine Major	98-1318	4/1/1998	Compliance Achieved	9/30/1998
MELSHA TAP INC	IA5285203	25	JOHNSON	Nitrate	Routine Major	99-879	7/1/1998	Compliance Achieved	5/29/1999
MID-MART, INC.	IA3100740	51	DUBUQUE	Coliform (TCR)	Routine Major	99-85	7/1/1998	Compliance Achieved	12/28/1998
			DUBUQUE	Nitrate	Routine Major	99-86	7/1/1998	Compliance Achieved	1/19/1999
			DUBUQUE	Nitrate	Routine Major	99-397	10/1/1998	Compliance Achieved	1/22/1999
MIKE'S SALOON	IA7528801	240	PLYMOUTH	Coliform (TCR)	Routine Major	98-2124	7/1/1998	Compliance Achieved	10/30/1998
MILES WATER DEPARTMENT	IA4953078	409	JACKSON	Coliform (TCR)	Repeat Major	99-131	9/1/1998	Compliance Achieved	11/17/1998
			JACKSON	Coliform (TCR)	Repeat Major	99-132	10/1/1998	Compliance Achieved	11/17/1998
MINIFARM ACRES	IA1689402	30	CEDAR	Nitrate	Routine Major	99-872	7/1/1998	BCA Signed	3/8/1999
MONDAMIN WATER SUPPLY	IA4349094	403	HARRISON	Coliform (TCR)	Routine Major	98-1060	5/1/1998	Compliance Achieved	6/3/1998
MONMOUTH WATER SUPPLY	IA4955001	169	JACKSON	Nitrate	Routine Major	98-782	1/1/1998	Compliance Achieved	5/19/1998
MONTI-VIEW MOBILE HOME PARK	IA5300688	75	JONES	Coliform (TCR)	Routine Major	99-237	10/1/1998	Compliance Achieved	1/28/1999
			JONES	Coliform (TCR)	Routine Major	99-315	11/1/1998	Compliance Achieved	1/28/1999
			JONES	Coliform (TCR)	Routine Major	99-500	12/1/1998	Compliance Achieved	1/28/1999
MOORHEAD WATER SUPPLY	IA6731006	259	MONONA	Nitrate	Routine Major	98-787	1/1/1998	Compliance Achieved	4/7/1998
			MONONA	Nitrate	Routine Major	98-2017	7/1/1998	Compliance Achieved	11/4/1998
MORGAN CREEK PARK	IA5715973	30	LINN	Nitrate	Routine Major	98-1542	4/1/1998	Compliance Achieved	9/25/1998
			LINN	Nitrate	Routine Major	98-1543	4/1/1998	Compliance Achieved	9/25/1998
MOUNT VERNON COMMUNITY BIBLE	IA5758801	43	LINN	Coliform (TCR)	Routine Major	98-2113	7/1/1998	Compliance Achieved	10/14/1998
MT JOY MOBILE HOME PARK	IA8222603	173	SCOTT	Coliform (TCR)	Routine Major	98-1685	7/1/1998	Compliance Achieved	8/25/1998

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PWS NAME	PWSID NUMBER	POP.	COUNTY	NAME OF CONTAMINANT	VIOL. TYPE	VIOL. NUMBER	DATE OF VIOLATION	TYPE OF ENFORCEMENT	DATE OF ACTION
MT JOY MOBILE HOME PARK	IA8222603	173	SCOTT	Nitrate	Routine Major	99-722	10/1/1998	Compliance Achieved	2/16/1999
			SCOTT	Coliform (TCR)	Routine Major	99-527	12/1/1998	Compliance Achieved	1/22/1999
NANCY'S COUNTRY INN	IA5715207	25	LINN	Coliform (TCR)	Routine Major	98-1315	4/1/1998	Compliance Achieved	8/3/1998
			LINN	Coliform (TCR)	Routine Major	99-505	10/1/1998	Compliance Achieved	1/29/1999
NASHUA TOWN AND COUNTRY CLUB	IA1967873	223	CHICKASAW	Coliform (TCR)	Repeat Major	99-553	10/1/1998	Compliance Achieved	1/28/1999
NEW HAMPTON GOLF & COUNTRY CLUB	IA1970202	57	CHICKASAW	Nitrate	Routine Major	99-141	10/1/1998	Compliance Achieved	4/5/1999
NEW HORIZON RESIDENTIAL	IA1600901	55	CEDAR	Coliform (TCR)	Repeat Major	98-1365	6/1/1998	Compliance Achieved	9/29/1998
NEWBURG SERVICE ASSOCIATION	IA5057048	114	POWESHIEK	Coliform (TCR)	Repeat Major	98-1877	8/1/1998	Compliance Achieved	9/1/1998
			POWESHIEK	Nitrate	Routine Major	99-754	10/1/1998	NOV Issued	2/11/1999
NISHNA VALLEY RECREATION CLUB	IA1528809	43	CASS	Nitrate	Routine Major	99-863	7/1/1998	Compliance Achieved	4/22/1999
NOB HILL SUPPER CLUB	IA9630780	65	WINNESHIEK	Nitrate	Routine Major	98-592	1/1/1998	Compliance Achieved	2/24/1998
			WINNESHIEK	Coliform (TCR)	Routine Major	98-1859	8/1/1998	Compliance Achieved	9/1/1998
			WINNESHIEK	Nitrate	Routine Major	98-1828	8/1/1998	Compliance Achieved	9/1/1998
NORTH CORALVILLE LAKE MANOR	IA5200889	64	JOHNSON	Coliform (TCR)	Routine Major	98-604	1/1/1998	Compliance Achieved	2/25/1998
NORTH END MOBILE HOME PARK	IA3100609	95	DUBUQUE	Coliform (TCR)	Repeat Major	99-201	10/1/1998	Compliance Achieved	11/5/1998
NORTHERN ENGRAVING COMPANY	IA0345884	295	ALLAMAKEE	Nitrate	Routine Major	99-123	7/1/1998	Compliance Achieved	11/17/1998
NORTHWOOD COUNTRY CLUB	IA9855201	42	WORTH	Nitrate	Routine Major	99-106	4/1/1998	Compliance Achieved	5/11/1999
NORTHWOOD WATERWORKS	IA9855077	1940	WORTH	Nitrate	Routine Major	99-629	10/1/1998	Compliance Achieved	2/8/1999
OAK HILLS PAR 30 GOLF COURSE	IA1716820	60	CERRO GORDO	Nitrate	Routine Major	99-786	4/1/1998	NOV Issued	2/15/1999
OAK RIDGE RECREATION ASSN	IA9937401	54	WRIGHT	Nitrate	Routine Major	99-896	7/1/1998	Compliance Achieved	9/8/1998
OAK VALLEY	IA5784311	154	LINN	Nitrate	Routine Major	99-634	10/1/1998	BCA Signed	1/27/1999
			LINN	Nitrate	Routine Major	99-633	10/1/1998	BCA Signed	1/27/1999
OAKLAND MILLS STORE	IA4462200	77	HENRY	Coliform (TCR)	Routine Major	98-2091	7/1/1998	Compliance Achieved	5/4/1999

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OAKWOOD PARK WATER ASSOCIATION	IA1700352	25	CERRO GORDO	Arsenic	Routine Major	98-1155	4/1/1998	Compliance Achieved	8/13/1998
			CERRO GORDO	Coliform (TCR)	Routine Major	98-1052	5/1/1998	Compliance Achieved	6/29/1998
			CERRO GORDO	Coliform (TCR)	Repeat Major	98-1367	6/1/1998	Compliance Achieved	8/13/1998
			CERRO GORDO	Coliform (TCR)	Routine Major	98-1720	7/1/1998	Compliance Achieved	8/13/1998
OBIES WEST	IA4938205	64	JACKSON	Coliform (TCR)	Routine Major	99-697	11/1/1998	Compliance Achieved	2/3/1999
			JACKSON	Coliform (TCR)	Routine Major	99-698	12/1/1998	Compliance Achieved	2/3/1999
OELWEIN CITY PARK	IA3353492	102	FAYETTE	Nitrate	Routine Major	99-762	7/1/1998	BCA Signed	2/12/1999
OHKIYU VILLAGE MHC	IA5600685	34	LEE	Nitrate	Routine Major	98-1591	4/1/1998	Compliance Achieved	10/26/1998
OKOBOJI VU GOLF	IA3070868	127	DICKINSON	Coliform (TCR)	Routine Major	98-1291	4/1/1998	Compliance Achieved	7/20/1998
OLDTIMERS # 3 SOUTH	IA0330632	25	ALLAMAKEE	Coliform (TCR)	Routine Major	98-2057	7/1/1998	Compliance Achieved	4/12/1999
OLSEN'S WATER SYSTEM	IA4003211	60	HAMILTON	Nitrate	Routine Major	99-858	7/1/1998	Compliance Achieved	3/18/1999
ONAWA COUNTRY CLUB	IA6739770	50	MONONA	Coliform (TCR)	Routine Major	98-2121	7/1/1998	NOV Issued	10/19/1998
			MONONA	Nitrate	Routine Major	99-887	7/1/1998	NOV Issued	3/10/1999
			MONONA	Coliform (TCR)	Routine Major	99-515	10/1/1998	NOV Issued	1/25/1999
OPEN BIBLE CONFERENCE GROUND	IA1785421	100	CERRO GORDO	Nitrate	Routine Major	99-820	1/1/1998	NOV Issued	2/18/1999
			CERRO GORDO	Coliform (TCR)	Routine Major	98-1895	7/1/1998	Compliance Achieved	9/22/1998
ORIENT MUNICIPAL WATER SUPPLY	IA0160099	376	ADAIR	Coliform (TCR)	Routine Major	99-150	10/1/1998	Compliance Achieved	11/16/1998
OSTERDOCK STORE	IA2242203	26	CLAYTON	Coliform (TCR)	Routine Major	98-1283	4/1/1998	Compliance Achieved	10/21/1998
			CLAYTON	Nitrate	Routine Major	98-1538	4/1/1998	Compliance Achieved	10/21/1998
			CLAYTON	Coliform (TCR)	Routine Major	98-2068	7/1/1998	Compliance Achieved	10/21/1998
			CLAYTON	Coliform (TCR)	Repeat Major	99-358	7/1/1998	NOV Issued	12/21/1998
			CLAYTON	Coliform (TCR)	Routine Major	99-344	10/1/1998	NOV Issued	12/21/1998
OTTER CREEK STATION	IA3198799	101	DUBUQUE	Coliform (TCR)	Routine Major	98-848	1/1/1998	Compliance Achieved	10/6/1998

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OTTER CREEK STATION	IA3198799	101	DUBUQUE	Coliform (TCR)	Routine Major	98-2080	4/1/1998	Compliance Achieved	10/6/1998
			DUBUQUE	Coliform (TCR)	Routine Major	98-1296	4/1/1998	Compliance Achieved	10/6/1998
			DUBUQUE	Nitrate	Routine Major	98-1537	4/1/1998	AO w/o Penalty	12/28/1998
OXBOW PARK	IA4622401	100	HUMBOLDT	Nitrate	Routine Major	98-780	1/1/1998	Compliance Achieved	12/17/1998
			HUMBOLDT	Nitrate	Routine Major	98-1188	4/1/1998	Compliance Achieved	12/17/1998
			HUMBOLDT	Nitrate	Routine Major	98-1997	7/1/1998	Compliance Achieved	12/17/1998
OXFORD WATER SUPPLY	IA5260017	663	JOHNSON	Nitrate	Routine Major	99-725	10/1/1998	Compliance Achieved	3/16/1999
PADDLE INN	IA1253201	36	BUTLER	Coliform (TCR)	Routine Major	98-1433	4/1/1998	Compliance Achieved	7/20/1998
			BUTLER	Nitrate	Routine Major	99-781	4/1/1998	Compliance Achieved	5/24/1999
PALISADES KEPLER STATE PARK-LODGE	IA5751946	208	LINN	Coliform (TCR)	Routine Major	98-1320	6/1/1998	Compliance Achieved	7/6/1998
PARADISE VALLEY CAMPGROUND	IA2234601	55	CLAYTON	Nitrate	Routine Major	98-1986	7/1/1998	Compliance Achieved	5/4/1999
PARK HILLS UTILITY	IA6361301	70	MARION	Coliform (TCR)	Routine Major	98-676	2/1/1998	Compliance Achieved	3/27/1998
PARK VIEW MOTEL	IA3353719	27	FAYETTE	Nitrate	Routine Major	99-744	1/1/1998	Compliance Achieved	3/16/1999
			FAYETTE	Nitrate	Routine Major	99-745	4/1/1998	Compliance Achieved	3/16/1999
			FAYETTE	Nitrate	Routine Major	99-746	7/1/1998	Compliance Achieved	3/16/1999
			FAYETTE	Nitrate	Routine Major	99-743	10/1/1998	Compliance Achieved	3/16/1999
			FAYETTE	Nitrate	Routine Major	99-747	10/1/1998	Compliance Achieved	3/16/1999
PATHWAY CHRISTIAN SCHOOL	IA9233501	92	WASHINGTON	Nitrate	Routine Major	99-753	10/1/1998	Compliance Achieved	2/22/1999
PATTISON BROS, INC. (NORTH TERMINAL)	IA2203101	56	CLAYTON	Coliform (TCR)	Routine Major	98-844	1/1/1998	Compliance Achieved	5/6/1998
PCS NITROGEN FERTILIZER, LP	IA2326107	95	CLINTON	Coliform (TCR)	Routine Major	98-1287	4/1/1998	Compliance Achieved	8/24/1998
PEOSTA WATER SUPPLY	IA3170001	700	DUBUQUE	Coliform (TCR)	Routine Major	98-600	1/1/1998	Compliance Achieved	2/17/1998
PETERSEN PROPERTIES	IA8222174	950	SCOTT	Nitrate	Routine Major	99-848	10/1/1998	Compliance Achieved	3/15/1999
			SCOTT	Nitrate	Routine Major	99-849	10/1/1998	Compliance Achieved	3/15/1999

