

**ANNUAL COMPLIANCE REPORT  
OF PUBLIC WATER SYSTEMS  
IN CALIFORNIA**

**CALENDAR YEAR 2007**

Date of Report: August 18, 2009 (Amendment)

California Department of Public Health

Division of Drinking Water and Environmental Management

**CALIFORNIA DEPARTMENT OF PUBLIC HEALTH  
DRINKING WATER PROGRAM  
ANNUAL COMPLIANCE REPORT  
OF  
PUBLIC WATER SYSTEMS  
CALENDAR YEAR 2007**

**EXECUTIVE SUMMARY**

Each quarter, the California Department of Public Health (CDPH) submits data to the Safe Drinking Water Information System (SDWIS/FED), an automated database maintained by the U.S. Environmental Protection Agency (EPA). The data submitted includes: public water system inventory information; incidents of violations for maximum contaminant levels (MCLs), maximum residual disinfectant levels (MRDLs), monitoring, reporting, and treatment techniques; violations concerning public and consumer notification; and information on enforcement activity related to these violations. In addition, CDPH provides EPA with this Annual Compliance Report of violations of the primary drinking water standards, which includes the data for the violations listed above.

The 2007 Annual Compliance Report discusses violations by categories for both MCL, and monitoring and reporting violations. The report lists the violations in three tables: by contaminant category, by individual contaminant, and by the violations in each county.

A copy of this 2007 Annual Compliance Report will be available to the public by contacting the CDPH's Division of Drinking Water and Environmental Management Drinking Water Program at (916) 449-5600, or through CDPH's website at:  
<http://www.cdph.ca.gov/certlic/drinkingwater/Pages/Publications.aspx>.

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**CALIFORNIA DEPARTMENT OF PUBLIC HEALTH  
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OF  
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CALENDAR YEAR 2007

**SECTION 1. INTRODUCTION**

This report provides information from the State of California's Department of Public Health (CDPH) records on public drinking water system violation data for calendar year 2007. This report is provided to the U.S. Environmental Protection Agency (EPA) and to the public as required by statute.

The Federal Safe Drinking Water Act (SDWA) requires states to report events or lack of activity that constituted a violation of a primary drinking water standard at some point during the year covered by the report. This includes, but is not limited to those categories of violations specifically enumerated in Section 1414(c)(3)(A)(i). Accordingly, states must report all:

1. Maximum contaminant level (MCL) violations
2. Maximum residual disinfectant level (MRDL) violations
3. Treatment technique (TT) requirement violations
4. Significant monitoring and reporting (MR) requirements violations
5. Variances and exemptions violations
6. Record keeping violations
7. Significant public notification requirements violations
8. Significant consumer notification requirements violations.

California had an estimated 7,815 public water systems at the end of 2007. These water systems served approximately 36.6 million of the estimated 37.87 million people throughout the state. Based on this, there are approximately 1.3 million people in the state who receive their drinking water from private wells and other sources. In general, water quality testing of such private wells and sources is not required by State regulation. Public water systems are regulated and monitored through the Drinking Water Program.

**THE DRINKING WATER PROGRAM OVERVIEW**

Under the 1974 SDWA and subsequent amendments in 1986 and 1996, EPA sets national limits on contaminant levels in drinking water for human consumption to provide public safety.

These limits are known as maximum contaminant levels (MCLs) and maximum residual disinfectant levels (MRDLs). For some regulations, treatment techniques (TT) were established in lieu of an MCL to control unacceptable levels of contaminants in drinking water. To assist in providing data for future regulatory development, water systems are also required to monitor for unregulated contaminants. Water systems are also regulated as to the frequency of monitoring and reporting of results to the states or EPA.

Water systems must notify their consumers when they have violated drinking water standards. This notification is required to include:

- A clear and understandable explanation of the nature of the violation
- The potential adverse health effects from the violation
- Steps that the water system is undertaking to correct the violation
- The possible use of alternative water supplies available during the violation.

