Guide to Community Drinking Water Advocacy

COMMUNITY WATER CENTER

EL CENTRO COMUNITARIO POR EL AGUA

by Laurel Firestone

Produced with the support of the Rural Water Collaborative and funded in part by the California Wellness Foundation and the Women's Foundation of California.

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Layout & design by Cary Schein.
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Spanish translation by Berkeley Interpreting, Translation & Transcription Services
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Published January, 2009.

THIS IS NOT LEGAL ADVICE:

This Guide is not meant to serve in place of consulting an attorney on any individual legal issue. If you are concerned about a legal question, you should consult an attorney directly who can provide advice on your individual circumstances. Lists of legal advocacy and service providers are available in *Appendix 1*, as well as through your local court. Because laws do change, it is also important to check to see if changes have been made since this guide was published.

Acknowledgements

This Guide is many years in the making and is the result of the generous support, guidance, experience, and efforts of many individuals and organizations. It is based entirely on the knowledge and experiences that we, at the Community Water Center, have gained through the efforts of countless individuals working together in communities to fight for water justice. First and foremost, this Guide is dedicated to those, too numerous to list here, who have inspired and worked with us along the way.

The initial idea for this Guide came from Caroline Farrell at the Center on Race, Poverty & the Environment (CRPE). The core of this Guide is based on the vision, guidance, and support she provided me over the two years I spent with CRPE in Delano, California doing community water advocacy. Caroline and Luke Cole provided me with the opportunity to work on community water issues to begin with, for which I will always be grateful.

The Women's Foundation of California provided support for this Guide over many years, and the California Wellness Foundation provided key funding for publishing and translation costs.

The Rural Water Collaborative provided significant support for this Guide. In particular, Jennifer Clary at Clean Water Fund spent many hours editing, finding peer reviewers, and pulling together information on a number of topics, and Chione Flegal at Latino Issues Forum provided information based on work with Huron and other Fresno County communities. Without the whole group, this Guide may never have come to fruition.

Many people helped ensure the accuracy and usefulness of this Guide by providing comments on drafts and/or contributing information and expertise, including Horacio Amezquita, Carolina Balazs, Bob Bosso, Paul Boyer, Loon Bridge, Jennifer Clary, Luke Cole, Jack Daniel, Susana De Anda, Dennis Dooley, Jon Elson, Caroline Farrell, Chione Flegal, Rose Francis, Martha Guzman, Richard Haberman, John Hamner, Maria Herrera, Marybelle Nzegwu, Jith Meganathan, Sana Meghani, Sandra Meraz, Basmah Mourad, Dara Obbard, Colleen Reid, Miriam Rotkin-Ellman, Cary Schein, Britton Schwartz, Phoebe Seaton, David Spath, Miriam Torres, Amy Vanderwarker, and Erin Walsh.

In particular, Rose Francis breathed life into this Guide by spending many hours pulling together early drafts, sifting through stacks of code and cases, and organizing it all to create what the Guide is today. This Guide truly would not have happened without her.

Finally, I cannot thank enough the people who inspire me and teach me each day. Susana De Anda has been my partner through the many years over which this Guide has been developed. She provides the energy, vision, ganas, and guts behind our work together at the Community Water Center. Jith Meganathan is my partner through life and has supported me in every way to make my dreams come true and follow my heart. Maria Herrera and all of our community partners are the real forces on the ground. They are building a movement for water justice, struggling each day to secure safe, clean, and affordable drinking water for us all.

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About the Community Water Center

The Community Water Center (CWC) seeks to ensure that all communities have access to safe, clean, and affordable water.

Our mission is to create community-driven water solutions through organizing, education, and advocacy in California's San Joaquin Valley.

The Center employs three primary strategies in order to accomplish our goals:

- Educate, organize, and provide legal assistance to low-income communities and communities of color facing local water challenges.
- Advocate for systemic change to address the root causes of unsafe drinking water in the San Joaquin Valley.
- Serve as a resource for information and expertise on community water challenges.

CWC Programs

The Community Water Center works directly with a number of low-income, primarily Latino communities to address problems that range from chronic drinking water contamination to barriers to participation in local water governance. These direct services provide the foundation for both of CWC's Programs:

Protecting Groundwater from the Ground Up

This program aims to improve groundwater used as a source of drinking water in the San Joaquin Valley. Our work focuses on the coordination and development of the AGUA coalition and its campaign for groundwater protection, particularly from sources of nitrate.

Water Democratization

This program aims to ensure communities have a voice in water planning and policy, and in decision-making that affects whether they have access to a reliable, affordable water supply. Our work focuses on engaging communities in water infrastructure planning and funding processes, and eliminating barriers to community participation.

About AGUA (Asociación de Gente Unida por el Agua)

Over 19 local community and advocacy groups founded AGUA in February of 2006 as a way to provide a unified voice for systemic change for water quality improvement within the San Joaquin Valley. Since then, AGUA has built a vibrant network of informed community representatives and nonprofit organizations, which act as a growing political force around water in the Valley. AGUA member advocacy has forced the Regional and State Water Quality Control Boards, county governments, and state agencies to recognize and address the issue of water quality impacts on rural, low-income communities. Susana De Anda, CWC's Co-Director, is the current Coordinator of the coalition.

To learn more about CWC, visit www.communitywatercenter.org or call (559)733-0219.

Introduction

Today, in California, hundreds of thousands of families do not have safe drinking water in their homes, schools, or work places. According to the California Department of Public Health, public drinking water systems deliver water with unsafe levels of contaminants to approximately one million California residents every year.[1] The vast majority of this tainted water flows to California's agricultural heartland – in little-known towns like Monterey Park Tract, Huron, East Orosi, Cutler, and Alpaugh – where residents can't fill a glass of tap water without fear of cancer, kidney disease, and other health problems. These are some of our state's poorest towns, where annual median household incomes hover around $18,000. But they pay some of the highest proportionate water rates in California – up to six percent of their median household income – for undrinkable water. Many rural residents drive 30 to 50 miles each week just to buy bottled water, effectively doubling the price for this basic need.

Despite these challenges, mothers and daughters and other ordinary community residents have organized to change this situation in their own communities. Mothers in Ducor forced their water board to clean up residential water that was black and smelled like sewage. Tooleville residents banded together to create their own water board and secure the funding necessary to drill a new well. After nearly a decade of receiving nitrate-contaminated water three months out of the year, Tonyville families convinced the state to issue a compliance order requiring that their water provider deliver potable water year-round. And Cutler-Orosi residents not only forced the rescission of unconstitutional ordinances discriminating against extended families – with literally 200 residents participating at local water board meetings and press conferences – but have pushed for language access policies that allow the mostly Spanish-speaking community to participate effectively in board meetings.

The Community Water Center was founded in 2006 to serve as a resource and catalyst for this growing movement. After years of working with communities on the ground and finding similar problems plaguing nearly all small, low-income rural communities, the founders felt that the problems were so large and complex that it would take a center dedicated to water justice to create the change needed.

Given the number of communities facing water challenges, the Center cannot work with every community directly. It is our hope that this Guide will help bring the expertise, tools, and experiences of CWC to all communities struggling for water justice. In this Guide, you will find information to help you answer commonly asked questions, such as what is in your drinking water, who is responsible for providing your water, and what your rights and responsibilities are regarding the water flowing from your tap. Additionally, the Guide includes stories of communities that have organized to address various types of water challenges, as well as handouts, fact sheets, templates, and other tools you can use to do similar work in your own community.

At the Community Water Center, we believe clean water is a human right, not a privilege. But to create a reality in which all communities have access to safe, clean, and affordable drinking water, we need your help. Using this Guide is the first step towards making that change. With information comes power. So use this Guide as a resource, pass it on to others, and start becoming part of the solution.

How to Use this Guide

If you are a community member concerned about your own water in your community:

Start by reading the *Getting Started* section at the beginning of this Guide. This short section provides answers to frequently asked questions and provides an overview of how to find out what is in your water and ways to hold your drinking water provider accountable. Each topic covered in the *Getting Started* section has references on where to find more comprehensive information in other sections of the Guide.

The *Getting Started* section also includes real stories of communities that have worked to address a wide variety of common challenges, from unsafe water to discriminatory ordinances. It also provides advice and guidance on how to organize to address community water challenges in your own community.

Use the *Legal Reference Guide* as a resource to get detailed information on specific topics as needed. The first part covers the federal and state Safe Drinking Water Acts, which are the laws that govern drinking water quality and apply to all water systems that serve at least 25 people or 15 connections at least 60 days of the year, regardless of the type of system you have. The second part gives an overview of the different types of water systems and the different laws that govern them.

The *Community Health Guide* provides one-page fact sheets on the most common drinking water contaminants in California, including what the health impacts are and what you can do to protect your family.

Finally, the *Appendices* have a number of useful tools. *Appendix 1* provides a list of places to get more information on a wide variety of topics. *Appendix 2* includes a variety of handouts or fact sheets, and *Appendix 3* has a variety of template letters and sample bylaws that you can use to advocate for improved water quality in your own community. *Appendix 4* has a list of all drinking water limits for every contaminant regulated under the Safe Drinking Water Acts, including maximum contaminant levels and public health goals.

Don't forget to use the *Glossary* at the beginning of this Guide to look up a term or acronym that you do not understand. Additionally, the *Index* at the end allows you to look up a given topic and find all the places it is discussed in the different sections of the Guide.

If you serve or are interested in serving on your local water board:

Use the first part of the *Legal Reference Guide* to learn more about water systems' specific legal responsibilities under the Safe Drinking Water Acts, including detailed water quality monitoring requirements.

Look up your type of water system and read about the other laws that apply to your board in the second part of the *Legal Reference Guide*.

The *Appendices* have additional useful information. *Appendix 1* provides a list of places to get more information on a wide variety of topics, including funding sources and technical assistance. *Appendix 2* includes a variety of handouts or fact sheets, including how to run a meeting, and *Appendix 3* holds a variety of sample bylaws and policies for small mutual water companies that you can use. *Appendix 4* has a list of all drinking water limits for every contaminant regulated under the Safe Drinking Water Acts, including maximum contaminant levels and public health goals.

Don't forget to use the *Glossary* at the beginning of this Guide to look up a term or acronym that you do not understand. Additionally, the *Index* at the end allows you to look up a given topic and find all the places it is discussed in different sections of the book.

The *Community Health Guide* contains information about particular contaminants, and the *Getting Started* section may also help provide an understanding of how your community's water system fits into the larger picture of drinking water in California.

If you are an advocacy or technical assistance organization interested in providing support for communities addressing local water challenges:

The *Getting Started* section can give you an overview of community water advocacy and the ways communities have approached specific individual challenges. Feel free to copy any part of this section and use it as a handout in trainings. Additional handouts and fact sheets are available in *Appendix 2*, and sample letters and templates can be found in *Appendix 3*. *Appendix 4* has a list of all drinking water limits for every contaminant regulated under the Safe Drinking Water Acts, including maximum contaminant levels and public health goals.

Use the *Legal Reference Guide* to look up specific issues that a particular community is facing, such as monitoring requirements or information on rate increases. Remember, the first part of the *Legal Reference Guide* covers the Safe Drinking Water Acts and applies to all water providers. The second part of the *Legal Reference Guide* covers laws that may differ depending on the type of water provider.

Use the *Community Health Guide* as a resource for health information and short-term solutions for common drinking water contaminants. Feel free to make copies and distribute them to the community.

All materials in the book are available in English or Spanish so please request translated copies if needed.

If you need more information on a topic or don't find what you are looking for:

Appendix 1 provides a list of places to get more in-depth information or assistance on many specific topics covered in the Guide. Additionally, you can visit **www.communitywatercenter.org** to check for updates or additions or call us at (559) 733-0219. We encourage you to look for local organizations that can provide advocacy, organizing, or technical assistance in your area. A list of California organizations providing these services is included in *Appendix 1*.

Glossary of Drinking Water Terminology

Action Level - The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow. This term is primarily used for lead and copper levels.

Acute Risk - the potential for a contaminant to cause acute health effects (such as death, damage, or illness) after a single period of high levels of exposure measured in seconds, minutes, hours, or days.[2]

Brown Act – the California law that requires nearly all meetings in which local governmental bodies make policy decisions to be properly advertised, be open to the public, and to allow for public participation.

Bylaws – the legal name for a written document setting out the rules governing the way an organization functions. All organizations or corporations must have bylaws to show how they are structured and how decisions can be made on behalf of the group.

Certified Distribution Operator (CDO) - the person responsible for the technical maintenance and safety monitoring of a community water system.

Community Services District (CSD) – a local governmental agency that functions much like a city government for unincorporated areas, providing a wide range of what are traditionally considered municipal services.

Community Water System - a public water system (serving at least 25 people or 15 connections) that serves the same people year-round.[3]

Compliance Cycle – the nine-year calendar cycle during which public water systems must conduct all monitoring under the Safe Drinking Water Acts.[4]

Compliance Period – a three-year period within a compliance cycle.[5]

Consumer Confidence Report (CCR) - the annual water quality report that community water systems are required to distribute to customers.[6]

Department of Public Health (DPH) – the state agency charged with implementing the Safe Drinking Water Acts in California.

Detection Limit for Purposes of Reporting (DLR) – the lowest level at which a water contaminant can reliably be detected by laboratory methods.

Disinfectant Byproducts – Contaminants that are created as a byproduct of the chlorination process.

Emergency Notification Plan – a plan to provide immediate notice to the customers of a public water system of any imminent danger to the health of water users, such as a significant rise in bacterial count or other violation of a primary drinking water standard.[7]

Environmental Protection Agency (EPA) – the federal agency charged with implementing the federal Safe Drinking Water Act and overseeing its state implementation.

Flushing – a process by which water is moved through a water pipe at a high velocity so that a scouring action is created and stagnant water and sediment can be removed from the main pipes.

Irrigation District – a local governmental agency whose primary function is to provide irrigation water to landowners within the district.

Local Agency Formation Commission (LAFCO) – a county-level body that oversees the formation of special districts within the county and encourages the orderly formation of local agencies within the county.

Local Primacy Agency – another term for a local health officer, usually the county environmental health department, that is responsible for regulating small public water systems in some counties through an agreement with DPH.

Maximum Contaminant Level (MCL) - the highest level of a contaminant allowed in drinking water, as set by the federal EPA and the California DPH.

Maximum Contaminant Level Goal (MCLG) - the level of a contaminant in drinking water below which there is no known or expected health risk, as determined by the federal EPA.

Milligrams Per Liter (mg/L) – a standard measurement used to measure how many milligrams of a contaminant are present in one liter of water. One mg/L is equal to one millionth of a liter, or one part per million (ppm).

Mutual Water Company – a form of nonprofit cooperative set up by landowners to provide water to a community. (Also commonly referred to as a "Nonprofit Mutual Benefit Corporation" or "Nonprofit Mutual Water Association" or a "Mutual.")

Nephelometric Turbidity Units (NTU) – the units used to measure turbidity, which refers to water clarity. The higher the NTUs, the more particulate matter is in the water, and the more cloudy it appears.

Nonprofit organization - an organization that only uses its funds to further a charitable purpose, rather than to make a profit. Nonprofit corporations are sometimes referred to as "501(c)(3)s" because they can be granted special tax exemptions under that section of the federal tax code.

Nontransient, Noncommunity Water System – a PWS that serves at least 25 people who use the water for non-residential purposes for more than six months of the year (*e.g.*, schools, office buildings, etc.).

Notification Levels – health-based advisory levels established by DPH for chemicals in drinking water that lack maximum contaminant levels (MCLs).

Office of Environmental Health Hazard Assessment (OEHHA) - a department under the California Environmental Protection Agency (Cal EPA) charged with studying the health impacts of contaminants and setting public health goals.

Parts Per Million (ppm) / Parts Per Billion (ppb) – standard measurements of the level of a contaminant in drinking water. 1 ppm is equal to 1 mg/L.

Primary Contaminant – a drinking water contaminant that the state and federal Safe Drinking Water Acts regulate because exposure above certain levels may cause negative health consequences.

Private Company – a general name for any kind of private-sector entity, meaning that it is not a governmental agency. There are many different kinds of private companies, with different structures of ownership and governance. These include publicly traded companies and other private water utilities, nonprofit mutuals, and for-profit businesses such as restaurants and mobile home parks.