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PICTURED ROCKS METHODIST CAMP	IA5343413	29	JONES	Coliform (TCR)	Routine Major	98-618	1/1/1998	Compliance Achieved	2/2/1998
			JONES	Coliform (TCR)	Routine Major	98-997	4/1/1998	Compliance Achieved	6/15/1998
			JONES	Nitrate	Routine Major	99-429	10/1/1998	Compliance Achieved	3/8/1999
PIG DADDY'S LTD	IA4219202	48	HARDIN	Coliform (TCR)	Routine Major	99-491	10/1/1998	Compliance Achieved	1/4/1999
PIKES PEAK STATE PARK-CAMPGROUND	IA2258923	750	CLAYTON	Nitrate	Routine Major	99-766	7/1/1998	BCA Signed	2/12/1999
PILGRIM HEIGHTS CAMP	IA8666801	75	TAMA	Coliform (TCR)	Routine Major	99-531	10/1/1998	Compliance Achieved	2/1/1999
PILOT MOUND WATER SYSTEM	IA0862042	199	BOONE	SOC Reg Series	Routine Major	99-823	10/1/1998	Compliance Achieved	3/29/1999
PINE CREEK PAR 31 GOLF COURSE	IA1750816	55	CERRO GORDO	Coliform (TCR)	Routine Major	98-1277	4/1/1998	Compliance Achieved	9/29/1998
			CERRO GORDO	Nitrate	Routine Major	99-615	4/1/1998	NOV Issued	1/25/1999
PINE GROVE MENNONITE SCHOOL	IA4509501	45	HOWARD	Coliform (TCR)	Routine Major	98-690	2/1/1998	Compliance Achieved	4/29/1998
PINE LAKE STATE PARK-RIVER AREA	IA4236913	25	HARDIN	Nitrite	Routine Major	99-795	6/1/1998	Compliance Achieved	6/22/1998
PLA-MOR BOWL OF IOWA FALLS, INC.	IA4260210	173	HARDIN	Coliform (TCR)	Routine Major	98-850	1/1/1998	Compliance Achieved	4/13/1998
			HARDIN	Coliform (TCR)	Routine Major	99-492	10/1/1998	Compliance Achieved	4/6/1999
PLANTATION VILLAGE MHP	IA2900600	110	DES MOINES	Nitrate	Routine Major	98-1588	1/1/1998	AO w/ Penalty	1/8/1999
PLEASANT CREEK ESTATES ASSN	IA0670301	50	BENTON	Coliform (TCR)	Routine Major	99-467	12/1/1998	Compliance Achieved	1/22/1999
PLEASANT CREEK PUBLIC AREA 2	IA4910402	117	DUBUQUE	Nitrate	Routine Major	99-668	7/1/1998	Compliance Achieved	5/3/1999
PLEASANT VALLEY GOLF COURSE	IA5225805	120	JOHNSON	Coliform (TCR)	Routine Major	98-2100	7/1/1998	Compliance Achieved	11/3/1998
POLK COUNTY CONSERVATION BOARD	IA7730901	57	POLK	Coliform (TCR)	Routine Major	98-1333	4/1/1998	Compliance Achieved	8/3/1998
			POLK	Nitrate	Routine Major	98-1179	4/1/1998	Compliance Achieved	8/3/1998
PONDEROSA TRUCK STOP	IA6525769	150	MILLS	Nitrate	Routine Major	98-587	1/1/1998	Compliance Achieved	3/23/1998
			MILLS	Nitrate	Routine Major	98-668	2/1/1998	Compliance Achieved	3/23/1998
			MILLS	Nitrate	Routine Major	98-956	4/1/1998	Intentional No Action	5/18/1998
			MILLS	Nitrate	Routine Major	98-1046	5/1/1998	Intentional No Action	6/16/1998

TABLE D: 1998 MONITORING/REPORTING VIOLATIONS REPORT

PWS NAME	PWSID NUMBER	POP.	COUNTY	NAME OF CONTAMINANT	VIOL. TYPE	VIOL. NUMBER	DATE OF VIOLATION	TYPE OF ENFORCEMENT	DATE OF ACTION
PONDEROSA TRUCK STOP	IA6525769	150	MILLS	Nitrate	Routine Major	98-1653	7/1/1998	Compliance Achieved	9/18/1998
			MILLS	Nitrate	Routine Major	98-1819	8/1/1998	Compliance Achieved	9/18/1998
PONY CREEK PARK	IA6525979	34	MILLS	Nitrate	Routine Major	99-52	7/1/1998	Compliance Achieved	10/1/1998
PRAIRIE VALLEY COMMUNITY SCHOOL	IA1320501	355	CALHOUN	Nitrate	Routine Major	98-1621	4/1/1998	Compliance Achieved	9/9/1998
PRIMGHAR MUNICIPAL WATER SUPPLY	IA7155059	950	O'BRIEN	Nitrate	Routine Major	98-1622	4/1/1998	Compliance Achieved	8/17/1998
QUAKERDALE	IA4271901	35	HARDIN	Coliform (TCR)	Routine Major	98-1301	6/1/1998	Compliance Achieved	8/3/1998
RADCLIFFE MUNICIPAL WATER	IA4283067	574	HARDIN	Coliform (TCR)	Repeat Major	98-1087	4/1/1998	Compliance Achieved	5/19/1998
			HARDIN	Coliform (TCR)	Repeat Major	99-208	10/1/1998	Compliance Achieved	12/15/1998
			HARDIN	Coliform (TCR)	Repeat Major	99-207	10/1/1998	Compliance Achieved	12/15/1998
			HARDIN	Coliform (TCR)	Repeat Major	99-206	10/1/1998	Compliance Achieved	12/15/1998
			HARDIN	Coliform (TCR)	Repeat Major	99-205	10/1/1998	Compliance Achieved	12/15/1998
RAINBOW CLUB	IA5307728	50	JONES	Nitrate	Routine Major	99-839	10/1/1998	Compliance Achieved	3/22/1999
RAKE WATER SUPPLY	IA9575068	238	WINNEBAGO	SOC Reg Series	Routine Major	99-676	10/1/1998	Compliance Achieved	3/3/1999
RALEIGH HILLS GOLF COURSE	IA1946201	66	CHICKASAW	Coliform (TCR)	Routine Major	98-1278	4/1/1998	Compliance Achieved	8/5/1998
			CHICKASAW	Nitrate	Routine Major	98-1545	4/1/1998	Compliance Achieved	8/5/1998
RAMSEY REFORMED CHURCH	IA5588817	35	KOSSUTH	Coliform (TCR)	Routine Major	99-502	10/1/1998	Compliance Achieved	1/11/1999
RED MAN INN	IA6634201	27	MITCHELL	Coliform (TCR)	Routine Major	98-868	1/1/1998	Compliance Achieved	4/6/1998
REGENCY WEST SUBDIVISION	IA3126308	46	DUBUQUE	Coliform (TCR)	Routine Major	98-1668	7/1/1998	Compliance Achieved	8/5/1998
			DUBUQUE	Coliform (TCR)	Routine Major	98-1723	7/1/1998	Compliance Achieved	8/5/1998
REMSEN MUNICIPAL UTILITIES	IA7568079	1669	PLYMOUTH	Gross Alpha	Routine Major	98-1255	4/1/1998	Compliance Achieved	9/22/1998
RENWICK MUNIC WATER SUPPLY	IA4669080	287	HUMBOLDT	Xylene	Routine Major	99-449	10/1/1998	Compliance Achieved	1/14/1999
RESURRECTION CHILDREN'S DAY CARE	IA3126588	93	DUBUQUE	Nitrate	Routine Major	99-100	7/1/1998	Compliance Achieved	11/10/1998
RICE LAKE GOLF & COUNTRY CLUB	IA9545202	100	WINNEBAGO	Coliform (TCR)	Repeat Major	98-2246	4/1/1998	Compliance Achieved	8/24/1998

TABLE D: 1998 MONITORING/REPORTING VIOLATIONS REPORT

PWS NAME	PWSID NUMBER	POP.	COUNTY	NAME OF CONTAMINANT	VIOL. TYPE	VIOL. NUMBER	DATE OF VIOLATION	TYPE OF ENFORCEMENT	DATE OF ACTION
RICE LAKE GOLF & COUNTRY CLUB	IA9545202	100	WINNEBAGO	Coliform (TCR)	Repeat Major	98-2245	4/1/1998	Compliance Achieved	8/24/1998
			WINNEBAGO	Coliform (TCR)	Routine Major	98-2268	7/1/1998	Compliance Achieved	8/24/1998
RICH-SPECTOR FARMS COMMERCIAL PARK	IA8222180	173	SCOTT	Coliform (TCR)	Routine Major	98-903	1/1/1998	Compliance Achieved	5/6/1998
			SCOTT	Coliform (TCR)	Routine Major	98-1731	7/1/1998	Compliance Achieved	9/2/1998
RIDGEROAD DEVELOPMENT	IA3218301	31	EMMET	Coliform (TCR)	Routine Major	98-673	2/1/1998	Compliance Achieved	3/30/1998
			EMMET	Coliform (TCR)	Repeat Major	98-885	3/1/1998	Compliance Achieved	4/14/1998
			EMMET	Coliform (TCR)	Repeat Major	98-986	4/1/1998	Compliance Achieved	5/20/1998
RINARD WATER SUPPLY	IA1374086	71	CALHOUN	Bromochloromethane	Routine Major	98-769	1/1/1998	Compliance Achieved	4/20/1998
RIPPEY MUNI WATER SUPPLY	IA3754088	275	GREENE	Gross Alpha	Routine Major	98-917	1/1/1998	Compliance Achieved	6/1/1998
RIVER RANCH CAMPING INC	IA1967402	27	CHICKASAW	Coliform (TCR)	Routine Major	98-1279	4/1/1998	Compliance Achieved	7/7/1998
RIVERTON WATER WORKS	IA3655071	333	FREMONT	Coliform (TCR)	Routine Major	98-1671	7/1/1998	Compliance Achieved	8/5/1998
ROCK CREEK MARINA & CAMPGROUND	IA2322446	52	CLINTON	Nitrate	Routine Major	98-1597	4/1/1998	Compliance Achieved	10/26/1998
			CLINTON	Coliform (TCR)	Routine Major	98-2071	7/1/1998	Compliance Achieved	10/14/1998
ROCKY KNOLL MHP	IA9525601	65	WINNEBAGO	Coliform (TCR)	Routine Major	98-614	1/1/1998	Compliance Achieved	3/11/1998
			WINNEBAGO	Coliform (TCR)	Routine Major	98-684	2/1/1998	Compliance Achieved	3/11/1998
ROCKY NOOK RESORT	IA2817710	50	DELAWARE	Nitrate	Routine Major	98-1987	9/1/1998	BCA Signed	6/24/1998
ROUND GROVE GOLF & COUNTRY CLUB	IA1253805	87	BUTLER	Nitrate	Routine Major	99-778	7/1/1998	Compliance Achieved	4/19/1999
ROY INGLES WATER SUPPLY	IA2831401	400	DELAWARE	Nitrate	Routine Major	99-424	10/1/1998	Compliance Achieved	5/4/1999
ROYAL PINES VILLAGE	IA2300638	425	CLINTON	Nitrate	Routine Major	98-1608	4/1/1998	Compliance Achieved	2/1/1999
			CLINTON	Nitrate	Routine Major	99-619	10/1/1998	Compliance Achieved	2/1/1999
RURAL WATER SYSTEM #1 (PLANT 1)	IA8400711	1650	SIOUX	Nitrate	Routine Major	98-1193	4/1/1998	Compliance Achieved	8/3/1998
RURAL WATER SYSTEM #1 (PLANT 2)	IA8400722	2135	SIOUX	Nitrate	Routine Major	98-1625	4/1/1998	Compliance Achieved	8/31/1998
RUSTIC OAKS HOMEOWNERS ASSN.	IA8215399	62	SCOTT	Coliform (TCR)	Routine Major	98-682	2/1/1998	Compliance Achieved	3/11/1998