EPA designated the CDPH as the primacy agency responsible for the administration and enforcement of the SDWA requirements in California. CDPH must adopt statutes and regulations to implement the requirements of the SDWA.

CDPH has regulatory responsibility over water systems including tasks such as issuance of operating permits, conducting inspections, monitoring for compliance with regulations, and taking enforcement action to compel compliance when violations are identified.

CDPH has delegated the drinking water program regulatory authority for small water systems serving less than 200 service connections to 35 counties in California. The delegated counties (local primacy agencies) are responsible for regulating approximately 4,600 small public water systems statewide. CDPH retains the regulatory authority over the remaining public water systems statewide with 200 or more service connections and the small public water systems in the remaining 23 counties.

Each quarter, CDPH submits data to the Safe Drinking Water Information System (SDWIS) a database maintained by EPA. The data submitted includes:

- Water system inventory information
- Incidents of violations for MCLs, MRDLs, MRs, and TTs;
- Violations concerning public and consumer notification;
- Information on enforcement activity related to these violations.

In addition, CDPH provides EPA with an Annual Compliance Report of violations of the primary drinking water standards. This report provides the numbers of violations in each of eight areas:

1. Maximum contaminant level (MCL) violations
2. Maximum residual disinfectant level (MRDL) violations
3. Treatment technique (TT) requirement violations
4. Significant monitoring and reporting (MR) requirements violations
5. Variances and exemptions violations

6. Record keeping violations
7. Significant public notification requirements violations
8. Significant consumer notification requirements violations.

## **SECTION 2. VIOLATION CATEGORY SUMMARY**

The 2007 Annual Compliance Report lists violations by the following categories:

1. Inorganic contaminants
2. Synthetic organic contaminants
3. Volatile organic contaminants
4. Radionuclide contaminants
5. Total coliform rule
6. Disinfectant and disinfection byproduct rule
7. Surface water treatment rule and enhanced surface water treatment rule
8. Filter backwash recycle rule
9. Lead and copper rule
10. Public notification requirements
11. Consumer confidence report notification requirements
12. Variances and exemptions

## **SECTION 3. Review of 2007 Violation data**

### **Summary Data Tables for Calendar Years 2005, 2006 and 2007**

There are four tables in the report that summarize the violation data for the 2007 calendar year as well as for calendar years 2005 and 2006. These four tables include:

Table 1 - Number of violations by category for both maximum contaminant levels/ treatment techniques and monitoring/reporting requirements

Table 2 - Number and population of water systems with violations of maximum contaminant level and treatment technique

Table 3 - Number and population of water systems with violations of monitoring and reporting requirements

Table 4 - Numbers of violations of total coliform rule by type

### **Violation Information in the Appendix**

**Appendix A** provides definitions of terminology used in this report

**Appendix B** summarizes violations by grouping by contaminant category

**Appendix C** summarizes violations by individual contaminant. It provides water system name, population and number of violations by contaminant. It sums up the population affected by each violation type.

**Appendix D** lists individual violations by county sorted by water system number. The table also sums up the population affected by each violation type.

**Table 1**  
**Number of Violations by Category**  
**For Both Maximum Contaminant Levels / Treatment Techniques (MCL/TT)**  
**and Monitoring / Reporting Requirements M & R**

		Number of Violations					
		2005		2006		2007	
		MCL /TT	M & R	MCL /TT	M & R	MCL /TT	M & R
1	Inorganic contaminants	101	106	120	330	273	334
2	Synthetic organic contaminants	4	3	5	3	3	10
3	Volatile organic contaminants	0	0	0	0	2	8
4	Radionuclide contaminants	4	0	7	9	10	22
5	Total coliform rule (TCR)	683	720	723	790	456	689
6	Disinfectant and disinfection byproducts rule (DBPR)	100	170	74	80	31	113
7	Surface water treatment rule and enhanced surface water treatment rule	70	17	50	11	26	23
8	Filter backwash recycle rule	NA	NA	0	0	0	0
9	Lead and copper rule (LCR)	0	0	1	29	4	22
10	Public notification requirements	NA	1	NA	5	NA	0
11	Consumer confidence report notification requirements	NA	213	NA	122	NA	106
12	Variances and exemptions	NA	0	NA	0	NA	0