Private Water System – "private water system" is not a technical term and is often used to mean different things. In this Guide, and and in general, a private water system refers to a PWS, regulated under the Safe Drinking Water Acts, but owned by a private individual or corporation. Generally if people are referring to systems not regulated under the Safe Drinking Water Acts, they would use the term "private well," rather than "private water system."

Private Water Utilities – private companies that provide water as commercial, for-profit enterprises, and are governed by the California Public Utilities Commission (PUC). (Also called "public utilities" or "investor-owned utilities.")

Private Well – a well serving fewer than five connections (*i.e.*, homes, apartments, etc.) and fewer than 25 individuals for more than 60 days of the year. Private wells are not regulated under the Safe Drinking Water Acts.

Proposition 218 – an amendment to the California Constitution, passed by the voters, which requires all governmental water providers (including all special districts) to follow a set process before they can raise rates. It also sets limits on why the rates can be increased. Please note that court interpretations of Proposition 218 are continually changing.

Proxy – a certificate given by an individual entitled to vote, that grants permission to another individual to vote on his or her behalf. Rules governing proxies are generally contained in an organization's bylaws. Proxies are generally not allowed in elections for governmental entities.

Public Health Goal (PHG) – the level at which a contaminant is considered safe if ingested at that level continuously throughout life, as determined by California's OEHHA. These levels are based solely on protecting public health, without taking into account cost or the technology available to achieve that standard. Like MCLGs, they are only goals and are not enforceable.

Public Records Act – the California law requiring governmental agencies to make nearly all of their records and documents available to the public.

Public Comment Period – time, usually at the beginning or end of a board meeting, when anyone can address the board on any issue that is related to the powers and business of that board, whether or not it is on the agenda.

Public Utilities Commission (PUC) – a state agency with regulatory authority over private water utilities, including authority over water rates charged to customers.

Public Utilities District (PUD) – a local governmental agency authorized to provide a range of utility services to residents in an unincorporated area. PUDs are NOT regulated by the PUC.

Public Water System (PWS) – a water supplier that serves piped water to at least 25 persons or 15 service connections for at least 60 days each year.[8] All PWSs are regulated under the Safe Drinking Water Acts.

Quorum – the minimum number of representatives that must be present in order to make decisions or approve transactions at a board meeting.

Response Level – the level at which DPH recommends removal of a drinking water source from service.

Radionuclides – minerals that emit radiation in drinking water, which in turn may cause people who drink that water over long periods of time to have an increased risk of getting cancer.

Safe Drinking Water Acts – in this Guide, this term refers to the laws (both federal and state) that oversee drinking water quality and apply to all different kinds of water systems. The federal Safe Drinking Water Act is administered by the EPA, which has delegated its enforcement authority to the California DPH. California also has a state Safe Drinking Water Act, which must be at least as strict as the federal law, and is also administered through DPH. In practice, this Guide focuses on the state law since it must be at least as strict as the federal law.

Secondary Contaminants – contaminants that are of concern primarily because of consumer acceptability. These are not necessarily a health concern at low levels, but their presence is detectable and distasteful to the consumer (for example, flavor and smell of the water).

Small Public Water System - The Safe Drinking Water Acts use different definitions for small water systems in different parts of the Acts. For the purpose of determining which agency oversees regulation of a PWS, a small water system is a PWS with less than 200 service connections.[9] For the purpose of determining monitoring requirements, a small water system is defined as a PWS that serves 3,300 people or fewer. In this Guide, however, the term is used to refer to the former (less than 200 connections).

Special Districts – local governmental agencies that provide specific services to unincorporated areas, such as those services otherwise provided by a city government (examples include irrigation districts, community services districts, and pubic utility districts).

Standby Source – a well or other drinking water source that is only used for short-term emergencies of five consecutive days or less, and for less than a total of 15 calendar days a year.[10] Also commonly referred to as a "back-up well."

State Small Water System - a public water system that provides piped drinking water to between five and fourteen service connections and does not regularly serve drinking water to more than an average of 25 individuals daily for more than 60 days out of the year.[11]

Synthetic Organic Chemicals (SOCs) – man-made chemical compounds that include hydrogen and carbon but are not easily vaporized, and therefore not considered volatile. SOCs do not occur naturally but can now be found throughout the environment due to contaminating activities. Examples include fuel additives, solvents, and pesticides.

Total Coliform Bacteria – a measurement of coliform bacteria, a general name for different kinds of bacteria that includes fecal coliform and *E. coli* bacteria. Because this is a broad category of bacteria, detection of total coliform bacteria does not necessarily mean that fecal coliform or *E. coli* bacteria are present.

Transient Noncommunity Water System – a public water system that operates more than 60 days a year, and serves at least 25 people per day that use the water occasionally or for less than 6 months (*e.g.*, restaurants, churches, parks, or hotels with their own water systems).[12]

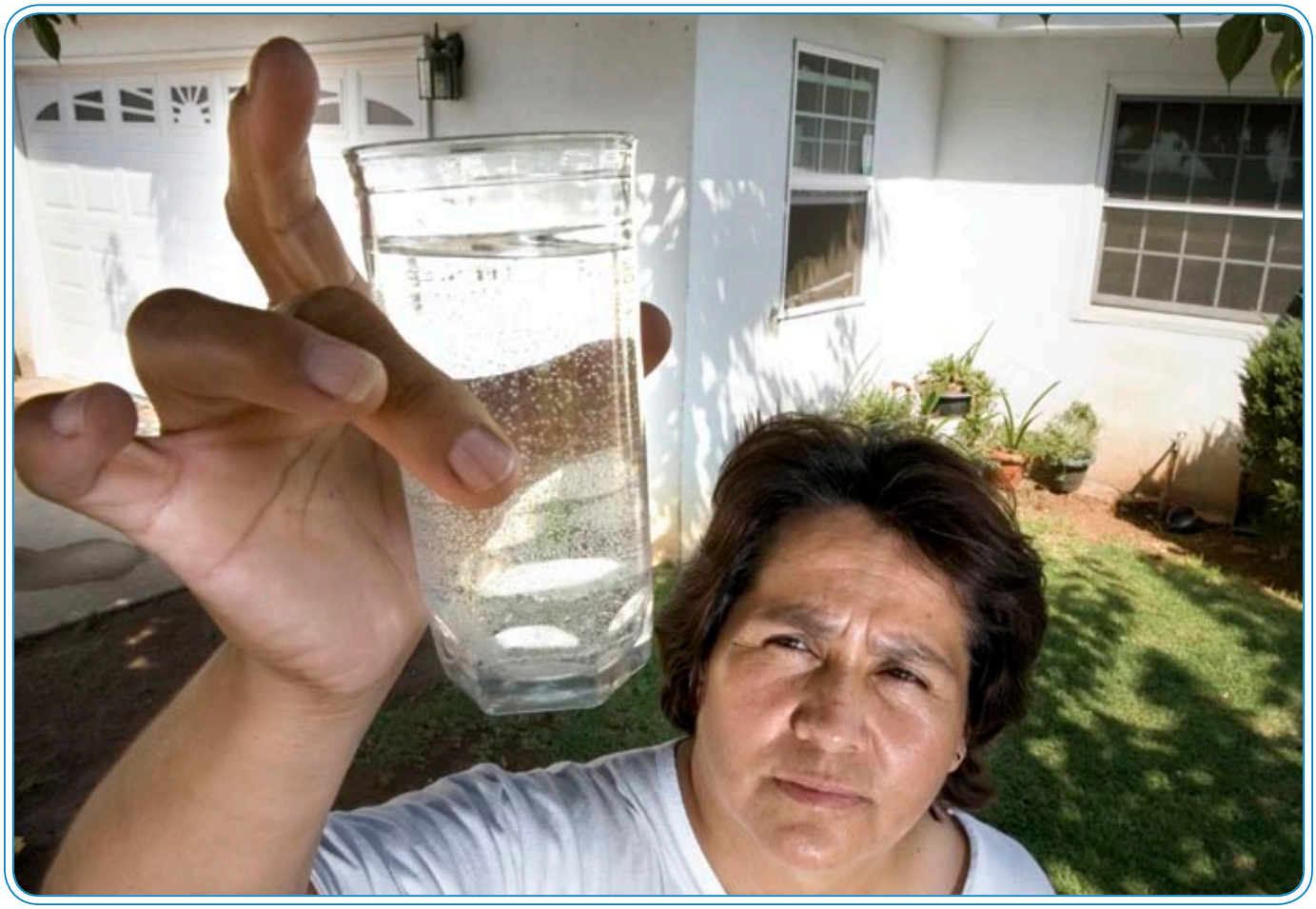
Trihalomethanes (TTHMs) – a general term used to refer to the total amount of certain types of disinfectant byproducts, including bromodichloromethane, dibromochloromethane, trichloromethane (chloroform), and tribromomethane (bromoform).

Unincorporated Association – a formal community organization registered with the state whose operations are conducted according to bylaws. Forming an unincorporated association limits personal liability. Although it does not have tax-exempt 501(c)(3) status, it can receive funds.

Vended Water - water sold from a machine from which a customer fills his or her own reusable bottles. The quality of vended water is much less reliable than bottled water, which is sealed before it is sold.

Volatile Organic Chemicals (VOCs) – a type of chemical compound that contains both hydrogen and carbon atoms. Found in everything from gasoline to solvents, they are termed "volatile" because they vaporize or evaporate easily. Most VOCs are toxic and have been linked to cancer.

Water Provider / Water Supplier - the entity that operates a public water system to supply water, at least in part, for human consumption.



Getting Started:

First Steps to Securing Safe Drinking Water for Your Community

This section provides information, including answers to frequently asked questions, that you can use to advocate for clean, safe, affordable drinking water in your community. It includes stories from real communities that have fought for access to clean water in California over the past four years. The laws and regulations that govern drinking water are outlined in more detail in the *Legal Reference Guide*, which should be used as a reference when putting this section to use in your own community.

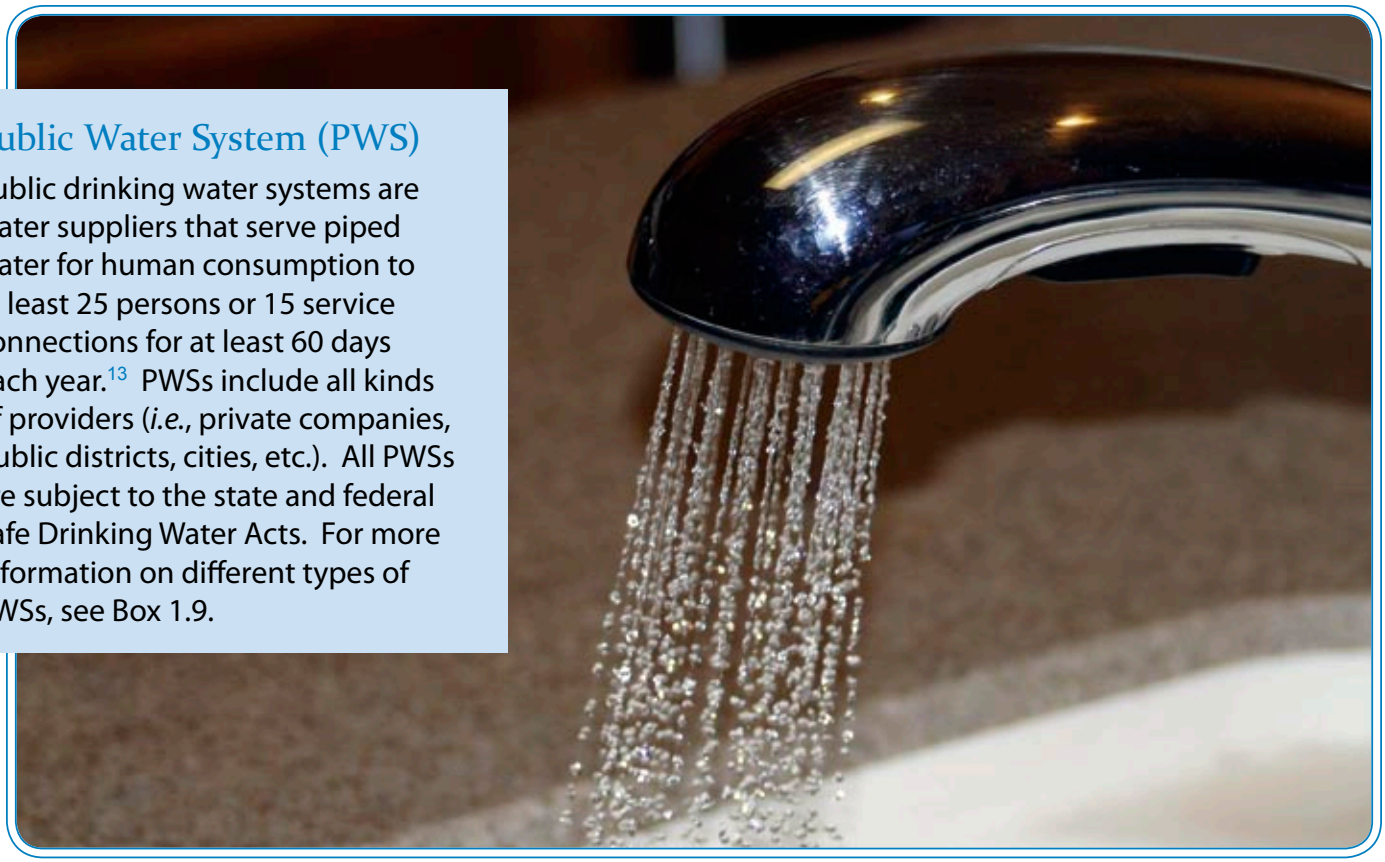
Get Informed:
Frequently Asked Questions

How do I get information on my water?

The most common question that community residents want to know is what is in the water coming out of their taps and whether it is safe. Unfortunately, this basic question is not as easy to answer as you might think. First, you must find out where your water comes from, and most importantly, whether you get water from a private well or a public water system. Only then can you find out what monitoring information is available and decide whether you want or need additional testing. The following questions take you through the process, as outlined in Box 1.1.

Where does my water come from?

The first question to answer is whether you (or if you rent, the property owner) pay an entity to provide drinking water from your tap. If the answer is no, you probably have a private well. If the answer is yes, you are probably served by a public drinking water system. Only public drinking water systems (PWSs) are subject to the state and federal Safe Drinking Water Acts.



Public Water System (PWS)

Public drinking water systems are water suppliers that serve piped water for human consumption to at least 25 persons or 15 service connections for at least 60 days each year.[13] PWSs include all kinds of providers (*i.e.*, private companies, public districts, cities, etc.). All PWSs are subject to the state and federal Safe Drinking Water Acts. For more information on different types of PWSs, see Box 1.9.

Box 1.1 - How can I find out what is in my water?

Step 1

Figure out where your water comes from:

If you pay a monthly water bill, you are probably served water by a **public water system.**

If you do not pay a monthly water bill and you own your own home, your water probably comes from a **private well**.

If you do not pay a monthly water bill and you rent, ask your landlord whether your water is from a **private well** or a **public water system**.

Step 2a

If you have a **private well**:

If you own your well, you are responsible for doing your own water testing. See Box 1.2 for more information on testing for private well owners.

If you rent and are served by a private well, ask your landlord for a copy of the latest water monitoring results.

Step 2b

If you have a **public water system**:

Call the number on your water bill and ask the public water system for the latest water quality information.
Ask for the time and day of the next water board meeting. Go to the water board meeting and ask questions or voice your concerns during the public comment period.

What if I have a private well?

If you are served by your own private well, then you are solely responsible for the quality of that water. There are no requirements or regulations regarding testing, quality, or reporting of private wells under the state and federal Safe Drinking Water Acts. However, most county ordinances set basic construction permit requirements before a well can be drilled, and some require testing of private wells before a title can change hands on a residential property.

Overall, there is virtually no oversight of private wells in California. All maintenance and repairs are the responsibility of the landowner, and to get water quality information you will need to do your own water testing.

