KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
BUREAU OF WATER / PUBLIC WATER SUPPLY

ANNUAL COMPLIANCE REPORT FOR 2012

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Our Vision – Healthy Kansans living in safe and sustainable environments

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The KDHE public water supply program helps protect the health of Kansas citizens by assuring their drinking water is safe to drink. The annual compliance report is a summary of water system's compliance information and provides a measure of how well the systems are performing.

KANSAS PUBLIC WATER SUPPLY ANNUAL COMPLIANCE REPORT

CALENDAR YEAR 2012

INTRODUCTION

The Kansas Department of Health and Environment (KDHE), Bureau of Water, Public Water Supply Section is responsible for regulating all public water supply systems in the state and assisting them in providing potable water to the people of Kansas. At the close of calendar year 2012, there were 886 community, 44 non-transient non-community, and 87 non-community systems for a total of 1,017 public water supply systems in Kansas.

This report is a summary of all public water supply system compliance with drinking water regulations for calendar year 2012. Violations of the maximum contaminant levels (MCL), treatment techniques (TT), and monitoring requirements (M/R) are included. This report has been prepared by KDHE to inform the general public of the quality of drinking water in Kansas and to comply with the federal Safe Drinking Water Act (SDWA).

Kansas public water supply annual compliance reports for previous years are available at: www.kdheks.gov/pws/

All public water supply data is stored in the Safe Drinking Water Information System (SDWIS) database. SDWIS contains an inventory of systems, violation records, and analytical results for each public water supply system. Data pertaining to a specific system can be reviewed at: http://www.epa.gov/enviro/

EXECUTIVE COMPLIANCE SUMMARY

Appendix A lists the number of MCL, treatment technique, and monitoring/reporting violations by regulated parameter. This information is entered into the Kansas State Drinking Water Information System (KsSDWIS).

The following is a summary of MCL, Treatment Technique and Monitoring/Reporting violations listed in Appendix B that occurred during 2012.

Boil Water Advisories (BWA)

KDHE issued eight boil water advisories, the systems voluntarily issued 20 boil water advisories and a joint system and KDHE effort issued three boil water advisories for a total of 31 boil water advisories in 2012.

Consumer Confidence Report (CCR)

A total of 885 community public water supply systems were required to deliver a consumer confidence report (CCR) to their customers by July 1, 2012. The number of community systems in violation for not delivering a copy of their CCR to their customers by July 1, 2012, was 34. After contacting the systems, all systems have now submitted the required report for a 100 percent compliance with the CCR rule for 2012.

Disinfection Byproducts (DBP)

Five systems, serving 2,708 individuals, incurred 14 MCL violations for haloacetic acids (HAA5). Two systems, serving 1,685 individuals, incurred three monitoring violations. Nine systems, serving 16,690 individuals, incurred 24 MCL violations for total organic carbon (TOC) treatment technique violations. One system, serving 340 individuals, incurred one monitoring violation. Nine systems, serving 15,948 individuals, incurred 25 MCL violations for total trihalomethanes (TTHM) MCL violations. Two systems, serving 1,685 individuals, incurred three monitoring violations.

The overall compliance rate was 99 percent compliance for haloacetic acids (HAA5), 98 percent for total organic carbon (TOC) and 98 percent for total trihalomethanes (TTHM).

Ground Water Rule (GWR)

One system, serving 1,293 individuals, incurred one major routine/repeat monitoring violation. Three systems, serving 5,074 individuals, incurred three ground water rule triggered/additional minor monitoring violations.

The overall compliance rate was 99 percent compliance for the Ground Water Rule.

Inorganic Contaminants (IOC)

One system, serving 28 individuals, incurred an IOC monitoring violation. Seven systems, serving 6,768 individuals, incurred 22 arsenic MCL violations. One system, serving 470 individuals, incurred one arsenic monitoring violation. One system, serving 101 individuals, incurred one fluoride MCL violation. One system, serving 40,511 individuals, incurred one fluoride monitoring violation. Two systems, serving 600 individuals, incurred seven selenium violations. There were no monitoring violations for selenium.

The overall compliance rate was 99 percent compliance for inorganic contaminants.

Lead and Copper Rule

One system, serving 285 individuals, incurred one lead/copper initial tap sampling violation. Twenty-five systems, serving 44,603 individuals, incurred 28 lead/copper follow-up or routine tap monitoring/reporting violations. There were no violations for optimal corrosion control treatment/source water treatment recommendation or Lead Public Education.

The overall compliance rate was 98 percent for lead/copper follow-up or routine monitoring/reporting, and 99 percent for initial tap sampling.

Nitrate

Twenty-one systems, serving 17,739 individuals, incurred 48 nitrate MCL violations. Seven systems, serving 2,156 individuals, incurred nine monitoring violations.

The overall compliance rate was 98 percent for nitrate.

Radionuclides Rule

Four systems, serving 2,779 individuals, incurred seven gross alpha MCL violations. Five systems, serving 5,076 individuals, incurred 16 combined uranium MCL violations. One system, serving 83 individuals, incurred four combined radium MCL violations.

The overall compliance rates are 99 percent compliance for gross alpha, 99 percent for combined uranium, and 99 percent compliance for combined radium.

Surface Water Treatment Rule (SWTR)

Two systems, serving 2,797 individuals, incurred five treatment technique violations. Four systems, serving of 1,465 individuals, incurred nine monitoring/reporting violations.

The overall compliance rate was 99 percent for the surface water treatment rule.

Synthetic Organic Contaminants (SOC)

One system, serving 1,201 individuals, incurred one monitoring violation for synthetic organic contaminants (SOC).

The overall compliance rate was 99 percent compliance for synthetic organic contaminants (SOC).

Total Coliform Rule (TCR)

One system, serving 6,267 individuals, incurred one acute total coliform rule MCL violation. Thirty systems, serving 46,219 individuals, incurred 35 monthly MCL violations. Twenty-three systems, serving 7,011 individuals, incurred 34 major monitoring violations.

The overall compliance rate was 99 percent for the total coliform rule.

Volatile Organic Contaminants (VOC)

Three systems, serving 410 individuals, each incurred one monitoring violation for volatile organic contaminants (VOC).

The overall compliance rate was 99 percent compliance for volatile organic contaminants (VOC).

Summary

A total of 88 systems, serving 151,858 individuals, incurred at least one violation for a drinking water requirement during calendar year 2012. There were 798 systems, serving a combined population of 2,531,878 individuals, which had no violations during 2012.

The overall compliance rate for all public water supply system drinking water regulations during 2012 was 94 percent.

PUBLIC WATER SUPPLY SYSTEMS

In Kansas, a public water supply system is defined by Kansas Statute (K.S.A.) 65-162a(b) and Kansas Administrative Regulation (K.A.R.) 28-15a-2,a(1)(A) as a "*system for delivery to the public of piped water for human consumption that has at least 10 service connections or regularly serves at least 25 individuals daily at least 60 days out of the year*."

All systems are required by state law and regulation (K.S.A. 65-4516) and (K.A.R. 28-15-18(a)) to be operated and maintained by personnel that are properly trained and certified. Properly trained operators are a critical component in assuring safe drinking water to the public.

Table 1 indicates the three different types of public water supply systems.

Table 1

PUBLIC WATER SUPPLY SYSTEM TYPES
COMMUNITY: Year-round residential customers e.g., towns, mobile home parks, rural water districts, subdivisions
TRANSIENT NON-COMMUNITY: Different non-residential customers every day e.g., motels, parks, airports, campgrounds, truck stops
NON-TRANSIENT NON-COMMUNITY: Same non-residential customers e.g., schools, day care facilities, industrial or manufacturing facilities

Table 2 indicates the number of systems by type, water source and population served. Systems that use both surface water and ground water are governed by surface water regulations.

Table 2

PUBLIC WATER SUPPLY SYSTEM SOURCES AND POPULATION								
PUBLIC WATER SUPPLY	**SOURCE WATER TYPE**							**POPULATION**
SYSTEM TYPE	**SW**	**SWP**	**GW**	**GWP**	**GUI**	**GUIP**	**TOTAL**	**SERVED**
Community	73	281	441	79	5	7	886	2,680,325
Non-Community	1	2	82	1	1	0	87	4,142
Non-Transient Non-Community	0	1	42	1	0	0	44	21,315
TOTAL	**74**	**284**	**565**	**81**	**6**	**7**	**1,017**	**2,705,782**

SOURCE WATER TYPES	
SW	Surface Water
SWP	Surface Water Purchased
GW	Ground Water
GWP	Ground Water Purchased
GUI	Ground Water Under Influence of Surface Water
GUIP	Ground Water Under Influence of Surface Water Purchased

Chart 1 indicates the number of community systems by population and percentages.

Chart 1

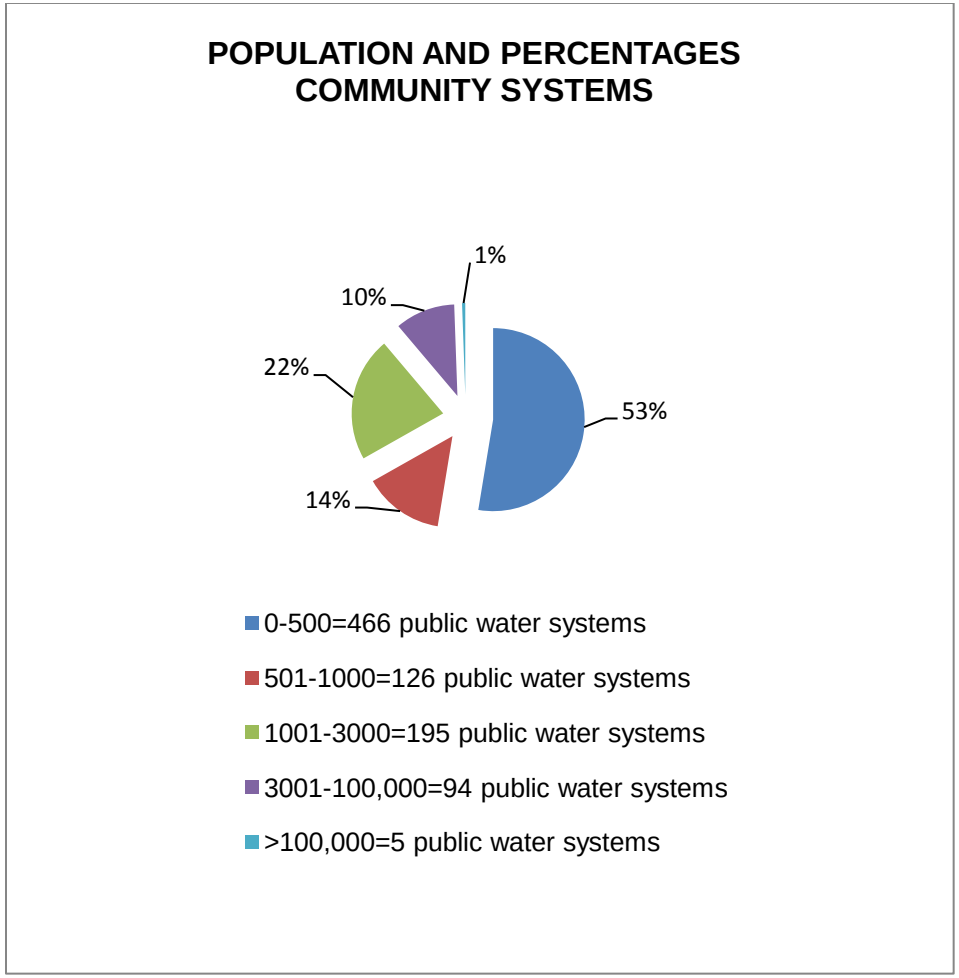


Chart 2 indicates the number of community systems by primary source water and population percentages.

Chart 2

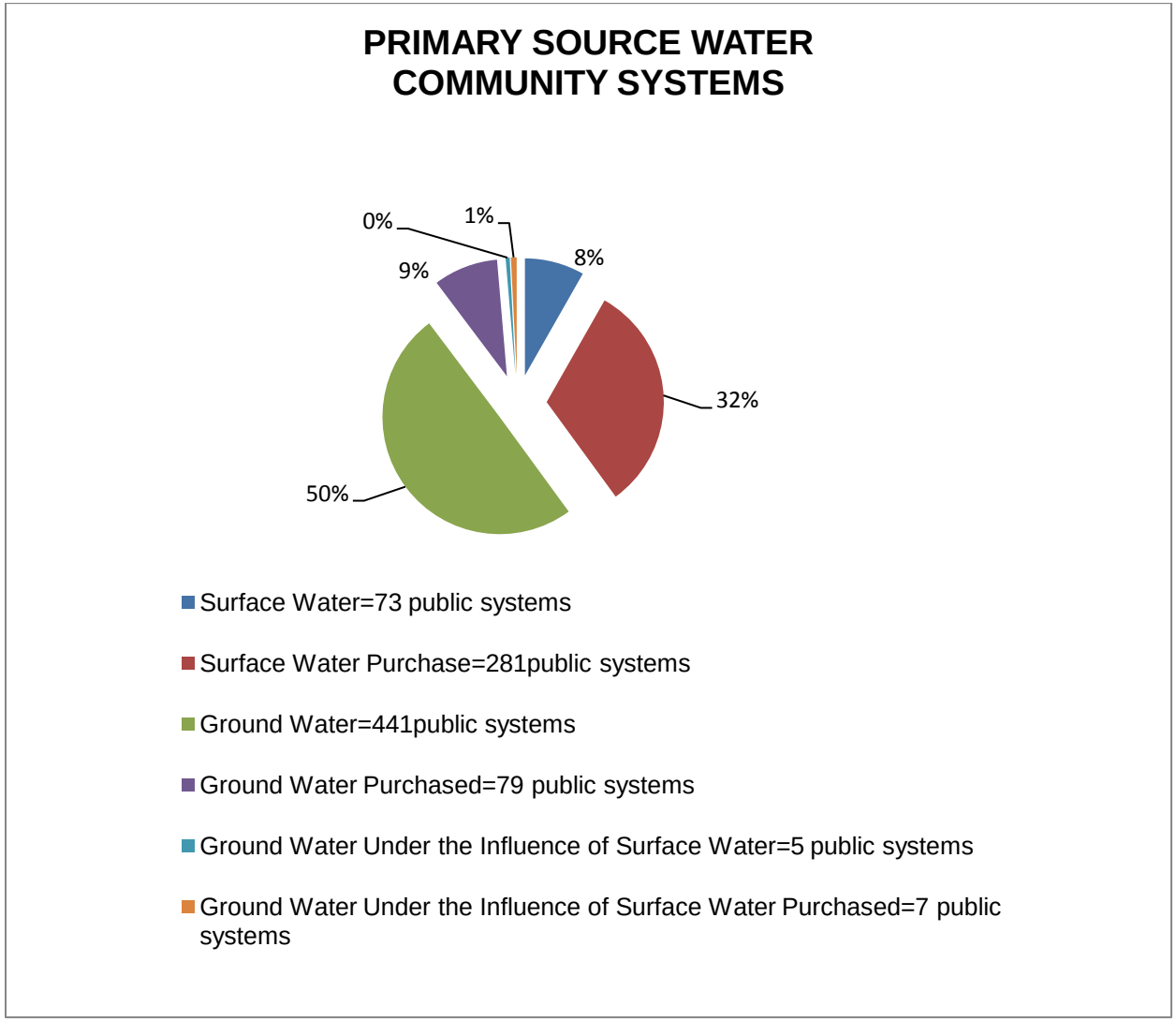
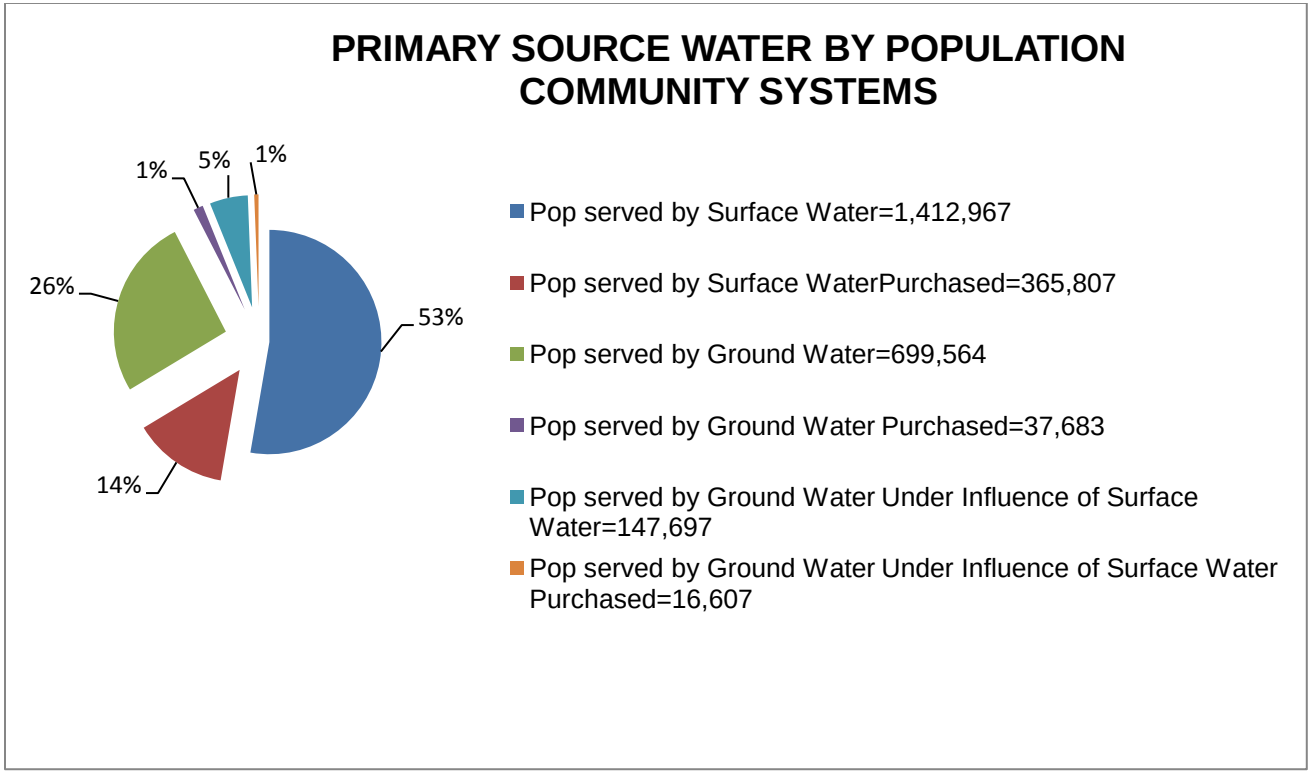


Chart 3 indicates the number of community systems by population.

Chart 3



DRINKING WATER QUALITY REGULATIONS

KDHE uses several regulatory programs and units to help ensure quality drinking water across the state. These individual units direct water quality to be monitored for several different contaminants in water intended for human consumption. These contaminants range from microbiological organisms to inorganic and organic contaminants and radionuclides.

Kansas regulations establish maximum permissible levels for certain drinking water contaminants, these levels are known as maximum contaminant levels (MCL). For some contaminants, regulations require application of minimum treatment techniques (TT). Regulations require systems to routinely monitor and report water quality parameters to KDHE to verify compliance with the MCL and treatment techniques. These requirements help assure all systems provide safe drinking water to consumers.
Current regulations administered by KDHE address the following drinking water contaminants and treatment processes:

- Consumer Confidence Report Rule (CCR)
- Disinfection Byproducts Rule (DBP)
- Ground Water Rule (GWR)
- Inorganic Contaminants Rule (IOC)
- Lead and Copper Rule
- Nitrate
- Public Notice Rule (PN)
- Radiuonuclides
- Surface Water Treatment Rule (SWTR)
- Synthetic Organic Contaminants (SOC)
- Total Coliform Rule (TCR)
- Volatile Organic Contaminants (VOC)

Table 3 indicates the contaminant compliance levels of system program areas over the last five years.

Table 3

TOTAL CONTAMINANT COMPLIANCE RESULTS					
REGULATION	**2008**	**2009**	**2010**	**2011**	**2012**
Consumer Confidence Report Rule (CCR)	98%	98%	100%	100%	100%
Disinfection Byproducts Rule (DBP)					
Total Trihalomethanes	98%	98%	99%	99%	98%
Total Haloacetic Acids	98%	98%	99%	100%	99%
Total Organic Carbon	98%	99%	99%	100%	98%
Ground Water Rule (GWR)					
Monitoring	N/A	100%	99%	100%	100%
Treatment Technique	N/A	100%	99%	100%	100%
Inorganic Contaminant Rule (IOC)	99%	97%	99%	100%	100%
Lead and Copper Rule					
Monitoring	99%	97%	98%	99%	98%
Treatment Technique	99%	100%	100%	100%	100%
Nitrate	98%	98%	98%	97%	96%
Radionuclide Rule					
Gross Alpha	99%	100%	100%	100%	100%
Combined Radium	99%	99%	99%	100%	100%
Combined Uranium	99%	99%	99%	100%	99%
Surface Water Treatment Rule (SWTR)					
Monitoring	99%	100%	100%	100%	100%
Treatment Technique	99%	93%	87%	100%	100%
Synthetic Organic Contaminants Rule (SOC)	100%	100%	100%	100%	100%
Total Coliform Rule (TCR)					
Acute/Non-Acute MCL *	99%	96%	95%	100%	97%
Monitoring & Reporting	95%	97%	93%	95%	97%
Volatile Organic Contaminant Rule (VOC)	99%	99%	100%	100%	100%

*****A total coliform-positive sample followed by an E. coli-positive repeat sample, or an E. coli and total coliform-positive sample followed by a total or E. coli and total coliform-positive repeat sample constitutes an acute (Tier 1) MCL violation. For systems sampling 40 or fewer times a month, this is also a monthly MCL violation.

Total Coliform Rule (TCR)

Coliform bacteria are common in the environment and are generally not harmful to human health, but presence of coliform bacteria in drinking water indicates other potentially harmful bacteria might also be present in the water. All systems are required by K.A.R. 28-15a-21 to submit monthly water samples for coliform bacteriological testing. Systems may choose to have the water sample tests performed by KDHE's microbiology laboratory or a state certified private laboratory. If total coliform bacteria are detected, further testing for the presence of fecal coliform or E. coli is required.