**Table 2**  
**Number and Population of**  
**Water Systems with Violations of**  
**Maximum Contaminant Level (MCL) and Treatment Technique (TT)**

		2005		2006		2007	
		No. of Water Systems	Population	No. of Water Systems	Population	No. of Water Systems	Population
1	Inorganic contaminants	64	14,088	72	124,608	153	713,251
2	Synthetic organic contaminants	4	273	5	241	3	6,415
3	Volatile organic contaminants	0	0	0	0	2	2,648
4	Radionuclide contaminants	3	820	7	3,205	9	1,619
5	Total coliform rule (TCR)	442	490,496	535	399,228	358	447,927
6	Disinfectant and disinfection byproducts rule (DBPR)	43	108,559	38	331,383	22	38,230
7	Surface water treatment rule and enhanced surface water treatment rule	41	219,242	31	68,635	19	20,343
8	Filter backwash recycle rule	0	0	0	0	0	0
9	Lead and copper rule (LCR)	0	0	1	120	4	6,462
10	Public notification requirements	Not applicable – Not an MCL or TT					
11	Consumer confidence report notification requirements	Not applicable – Not an MCL or TT					
12	Variances and exemptions	Not applicable – Not an MCL or TT					

**Table 3**  
**Number and Population of**  
**Water Systems with Violations of**  
**Monitoring and Reporting**

		2005		2006		2007	
		No. of Water Systems	Population	No. of Water Systems	Population	No. of Water Systems	Population
1	Inorganic contaminants	90	154,031	330	89,188	243	543,205
2	Synthetic organic contaminants	1	50	3	161	11	7,479
3	Volatile organic contaminants	3	19,909	0	0	7	159,835
4	Radionuclide contaminants	3	5,232	9	1,453	14	9,813
5	Total coliform rule (TCR)	573	129,421	581	186,318	531	194,760
6	Disinfectant and disinfection byproducts rule (DBPR)	99	357,156	71	2,231,709	59	415,538
7	Surface water treatment rule and enhanced surface water treatment rule	14	6,793	10	1,992	15	108,770
8	Filter backwash recycle rule	0	0	0	0	0	0
9	Lead and copper rule (LCR)	15	48,791	27	43,272	22	87,551
10	Public notification requirement	1	65	4	13,830	0	0
11	Consumer confidence report notification requirements	210	56,284	115	18,115	106	23,896
12	Variances and exemptions	0	0	0	0	0	0

### **Discussion of Violation Types and Contaminants**

#### **INORGANIC CONTAMINANTS**

Water systems were required to meet primary drinking water standards and monitoring and reporting requirements for 17 inorganic contaminants. MCL violations were reported for arsenic, nitrate, fluoride, asbestos and antimony.

Nitrate and nitrite are used in fertilizer and are found in sewage and wastes from human and/or animals and generally gets into drinking water from those activities. Excessive levels of nitrate and nitrite in drinking water have caused serious illness and sometimes death in infants less than six months of age. The serious illness in infants is caused because nitrate is converted to nitrite in the body. Nitrite interferes with the oxygen carrying capacity of the child's blood. This is an acute disease in that symptoms can develop rapidly in infants.

In most cases, health deteriorates over a period of days. Symptoms include shortness of breath and blueness of the skin. Expert medical advice and an alternate source of drinking water are recommended under these conditions. Local and state health authorities are the best sources for information concerning alternate sources of drinking water for infants. CDPH has set the drinking water standard at 45 milligrams per liter (mg/l) nitrate (as nitrate) and 1 mg/l for nitrite (as nitrogen) to protect against the risk of these adverse effects. Drinking water that meets the CDPH standards is associated with little to no risk and is considered safe with respect to nitrate and nitrite.