Landlords & Tenants with Private Wells

If you own a well that provides water to others, such as tenants or neighboring homes, it is important to regularly test your well to make sure that it is safe. (See Box 1.2 for more information on testing.) If you find out that bacteria are present or a contaminant is over a maximum contaminant level (MCL), you should immediately notify everyone using your well and look for ways to solve the problem, such as disinfecting the well or installing a treatment device. If you have a treatment device on the well or in a home, make sure that the filter is changed regularly and that it is properly installed and maintained; otherwise it can be more dangerous than not having one at all. Loan and grant assistance programs may be available to help rehabilitate private wells, septic systems, and other housing issues, particularly if you are low-income and over 62 years old or are a current or retired farm worker. See *Appendix 1* and contact Self Help Enterprises at 559-651-1000 or **www.selfhelpenterprises.org** for more information.

If you are a tenant, ask your landlord for the most recent water testing reports. If you have a filter, find out when the last maintenance took place. You have rights under state housing law to a safe and habitable environment and should contact a legal aid office or other housing attorney for more information.

You can also call your County Environmental Health Department or the Department of Public Health's (DPH) Drinking Water Program to find out which contaminants have been found in wells in your area. Also, *Appendix 1* lists a number of places to get more information on groundwater contamination in your area.

Box 1.2 - Tips for Private Well Owners

If you have a private well, you are responsible for testing your own water. Before using your well, you should test for all common chemical and biological contaminants. See *Appendix 4* for a full list of all contaminants regulated under the state and federal Safe Drinking Water Acts.

To find a certified laboratory in your area, look at the list at **www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx** or contact the Department of Public Health (DPH) at (510) 620-3155. Usually laboratories provide their own containers and procedures and some send technicians to take samples at your home.

Every year, and especially before you have an infant in the house, you should test for nitrate and bacteria. These tests are generally available from your County Environmental Health Department and typically cost approximately $20.

Although we recommend testing for all contaminants at least once, sampling for the full list of regulated contaminants can be expensive for low-income homeowners. Here is a guide developed by the federal Environmental Protection Agency (EPA) to help you consider what contaminants to prioritize for testing:

Conditions or Nearby Activities:	Test for:
Recurring gastro-intestinal illness	Coliform bacteria
Household plumbing contains lead	pH, lead, copper
Radon in indoor air or region is radon rich	Radon
Corrosion of pipes, plumbing corrosion	pH, lead
Nearby areas of intensive agriculture	Nitrate, pesticides, coliform bacteria
Coal or other mining operations nearby	Metals, pH, corrosion
Gas drilling operations nearby	Chloride, sodium, barium, strontium
Dump, junkyard, landfill, factory, gas station, or dry-cleaning operation nearby	Volatile organic chemicals, total dissolved solids, pH, sulfate, chloride, metals
Odor of gasoline or fuel oil, and near gas station or buried fuel tanks	Volatile organic chemicals
Objectionable taste or smell	Hydrogen sulfide, corrosion, metals
Stained plumbing fixtures, laundry	Iron, copper, manganese
Scaly residues, soaps don't lather	Hardness
Salty taste and seawater, or a heavily salted roadway nearby	Chloride, total dissolved solids, sodium
Rapid wear of water treatment equipment	pH, corrosion
Water softener needed to treat hardness	Manganese, iron
Water appears cloudy, frothy, or colored	Color, detergents

For more information on private wells, see *Appendix 1*.

What is a public water system (PWS) and how do I know if my water comes from one?

If you get a bill for your tap water, you are probably served by a PWS. If you rent your home and do not pay your own water bill, you may still be served by a PWS. Ask your landlord for information on who provides water to your home and the contact information of the water system in case you have further questions.

There are many different kinds of entities that operate PWSs, each with their own structures and governing rules. Nevertheless, all PWSs are subject to the Safe Drinking Water Acts, meaning that all are required to regularly monitor and provide information on the quality of the water. The Safe Drinking Water Acts have different requirements for three different classes of PWSs (see the sidebar for a breakdown of classes).

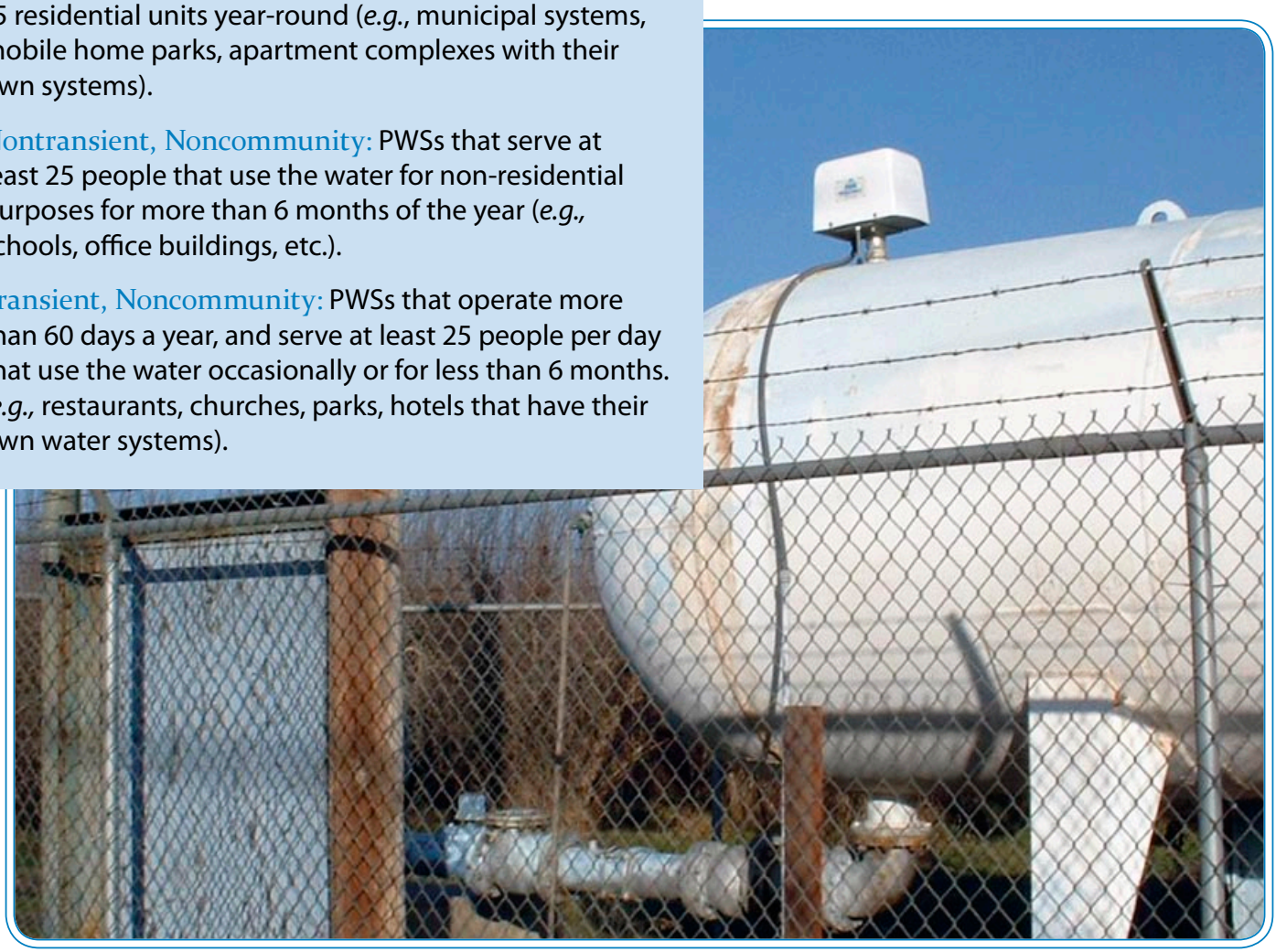
The Safe Drinking Water Acts also set different requirements for monitoring and treating water depending on the source of water – *i.e.*, surface or groundwater. For more information on the monitoring and reporting rules that govern your system, see the first part of the *Legal Reference Guide*.

Classification of Public Water Systems (PWSs):

Community: PWSs that serve more than 25 residents or 15 residential units year-round (*e.g.*, municipal systems, mobile home parks, apartment complexes with their own systems).

Nontransient, Noncommunity: PWSs that serve at least 25 people that use the water for non-residential purposes for more than 6 months of the year (*e.g.,* schools, office buildings, etc.).

Transient, Noncommunity: PWSs that operate more than 60 days a year, and serve at least 25 people per day that use the water occasionally or for less than 6 months. (*e.g.,* restaurants, churches, parks, hotels that have their own water systems).



Box 1.3 - Sources of Drinking Water Surface Water vs. Groundwater

PWSs may get water from a variety of sources.

Most small rural PWSs get water from **wells**. These wells are drilled in the ground and pump water that has been slowly filtered through the soil and accumulates in areas under the ground called aquifers. This water is called **groundwater**. Some contaminants are not filtered out naturally by the soil, and ultimately get into the groundwater that is pumped through wells and used for drinking water.

In some areas, the groundwater is either not easily available or is not safe to use for drinking water so PWSs may use surface water sources such as streams, lakes, rivers, and canals. All **surface water** must be treated because is it more likely than groundwater to have bacteria and pathogens.

Today, many PWSs use some combination of both surface and groundwater sources.

Box 1.4 - Detecting pesticides in groundwater

Many new pesticides are created every year. Once these chemicals are registered and approved for application in California, they may be used or disposed of in areas near drinking water sources. Because some pesticides persist in the environment for a long time, many wells are still contaminated with pesticides, like DBCP, that were banned from use decades ago.

Pesticides in California are screened by the Department of Pesticide Regulation (DPR). However, approval for use is dependent on information provided by the manufacturer. Those chemicals reported as having characteristics that make it likely to contaminate groundwater are put on a list of potentially contaminating pesticides (the Sec. 6800(b) list), which DPR uses to determine what to monitor for in groundwater. However, registered pesticides on that list are allowed to be used without restrictions. The groundwater monitoring program at DPR conducts testing each year for a couple of contaminants on that list identified as potentially contaminating pesticides. However, many pesticides are applied in mass quantities each year without any testing of whether they are actually contaminating our drinking water sources. Given the current system, it is virtually impossible to say that groundwater does not have any pesticides or other chemical contaminants.

Additionally, even when pesticides are shown to have contaminated groundwater, this does not mean that they are then regulated under the Safe Drinking Water Acts. The federal Environmental Protection Agency (EPA) and California Department of Public Health (DPH) have not yet established maximum contaminant levels (MCLs) or other monitoring requirements for many registered pesticides under the Safe Drinking Water Acts. As a result, public water systems do not monitor levels of these pesticides in drinking water sources, despite the fact that at least four (i.e., Bromacil, Diuron, Prometon, and Norflurazon) have been found to contaminate wells in California.

As of 2008:

- 23 registered pesticides are identified as potential groundwater contaminants, but have never been tested for in California groundwater.
- 11 pesticides that are known to have contaminated groundwater sources in California are allowed to be used, although seven of those pesticides require permits with conditions for use in areas identified as vulnerable hydrologic environments.

For more information on pesticides in groundwater, see
http://www.cdpr.ca.gov/docs/emon/grndwtr/index.htm

Is my water safe?

The first thing to understand about water is that no one knows if a particular contaminant is in the water until someone specifically tests for that particular contaminant. Water may contain chemicals that you cannot see or smell and there is no one test that can detect every chemical, bacteria, or pathogen in existence. You can only find contaminants that you test for and only at levels that equipment allows you to detect. Therefore, new chemicals (such as pesticides, pharmaceuticals, and fuel additives) may be present but undetected in water until someone tests for those exact chemicals (see Box 1.2 for a guide to help determine the types of contaminants that might be in your water source). The Safe Drinking Water Acts require all PWSs to test regularly for known contaminants that are most likely to be in particular water sources. See *Appendix 4* for a full list of contaminants regulated under the Safe Drinking Water Acts.

How can I get water quality information from my public water system (PWS)?

The Safe Drinking Water Acts require PWSs to monitor regularly for common drinking water contaminants and to notify customers if those contaminants are found above Maximum Contaminant Levels (MCLs). While the MCLs are the same for every kind of PWS, the Safe Drinking Water Acts set different monitoring requirements for different contaminants and classes of PWSs. For more information on monitoring requirements, see the first part of the *Legal Reference Guide*.

Additionally, the Safe Drinking Water Acts set different requirements for how quickly and in what format notices must be given to customers, depending on the seriousness of the water quality problem or other violation. For more information on notice requirements, see the first part of the *Legal Reference Guide*. Generally, however, water systems only send notices to their customers, who often are landlords, businesses, or schools. Because water systems often do not know who the actual users of the water are, the law requires landlords, businesses, and schools served by a public water system to post or otherwise inform their tenants, customers, and students immediately when they are given a notice regarding water safety. (For more information on tenant rights to notices, see the first part of the *Legal Reference Guide*.)

All PWSs that serve customers year-round are also required to provide an annual water quality report to customers, called a Consumer Confidence Report (CCR). Therefore, no matter what kind of entity provides your water (private company, city, special district), if your system serves more than 25 people or 15 units year-round, it must provide an annual report.

Maximum Contaminant Level (MCL) and Public Health Goals (PHGs)

A **Maximum Contaminant Level (MCL)** is the legal level of a contaminant that is allowed in drinking water. For example, the MCL for arsenic is 10ppb.

Federal MCLs are set by the EPA under the Safe Drinking Water Act. California can set stricter MCLs through the Department of Public Health (DPH). These limits are set by taking into account public health as well as costs and technical feasibility.

The Office of Environmental Health Hazard Assessment (OEHHA) also sets a **Public Health Goal (PHG)** for each contaminant. For example, the PHG for arsenic is 0.004 ppb or 4 parts per trillion (ppt). This is the level that is considered safe for human consumption based only on public health studies, and not accounting for cost and technical feasibility.

For a list of MCLs and PHGs, see *Appendix 4.*

What information is in a Consumer Confidence Report (CCR) and what does it mean?

Consumer Confidence Reports (CCRs) must be mailed out by July 1st each year for all community water systems. They provide basic information from the past year on the following:

- The source of the drinking water (*e.g.*, groundwater wells, surface water treatment plants, etc.);
- The susceptibility to contamination of the local drinking water source (*e.g.*, what types of sources of contamination may threaten the quality of your drinking water supply, such as fertilizer from agricultural fields, dry cleaners, and septic systems);
- How to get a copy of the water system's complete source water assessment (for more information on source water assessments, see Box 2.6);
- The level (or range of levels) of any contaminant found in local drinking water, as well as EPA's and California's health-based standard (maximum contaminant level) for comparison;
- The likely source of that contaminant in the local drinking water supply (usually this is just a boilerplate list of common sources for that contaminant written by the EPA);
- The potential health effects of any contaminant detected in violation of an EPA or California health standard, and an accounting of the system's actions to restore safe drinking water;
- The water system's compliance with other drinking water-related rules;
- An educational statement for vulnerable populations about avoiding *Cryptosporidium*, a waterborne pathogen;
- Educational information on nitrate, arsenic, or lead in areas where these contaminants may be a concern; and
- Phone numbers for additional sources of information, including the water system and EPA's Safe Drinking Water Hotline (800-426-4791).

The problem with CCRs is that the information is generally a year old. Therefore, to get the most up-to-date water quality information, you may need to request other water monitoring reports. Generally, however, CCRs provide useful information on where your drinking water comes from, what contaminants have been found in it, what the health impacts of those contaminants are, and what the system is doing about it. For more detailed information on the laws and regulations for CCRs, see the first part of the *Legal Reference Guide*.

Additional information on CCRs

See *Appendix 2* for a guide to reading your CCR.

For additional sources of information on your CCR, see the EPA at **http://www.epa.gov/safewater/ccr/index.html** or the NS Foundation at **http://www.nsf.org/consumer/drinking_water/dw_quality.asp?program=WaterTre#understand** or call EPA at 1-800-426-4791.

You can also download a free consumer guide on how to understand your CCR report at **http://www.safe-drinking-water.org/pdf/makesense.pdf** or call CWC at 559-733-0219.

How do I request water monitoring reports and other information?

The Safe Drinking Water Acts require all PWSs to monitor for a list of specific contaminants. All monitoring information is publicly available either through your local water provider (PWS) or through the agency that regulates the PWS (see Box 1.5). To request water monitoring reports from your PWS, contact the number or address on your monthly water bill. If you have any problems getting information from your water provider, you can contact your local DPH office.

For detailed information on monitoring requirements, see the first part of the *Legal Reference Guide.*

Box 1.5 - Which Agency Regulates your PWS?