Types of Total Coliform Rule (TCR) Violations

Acute Maximum Contaminant Level (MCL) Violations
When coliform bacteria are present in any sample, that sample must also be analyzed for fecal coliform or E. coli.

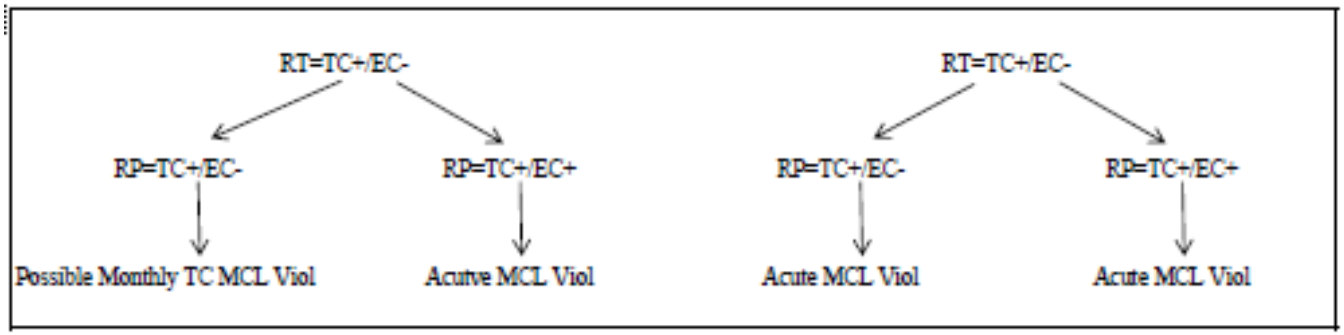
Major Monitoring (Routine and Repeat) Violations
If a system fails to collect any samples during the required monitoring period, a major monitoring violation has occurred. If a system collects some but not all samples during the required monitoring period, a minor monitoring violation has occurred.

Monitoring Violations
Systems that fail to collect one or more of the required samples within a monthly compliance period are assessed a routine monitoring violation. When a water sample tests positive for coliform bacteria, that system is required to collect three repeat samples (also called check samples). If a system fails to collect one or more of these repeat samples, the system is then assessed a repeat monitoring violation.

Chart 4 indicates acute or monthly MCL violation determination.

Chart 4

TOTAL COLIFORM RULE VIOLATION DETERMINATION FACTORS



TCR SAMPLE TYPE

RT	ROUTINE SAMPLE
TC+	TOTAL COLIFORM POSITIVE SAMPLE
EC+	E. COLI POSITIVE SAMPLE
EC-	E. COLI NEGATIVE SAMPLE
RP	REPEAT SAMPLE

When a routine sample (RT) is total coliform positive and E. coli negative (TC+/EC-) and followed by a total coliform positive and E. coli negative (TC+/EC-) repeat sample (RP), the violation is a total coliform monthly MCL violation (non-acute). When a routine sample (RT) is total coliform positive and E. coli negative (TC+/EC-) and followed by a total coliform positive and E. coli negative repeat sample (TC+/EC+ RP), the violation is an acute MCL violation and may or may not also be a total coliform monthly MCL violation depending upon the total number of compliance samples collected and the percent of samples which tested positive for that system for the month.

When a routine sample (RT) is total coliform positive and E. coli positive (TC+/EC+) and followed by either of a total coliform positive and E. coli negative (TC+/EC-) or total coliform positive and E. coli positive repeat sample (TC+/EC+RP), the violation is an acute MCL violation and may or may not also be a total coliform monthly MCL violation depending upon the total number of compliance samples collected and the percent of samples which tested positive for that system for the month.

Each acute MCL violation is also potentially a monthly total coliform MCL violation. Two or more total coliform positive (TC+) routine samples in the same month create a total coliform monthly MCL violation for a system which collects fewer than 40 routine samples per month. Systems which collect 40 or more samples per month and have more than 5 percent of their number of monthly samples test positive for total coliform bacteria incur a total coliform monthly MCL violation.

Two total coliform positive and/or E.coli positive (TC+/EC+) routine samples followed by negative repeat samples will NOT be an acute MCL violation.

Non-Acute Maximum Contaminant Level (MCL) Violations

If more than one sample per month, or more than 5 percent of samples for systems collecting more than 40 samples a month, contain coliform bacteria in the same monthly monitoring period, the system is assessed a non-acute, or total coliform violation.

Systems that incurred a total coliform monitoring or MCL violation for 2012 are listed in Appendix B.

CONTAMINANT RULES

The contaminant rules establish maximum contaminant levels (MCL) and treatment techniques (TT) for various contaminants such as solvents, pesticides and heavy metals affecting drinking water. The rules apply to community systems and non-transient non-community systems. Transient systems and systems that purchase all water from other systems are not required to monitor for these contaminants.

Systems required to monitor these contaminants must collect samples by following a standardized nine-year monitoring cycle consisting of three, three-year compliance periods. Systems are required to perform specific monitoring based on the population served and whether they use surface or ground water sources.

Systems using surface water sources are required to monitor more frequently than systems using ground water sources due to surface water being more susceptible to contamination. Systems with populations greater than 3,300 are required to monitor more frequently than small systems with populations of 3,300 or less. With the exception of asbestos, this regulation requires all water samples to be collected after treatment at the point of entry to the distribution system (POE). The POE is defined as a point after raw water has been treated (disinfected) and before it enters the distribution system.

Inorganic Contaminants (IOC)

Kansas regulations (K.A.R. 28-15a-23) set MCLs for nine metals and two non-metal contaminants. Most of these inorganic contaminants (IOC) occur naturally in the environment and are soluble in water. Some IOCs originate from natural mineral deposits. Industrial activities such as metal finishing, textile manufacturing, mining operations, electroplating, and manufacturing of fertilizers, paints and glass can also generate many of these contaminants. IOCs can be removed from drinking water using various available technologies such as coagulation/filtration, lime softening, reverse osmosis, ion exchange, and activated alumina.

All community and non-transient non-community systems are required to sample water after treatment at the point of entry into the distribution system (POE) for IOCs. Systems using ground water as their sole source water must sample at least once during every three-year compliance period. Systems using surface water as any part of the source water must sample for IOCs at least annually. Systems exclusively purchasing treated water are exempt from this sample monitoring requirement.

Systems incurring an IOC MCL violation are required to increase sampling to at least once each calendar quarter. Systems having a MCL or monitoring violation are required to notify customers of such violations by issuing a public notice to the system customers.

Table 4 lists the IOCs regulated by KDHE.

Table 4

REGULATED INORGANIC CONTAMINANTS (IOC)			
CONTAMINANT	**MCL**		**TYPICAL SOURCE**
Antimony	0.006	mg/l	Discharge from petroleum refineries
Arsenic	0.05	mg/l	Erosion of natural deposits
Asbestos	7	MFL	Decay of asbestos cement in water mains
Barium	2	mg/l	Discharge of drilling wastes, erosion
Beryllium	0.004	mg/l	Erosion of natural deposits, discharge from refineries
Cadmium	0.005	mg/l	Erosion of natural deposits, pipe corrosion
Chromium	0.1	mg/l	Erosion of natural deposits, steel mills
Cyanide	0.2	mg/l	Discharge from steel/metal refineries
Fluoride	4	mg/l	Erosion of natural deposits, water additive
Mercury	0.002	mg/l	Erosion of natural deposits, factory discharge
Nitrate	10	mg/l	Erosion of natural deposits, runoff from fertilizer use
Nitrate	1	mg/l	Erosion of natural deposits, runoff from fertilizer use
Selenium	0.05	mg/l	Erosion of natural deposits, discharge from refineries
Thallium	0.002	mg/l	Leaching from ore-processing sites

Inorganic Contaminants Commonly Found in Kansas Water Sources

Calcium, Magnesium and Total Hardness

Calcium and magnesium are the principal minerals which contribute to the total hardness of water. Total hardness is defined as the sum of the calcium and magnesium concentrations in a water supply. The mathematical average concentration of calcium was 88 mg/L. The mathematical average concentration of magnesium was 36 ug/L. A total hardness of 400 mg/L is considered excessive for Kansas.

Chloride

Some individuals can detect a salty taste when chloride exceeds 250 mg/L. Therefore, a secondary MCL for chloride has a recommended limit of 250 mg/L. Chloride has no physiological effects on drinking water. The mathematical average concentration of chloride was 67 mg/L.

Corrosivity, Alkalinity, and pH

Alkalinity is the measure of water to neutralize acids, while the pH indicates the intensity of the acidic or basic character of the solution. The relationship between pH, calcium and alkalinity determines whether water is corrosive and whether it will deposit calcium carbonate on pipes and plumbing fixtures. Corrosivity is measured by Langlier's Index (LI), a mathematically determined number based on contaminant parameters which affect the corrosive potential of the water. The more negative the LI number, the more aggressive the water corrosivity. KDHE interprets water as being highly aggressive if the LI is less than -2.0, moderately aggressive if the LI is between -2.0 and 0, and nonaggressive if the LI is greater than 0. The mathematical average concentration of corrosivity was 0.28 LI.

Heavy Metals (Lead and Copper)

Lead is perhaps the most topical metal contaminant found in water. The source of lead is found primarily in household or building plumbing, specifically lead resulting from solder joints. The mathematical average concentration of lead was 2 ug/L. The mathematical average concentration of copper was 224 ug/L.

Iron and Manganese

High concentrations of iron and manganese tend to stain plumbing fixtures and laundered clothing. Iron and manganese can also affect the taste of the water and can deposit on pipes within the distribution system. The mathematical average of iron was 0.0 mg/L. The mathematical average of manganese was 36 ug/l.

Nitrate/Nitrite
Many drinking water constituents, such as nitrate and nitrite are found naturally in the environment. Fertilization of agricultural and urban land and polluted runoff can be a significant source of nitrate contamination in ground water. Nitrate is addressed separately from other inorganic contaminants and all systems are required to sample for nitrate at least annually. If a routine compliance monitoring nitrate result is equal to or greater than the MCL for nitrate of 10 mg/L, the monitoring frequency is increased to once each calendar quarter. Nitrate MCL violations are incurred from a single sample exceeding the MCL, not a running annual average of samples. Systems that incurred a nitrate monitoring or MCL violation for 2012 are listed in Appendix B.

Phosphorus
In surface water phosphphorus may cause water treatment problems associated with aquatic plants and with coagulation. A general rule is that a total phosphate level over 5 mg/L indicates organic contamination. The mathematical average concentration of phosphorus was 0.055 mg/L.

Potassium
The concentration of potassium normally found in drinking water has no physiological or aesthetic effects on drinking water. The mathematical average concentration of potassium was 5 mg/L.

Selenium
Some individuals who drink water containing selenium in excess of the MCL of 0.05 mg/L over many years could experience hair or fingernail loss, numbness in fingers or toes, or problems with circulation. The mathematical average concentration for selenium was 6 ug/l.

Silica
Excessive amounts of silica in water can cause crusting deposits on well screens, pipes and water heaters. Concentrations above 50 mg/L may cause the water to appear cloudy. The mathematical average concentration for silica was 28 mg/L.

Sodium
The maximum recommended limit of sodium in drinking water is 100 mg/L. High concentrations of sodium in water are a concern particularly for those who have been advised by a physician to limit sodium intake. The mathematical average concentration for sodium was 57 mg/L.

Specific Conductance
Specific conductance is a numerical expression of the ability of water to conduct an electric current. Because the number, which is expressed as micromhos per centime (uMho/cm), depends on the concentration of the dissolved minerals, conductance indicates the degree of mineralization in water. A conductance greater than 1500 uMho/cm is considered excessive. The mathematical average concentration of specific conductance was 787 uMho/cm.

Sulfate
Sulfate has a direct health basis for the recommended maximum limit of 250 mg/L in drinking water. Individuals not accustomed to high sulfate in drinking water generally experience an unwanted laxative effect upon first consuming water with greater than 250 mg/L sulfate. The mathematical average concentration for sulfate was 97 mg/L.

Total Dissolved Solids (TDS)
Total dissolved solids (TDS) is a measure of the dissolved material in water. The mathematical average concentration for total dissolved solids was 503 mg/L.

Turbidity
Turbidity is also known as "cloudiness" in water. It is measure by how much the suspended material in a water sample causes a beam of light to scatter. Turbidity limits for surface water are 95 percent of finished water turbidity readings be less than or equal to 0.3 NTU each month, and no finished water turbidity readings exceed 1 NTU. No turbidity limits are established for ground water sources. The mathematical average concentration for turbidity was 0.2 NTU.

Synthetic Organic Contaminants (SOC)

SOCs are man-made contaminants, many of which are chlorinated and used as herbicides, fungicides and insecticides. Kansas regulation, K.A.R. 28-15a-24, requires systems to monitor drinking water for 33 SOCs. MCLs for each of these contaminants are set by Kansas regulation K.A.R. 28-15a-61.

Systems utilizing ground water are required to monitor water after treatment at the point of entry into the distribution system (POE) at least once during a three-year compliance period.

Systems utilizing surface water serving a population equal to or less than 3,300 are required to monitor for SOCs during the months of May or June at least once during the three-year compliance period. Large surface water systems with a population greater than 3,300 are required to monitor for SOCs during the months of May or June at least annually.

Systems using ground water with no SOCs detected during their initial compliance period are allowed to be tested for atrazine using an immunoassay scan method (EPA Method 4670). The immunoassay method is used because it is highly sensitive in detecting all constituents in the triazine contaminant family and is about one-fourth the cost of the regular drinking water test method (EPA Method 507).

Ground water systems that have had a previous SOC detect, and all surface water systems are required to perform the regular testing using EPA Method 507.

Table 5 lists the regulated synthetic organic contaminants (SOC) regulated by KDHE.

Table 5

REGULATED SYNTHETIC ORGANIC CONTAMINANTS (SOC)			
CONTAMINANT	**MCL**		**TYPICAL SOURCE**
Alachlor (Lasso)	0.002	mg/l	herbicides
Aldicarb	0.003	mg/l	insecticides
Aldicarb sulfoxide	0.003	mg/l	insecticides
Aldicarb sulfone	0.003	mg/l	insecticides
Atrazine (Atranex, Crisazina)	0.003	mg/l	herbicides
Benzo(a)pyrene	0.0002	mg/l	coal tar lining and sealants
Carbofuran (Furadan 4F)	0.04	mg/l	rootworm, weevil control
Chlordane	0.002	mg/l	termite control
Dalapon	0.2	mg/l	herbicides
Dibromochloropropane (DBCP)	0.002	mg/l	pesticides, nematocides, fumigants
2,4-D	0.07	mg/l	herbicides, defoliants
2,4,5-TP (Silvex)	0.05	mg/l	herbicides, defoliants
Di(diethylhexyl)adpate	0.4	mg/l	plasticizers
Di-(diethylhexyl)phthalate	0.006	mg/l	plasticizers
Dinoseb	0.007	mg/l	insecticides, herbicides
Diquat	0.02	mg/l	herbicides
Endothall	0.1	mg/l	herbicides, defoliants
Endrin	0.002	mg/l	insecticides
Ethylene Dibromide (EDB)	0.0005	mg/l	gasoline additives, fumigants
Glyphosate	0.7	mg/l	herbicides
Heptachlor (H-34,Heptox)	0.0004	mg/l	termite control
Heptachlor epoxide	0.0002	mg/l	insecticides

REGULATED SYNTHETIC ORGANIC CONTAMINANTS (SOC) (Continued)			
CONTAMINANT	**MCL**		**TYPICAL SOURCE**
Hexachlorobenzene	0.001	mg/l	solvents by-products
Hexachlorocyclopentadiene	0.05	mg/l	pesticides, fungicides
Lindane	0.0002	mg/l	pesticides
Methoxychlor (DMDT, Marlate)	0.04	mg/l	insecticides
Oxamyl (Vydate)	0.2	mg/l	insecticides
Pentachlorophenol (PCP)	0.001	mg/l	herbicides, fungicides, wood
Picloram (Tordon)	0.5	mg/l	herbicides, defoliants
Polychlonnated Biphenysis (PCB)	0.0005	mg/l	herbicides
Simazine	0.004	mg/l	herbicides
2,3,7,8 TCDD (Dioxin)	$3x10^{-8}$	mg/l	pesticide by-products
Toxaphene	0.003	mg/l	pesticides

Volatile Organic Contaminants (VOC)

Kansas regulation K.A.R. 28-15a-24 sets MCLs and monitoring requirements for VOCs in drinking water. Systems are required to monitor water after treatment at the point of entry into the distribution system (POE) at least once during each three-year compliance period. If any of the regulated VOCs are detected during routine compliance monitoring, additional quarterly or annual monitoring is required.

Compliance with the MCL for any VOC is determined by a running annual average of four quarterly sample results. If a system is required to monitor a VOC quarterly, then a MCL violation is incurred if the VOCs running annual average is greater than the MCL for that contaminant.

VOCs are commonly referred to as organic solvents. These contaminants are components of many degreasers, industrial cleaners, spot/stain removers and paint thinners and are found in some paints, varnishes, lacquers, paint removers, pesticides, herbicides, dry cleaning chemicals, printing inks and printing press chemicals, and most petroleum products including many types of fuels. Many VOCs are flammable and are toxic in various concentrations. VOCs can be a health hazard when present in drinking water. During 2012, there were no VOC violations.

Table 6 lists the volatile organic contaminants regulated by KDHE.

Table 6

REGULATED VOLATILE ORGANIC CONTAMINANTS (VOC)			
CONTAMINANT	**MCL**		**TYPICAL SOURCE**
Benzene	0.002	mg/l	fuel, pesticides, paints, pharmaceuticals
Carbon tetrachloride	0.002	mg/l	degreasing agents, fumigants
Chlorobenzene	0.1	mg/l	industrial solvents, pesticides
cis-1,2 Dichloroethylene	0.07	mg/l	industrial solvents, chemical manufacturing
Dichloromethane	0.005	mg/l	paint strippers, refrigerants, fumigants
Ethylbenzene	0.7	mg/l	gasoline, insecticides
o-Dichlorobenzene	0.3	mg/l	insecticides, industrial solvents
p-Dichlorobenzene	0.075	mg/l	insecticides, moth balls
Styrene	0.1	mg/l	plastics, synthetic rubber, resins
Tetrachloroethylene	0.005	mg/l	dry cleaning, industrial solvents
trans- 1,2 Dichloroethylene	0.1	mg/l	industrial solvents, chemical manufacturing
Trichloroethylene	0.005	mg/l	paint strippers, dry cleaning, degreasers
Vinyl chloride	0.002	mg/l	plastics/synthetic rubber, solvents
Xylenes	10	mg/l	paints, inks, solvents, synthetic fibers, dyes
1,1 Dichloroethylene	0.007	mg/l	paints, dyes, plastics
1,1,1 Trichloroethane	0.02	mg/l	metal cleaning, degreasing agents
1,2 Dichloropropane	0.005	mg/l	industrial degreasing solvents
1,2 Dichloropropane	0.005	mg/l	soil fumigants, industrial solvents
1,2,4 Trichlorobenzene	0.07	mg/l	industrial solvents

MONITORING AND USE WAIVERS

Monitoring Waivers

State monitoring waivers are issued by KDHE for all contaminants that are either not naturally found in Kansas source water or, due to the state requirement for all systems to treat all water with disinfection, are already determined to be using the best available treatment (BAT) for the contaminant.

Asbestos
The Kansas Geology Survey (KGS) has determined there are no naturally occurring deposits of asbestos in Kansas. Asbestos fibers do not readily migrate through ground water; therefore, most systems in Kansas are exempt from monitoring for asbestos. Only systems that utilize asbestos-cement pipe in the distribution system are required to monitor for asbestos. Such systems are required to test for asbestos at least once every nine years.

Cyanide
The BAT for this contaminant is chlorination. Under K.A.R. 28-15-19, all systems in Kansas are required to maintain a chlorine residual of 0.2 mg/L free chlorine or 1.0 mg/L combined chlorine in the distribution system. All systems in Kansas are waived from cyanide monitoring.

Glyphosate (Roundup®)
The BAT for this contaminant is chlorination. Under K.A.R. 28-15-19, all systems in Kansas are required to maintain a chlorine residual of 0.2 mg/L free chlorine or 1.0 mg/L combined chlorine in the distribution system. All systems in Kansas are waived from glyphosate monitoring.

Nitrite
Because chlorine converts nitrite to nitrate, and because K.A.R. 28-15-19 requires all systems in Kansas to maintain distribution chlorine residuals, all systems in Kansas are waived from routine nitrite monitoring.

Use Waivers

Use waivers are issued by KDHE for contaminants meeting particular criteria regarding specific detection levels and/or use within the systems. All systems in Kansas are waived from monitoring the SOCs listed in Table 7 below.

Table 7 indicates the SOC use waivers.

Table 7

SYNTHETIC ORGANIC CONTAMINANTS (SOC) USE WAIVERS	
CONTAMINANT	
Benzo(a)pyrene	Oxamyl
Di 2-ethylhexyl adipate	2,4-D
Di-2-ethylheyl phthalate	2,4,5-TP
Hexachlorocyclopentadient	Pentachlorophenol
Aldicarb	Dalapon
Aldicarb Sulfoxide	Dinoseb
Aldicarb Sulfone	Picloram
Carbofuran	Dobromochloropropane
Endothall	Diquat
Dioxin	

LEAD AND COPPER RULE

Exposure to high levels of metals in drinking water has long been recognized as a cause of adverse health effects in humans. Lead is of particular concern because of the possible presence in drinking water and high toxicity to humans. Copper, although an essential nutrient, can also pose a health threat at elevated levels. Young children are especially susceptible to the toxic effects of these heavy metals.

Due to the use of lead and copper in household pipes and in plumbing solder in the past, these contaminants have the possibility of leaching into the drinking water. Besides leaching from water pipes and solder, lead can also leach from brass plumbing fixtures.

All systems are required to monitor for lead and copper on a regularly scheduled basis. If monitoring results indicate unacceptable levels of lead or copper, the system is required to initiate corrosion control treatment techniques to minimize contamination. Action levels set by this regulation are 0.015 ug/l for lead and 1.3 mg/L for copper.

Systems which incurred violations of the lead and copper rule during 2012 are listed in Appendix B.

RADIONUCLIDES RULE

Radiation in ground water commonly occurs when water comes in contact with the natural decay of uranium in rocks and soils. In most circumstances, this radiation occurs at low levels harmless to human health.

Table 8 indicates the regulated radionuclides.