TABLE D: 1998 MONITORING/REPORTING VIOLATIONS REPORT

PWS NAME	PWSID NUMBER	POP. COUNTY	NAME OF CONTAMINANT	VIOL. TYPE	VIOL. NUMBER	DATE OF VIOLATION	TYPE OF ENFORCEMENT	DATE OF ACTION
RUSTIC OAKS HOMEOWNERS ASSN.	IA8215399	62 SCOTT	Nitrate	Routine Major	99-57	7/1/1998	Compliance Achieved	11/9/1998
RUTLAND WATER SUPPLY	IA4675012	149 HUMBOLDT	Nitrate	Routine Major	99-689	4/1/1998	Compliance Achieved	3/9/1999
SAC CITY MUNICIPAL WATER PLANT	IA8150015	2516 SAC	Coliform (TCR)	Routine Major	98-608	1/1/1998	Compliance Achieved	2/24/1998
SAC COUNTY GOLF AND COUNTRY CLUB	IA8144817	40 SAC	Coliform (TCR)	Routine Major	98-1341	4/1/1998	Compliance Achieved	9/16/1998
		SAC	Nitrate	Routine Major	98-960	4/1/1998	Compliance Achieved	5/6/1998
		SAC	Nitrate	Routine Major	98-1826	6/1/1998	Compliance Achieved	7/8/1998
		SAC	Nitrate	Routine Major	99-146	10/1/1998	Compliance Achieved	3/31/1999
SALEM LUTH.CHRCH/CORRECTIONVILLE	IA9721883	90 WOODBURY	Coliform (TCR)	Routine Major	98-2149	7/1/1998	Compliance Achieved	11/11/1998
		WOODBURY	Nitrate	Routine Major	98-2028	7/1/1998	Compliance Achieved	11/11/1998
SCATTERGOOD FRIENDS SCH-DORM	IA1694561	48 CEDAR	Nitrate	Routine Major	98-1590	1/1/1998	Compliance Achieved	8/20/1998
SCATTERGOOD FRIENDS SCH-MAIN	IA1694562	100 CEDAR	Nitrate	Routine Major	98-1587	1/1/1998	Compliance Achieved	8/20/1998
SCOOTER'S TOWER CLUB	IA4515709	40 HOWARD	Coliform (TCR)	Routine Major	98-2094	7/1/1998	Compliance Achieved	10/5/1998
SCOTT CO PK-PINE GROVE	IA8251999	27 SCOTT	Coliform (TCR)	Routine Major	98-1346	4/1/1998	Compliance Achieved	7/13/1998
SCOTT CO PK-POOL	IA8251996	437 SCOTT	Coliform (TCR)	Routine Major	98-1345	4/1/1998	Compliance Achieved	7/13/1998
SENTRAL COMMUNITY SCHOOL	IA5515527	350 KOSSUTH	Coliform (TCR)	Repeat Major	98-2208	9/1/1998	Compliance Achieved	12/18/1998
SEVEN PONDS PARK	IA2974615	648 DES MOINES	Coliform (TCR)	Repeat Major	98-1373	4/1/1998	Compliance Achieved	7/29/1998
SHAGBARK ESTATES	IA3126345	38 DUBUQUE	Coliform (TCR)	Routine Major	99-165	10/1/1998	Compliance Achieved	11/2/1998
SHELBY WATER SUPPLY	IA8369038	637 SHELBY	Nitrate	Routine Major	98-1199	6/1/1998	Compliance Achieved	7/27/1998
SHELBY'S	IA1003202	27 BUCHANAN	Coliform (TCR)	Routine Major	98-1269	4/1/1998	Compliance Achieved	8/6/1998
		BUCHANAN	Coliform (TCR)	Repeat Major	98-2155	7/1/1998	Compliance Achieved	2/1/1999
		BUCHANAN	Coliform (TCR)	Routine Major	99-472	12/1/1998	Compliance Achieved	2/1/1999
SHELDAHL WATER SUPPLY	IA7778039	315 POLK	Coliform (TCR)	Routine Major	99-520	12/1/1998	Compliance Achieved	1/4/1999
SHENANDOAH WATER DEPT	IA7383045	5610 PAGE	Nitrate	Routine Major	98-2019	7/1/1998	Compliance Achieved	11/3/1998

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PWS NAME	PWSID NUMBER	POP.	COUNTY	NAME OF CONTAMINANT	VIOL. TYPE	VIOL. NUMBER	DATE OF VIOLATION	TYPE OF ENFORCEMENT	DATE OF ACTION
SHUEYVILLE UNITED METHODIST CHURCH	IA5280801	135	JOHNSON	Coliform (TCR)	Routine Major	98-606	1/1/1998	Compliance Achieved	2/5/1998
			JOHNSON	Nitrate	Routine Major	99-726	7/1/1998	Compliance Achieved	2/22/1999
SILVERCREST GOLF & COUNTRY CLUB, INC.	IA9630882	88	WINNESHIEK	Nitrate	Routine Major	99-767	7/1/1998	BCA Signed	2/12/1999
SIouxLAND RESIDENTIAL INC.	IA9700901	90	WOODBURY	Coliform (TCR)	Routine Major	98-1078	5/1/1998	Compliance Achieved	6/8/1998
SKY LINE INN	IA3100720	40	DUBUQUE	Coliform (TCR)	Routine Major	98-1722	7/1/1998	Compliance Achieved	10/20/1998
			DUBUQUE	Coliform (TCR)	Repeat Major	99-359	7/1/1998	Compliance Achieved	4/27/1999
			DUBUQUE	Nitrate	Routine Major	99-730	7/1/1998	Compliance Achieved	4/27/1999
			DUBUQUE	Coliform (TCR)	Routine Major	99-602	10/1/1998	Compliance Achieved	4/27/1999
			DUBUQUE	Coliform (TCR)	Repeat Major	99-566	10/1/1998	Compliance Achieved	4/27/1999
			DUBUQUE	Coliform (TCR)	Repeat Major	99-565	10/1/1998	Compliance Achieved	4/27/1999
SLEEPY HOLLOW ENTERPRISES	IA5260601	55	JOHNSON	Coliform (TCR)	Routine Major	98-605	1/1/1998	Compliance Achieved	2/17/1998
			JOHNSON	Nitrate	Routine Major	98-1585	1/1/1998	Compliance Achieved	11/4/1998
			JOHNSON	Coliform (TCR)	Routine Major	99-499	12/1/1998	Compliance Achieved	1/27/1999
SLEEPY HOLLOW STORE	IA5260201	227	JOHNSON	Nitrate	Routine Major	98-1592	4/1/1998	Compliance Achieved	11/4/1998
			JOHNSON	Nitrite	Routine Major	98-1593	6/1/1998	Compliance Achieved	11/4/1998
SMALL'S FRUIT FARM INC.	IA4349801	26	HARRISON	Coliform (TCR)	Routine Major	98-1302	4/1/1998	Compliance Achieved	7/17/1998
			HARRISON	Nitrate	Routine Major	98-1186	4/1/1998	Compliance Achieved	7/17/1998
			HARRISON	Coliform (TCR)	Routine Major	98-1901	7/1/1998	Compliance Achieved	9/9/1998
SOMERS WATER WORKS	IA1381073	161	CALHOUN	Nitrate	Routine Major	98-1627	1/1/1998	Compliance Achieved	8/25/1998
			CALHOUN	SOC Reg Series	Routine Major	99-752	7/1/1998	Compliance Achieved	2/25/1999
SOUTHDALE HOME OWNERS ASS'N	IA5500822	72	KOSSUTH	Nitrate	Routine Major	99-701	4/1/1998	Compliance Achieved	3/3/1999
			KOSSUTH	Nitrate	Routine Major	99-699	7/1/1998	Compliance Achieved	3/3/1999
SOUTHEAST WEBSTER COMMUNITY SCHOOL	IA9414503	400	WEBSTER	Nitrate	Routine Major	99-625	7/1/1998	Compliance Achieved	2/9/1999

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PWS NAME	PWSID NUMBER	POP.	COUNTY	NAME OF CONTAMINANT	VIOL. TYPE	VIOL. NUMBER	DATE OF VIOLATION	TYPE OF ENFORCEMENT	DATE OF ACTION
SOUTHGATE INN	IA1970711	50	CHICKASAW	Coliform (TCR)	Routine Major	98-2067	7/1/1998	Compliance Achieved	10/8/1998
SOUTHPARK	IA4260601	26	HARDIN	SOC Reg Series	Routine Major	99-117	1/1/1998	Compliance Achieved	12/28/1998
			HARDIN	Nitrate	Routine Major	99-116	1/1/1998	Compliance Achieved	12/30/1998
			HARDIN	Gross Alpha	Routine Major	99-702	10/1/1998	PN Received	2/10/1999
SPOOK CAVE	IA2258443	118	CLAYTON	Nitrate	Routine Major	99-909	7/1/1998	Compliance Achieved	5/17/1999
SPORTSEEZZ	IA2330790	41	CLINTON	Coliform (TCR)	Routine Major	98-1288	4/1/1998	Compliance Achieved	7/22/1998
			CLINTON	Nitrate	Routine Major	99-58	7/1/1998	Compliance Achieved	3/22/1999
			CLINTON	Coliform (TCR)	Routine Major	99-345	10/1/1998	Compliance Achieved	12/9/1998
			CLINTON	Nitrate	Routine Major	99-620	10/1/1998	Compliance Achieved	3/22/1999
SPRING GREEN	IA5784306	52	LINN	Nitrate	Routine Major	99-636	4/1/1998	Compliance Achieved	2/16/1999
SPRING LAKE CAMPGROUND	IA2909461	35	DES MOINES	Nitrate	Routine Major	98-1600	4/1/1998	Compliance Achieved	8/31/1998
			DES MOINES	Nitrate	Routine Major	98-1599	4/1/1998	Compliance Achieved	8/31/1998
			DES MOINES	Nitrate	Routine Major	98-1598	4/1/1998	Compliance Achieved	8/31/1998
SPRING LAKE GOLF COURSE	IA5625819	55	LEE	Nitrate	Routine Major	99-632	7/1/1998	Compliance Achieved	4/19/1999
SPRING LAKE STATE PARK	IA3742950	61	GREENE	Coliform (TCR)	Routine Major	98-1299	6/1/1998	Compliance Achieved	7/13/1998
			GREENE	Nitrate	Routine Major	99-814	7/1/1998	NOV Issued	2/17/1999
			GREENE	Nitrate	Routine Major	99-816	7/1/1998	NOV Issued	2/17/1999
			GREENE	Coliform (TCR)	Routine Major	98-2257	9/1/1998	Compliance Achieved	4/28/1999
			GREENE	Coliform (TCR)	Routine Major	99-168	10/1/1998	Compliance Achieved	4/28/1999
SPRING VALLEY HOMEOWNERS ASSN.	IA5225303	163	JOHNSON	Nitrate	Routine Major	98-1606	4/1/1998	Compliance Achieved	9/23/1998
			JOHNSON	Nitrate	Routine Major	98-1607	4/1/1998	Compliance Achieved	9/23/1998
SPRINGBROOK COUNTRY CLUB	IA2330847	86	CLINTON	Nitrate	Routine Major	99-148	10/1/1998	Compliance Achieved	11/23/1998
			CLINTON	Nitrate	Routine Major	99-420	12/1/1998	Compliance Achieved	2/1/1999