The major sources of arsenic in drinking water are from erosion of natural deposits. Other sources of arsenic may include runoff from orchards, and wastes from glass and electronics production. Some people who drink water containing arsenic in excess of the MCL for many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer. The drinking water standard for arsenic has been lowered to 0.010 mg/l to reduce these risks.

Major sources of fluoride in drinking water are from erosion of natural deposits, water additive that promotes strong teeth, and discharges from fertilizer and aluminum factories. Some people who drink water containing fluoride in excess of the Federal MCL of 4 mg/l over many years may get bone disease, including pain and tenderness of the bones. To protect people from the adverse effects of dental fluorosis, the state has set the MCL at 2 mg/l.

#### **SYNTHETIC ORGANIC CONTAMINANTS**

Water systems are required to meet primary drinking water standards and monitoring and reporting requirements for 33 synthetic organic contaminants (SOCs).

DBCP may get into drinking water by runoff or leaching from soil fumigant used on soybeans, cotton, and orchards. Some people who drink water containing DBCP in excess of the MCL for many years could experience reproductive difficulties and may have an increased risk of getting cancer. CDPH has set the drinking water standard for DBCP at 0.0002 milligrams per liter (mg/l) to reduce these risks.

#### **VOLATILE ORGANIC CONTAMINANTS**

Water systems are required to meet primary drinking water standards and monitoring and reporting requirements for 27 volatile organic contaminants (VOCs).

#### **RADIONUCLIDE CONTAMINANTS**

Water systems are required to meet primary drinking water standards and monitoring and reporting requirements for six radionuclide contaminants. MCL violations were incurred for gross alpha and uranium.

The major source of uranium in drinking water is from erosion of natural deposits. Some people who drink water containing uranium in excess of the MCL over many years may have kidney problems or an increased risk of getting cancer.

CDPH has set the drinking water standard for uranium at 20 picoCuries per liter (pCi/L) to protect against the risk of these adverse health effects. EPA has set a Federal water standard for uranium at 30 pCi/L.

The major source of gross alpha activity or alpha emitting radiation in drinking water is from erosion of natural deposits. Certain minerals are radioactive and may emit a form of radiation known as gross alpha activity. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer. CDPH has set the drinking water standard for gross alpha activity at 15 pCi/L to reduce these risks.

**TOTAL COLIFORM RULE (TCR)**

The total coliform rule violations identify the presence of coliform bacteria contamination in drinking water supplies or a failure of a water system to conduct the required water quality monitoring for coliform bacteria in the water distribution systems. An acute violation indicates a public water system detected fecal coliform or *E. coli* bacteria in the drinking water supply. A non-acute violation indicates a public water system detected total coliform bacteria in greater than five percent of the water samples analyzed in a month from the drinking water distribution system.

Table 4 identifies whether the TCR MCL violations for calendar years 2005, 2006 and 2007 were acute or non-acute.

**Table 4**  
**Numbers of Violations –Total Coliform Rule**  
**Acute MCL Violations / Non-Acute MCL Violations**

	Number of Violations		
	2005	2006	2007
Acute MCL violations	33	77	37
Non-acute MCL violations	606	646	419

Total coliforms are common in the environment and are generally not harmful themselves. The presence of these bacteria in drinking water indicates that the water may be contaminated with organisms that can cause disease. Disease symptoms may include diarrhea, cramps, nausea, and possibly jaundice, and any associated headaches and fatigue. These symptoms, however, are not just associated with disease-causing organisms in drinking water, but also may be caused by a number of factors other than the drinking water.