Table 8

REGULATED RADIONUCLIDES			
REGULATED RADIONUCLIDE	**MCL**		**MCLG***
Beta/photon emitters	4	mrem/yr	0
Gross alpha particle	15	pCi/L	0
Combined radium 226/228	5	pCi/L	0
Uranium	30	ug/L	0
* MCLG = Maximum Contaminant Level Goal			

A total of 168 individual beta particle and photon emitters may be used to calculate compliance with the MCL for radionuclides.

Occasionally in some areas of the state, radiation levels occur at higher levels which may increase the risk to human health. Regulations which have been adopted require all community systems to monitor drinking water for radionuclides, non-community and non-transient non-community systems are not required to monitor for radionuclides.

Systems which incurred a radiological MCL violation(s) are listed in Appendix B.

DISINFECTION BYPRODUCTS RULE (DBP)

The Disinfection Byproducts Rule (DBP) requirements apply to community and non-transient non-community systems.

The most common method of disinfection used by systems in Kansas is chlorination. Chlorine added to water to destroy harmful microorganisms can also combine with organic matter naturally present in all water sources to form contaminants known as trihalomethanes (THM) and haloacetic acids (HAA). Monitoring water samples for the total level of trihalomethanes (TTHM) and the total level of five haloacetic acids (HAA5) are collected from the distribution system. Compliance with the MCLs of TTHM and HAA5 is determined by running annual averages of calendar quarterly water sample results.

While all systems in Kansas are required by K.A.R. 28-15-19 to maintain chlorine residuals in the distribution system, some systems use alternative disinfectants after treatment at the point of entry to the distribution system (POE). The most common alternative disinfectants are chlorine dioxide and ozone. These alternative disinfectants can form chlorite and bromated byproducts in drinking water. Systems that use these alternative forms of disinfection are required to monitor for these byproducts and maintain levels below the MCL for these contaminants.

When chlorine dioxide is added to drinking water the chlorine dioxide dissociates to form chlorite. Approximately 50 to 70 percent of chlorine dioxide is converted to chlorite, while the remainder is converted to chlorate and chloride. Monitoring for chlorite is conducted after treatment at the point of entry to the distribution system (POE) and by a monthly three-sample set collected from the distribution system. Compliance for the chlorite MCL of 1.0 mg/L is based on maintaining levels below the MCL after treatment at the POE and from the average of the monthly three-samples set from the distribution system.

Ozone use in Kansas is increasing because of its outstanding disinfection capability. When ozone is added to drinking water it reacts with naturally-occurring bromide in the water to create bromate. Bromate is monitored after treatment at the POE. Compliance for the bromate MCL of 0.010 mg/L is determined quarterly by the running annual average of the monthly bromated samples.

As part of the DBP rule, systems using surface water must follow a treatment technique to remove specific percentages of organic contaminants, measured as total organic carbon (TOC). TOC is a measure of disinfection byproduct precursors. TOC has no health effects by itself but provides a measure of the potential for the formation of disinfection byproducts such as TTHM and HAA5. Both raw surface water and treated water are monitored monthly for TOC content to determine the effectiveness of the system's TOC removal treatment. Compliance for TOC is based on a running annual average of monthly removal ratios, and is calculated on a calendar quarterly basis.

Stage 2 Disinfectants and Disinfection Byproduct Rule (Stage 2 DPB Rule) builds upon earlier rules that addressed disinfection byproducts to improve drinking water quality and provides additional public health protection from disinfection byproducts.
Table 9 lists the different disinfection byproducts that systems must monitor in drinking water.

Table 9

REGULATED DISINFECTION BY-PRODUCTS (DBP) AND DBP PRECURSORS		
DISINFECTION BY-PRODUCT	**MCL**	
Total Trihalomethanes (TTHM)	0.080	mg/l
Chloroform	N/A	
Bromodichloromethane	7	mg/l
Bromoform	N/A	
Dibromochloromethane	N/A	
Haloacetic Acids (HAA5)	0.060	mg/l
Monochloracetic Acid	N/A	
Dichloracetic Acid	N/A	
Trichloroacetic Acid	N/A	
Monobromoacetic Acid	N/A	
Dibromoacetic Acid	N/A	
Chlorite	1.0	mg/l
Bromate	0.010	mg/l
Total Organic Carbon (TOC)	Treatment Technique	

Systems which incurred violations for disinfection byproducts are listed in Appendix B.

GROUND WATER RULE (GWR)

EPA issued the Ground Water Rule (GWR) to improve drinking water quality and provide additional protection from disease-causing microorganisms that might be present in ground source water. Systems that utilize ground water may be susceptible to fecal contamination. In many cases, fecal contamination can contain disease causing pathogens. The GWR will provide increased protection against microbial pathogens.

The targeted, risk-based strategy addresses risks through an approach that relies on four major components:

- Periodic sanitary surveys of systems that require the evaluation of eight critical elements of a system and the identification of significant deficiencies (e.g., a well located near a leaking septic system);

- Triggered source water monitoring when a system that does not already treat drinking water to remove 99.99 percent (4-log) of viruses, identifies a positive sample during its total coliform rule (TCR) monitoring and assessment monitoring (at the option of the state) targeted at high-risk systems;
- Corrective action is required for any system with a significant deficiency or source water fecal contamination; and

- Compliance monitoring to ensure that treatment technology installed to treat drinking water reliably achieves 99.99 percent (4-log) inactivation or removal of viruses.

During 2012, Kansas had 70 ground water systems which complied with the GWR through 4-log treatment of viruses. No system in Kansas found ground source water to be contaminated with fecal bacteria through triggered source water monitoring.

Systems which incurred violations of the Ground Water Rule (GWR) during 2012 are listed in Appendix B.

SURFACE WATER TREATMENT RULE (SWTR)

Close to one-third of all Kansas systems use surface water for all or part of the source for drinking water. These systems provide drinking water to approximately two-thirds of the state population. Since surface water is more vulnerable to contamination from runoff than ground water, it requires additional treatment to assure its safety as a drinking water source.

Kansas regulation K.A.R. 28-15a-70 addresses general treatment requirements for surface water for all community and non-transient non-community systems. This regulation requires surface water systems to provide filtration and disinfection treatment of source water. This regulation is known as the Surface Water Treatment Rule (SWTR).

The SWTR requires systems to filter raw surface water and keep a record of turbidity readings of the treated water entering the distribution system. High turbidity levels adversely affect the efficiency of the disinfection process. The maximum allowable turbidity in finished water is 1.0 NTU. Additionally, at least 95 percent of the filtered water samples during a month must have turbidity levels less than or equal to 0.3 NTU.

Microorganisms such as cryptosporidium, giardia lamblia and viruses are also commonly found in surface water.

Cryptosporidium is a protozoan which causes cryptosporidiosis in humans. Cryptosporidiosis can cause acute diarrhea, abdominal pain, vomiting and fever lasting one to two weeks in healthy adults, but may be chronic or fatal in immune-compromised individuals.

Giardia lamblia is a protozoan causing giardiasis. Ingestion of this protozoan in contaminated drinking water, exposure from person-to-person contact, and other exposure routes can cause giardiasis. The symptoms of this gastrointestinal disease may persist for weeks or months and include diarrhea, fatigue and cramps.

Viruses in drinking water can cause stomach cramps and/or gastroenteritis (intestinal distress).

The SWTR requires the filtering process in conjunction with disinfection remove or inactivate 99.99 percent of viruses, 99.9 percent of giardia lamblia cysts, and 99 percent cryptosporidium cysts.

The Long Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR) builds upon earlier rules to address higher risk systems for protection. The purpose of LT2ESWTR is to reduce illness linked with cryptosporidium and other pathogenic microorganisms in drinking water.

Kansas regulation K.A.R. 28-15-19 requires all systems to maintain a chlorine (disinfected) residual of 0.2 mg/L free chlorine or 1.0 mg/L of combined chlorine in the distribution system. Chlorine residual readings must be taken from the distribution system daily at set intervals and recorded by the system operator. Turbidity and disinfection records are required to be submitted to KDHE on a monthly basis for compliance determination.

Systems which incurred violations of the SWTR during 2012 are listed in Appendix B.

ADDITIONAL PUBLIC WATER SUPPLY REQUIREMENTS

Consumer Confidence Rule (CCR)

The Consumer Confidence Rule (CCR) requires all community systems to provide customers with an annual consumer confidence water quality report (CCR). EPA specified health risk language must be included in the report when regulated contaminants are detected. CCRs provide information to help educate and inform customers about the system. Systems with a population over 100,000 must post their CCR on the Internet.

By July 1, 2012, there were 885 community systems required to deliver the CCR for calendar year 2011 to their customers. The systems were also required to send a copy of the report and a certificate of delivery to KDHE. The number of community systems in violation for not delivering a copy of their CCR to their customers by July 1, 2012, was 34. Notices were sent followed by reminder phone calls to non-responding systems. One hundred percent of community systems are now in compliance with the CCR for 2012.

Public Notification Rule (PN)

Public notification is intended to inform customers when there is a violation or health risk issue with their drinking water. Twenty-seven systems incurred at least one public notification during 2012. The total number of public notices incurred during 2012 was 34.

Boil Water Advisories (BWA)

Boil water advisories (BWA) are issued to inform the public when a risk from exposure to harmful microorganisms might be present in the drinking water. The most common reason for issuance of boil water advisories is due to loss of pressure in the distribution system. The system and KDHE notify area media when a boil water advisory has been issued or rescinded. KDHE issued eight boil water advisories, the systems voluntarily issued 20 boil water advisories and a joint system and KDHE effort issued three boil water advisories for a total of 31 boil water advisories in 2012.

Systems that issued boil water advisories during 2012 are listed in Appendix B.

Operator Certification

All systems are required to have a Kansas certified water operator in direct responsible charge of the treatment and distribution systems. Systems are classified according to system type and population, with Class IV being the most complex.

Table 10 lists the different classes of certified water operators.

Table 10

CERTIFIED OPERATOR CLASSES			
CLASS	**EXPERIENCE**	**DESCRIPTION**	**POULATION**
Small System	6 months	1. Distribution systems only 2. Chlorination of ground water only	All < 500
Class I	1 year	1. Chlorination of ground water only 2. Treatment of ground water *	501 - 1,500 < 501
Class II	1 year	1. Chlorination of ground water only 2. Treatment of ground water * 3. Treatment of surface water	1,500 - 5,000 401 - 2,500 < 2,500
Class III	2 years	1. Chlorination of ground water only 2. Treatment of ground water or surface water	5,001 - 20,000 2,501 - 10,000
Class IV	2 years	1. Chlorination of ground water only 2. Treatment of ground water or surface water *	> 20,000 > 10,00

* Includes iron and manganese removal, softening, membrane filtration, coagulation, sedimentation and filtration, recarbination, and additional treatment (other than added chlorine).

Table 11 lists the number of certified operators categorized by class.

Table 11

CERTIFIED OPERATORS PER CLASSIFICATION		
CLASSIFICATION	**WATER SYSTEMS**	**CERTIFIED OPERATORS**
Small Systems	701	495
Class I	127	420
Class II	110	445
Class III	41	144
Class IV	33	464
TOTAL	**1,012**	**1,968**

KDHE has contracted with the Kansas Rural Water Association (KRWA) to provide emergency technical assistance to systems that are temporarily without a certified water operator.

GOVERNMENT PERFORMANCE RESULTS ACT (GPRA)

The Federal Government Performance Results Act (GPRA) establishes a goal for 95 percent of the population served by community systems to not incur any health-based violations.

Table 12 is based on information provided by the US Environmental Protection Agency (EPA) for federal fiscal years (FFY = October 1 through September 30) of 2008 – 2012.

Table 12

GOVERNMENT PERFORMANCE RESULTS ACT (GPRA)						
FFY	**TOTAL COMMUNITY SYSTEMS**	**COMMUNITY SYSTEMS WITH VIOLATIONS**	**% WITHOUT VIOLATIONS**	**POPULATION WITH VIOLATIONS**	**TOTAL POPULATION SERVED**	**% POPULATION WITHOUT VIOLATIONS**
2008	895	89	90%	238,999	2,714,519	91%
2009	895	113	87%	169,597	2,597,916	93%
2010	896	119	87%	603,258	2,664,935	77%
2011	888	209	76%	357,966	2,678,276	86%
2012	886	218	75%	106,685	2,689,858	96%

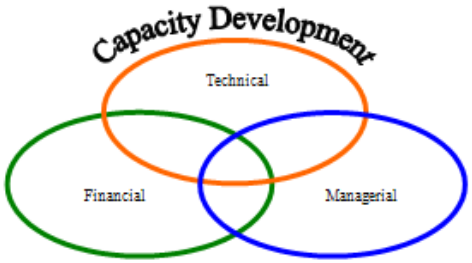
KANSAS PUBLIC WATER SUPPLY ASSISTANCE PROGRAMS

Kansas Capacity Development Program

KanCap Program

The Kansas Capacity Development Program (KanCap) consists of two components. The first component insures that new systems have the technical, financial and managerial capability to meet Safe Drinking Water Act requirements before a permit to serve customers is issued. The permit application for new systems can be found on the KDHE webpage: http://www.kdheks.gov/pws/peu.html#permit

The second component of KanCap is designed to help existing systems achieve and maintain technical, financial and managerial capability by providing training, technical assistance, and financial planning assistance. Several programs and tools are available at no cost to Kansas public water supply systems. Descriptions of these programs and tools are available on the KDHE Capacity Development webpage. KDHE provides an annual report to EPA summarizing the details of the Capacity Development Program implementation efforts. This report can also be found on the KDHE Capacity Development webpage: http://www.kdheks.gov/pws/capdev.html



Kansas Public Water Supply Loan Fund (KPWSLF)

The Kansas Public Water Supply Loan Fund (KPWSLF) is a state revolving loan fund (SRF) program which provides loans to Kansas municipalities, at below market interest rates, for construction of public water supply system infrastructure.

This is the twelfth year of operation for the KPWSLF. The KPWSLF provides the opportunity for communities, which might not have the financial means otherwise, to improve or construct safe water supply infrastructure to protect the health of their citizens.

Loans can be received by two distinct types of municipalities, cities and rural water districts (RWD). Rural water districts lack the general taxing powers of cities, and are perceived in credit markets as a greater financial risk. The KPWSLF provides equal access and interest rates to both types of borrowers, but requires different pledges of security to receive a loan.

EPA presents a semi-annual award for Drinking Water State Revolving Loan Fund for Sustainable Public Health Protection. The State of Kansas won the award from EPA Region 7 in 2005 and again in 2007.

KDHE publishes an annual report summarizing operation of the Loan Fund which can be found at:
http://www.kdheks.gov/pws/loan/loanfund.htm

Compliance Assistance and Enforcement

One of the objectives of KDHE is to assist systems in protecting public health and achieving compliance with all state and federal drinking water regulations. KDHE staff is available to assist systems and will refer the systems to third party technical assistance providers as deemed appropriate.

When necessary, KDHE will first offer technical assistance rather than taking formal enforcement action to return systems to compliance with drinking water regulations. Typically, enforcement action is administered according to an escalation policy. If three major violations occur within any twelve-month period, an enforcement directive is sent to the system. If violations continue, either a consent order or an administrative order (with or without a civil penalty) may be issued. KDHE uses more formal enforcement responses when the need to address more serious violations arises before multiple violations occur. Consent agreements are generally arranged as part of the appeals process following an administrative order. The consent order is a formally documented agreement between KDHE and the system that the system will take specific actions within an agreed upon time frame to return to compliance with drinking water regulations.

KDHE does not issue any variances or exemptions from the SDWA requirements. All systems are expected to comply with all drinking water regulations, address violations in a timely manner, and perform public notice to the customers if drinking water violations occur.

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APPENDIX A

CONTAMINANT VIOLATIONS

2012

Kansas
Department of Health
and Environment

Our Vision – Healthy Kansans living in safe and sustainable environments.

2012 ORGANIC CONTAMINANTS (VOC/SOC)

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

		MCLs		Treatment Techniques		Significant Monitoring/Reporting	
Contaminant	**MCL (mg/l)**	**# of Violations**	**# of Systems with Violations**	**# of Violations**	**# of Systems with Violations**	**# of Violations**	**# of Systems with Violations**
1,1,1-Trichloroethane	0.02	0	0			3	3
1,1-Dichloroethylene	0.007	0	0			3	3
1,1,2-Trichloroethane	0.005	0	0			3	3
1,2,4-Trichlorobenzene	0.07	0	0			3	3
1,2-Dibromo-3-chloropropane (DBCP)	0.0002	0	0			0	0
1,2-Dichloroethane	0.005	0	0			3	3
1,2-Dichloropropane	0.005	0	0			3	3
2,3,7,8-TCDD (Dioxin)	3x10-8	0	0			0	0
2,4,5-TP	0.05	0	0			0	0
2,4-D	0.07	0	0			0	0
Acrylamide				0	0	0	0
Alachlor	0.002	0	0			0	0
Atrazine	0.003	0	0			0	0
Benzene	0.005	0	0			3	3
Benzo[a]pyrene	0.0002	0	0			0	0
Carbofuran	0.04	0	0			0	0
Carbon tetrachloride	0.005	0	0			3	3
Chlordane	0.002	0	0			0	0
cis-1,2-Dichloroethylene	0.07	0	0			3	3
Dalapon	0.2	0	0			0	0
Di(2ethylhexyl)adipate	0.4	0	0			0	0
Di(2-ethylhexyl)phthalate	0.006	0	0			0	0
Dichloromethane	0.005	0	0			3	3
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				0	0	0	0
Ethylbenzene	0.7	0	0			3	3
Ethylene dibromide	0.00005	0	0			1	1

2012 ORGANIC CONTAMINANTS (VOC/SOC) (Continued)

		MCLs		Treatment Techniques		Significant Monitoring/Reporting	
Contaminant	**MCL (mg/l)**	**# of Violations**	**# of Systems with Violations**	**# of Violations**	**# of Systems with Violations**	**# of Violations**	**# of Systems with Violations**
Gylphosate	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	0.002	0	0			0	0
Methoxychlor	0.04	0	0			0	0
Monochlorobenzene	0.1	0	0			0	0
Para-Dichlorobenzene	0.075	0	0			3	3
Total polychlorinated biphenyls	0.0005	0	0			0	0
Pentachlorophenol	0.001	0	0			0	0
Tetrachloroethylene	0.005	0	0			3	3
Trichloroethylene	0.005	0	0			3	3
Styrene	0.1	0	0			3	3
Toluene	1	0	0			3	3
trans-1,2-Dichloroethylene	0.1	0	0			3	3
Xylenes (total)	10	0	0			3	3
Toxaphene	0.003	0	0			0	0
Oxamyl (Vydate)	0.2	0	0			0	0
Picloram	0.5	0	0			0	0
Simazine	0.004	0	0			0	0
Vinyl chloride	0.002	0	0			3	3
TOTAL		**0**	**0**	**0**	**0**	**58**	**58**

* Values are in milligrams per liter (mg/L), uness otherwise specified
** Shaded areas indicate a violation is not applicable in this category

2012 DISINFECTION BYPRODUCTS (DBPs)

DISINFECTION BYPRODUCTS (DBP): Total trihalomethanes is the sum of the concentrations of chloroform, bromodichloromethane, dibromochloromethane and bromoform. Haloacetic acids (five) is the sum of the concentrations of mono-, di-, and trichloroacetic acids and mono- and dibromoacetic acids. Water systems that use surface water or ground water under the direct influence of surface water and use conventional filtration treatment are required to remove specified percentages of organic materials, measured a total organic carbon (TOC), that may react with disinfectants to form DBPs. Removal will be achieved through a treatment technique (enhanced coagulation or enhanced softening) unless a system meets alternative criteria.

Contaminant		MCLs		Treatment Techniques		Significant Monitoring/Reporting	
	MCL (mg/l)	# of Violations	# of Systems with Violations	# of Violations	# of Systems with Violations	# of Violations	# of Systems with Violations
Chlorine - MRDL	4	0	0			0	0
Chlorine Dioxide	0.8	0	0			0	0
Chlorite/Cl02	1	0	0			0	0
Haloacetic Acids (HAA5)	0.06	14	5			3	2
Total Organic Carbon (TOC)	N/A	0	0	24	9	1	1
Total Trihalomethanes	0.08	25	9			3	2
TOTAL		**39**	**14**	**24**	**9**	**7**	**5**

* Values are in milligrams per liter (mg/L), uness otherwise specified
** Shaded areas indicate a violation is not applicable in this category

2012 INORGANIC CONTAMINANTS (IOC)

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

Contaminant		MCLs		Treatment Techniques		Significant Monitoring/Reporting	
	MCL (mg/l)	# of Violations	# of Systems with Violations	# of Violations	# of Systems with Violations	# of Violations	# of Systems with Violations
Antimony	0.006	0	0			0	0
Arsenic	0.05	22	7			1	1
Asbestos	7 million fibers/L	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	0.2	0	0			0	0
Fluoride	4	1	1			0	0
Mercury	0.002	0	0			0	0
Nitrate	10 (as Nitrogen)	48	21			9	7
Nitrite	1 (as Nitrogen)	0	0			0	0
Selenium	0.05	7	2			0	0
Thallium	0.002	0	0			0	0
Total Nitrate and Nitrite	10 (as Nitrogen)	0	0			0	0
TOTAL		**78**	**31**			**10**	**8**

* Values are in milligrams per liter (mg/L), uness otherwise specified
** Shaded areas indicate a violation is not applicable in this category

2012 RADIONUCLIDE CONTAMINANTS

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

* **Gross alpha:** A violation for alpha radiation above MCL of 15 picocuies/liter (PcI/l). Gross alpha includes radium-226 but excludes radon and uranium.
* **Combined radium-226 and radium-228:** A violation for combined radiation from these two isotopes above the MCL of 5 pCi/L.
* **Gross beta:** A violation for beta particles and photon radioactivity from man-made radionuclides above 4 millirem/year.