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PWS NAME	PWSID NUMBER	POP.	COUNTY	NAME OF CONTAMINANT	VIOL. TYPE	VIOL. NUMBER	DATE OF VIOLATION	TYPE OF ENFORCEMENT	DATE OF ACTION
ST ANSGAR WATER SUPPLY	IA6673016	1063	MITCHELL	Nitrate	Routine Major	98-2015	4/1/1998	Compliance Achieved	9/28/1998
ST JOHN'S LUTHERAN CHURCH	IA1253853	29	BUTLER	Nitrate	Routine Major	99-789	1/1/1998	NOV Issued	2/15/1999
			BUTLER	Coliform (TCR)	Routine Major	98-1274	4/1/1998	Compliance Achieved	8/31/1998
ST. PATRICK'S PARISH	IA5722849	142	LINN	Nitrate	Routine Major	99-655	10/1/1998	BCA Signed	1/28/1999
ST. PETER AND PAUL PARISH (SCHOOL)	IA3130809	81	DUBUQUE	Nitrate	Routine Major	98-1530	4/1/1998	Compliance Achieved	9/10/1998
ST.JOHN LUTH. CHURCH (MINEOLA)	IA6549801	25	MILLS	Coliform (TCR)	Routine Major	98-619	1/1/1998	Compliance Achieved	3/11/1998
			MILLS	Coliform (TCR)	Routine Major	98-2117	7/1/1998	Compliance Achieved	3/16/1999
			MILLS	Coliform (TCR)	Routine Major	99-514	10/1/1998	Compliance Achieved	3/16/1999
STANHOPE WATER DEPARTMENT	IA4045090	447	HAMILTON	Coliform (TCR)	Repeat Major	98-1707	7/1/1998	Compliance Achieved	8/9/1998
STOUT WATER SUPPLY	IA3880001	192	GRUNDY	Nitrate	Routine Major	99-645	4/1/1998	Compliance Achieved	2/4/1999
STRAWBERRY POINT WATER SUPPLY	IA2279003	1357	CLAYTON	Nitrate	Routine Major	98-1195	4/1/1998	Compliance Achieved	9/21/1998
SUGAR VALLEY CAMP GROUND	IA5640420	33	LEE	Nitrate	Routine Major	99-864	7/1/1998	Compliance Achieved	5/10/1999
SUPER 20 MOBILE HOME PARK	IA3126603	238	DUBUQUE	SOC Reg Series	Routine Major	98-1529	1/1/1998	Compliance Achieved	11/6/1998
			DUBUQUE	Nitrate	Routine Major	98-1524	1/1/1998	Compliance Achieved	11/2/1998
SYLVAN ACRES	IA0732301	26	BREMER	Nitrate	Routine Major	98-1639	4/1/1998	Compliance Achieved	8/28/1998
TERRIL MUNI WATERWORKS	IA3080016	383	DICKINSON	Coliform (TCR)	Routine Major	98-1839	8/1/1998	Compliance Achieved	9/1/1998
THE BARN (SHERRILL)	IA3183722	64	DUBUQUE	Nitrate	Routine Major	99-756	1/1/1998	NOV Issued	2/16/1999
THE FULL MOON SALOON	IA1044834	28	BUCHANAN	Nitrate	Routine Major	98-1547	1/1/1998	NOV Issued	8/13/1998
			BUCHANAN	Coliform (TCR)	Routine Major	98-1271	4/1/1998	Compliance Achieved	2/19/1999
			BUCHANAN	Coliform (TCR)	Routine Major	98-2062	7/1/1998	Compliance Achieved	2/19/1999
			BUCHANAN	Coliform (TCR)	Routine Major	99-474	10/1/1998	Compliance Achieved	2/19/1999
THE GENERAL STORE IN STONE CITY	IA5307201	32	JONES	Coliform (TCR)	Routine Major	99-647	10/1/1998	Compliance Achieved	1/28/1999
			JONES	Nitrate	Routine Major	99-650	10/1/1998	BCA Signed	1/28/1999

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PWS NAME	PWSID NUMBER	POP.	COUNTY	NAME OF CONTAMINANT	VIOL. TYPE	VIOL. NUMBER	DATE OF VIOLATION	TYPE OF ENFORCEMENT	DATE OF ACTION
THE HEIGHTS	IA5343202	56	JONES	Coliform (TCR)	Repeat Major	98-1398	4/1/1998	Compliance Achieved	10/13/1998
			JONES	Coliform (TCR)	Routine Major	98-1093	4/1/1998	Compliance Achieved	6/1/1998
			JONES	Nitrate	Routine Major	98-1489	4/1/1998	Compliance Achieved	8/17/1998
			JONES	Coliform (TCR)	Routine Major	98-1906	7/1/1998	Compliance Achieved	10/13/1998
THE MARLEY PUMP COMPANY	IA8222179	324	SCOTT	Coliform (TCR)	Routine Major	98-876	1/1/1998	Compliance Achieved	4/3/1998
THE MEADOWS GOLF COURSE	IA3126207	100	DUBUQUE	Nitrate	Routine Major	99-908	10/1/1998	Compliance Achieved	3/9/1999
THE NEW SHACK TAVERN	IA5715812	70	LINN	Nitrate	Routine Major	99-732	10/1/1998	Compliance Achieved	3/30/1999
THE PIT STOP	IA6634202	42	MITCHELL	Coliform (TCR)	Routine Major	98-1730	7/1/1998	Compliance Achieved	9/8/1998
			MITCHELL	Coliform (TCR)	Routine Major	98-2119	7/1/1998	Compliance Achieved	10/29/1998
THE ROSE BOWL	IA1750708	26	CERRO GORDO	Coliform (TCR)	Repeat Major	99-552	10/1/1998	NOV Issued	1/25/1999
THE SPORTSMEN	IA3300770	187	FAYETTE	Coliform (TCR)	Repeat Major	98-1378	1/1/1998	Compliance Achieved	7/29/1998
			FAYETTE	Coliform (TCR)	Repeat Major	98-1380	1/1/1998	Compliance Achieved	7/29/1998
			FAYETTE	Nitrate	Routine Major	98-1992	7/1/1998	Compliance Achieved	11/18/1998
THE THIRSTY CAMEL	IA7016202	27	MUSCATINE	Nitrate	Routine Major	99-436	10/1/1998	Compliance Achieved	2/8/1999
			MUSCATINE	Coliform (TCR)	Routine Major	99-322	11/1/1998	Compliance Achieved	12/11/1998
THE ZIPPER	IA9637201	30	WINNESHIEK	Coliform (TCR)	Routine Major	98-1353	4/1/1998	Compliance Achieved	7/13/1998
			WINNESHIEK	Nitrate	Routine Major	99-99	7/1/1998	Compliance Achieved	11/16/1998
TIMBER VALLEY ESTATES	IA8215384	169	SCOTT	Coliform (TCR)	Repeat Major	98-689	2/1/1998	Compliance Achieved	3/16/1998
TIMBER VALLEY ESTATES (THIRD	IA8215385	65	SCOTT	Gross Alpha	Routine Major	98-1256	4/1/1998	Compliance Achieved	8/24/1998
TIMBERLINE GOLF COURSE INC.	IA3126883	130	DUBUQUE	Nitrate	Routine Major	98-1166	4/1/1998	Compliance Achieved	8/11/1998
TOP OF IOWA WELCOME CENTER	IA9855202	2800	WORTH	Coliform (TCR)	Routine Major	98-1355	4/1/1998	Compliance Achieved	7/7/1998
TOWN & COUNTRY AQUA CLUB	IA7820204	30	POTTAWATTAMIE	Coliform (TCR)	Routine Major	98-1334	4/1/1998	Compliance Achieved	8/21/1998
TOWN & COUNTRY MOBILE HOME PK	IA1900669	26	CHICKASAW	Nitrate	Routine Major	99-630	10/1/1998	Compliance Achieved	1/27/1999

TABLE D: 1998 MONITORING/REPORTING VIOLATIONS REPORT

PWS NAME	PWSID NUMBER	POP.	COUNTY	NAME OF CONTAMINANT	VIOL. TYPE	VIOL. NUMBER	DATE OF VIOLATION	TYPE OF ENFORCEMENT	DATE OF ACTION
TRAVEL AMERICA INC	IA6480701	79	MARSHALL	Coliform (TCR)	Routine Major	98-866	1/1/1998	Compliance Achieved	12/24/1998
			MARSHALL	Coliform (TCR)	Routine Major	98-1327	4/1/1998	Compliance Achieved	12/24/1998
			MARSHALL	Coliform (TCR)	Routine Major	98-2115	7/1/1998	Compliance Achieved	12/24/1998
TRI CENTER COMMUNITY SCHOOL	IA7853561	775	POTTAWATTAMIE	Nitrate	Routine Major	98-2022	7/1/1998	Compliance Achieved	10/19/1998
			POTTAWATTAMIE	Coliform (TCR)	Routine Major	98-2130	9/1/1998	Compliance Achieved	10/19/1998
TRI-CITY GOLF CLUB	IA2254844	26	CLAYTON	Nitrate	Routine Major	99-870	7/1/1998	BCA Signed	3/5/1999
TROIKA CLUB	IA1750768	40	CERRO GORDO	Nitrate	Routine Major	99-787	7/1/1998	Compliance Achieved	5/11/1999
TRUCK COUNTRY OF IOWA	IA3126209	55	DUBUQUE	Coliform (TCR)	Routine Major	99-484	10/1/1998	Compliance Achieved	1/22/1999
TURKEY CREEK DEVELOPMENT	IA5225316	40	JOHNSON	SOC Reg Series	Routine Major	99-25	7/1/1998	Compliance Achieved	3/23/1999
			JOHNSON	Gross Alpha	Routine Major	99-21	10/1/1998	Compliance Achieved	12/7/1998
			JOHNSON	Coliform (TCR)	Routine Major	99-498	12/1/1998	Compliance Achieved	2/4/1999
TWIN ANCHORS CAMPGROUND	IA8500617	50	STORY	Coliform (TCR)	Routine Major	98-2141	7/1/1998	Compliance Achieved	10/27/1998
TWIN KNOLLS FOURTH/FIFTH ADDITION	IA5784326	144	LINN	Nitrate	Routine Major	99-643	4/1/1998	Compliance Achieved	2/16/1999
UNDERWOOD MOTEL	IA7869801	27	POTTAWATTAMIE	SOC Reg Series	Routine Major	98-733	1/1/1998	Compliance Achieved	5/22/1998
			POTTAWATTAMIE	Nitrate	Routine Major	98-591	1/1/1998	Compliance Achieved	7/2/1998
			POTTAWATTAMIE	Coliform (TCR)	Routine Major	98-679	2/1/1998	Compliance Achieved	7/2/1998
			POTTAWATTAMIE	Nitrate	Routine Major	98-669	2/1/1998	Compliance Achieved	7/2/1998
			POTTAWATTAMIE	Coliform (TCR)	Routine Major	98-726	3/1/1998	Compliance Achieved	7/2/1998
			POTTAWATTAMIE	Nitrate	Routine Major	98-729	3/1/1998	Compliance Achieved	7/2/1998
			POTTAWATTAMIE	Coliform (TCR)	Routine Major	98-979	4/1/1998	Compliance Achieved	7/2/1998
			POTTAWATTAMIE	Nitrate	Routine Major	98-959	4/1/1998	Compliance Achieved	7/2/1998
			POTTAWATTAMIE	Coliform (TCR)	Routine Major	98-1067	5/1/1998	Compliance Achieved	7/2/1998
			POTTAWATTAMIE	Nitrate	Routine Major	98-1047	5/1/1998	Compliance Achieved	7/2/1998