If your PWS has 200 connections (*e.g.*, individual homes, businesses, etc.) or more, it is regulated by the Department of Public Health (DPH). To find the contact information for your local office, see **http://www.cdph.ca.gov/certlic/drinkingwater/Documents/DWPdistrictofficesmap.pdf** or call the main office at (916) 449–5600.

Small systems with less than 200 connections are regulated directly by the county environmental health offices in the following counties: Alpine, Amador, Butte, Calaveras, Contra Costa, El Dorado, Imperial, Inyo, Kings, Los Angeles, Madera, Marin, Merced, Mono, Monterey, Napa, Nevada, Placer, Plumas, Riverside, Sacramento, San Bernardino, San Diego, San Joaquin, San Luis Obispo, San Mateo, Santa Barbara, Santa Cruz, Shasta, Stanislaus, Tehama, Tulare, Tuolumne, Yolo, Yuba. If you are served by a PWS with less than 200 connections in one of these counties, contact your county and ask for the drinking water program, or see **http://www.ccdeh.com/roster.asp**, or contact DPH at (916) 449-5652. If you are served by a PWS in any other county, DPH regulates all PWSs in your county directly, no matter what size.

If you are not sure how many connections your PWS has, DPH should have information for all systems or will direct you to the proper contact.

How do I request information in a language other than English?

Many times water providers only provide information in English. However, if you need information translated into another language, you have a right to request that information in a language you can understand. A sample letter you can use to request information in a language other than English is included in *Appendix 3*. Encourage your PWS to make it a policy to provide multilingual information if a large number of people in your community do not speak English. For more information on translation requirements for notices, see the first part of the *Legal Reference Guide*.

Box 1.6 - Language Access Rights

In California there are three primary laws that provide language access rights.

- The Dymally-Alatorre Bilingual Services Act (BSA)[14] requires that local agencies (including water systems that are governmental entities), that serve a substantial number of non-English speaking people, and that provide materials explaining services in English, provide the same type of materials in any non-English language spoken by a substantial number of the public served by the agency.
- The California Civil Rights Act[15] requires any state agency, or any service (including a water system) that receives state funding, to provide interpretation or translation services necessary to ensure that persons with limited English proficiency can receive its services and participate in its activities.
- The Federal Civil Rights Act (Title VI)[16] requires any federal agency or any service (including a water system) that receives federal funding, to provide interpretation or translation services necessary to ensure that persons with limited English proficiency can receive its services and participate in its activities.

This means that if you need interpretation at a meeting or translation of a document in order to get information regarding your water service, you have the right to request that from your water provider. If your water provider is a governmental agency or receives state or federal funding, your water system has an obligation to provide these services unless it would constitute an extreme financial hardship.

If you feel your rights have not been provided for, contact a local legal services organization. A list of legal advocacy organizations and legal service providers is available in *Appendix 1*. See the Notice Requirements section in the first part of the *Legal Reference Guide* for more detailed information and citations for these laws.

When do I need additional water testing and how do I get it?

Even though PWSs must monitor regularly for common drinking water contaminants, there may be reasons to want additional testing. If you think that unusual contaminants may be in your water because of surrounding industries or historical land uses, you may want to test for those specific contaminants. Many pesticides, for example, are not included in the PWS monitoring requirements under the Safe Drinking Water Act (see Box 1.4 for more information on pesticides in groundwater). A list of additional sources of information on your local groundwater quality can be found in *Appendix 1*. You may also want to do additional testing if you see common health problems, have vulnerable or sensitive people in your home, or if your water has noticeable taste, color, or odor problems. Box 1.2 includes a general guide to help you consider what contaminants to prioritize for testing.

Keep in mind that the water tested at the well and the water coming out of your tap may be different because of exposure to contaminants in the distribution systems (both in the main lines and in your home). Therefore at-tap testing is always the most reliable information on what you may be drinking, particularly for contaminants such as lead, bacteria, or other heavy metals that may be due to old or leaky pipes. Note, however, that the PWS is not responsible for contaminants due to the pipes in your own home. Generally the landowner is responsible for maintaining safe plumbing on his or her property.

If you are concerned that additional testing may be necessary, you can get independent sampling done at your own expense. You can download a list of Certified Laboratories that can take samples at **www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx** or contact DPH at (510) 620-3155. Usually laboratories provide their own containers and procedures and some send technicians to take samples at your home.

Alternatively, you can try to initiate an investigation by the agency that regulates your PWS. Often times if there are complaints or community-driven requests submitted to the regulatory agency (either the county or DPH) regarding the quality of the drinking water, that agency can or must do an investigation, depending on the circumstances. For example, if there are customer complaints made to the regulatory agency on the color or taste of the water, there may need to be some investigation. See the section on Secondary Contaminants in the first part of the *Legal Reference Guide* for more information. Additionally, DPH or the county has the discretion to conduct investigations on its own. You can read about two communities, Ducor and Maywood, that were able to get their local regulatory agencies to conduct water quality investigations later in this section.

Box 1.7 - Lead from Pipes

Lead in drinking water is most commonly due to corrosion of pipes or the solder that holds pipes together within the plumbing in your own home.

Lead is especially dangerous to children and pregnant women and can cause severe brain damage and death, among other health impacts.

Because lead can be added by your own plumbing after water enters your home, it is not entirely the responsibility of your water provider to ensure safe levels of lead in the water from your tap. Your PWS does have to ensure that the water it provides is not corrosive enough to leach lead from home plumbing. Ultimately, however, it is the homeowner's responsibility to replace lead pipes and the PWS does not have to test every home.

The only way to know whether there is lead in your water is to test the water at your tap. Relatively inexpensive home testing kits are available at many hardware stores and many county and city environmental health offices.

There are requirements for PWSs to prevent lead contamination under the Safe Drinking Water Acts. The legal limit (called an Action Level) for lead in drinking water is 15 ppb. This means that PWSs must ensure that water from the customer's tap does not exceed this level in at least 90 percent of the homes sampled. If water from the tap does exceed this limit, then the PWS must take certain steps to correct the problem. PWSs must also notify customers of all violations of the standard. For more information on lead monitoring and reporting requirements, see the first part of the *Legal Reference Guide*.

The good news is that filters that take out lead are often relatively cheap. For more information on certified treatment devices for your home, see **http://ww2.cdph.ca.gov/certlic/device/Documents/WTDDirectory2008/Section6E.pdf** or call DPH at (916) 449-5600. DPH updates the list of certified devices every spring, so check for updates at **http://www.cdph.ca.gov/certlic/device/Pages/watertreatmentdevices.aspx**.

Keep in mind that lead poisoning can occur from many sources, not just drinking water, including exposure to old lead paint and contaminated soil. Most county environmental health departments will conduct investigations to help determine the source of lead when a child has been found to have lead poisoning.


Photo by ERIN LUBIN

What can I do if my water is unsafe to drink?

If your tap water is not safe to drink, you should immediately find a short-term alternative water source (such as bottled water or an in-home filter). Boiling water may kill things like bacteria and pathogens, but often concentrates other contaminants (such as arsenic and nitrate), making those problems ***worse***. The *Community Health Guide* later in the Guide provides more information on the causes and health impacts of common drinking water contaminants and how you can reduce exposure to high levels of these contaminants from tap water in your home.

You should also find out why your water is unsafe and make sure that your water system is working to secure a long-term solution. Ultimately, you have a right to safe water and should ensure that you don't have to pay twice for water or be exposed to unsafe contaminants.

How can I quickly get safe water in my home?

Should I buy an in-home water treatment device?

Many times, the most cost-effective short-term solution is installing a water treatment device in your home. Depending on the type of device that you need, prices can range from $30 to $400 or more for a treatment device on or under your sink. This can be much cheaper than paying for bottled water over time. However, it is extremely important that you choose the right treatment device that is ***certified*** to remove the exact contaminants in your water, and that the device is ***properly installed and maintained***. If you do not change the filters in the treatment device regularly, for example, contaminants may build up and release bursts of extremely high levels, causing much more serious exposure. Also, keep in mind that these water treatment devices only work on the sinks where they are installed, so they will not reduce exposure in the shower, for example. Some devices are available to filter water for the whole home, however these are much more expensive.

How do I know which water treatment device to buy?

Because different kinds of treatment devices take out different contaminants, you first have to know what is in your water. (See the previous section for more information on how to find this out.) Once you know exactly what contaminant is making your water unsafe, find a treatment device that is certified to reduce or remove that specific contaminant. If you have high levels of more than one type of contaminant in your water, look for devices that are listed as certified under all those contaminants. A full list of approved treatment devices is available for each contaminant at **http://www.cdph.ca.gov/certlic/device/Pages/watertreatmentdevices.aspx** or by calling the California Dept. of Public Health at (916) 449-5600.

Box 1.8 - A Warning about Vended Water

Water vending machines are common in California. They're found in front of, and sometimes inside, almost every grocery store. Vending machines are connected to a tap water line, and use multiple filters to cleanse the water. The water is then dispensed to paying customers who bring their own container.

If you have health concerns about your drinking water, vended water is ***not*** a solution. Water vending machines are designed to remove secondary contaminants – those affecting the flavor and smell of the water only. In fact, the machines are only tested for one health-based contaminant – coliform bacteria – once every six months. So relying on vended water to reduce your intake of primary, health-based contaminants like arsenic or nitrates, is not a good idea.

Vended water is a good alternative if

- you are trying to improve the taste or smell of your water, and
- you are unable to use a filter for your own tap water.

For instance, if your water is high in minerals, or tastes strongly of chlorine, the filtration process in the vended water machine can really improve the taste of your drinking water. Just remember that it is likely less expensive in the long-run to install a filter on the tap in your home than continue to pay for vended water.

Vended water is not always a good option. Do **NOT** use vended water if

- the local PWS's water has a contaminant over legal limits; or
- the machine does not list its last date of service (cleaning) or if the last service date is more than a month old.

It is ***illegal*** to operate a vended water machine if the tap water feeding it is in violation of a drinking water standard. So if your community's drinking water is not drinkable, neither is the vending machine water.

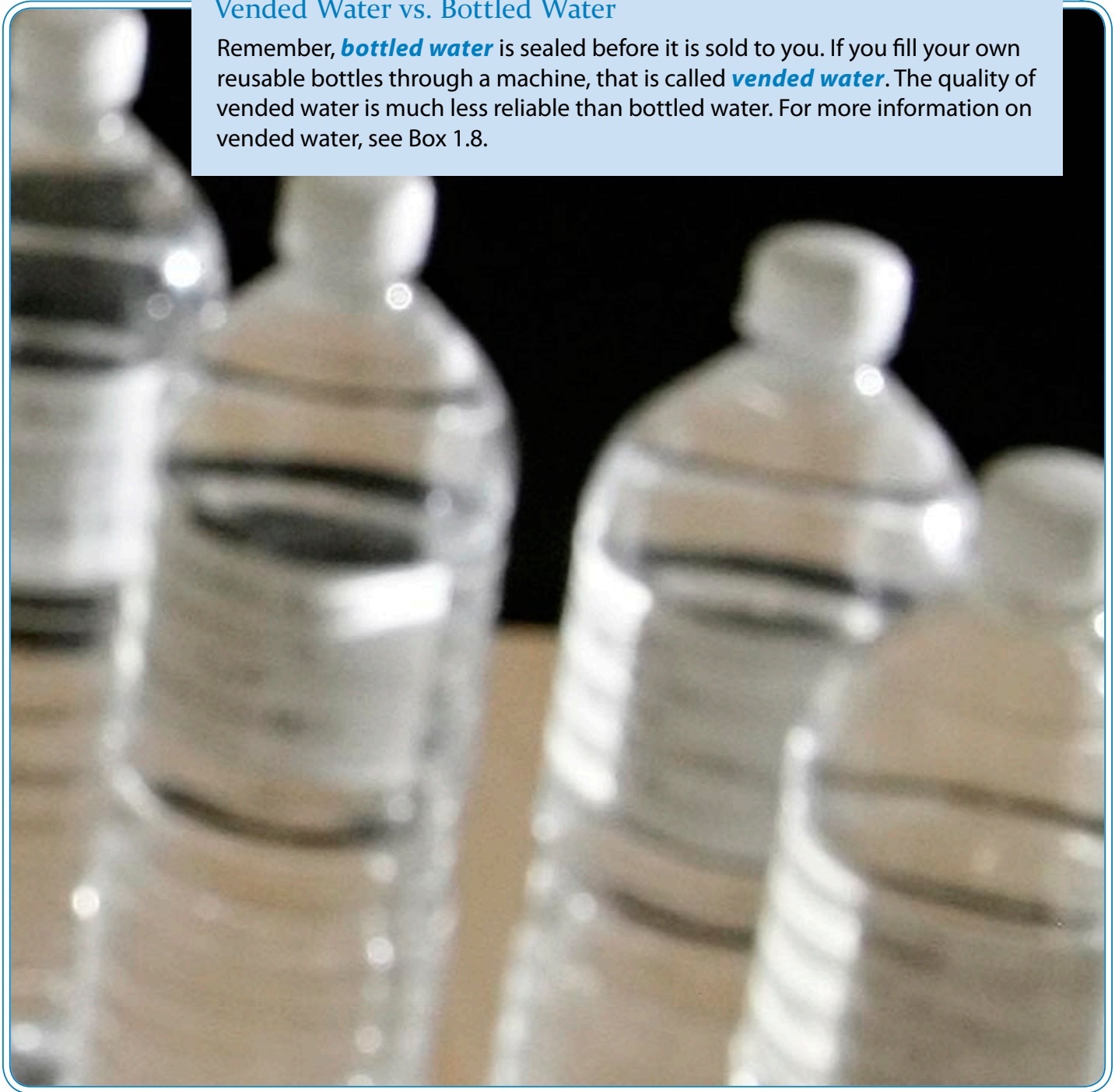
Vending machines also require regular maintenance. Filters need to be changed regularly, and the dispenser needs to be cleaned, as bacteria tend to form at the spigot. Under a law enacted January 1, 2008, machines must be maintained at least monthly, and the last service date must always be posted on the machine. That same law, SB220, requires that information on the machine must be posted in both English and Spanish, and that two phone numbers – one for the machine operator, and one for DPH – must be posted on the machine for customer questions or complaints. If you're concerned about the water coming out of your machine, call DPH to come out and inspect the machine.

Should I buy bottled water?

Bottled water may be a good short-term solution when your tap water is contaminated, but it can be very expensive over time. Keep in mind, however, that although all bottled water companies must have a license from DPH's Food and Drug Branch, there are actually fewer legal requirements for testing bottled water to ensure that it is safe than there are for your tap water. There are also many environmental concerns about bottled water, including the amount of oil and water it uses, as well as the amount of waste it generates. Other concerns have been raised about chemicals from the plastic bottles being released into the water. For more information on the concerns about bottled water, see **http://www.nrdc.org/water/drinking/bw/bwinx.asp**. Additionally, it is often impractical to use bottled water for things like cooking, making juice or ice, and washing dishes. Therefore, bottled water may not be your best alternative.

Vended Water vs. Bottled Water

Remember, ***bottled water*** is sealed before it is sold to you. If you fill your own reusable bottles through a machine, that is called ***vended water***. The quality of vended water is much less reliable than bottled water. For more information on vended water, see Box 1.8.



How can I make sure our community has safe water?

It is your PWS that is responsible for providing safe drinking water. However, you may need to work with your PWS or with your own community group in order to make this happen.

First, you should make sure your PWS is doing everything it can to either find a new source of water that is safe, or to treat its current sources of water so that it can provide you safe water reliably over the long-term. (See below for more information on how to hold your PWS accountable.) Whenever possible, try to work with your water provider. Your water provider should have the same goal as you, to secure safe, clean, and affordable water. Working cooperatively together to secure outside funding and protect water sources can be more effective than fighting against the provider. A list of funding sources for PWSs to fund construction of a new well or treatment system is available in *Appendix 1*.

Additionally, find out what is causing your contamination problems. Often, contaminants, such as nitrate, are caused by human activities and pollution near your water source. See the *Community Health Guide* later in this Guide for a list of the sources of common drinking water contaminants. Ask your water system for its source water assessment, which identifies potential polluting sources in your area. (See Box 2.4 for more information on source water assessments.) Urge your water system to investigate the source of pollution and make the *polluter* pay for a new source or treatment, rather than the customer. Ask your Regional Water Quality Control Board what it is doing to protect the sources of your water from continued or future contamination. See *Appendix 1* for a list of advocacy organizations that may be able to connect you to other communities facing similar sources of pollution. The following sections give you more tools and ideas on how to hold your PWS accountable and advocate for safe water in your community.