Contaminant		MCLs		Treatment Techniques		Significant Monitoring/Reporting	
	MCL (mg/l)	# of Violations	# of Systems with Violations	# of Violations	# of Systems with Violations	# of Violations	# of Systems with Violations
Gross alpha	15 pCi/l	7	4			0	0
Combined Uranium	30pCi/l	16	5			0	0
Combined Radium	5 pCi/l	4	1			0	0
TOTAL		**27**	**10**			**0**	**0**

* Values are in milligrams per liter (mg/L), uness otherwise specified
** Shaded areas indicate a violation is not applicable in this category

2012 TOTAL COLIFORM RULE

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

* **Acute MCL violation:** Fecal coliform or E. coli (potentially harmful bacteria) in the water.
* **Non-acute MCL violation:** Total coliform in water samples at a frequency or at a level that violated the rule. More than one positive sample for total coliform is a violation for systems collection fewer than 40 samples per month. More than 4% positive samples for total coliform is a violation for systems collection 40 or more samples per month.
* **Major routine and follow-up monitoring:** A violation where a system did not perform any monitoring. [One number is to be reported for the sum of violations for major routine and follow-up monitoring.]

		MCLs		Treatment Techniques		Significant Monitoring/Reporting	
Contaminant	**MCL (mg/l)**	**# of Violations**	**# of Systems with Violations**	**# of Violations**	**# of Systems with Violations**	**# of Violations**	**# of Systems with Violations**
Acute MCL violation	Presence	1	1				
Non-acute MCL violation	Presence	35	30				
Major routine and follow-up monitoring violation						34	23
Sanitary Survey						State initiates Sanitary Survey	State initiates Sanitary Survey
TOTAL		**36**	**31**			**34**	**23**

* Values are in milligrams per liter (mg/L), uness otherwise specified
** Shaded areas indicate a violation is not applicable in this category

2012 SURFACE WATER TREATMENT RULE (SWTR)

SURFACE WATER TREATMENT RULE (SWTR): The SWTR establishes criteria which public water supply systems supplied by surface water, or ground water under the direct influence of surface water, must filter and disinfect the water [40 CRD 141, Subpart H]. Violations of the SWTR are to be reported for the following four categories:

* **Monitoring, routine/repeat (for filtered systems):** Failure to carry out required water tests, or to report the results of those tests.
* **Treatment techniques (for filtered systems):** Failure to properly treat water.
* **Monitoring, routine/repeat (for unfiltered systems):** Failure to carry out required water tests, or to report the results of those tests.
* **Failure to filter (for unfiltered systems):** Failure to properly treat water. Data for this violation code will be supplied to the states by EPA.

Contaminant		MCLs		Treatment Techniques		Significant Monitoring/Reporting	
	MCL (mg/l)	# of Violations	# of Systems with Violations	# of Violations	# of Systems with Violations	# of Violations	# of Systems with Violations
Filtered systems							
Monitoring, routine/repeat						9	3
Treatment techniques				5	2		
Unfiltered systems							
Monitoring, routine/repeat						0	0
Failure to filter				0	0		
TOTAL				**5**	**2**	**9**	**3**

* Values are in milligrams per liter (mg/L), uness otherwise specified
** Shaded areas indicate a violation is not applicable in this category

2012 LEAD AND COPPER RULE

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

* **Initial lead and copper tap M/R:** Failure to meet initial lead and copper testing requirements or failed to report the results.
* **Follow-up or routine lead and copper tap M/R:** Failure to meet follow-up or routine lead and copper tap testing requirements or failed to report the results.
* **Treatment Installation:** Failure to install optimal corrosion control treatment system or source water treatment system which would reduce lead and copper levels in water at the tap. [One number is to be reported for the sum of violations in both categories].
* **Lead service line replacement:** Failure to replace lead service lines on the schedule required by the regulation.
* **Public education:** Failure to provide required public education about reducing or avoiding lead intake from water.

Contaminant		MCLs		Treatment Techniques		Significant Monitoring/Reporting	
	MCL (mg/l)	# of Violations	# of Systems with Violations	# of Violations	# of Systems with Violations	# of Violations	# of Systems with Violations
Initial lead and copper tap M/R						1	1
Follow-up or routine lead and copper tap M/R						28	25
Treatment recommendation violation				0	0		
Public education				0	0		
TOTAL				**0**	**0**	**29**	**26**

* Values are in milligrams per liter (mg/L), uness otherwise specified
** Shaded areas indicate a violation is not applicable in this category

2012 CONSUMER CONFIDENCE (CCR) RULE

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

TYPE CODE	Violation Name	Monitoring/ Reporting # of Violations	Monitoring/ Reporting # of Systems with Violations	Treatment Techniques # of Violations	Treatment Techniques # of Systems with Violations	Signifucant Monitoring/ Reporting # of Violations	Signuficant # of Systems with Violations
71	Failure to Report					30	30
72	Report Inadequacy					4	4
TOTAL				**0**	**0**	**34**	**34**

** Shaded areas indicate a violation is not applicable in this category

2012 GROUND WATER RULE (GWR)

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

Contaminant		MCLs		Treatment Techniques		Significant	
	MCL (mg/l)	# of Violations	# of Systems with Violations	# of Violations	# of Systems with Violations	# of Violations	# of Systems with Violations
Ground water triggered/additional major monitoring violation				0	0	1	1
Ground water triggered/additional minor monitoring violation				0	0	3	3
TOTAL				**0**	**0**	**4**	**4**

* Values are in milligrams per liter (mg/L), uness otherwise specified
** Shaded areas indicate a violation is not applicable in this category

DEFINITIONS FOR THE 2012 VIOLATIONS TABLES

* **Maximum Contaminant Level (MCL):** The highest amount of a contaminant that is allowed in drinking water MCLs ensure that drinking water does not pose either a

*** Monitoring:** Regulations specify which water testing methods the water systems must use, and set schedules for the frequency of testing. A water system that does not

***Treatment Technique:** A water disinfection process that is required instead of an MCL for contaminants that laboratories cannot adequately measure. Failure to meet other

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

*** Unfiltered Systems:** Systems that do not need to filter water before disinfecting because the source is very clean [40 CRD, Subpart H].

*** Violation:** A failure to meet any state or federal drinking water regulation. Most violations require the water system to provide consumers with public notification of the

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APPENDIX B

MAXIMUM CONTAMINANT LEVEL (MCL), ACTION LEVEL (AL), TREATMENT TECHNIQUE (TT) VIOLAITONS AND MAPS

2012

Kansas
Department of Health
and Environment

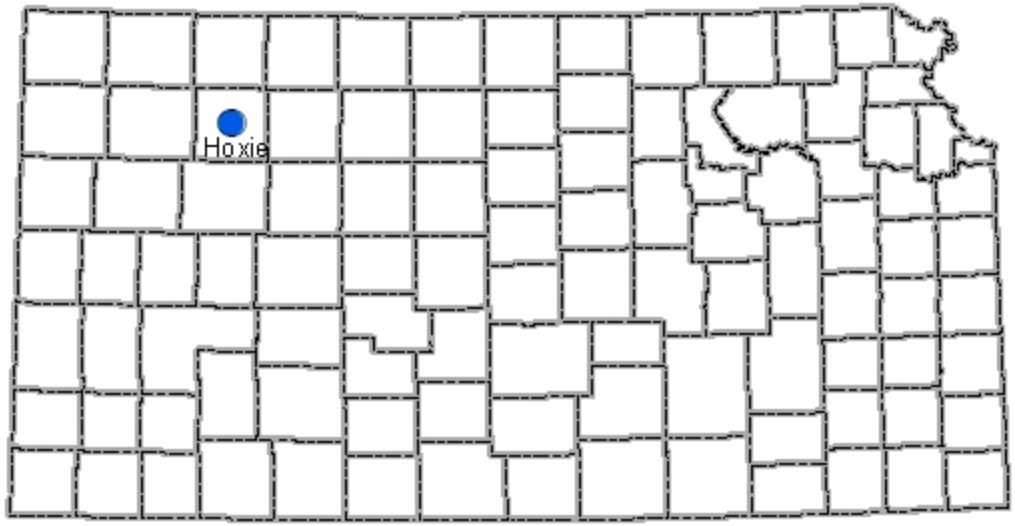
Our Vision – Healthy Kansans living in safe and sustainable environments.

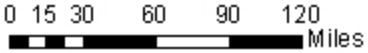
2012 ORGANIC CONTAMINANTS (SOC)

2012 ETHYLENE DIBROMIDE MONITORING VIOLATIONS

EPA#`	PWS NAME	CITY	COUNTY	POPULATION	VIOLATION
KS2017901	Hoxie	Hoxie	Sheridan	1,201	1
TOTALS	**1**			**1,201**	**1**

2012 ETHYLENE DIBROMIDE MONITORING VIOLATION





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2012 DISINFECTION BYPRODUCTS (DBP)

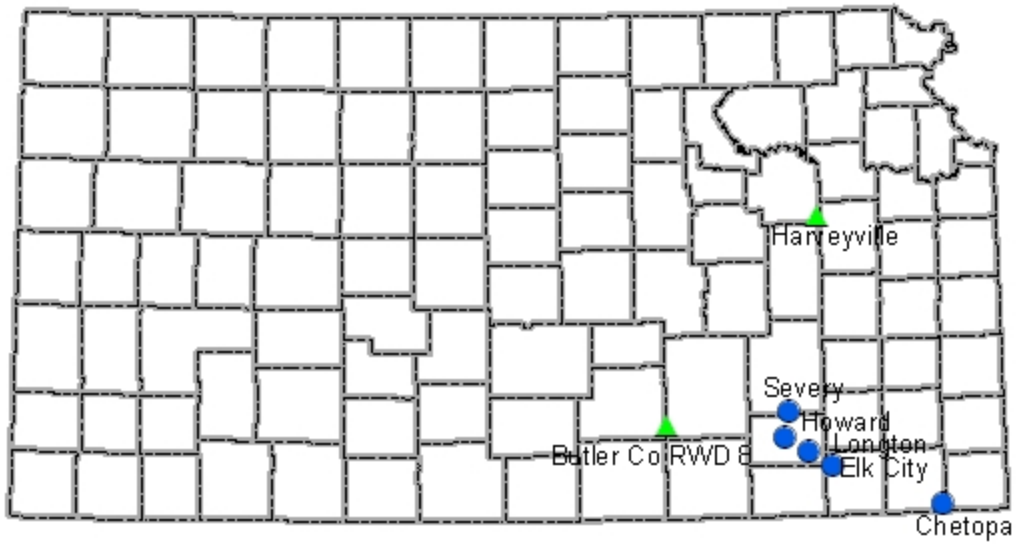
2012 HAOLACETIC ACIDS (HAA5) MONITORING VIOLATIONS

EPA#	PWS NAME	CITY	COUNTY	POPULATION	VIOLATIONS
KS2001528	Butler Co RWD 8	Rose Hill	Butler	1,450	2
KS2019704	Harveyville	Harveyville	Wabaunsee	235	1
TOTALS	**2**			**1,685**	**3**

2012 HALOACETIC ACIDS (HAA5) MCL VIOLATIONS

EPA#	PWS NAME	CITY	COUNTY	POPULATION	VIOLATIONS
KS2009905	Chetopa	Chetopa	Labette	1,120	1
KS2012520	Elk City	Elk City	Montgomery	320	4
KS2004901	Howard	Howard	Elk	671	1
KS2004903	Longton	Longton	Elk	340	4
KS2007308	Severy	Severy	Greenwood	257	4
TOTALS	**5**			**2,708**	**14**

2012 HALOACETIC ACIDS (HAA5) VIOLATIONS



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HAA5 Monitoring Violations

HAA5 MCL Violations

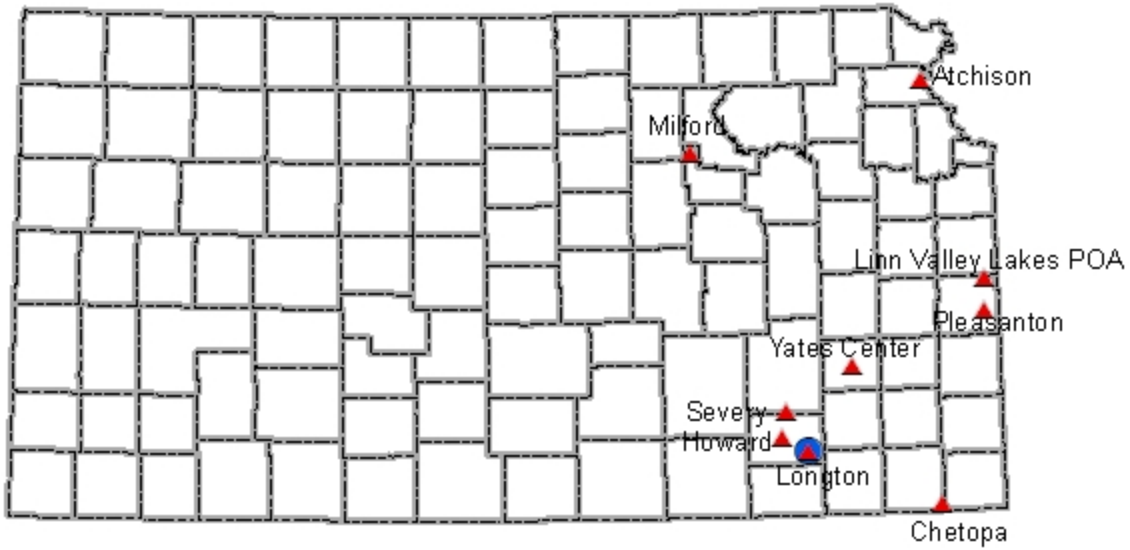
2012 TOTAL ORGANIC CARBON (TOC) TREATMENT TECHNIQUE VIOLATIONS

EPA#	PWS NAME	CITY	COUNTY	POPULATION	VIOLATIONS
KS2000506	Atchison	Atchison	Atchison	10,943	4
KS2009905	Chetopa	Chetopa	Labette	1,120	2
KS2004901	Howard	Howard	Elk	671	1
KS2010712	Linn Valley Lakes POA	Linn Valley	Linn	193	2
KS2004903	Longton	Longton	Elk	340	5
KS2006109	Milford	Milford	Geary	545	1
KS2010704	Pleasanton	Pleasanton	Linn	1,211	4
KS2007308	Severy	Severy	Greenwood	257	4
KS2020702	Yates Center	Yates Center	Woodson	1,410	1
TOTALS	**9**			**16,690**	**24**

2012 TOTAL ORGANIC CARBON (TOC) MONITORING VIOLATION

EPA #	PWS NAME	CITY	COUNTY	POPULATION	VIOLATION
KS2004903	Longton, City of	Longton	Elk	340	1
TOTAL	**1**			**340**	**1**

2012 TOTAL ORGANIC CARBON (TOC) VIOLATIONS



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Treatment Technique Violations

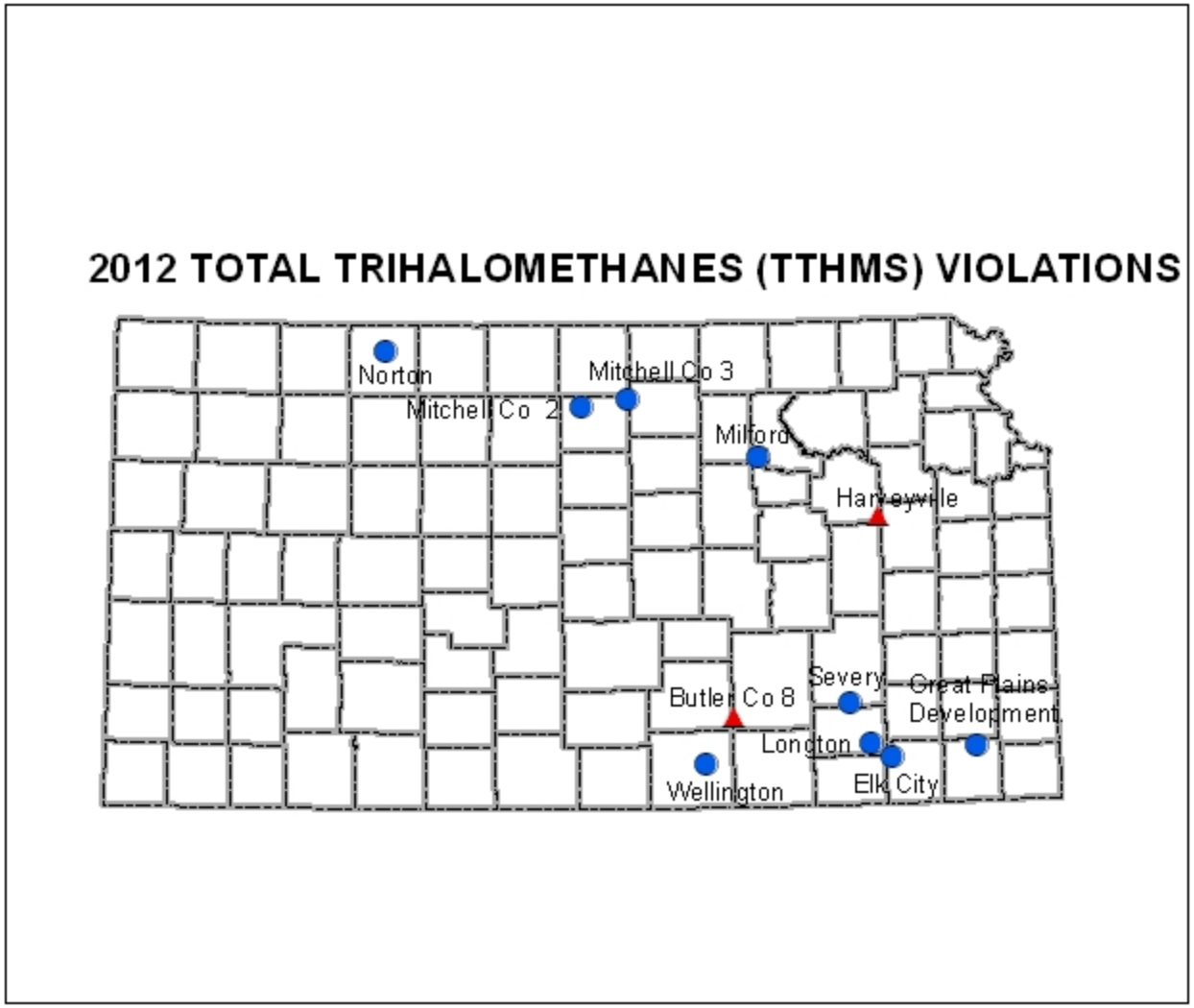
Major Routine Monitoring Violation

2012 TOTAL TRIHALOMETHANES (TTHM) MONITORING VIOLATIONS

EPA#	PWS NAME	CITY	COUNTY	POPULATION	VIOLATIONS
KS2001528	Butler Co RWD 8	Rose Hill	Butler	1,450	2
KS2019704	Harveyville	Harveyville	Wabaunsee	235	1
TOTALS	**2**			**1,685**	**3**

2012 TOTAL TRIHALOMETHANES (TTHM) MCL VIOLATIONS

EPA#	PWS NAME	CITY	COUNTY	POPULATION	VIOLATIONS
KS2012520	Elk City	Elk City	Montgomery	320	4
KS2009911	Great Plains Devevelopment Authority	Parsons	Labette	182	1
KS2004903	Longton	Longton	Elk	340	4
KS2006109	Milford	Milford	Geary	545	2
KS2012304	Mitchell Co RWD 2	Glen Elder	Mitchell	1,291	4
KS2012309	Mitchell Co RWD 3	Scottsville	Mitchell	2,048	3
KS2013702	Norton	Norton	Norton	2,908	2
KS2007308	Severy	Severy	Greenwood	257	4
KS2019119	Wellington	Wellington	Sumner	8,057	1
TOTALS	**9**			**15,948**	**25**



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TTHM Monitoring Violations

TTHM MCL Violations

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2012 INORGANIC CONTAMINANTS (IOC)

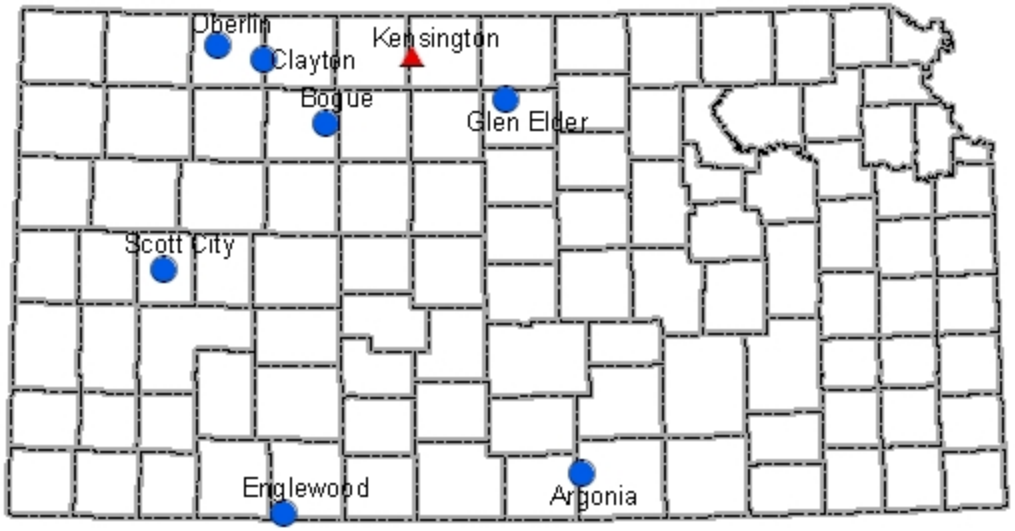
2012 ARSENIC MONITORING VIOLATIONS

EPA#	PWS NAME	CITY	COUNTY	POPULATION	VIOLATION
KS2018302	Kensington	Kensington	Smith	470	1
TOTALS	**1**			**470**	**1**

2012 ARSENIC (MCL) VIOLATIONS

EPA#	PWS NAME	CITY	COUNTY	POPULATION	VIOLATIONS
KS2019116	Argonia	Argonia	Sumner	494	4
KS2006504	Bogue	Bogue	Graham	145	1
KS2013706	Clayton	Clayton	Norton	59	4
KS2002503	Englewood	Englewood	Clark	75	4
KS2012305	Glen Elder	Glen Elder	Mitchell	439	2
KS2003903	Oberlin	Oberlin	Decatur	1,760	4
KS2017101	Scott City	Scott City	Scott	3,796	3
TOTALS	**7**			**6,768**	**22**