TABLE D: 1998 MONITORING/REPORTING VIOLATIONS REPORT

PWS NAME	PWSID NUMBER	POP.	COUNTY	NAME OF CONTAMINANT	VIOL. TYPE	VIOL. NUMBER	DATE OF VIOLATION	TYPE OF ENFORCEMENT	DATE OF ACTION
UNDERWOOD MOTEL	IA7869801	27	POTTAWATTAMIE	Coliform (TCR)	Routine Major	98-2131	6/1/1998	Compliance Achieved	11/2/1998
			POTTAWATTAMIE	Coliform (TCR)	Routine Major	98-1339	6/1/1998	Compliance Achieved	7/2/1998
			POTTAWATTAMIE	Nitrate	Routine Major	98-1192	6/1/1998	Compliance Achieved	7/2/1998
			POTTAWATTAMIE	Coliform (TCR)	Routine Major	98-1851	8/1/1998	Compliance Achieved	11/2/1998
			POTTAWATTAMIE	Nitrate	Routine Major	98-1825	8/1/1998	Compliance Achieved	11/2/1998
			POTTAWATTAMIE	Nitrate	Routine Major	98-2024	9/1/1998	Compliance Achieved	11/2/1998
			POTTAWATTAMIE	Coliform (TCR)	Routine Major	99-184	10/1/1998	Compliance Achieved	11/2/1998
			POTTAWATTAMIE	Nitrate	Routine Major	99-145	10/1/1998	Compliance Achieved	11/2/1998
UNDERWOOD TRUCK STOP	IA7869201	605	POTTAWATTAMIE	Coliform (TCR)	Routine Major	98-872	1/1/1998	Compliance Achieved	4/15/1998
UNDERWOOD WATER SUPPLY	IA7869037	515	POTTAWATTAMIE	Coliform (TCR)	Routine Major	98-607	1/1/1998	Compliance Achieved	2/11/1998
UNITED STATES GYPSUM-FORT DODGE	IA9433101	36	WEBSTER	Coliform (TCR)	Routine Major	99-533	10/1/1998	Compliance Achieved	2/5/1999
VAIL WATER SUPPLY	IA2452044	388	CRAWFORD	Coliform (TCR)	Routine Major	98-1663	7/1/1998	Compliance Achieved	8/19/1998
VALLEY COUNTRY KITCHEN	IA1509747	216	CASS	Coliform (TCR)	Repeat Major	98-882	1/1/1998	Compliance Achieved	4/1/1998
			CASS	Coliform (TCR)	Routine Major	98-901	1/1/1998	Compliance Achieved	4/1/1998
			CASS	Coliform (TCR)	Routine Major	98-2064	7/1/1998	Compliance Achieved	10/19/1998
			CASS	Nitrate	Routine Major	99-12	9/1/1998	Compliance Achieved	10/19/1998
VALLEY HEIGHTS 1ST ANNEX	IA8215305	62	SCOTT	Nitrate	Routine Major	98-1582	1/1/1998	Compliance Achieved	9/2/1998
VIKING LAKE STATE PARK	IA6965950	28	MONTGOMERY	Nitrate	Routine Major	99-881	4/1/1998	Compliance Achieved	3/16/1999
VILLAGE CREEK BIBLE CAMP-HOUSE	IA0345483	140	ALLAMAKEE	Coliform (TCR)	Repeat Major	99-534	10/1/1998	Compliance Achieved	3/24/1999
VILLAGE INN	IA2242786	29	CLAYTON	Nitrate	Routine Major	98-1170	4/1/1998	Compliance Achieved	8/4/1998
VILLISCA MUNICIPAL WATER DEPT	IA6985051	1332	MONTGOMERY	Napthalene	Routine Major	98-807	1/1/1998	Compliance Achieved	6/17/1998
			MONTGOMERY	Napthalene	Routine Major	98-2041	7/1/1998	Compliance Achieved	11/30/1998
VOLGA RIVER REC. AREA	IA3342901	100	FAYETTE	Coliform (TCR)	Routine Major	99-313	11/1/1998	Compliance Achieved	4/19/1999

TABLE D: 1998 MONITORING/REPORTING VIOLATIONS REPORT

PWS NAME	PWSID NUMBER	POP.	COUNTY	NAME OF CONTAMINANT	VIOL. TYPE	VIOL. NUMBER	DATE OF VIOLATION	TYPE OF ENFORCEMENT	DATE OF ACTION
WABASH NATIONAL CORP - FT MADISON	IA5625146	468	LEE	Coliform (TCR)	Routine Major	98-2105	7/1/1998	Compliance Achieved	10/26/1998
			LEE	Nitrate	Routine Major	98-2004	7/1/1998	Compliance Achieved	10/26/1998
WAHKONSA COUNTRY CLUB	IA7078815	60	MUSCATINE	Coliform (TCR)	Routine Major	98-1332	4/1/1998	Compliance Achieved	11/3/1998
			MUSCATINE	Coliform (TCR)	Routine Major	98-2123	7/1/1998	Compliance Achieved	11/3/1998
			MUSCATINE	Nitrate	Routine Major	99-720	7/1/1998	BCA Signed	2/8/1999
WALFORD CITGO	IA0690201	100	BENTON	Coliform (TCR)	Routine Major	99-468	10/1/1998	Compliance Achieved	1/28/1999
WALL LAKE WATER SUPPLY	IA8166061	892	SAC	Metolachlor	Routine Major	99-3358	1/1/1998	Compliance Achieved	5/11/1999
			SAC	Metolachlor	Routine Major	99-3359	4/1/1998	Compliance Achieved	5/11/1999
			SAC	Metolachlor	Routine Major	99-3360	7/1/1998	Compliance Achieved	5/11/1999
WALNUT ACRES CAMPGROUND	IA5343203	50	JONES	Coliform (TCR)	Repeat Major	98-1108	1/1/1998	Compliance Achieved	10/15/1998
			JONES	Coliform (TCR)	Routine Major	98-858	1/1/1998	Compliance Achieved	4/24/1998
			JONES	Coliform (TCR)	Repeat Major	98-1402	4/1/1998	Compliance Achieved	10/15/1998
WAPSI-PINICON TWIST & GIFT SHOP	IA1074205	25	BUCHANAN	Coliform (TCR)	Routine Major	99-475	10/1/1998	Compliance Achieved	3/22/1999
WAPSIE VALLEY COM SCH-FAIRBANK	IA1025554	165	BUCHANAN	Coliform (TCR)	Routine Major	98-1270	6/1/1998	Compliance Achieved	7/29/1998
			BUCHANAN	Coliform (TCR)	Routine Major	98-1834	8/1/1998	Compliance Achieved	9/21/1998
WAPSIPINICON COUNTRY CLUB	IA5307200	85	JONES	Coliform (TCR)	Routine Major	98-857	1/1/1998	Compliance Achieved	6/1/1998
			JONES	Coliform (TCR)	Routine Major	98-2103	7/1/1998	Compliance Achieved	10/23/1998
WAPSIPINICON GOLF CLUB	IA1037899	33	BUCHANAN	Coliform (TCR)	Routine Major	98-966	4/1/1998	Compliance Achieved	6/1/1998
			BUCHANAN	Nitrate	Routine Major	98-1163	4/1/1998	Compliance Achieved	8/31/1998
WASHINGTON PRAIRIE LUTHERAN CHURCH	IA9630809	35	WINNESHIEK	Coliform (TCR)	Routine Major	98-2148	7/1/1998	Compliance Achieved	10/13/1998
WEE WILLY'S	IA1074815	31	BUCHANAN	Nitrate	Routine Major	98-1560	1/1/1998	NOV Issued	8/13/1998
WENDY OAKS MHP	IA5715601	41	LINN	Coliform (TCR)	Routine Major	98-2109	9/1/1998	Compliance Achieved	10/8/1998
			LINN	Nitrate	Routine Major	99-638	10/1/1998	NOV Issued	1/27/1999

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TABLE D: 1998 MONITORING/REPORTING VIOLATIONS REPORT

PWS NAME	PWSID NUMBER	POP.	COUNTY	NAME OF CONTAMINANT	VIOL. TYPE	VIOL. NUMBER	DATE OF VIOLATION	TYPE OF ENFORCEMENT	DATE OF ACTION
WENDY OAKS MHP	IA5715601	41	LINN	Coliform (TCR)	Routine Major	99-319	11/1/1998	Compliance Achieved	12/2/1998
WEST LAKE-LAKEVIEW	IA8215900	31	SCOTT	Coliform (TCR)	Routine Major	98-2134	7/1/1998	Compliance Achieved	5/12/1999
WEST LAKE-PARK TERRACE	IA8251901		SCOTT	Coliform (TCR)	Routine Major	98-2138	7/1/1998	Compliance Achieved	5/12/1999
WEST LAKE-SUMMIT CAMPGROUND	IA8251900	503	SCOTT	Coliform (TCR)	Routine Major	98-2137	7/1/1998	Compliance Achieved	5/12/1999
WEST LIBERTY FOODS	IA7073834	700	MUSCATINE	Nitrate	Routine Major	99-399	10/1/1998	Compliance Achieved	2/16/1999
WEST POINT MUNI WATER SYSTEM	IA5691012	1079	LEE	Coliform (TCR)	Routine Major	98-1846	8/1/1998	Compliance Achieved	9/1/1998
WESTFAIR	IA7820401	301	POTTAWATTAMIE	Coliform (TCR)	Routine Major	98-2127	7/1/1998	Compliance Achieved	4/20/1999
			POTTAWATTAMIE	Coliform (TCR)	Routine Major	99-522	10/1/1998	Compliance Achieved	4/20/1999
WHITE SPRINGS AG	IA8218177	70	SCOTT	Coliform (TCR)	Routine Major	98-1343	4/1/1998	Compliance Achieved	8/4/1998
WHITTEMORE COUNTRY CLUB	IA5595815	55	KOSSUTH	Nitrate	Routine Major	99-798	4/1/1998	Compliance Achieved	4/20/1999
WHITTEMORE MUNI WATER SUPPLY	IA5595020	535	KOSSUTH	Nitrate	Routine Major	99-709	1/1/1998	NOV Issued	2/5/1999
WILLEY WATER SUPPLY	IA1486074	78	CARROLL	Nitrate	Routine Major	98-1635	4/1/1998	Compliance Achieved	8/31/1998
WILLIAMSBURG PUBLIC WATER SUPPLY	IA4884023	2380	IOWA	Nitrite	Routine Major	98-1468	6/1/1998	Compliance Achieved	7/27/1998
WILSON ISLAND STATE REC AREA	IA4344991	40	HARRISON	Nitrate	Routine Major	98-1612	4/1/1998	Compliance Achieved	9/21/1998
WINDING BROOK MOBILE HOME PARK	IA2300607	150	CLINTON	Coliform (TCR)	Routine Major	99-310	11/1/1998	Compliance Achieved	12/7/1998
WINDY RIDGE WELL ASSOCIATION	IA5748300	58	LINN	Coliform (TCR)	Routine Major	99-508	12/1/1998	Compliance Achieved	1/29/1999
WINFIELD IMPLEMENT CO., LTD	IA4493882	45	HENRY	Nitrate	Routine Major	99-835	10/1/1998	Compliance Achieved	3/22/1999
WINNEBAGO SCOUT RESERVATION	IA3420403	300	FLOYD	Nitrate	Routine Major	99-796	10/1/1998	Compliance Achieved	3/4/1999
WINTERSSET MUNICIPAL WATERWORKS	IA6171029	4196	MADISON	Gross Alpha	Routine Major	98-1252	4/1/1998	Compliance Achieved	9/9/1998
WOODBINE MEAT AND PRODUCE	IA4388202	41	HARRISON	Coliform (TCR)	Routine Major	99-493	10/1/1998	Compliance Achieved	3/10/1999
			HARRISON	Nitrate	Routine Major	99-807	10/1/1998	Compliance Achieved	3/10/1999
			HARRISON	Nitrite	Routine Major	99-808	12/1/1998	Compliance Achieved	3/10/1999
WOODBINE WATER DEPARTMENT	IA4388034	1500	HARRISON	Nitrate	Routine Major	98-1187	4/1/1998	Compliance Achieved	7/27/1998

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PWS NAME	PWSID NUMBER	POP.	COUNTY	NAME OF CONTAMINANT	VIOL. TYPE	VIOL. NUMBER	DATE OF VIOLATION	TYPE OF ENFORCEMENT	DATE OF ACTION
WOODLAND ACRES	IA9433600	92	WEBSTER	Coliform (TCR)	Routine Major	99-195	10/1/1998	Compliance Achieved	12/17/1998
WOODLAND CAMP PROPERTY OWNERS	IA4375401	50	HARRISON	Nitrate	Routine Major	98-1613	4/1/1998	Compliance Achieved	8/24/1998
WOODLAND ESTATES IMPROVEMENT	IA5280301	59	JOHNSON	Coliform (TCR)	Routine Major	99-314	11/1/1998	Compliance Achieved	12/3/1998
WOODLAND HEIGHTS HOMEOWNERS	IA5225309	51	JOHNSON	Coliform (TCR)	Routine Major	98-1672	7/1/1998	Compliance Achieved	8/12/1998
			JOHNSON	Coliform (TCR)	Routine Major	98-2099	9/1/1998	Compliance Achieved	10/15/1998
WOODLYN HILLS GOLF COURSE	IA3050876	54	DICKINSON	Nitrate	Routine Major	98-1614	4/1/1998	Compliance Achieved	9/3/1998
WOODSHED BAR AND GRILL	IA3544201	27	FRANKLIN	Coliform (TCR)	Routine Major	98-2084	7/1/1998	Compliance Achieved	12/16/1998
			FRANKLIN	Nitrate	Routine Major	99-791	10/1/1998	Compliance Achieved	3/3/1999
			FRANKLIN	Nitrite	Routine Major	99-792	12/1/1998	Compliance Achieved	3/3/1999
YANKEE GROVE DEVELOPMENT	IA5784321	64	CEDAR	Coliform (TCR)	Routine Major	98-1677	7/1/1998	Compliance Achieved	8/19/1998
YMCA CAMP FOSTER-OFFICE WELL	IA3070475	25	DICKINSON	Nitrate	Routine Major	98-1618	4/1/1998	Compliance Achieved	9/8/1998
YMCA CAMP POKAMOKE	IA7822801	160	POTTAWATTAMIE	Coliform (TCR)	Routine Major	98-870	1/1/1998	Compliance Achieved	7/21/1998
			POTTAWATTAMIE	Coliform (TCR)	Routine Major	98-1336	4/1/1998	Compliance Achieved	7/21/1998
			POTTAWATTAMIE	Coliform (TCR)	Routine Major	99-524	10/1/1998	Compliance Achieved	5/3/1999
YMCA CAMP WAPSIE	IA5722422	204	LINN	Coliform (TCR)	Routine Major	98-862	1/1/1998	Compliance Achieved	4/6/1998
			LINN	Nitrate	Routine Major	99-433	10/1/1998	Compliance Achieved	1/26/1999