Using Petitions

One powerful tool you can use to influence local water boards is a petition. Petitions take many forms and can refer to many different types of documents. Most commonly, petitions are documents that state a position or ask for a certain outcome for which groups collect signatures from supporters. Individuals or community groups can use a petition to show local water boards or other decision-makers that they have widespread support for a particular position or action. These kinds of informal petitions do not need to be in any particular format.

In order to create your own petition, write down clearly and concisely what you want and why you want it. Then collect as many signatures as possible from other members of your group and the public. Present the petition at a local water board meeting to show that there is widespread support for your position, even if all those who signed cannot attend the actual meeting.

Box 1.9 - Working with the Press

The press can be an important tool for community drinking water advocacy. Newspaper, radio, and TV coverage of your struggle with your local water board can put pressure on them to do the right thing. Additionally, press coverage can help get your message out to the wider public and build support for your cause.

Steps to work effectively with the media:

1) Create your message

Before you contact press, you should decide what your or your group's message is. To create a message, write down the problem, your solution, and why it is important in one to three sentences. Keep it short and simple. This message will help you and your group be effective speakers and stay on message when you communicate with the press.

2) Develop a press event

Generally when you contact press, especially TV, you should have some kind of event or place to invite them to. A press event can be a protest outside the board's office, a water board meeting in which an important vote will take place, or a meeting you hold just for press (also called a press conference). The purpose of an event is so that you can show the problem to reporters (give them good visuals) and make it easy for them to cover your story.

You may want to have press come to a board meeting so that board members know that their statements and votes may be publicized in the newspaper or on TV. You may also want to hold a press conference before the meeting so that you have a chance to share your message with reporters and answer any questions they have. These kinds of press conferences should be short and no more than 3 people should speak, followed by an opportunity for reporters to conduct interviews individually. Think through who would be the best people to deliver your message. Direct reporters to talk with those people that are prepared to deliver your message effectively.

Whether you are doing a press conference or just inviting press to an important meeting, decide on a place, time and location to invite them to before you call press. Whenever possible, hold your event in the morning when press have more time and are not rushed to finish a story for a 4 pm deadline.

3) Contact Press

Make a list of media outlets (radio, TV, and newspapers) that reach the type of audience that you want to target. If you want to influence your local community water board, think about what stations or newspapers are most likely to be watched by people in your community. Often that will include media in both English and non-English languages. Look up the numbers for those stations and call to invite them to your press event.

Box 1.9 - Working with the Press *Continued*

When calling press, briefly introduce yourself, give your prepared message that describes the problem and why it is important, and invite them to your press event. Be ready to give them all the details on the event and your contact information so that they can follow up with questions later.Generally, it is best to start contacting media about 4 days in advance, but either way you should contact them the day before or the day of the event to remind them and confirm whether they will be able to come.

4) Deliver your message

If you have invited press to an event, make sure you greet them and introduce yourself and tell them what will be going on. Whenever you speak to press, be sure to start and end with your message and keep things short. Understand that reporters will always try to include statements from both sides so be prepared to provide a one sentence response to the other side's position.

Photo by Tracy Perkins

The reporter will only choose a short statement to use in the final story, so try to stick to short strong statements with your message. If you don't know the answer to a question, make sure you say that you don't know, rather than giving incorrect information. Remember that exaggeration only makes everything else you say look less credible. Be sure to find out when the story will be published or aired and ask for a copy.

5) Follow-up

Once you have put in all that work, make sure you watch any story or program that covers your event. Often after a story airs on one station, others become interested, so be prepared to follow-up your event with additional interviews. You can also learn a lot by seeing how your message came through in the final story that was printed or aired.

For more information and assistance with working with the press, contact one of the advocacy organizations listed in *Appendix 1*. Additionally, organizations such as the Center for Media Justice and the Media Alliance specialize in helping grassroots groups use the media to organize for social justice issues. You can contact them by phone or through their websites at:

Center for Media Justice (Oakland):
(510) 444-0640
www.centerformediajustice.org

Media Alliance (Oakland):
(510) 832–9000
www.media-alliance.org

How can I hold my PWS accountable?

Who is my water provider and what laws apply?

While the Safe Drinking Water Acts apply to all PWSs, the laws that govern how decisions are made, and what rights customers have, generally depend on the type of entity that your PWS is. There are two primary types of water providers that are PWSs – governmental and nongovernmental entities. Usually the name of your water provider indicates the type of entity it is – *i.e.*, Orosi Public Utility District is a public utility district or the City of Lindsay is a city.

In general, governmental entities, such as cities and special districts, all must meet certain laws, such as the Public Records Act, the Brown Act, and Proposition 218. In contrast, nongovernmental entities, such as private companies and mutual water systems, are not subject to those same requirements and are governed by their own bylaws. Private water utilities are also subject to rules under the Public Utilities Commission (PUC). For more detailed information on the laws governing your system, including those laws listed in Box 1.11, see the second part of the *Legal Reference Guide*.

Box 1.10 - Determining the Type of Water System You Have:

Check the name of your PWS on your monthly water bill and try to match it to one of the following:

Governmental Entities:	Nongovernmental Entities:
Community Services District	Private Companies
Public Utilities District	Mutual Water Company / Association
Cities and Counties	Cooperatives
Municipal Water District	Private Water Utilities*
County Service Areas	Mobile Homes and Labor Camps
Public Schools	Restaurants & Private Schools

*Private water utilities often do not have that title in their name. For a list of regulated private water utilities, see **http://docs.cpuc.ca.gov/published/REPORT/48786.htm**, updated by the PUC.

Box 1.11 - What Laws Apply?

Laws:	Citation:	Governmental PWSs:	Nongovernmental PWSs:
California Safe Drinking Water Act	Cal. Health and Safety. Code §§ 116270, *et seq.*	YES	YES
Federal Safe Drinking Water Act	42 U.S.C.S. § 300g, *et seq.*	YES	YES
Brown Act	Cal. Gov't Code § 54950, *et seq.*	YES	NO
Public Records Act	Cal. Gov't Code § 6250, *et seq.*	YES	NO
Proposition 218	Cal. Const. art. XIIID.	YES	NO
Public Utilities Commission (PUC)	Cal. Pub. Util. Code. 2701, *et seq.*	NO	NO, except for Private Water Utilities*
Bilingual Services Act	Cal. Gov't Code §7291, *et seq.*	YES	NO
The California Civil Rights Act	Cal. Gov't Code §11135, *et seq.*	only if receives state funding	only if receives state funding
The Federal Civil Rights Act (Title VI)	42 U.S.C. 2000d, *et seq.* (Title VI).	only if receives federal funding	only if receives federal funding

*Private water utilities often do not have that title in their name. For a list of regulated private water utilities, see **http://docs.cpuc.ca.gov/published/REPORT/48786.htm**, updated by the PUC.

For more information on the laws listed here, see the second part of the *Legal Reference Guide*.

How do I get public records from governmental entities?

Whether you are looking for monitoring data, financial information, or any other public record, your right to inspect documents or get information from your PWS depends on the type of water provider you have. If you are served by a governmental entity, the California Public Records Act gives you the right to inspect most records of any local or state agency.

How do I request a public record?

To request something under the Public Records Act, write a letter to the local or state entity and start the letter using the phrase: "Pursuant to the Public Records Act, Government Code § 6250, *et seq.,* I request _____." Make sure you clearly state all records or documents that you would like to review. A sample template letter you can use to request public records is included in *Appendix 3*. If you want copies, make this clear in your letter, but keep in mind that the agency or district may charge fees for this service. Otherwise, it is always free to inspect records at the office. Inspections should be allowed anytime during regular business hours, but the agency has 10 days to decide if they can provide copies. An agency may take an additional 14 days if the request is complex or includes a large number of documents. To learn more about the Public Records Act, see the second part of the *Legal Reference Guide*. A handout on the Public Records Act is included in *Appendix 2*.

Remember that you have the right to request information in a language other than English (see Box 1.6).

How can I participate in meetings of governmental entities?

PWSs that are governmental entities (such as community services districts or cities) generally have a governing board that makes policy decisions and holds regular monthly meetings. All meetings of such local governing boards are subject to the Brown Act, meaning that an agenda of what will be discussed at each meeting must be posted in a public location, all documents presented to the board must be made available to the public (unless exempt under the Public Records Act), and the public must be able to participate.

Under the Brown Act, any member of the public has the right to attend and give public comment at board meetings, except during "Closed Session." If you want to address the board on any issue related to the business or power of the board, the board must allow you to do so. Generally, boards hold a "public comment period" at the beginning or end of a meeting where anyone can address the board on any issue that is related to the powers and business of that board. Because this is often held at the beginning of the meeting, it is important to check the agenda and arrive on-time to meetings so that you don't miss your opportunity. Additionally, the board should allow any member of the public to speak on any agenda item. However, for efficiency and time considerations, the board may set rules regarding the length of time allowed for public comments. For more information on the Brown Act, see the second part of the *Legal Reference Guide*. A handout on the Brown Act is included in *Appendix 2*.

How can I get interpretation at meetings?

If you need an interpreter to participate at a meeting, you have the right to request that the board provide that service. It is a good idea to contact the agency ahead of time to give them time to make arrangements for interpretation services. However, the agency cannot discriminate against you or withhold equal rights to services, information, or due process because of a language barrier. If many people in your community do not speak English, it is a good idea to ask the board to set language access policies to provide regular interpretation and translation services. See Box 1.6 for an overview of language access rights.

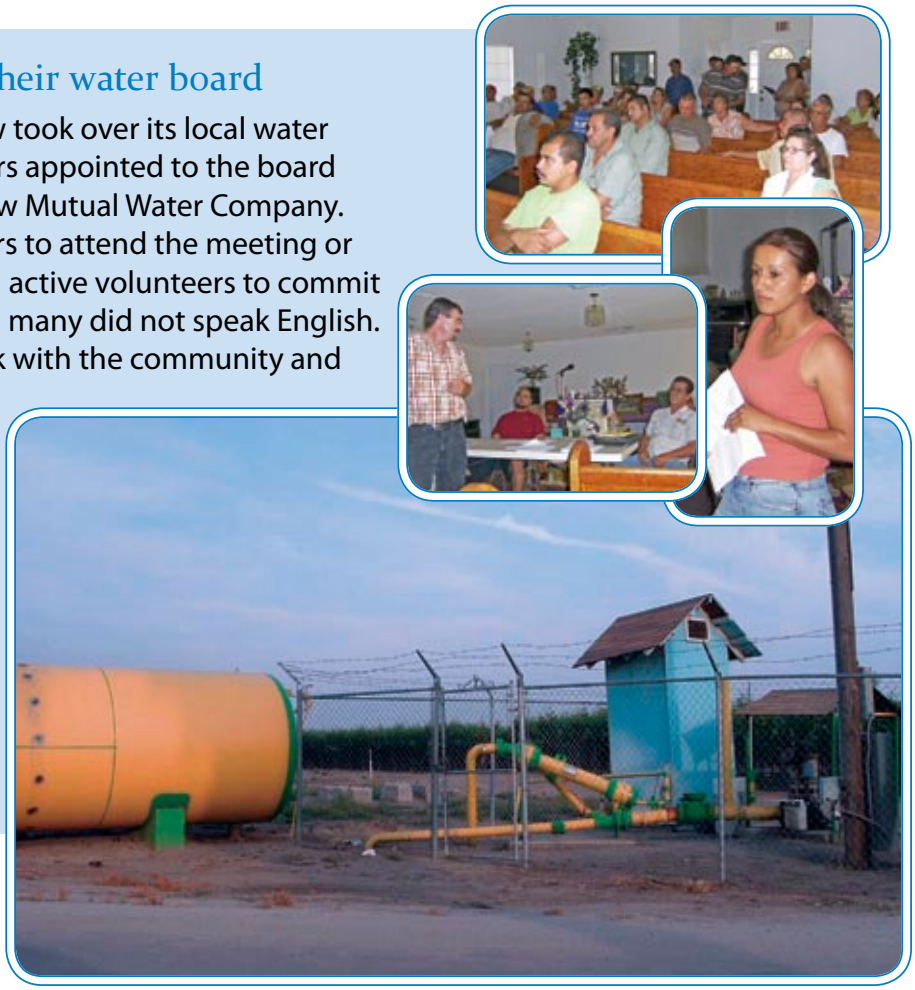
How can I get on my local water board?

Each type of entity has its own rules regarding who can serve on the governing board, how board members are appointed or elected, and how they can be removed. To learn about out the rules governing your PWS, see the second part of the *Legal Reference Guide*.

Frequently, small local water boards have vacancies waiting to be filled. To find out if there are vacancies or when the next seat is open for elections, call your local water board. If your PWS is a governmental agency, you can call your County Elections Office for information on who serves on your board, if there are vacancies, when the terms of your board members are up, and how to get appointed or on the ballot so you can run for a seat yourself.

Plainview residents take over their water board

A local community group in Plainview took over its local water board by getting seven of its members appointed to the board at the annual meeting of the Plainview Mutual Water Company. The group organized to get supporters to attend the meeting or submit votes by proxies, and solicited active volunteers to commit to serving on the board, even though many did not speak English. The new board has continued to work with the community and nonprofit organizations to ensure that money is properly spent and accounted for and the board's business is transparent and open to the public. The board has overseen the receipt of a state grant and is currently bringing a new well online and replacing the old distribution system.



What can I do if my water is being or has been shut off?

If your water is about to be or has been shut off, contact your PWS to find out why and ask for a copy of the shut-off or water termination policy. If the shut-off is for failure to pay for water service, your PWS must give you adequate notice and an opportunity for you to dispute the charges before shutting off the water. Your PWS should have a written policy governing late payment penalties or termination of service. Often times these policies allow for customers to set up a payment plan if you cannot pay the full charges all at once. (See *Appendix 3* for sample termination policies for a small mutual water company.) The policies should also set out the process allowing you to dispute the charges or ask for an exception. If your PWS is a governmental agency or a mutual, you can ask to be placed on the agenda at the next board meeting to present your case to the board. Water service should not be turned off before you have had an opportunity to dispute the charges. There may be additional rights or restrictions regarding water shut-offs for different types of PWSs and emergency situations. Contact a local legal services organization (see *Appendix 1* for a list) if you need legal assistance.

What if my landlord is supposed to pay for water?

Generally, it is the landlord's responsibility to pay for water service to the property, although the landlord may contract with the tenant for the tenant to pay directly. If you are a tenant and do not have your own account with your PWS, you should still receive a notice from your PWS before your water is shut off. Although it is ultimately the landlords' responsibility, in an emergency situation you may be able to pay the charges directly and deduct that amount from your rent in order to avoid having water service terminated or to reinstate service.

If you are in this situation, contact a local legal services organization immediately and be sure to clearly document the problem (see *Appendix 1* for a list of legal services organizations). Willfully causing a tenant's water to be shut off, meaning the landlord intended for his or her actions to shut off the water (including non-payment), is a violation of the law.[17] The court can order the landlord to not only reinstate the service, but pay damages suffered and a statutory penalty of up to $100 per day. The actual penalty amount is up to the judge, but the minimum must be $250.00.[18]

What can I do if my water provider is raising the rates?

The laws that restrict a PWS's ability to raise water rates vary depending on the type of PWS. To find out what type of water provider you have and which laws apply, see Boxes 1.9 & 1.10. If your PWS is a governmental entity, California Proposition 218 (Prop. 218) applies and there are strict requirements that your provider must follow before raising the rates. For detailed information on Prop. 218 and how to challenge rate increases through that process, see the second part of the *Legal Reference Guide*. If your PWS is a mutual, your only recourse is to convince the board not to raise rates or to elect new board members at the annual election. If your PWS is a private water utility, the rate increases must go through a process set by the Public Utility Commission (PUC). For more detailed information on private water utilities, the PUC, and rate increase procedures, see the second part of the *Legal Reference Guide*. For all other types of nongovernmental entities, such as mobile home parks or apartment houses, there may be general consumer laws or contract laws that could apply if rates jump to unreasonable levels, so contact a legal services organization if such a situation arises. Additionally, mobile home customers may file a complaint with the PUC regarding rates charged or services provided. To file a complaint with the PUC, go to **http://www.cpuc.ca.gov/puc/forms/Complaints/** or call (800) 649-7570.