2012 ARSENIC VIOLATIONS



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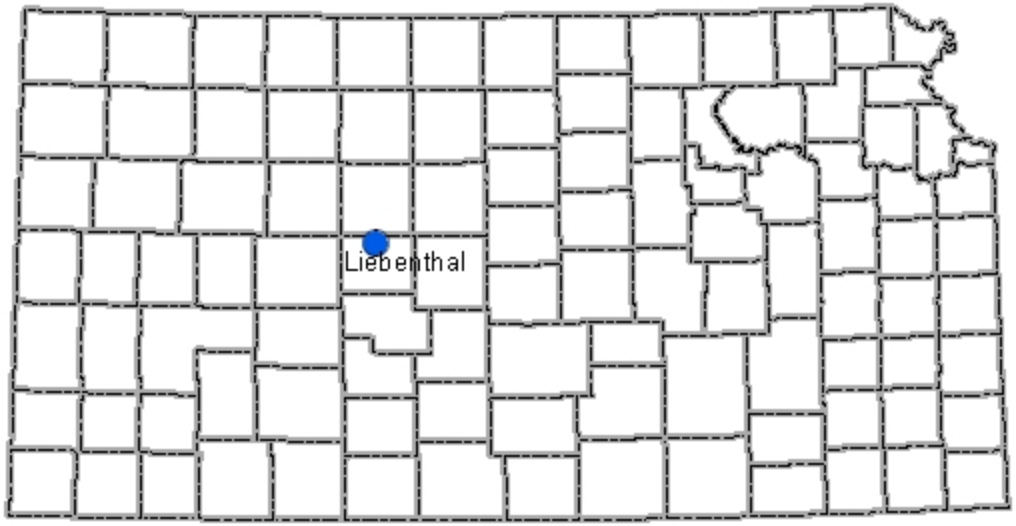
Arsenic Major Monitoring Violation

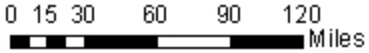
Arsenic MCL Violations

2012 FLUORIDE MCL VIOLATION

EPA#	PWS NAME	CITY	COUNTY	POPULATION	VIOLATION
KS2016508	Liebenthal	Liebenthal	Rush	101	1
TOTALS	**1**			**101**	**1**

2012 FLUORIDE MCL VIOLATIONS





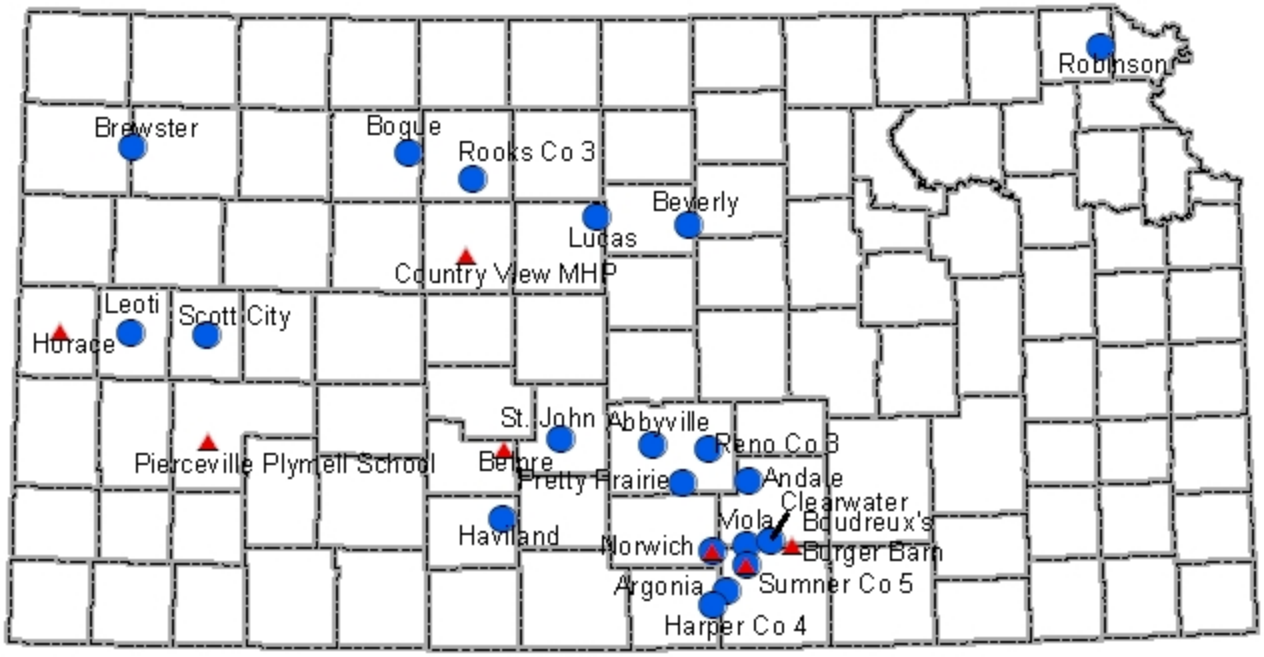
2012 NITRATE MONITORING VIOLATIONS

EPA#	PWS NAME	CITY	COUNTY	POPULATION	VIOLATIONS
KS2004701	Belpre	Belpre	Edwards	83	1
KS2017348	Boudreux's Burger Barn	Peck	Sumner	50	1
KS2019118	Conway Springs	Conway Springs	Sumner	1,252	1
KS2005121	Country View Mobile Home Park	Hays	Ellis	125	2
KS2007101	Horace	Horace	Greeley	71	2
KS2009505	Norwich	Norwich	Kingman	490	1
KS2105519	Pierceville Plymell School	Garden City	Finney	85	1
TOTALS	**7**			**2,156**	**9**

2012 NITRATE MCL VIOLATIONS

EPA#	PWS NAME	CITY	COUNTY	POPULATION	VIOLATIONS
KS2015512	Abbyville	Abbyville	Reno	87	1
KS2017342	Andale	Andale	Sedgwick	933	1
KS2019116	Argonia	Argonia	Sumner	494	3
KS2010504	Beverly	Beverly	Lincoln	161	4
KS2006504	Bogue	Bogue	Graham	145	3
KS2019303	Brewster	Brewster	Thomas	307	1
KS2017329	Clearwater	Clearwater	Sedgwick	2,496	1
KS2019118	Conway Springs	Conway Springs	Sumner	1,252	2
KS2007708	Harper Co RWD 4	Freeport	Harper	320	3
KS2009703	Haviland	Haviland	Kiowa	701	4
KS2020301	Leoti	Leoti	Wichita	1,563	3
KS2016702	Lucas	Lucas	Russell	392	2
KS2009505	Norwich	Norwich	Kingman	490	3
KS2015501	Pretty Prairie	Pretty Prairie	Reno	681	4
KS2015516	Reno Co RWD 3	Yoder	Reno	450	1
KS2001301	Robinson	Robinson	Brown	234	4
KS2016308	Rooks Co RWD 3	Plainville	Rooks	380	1
KS2017101	Scott City	Scott City	Scott	3,796	2
KS2018502	St John	St John	Stafford	1,275	1
KS2019101	Sumner Co RWD 5	Conway Springs	Sumner	1,452	2
KS2017313	Viola	Viola	Sedgwick	130	2
TOTALS	**21**			**17,739**	**48**

2012 NITRATE VIOLATIONS



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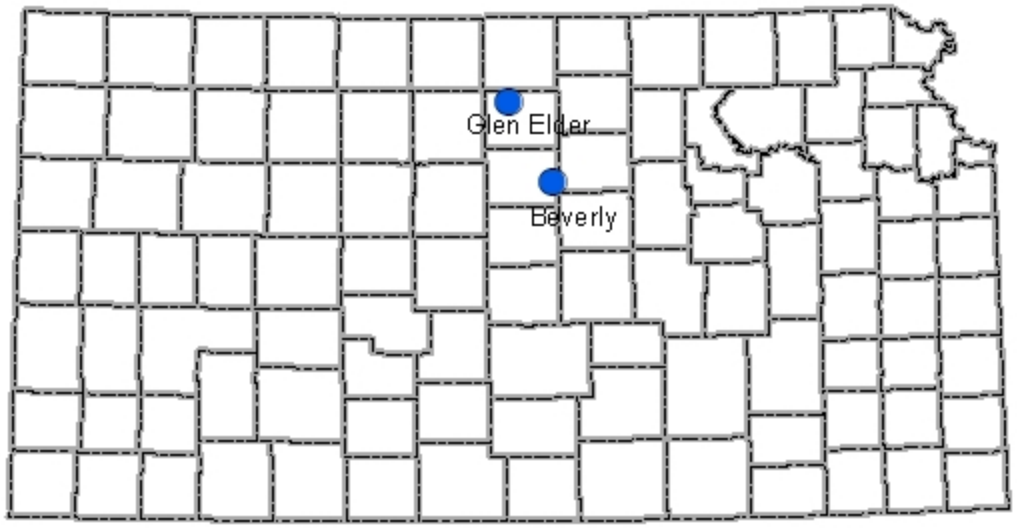
Nitrate Monitoring Violations

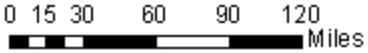
Nitrate MCL Violations

2012 SELENIUM MCL VIOLATIONS

EPA#	PWS NAME	CITY	COUNTY	POPULATION	VIOLATIONS
KS2010504	Beverly	Beverly	Lincoln	161	4
KS2012305	Glen Elder	Glen Elder	Mitchell	439	3
TOTALS	**2**			**600**	**7**

2012 SELENIUM VIOLATIONS





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2012 RADIONUCLIDE CONTAMINANTS

2012 COMBINED RADIUM MCL VIOLATION

EPA#	PWS NAME	CITY	COUNTY	POPULATION	VIOLATION
KS2020102	Mahaska	Mahaska	Washington	83	4
TOTALS	**1**			**83**	**4**

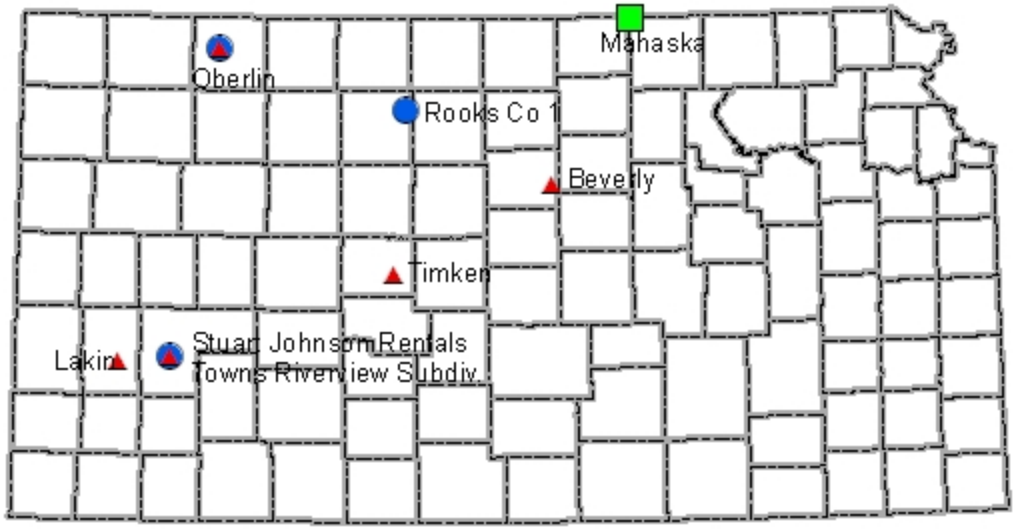
2012 COMBINED URANIUM MCL VIOLATIONS

EPA#	PWS NAME	CITY	COUNTY	POPULATION	VIOLATIONS
KS2010504	Beverly	Beverly	Lincoln	161	4
KS2009301	Lakin	Lakin	Kearny	2,220	1
KS2003903	Oberlin	Oberlin	Decatur	1,760	4
KS2016504	Timken	Timken	Rush	75	3
KS2005502	Towns Riverview Subdivision	Garden City	Finney	860	4
TOTALS	**5**			**5,076**	**16**

2012 GROSS ALPHA MCL VIOLATIONS

EPA#	PWS NAME	CITY	COUNTY	POPULATION	VIOLATIONS
KS2003903	Oberlin	Oberlin	Decatur	1,760	1
KS2016303	Rooks Co RWD 1	Woodston	Rooks	87	2
KS2005531	Stuart Johnson Rentals	Garden City	Finney	72	2
KS2005502	Towns Riverview Subdivision	Garden City	Finney	860	2
TOTALS	**4**			**2,779**	**7**

2012 RADIONUCLIDES MCL VIOLATIONS



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COMBINATION RADIUM MCL VIOLATION
COMBINATION URANIUM MCL VIOLATIONS
GROSS ALPHA MCL VIOLATIONS

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2012 TOTAL COLIFORM RULE (TCR)

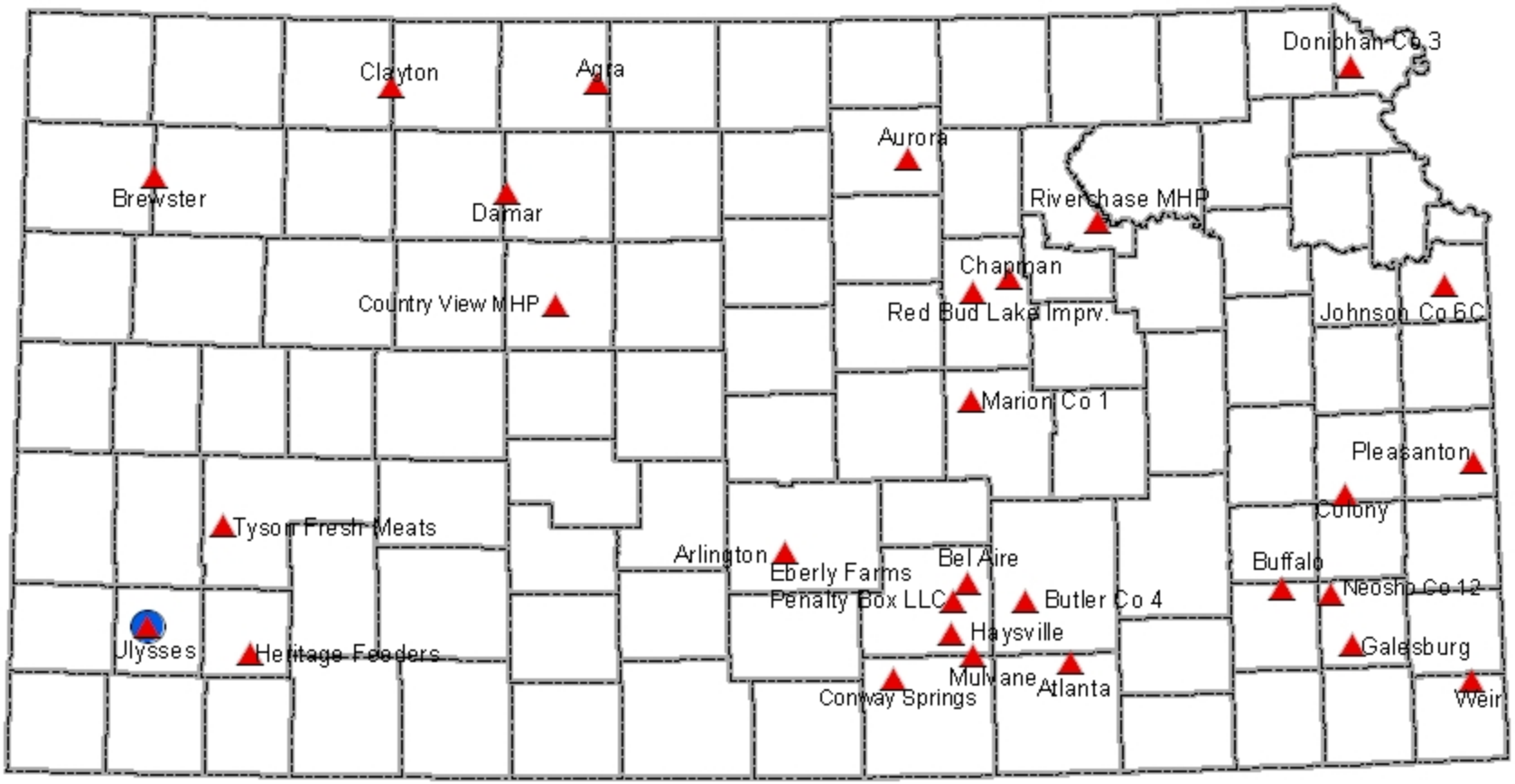
2012 TOTAL COLIFORM RULE (TCR) NON-ACUTE MCL VIOLATIONS

EPA#	PWS NAME	CITY	COUNTY	POPULATION	VIOLATIONS
KS2014707	Agra	Agra	Phillips	263	1
KS2015511	Arlington	Arlington	Reno	473	1
KS2003502	Atlanta	Atlanta	Cowley	195	1
KS2002906	Aurora	Aurora	Cloud	59	1
KS2017304	Bel Aire	Bel Aire	Sedgwick	6,806	1
KS2019303	Brewster	Brewster	Thomas	307	2
KS2020511	Buffalo	Buffalo	Wilson	230	1
KS2001506	Butler Co RWD 4	Augusta	Butler	1,940	2
KS2004108	Chapman	Chapman	Dickinson	1,394	1
KS2013706	Clayton	Clayton	Norton	59	1
KS2000307	Colony	Colony	Anderson	405	1
KS2019118	Conway Springs	Conway Springs	Sumner	1,252	1
KS2005121	Country View Mobile Home Park	Hays	Ellis	125	1
KS2016305	Damar	Damar	Rooks	132	1
KS2004301	Doniphan Co RWD 3	Severance	Doniphan	437	1
KS2117337	Eberly Farms, Inc	Wichita	Sedgwick	200	1
KS2013308	Galesburg	Galesburg	Neosho	125	1
KS2017322	Haysville	Haysville	Sedgwick	10,883	1
KS2005545	Heritage Feeders	Sublette	Haskell	32	2
KS2009113	Johnson Co RWD 6C	Olathe	Johnson	1,920	1
KS2011510	Marion Co RWD 1	Durham	Marion	780	1
KS2019113	Mulvane	Mulvane	Sumner	6,127	1
KS2013321	Neosho Co RWD 12	Chanute	Neosho	437	1
KS2017346	Penalty Box LLC	Wichita	Sedgwick	65	1
KS2010704	Pleasanton	Pleasanton	Linn	1,211	1
KS2004111	Red Bud Lake Improvement District	Abilene	Dickinson	56	1
KS2016119	Riverchase MHP	Manhattan	Riley	460	1
KS2105525	Tyson Fresh Meats	Holcomb	Finney	2,900	2
KS2006704	Ulysses	Ulysses	Grant	6,267	2
KS2002114	Weir	Weir	Cherokee	679	1
TOTALS	**30**			**46,219**	**35**

2012 TOTAL COLIFORM RULE (TCR) ACUTE MCL VIOLATION

EPA#	PWS NAME	CITY	COUNTY	POPULATION	VIOLATION
KS2006704	Ulysses	Ulysses	Grant	6,267	1
TOTALS	**1**			**6,267**	**1**

2012 TOTAL COLIFORM RULE (TCR) MCL VIOLATIONS



Kansas Department of Health and Environment

N W E S

0 4.75 9.5 19 28.5 38 Miles

Non-Acute MCL Violations

Acute MCL Violation

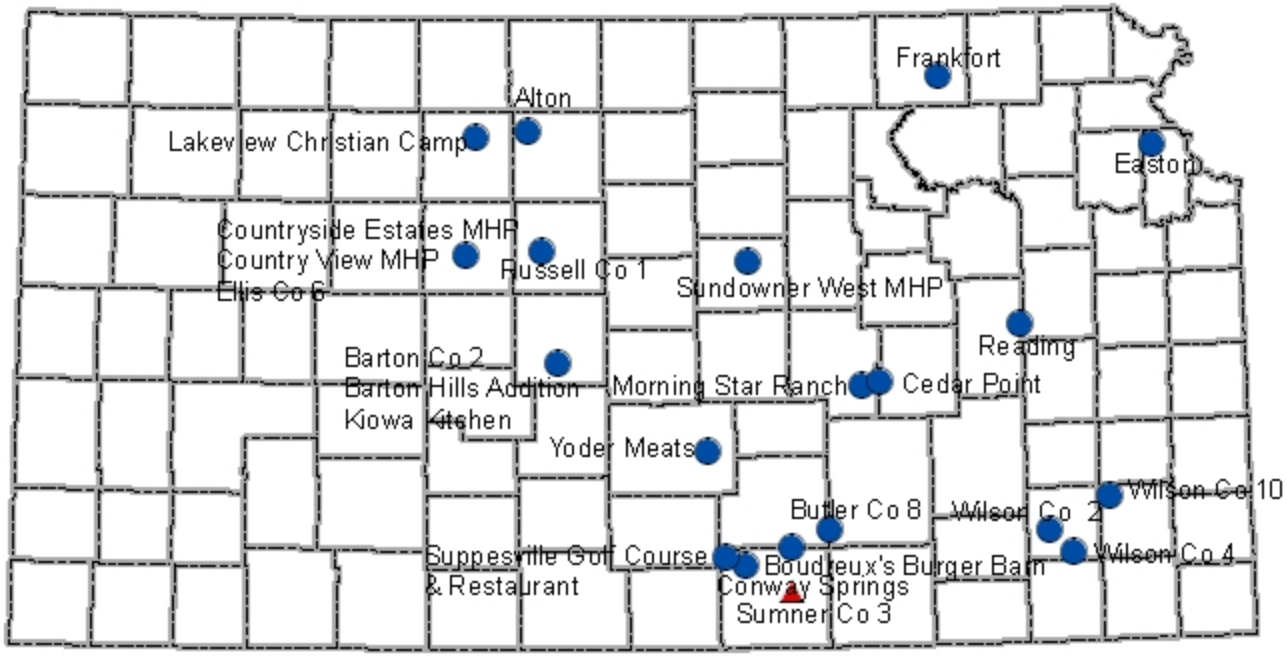
2012 TOTAL COLIFORM (TCR) MAJOR REPEAT MONITORING VIOLATION

EPA#	PWS NAME	CITY	COUNTY	POPULATION	VIOLATION
KS2019105	Sumner Co. RWD 3	Welllington	Sumner	25	1
TOTALS	**1**			**25**	**1**