TABLE E: 1998 TREATMENT TECHNIQUE VIOLATIONS REPORT (includes Lead & Copper Rule and Surface Water Treatment Rule)

PWS NAME	PWSID NUMBER	POP.	COUNTY	TT VIOLATION TYPE	DATE OF VIOLATION	TYPE OF ENFORCEMENT OR NEXT REQUIRED ACTION*	DATE OF ACTION
ALGONA MUNICIPAL UTILITIES	IA5502015	6015	KOSSUTH	Lead AL exceedance	1998Q1&2	Next round due 1999Q1&2	
ALTON MUNICIPAL WATER DEPT	IA8403029	1063	SIOUX	Copper AL exceedance	1998Q1&2	Next Action Pending	
			SIOUX	Copper AL exceedance	1998Q3&4	Next Action Pending	
APLINGTON WATER SUPPLY	IA1207061	1034	BUTLER	Lead AL exceedance	1998Q1&2	Next round due 1999Q1&2	
BOONE WATER WORKS	IA0819033	12392	BOONE	Lead AL exceedance	1998Q3&4	Next Action Pending	
BOYDEN MUNI WATER SUPPLY	IA8409037	651	SIOUX	Copper AL exceedance	1998Q3&4	Next round due 1999Q1&2	
CAMP DODGE WATER SUPPLY	IA7700901	650	POLK	Copper AL exceedance	1998Q1&2	Next Action Pending	
CARROLL MUNICIPAL WATER SUPPLY	IA1415072	9579	CARROLL	Lead AL exceedance	1998	Next round due 1999Q3&4	
			CARROLL	Copper AL exceedance	1998	Next round due 1999Q3&4	
CEDAR RAPIDS WATER PLANT	IA5715093	10877	LINN	Lead AL exceedance	1998Q3&4	Next round due 1999Q1&2	
CENTRAL WATER SYSTEM	IA3000099	25	DICKINSON	Turbidity (average)	August	Compliance Achieved	9/1/1998
CHELSEA WATER SUPPLY	IA8609019	336	TAMA	Lead AL exceedance	1998Q1&2	Next Action Pending	
			TAMA	Lead AL exceedance	1998Q3&4	Next Action Pending	
DUNKERTON MUNI WATER SUPPLY	IA0717084	746	BLACK HAWK	Copper AL exceedance	1998Q3&4	Next round due 1999Q1&2	
EARLHAM MUNICIPAL WATERWORKS	IA6115097	1157	MADISON	Lead AL exceedance	1998	WQP and resample in 1999	
EASTERN IA PORK MANUFACTURING INC	IA2825101	80	DELAWARE	Lead AL exceedance	1998Q1&2	WQP and resample in 1999	
FAIRFIELD WATER SUPPLY	IA5131033	9955	JEFFERSON	Turbidity (average)	July	Compliance Achieved	11/1/199
			JEFFERSON	Sample >5.0 NTU	June	Compliance Achieved	11/1/199

TABLE E: 1998 TREATMENT TECHNIQUE VIOLATIONS REPORT (includes Lead & Copper Rule and Surface Water Treatment Rule)

PWS NAME	PWSID NUMBER	POP.	COUNTY	TT VIOLATION TYPE	DATE OF VIOLATION	TYPE OF ENFORCEMENT OR NEXT REQUIRED ACTION*	DATE OF ACTION
FAIRFIELD WATER SUPPLY	IA5131033	9955	JEFFERSON	Turbidity (average)	June	Compliance Achieved	11/1/199
			JEFFERSON	Turbidity (average)	May	Compliance Achieved	11/1/199
FARMLAND INDUST./EAGLE GROVE	IA9926101	40	WRIGHT	Copper AL exceedance	1998Q3&4	Next round due 1999Q1&2	
FT. DODGE ANIMAL HEALTH-CHARLES	IA3405120	100	FLOYD	Lead AL exceedance	1998	WQP and resample in 1999	
FT MADISON MUNI WATER WORKS	IA5625062	11618	LEE	Lead AL exceedance	1998	WQP and resample in 1999	
			LEE	Lead AL exceedance	1998	WQP and resample in 1999	
GILBERT WATER SUPPLY	IA8531083	796	STORY	Copper AL exceedance	1998Q3&4	Next Action Pending	
HANCOCK WATER SUPPLY	IA7833025	201	POTTAWATTAMIE	Copper AL exceedance	1998Q1&2	Next Action Pending	
			POTTAWATTAMIE	Copper AL exceedance	1998Q3&4	Next Action Pending	
HICKORY ACRES/PEOPLES SERVICE	IA3126304	114	DUBUQUE	Lead AL exceedance	1998	WQP and resample in 1999	
HIGHLAND HIGH SCHOOL	IA9260528	305	WASHINGTON	Lead AL exceedance	1998Q3&4	Next Action Pending	
IPSCO STEEL , INC (MONTPELIER)	IA7038101	695	MUSCATINE	Lead AL exceedance	1998Q1&2	Next round due 1999Q1&2	
JEWELL WATER SUPPLY	IA4027010	1106	HAMILTON	Lead AL exceedance	1998Q1&2	Compliance Achieved	2/18/199
K MART (OLWEIN)	IA3353201	875	FAYETTE	Copper AL exceedance	1998	WQP and resample in 1999	
KEOKUK MUNICIPAL WATER WORKS	IA5640019	12451	LEE	Lead AL exceedance	1998Q1&2	OCCTS and resample in 1999Q1&2 and 1999Q3&4	
KIRKMAN WATER SUPPLY	IA8350033	98	SHELBY	Lead AL exceedance	1998Q3&4	Next round due 1999Q1&2	
LAMONI MUNICIPAL UTILITIES	IA2740050	2319	DECATUR	Turbidity (average)	October	Compliance Achieved	11/30/19

TABLE E: 1998 TREATMENT TECHNIQUE VIOLATIONS REPORT (includes Lead & Copper Rule and Surface Water Treatment Rule)

PWS NAME	PWSID NUMBER	POP.	COUNTY	TT VIOLATION TYPE	DATE OF VIOLATION	TYPE OF ENFORCEMENT OR NEXT REQUIRED ACTION*	DATE OF ACTION
LEMARS WATER DEPARTMENT	IA7540174	9435	PLYMOUTH	Copper AL exceedance	1998Q3&4	Next Action Pending	
LONE TREE MUNI WATER SYSTEM	IA5240095	1024	JOHNSON	Copper AL exceedance	1998Q3&4	Next Action Pending	
			JOHNSON	Copper AL exceedance	1998Q1&2	Next Action Pending	
LOUISA GENERATING STATION WS 2	IA5842102	100	MUSCATINE	Lead AL exceedance	1998Q1&2	Next Action Pending	
			MUSCATINE	Lead AL exceedance	1998Q3&4	Next Action Pending	
MINDEN WATER SUPPLY	IA7849086	539	POTTAWATTAMIE	Copper AL exceedance	1998Q1&2	Next Action Pending	
MOVILLE WATER SUPPLY	IA9753022	1306	WOODBURY	Copper AL exceedance	1998Q3&4	Next round due 1999Q1&2	
NEOLA LIGHT & WATER	IA7853043	909	POTTAWATTAMIE	Copper AL exceedance	1998Q3&4	Next Action Pending	
OSKALOOSA MUNICIPAL WATER DEPT	IA6273005	10600	MAHASKA	Turbidity (average)	October	Compliance Achieved	11/30/19
POLK CITY WATER SUPPLY	IA7770050	2134	POLK	Copper AL exceedance	1998Q3&4	Next Action Pending	
			POLK	Copper AL exceedance	1998Q1&2	Next Action Pending	
POMEROY WATER SUPPLY	IA1363051	762	CALHOUN	Lead AL exceedance	1998Q1&2	Next Action Pending	
			CALHOUN	Copper AL exceedance	1998Q3&4	Next Action Pending	
ROCK VALLEY WATER SUPPLY	IA8482096	2540	SIOUX	Copper AL exceedance	1998Q1&2	WQP and resample in 1999	
			SIOUX	Copper AL exceedance	1998Q3&4	WQP and resample in 1999	
SAINT MARYS WATER CORPORATION	IA9176019	113	MADISON	Lead AL exceedance	1998Q1&2	Next Action Pending	
SANBORN WATER SUPPLY	IA7165025	1345	O'BRIEN	Copper AL exceedance	1998Q1&2	Compliance Achieved	3/9/1999
SHELDAHL WATER SUPPLY	IA7778039	315	POLK	Copper AL exceedance	1998	Next Action Pending	

TABLE E: 1998 TREATMENT TECHNIQUE VIOLATIONS REPORT (includes Lead & Copper Rule and Surface Water Treatment Rule)

PWS NAME	PWSID NUMBER	POP.	COUNTY	TT VIOLATION TYPE	DATE OF VIOLATION	TYPE OF ENFORCEMENT OR NEXT REQUIRED ACTION*	DATE OF ACTION
SOUTHPARK	IA4260601	26	HARDIN	Lead AL exceedance	1998Q3&4	WQP and resample in 1999	
STACYVILLE WATER SUPPLY	IA6677089	481	MITCHELL	Copper AL exceedance	1998Q3&4	WQP and resample in 1999	
			MITCHELL	Copper AL exceedance	1998Q1&2	WQP and resample in 1999	
STORY CITY WATER DEPT 1999Q1&2	IA8584000	2959	STORY		Lead AL exceedance	1998Q3&4	Next round due
TABOR WATER SUPPLY	IA3667012	994	FREMONT	Copper AL exceedance	1998Q3&4	WQP and resample in 1999	
			FREMONT	Copper AL exceedance	1998Q1&2	WQP and resample in 1999	
WESTERN HILLS (MOBILE) ESTATES	IA5208600	811	JOHNSON	Lead AL exceedance	1998Q3&4	Next Action Pending	
WHEATLAND CITY WATER SUPPLY	IA2394017	723	CLINTON	Lead AL exceedance	1998Q1&2	WQP and resample in 1999	