Learn From Others:
Community Advocacy at Work

Ducor, CA – Dealing with an unresponsive water board and secondary contaminants

Ducor is a small, unincorporated community of about 600 people, mostly Latino, in California's rural Tulare County. A young mother in Ducor was worried that the water coming out of her tap, which was black and smelled like sewage, was making her children sick. She and other Ducor residents were also concerned because the governing board of the local water provider, the Ducor Community Services District (DCSD), refused to acknowledge that there was a problem. With the assistance of a local nonprofit organization, she hosted a community meeting in her home, where two-liter bottles of the black tap water smelling of rotten eggs were passed around. A number of other women present at the meeting told stories of trying to attend the water board's meetings, only to find out that the meeting had been cancelled because the board was scared of customers attending and complaining.

Photo by ERIN LUBIN

Over the next few months, Ducor community members attended training workshops on their rights to safe drinking water as well as on how to hold their water provider accountable. They formed a community-based organization, Si Se Puede en Ducor, and elected a spokesperson, Ruth Martinez, to be the primary contact to communicate with media representatives from the radio, television, and newspapers.

Si Se Puede en Ducor members tried to bring complaints to the local water board, but unfortunately, the board cancelled its meetings month after month, all summer, without notice. Undeterred, the community group decided to fill out written complaint letters, since they were unable to voice their concerns in person. Members of the group collected about 30 complaint letters and sent them to the DCSD, the county regulators, and the state Department of Public Health (DPH).

Si Se Puede en Ducor also enlisted local Spanish-language newspapers and radio to put pressure on the water board to hold a public meeting. Once the DCSD finally held a public meeting, the community group brought copies of its members' complaint letters and presented them to the board. Many residents attended and voiced their concerns about the water they were being provided. The DCSD Board President promised to hold a public meeting with the county's health inspector in order to discuss the problems and possible short-term solutions.

Meanwhile, the community reviewed the test results reported in their Consumer Confidence Report. The CCR revealed that the water system was in severe violation of a state law setting a secondary maximum contaminant level (MCL) for odor in public drinking water systems.[a] Because odor was above a secondary MCL and the community had submitted complaint letters, the DPH district office ordered the county to investigate the odor problem.

After notifying the DCSD, the county health inspector came out to the community and conducted additional testing at approximately 40 homes. Because the board was given advance warning of the inspection, the operator of the system was able to flush the lines and add enough chlorine that the smell and color problems were no longer higher than the secondary MCL when the inspection took place. So it turned out that the color and odor problems were solved by instituting better operational practices, such as cleaning the tank, flushing the lines, and ensuring that the system was adequately chlorinated.

Because Si Se Puede en Ducor was concerned that the same problems would repeat themselves, the group encouraged one of its members to join the governing Board of the DCSD. Ruth Martinez, the group's spokesperson, was appointed to a vacant seat and serves on the board today.

a California's secondary MCL for odor is 3 units, but a water sample revealed that DCSD's water contained 40 units of odor.

Tonyville, CA – Getting information in Spanish and finding a year-round safe water source

Tonyville is a community of approximately 400 farm workers, most of whom are primarily Spanish-speaking. Tonyville is about a mile from the City of Lindsay. Residents are served water by the Lindsay-Strathmore Irrigation District, which usually provides treated surface water from the Friant-Kern Canal. However, during the few months each year when the canal does not have surface water, the community must rely on its own groundwater wells, both of which are contaminated with nitrate above the MCL, and now may be contaminated with perchlorate.[b] Residents have also received notices that disinfectant byproducts, such as trihalomethanes, have been detected over legal limits in the water supplied from the surface water treatment plant.

A number of families were concerned about their water and did not know how to find out if their water was safe. The emergency water notices that arrived to the houses were only in English so the many Spanish-speaking households were not sure what the notices were saying. No one remembered receiving Consumer Confidence Reports nor did they know where their drinking water came from.

After a number of meetings in the yard of a local church, the group created a community association called La Voz de Tonyville, and wrote a letter to the water provider requesting copies of the most recent source water assessment and Consumer Confidence Report in both English and Spanish. The system provided a Consumer Confidence Report in English and Spanish and the group began to learn that the system regularly relied on nitrate contaminated wells for the months of the year that surface water was not available.

The group then enlisted the help of a local non-profit advocacy organization, which wrote to the Department of Public Health (DPH) requesting information on why the system was regularly allowed to provide unsafe water. The DPH issued a Cease and Desist Order to the Lindsay-Strathmore Irrigation District, requiring them to develop a safe year-round supply and not continue to rely regularly on contaminated wells. The system is currently developing a storage facility for the community to ensure that a reliable supply of surface water is available year-round.

b For more information on nitrate, see the section on Nitrate in the Community Health Guide later in the Guide, and Box 2.2. For more information on perchlorate see Box 2.3.

Orosi, CA – Fighting discriminatory water ordinances and ensuring water board accountability

Orosi is an unincorporated community in northern Tulare County with approximately 8,000 residents. The community is located less than a mile from two other smaller communities -- Cutler (approximately 5,000 people) and East Orosi (approximately 500 people). Most of the residents in the area are Latino farmworkers, who work in the surrounding agricultural fields or packing houses.

In 2005, the Orosi Public Utility District (OPUD) enacted an ordinance which attempted to charge "capacity fees" to households that the water district deemed to contain more than a single family. For example, a cousin living with her aunt was not a single family, nor was a brother and sister living together, regardless of the number of people in a home.

Furthermore, the district's correspondence and the meetings in which these policies were decided and announced were not translated into Spanish, despite the fact that most residents speak primarily Spanish and only limited English. (However, the questionnaire asking people for information on who lived in their home was translated into Spanish, which residents only later found was used to enforce these "capacity fees.")

Many residents were frustrated and scared as the district threatened to issue a warrant to inspect people's homes. A number of residents began organizing meetings in their living rooms, and soon created Vecinos Unidos, a community-based organization founded and run by residents from Cutler, Orosi & East-Orosi, with the goal of improving community services for the area.

The group actively participated at local water board meetings and advocated for not only rescinding the ordinance, but also for language access policies to ensure that translation would be available for the mostly Spanish-speaking community to be able to participate in board meetings where such policy decisions are made. The group held large community meetings and used local Spanish and English-language press both to pressure the board to do the right thing, and educate local residents.

Today there is a language access policy in place at OPUD that provides translation and interpretation at meetings to allow the mostly Spanish-speaking community to participate effectively. The group continues to participate in water board meetings to advocate for fair policies and review financial documents to monitor where residents' money is spent. Vecinos has also worked extensively with the neighboring community of East-Orosi to persuade East-Orosi's local water board to resume holding public meetings and apply for funding to find a safe source of drinking water. Ultimately the group is working toward the goal of having all four systems in the local area (Cutler, Orosi, East-Orosi & the Orosi High School) share resources to cut costs and ensure a more reliable source of water for everyone.

Tooleville, CA - Setting up a mutual water company and getting money to fix water problems

Tooleville is a former labor camp in rural Tulare County, California, that is home to approximately 250 people, most of whom live below the poverty line. The tiny community is surrounded by orange groves and is a mile or two from the wealthier, predominately white community of Exeter. Tooleville has its own public water system, which delivers water from two wells to all of the homes in the community. Recently, some of the equipment (specifically, one of the well pumps and some of the distribution system) has begun to break down, and water tests have come back with illegally high levels of nitrate and bacteria.

Nitrate in water above the legal level set by the state and federal government can cause serious illness or even death, particularly for infants and pregnant women. Bacteria in water can make people sick and can be especially dangerous for infants and the elderly. Compounding the problem, people are told to boil their water to kill bacteria, but boiling water only concentrates nitrate contamination. Therefore, many residents must travel to larger cities to buy bottled water for their household needs. Mothers with infants have had to buy five-gallon jugs of bottled water just to bathe their children safely.

The County Department of Environmental Health wanted to help Tooleville come into compliance. However, Tooleville's water system was never incorporated into any kind of legal entity, so it was not eligible to receive government grants for system upgrades. With some assistance from local non-profit organizations, residents of Tooleville organized their community water system into a legal entity capable of receiving grant funds. After drafting Articles of Incorporation for the Tooleville Nonprofit Mutual Water Company, the newly-formed water company drafted and approved bylaws and established a governing board.[c]

Getting the bylaws passed was not an easy task, however. The community is 70% Latino, and half of the board members only spoke Spanish, while the other half only spoke English. The water system also relies entirely on fees from the local community, so with $20 in its account, it had to distribute notices of meetings and drafts of the bylaws to every resident in the system in both English and Spanish. The water quality problems also had caused distrust and divisions in the community. Heated arguments sometimes broke out during the meetings and at more than one the local Sheriff had to be called. Despite these challenges, however, the community did come together to approve a set of bylaws and has now received a number of grants and loans from the county, the state DPH and the United States Department of Agriculture's Rural Utility Assistance program to upgrade the distribution system and secure a safe source of drinking water.

c One of the roles of the board of a Mutual Benefit Water Corporation is to establish policies and rate structures. A brochure stressing the importance of these policies is included as Appendix 2.7, and sample bylaws, policies, and minutes are included as Appendices 3.4 - 3.8.

Maywood, CA – Investigating visible and invisible water contaminants

Maywood is sandwiched between four major freeways in a highly industrialized part of South East Los Angeles County. Maywood is densely populated with over 30,000 residents living within one square mile. The community is predominantly Latino with a large low-income, renter population. Maywood receives water from three different water mutual companies: Maywood Mutual Water Company Number 1, Number 2, and Number 3. The mutual companies serve mostly groundwater but also depend on imported supplies (about 30%) to blend and supplement during dry months of the year. The imported supplies come from the Metropolitan Water District of Southern California.

A large part of the region's groundwater aquifer was contaminated with Trichloroethylene (TCE), a highly toxic contaminant. While the mutual companies do not draw water from this aquifer, TCE has been consistently detected in at least one of their drinking water wells. Maywood also has a notorious manganese problem, and as a result the community regularly receives brown or black water. While this may not be a health threat, it renders their water undrinkable. While these are clear and persistent problems, the mutual water companies are unresponsive and deny the possibility that there is a problem with Maywood's water.

A Maywood community group, Comité Pro Uno, started investigating the problem and contacted allied groups to help them figure out how to obtain answers. The community partnered with a statewide non-profit organization to conduct independent water tests. While the test results confirmed the community's suspicions, the mutual water companies disregarded the tests, claiming that they were not properly conducted under State-certified protocols.

Courtesy of EJCW

The community used these results to approach the Department of Public Health to conduct additional water tests. Facing much community pressure, DPH agreed to conduct two rounds of water tests in a state lab. The first set of tests results came back with high levels of lead, mercury, manganese, and Di(2-ethylhexyl)phthalate and confirmed the presence of TCE. Despite the clear violation of the State's own standards, DPH denied the significance of the results, concluding that one sample was not sufficient to determine that there is a problem with Maywood's water. The community is still waiting for the second set of results but does not trust the government or the mutual companies to react to or act on the results.

Despite these roadblocks, the community is not giving up. Last year the community elected three activists to the City Council on a "clean water" platform. These three new council members are now exploring the possibility of adopting a city ordinance that will force the mutual water companies to install a filtration system and provide clear, clean water.


Courtesy of EJCW

Huron, CA – Using parent and community organizing to fix school drinking water concerns

Huron is a small city of approximately 7,000 people in Fresno County. Ninety-eight percent (98%) of Huron's residents are Latino farm workers with very limited English speaking skills. Huron forms a unified school district with the city of Coalinga, a more ethnically mixed community that lies on the opposite side of Highway 5, about 15 miles west of Huron. Students of the Coalinga-Huron Unified School District who live in Huron attend elementary and middle school in Huron; once they reach ninth grade, they are bused over to Coalinga High School.

Residents of Huron have long voiced concerns over water quality at the Huron Elementary School. Parents worried that the discoloration and the visible debris in the school water could potentially harm the health of the students.

Courtesy of LIF

Huron parents learned of a new legal process, established as a result of the settlement of a 2004 lawsuit against the state of California (called the *Williams* settlement), through which they could file a complaint against the school district.[d] The Williams settlement led to the establishment of a uniform complaint process for parents and community members to force education officials to address concerns about conditions in public schools. In January 2007, the parents invited two nonprofit organizations to conduct trainings on the Williams complaint process. Through these trainings, parents learned how to use the complaint process to ensure that all students have equal access to instructional materials, safe schools, and qualified teachers. The trainings eventually led to a community effort in which parents and other concerned residents began working to create a safer academic environment for the students of Huron Elementary. This effort eventually developed a community group, known as Padres Unidos, Mejores Escuelas (Parents United for Better Schools, or PUME).

d The original lawsuit was called Williams v. The State of California, but the case was never decided because the parties settled the dispute outside of court. The California state legislature has since passed legislation implementing the terms of settlement agreement, including a uniform complaint process, which is now binding on all public schools.

From January to March of 2007, PUME members started conducting school site inspections, which included working with an EPA-certified laboratory to test the drinking water at Huron Elementary School. Water samples were taken both from the point of entry (*i.e.*, from the water source, at the point where the water enters the distribution system) and from the point of use (*i.e.*, the school water fountains, where students come into contact with the water). Results showed that iron, lead, and trihalomethane levels increased as the water traveled through the school's water distribution system, validating the parents' longstanding concerns with the water quality.

These results along with 74 other complaints on issues ranging from poor and potentially harmful school infrastructure to teacher misassignment were submitted to school and district staff during a press conference[e] held on March 13, 2007. PUME members were also active in providing testimony during school board meetings, arranging for private meetings with the District Superintendent, and writing letters expressing their concerns to the California Department of Education.

After receiving the 75 complaints, school officials responded positively and began to address a majority of the parents' concerns, such as replacing old, dilapidated water fountains with newer ones, and fixing broken windows. The water quality issue, though not fully resolved, has improved. PUME parents continue to press for further improvements, and county health officials have now gotten involved in the process. The school district has applied for funding created by the *Williams* settlement as well as for city money to cover the cost of replacing the school's plumbing infrastructure.

e For more information on how to hold a press conference, see Box 1.9

A.G.U.A.

Organizing to address regional challenges

While your PWS is responsible for providing safe drinking water, there are a number of challenges that your local board cannot solve alone. Problems like widespread groundwater contamination or lack of infrastructure funding for small communities often require the work of regional, state, or federal agencies to address. In fact, many of the root causes of the problems we see at the local water board level are the result of the failures of regional, state and/or federal agencies to act. By connecting with other communities facing similar problems and advocating together at the regional and state levels, you can build significant power to address these root causes and create more lasting change for your whole region.

This is precisely why AGUA – *la Asociación de Gente Unida por el Agua* (the Association of People United for Water) – was founded. In early 2006, 50 residents from 12 different impacted communities and 4 nonprofit organizations in Tulare County convened a meeting to discuss local water challenges. It became clear that many communities faced similar problems, including widespread nitrate contamination. It also became clear that the root causes of these problems could only be addressed regionally, rather than on a community-by-community basis. The group decided to form a coalition to provide a unified voice for systemic water quality improvement throughout the Central Valley.

Since then, AGUA has become a vibrant network of informed community residents and nonprofit organizations. It is a growing political force around water in the Central Valley. AGUA member advocacy has pushed water quality impacts on rural, low income communities onto the radar of the Regional and State Water Quality Control Boards, county governments, and state agencies. This coalition of concerned water advocates, residents, and local water board members also shares experiences, information, and expertise, and provides support to neighboring communities on various individual community water challenges.

After some research, AGUA members learned that more than 20% of small public water systems in Tulare County were unable to provide safe drinking water due to nitrate contamination of wells. They also learned that most of the major sources of nitrate in the area (fertilizer application in fields, large dairies, and feedlots) did not have to meet any groundwater protection permit requirements from the Regional Water Quality Control Board to operate. As a result, AGUA began attending Regional Board meetings, participating in public workshops and hearings, and garnering media attention for the need to establish permits with effective groundwater quality protections for these major industries.

As a direct result of these efforts, the discourse of the Regional Board has changed to include an emphasis on groundwater protections, particularly around domestic wells. While actual changes to permit requirements remain inadequate in many areas, there are now much stronger groundwater protection requirements for the 1600 existing dairy facilities in the region and a program is being developed to address groundwater contamination from irrigated agriculture.