2012 TOTAL COLIFORM RULE (TCR) MAJOR MONITORING VIOLATIONS

EPA#	PWS NAME	CITY	COUNTY	POPULATION	VIOLATIONS
KS2014102	Alton	Alton	Osborne	103	1
KS2000907	Barton Co RWD 2	Great Bend	Barton	344	1
KS2000915	Barton Hills Addition	Great Bend	Barton	176	1
KS2017348	Boudreux's Burger Barn	Peck	Sumner	50	1
KS2001528	Butler Co RWD 8	Rose Hill	Butler	1,450	1
KS2001706	Cedar Point	Cedar Point	Chase	28	1
KS2019118	Conway Springs	Conway Springs	Sumner	1,252	1
KS2005107	Countryside Estates Mobile Home Park	Hays	Ellis	300	1
KS2005121	Country View Mobile Home Park	Hays	Ellis	125	12
KS2010301	Easton	Easton	Leavenworth	255	1
KS2005122	Ellis Co RWD 6	Hays	Ellis	250	1
KS2011708	Frankfort	Frankfort	Marshall	718	1
KS2100912	Kiowa Kitchen	Great Bend	Barton	25	1
KS2116306	Lakeview Christian Camp	Stockton	Rooks	25	1
KS2111513	Morning Star Ranch	Florence	Marion	35	1
KS2011114	Reading	Reading	Lyon	231	1
KS2016707	Russell Co RWD 1	Russell	Russell	44	1
KS2016910	Sundowner West Mobile Home Park	Salina	Saline	220	1
KS2119103	Suppesville Golf Course & Restaurant	Milton	Sumner	40	1
KS2020510	Wilson Co RWD 10	Chanute	Wilson	808	1
KS2020514	Wilson Co RWD 2	Fredonia	Wilson	194	1
KS2020504	Wilson Co RWD 4	Neodesha	Wilson	293	1
KS2115533	Yoder Meats	Yoder	Reno	45	1
TOTALS	**23**			**7,011**	**34**

2012 TOTAL COLIFORM MAJOR MONITORING VIOLATIONS



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TCR Major Repeat Violation

TCR Major Monitoring Violations

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2012 SURFACE WATER TREATMENT RULE (SWTR)

2012 SURFACE WATER TREATMENT RULE (SWTR) RESIDUAL DISINFECTION CONCENTRATION TREATMENT TECHNIQUE VIOLATION

EPA#	PWS NAME	CITY	COUNTY	POPULATION	VIOLATION
KS2004903	Longton	Longton	Elk	340	1
TOTALS	**1**			**340**	**1**

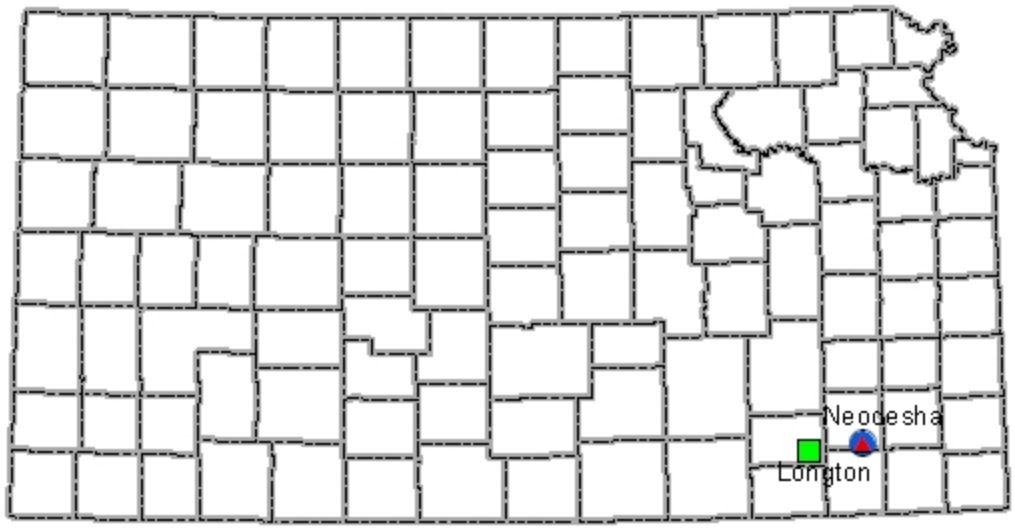
2012 SURFACE WATER TREATMENT RULE (SWTR) MONTHLY COMBINATION FILTER TREATMENT VIOLATION

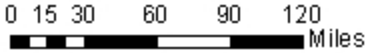
EPA#	PWS NAME	CITY	COUNTY	POPULATION	VIOLATIONS
KS2020502	Neodesha	Neodesha	Wilson	2,457	2
TOTALS	**1**			**2,457**	**2**

2012 SURFACE WATER TREATMENT RULE (SWTR) SINGLE COMBINATION FILTER TREATMENT TECHNIQUE VIOLATION

EPA#	PWS NAME	CITY	COUNTY	POPULATION	VIOLATION
KS2020502	Neodesha	Neodesha	Wilson	2,457	2
TOTALS	**1**			**2,457**	**2**

2012 SURFACE WATER TREATMENT TECHNIQUE VIOLATIONS





- Residual Disinfection Concentration Treatment Technique Violation
- Monthly Combination Filter Treatment Technique Violation
- Single Combination Filter Treatment Technique Violations

2012 SURFACE WATER TREATMENT RULE (SWTR) MAJOR ROUTINE REPEAT MONITORING VIOLATION

EPA#	PWS NAME	CITY	COUNTY	POPULATION	VIOLATION
KS2004903	Longton	Longton	Elk	340	1
TOTALS	**1**			**340**	**1**

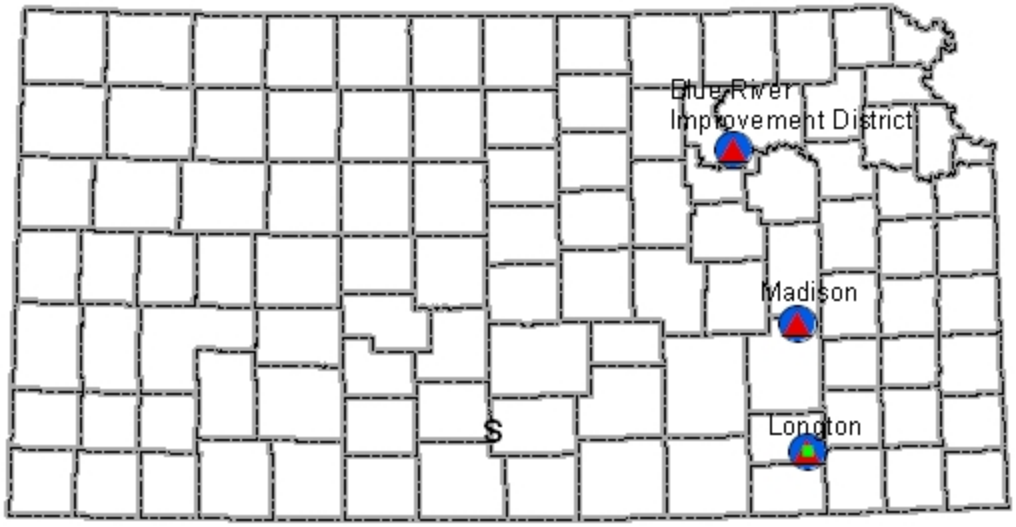
2012 SURFACE WATER TREATMENT RULE (SWTR) CHLORINE ROUTINE REPEAT MONITORING VIOLATIONS

EPA#	PWS NAME	CITY	COUNTY	POPULATION	VIOLATIONS
KS2016106	Blue River Hills Imprvmnt District	Manhattan	Riley	89	2
KS2004903	Longton	Longton	Elk	340	1
KS2007301	Madison	Madison	Greenwood	696	1
TOTALS	**3**			**1,125**	**4**

2012 SURFACE WATER TREATMENT RULE (SWTR) TURBIDITY ROUTINE REPEAT MONITORING VIOLATIONS

EPA#	PWS NAME	CITY	COUNTY	POPULATION	VIOLATIONS
KS2016106	Blue River Hills Impvmt District	Manhattan	Riley	89	2
KS2004903	Longton	Longton	Elk	340	1
KS2007301	Madison	Madison	Greenwood	696	1
TOTALS	**3**			**1,125**	**4**

2012 SURFACE WATER TREATMENT (SWTR) MAJOR ROUTINE/REPEAT MONITORING VIOLATIONS



0 15 30 60 90 120 Miles

- SWTR Major Routine Repeat Monitoring Violation
- SWTR Chlorine Routine Repeat Monitoring Violations
- SWTR Turbidty Routine Repeat Monitoring Violations

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2012 LEAD AND COPPER RULE

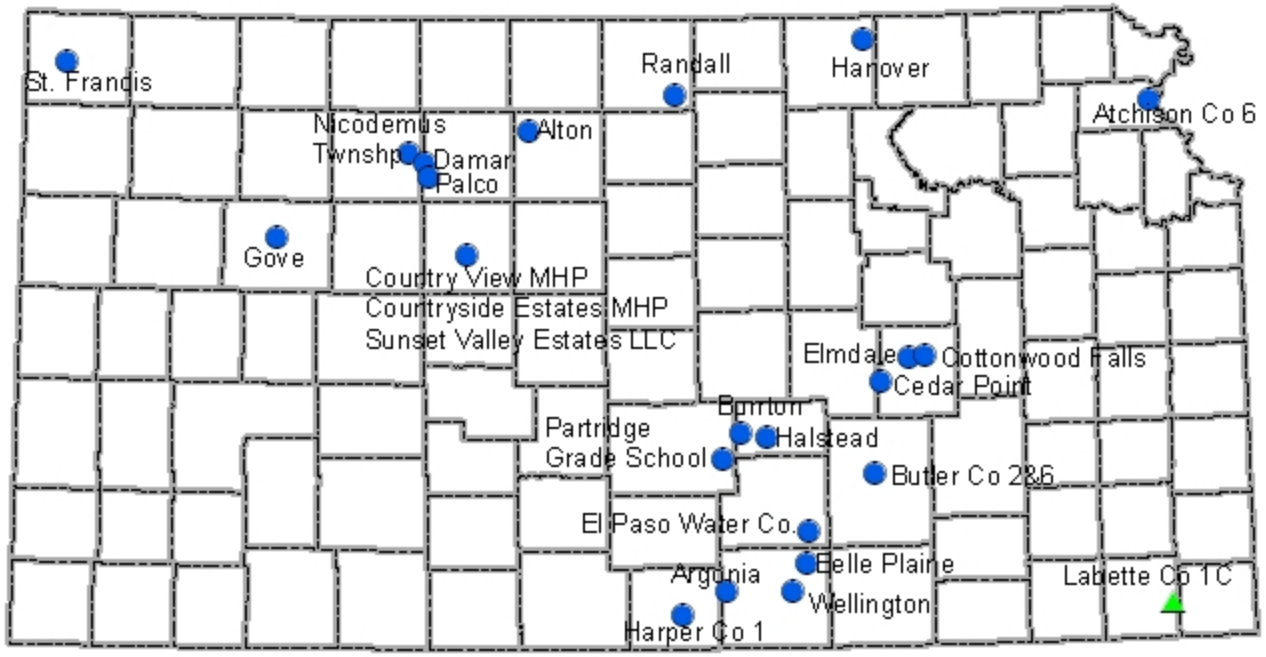
2012 LEAD AND COPPER INITIAL TAP SAMPLING VIOLATION

EPA#	PWS NAME	CITY	COUNTY	POPULATION	VIOLATIONS
KS2009919	Labette Co RWD 1c	Oswego	Labette	285	1
TOTALS	**1**			**285**	**1**

2012 LEAD AND COPPER FOLLOW-UP OR ROUTINE TAP MONITORING/REPORTING VIOLATIONS

EPA#	PWS NAME	CITY	COUNTY	POPULATION	VIOLATIONS
KS2014102	Alton	Alton	Osborne	103	1
KS2019116	Argonia	Argonia	Sumner	494	1
KS2000510	Atchison Co RWD 6	Atchison	Atchison	485	1
KS2019115	Belle Plaine	Belle Plaine	Sumner	1,657	1
KS2007903	Burrton	Burrton	Harvey	906	1
KS2001505	Butler Co RWD 2	El Dorado	Butler	1,775	3
KS2001530	Butler Co RWD 6	El Dorado	Butler	2,586	1
KS2001706	Cedar Point	Cedar Point	Chase	28	1
KS2001703	Cottonwood Falls	Cottonwood Falls	Chae	911	1
KS2005121	Country View Mobile Home Park	Hays	Ellis	125	1
KS2005107	Countryside Estates Mobile Home Park	Hays	Ellis	300	1
KS2016305	Damar	Damar	Rooks	132	2
KS2017328	El Paso Water Company	Derby	Sedgwick	22,158	1
KS2001704	Elmdale	Elmdale	Chase	56	1
KS2006303	Gove	Gove	Gove	79	1
KS2007901	Halstead	Halstead	Harvey	2,095	1
KS2020108	Hanover	Hanover	Washington	687	1
KS2007706	Harper Co RWD 1	Anthony	Harper	50	1
KS2006505	Nicodemus Township	Bogue	Graham	32	1
KS2016302	Palco	Palco	Rooks	276	1
KS2115515	Partridge Grade School	Haven	Reno	160	1
KS2008903	Randall	Randall	Jewell	65	1
KS2002302	St Francis	St Francis	Cheyenne	1,326	1
KS2005101	Sunset Valley Estates LLC	Hays	Ellis	60	1
KS2019119	Wellington	Wellington	Sumner	8,057	1
TOTALS	**25**			**44,603**	**28**

2012 LEAD AND COPPER VIOLATIONS



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- ▲ Lead & Copper Initial Tap Sampling Violation
- ● Lead & Copper Followup or Routine Tap Monitoring Violations

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2012 CONSUMER CONFIDENCE RULE (CCR)

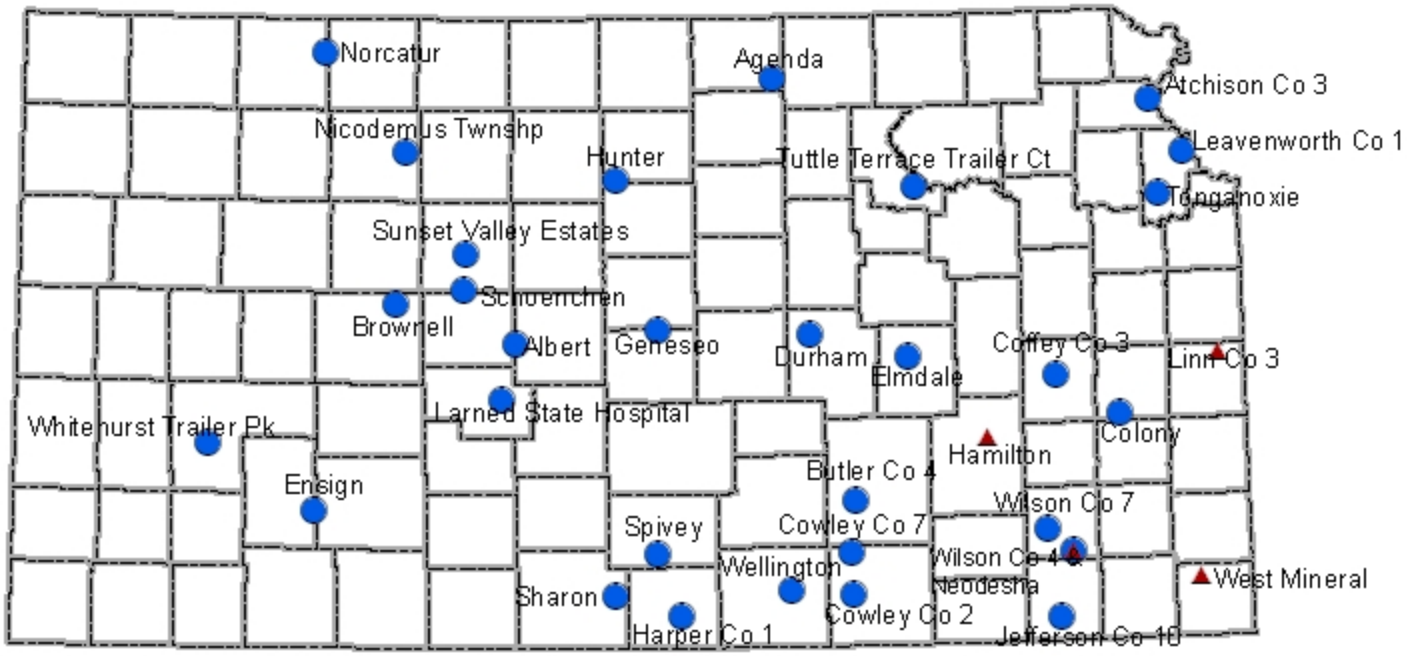
2012 CONSUMER CONFIDENCE REPORT (CCR) MINOR MONITORING VIOLATIONS

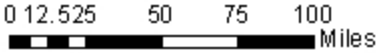
EPA#	PWS NAME	CITY	COUNTY	POPULATION	VIOLATIONS
KS2007303	Hamilton	Hamilton	Greenwood	266	1
KS2010708	Linn Co RWD 3	LaCygne	Linn	710	1
KS2002115	West Mineral	West Mineral	Cherokee	182	1
KS2020504	Wilson Co RWD 4	Neodesha	Wilson	293	1
TOTALS	**4**			**1,451**	**4**

2012 CONSUMER CONFIDENCE REPORT (CCR) MAJOR MONITORING VIOLATIONS

EPA#	PWS NAME	CITY	COUNTY	POPULATION	VIOLATIONS
KS2015705	Agenda	Agenda	Republic	67	1
KS2000914	Albert	Albert	Barton	175	1
KS2000504	Atchison Co RWD 3	Atchison	Atchison	110	1
KS2013504	Brownell	Brownell	Ness	29	1
KS2001506	Butler Co RWD 4	Augusta	Butler	1,940	1
KS2003106	Coffey Co RWD 3	New Strawn	Coffey	1,600	1
KS2000307	Colony	Colony	Anderson	405	1
KS2003512	Cowley Co RWD 2	Winfield	Cowley	425	1
KS2003516	Cowley Co RWD 7	Rock	Cowley	250	1
KS2011502	Durham	Durham	Marion	111	1
KS2001704	Elmdale	Elmdale	Chase	56	1
KS2006905	Ensign	Ensign	Gray	187	1
KS2015907	Geneseo	Geneseo	Rice	266	1
KS2007706	Harper Co RWD 1	Anthony	Harper	50	1
KS2012306	Hunter	Hunter	Mitchell	56	1
KS2008709	Jefferson Co RWD 10	Ozawkie	Jefferson	167	1
KS2014503	Larned State Hospital	Larned	Pawnee	1,700	1
KS2010316	Leavenworth Co RWD 1	Leavenworth	Leavenworth	40	1
KS2020502	Neodesha	Neodesha	Wilson	2,457	1
KS2006505	Nicodemus Township	Bogue	Graham	32	1
KS2003902	Norcatur	Norcatur	Decatur	148	1
KS2005118	Schoenchen	Schoenchen	Ellis	210	1
KS2000708	Sharon	Sharon	Barber	159	1
KS2009504	Spivey	Spivey	Kingman	78	1
KS2005101	Sunset Valley Estates	Hays	Ellis	60	1
KS2010306	Tonganoxie	Tonganoxie	Leavenworth	5,065	1
KS2016102	Tuttle Terrace Trailer Court	Manhattan	Riley	50	1
KS2019119	Wellington	Wellington	Sumner	8,057	1
KS2005536	Whitehurst Trailer Park	Garden City	Finney	150	1
KS2020516	Wilson Co RWD 7	Fredonia	Wilson	460	1
TOTALS	**30**			**24,560**	**30**

2012 CONSUMER CONFIDENCE REPORT (CCR) VIOLATIONS





▲ CCR Minor Monitoring Violations

● CCR Major Violations

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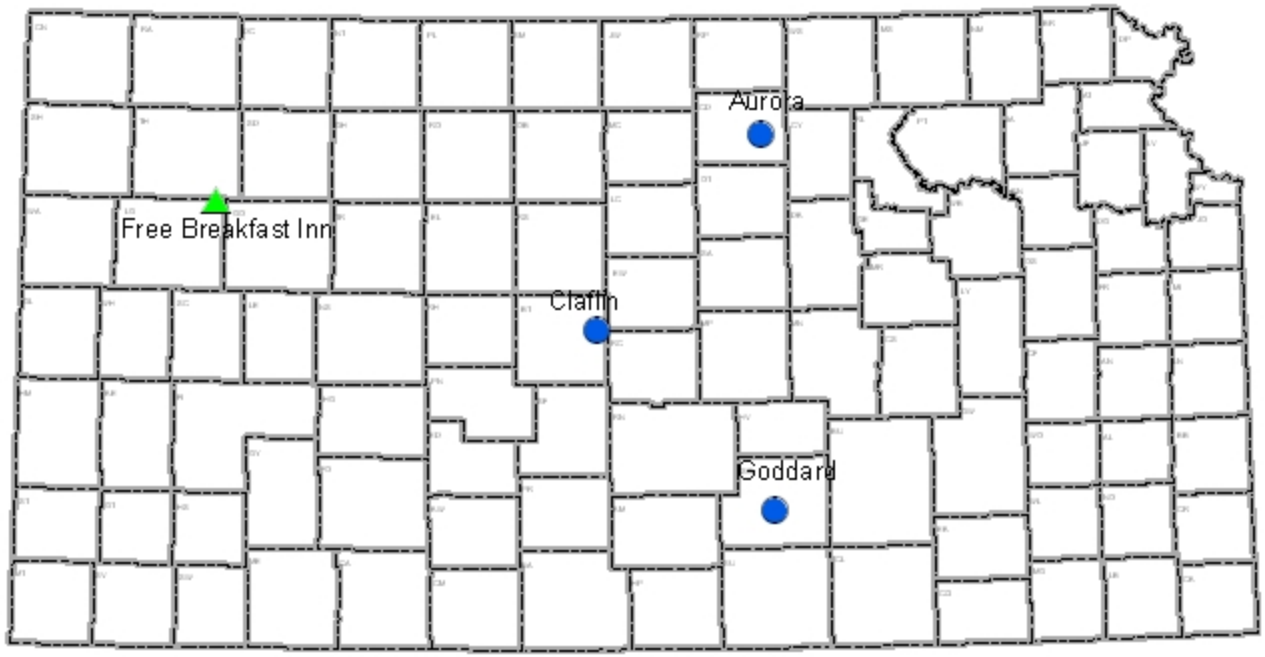
2012 GROUND WATER RULE (GWR) TRIGGERED ADDITIONAL MINOR MONITORING VIOLATIONS