**TABLE F: CONTINUING LEAD OR COPPER ACTION LEVEL
EXCEEDANCES (PRE-1998)**

PWS NAME	POP.	PWSID	COUNTY	EXCEEDANCE		CURRENT CORROSION CONTROL AND SAMPLING STATUS *	
				LEAD	COPPER	ACTION	DUE DATE
ABBE CENTER FOR COMMUNITY CARE	350	IA5700900	LINN	X		Collect next set of samples	99Q1&2
ACKLEY MUNICIPAL WATER WORKS	1696	IA4201001	HARDIN	X		Compliance Achieved	5/26/99
ADAIR-CASEY COMMUNITY SCHOOL	587	IA0105509	ADAIR		X	Implement corrosion control treatment Collect next set of samples	7/1/99 99Q3&4
ALBERT CITY MUNI WATER SUPPLY	779	IA1103009	BUENA VISTA		X	Compliance Achieved	12/28/98
ALEXANDER WATER DEPARTMENT	170	IA3503014	FRANKLIN		X	Implement corrosion control treatment Collect next set of samples	7/1/99 99Q3&4
ALGONA MUNICIPAL UTILITIES	6015	IA5502015	KOSSUTH	X	X	Collect next set of samples	99Q1&2
ALLEMAN WATER SUPPLY	398	IA7705022	POLK		X	Compliance Achieved	12/10/98
ALTA VISTA HOMEOWNERS ASSOCIATION	39	IA8503303	STORY	X		Implement corrosion control treatment Collect next set of samples	1/1/99 99Q1&2
ALTON MUNICIPAL WATER DEPARTMENT	1063	IA8403029	SIOUX		X	Next Action Pending	
ALVORD MUNICIPAL WATER SUPPLY	204	IA6003032	LYON	X	X	Compliance Achieved	12/3/98
APLINGTON WATER SUPPLY	1034	IA1207061	BUTLER	X	X	Collect next set of samples	99Q1&2
ARMSTRONG WATER SUPPLY	1025	IA3203066	EMMET		X	Next Action Pending	
BOONE WATER WORKS	12392	IA0819033	BOONE	X	X	Next Action Pending	
BOXHOLM WATER SUPPLY	214	IA0825036	BOONE	X		Compliance Achieved	2/22/99
BOYDEN MUNI WATER SUPPLY	651	IA8409037	SIOUX		X	Collect next set of samples	99Q1&2
BRADDYVILLE WATER WORKS	219	IA7324038	PAGE		X	Implement corrosion control treatment Collect next set of samples	1/1/99 99Q1&2
BRONSON WATER SUPPLY	209	IA9709046	WOODBURY		X	Collect next set of samples	99Q3&4 **
CAL GRADE & HIGH SCHOOL	300	IA3554505	FRANKLIN	X		Compliance Achieved	12/18/98
CAMP DODGE WATER SUPPLY	650	IA7700901	POLK	X	X	Next Action Pending	
CARROLL MUNICIPAL WATER SUPPLY	9579	IA1415072	CARROLL	X	X	Collect next set of samples	99Q3&4
CEDAR RAPIDS WATER PLANT	113458	IA5715093	LINN	X		Collect next set of samples	99Q1&2
CHELSEA WATER SUPPLY	336	IA8609019	TAMA	X		Next Action Pending	
CLIMAX MOLYBDENUM COMPANY	150	IA5625140	LEE		X	Compliance Achieved	11/3/98
COAL VALLEY WATER DISTRICT	100	IA0819303	BOONE	X		Collect next set of samples	99Q1&2 **

**TABLE F: CONTINUING LEAD OR COPPER ACTION LEVEL
EXCEEDANCES (PRE-1998)**

PWS NAME	POP.	PWSID	COUNTY	EXCEEDANCE		CURRENT CORROSION CONTROL AND SAMPLING STATUS *	
				LEAD	COPPER	ACTION	DUE DATE
COON RAPIDS MUNICIPAL UTILITIES	1266	IA1427070	CARROLL		X	Compliance Achieved	9/30/98
COUNTRY TERRACE/LARTIUS PROP.	120	IA0800601	STORY	X		Compliance Achieved	11/11/98
CRYSTAL LAKE WATER SUPPLY	266	IA4115092	WINNEBAGO		X	Compliance Achieved	8/13/98
DEDHAM WATER SUPPLY	264	IA1433016	CARROLL		X	Compliance Achieved	11/11/98
DOON WATER SUPPLY	476	IA6015047	LYON		X	Implement corrosion control treatment Collect next set of samples	7/1/99 99Q3&4
DUNKERTON MUNI WATER SUPPLY	746	IA0717084	BLACK HAWK		X	Collect next set of samples	99Q1&2
ELDORA WATER SUPPLY	3038	IA4236005	HARDIN		X	Compliance Achieved	11/12/98
ELLSWORTH PUBLIC WATER SUPPLY	451	IA4009016	HAMILTON		X	Collect next set of samples	99Q1&2
EMERSON WATER DEPT.	476	IA6520019	MILLS	X		Compliance Achieved	10/7/98
EMMETSBURG MUNI UTIL WATER DPT	3940	IA7428021	PALO ALTO		X	Compliance Achieved	10/27/98
ESSEX WATER SUPPLY	916	IA7349023	PAGE		X	Compliance Achieved	12/10/98
ESTHERVILLE YOUTH CORPORATION	60	IA3290601	EMMET		X	Implement corrosion control treatment Collect next set of samples	7/1/99 99Q3&4
FONDA WATER SUPPLY	731	IA7603045	POCAHONTAS	X	X	Compliance Achieved	4/21/99
GILBERT WATER SUPPLY	796	IA8531083	STORY		X	Next Action Pending	
GLOECKNERS SUBDIVISION	44	IA3128387	DUBUQUE		X	Implement corrosion control treatment Collect next set of samples	1/1/99 99Q1&2
GRANDVIEW MUNI WATER DEPARTMENT	514	IA5842000	LOUISA		X	Compliance Achieved	9/9/98
GREENWOOD ACRES WATER COMPANY	240	IA7709395	POLK		X	Implement corrosion control treatment Collect next set of samples	7/1/99 99Q3&4
GRISWOLD WATER SUPPLY	1049	IA1528010	CASS		X	Compliance Achieved	12/8/98
HANCOCK WATER SUPPLY	201	IA7833025	POTTAWATTAMIE		X	Collect next set of samples	99Q1&2
HARGRAVE-MC ELENEY, INC.	185	IA5225202	JOHNSON	X	X	Collect next set of samples	8/31/99
HARTWICK WATER SYSTEM	115	IA7940037	POWESHIEK		X	Collect next set of samples	99Q1&2 **
HIGHLAND HIGH SCHOOL	305	IA9260528	WASHINGTON	X		Next Action Pending	

**TABLE F: CONTINUING LEAD OR COPPER ACTION LEVEL
EXCEEDANCES (PRE-1998)**

PWS NAME	POP.	PWSID	COUNTY	EXCEEDANCE		CURRENT CORROSION CONTROL AND SAMPLING STATUS *	
				LEAD	COPPER	ACTION	DUE DATE
HULL WATER SUPPLY	1724	IA8444063	SIOUX		X	Collect next set of samples	99Q1&2 **
IBP, INC. (PERRY PLANT)	900	IA2561101	DALLAS	X		Implement corrosion control treatment Collect next set of samples	1/1/99 99Q1&2
IDA GROVE WATER UTILITY	2357	IA4728067	IDA		X	Collect next set of samples	99Q1&2 **
IRETON WATER SUPPLY	597	IA8447098	SIOUX		X	Compliance Achieved	6/4/98
JEFFERSON WATER DEPARTMENT	4292	IA3742004	GREENE	X		Compliance Achieved	10/30/98
JEWELL WATER SUPPLY	1106	IA4027010	HAMILTON		X	Compliance Achieved	12/14/98
JOHN MORRELL & COMPANY	1325	IA9778897	WOODBURY	X		Implement corrosion control treatment Collect next set of samples	1/1/99 99Q1&2
JULIEN CARE FACILITY	215	IA3100901	DUBUQUE	X		Merge with another PWS Collect next set of samples	1/1/99 99Q1&2
K MART (OELWEIN)	875	IA3353201	FAYETTE	X	X	Monitor and Report follow up Collect next set of samples	6/30/99 9/30/99
KAMRAR WATER DEPARTMENT	203	IA4033013	HAMILTON		X	Compliance Achieved	10/16/98
KEOKUK MUNI WATER WORKS	12451	IA5640019	LEE	X		Collect next set of samples	99Q1&2
KIND AND KNOX	350	IA9778108	WOODBURY		X	Compliance Achieved	7/7/98
KINGSLEY WATER SUPPLY	1266	IA7537032	PLYMOUTH		X	Compliance Achieved	8/5/98
KIRKMAN WATER SUPPLY	98	IA8350033	SHELBY	X		Collect next set of samples	99Q1&2
KNIERIM WATER SUPPLY	71	IA1340001	CALHOUN		X	Collect next set of samples	99Q1&2
LAKE LAJUNE ESTATES	40	IA4728301	IDA	X	X	Merge with another PWS	9/30/99
LAURENS	1550	IA7614063	POCAHONTAS	X		Compliance Achieved	6/19/98
LEMARS WATER DEPARTMENT	9435	IA7540174	PLYMOUTH		X	Next Action Pending	
LONE TREE MUNI WATER SYSTEM	1024	IA5240095	JOHNSON		X	Next Action Pending	
LORIMOR WATER SUPPLY	377	IA8834098	UNION	X		Compliance Achieved	12/3/98
LOUIS RICH COMPANY (SIGOURNEY)	200	IA5475101	KEOKUK	X		Compliance Achieved	8/6/98
LOUISA GENERATING STATION WS 2	100	IA5842102	MUSCATINE	X	X	Next Action Pending	

**TABLE F: CONTINUING LEAD OR COPPER ACTION LEVEL
EXCEEDANCES (PRE-1998)**

PWS NAME	POP.	PWSID	COUNTY	EXCEEDANCE		CURRENT CORROSION CONTROL AND SAMPLING STATUS *	
				LEAD	COPPER	ACTION	DUE DATE
LOUISA-MUSCATINE COMMUNITY SCHOOL	1190	IA5847537	LOUISA		X	Implement corrosion control treatment Collect next set of samples	7/1/00 00Q3&4
LYON-SIOUX RWS - ROCK RAPIDS	850	IA6000800	LYON		X	Compliance Achieved	12/14/98
MAKADA HOMEOWNERS ASSOCIATION	75	IA5225304	JOHNSON		X	Compliance Achieved	4/7/98
MALLARD WATER SUPPLY	860	IA7450019	PALO ALTO		X	Collect next set of samples	99Q1&2
MALVERN WATER SUPPLY	1210	IA6545020	MILLS		X	Compliance Achieved	12/29/98
MANSON WATER SUPPLY	1844	IA1351027	CALHOUN	X		Collect next set of samples	99Q3&4
MINDEN WATER SUPPLY	539	IA7849086	POTTAWATTAMIE		X	Next Action Pending	
MOVILLE WATER SUPPLY	1306	IA9753022	WOODBURY		X	Collect next set of samples	99Q1&2
MT. JOY MOBILE HOME PARK	173	IA8222603	SCOTT	X		Implement corrosion control treatment Collect next set of samples	7/1/99 99Q3&4
NEOLA LIGHT AND WATER	909	IA7853043	POTTAWATTAMIE		X	Next Action Pending	
NORTH LIBERTY WATER SUPPLY	4000	IA5252072	JOHNSON		X	Compliance Achieved	6/25/98
OAKDALE HOSPITAL WATER SYSTEM	450	IA5200982	JOHNSON		X	Implement corrosion control treatment Collect next set of samples	7/1/99 99Q3&4
OAKVILLE WATER SUPPLY	442	IA5868085	LOUISA		X	Implement corrosion control treatment Collect next set of samples	1/1/99 99Q1&2
ODESSA RESIDENTIAL CARE	40	IA5800901	LOUISA		X	Compliance Achieved	10/26/98
OGDEN MUNICIPAL UTILITIES	1909	IA0858090	BOONE		X	Collect next set of samples	99Q1&2
ONAWA MUNICIPAL WATER PLANT	2936	IA6739095	MONONA	X	X	Compliance Achieved	9/23/98
ORANGE CITY MUNI WATER DEPT	4940	IA8474097	SIOUX		X	Compliance Achieved	12/15/98
OSCEOLA COUNTY RWS-SOUTH	1733	IA7177701	OSCEOLA		X	Compliance Achieved	12/14/98
PINEO GROVE WATER COMPANY	72	IA8273062	SCOTT		X	Compliance Achieved	11/18/98
POLK CITY WATER SUPPLY	2134	IA7770050	POLK		X	Next Action Pending	
POMEROY WATER SUPPLY	762	IA1363051	CALHOUN	X		Next Action Pending	
RICKETTS WATER SUPPLY	122	IA2441084	CRAWFORD	X		Compliance Achieved	1/4/1999