AGUA now works to ensure that this progress continues, as well as to educate state and regional officials of the impacts that their decisions have on the lives of local residents. For example, they recently helped organize a tour of affected communities for State and Regional Board members and staff and have testified in many legislative hearings. While the group relies to some extent on the support of non-profit advocacy organizations, it is governed, directed, and run entirely by residents from impacted communities and local youth.

To learn more about AGUA or find out how to get involved, contact Susana De Anda, the acting Coordinator, at (559) 733-0219.

Tips for Concerned Residents

By Horacio Amezquita
San Jerardo Cooperative


Courtesy of EJCW

1) If you are having health problems that you think may be related to contaminated water, talk with your neighbors to see if they may be experiencing the same problems. In San Jerardo, many of the residents had health problems for a long time, but they did not talk about their illnesses with each other. Their doctors did not know why they had skin rashes and red spots on their skin and had not linked it to contaminated water until some of the women came to the board of directors and exposed their problem.

2) Encourage others to get involved, learn the root causes of the contamination problem, and confront public officials together. The community must unite in order for their voice and effort to be heard by public officials. They must attend public meetings when the matter concerns their community and be willing to sacrifice some of their time for the well-being of their community.

3) If your water provider is not responding to the community's needs then it is necessary to search for a different way. Ask for help from other sources, such as the county Environmental Health Department, the County Board of Supervisors, legal services organizations like CRLA, non-profit organizations like EJCW, local newspapers, or any other agency where help may be obtained.

Get Organized:
Creating Community Organizations

All of the communities highlighted in this Guide have organized members of the community into formal organizations. Before starting to address drinking water problems in your own community, consider gathering support and forming an organization to address the challenges in your community.

How can I organize a group to address water problems in my community?

No matter what the water problem is in your community, chances are you are not the only person concerned about your water. There are three basic steps to start organizing a community group to address local water issues:

1. Start by talking to your neighbors or other people that may be impacted by the problem and inviting them to a meeting at your home or another comfortable location to discuss the situation. Listen to their concerns and experiences regarding the water and share your own.
2. Next, talk about what you want to see changed and improved in your community. You can make a list of your collective concerns and the questions you may have as a group.
3. Finally, suggest that together you have more power to make these changes and ask if anyone is interested in working with you to address the issues the group has identified.

Once you have a core group of at least few people, you can start prioritizing and delegating duties. Set up more meetings with the group to report back on what you have learned and plan your next steps. Continue to talk to more people and invite others to find more people that may be interested in joining the efforts. You don't need a large number to make change. Often a small group can build momentum within the community by holding a press conference and calling attention to the problem and the group's efforts to address it. Soon other people will want to be part of the movement for change.

Your new community group may want to start by asking questions at your local water board meetings, such as what is being done to solve the problem. Remember that water boards need to follow specific procedures and laws, which vary depending on the type of water provider you have. Use this Guide as a reference to understand the laws that govern your water board and hold them accountable. You can always call CWC if you have questions or want to request a training. Remember that as an organized group you increase your power to achieve water justice.

GANAS

Guiding Principles for Rural Community Organizing

By Susana De Anda
Co-Executive Director, Community Water Center

Ganas (Motivation to Act): Motivation needs to be transformed into action. People are ready for change and will act given good information and the opportunity. It's important to build hope, but not give false expectations. People need to see concrete actions and commitments in their own community to be an active part of larger movement for change – it's about building the base for the bigger picture. Remember that everyone in a community already has unique skills so everyone is capable of making change.

Aprender (Learn): Give people information to connect individual problems to the larger vision. Give people an opportunity to learn from each other and recognize their own skills and sharpen them. Flexibility is a crucial component in rural community organizing because each community is different. Therefore, it is important to make time to reflect and evaluate as you create and implement a strategic campaign. At the end of the day, when we know more we can ignore less.

Negociar (Negotiate): Building ongoing relationships is just as important as creating and implementing a strategic campaign. Strive to build respectful relationships within the community group, as well as with potential allies and other organizations. Good relationships will provide more ideas, information, resources and support for your efforts. Community organizing is about negotiating for change, working proactively to make things better, and not just complaining about the problem. Remember to make time to interact and develop strong relationships within the community group.

Acción (Action): Create a collective strategic campaign focused on actions and tangible results. Goals and actions must be created collectively in order for all group members to feel engaged and continue to support the campaign. Campaigns should focus on one tangible victory in the community to gain trust and momentum toward changes. Always bring the action back to larger vision and offer leadership, while also giving opportunities and support for others to lead.

Seguimiento (Follow-through): Check-ins by phone and in person are important ways to have consistent follow-through, both to implement a strategic campaign and to maintain relationships. Recognizing that communities will change as people move in and out, it is important to provide stability to the campaign work over the long-term. Rural community organizing often benefits from connecting local community campaigns to efforts in other communities, coalitions, and groups. Be patient but continue forward.

Remember all you need is ***GANAS*** and people with ***GANAS***.

Why create a formal community organization?

Although you do not have to formalize your group, there are a number of reasons why you may want to create a name, set a structure, and establish rules on how the group will operate. Below is a list of reasons why you may want to create a more formal type of community organization.

1. It increases your power over decisions affecting your community. Power comes from numbers and recognition. A formal group with a name is more easily recognized and gives the appearance of significant numbers.
2. It improves your ability to raise funds on behalf of your community. Foundations want to give grants to formal community groups, not individuals.
3. It may limit your liability.[19] Community groups that are unincorporated associations can sue and be sued, and that provides the individuals involved with some protection from personal liability.
4. It provides some separation between your personal life and the work you do to improve your community. Instead of working as an individual, you are working on behalf of the community.

What are the steps to formalize a community organization?

If you decide you want to formalize your community organization, the best way to start is by forming an unincorporated association. Here are the steps to follow:

1. Get a group of interested community members together and hold a meeting.
2. Create bylaws and conduct the operations of the organization according to those rules. (This is important if you plan on applying for funding or suing anyone.)
3. Fill out a registration document for an "Unincorporated Association," available at **http://www.sos.ca.gov/business/other/forms/lp-ua-100.pdf** (or request a form at (916) 657-5448) and pay a registration fee ($25) with the State of California. (Optional)

If you decide to form an unincorporated association, you have lots of flexibility in the structure and functioning of your organization. For example, some groups may decide to elect a President, while others may want a board or council to make decisions. Each community is unique, as are the water quality issues your community may face, and the members of your community should develop an organizational structure that works best for your community's situation.

Bylaws

Bylaws is the technical legal name of a written document setting out the rules governing the way an organization functions. All organizations or corporations must have bylaws to show how they are structured and how decisions can be made on behalf of the group. See *Appendix 3* for examples of community-based organization bylaws.

No matter what structure your community ultimately decides to use, however, it is very important to set formal rules (bylaws) for the functioning of the association. In particular, you should establish clear rules for deciding who is a member, who can speak and sign documents on behalf of the organization, and how decisions are made on behalf of the group. Examples of community-based organization bylaws are included in *Appendix 3*.

Do I need to be a certain type of organization to get funding?

Many groups want to know if they need to be a tax exempt organization in order to receive funding for their work. The process to acquire tax exemption, also referred to as 501(c)(3) status, takes expertise and money. So often it is not ideal for small, low-income community groups. In addition, once established, 501(c)(3) organizations are subject to accounting and reporting requirements that are often beyond the capabilities of many community associations.

If a community group does not have its own tax exempt status, this does not mean that the group cannot receive funds. An unincorporated association can receive funds on its own, but it may have to pay taxes, and donors would not be able to take tax deductions for their donations. Some small foundations that give grants do not require that an organization have 501(c)(3) status. More commonly, however, foundations allow a separate non-profit organization with 501(c)(3) status to act as a "fiscal sponsor" and receive funds on behalf of the group.

Box 1.12 - Fiscal Sponsorship

A "fiscal sponsor" means that the grant goes through another organization, and usually that organization takes a small percentage of the grant to cover the costs of administering the money. For example, Nonprofit X receives the grant from a foundation and gives it to Community Association Y but takes 5% of the total grant amount to cover administrative costs.

Any incorporated 501(c)(3) organization can provide this service, but only some are willing. Check with an incorporated nonprofit organization with whom you have a good relationship to see if that organization would be willing to act as a "fiscal sponsor." Also, some organizations have established fiscal sponsor programs, which vary in their requirements, fees, and structure. For more information on fiscal sponsors, check out Fiscal Sponsorship, 6 Ways to Do It Right, by Greg Colvin, or read more at **http://www.fiscalsponsorship.com/**.

Organizations in California with established fiscal sponsorship programs include: the Agape Foundation (**www.agapefn.org**); the Earth Island Institute (**www.earthisland.org**); International Humanities Center (**http://www.ihcenter.org/**); the Rose Foundation for Communities and the Environment (**http://www.rosefdn.org**); and the Tides Center (**http://www.tidescenter.org/index_tc.cfm**).

LEGAL REFERENCE GUIDE

Part 1 - Uniform Requirements for All Water Providers

Every public drinking water system (PWS) must comply with the federal and state Safe Drinking Water Acts. The federal Safe Drinking Water Act sets minimum standards, while the state Safe Drinking Water Act can be more stringent. In addition, federal and state agencies have issued regulations to implement the requirements contained in the Acts. Together, these laws and regulations require every PWS to test the sources of the water it provides to the public for the presence of certain contaminants. The laws also require every PWS to notify members of the public regarding the quality of its drinking water, particularly if contaminant levels exceed the legal limits. Below is a more detailed and technical explanation of the laws and regulations that every California PWS must follow.

Legal Reference Guide - Part 1

Monitoring Requirements

A PWS's most important legal requirement is its duty to monitor the quality of the drinking water it provides to its users. Every PWS must periodically collect samples from each of its water sources by someone specially trained to perform these tests,[22] and have those samples analyzed in a state-certified laboratory for a variety of contaminants.[23] The results from these tests determine whether the system's drinking water complies with minimum water quality standards.

Many of the monitoring requirements imposed on a water provider differ depending on the size of the water system and the source of the water being provided. However, every PWS must pay for its own monitoring costs, no matter the size of the system or source of the water.[24]

The State of California regulates four major categories of contaminants: primary contaminants; secondary contaminants; treatment additives, byproducts, and residuals; and "unregulated" contaminants. Below are descriptions of the monitoring requirements for each of these categories of contaminants.

Public Drinking Water Systems

A public drinking water system (PWS) is a water system that distributes at least a significant portion of its water for human consumption. To qualify as a PWS for purposes of regulation under the California Safe Drinking Water Act, the water system must supply drinking water to at least 25 persons daily for at least 60 days out of the year.[20] The system includes the pipes, treatment and storage facilities, and any other infrastructure.[21]

Water Providers

As used in this guide, the term "water provider" refers to the entity that operates a PWS to supply water, at least in part, for human consumption. The California Department of Public Health (DPH) refers to water providers as "water suppliers," but these are the same thing.[25]

A Brief Review - Classification of Public Water Systems (PWSs):

Community: PWSs that serve more than 25 residents or 15 residential units year-round (*e.g.*, municipal systems, mobile home parks, apartment complexes with their own systems).

Nontransient, Noncommunity: PWSs that serve at least 25 people that use the water for non-residential purposes for more than 6 months of the year (*e.g.,* schools, office buildings, etc.).

Transient, Noncommunity: PWSs that operate more than 60 days a year, and serve at least 25 people per day that use the water occasionally or for less than 6 months. (*e.g.,* restaurants, churches, parks, hotels that have their own water systems).

Primary Contaminants

Primary contaminants are those drinking water contaminants that the Safe Drinking Water Acts regulate because exposure at high-enough levels may cause negative health consequences. Primary contaminants regulated by the state of California include inorganic chemicals, organic chemicals, total coliform (bacteria), and radioactivity. All primary contaminants have primary Maximum Contaminant Levels (MCLs), which are legal limits on the concentration of these chemicals allowed in drinking water.

Box 2.1
How Maximum Contaminant Levels (MCLs) Are Set in California

The California Department of Public Health (DPH) is required by law to establish a state drinking water standard called a Maximum Contaminant Level (MCL) for every potential drinking water contaminant that is regulated by the state of California.[26]

Before DPH can set an MCL for a particular contaminant, another California state agency, the Office of Environmental Health Hazard Assessment (OEHHA), must adopt a public health goal (PHG) for that contaminant.[27]

Next, DPH must go through a formal administrative rulemaking process to establish an MCL that is as close as possible to that public health goal.[28] In setting the MCL, DPH must also consider the limitations imposed by existing technology and costs. However, the state MCL must be *at least* as stringent as the federal drinking water standards for that contaminant, which are established by the United States Environmental Protection Agency (EPA).[29]

Finally, DPH must review the MCL for each drinking water contaminant every five years.[30]

For more information on how the US EPA sets MCLs at the federal level, see
http://www.epa.gov/safewater/standard/setting.html

Understanding MCL units

Most MCLs are measured in milligrams per liter (mg/L). This is the standard unit of measure of how many milligrams of a contaminant are in a liter of water. One mg/L is equal to one millionth of a liter. This is equivalent to one cup of a contaminant in a swimming pool of water.

mg = milligram = one-thousandth of a gram

mg/L = milligram per liter = part per million (ppm)

mcg or µg = microgram = one-millionth of a gram

mcg/L or µg/L = microgram per liter = part per billion (ppb)

Inorganic Chemicals

The following table contains the MCLs for inorganic chemicals, as set by the California DPH:

Table 2.1 - Inorganic Chemicals

Chemical	Maximum Contaminant Level (mg/L)[31]	Detection Limit for Purposes of Reporting (DLR) (mg/L)[32]
Aluminum	1	0.05
Antimony	0.006	0.006
Arsenic	0.01	0.002
Asbestos	7 million fibers per liter for fibers exceeding 10 µm in length	0.2 million fibers per liter for fibers exceeding 10 µm in length
Barium	1	0.1
Beryllium	0.004	0.001
Cadmium	0.005	0.001
Chromium	0.05	0.01
Cyanide	0.15	0.1
Fluoride	2	0.1
Mercury	0.002	0.001
Nickel	0.1	0.01
Nitrate (as NO_3)	45	2
Nitrate + Nitrite (as N)	10	10
Nitrite (as N)	1	0.4
Perchlorate	0.006	0.004
Selenium	0.05	0.005
Thallium	0.002	0.001

Detection Limit for Purposes of Reporting

DLR, which stands for "Detection Limit for Purposes of Reporting," refers to the lowest level at which a water contaminant can reliably be detected by a machine. If a laboratory test conducted on a water sample yields a contaminant concentration at or above the DLR, the water provider must report that result to the California Department of Public Health (DPH). Any amount of contaminant detected at a level below the DLR, on the other hand, is treated as if there were no detection of that contaminant at all.