EPA#	PWS NAME	CITY	COUNTY	POPULATION	VIOLATION
KS2002906	Aurora	Aurora	Cloud	59	1
KS2000905	Claflin	Claflin	Barton	648	1
KS2017325	Goddard	Goddard	Sedgwick	4,367	1
TOTALS	**3**			**5,074**	**3**

2012 GROUND WATER RULE (GWR) MAJOR TRIGGERED ADDITIONALMONITORING VIOLATION

EPA#	PWS NAME	CITY	COUNTY	POPULATION	VIOLATION
KS2119303	Free Breakfast Inn	Oakley	Thomas	25	1
TOTALS	**1**			**25**	**1**

2012 GROUND WATER RULE TRIGGERED/ADDITIONAL MONITORING VIOLATIONS



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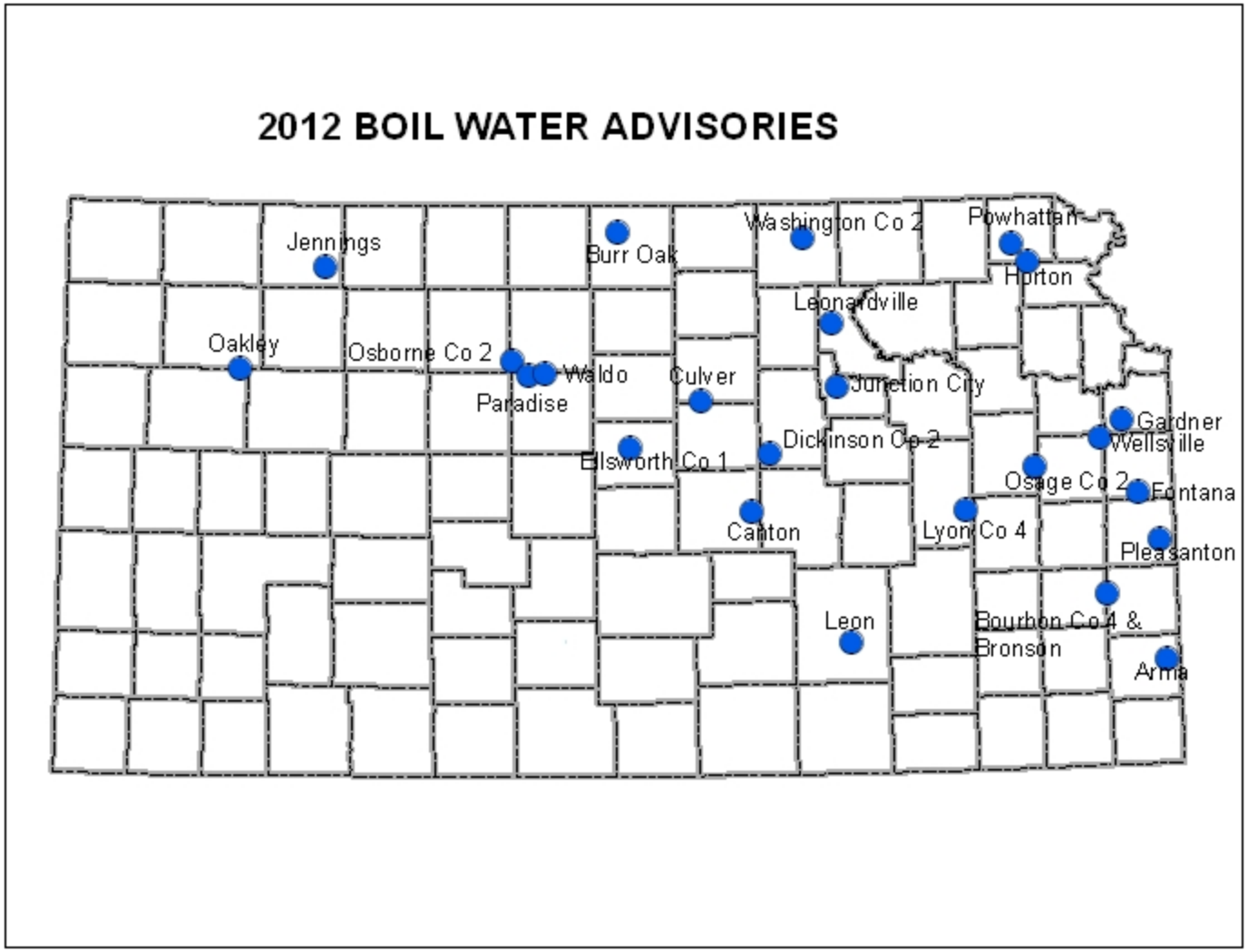
2012 FOR STATE COMPLIANCE ONLY

2012 BOIL WATER ADVISORIES (BWA)

EPA#	PWS NAME	CITY	COUNTY	POPULATION	ISSUED BY	ISSUED	RESCINDED
KS2003713	Arma	Arma	Crawford	1,484	City	7/21/2012	7/24/2012
KS2001101	Bourbon Co RWD 4	Bronson	Bourbon	918	KDHE	7/17/2012	7/19/2012
KS2001106	Bronson	Bronson	Bourbon	318	KDHE	7/18/2012	7/19/2012
KS2008906	Burr Oak	Burr Oak	Jewell	175	City	7/17/2012	7/19/2012
KS2011313	Canton	Canton	McPherson	750	KDHE	3/21/2012	3/23/2012
KS2014306	Culver	Culver	Ottawa	122	City	12/29/2012	1/2/2013
KS2004106	Dickinson Co RWD 2	Carlton	Dickinson	1,560	KDHE	12/29/2012	1/2/2013
KS2005309	Ellsworth Co RWD 1	Ellsworth	Ellsworth	2,626	District	12/30/2011	1/4/2012
KS2005309	Ellsworth Co RWD 1	Ellsworth	Ellsworth	2,626	District	1/27/2012	1/31/2012
KS2005309	Ellsworth Co RWD 1	Ellsworth	Ellsworth	2,626	District	4/1/2012	4/2/2012
KS2005309	Ellsworth Co RWD 1	Ellsworth	Ellsworth	2,626	District	4/10/2012	4/13/2012
KS2005309	Ellsworth Co RWD 1	Ellsworth	Ellsworth	2,626	District	6/25/2012	6/27/2012
KS2005309	Ellsworth Co RWD 1	Ellsworth	Ellsworth	2,626	District	9/18/2012	10/11/2012
KS2005309	Ellsworth Co RWD 1	Ellsworth	Ellsworth	2,626	District	12/20/2012	12/21/2012
KS2012707	Fontana	Fontana	Miami	225	City	12/22/2012	1/2/2013
KS2009106	Gardner	Gardner	Johnson	19,433	City	7/9/2012	7/10/2012
KS2001306	Horton	Horton	Brown	1,780	City	4/30/2012	5/12/2012
KS2003904	Jennings	Jennings	Decatur	94	City	2/7/2012	2/10/2012
KS2006108	Junction City	Junction City	Geary	24,015	City	2/6/2012	2/8/2012
KS2001515	Leon	Leon	Butler	704	City	10/31/2012	11/5/2012
KS2016120	Leonardville	Leonardville	Riley	461	KDHE	9/20/2012	9/21/2012
KS2011110	Lyon Co RWD 4	Neosho Rapids	Lyon	980	KDHE	9/28/2012	9/30/2012
KS2010901	Oakley	Oakley	Logan	2,066	City	6/28/2012	7/5/2012
KS2013912	Osage Co RWD 2	Quenemo	Osage	220	District	7/4/2012	7/6/2012
KS2014107	Osborne Co RWD 2	Natoma	Russell	55	District/KDHE	9/18/2012	10/11/2012
KS2016708	Paradise	Paradise	Russell	49	District/KDHE	9/18/2012	10/11/2012
KS2010704	Pleasanton	Pleasanton	Linn	1,211	KDHE	2/28/2012	3/1/2012
KS2001303	Powhattan	Powhattan	Brown	78	City	3/20/2012	3/24/2012
KS2016709	Waldo	Waldo	Russell	30	District/KDHE	9/18/2012	10/11/2012
KS2020113	Washington Co RWD 2	Washington	Washington	567	District	9/18/2012	10/11/2012
KS2005916	Wellsville	Wellsville	Franklin	1,853	KDHE	8/8/2012	8/10/2012
TOTALS	**31**			**77,530**			



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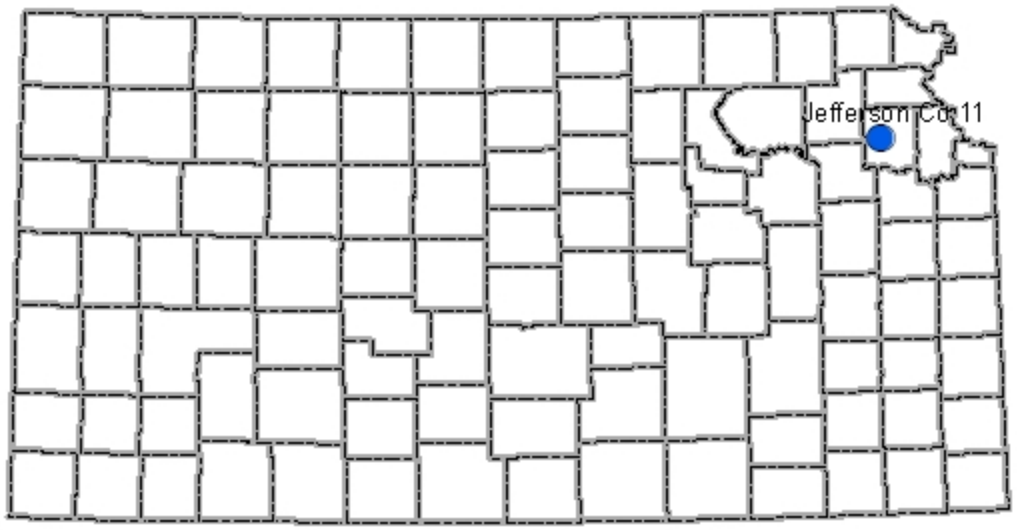
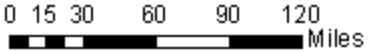
2012 GROUND WATER RULE (GWR) CHLORINE MAJOR ROUTINE REPEAT MONITORING VIOLATION

EPA#	PWS NAME	CITY	COUNTY	POPULATION	VIOLATION
KS2008712	Jefferson Co RWD 11	Ozawakie	Jefferson	210	1
TOTALS	1			210	1

2012 CHLORINE MAJOR ROUTINE/REPEAT (GWR) MONITORING VIOLATION

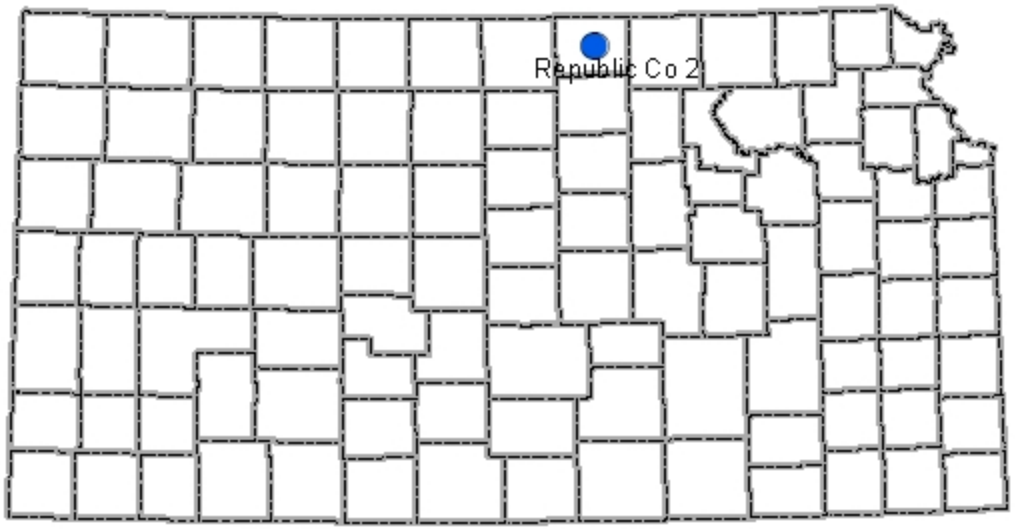


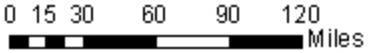


2012 GROUND WATER RULE (GWR) MAJOR ROUTINE REPEAT MONITORING VIOLATION

EPA#	PWS NAME	CITY	COUNTY	POPULATION	VIOLATION
KS2015711	Republic Co RWD 2	Belleville	Republic	1,293	1
TOTAL	**1**			**1,293**	**1**

2012 GROUND WATER RULE MAJOR ROUTINE/REPEAT MONITORING VIOLATION

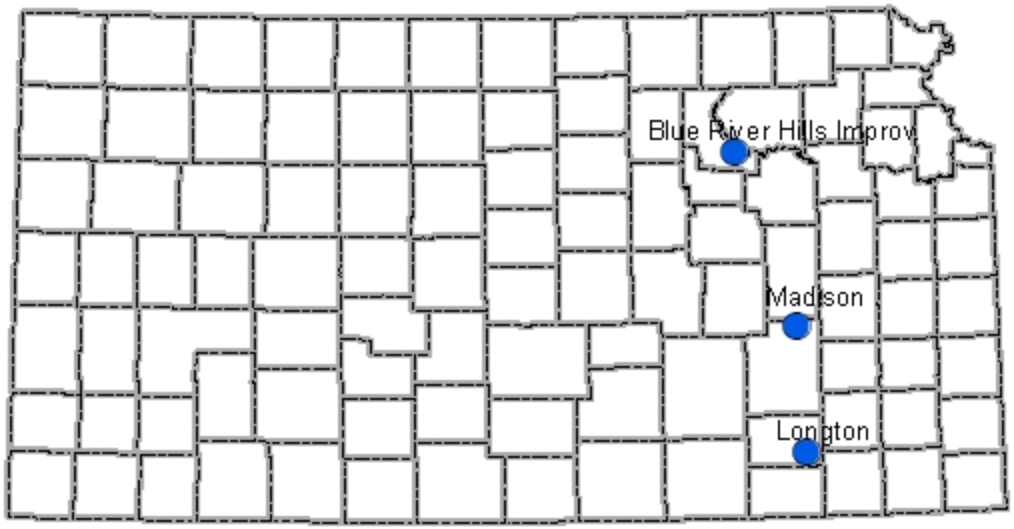


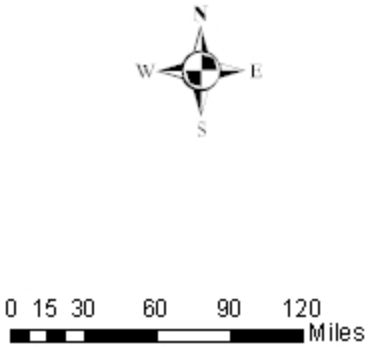


2012 SURFACE WATER TREATMENT RULE (SWTR) CHLORINE MAJOR MONITORING VIOLATIONS

EPA#	PWS NAME	CITY	COUNTY	POPULATION	VIOLATIONS
KS2016106	Blue River Hills Imprvmnt District	Manhattan	Riley	89	2
KS2004903	Longton	Longton	Elk	340	1
KS2007301	Madison	Madison	Greenwood	696	1
TOTALS	**3**			**1,125**	**4**

CHLORINE MAJOR ROUTINE/REPEAT (SWTR-FILTER) MONITORING VIOLATIONS

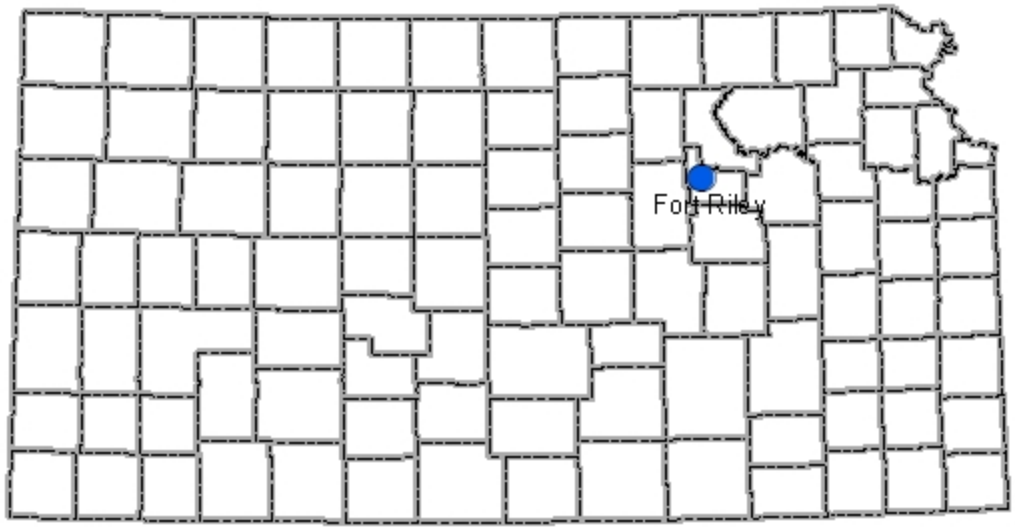


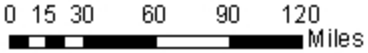


2012 FLUORIDE STATE MONITORING VIOLATION

EPA#	PWS NAME	CITY	COUNTY	POPULATION	VIOLATION
KS2006114	Fort Riley	Fort Riley	Geary	40,511	1
TOTAL	**1**			**40,511**	**1**

2012 FLUORIDE MONITORING VIOLATION

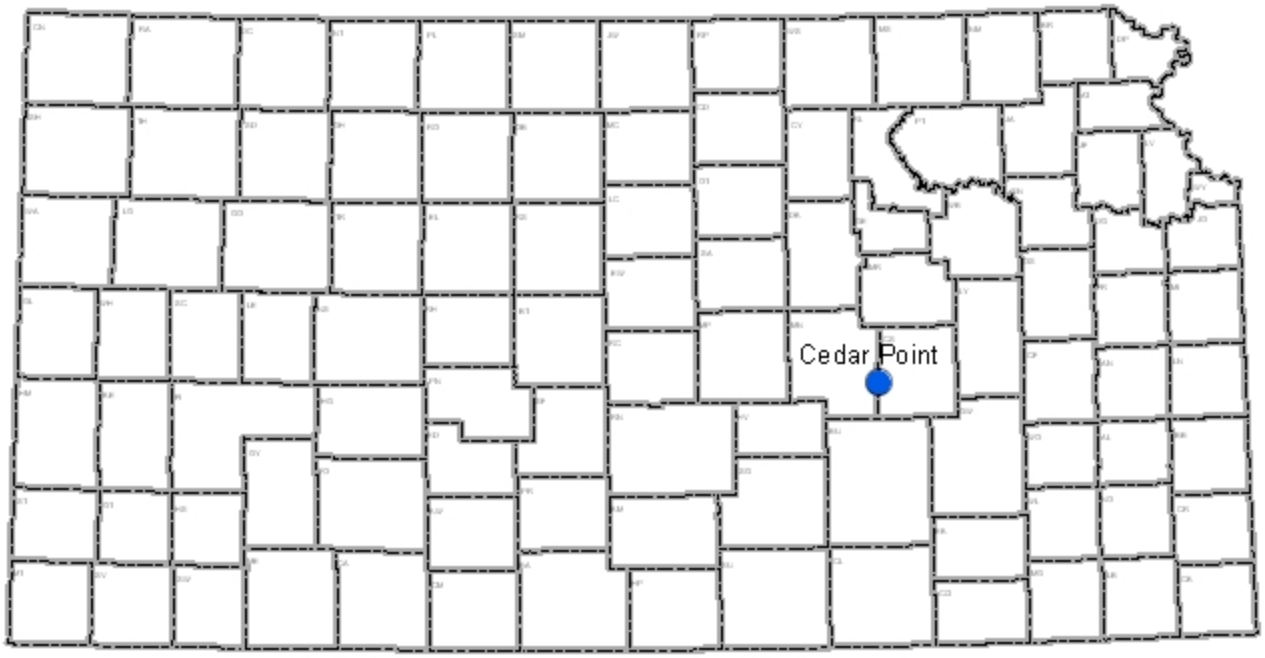


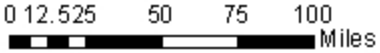


2012 INORGANIC (IOC) MAJOR MONITORING VIOLATION

EPA#	PWS NAME	CITY	COUNTY	POPULATION	VIOLATION
KS2001706	Cedar Point	Cedar Point	Chase	28	1
TOTALS	**1**			**28**	**1**