**TABLE F: CONTINUING LEAD OR COPPER ACTION LEVEL
EXCEEDANCES (PRE-1998)**

PWS NAME	POP.	PWSID	COUNTY	EXCEEDANCE		CURRENT CORROSION CONTROL AND SAMPLING STATUS *	
				LEAD	COPPER	ACTION	DUE DATE
ROCK VALLEY WATER SUPPLY	2540	IA8482096	SIOUX		X	Collect next set of samples	99Q3&4
ROWAN MUNI WATER SUPPLY	189	IA9958004	WRIGHT		X	Collect next set of samples	99Q1&2
SAIN'T MARY'S WATER CORPORATION	113	IA9176019	MADISON	X		Next Action Pending	
SANBORN WATER SUPPLY	13445	IA7165025	O'BRIEN		X	Compliance Achieved	2/10/99
SHEFFIELD WATER SUPPLY	1174	IA3570037	FRANKLIN	X	X	Compliance Achieved	12/30/98
SHELDON WATER DEPARTMENT	5005	IA7170040	O'BRIEN		X	Compliance Achieved	12/9/98
SIBLEY MUNICIPAL UTILITIES	2815	IA7245047	OSCEIOLA	X		Collect next set of samples	99Q3&4
SIDNEY WATER SUPPLY	1253	IA3661048	FREMONT		X	Implement corrosion control treatment Collect next set of samples	1/1/00 00Q1&2
STACYVILLE WATER SUPPLY	481	IA6677089	MITCHELL		X	Collect next set of samples	99Q3&4
STANHOPE WATER DEPARTMENT	447	IA4045090	HAMILTON	X		Compliance Achieved	2/23/99
STOCKPORT WATER SUPPLY	260	IA8973095	VAN BUREN	X		Compliance Achieved	6/30/98
STORY CITY WATER DEPARTMENT	2959	IA8584000	STORY	X		Collect next set of samples	99Q1&2
STRAWBERRY POINT IND. PARK	102	IA2279101	CLAYTON	X		Compliance Achieved	10/18/98
SYCAMORE APARTMENTS	50	IA5525807	JOHNSON		X	Implement corrosion control treatment Collect next set of samples	7/1/99 99Q3&4
TABOR WATER SUPPLY	994	IA3667012	FREMONT		X	Collect next set of samples	99Q3&4
TAMA WATER SUPPLY	2697	IA8670013	TAMA		X	Compliance Achieved	2/15/99
TREYNOR WATER DEPARTMENT	897	IA7866031	POTTAWATTAMIE		X	Compliance Achieved	7/16/98
TRI CENTER COMMUNITY SCHOOL	775	IA7853561	POTTAWATTAMIE		X	Implement corrosion control treatment Collect next set of samples	7/1/99 99Q3&4
TRIPOLI WATER SUPPLY	1206	IA0975032	BREMER		X	Collect next set of samples	99Q1&2 **
TRUESDALE WATER SUPPLY	132	IA1182035	BUENA VISTA		X	Compliance Achieved	8/15/98
UTE WATER SUPPLY	395	IA6762043	MONONA	X		Collect next set of samples	99Q1&2 **
VAIL WATER SUPPLY	388	IA2452044	CRAWFORD		X	Collect next set of samples	99Q1&2 **

**TABLE F: CONTINUING LEAD OR COPPER ACTION LEVEL
EXCEEDANCES (PRE-1998)**

PWS NAME	POP.	PWSID	COUNTY	EXCEEDANCE		CURRENT CORROSION CONTROL AND SAMPLING STATUS *	
				LEAD	COPPER	ACTION	DUE DATE
VENTURA WATER WORKS	590	IA1785032	CERRO GORDO		X	Collect next set of samples	99Q1&2
WAPSI VALLEY COMM SCHOOL	165	IA1025554	BUCHANAN		X	Collect next set of samples	99Q1&2
WEST BRANCH WATER WORKS	1908	IA1694000	CEDAR		X	Implement corrosion control treatment Collect next set of samples	7/1/99 99Q3&4
WESTERN HILLS ESTATES	811	IA5208600	JOHNSON	X		Next Action Pending	
WESTSIDE WATER SUPPLY	348	IA2458023	CRAWFORD		X	Collect next set of samples	99Q1&2 **
WHEATLAND CITY WATER SUPPLY	723	IA2394017	CLINTON	X		Collect next set of samples	99Q1&2 **
WHITING WATER SUPPLY	802	IA6769018	MONONA	X		Collect next set of samples	99Q1&2 **
WOODBURN WATER SUPPLY	240	IA2052001	CLARKE	X		Implement corrosion control treatment Collect next set of samples	1/1/99 99Q1&2
XENIA RWD (MADRID)	40	IA0848701	BOONE	X		Compliance Achieved	3/12/99
XENIA RWD (PANORA)	45	IA3971702	GUTHRIE		X	Compliance Achieved	12/17/98
XENIA RWD (SOUTHWEST)	3476	IA2573701	DALLAS	X		Implement corrosion control treatment Collect next set of samples	1/1/99 99Q1&2

* The first two digits represent the year the sampling is due (i.e. 98 is 1998, 00 is 2000, etc.). The remaining four characters represent the calendar quarters which define the sampling period (i.e. Q1&2 is the first half of the year, and Q3&4 is the last half of the year).

** The first of the two consecutive six-month rounds of samples has been collected and had acceptable results which were below the lead and copper action levels. The monitoring requirement shown here is for the second set of samples. If the second round of sampling is valid, and the results are below the action levels, the PWS will be back in compliance with the lead and copper program monitoring requirements.

TABLE G: 1998 TREATMENT TECHNIQUE (LEAD AND COPPER) MONITORING AND REPORTING VIOLATIONS REPORT

PWS NAME	PWSID NUMBER	POP.	COUNTY	MONITORING PERIOD	VIOLATION	TYPE OF ENFORCEMENT	DATE OF ACTION
ARGYLE RURAL WATER DISTRICT	IA5603701	175	LEE	98ra2	90th Percentile Reporting Violation	Continuing Violation	10/8/199
BRONSON WATER SUPPLY	IA9709046	209	WOODBURY	98Q3&4	Monitoring and Reporting Violation	Compliance Achieved	4/8/1999
COUNTRY ESTATES MHP	IA8200601	129	SCOTT	98ra2	Monitoring and Reporting Violation	Continuing Violation	2/12/199
COUNTRY HILLS WATER CORP	IA3122301	41	DUBUQUE	98ra2	Monitoring and Reporting Violation	Continuing Violation	10/26/19
DEER VALLEY HOMEOWNERS ASSOC.	IA8215325	45	SCOTT	98Q3&4	Monitoring and Reporting Violation	Continuing Violation	2/24/199
GALLERY ACRES WEST	IA5282306	50	JOHNSON	98Q3&4	Monitoring and Reporting Violation	Continuing Violation	2/25/199
HIDDEN VALLEY MOBILE HOME COURT	IA9200600	46	WASHINGTON	98Q3&4	Monitoring and Reporting Violation	Compliance Achieved	2/17/199
			WASHINGTON	98Q1&2	Monitoring and Reporting Violation	Compliance Achieved	2/17/199
INDIAN HILLS HOME OWNERS	IA5280302	30	JOHNSON	98Q3&4	Monitoring and Reporting Violation	Continuing Violation	2/24/199
OAKWOOD PARK WATER ASSOCIATION	IA1700352	25	CERRO GORDO	98rt	Monitoring and Reporting Violation	Continuing Violation	1/28/199
ONslow WATER SUPPLY	IA5358096	216	JONES	98rt	Monitoring and Reporting Violation	Continuing Violation	10/26/19
ROCKY KNOLL MHP	IA9525601	65	WINNEBAGO	98Q1&2	Monitoring and Reporting Violation	Continuing Violation	1/22/199
ROWAN MUNI WATER SUPPLY	IA9958004	189	WRIGHT	98Q3&4	Monitoring and Reporting Violation	Continuing Violation	2/4/1999
SPRING GREEN	IA5784306	52	LINN	98ra1	Monitoring and Reporting Violation	Continuing Violation	10/26/19
SUPER 20 MOBILE HOME PARK	IA3126603	238	DUBUQUE	98Q1&2	Monitoring and Reporting Violation	Continuing Violation	7/1/1998
UNDERWOOD MOTEL	IA7869801	27	POTTAWATTAMIE	98Q1&2	Monitoring and Reporting Violation	Continuing Violation	8/20/199
WENDY OAKS MHP	IA5715601	41	LINN	98Q3&4	Monitoring and Reporting Violation	Continuing Violation	1/27/199

1996/1997 Data Update

When SDWIS was adopted for the Drinking Water Program, Iowa chose to migrate existing data to the new system. This provided an opportunity to evaluate and update our records. The following tables list a comparison between the reported data and the current records.

MCL Violations

MCL Contaminant	1996 Reported Results		Updated Results	
	# of Viols	# of Systems	# of Viols	# of Systems
Arsenic	1	1	2	1
Nitrite	2	2	2	2
Benzene	3	1	3	1
Total Trihalomethanes (TTHM)	3	2	3	2
Radium, Combined (226, 228)	0	0	5	5
Fluoride	7	3	7	3
Coliform Bacteria – Acute MCL	25	24	25	24
Nitrate	52	5	50	25
Coliform Bacteria – Non-Acute MCL	126	102	126	102
Total	219	140	223	148

MCL Contaminant	1997 Reported Results		Updated Results	
	# of Viols	# of Systems	# of Viols	# of Systems
Cadmium	1	1	1	1
Total Phthalate	1	1	0	0
Tetrachloroethylene	1	1	0	0
Carbon Tetrachloride	1	1	1	1
Benzene	2	1	2	1
Arsenic	3	2	2	1
Radium 226 & 228	3	2	7	7
Nitrite	5	3	4	2
Fluoride	6	2	9	2
Total Trihalomethanes (TTHM)	10	3	10	3
Coliform Bacteria – Acute MCL	23	21	24	22
Nitrate	34	18	37	21
Coliform – Non-Acute MCL	105	88	119	91
Total	195	132	216	136

The updated MCL results vary from the reported results for several reasons. Violations may be invalidated as new information becomes available. New violations may be added during operation permit review.

Major Monitoring/Reporting Violations

M/R	1996 Reported Results		Updated Results	
	# of Viols	# of Systems	# of Viols	# of Systems
Total Trihalomethanes (TTHM)	0	0	1	1
p-Dichlorobenzene	0	0	1	1
Metolachlor	0	0	1	1
Benzene	0	0	1	1
Vinyl Chloride	0	0	2	1
1,2-Dichloroethane	0	0	2	1
Arsenic	1	1	2	2
Carbon Tetrachloride	0	0	3	3
1,1-Dichloroethylene	0	0	3	1
Xylene	0	0	7	6
BHC-Gamma (Lindane)	0	0	10	9
Alachlor	0	0	11	11
Atrazine	0	0	14	13
Gross Alpha	1	1	38	37
Nitrite	4	4	47	40
Nitrate	45	35	269	212
Coliform Bacteria	105	43	391	265
Total	156	na	803	487

M/R	1997 Reported Results		Updated Results	
	# of Viols	# of Systems	# of Viols	# of Systems
Metolachlor	0	0	1	1
1,1-Dichloroethylene	0	0	1	1
Turbidity	0	0	1	1
Trichloroethylene	0	0	1	1
Benzene	0	0	1	1
Carbon Tetrachloride	0	0	1	1
1,1,1 - Trichloroethane	0	0	1	1
Xylene	0	0	1	1
Fluoride	0	0	2	1
p-Dichlorobenzene	0	0	2	2
Total Trihalomethanes (TTHM)	0	0	2	2
Arsenic	0	0	3	2
Vinyl Chloride	0	0	3	3
Total Pthalate	3	1	0	0
Atrazine	1	1	8	8
Gross Alpha	0	0	14	14
Alachlor	0	0	15	14
Nitrite	0	0	58	52
Nitrate	27	20	255	204
Coliform Bacteria	80	28	346	249
Total	111	39	716	446

During the preparation of the 1998 report, we used the definition of significant monitoring violation listed on page 20. This definition is less restrictive the previous definition used to prepare the 1966 and 1997 reports.

GLOSSARY

AL	Action Level
AOP	Administrative Order with Penalty
AOWP	Administrative Order without Penalty
CT	Contact Time of residual disinfectant
EPA	U.S. Environmental Protection Agency
IDNR	Iowa Department of Natural Resources
IOC	Inorganic Chemicals
MCL	Maximum Contaminant Level
mg/L	milligrams per liter
M/R	Monitoring and Reporting
mrem/yr	millirems per year
NOV	Notice of Violation
NTU	nephelometric turbidity units
pCi/L	picocuries per liter
PWS's	Public Water Systems
PWSS	Public Water System Supervision (EPA program)
SDWA	Safe Drinking Water Act
SDWIS/FED	Safe Drinking Water Information System/Federal (EPA's electronic database)
SOC	Synthetic (Nonvolatile) Organic Chemical
SWTR	Surface Water Treatment Rule
TT	Treatment Technique
VOC	Volatile Organic Chemical
>	greater than
<	less than

For Additional Information, contact:

Diane Moles	Environmental Specialist Senior dmoles@max.state.ia.us	515/281-8863
Mike Wiemann	Environmental Specialist Senior mwieman@max.state.ia.us	515/281-3989
Chris Van Gorp	Environmental Specialist cvangor@max.state.ia.us	515/281-8022
Dennis Alt	Water Supply Section Supervisor dalt@max.state.ia.us	515/281-8998

Mailing Address for the above persons:

Iowa Department of Natural Resources
Attn.: _____
Wallace State Office Building
502 E. Ninth Street
Des Moines, IA 50319-0034



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