CDPH has set a drinking water standard for total coliforms to reduce the risk of these adverse health effects. Under this standard, no more than 5.0 percent of the samples collected during a month can contain these bacteria. For water systems collecting fewer than 40 samples per month the standard is exceeded if more than one monthly sample contains these bacteria.

Fecal coliforms and *E. coli* are generally not harmful themselves, but their presence in drinking water is serious because they usually are associated with sewage or animal wastes. The presence of these bacteria in drinking water indicates that the water may be contaminated with organisms that can cause disease. Disease symptoms may include diarrhea, cramps, nausea, and possibly jaundice, and associated headaches and fatigue. These symptoms, however, are not just associated with disease-causing organisms in drinking water, but also may be caused by a number of factors other than the drinking water.

CDPH has set an enforceable drinking water standard for fecal coliforms and *E. coli* to reduce the risk of these adverse health effects. Under this standard, a violation occurs when a positive total coliform sample is followed by a repeat sample that is positive for fecal coliform or *E. coli*. A violation also occurs when a positive total coliform sample is followed by a repeat sample that is positive for fecal coliform or *E. coli*.

### **DISINFECTANTS AND DISINFECTION BYPRODUCTS RULE**

Water systems are required to meet primary drinking water standards and monitoring requirements for three disinfectants, and four disinfection byproduct contaminants which can form when chemical disinfectants are added to drinking water.

CDPH sets drinking water standards and in many cases requires the disinfection of drinking water. However, when used in the treatment of drinking water, disinfectants react with naturally-occurring organic and inorganic matter present in water to form chemicals called disinfection byproducts (DBPs). CDPH has determined that a number of DBPs are a health concern at certain levels of exposure. Certain DBPs, including some trihalomethanes (THMs) and some haloacetic acids (HAAs), have been shown to cause cancer in laboratory animals. Other DBPs have been shown to affect the liver and the nervous system, and cause reproductive or developmental effects in laboratory animals. Exposure to certain DBPs may produce similar effects in people. CDPH has set standards to limit exposure to THMs, HAAs, and other DBPs.

### **SURFACE WATER TREATMENT RULE, ENHANCED SURFACE WATER TREATMENT RULE (ESWTR)**

The surface water treatment rule (SWTR) and enhanced surface water treatment rule (ESWTR) establish monitoring and reporting requirements, treatment techniques, performance standards, and turbidity standards to be met by water systems using surface water as a drinking water source. For purposes of this report, the ESWTR includes the interim enhanced SWTR for water systems serving 10,000 or more people, and the long term one ESWTR (LT1-ESWTR), which is essentially the same regulation for water systems serving less than 10,000 people.

Treatment techniques and performance standards are used to establish water quality objectives instead of MCLs for microbiological contaminants that may be found in surface waters including *Giardia lamblia*, *Cryptosporidium parvum*, *Legionella*, heterotrophic plate count bacteria, and viruses. Water systems that use surface water are required to provide multi-barrier treatment to protect against adverse health effects from microbiological contaminants. All multi-barrier treatment systems must include the use of a filtration

technology approved by CDPH. Water systems may receive permit approval by CDPH to use surface water without providing filtration under certain conditions and requirements.

Treatment technique violations under the SWTR and the ESWTR typically occur due to elevated turbidity levels in the water or a failure to maintain the required level of disinfection. Turbidity itself has no health effects. However, high levels of turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. Inadequately treated water may contain disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

### **FILTER BACKWASH RECYCLING RULE (FBR)**

The filter backwash recycling rule (FBR) established requirements governing the way certain recycling streams are handled at water systems' filtration water treatment systems and established reporting and recordkeeping requirements for recycling practices to allow better evaluations and impacts of recycling practices on overall treatment plant performance.

### **LEAD AND COPPER RULE**

Under the lead and copper rule, water systems are required to meet primary drinking water standards and monitoring and reporting requirements for lead and copper, based on monitoring from the customers' water taps.