2012 INORGANIC MAJOR MONITORING VIOLATION

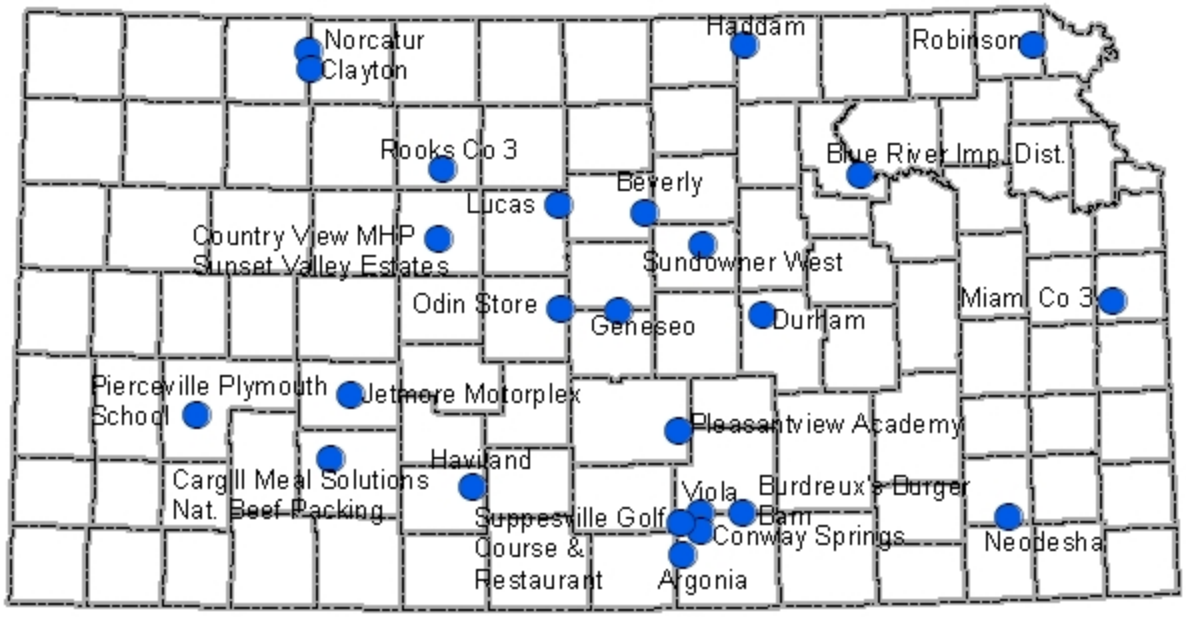


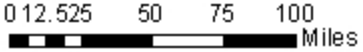


2012 PUBLIC NOTICE VIOLATIONS

EPA#	PWS NAME	CITY	COUNTY	POPULATION	VIOLATIONS
KS2019116	Argonia	Argonia	Sumner	494	1
KS2010504	Beverly	Beverly	Lincoln	161	1
KS2016106	Blue River Impvmt District	Manhattan	Riley	89	1
KS017348	Boudreux's Burger Barn	Peck	Sumner	50	2
KS2105716	Cargill Meat Solutions Corp	Dodge City	Ford	2,600	1
KS2013706	Clayton	Clayton	Norton	59	1
KS2019118	Conway Springs	Conway Springs	Sumner	1,252	1
KS2005121	Country View Mobile Home Park	Hays	Ellis	125	1
KS2011502	Durham	Durham	Marion	111	1
KS2015907	Geneseo	Geneseo	Rice	266	1
KS2020109	Haddam	Haddam	Washington	105	2
KS2009703	Haviland	Haviland	Kiowa	701	1
KS2108302	Jetmore Motorplex	Jetmore	Hodgeman	25	1
KS2016702	Lucas	Lucas	Russell	392	2
KS2012104	Miami Co RWD 3	Osawatomie	Miami	2,435	1
KS2105718	National Beef Packing Co. LLC Dodge	Dodge City	Ford	3,000	1
KS2020502	Neodesha	Neodesha	Wilson	2,457	2
KS2003902	Norcatur	Norcatur	Decatur	148	1
KS2100916	Odin Store	Claflin	Barton	25	2
KS2105519	Pierceville Plymell School	Garden City	Finney	85	1
KS2115517	Pleasantview Academy	Haven	Reno	56	2
KS2001301	Robinson	Robinson	Brown	234	2
KS2016308	Rooks Co RWD 3	Plainville	Rooks	380	1
KS2016910	Sundowner West Mobile Home Park	Salina	Saline	220	1
KS2005101	Sunset Valley Estates LLC	Hays	Ellis	60	1
KS2119103	Suppesville Golf Course and Restaurant	Milton	Sumner	40	1
KS2017313	Viola	Viola	Sedgwick	130	1
TOTALS	**27**			**15,700**	**34**

2012 PUBLIC NOTICE VIOLATIONS





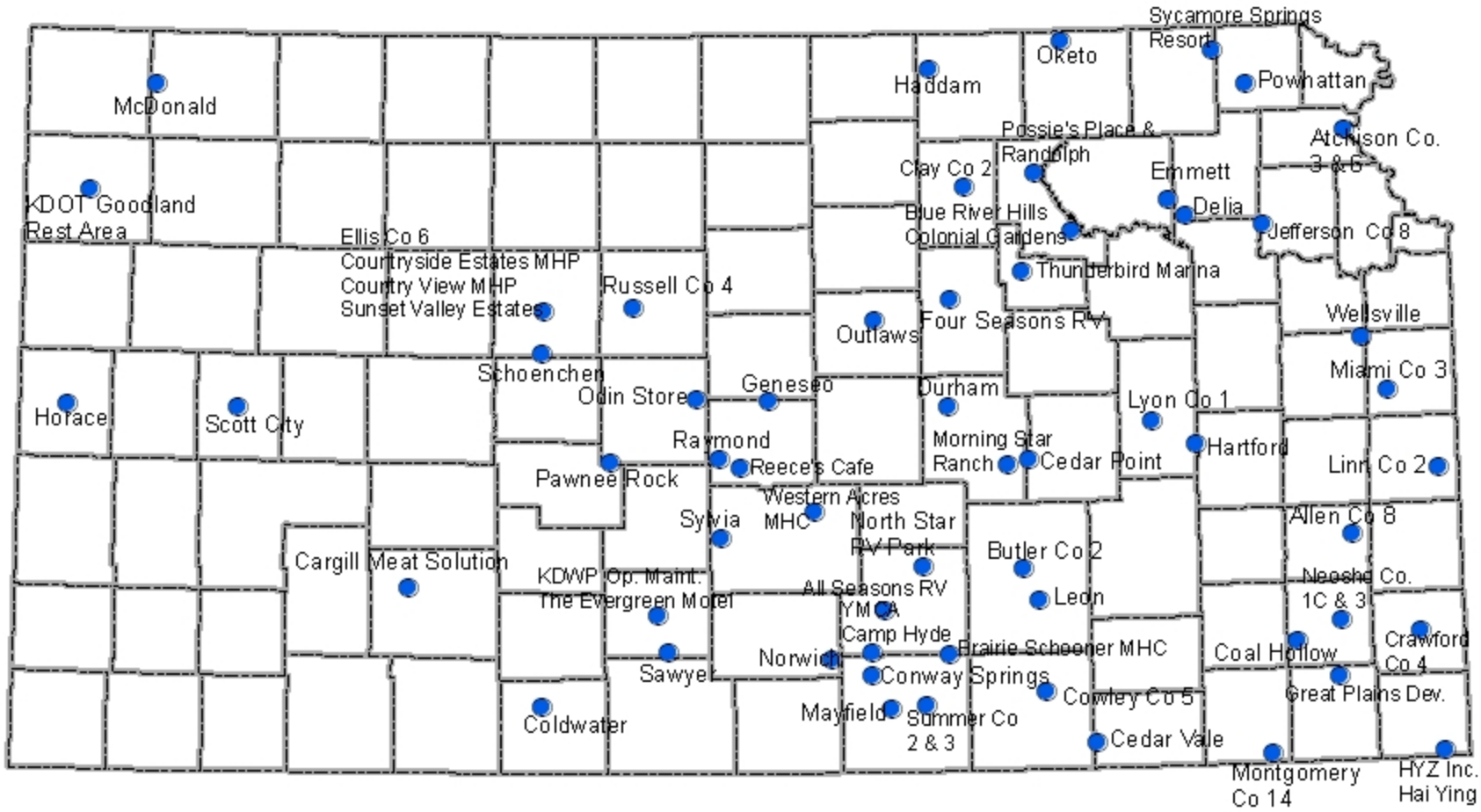
2012 TOTAL COLIFORM RULE (TCR) ROUTINE MINOR MONITORING VIOLATIONS

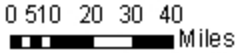
EPA#	PWS NAME	CITY	COUNTY	POPULATION	VIOLATIONS
KS2117326	All Seasons RV Park,	Goddard	Sedgwick	70	1
KS2000110	Allen Co RWD 8	Moran	Allen	736	1
KS2000504	Atchison Co RWD 3	Atchison	Atchison	110	1
KS2000510	Atchison Co RWD 6	Atchison	Atchison	485	1
KS2016106	Blue River Hills Impvmt District	Manhattan	Riley	89	1
KS2001505	Butler Co RWD 2	El Dorado	Butler	1,775	1
KS2105716	Cargill Meat Solutions Corp	Dodge City	Ford	2,600	1
KS2001706	Cedar Point	Cedar Point	Chase	28	2
KS2001902	Cedar Vale	Cedar Vale	Chautauqua	566	1
KS2002710	Clay Co RWD 2	Clay Center	Clay	950	1
KS2013302	Coal Hollow Water Company	Thayer	Neosho	55	1
KS2003304	Coldwater	Coldwater	Comanche	824	1
KS2016118	Colonial Gardens Mobile Home Court	Manhattan	Riley	1,200	1
KS2019118	Conway Springs	Conway Springs	Sumner	1,252	1
KS2005121	Country View Mobile Home Park	Hays	Ellis	125	1
KS2005107	Countryside Estates Mobile Home Park	Hays	Ellis	300	6
KS2003508	Cowley Co RWD 5	Burden	Cowley	2,000	1
KS2003706	Crawford Co RWD 4	Girard	Crawford	1,580	1
KS2008507	Delia	Delia	Jackson	168	1
KS2011502	Durham	Durham	Marion	111	2
KS2005122	Ellis Co RWD 6	Hays	Ellis	250	1
KS2014901	Emmett	Emmett	Pottawatomie	195	1
KS2104108	Four Seasons RV Acres	Abilene	Dickinson	25	1
KS2015907	Geneseo	Genesseo	Rice	266	1
KS2009911	Great Plains Development Authority	Parsons	Labette	182	2
KS2020109	Haddam	Haddam	Washington	105	1
KS2011111	Hartford	Hartford	Lyon	371	1
KS2007101	Horace	Horace	Greeley	71	2
KS2002122	HYZ INC Hai Ying	Baxter Springs	Cherokee	25	1
KS2008705	Jefferson Co RWD 8	Meriden	Jefferson	53	1
KS2118103	KDOT Goodland Rest Area WB 32515	Goodland	Sherman	25	1
KS2115106	KDWP Operations Maintenance Sect.	Pratt	Pratt	90	2
KS2001515	Leon	Leon	Butler	704	1
KS2010707	Linn Co RWD 2	Pleasanton	Linn	1,960	1
KS2011101	Lyon Co RWD 1	Emporia	Lyon	1,595	1
KS2019102	Mayfield	Mayfield	Sumner	112	1
KS2015303	McDonald	McDonald	Rawlins	160	1

2012 TOTAL COLIFORM RULE (TCR) ROUTINE MINOR MONITORING VIOLATIONS (Continued)

EPA#	PWS NAME	CITY	COUNTY	POPULATION	VIOLATIONS
KS2012104	Miami Co RWD 3	Osawatomie	Miami	2,435	1
KS2012525	Montgomery Co RWD 14	Coffeyville	Montgomery	525	1
KS2111513	Morning Star Ranch	Florence	Marion	35	2
KS2013320	Neosho Co RWD 1C	Erie	Neosho	670	2
KS2013315	Neosho Co RWD 3	Erie	Neosho	128	2
KS2017340	North Star RV Park and Mobile Home Community	Valley Center	Sedgwick	25	1
KS2009505	Norwich	Norwich	Kingman	490	1
KS2100916	Odin Store	Claflin	Barton	25	3
KS2011704	Oketo	Oketo	Marshall	66	1
KS2116910	Outlaws	Salina	Saline	25	2
KS2000916	Pawnee Rock	Pawnee Rock	Barton	253	1
KS2116112	Possie's Place	Randolph	Riley	25	1
KS2001303	Powhattan	Powhattan	Brown	78	1
KS2019112	Prairie Schooner Mobile Home Court	Mulvane	Sumner	60	1
KS2016126	Randolph	Randolph	Riley	168	1
KS2015901	Raymond	Raymond	Rice	70	2
KS2115904	Reece's Café	Alden	Rice	25	1
KS2016705	Russell Co RWD 4	Russell	Russell	90	1
KS2015101	Sawyer	Sawyer	Pratt	123	1
KS2005118	Schoenchen	Schoenchen	Ellis	210	1
KS2017101	Scott City	Scott City	Scott	3,796	1
KS2019107	Sumner Co RWD 2	Wellington	Sumner	495	2
KS2019105	Sumner Co RWD 3	Wellington	Sumner	85	1
KS2005101	Sunset Valley Estates LLC	Hays	Ellis	60	1
KS2101303	Sycamore Springs Resort, Inc	Sabetha	Brown	25	1
KS2015502	Sylvia	Sylvia	Reno	218	1
KS2115108	The Evergreen Motel	Pratt	Pratt	25	1
KS2106113	Thunderbird Marina	Junction City	Geary	25	1
KS2005916	Wellsville	Wellsville	Franklin	1,853	1
KS2015506	Western Acres Mobile Home Court	Hutchinson	Reno	30	1
KS2117351	YMCA Camp Hyde	Viola	Sedgwick	300	1
TOTALS	**68**			**33,651**	**86**

2012 TOTAL COLIFORM ROUTINE MINOR MONITORING VIOLATIONS





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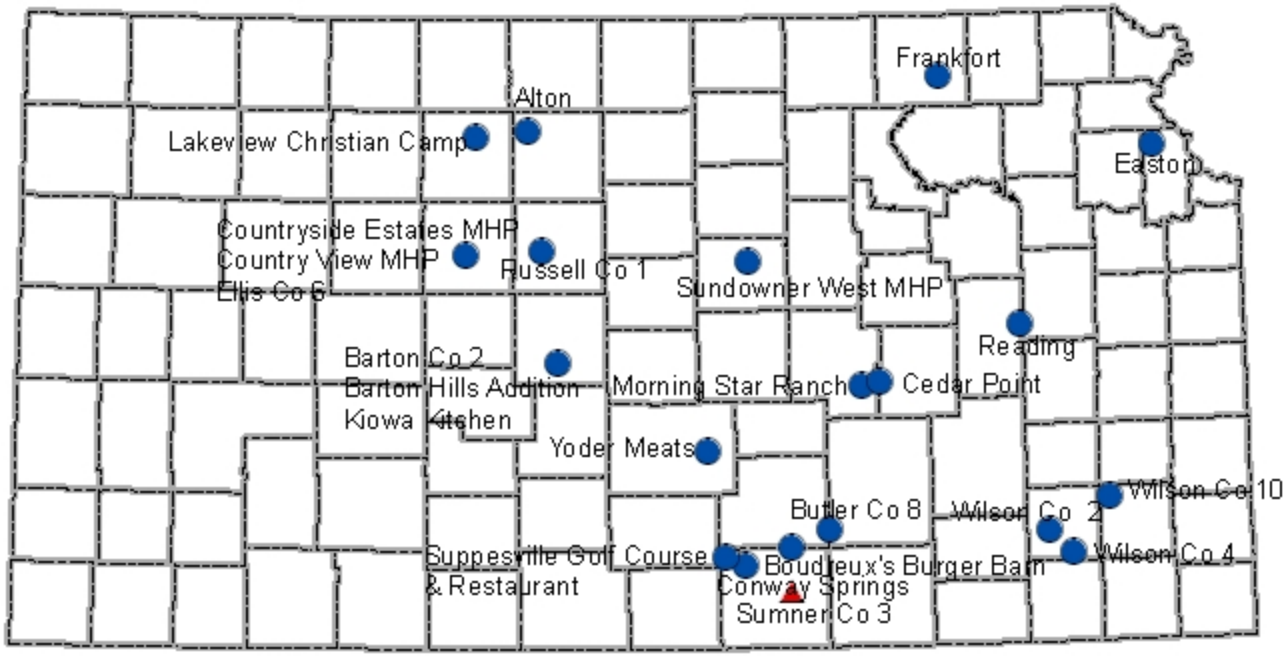
2012 TOTAL COLIFORM RULE (TCR) MAJOR REPEAT MONITORING VIOLATION

EPA#	PWS NAME	CITY	COUNTY	POPULATION	VIOLATION
KS2019105	Sumner Co RWD 3	Wellington	Sumner	25	1
TOTALS	**1**			**25**	**1**

2012 TOTAL COLIFORM RULE (TCR) MAJOR MONITORING VIOLATIONS

EPA#	PWS NAME	CITY	COUNTY	POPULATION	VIOLATIONS
KS2014102	Alton	Alton	Osborne	103	1
KS2000907	Barton Co RWD 2	Great Bend	Barton	344	1
KS2000915	Barton Hills Addition	Great Bend	Barton	176	1
KS2017348	Boudreux's Burger Barn	Peck	Sumner	50	1
KS2001528	Butler Co RWD 8	Rose Hill	Butler	1,450	1
KS2001706	Cedar Point	Cedar Point	Chase	28	1
KS2019118	Conway Springs	Conway Springs	Sumner	1,252	1
KS2005107	Countryside Estates Mobile Home Park	Hays	Ellis	300	1
KS2005121	Country View Mobile Home Park	Hays	Ellis	125	12
KS2010301	Easton	Easton	Leavenworth	255	1
KS2005122	Ellis Co RWD 6	Hays	Ellis	250	1
KS2011708	Frankfort	Frankfort	Marshall	718	1
KS2100912	Kiowa Kitchen	Great Bend	Barton	25	1
KS2116306	Lakeview Christian Camp	Stockton	Rooks	25	1
KS2111513	Morning Star Ranch	Florence	Marion	35	1
KS2011114	Reading	Reading	Lyon	231	1
KS2016707	Russell Co RWD 1	Russell	Russell	44	1
KS2016910	Sundowner West Mobile Home Park	Salina	Saline	220	1
KS2119103	Suppesville Golf Course & Restaurant	Milton	Sumner	40	1
KS2020510	Wilson Co RWD 10	Chanute	Wilson	808	1
KS2020514	Wilson Co RWD 2	Fredonia	Wilson	194	1
KS2020504	Wilson Co RWD 4	Neodesha	Wilson	293	1
KS2115533	Yoder Meats	Yoder	Reno	45	1
TOTALS	**23**			**7,011**	**34**

2012 TOTAL COLIFORM RULE (TCR) MAJOR MONITORING VIOLATIONS



0 12.525 50 75 100 Miles

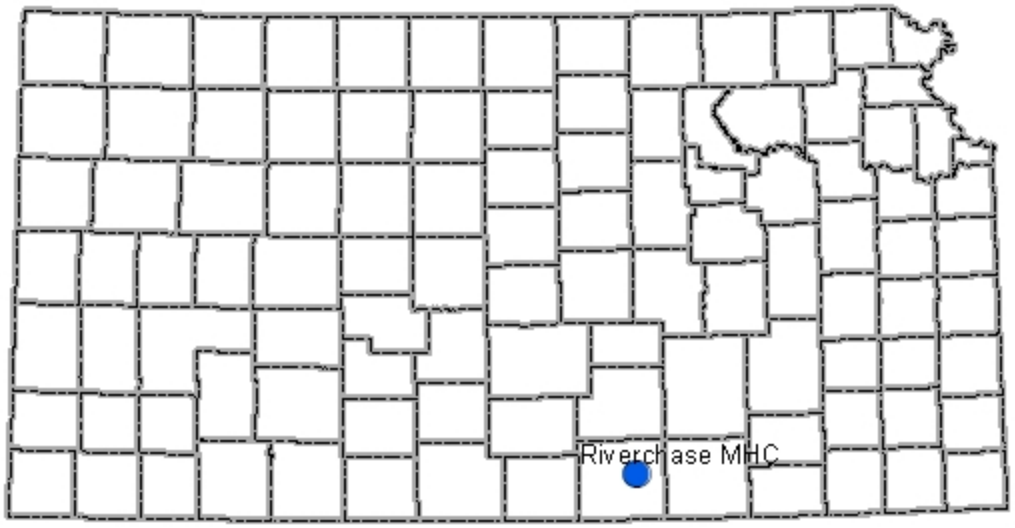
TCR Major Repeat Violation

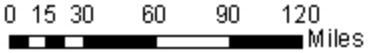
TCR Major Monitoring Violations

2012 TOTAL COLIFORM RULE (TCR) REPEAT MINOR MONITORING VIOLATION

EPA#	PWS NAME	CITY	COUNTY	POPULATION	VIOLATION
KS2016119	Riverchase Mobile Home Court	Manhattan	Riley	26	1
TOTALS	**1**			**26**	**1**

2012 TOTAL COLIFORM REPEAT MAJOR MONITORING VIOLATION

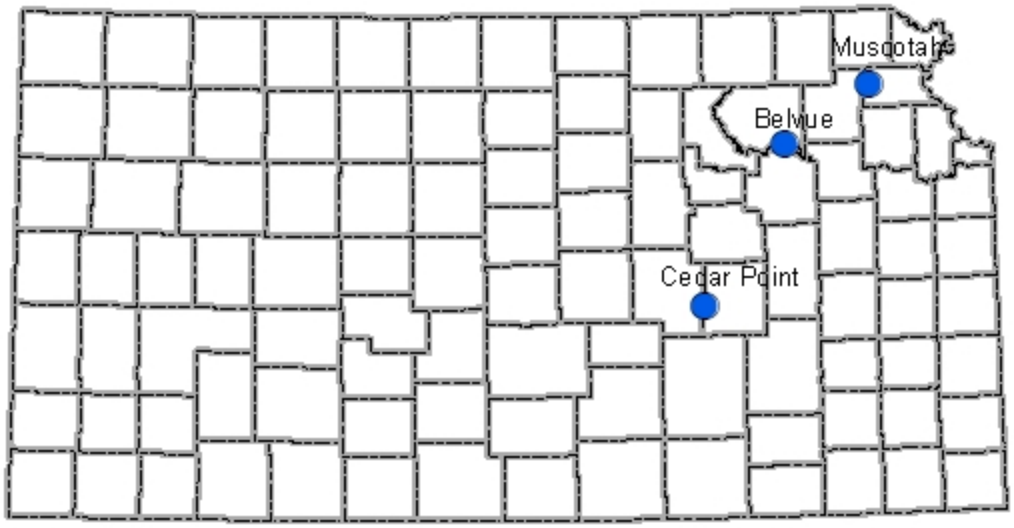


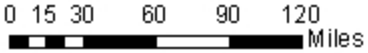


2012 VOLATILE ORGANIC CONTAMINANTS (VOC) MONITORING VIOLATIONS

EPA#	PWS NAME	CITY	COUNTY	POPULATION	VIOLATION
KS2014902	Belvue	Belvue	Pottawatomie	207	1
KS2001706	Cedar Point	Cedar Point	Chase	28	1
KS2000508	Muscotah	Muscotah	Atchison	175	1
TOTALS	**3**			**410**	**3**

2012 VOLATILE ORGANIC CONTAMINANT (VOC) MONITORING VIOLATIONS





APPENDIX C

PUBLIC WATER SUPPLY SECTION STAFF

2012

Kansas
Department of Health
and Environment

Our Vision – Healthy Kansans living in safe and sustainable environments.

KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
BUREAU OF WATER/PUBLIC WATER SUPPLY SECTION

www.kdheks.gov

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