The major source of copper in drinking water are from internal corrosion of household plumbing systems, erosion of natural deposits, and leaching from wood preservatives.

Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time may experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years may suffer liver or kidney damage. People with Wilson's disease should consult their personal doctor.

### **PUBLIC NOTIFICATION**

Water suppliers are required to notify CDPH and the persons served by the water system whenever any of the following occurs: the water supplied to the consumers exceeds the MCLs for coliform bacteria, inorganic chemicals, turbidity, trihalomethanes, radioactivity, organic chemicals; or the water supplier fails to comply with a prescribed treatment technique established in lieu of an MCL; or the water supplier violates any schedule prescribed pursuant to a variance or exemption. A violation occurs when there is a failure to provide the required notification.

### **CONSUMER CONFIDENCE REPORT VIOLATIONS**

Water systems are required to provide to their customers a report each year of the quality of the water being served by their water system. This report, the consumer confidence report (CCR), also includes information on the source of drinking water, the levels of any

detected contaminants, and compliance with drinking water regulations by including a clear and understandable explanation of the nature of the violation, its potential adverse health effects, steps that the water system is undertaking to correct the violation and the possibility of alternative water supplies available during the violation.

#### **VARIANCES AND EXEMPTIONS VIOLATIONS**

CDPH is authorized under the Federal SDWA to issue variances and exemptions from meeting drinking water standards to public water systems under special circumstances.

#### **SIGNIFICANT NON-COMPLIERS (SNCs)**

The data tables include the water systems that have been classified as Significant Non-Compliers (SNCs) by the EPA. Water systems with ongoing violations of primary drinking water standards can be classified as SNCs by EPA based on specific criteria.

#### **SECTION 4. Enforcement Activities**

Enforcement action is an essential element of the CDPH regulatory program to bring all public water systems into full compliance with drinking water standards and regulations to ensure that the public receive safe drinking water.

CDPH's enforcement actions against a public water system that violates a primary drinking water standard vary according to the type of contaminant and the health risk. Typically, CDPH will require a public water system to develop a plan of compliance which may include some of the following actions:

- Provide an alternate source of safe drinking water.
- Shutdown or abandon the contaminated drinking water source.
- Conduct additional water quality monitoring to identify the cause and extent of the contamination and take appropriate corrective action.
- Modify the water treatment processes to eliminate the contamination.
- Issue a "Boil Water Notice" or "Do Not Drink Notice", depending on the type of contaminant.
- Provide water treatment.

Additional enforcement actions available to CDPH include revoking or suspending a water system's operating permit, assessing civil penalties up to \$25,000 per day for each day a drinking water standard violation occurs, or placing a water system into receivership.

Table 5 summarizes the enforcement data from the CDPH PICME database for 2007 and the previous two years

**Table 5**  
**Number of Enforcement Activities**  
**Calendar Years 2005, 2006 and 2007**

	Number of Enforcement Actions		
	2005	2006	2007
Enforcement letters	955	1,107	1,183
Citations	270	314	298
Compliance orders	22	12	33

The aggressive enforcement action is a key element of the CDPH overall regulatory strategy to bring all public water systems into full compliance with all of the drinking water standards and regulations to ensure all Californians receive safe drinking water.

**SECTION 5. CONCLUSION**

Water systems in California have a high rate of compliance with drinking water standards. Any violations of drinking water standards, represents an increased public health risk. As the primacy agency responsible for the administration and enforcement of the SDWA requirements in California, CDPH will continue to implement the requirements of the SDWA. This will include the following activities: issuing operating permits, conducting inspections, monitoring for compliance with regulations, and taking enforcement action to compel compliance when violations are identified.

A copy of this report will be available to the public by contacting the CDPH Division of Drinking Water and Environmental Management at (916) 449-5600 or via the CDPH website at: [www.cdph.ca.gov/certlic/drinkingwater/Pages/Publications.aspx](http://www.cdph.ca.gov/certlic/drinkingwater/Pages/Publications.aspx)

## **Appendix A. DEFINITIONS**

### **PUBLIC Water System**

A public water system (water system) is defined as a system that provides water via piping or other constructed conveyances for human consumption to at least 15 service connections or serves an average of at least 25 people for at least 60 days each year. There are three types of water systems:

- Community water systems (such as cities, towns, mobile home parks),
- Nontransient noncommunity (such as schools or factories)
- Transient noncommunity systems (such as restaurants and parks).

For purposes in this report, the term 'water system' refers to a public water systems of any of the three types unless otherwise specified.

### **MAXIMUM CONTAMINANT LEVEL**

Primary drinking water standards have been adopted by CDPH for contaminants that may be found in drinking water supplies in California and are necessary to protect the public from acute and chronic health risks associated with consuming water. These limits are known as MCLs.

Further, all water quality analyses must be conducted by laboratories that are certified by CDPH and the analytical results must be transmitted electronically to CDPH. The water quality analytical results are reviewed and evaluated by CDPH to determine compliance with drinking water standards. CDPH identifies and reports violations when water systems submit water quality analytical results that exceed the established drinking water standards.

### **MAXIMUM RESIDUAL DISINFECTANT LEVEL**

Limits have also been set for residual disinfectant levels in drinking water to reduce the risk of exposure to disinfectants formed, when a water system adds chemical disinfectant for either primary or residual treatment. These limits are known as MRDLs.

### **TREATMENT TECHNIQUES**

For some regulations, treatment techniques have been established in lieu of an MCL to control unacceptable levels of certain contaminants. For example, treatment techniques have been established for viruses, bacteria, and some coagulants.

### **VARIANCES AND EXEMPTIONS**

CDPH is authorized under the Federal SDWA to issue variances and exemptions from meeting drinking water standards to water systems under special circumstances. A variance is allowed in situations where the characteristics of a raw water source make it impossible for a water system to meet the MCL with the installation of the best available technology, treatment techniques, or other approved method. The approval of any variance must ensure adequate protection of human health. Additionally, the variance is

reviewed by CDPH not less than every five years to determine whether continuation of the variance is appropriate and necessary.

An exemption from an MCL and/or treatment technique is allowed in situations where a water system is in noncompliance as the result of compelling factors and the exemption will not result in an unreasonable risk to public health. Any water system that receives an exemption must achieve compliance with the MCL or treatment technique as expeditiously as practicable, but not later than three years after the applicable compliance date.

### **MONITORING AND REPORTING**

A water system is required to monitor and verify that the levels of contaminants present in the water do not exceed the MCL. A monitoring violation occurs when a water system fails to have its water tested as required or fails to report test results correctly to the primacy agent.

### **SIGNIFICANT MONITORING OR REPORTING VIOLATIONS**

For this report, significant monitoring or reporting violations are defined as when no samples were taken or no results were reported.

### **SIGNIFICANT PUBLIC NOTIFICATION VIOLATIONS**

Unless otherwise directed by CDPH, water suppliers are required to notify CDPH and the persons served by the water system whenever any of the following occurs: the water supplied to the consumers exceeds the MCLs for coliform bacteria, inorganic chemicals, turbidity, trihalomethanes, radioactivity, organic chemicals; or the water supplier fails to comply with a prescribed treatment technique established in lieu of an MCL; or the water supplier violates any schedule prescribed pursuant to a variance or exemption. A significant public notification violation occurs when there is a failure to provide the required notification.

### **CONSUMER NOTIFICATION**

All community water systems are required to deliver to their customers a brief annual water quality report. The report is to include educational material, provide information on the source water(s), levels of any detected contaminants, and any compliance issues with the drinking water regulations.

### **SIGNIFICANT CONSUMER NOTIFICATION VIOLATIONS**

For this report, a significant consumer notification violation is incurred if a community water system completely failed to provide its customers the required annual consumer confidence report.