A water provider must monitor for the presence of inorganic chemicals in every water source that contributes water to the system. It can do so either by collecting a sample directly from each source (for example, by testing each well) or by collecting a sample at each source's post-treatment entry-point into the distribution system.[33] Generally, samples must be taken from the same location each time. A system can apply to DPH to change sampling sites, however, or to combine samples from up to five sites.[34]

Routine Monitoring

The frequency with which a water provider must monitor for the presence of most inorganic chemicals (excluding asbestos, perchlorate, nitrate and nitrite) depends on the water source:[35]

- ***Groundwater Systems:*** All community and nontransient-noncommunity water systems using groundwater must monitor once during each three-year compliance period.[36] DPH shall designate the specific year during which the water provider must collect samples.[37]
- ***Surface Water Systems:*** All community and nontransient-noncommunity water systems using surface water, in whole or in part, must monitor annually.[39]

Compliance Period

a period of three consecutive calendar years within a compliance cycle. A compliance cycle is a period of nine consecutive calendar years during which public water systems must conduct all monitoring under the Safe Drinking Water Acts.[38]

Violations

If a water sample contains an inorganic chemical (excluding perchlorate, nitrate, and nitrite)[40] in excess of its MCL, the water provider must either:

a. Report the violation to the California Department of Public Health (DPH) within 48 hours and then begin repeat monitoring every three months;[41] *or*

b. Report the violation to DPH within seven days, collect a confirmation sample within 14 days, and calculate the average of the quantity of inorganic chemical in the two samples. If the average exceeds the MCL, the provider must inform DPH within 48 hours and then begin repeat monitoring every three months.[42]

Additionally, even if a water sample contains an inorganic chemical in a quantity less than that chemical's MCL, if there is a persistent trend toward higher levels of that chemical in the water source, the provider must begin repeat monitoring every three months (quarterly).[43]

Thereafter, if a water system using groundwater collects at least two quarterly samples, or a water system using surface water collects at least four quarterly samples, and each of the water samples contains less than the MCL, the water provider may apply to DPH for permission to reduce monitoring frequency.[44]

Reduced Monitoring and Waivers

If a water provider collects two quarterly samples from a water system using groundwater, or four quarterly samples from a water system using surface water, and a particular inorganic chemical has not been detected in a level exceeding its MCL in any of those samples, the provider can apply to DPH for permission to reduce its monitoring frequency.[45]

Alternatively, if the provider has collected at least three rounds of routine monitoring samples (three annual samples for systems using surface water in whole or in part, or three periods of samples for systems using groundwater), and all prior results have not exceeded the MCL for a particular inorganic chemical, the provider may apply to DPH for a waiver from monitoring for that inorganic chemical altogether for the term of the waiver granted (up to nine years).[46]

Box 2.2 - Nitrate & Nitrite

Both nitrate (NO_3) and nitrite (NO_2) are types of nitrogen-oxygen chemicals. Nitrogen is essential for all living things and occurs naturally in the environment, where it is converted into many different chemical forms through a natural process known as the nitrogen cycle.

However, once taken into the body, nitrates are converted into nitrites that can limit the blood's ability to absorb oxygen, among other health concerns. Exposure to nitrates or nitrites at levels above the MCL can cause death in infants less than 6 months old, stillbirths, and other health problems in adults.

While nitrate and nitrite do occur naturally, human activities including the use or improper disposal of fertilizers, animal manure, or human waste can cause these chemicals to occur at dangerous levels above the MCL.

For more information on the health impacts of nitrate and how to reduce exposure in your home, see the *Community Health Guide* later in this Guide.

Routine Monitoring

The frequency with which a water provider must monitor for the presence of ***nitrate*** depends on the water source and the class of water system, as follows:[47]

- Every PWS using groundwater must monitor annually.
- Every transient noncommunity system using surface water must monitor annually.
- Every community or nontransient noncommunity system using surface water must monitor every three months.

To monitor for the presence of ***nitrite***, however, a water provider only needs to take a sample once during each three-year compliance period.[48]

Violations

If the laboratory charged with analyzing a water sample detects the presence of nitrate, nitrite, or nitrate plus nitrite in quantities greater than the respective MCLs, the laboratory must attempt to notify the water provider of the result immediately. If the laboratory is unable to reach the water provider's designated contact person within 24 hours, then it must notify DPH directly.[49] Thereafter, the provider must do the following:[50]

1. Collect a second sample:
    - within 24 hours of notification, or
    - if unable to collect a sample within 24 hours, notify consumers of an acute health risk and then collect a confirmation sample within 14 days. In order to notify consumers of an acute health risk, the water provider must, at a minimum, broadcast a notice using a local radio or television station, post notices in conspicuous locations throughout the service area, or hand-deliver notices to consumers.[51]
2. After a second sample has been collected and analyzed, calculate the average of the results from the two samples:
    - if the average exceeds the MCL, report the results to DPH within 24 hours;
    - if the average of the two samples does ***not*** exceed the MCL, report the results to DPH within seven days.

If a water sample contains ***nitrite*** in a quantity equal to or greater than 50% of the MCL, the water provider must collect repeat samples to test for the presence of nitrite every three months for at least one year. Thereafter, if any four consecutive quarterly samples yield results with nitrite levels less than the MCL, the water provider can request permission from DPH to reduce its nitrite monitoring frequency to once a year.[52]

Likewise, if a water sample contains ***nitrate*** in a quantity equal to or greater than 50% of the MCL, the provider must collect repeat samples to test for the presence of nitrate every three months for at least one year. Thereafter, following the collection of any four consecutive quarterly samples containing nitrate levels less than the MCL, a system using groundwater as its water source can request permission from DPH to reduce its sampling frequency to once a year. Systems that draw from surface water, on the other hand, can only request permission to reduce its sampling frequency to once a year if the nitrate levels in four consecutive quarterly samples are less than 50% of the MCL.[53]

Asbestos

Routine Monitoring

The following water systems must monitor for asbestos once during the first three-year compliance period of each nine-year compliance cycle:[54]

- If a PWS uses surface water, or if it uses groundwater that has been specifically designated as vulnerable to asbestos, then the provider must monitor for asbestos by taking a sample at each water source's post-treatment entry-point into the water distribution system.[55]
- If DPH determines that a system may have leaching of asbestos-cement pipes, then the water provider must take one sample at a tap served by the vulnerable pipe.[56]

Violations

If a sample contains asbestos levels exceeding the MCL, the water provider must inform DPH within 48 hours and begin collecting repeat samples to test for the presence of asbestos every three months.[57] Additionally, even if a water sample contains asbestos in a quantity less than the MCL, if there is a persistent trend toward higher levels of asbestos in the water source, the provider must begin repeat monitoring for asbestos every three months.[58]

Thereafter, if a water system using groundwater collects at least two quarterly samples, or a water system using surface water collects at least four quarterly samples, and each of the water samples contains less than the MCL for asbestos, the water provider may apply to DPH for permission to reduce its monitoring frequency back to one sample during each nine-year compliance cycle.[59]

Perchlorate

Routine Monitoring

Beginning in 2001, each community and nontransient, noncommunity water system must do an initial sampling, which includes two samples at each source in a year, five to seven months apart.[60] At least one of the samples must be collected during the period from May 1 through September 30 (vulnerable time), unless DPH specifies a different vulnerable time for the water system due to seasonal conditions related to use, manufacture, and/or weather.

If no perchlorate is detected, all groundwater sources must be sampled once during each compliance period, and all surface water systems must monitor annually.[61] If a system uses combined surface and groundwater sources then it must monitor annually; if perchlorate is detected in the water from the combined sources, the water system shall sample each source individually to determine which source is contaminated.[62]

If perchlorate is detected in any source in the initial sampling, the system must monitor that source quarterly.[63] If four consecutive quarterly samples indicate that perchlorate is not present at or above the DLR (.004 mg/L), a system may request that the Department reduce its monitoring frequencies.[64]

Violations

If a sample exceeds the MCL (.006 mg/L), the laboratory must contact the water supplier or the DPH within 48 hours. Within 48 hours of notification, the system must collect and analyze a confirmation sample.[65] If a system is unable to resample within 48 hours, it shall issue a Tier 1 notice to the consumers and shall collect and analyze a confirmation sample within two weeks of notification of the results of the first sample. (See the Notice Requirements section later in this part of the *Legal Reference Guide*.)

Variances

A PWS serving less than 10,000 persons may apply to DPH for a variance from the perchlorate MCL if it can demonstrate that the estimated annual cost per household for treatment to comply with the MCL exceeds 1% of the median household income in the community within which the customers served by the water system reside.[66]

Box 2.3 - Perchlorate - an Emerging Contaminant

What is Perchlorate?

Perchlorate is a natural substance, though most of the perchlorate in the world is man-made. It is used in solid rocket fuel for missiles and rockets, and can be found in products such as car air bags, fireworks, and occasionally fertilizer. For over 50 years, users of perchlorate have dumped excess or out-of-date perchlorate into our waterways or on land, allowing it to sink into the ground and contaminate groundwater. As detection technology has improved, we have found that many of our drinking water sources are contaminated. To date, the drinking water of over 20 million Californians has been found to contain perchlorate.

What are the health effects?

Perchlorate interferes with the ability of the thyroid to receive enough iodide, which in turn limits the amount of thyroid hormone the body produces. Thyroid hormones are critical to the body's growth, development, and metabolism. While most adults can tolerate fairly high levels of perchlorate, this is not true for the most vulnerable, especially fetuses and infants whose bodies and brains are just developing. Reduced thyroid hormone levels, even for a short period of time, can cause permanent brain damage in fetuses and infants. People who already have thyroid problems are also at risk.

What levels are safe?

Because this is a controversial new contaminant of concern, the EPA has not yet set a federal MCL. Some scientific evidence has demonstrated that because of the impacts on fetuses and infants, as well as the fact that we are exposed from a variety of sources, a drinking water standard of no higher than one part per billion may be necessary to protect everyone. However, the US Department of Defense, military contractors, and other industries have challenged those findings. Two states, Massachusetts and California, have taken matters into their own hands and set MCLs themselves. Massachusetts' standard is 2 ppb, while California's Office of Environmental Health Hazard Assessment (OEHHA) and DPH have set the PHG and MCL at 6 ppb. California will reassess this level in light of new evidence no later than 2009, which may give the public an opportunity to advocate for a more protective drinking water standard.

For more information on perchlorate, see
http://www.cdph.ca.gov/CERTLIC/DRINKINGWATER/Pages/Perchlorate.aspx

A full list of approved filter devices to reduce levels of perchlorate is available by calling the California Dept. of Public Health at (916) 449-5600 or at
http://www.cdph.ca.gov/certlic/device/Documents/WTDDirectory2008/Section6I.pdf
This list is updated each spring, so check for updates at
http://www.cdph.ca.gov/certlic/device/Pages/watertreatmentdevices.aspx.

Organic Chemicals

The following tables contain the MCLs for organic chemicals in drinking water as set by the California DPH:

Table 2.2a: Volatile Organic Chemicals (VOCs)

Chemical	Maximum Contaminant Level (mcl)[67]	Detection Limit for the Purpose of Reporting (DLR) (mg/L)[68]
Benzene	0.001	0.0005
Carbon Tetrachloride	0.0005	0.0005
1,2-Dichlorobenzene	0.6	0.0005
1,4-Dichlorobenzene	0.005	0.0005
1,1-Dichloroethane	0.005	0.0005
1,2-Dichloroethane	0.0005	0.0005
1,1-Dichloroethylene	0.006	0.0005
cis-1,2-Dichloroethylene	0.006	0.0005
trans-1,2-Dichloroethylene	0.01	0.0005
Dichloromethane	0.005	0.0005
1,2-Dichloropropane	0.005	0.0005
1,3-Dichloropropene	0.0005	0.0005
Ethyl benzene	0.3	0.0005
Methyl-*tert*-butyl ether (MTBE)	0.013	0.003
Monochlorobenzene	0.07	0.0005
Styrene	0.1	0.0005
1,1,2,2-Tetrachloroethane	0.001	0.0005
Tetrachloroethylene	0.005	0.0005
Toluene	0.15	0.0005
1,2,4-Trichlorobenzene	0.005	0.0005
1,1,1-Trichloroethane	0.2	0.0005
1,1,2-Trichloroethane	0.005	0.0005
Trichloroethylene	0.005	0.0005
Trichlorofluoromethane	0.15	0.005
1,1,2-Trichloro-1,2,2-Trifluoroethane	1.2	0.01
Vinyl Chloride	0.0005	0.0005
Xylenes	1.75	0.0005

Table 2.2b: Non-Volatile Synthetic Organic Chemicals (SOCs)

Chemical	Maximum Contaminant Level (mcl)[69]	Detection Limit for the Purpose of Reporting (DLR) (mg/L)[70]
Alachlor	0.002	0.001
Atrazine	0.001	0.0005
Bentazon	0.018	0.002
Benzo(a)pyrene	0.0002	0.0001
Carbofuran	0.018	0.005
Chlordane	0.0001	0.0001
2,4-D	0.07	0.01
Dalapon	0.2	0.01
Dibromochloropropane (DBCP)	0.0002	0.00001
Di(2-ethylhexyl)adipate	0.4	0.005
Di(2-ethylhexy)phthatate	0.004	0.003
Dinoseb	0.007	0.002
Diquat	0.02	0.004
Endothall	0.1	0.045
Endrin	0.002	0.0001
Ethylene Dibromide (EDB)	0.00005	0.00002
Glyphosate	0.7	0.025
Heptachlor	0.00001	0.00001
Helptachlor Epoxide	0.00001	0.00001
Hexachlorobenzene	0.001	0.0005
Hexachlorocyclopentadiene	0.05	0.001
Lindane	0.0002	0.0002
Methoxychlor	0.03	0.01
Molinate	0.02	0.002
Oxamyl	0.05	0.02
Pentachlorophenol	0.001	0.0002
Picloram	0.5	0.001
Polychlorinated Biphenyls (PCBs)	0.0005	0.0005
Simazine	0.004	0.001
Thiobencarb	0.07	0.001
Toxaphene	0.003	0.001
2,3,7,8-TCDD (Dioxin)	$3x10^{-8}$	$5x10^{-9}$
2,4,5-TP (Silvex)	0.05	0.001

A water provider must monitor for the presence of organic chemicals in every water source that contributes water to the system. It can do so either by collecting a sample directly from each source (from each water intake for surface water sources and from each wellhead for groundwater sources) or by collecting a sample at each source's post-treatment entry-point into the distribution system. Generally, samples must be taken from the same location each time.[71] However, a system can apply to DPH to change sampling sites or to composite samples from up to five sites.

Routine Monitoring

Every water provider must take one sample from each water source every three months for one year (four quarterly samples) during a three-year compliance period and analyze those samples for the presence of all the organic chemicals listed in Tables 2.2a and 2.2b.[72] DPH shall designate the specific year during which the water provider must collect samples.

Obligations Triggered by Detection of An Organic Chemical

If a water sample test result yields the presence of an organic chemical in the water source at any level less than ten times its MCL, the provider has the option of either proceeding on the basis of the initial test result or taking one or two confirmation samples. If the provider opts to collect confirmation samples, it must average the results of all samples taken and proceed on the basis of the average contaminant level. If two additional samples do not show the presence of the organic chemical, the system can disregard the initial detection [73]

If an organic chemical is present in the water source at a level less than its MCL, then the provider must resample the source for the presence of that chemical every three months for one year for a surface water source or twice quarterly for a groundwater source. Thereafter, DPH may permit the provider to reduce sampling to once per year.[74]

Special requirements apply to two categories of organic chemicals:

1. If either heptachlor or heptachlor epoxide is detected, then subsequent monitoring must test for both chemicals until neither chemical has been detected in the water source for one full compliance period (three years).[75]
2. If a sample taken from a groundwater source contains any of the contaminants which make up the chemical vinyl chloride (trichloroethylene, tetrachloroethylene,1,2-dichloroethane,1,1,1-trichloroethane, cis-1,2-dichloroethylene, trans-1,2-dichloroethylene, or 1,1-dichloroethylene), the provider must monitor for vinyl chloride every three months. If any subsequent sample contains no vinyl chloride compounds, then the provider need only monitor the source for vinyl chloride once per three-year compliance period.[76]

Violations

If a water test result yields the presence of an organic chemical at a level exceeding its MCL, the provider must report the violation to the DPH within 48 hours.[77] Unless the provider discontinues use of the particular water source, it must increase its monitoring frequency of the contaminated source as follows:

- *Water systems serving 3,300 people or fewer* must collect samples every three months (quarterly) for one year and report the results of those repeat samples to DPH by the tenth day of the following month after each sample is collected. If the average concentration (calculated using the initial sample, any confirmation samples, and three subsequent quarterly samples) does not exceed the MCL, then the provider may reduce sampling frequency to once per year. If the average does exceed the MCL, the system is in violation, and subsequently, compliance will be determined by taking the average of any four consecutive quarterly samples.[78]
- *Water systems serving more than 3,300 people* must collect samples once every month for six months and report the results to DPH by the tenth day of the following month after each sample is collected. If the average concentration (calculated using the initial sample, any confirmation samples, and six subsequent monthly samples) does not exceed the MCL, then the provider may reduce sampling frequency to once every three months (quarterly). Thereafter, compliance will be determined by taking the average of any four consecutive quarterly samples.[79]

Excessive Violations

If a water test result yields the presence of an organic chemical at a level exceeding ten times its MCL, not only must the provider report the result to DPH within 48 hours of learning of the result, but it must also collect a confirmation sample within that same time window and then notify DPH within 24 hours of learning of the results from the second sample. If the average of the two samples is ***less*** than ten times the MCL, then the provider may proceed with increased monitoring as required with a normal violation, but if the average of the two samples is ***still*** ten times the MCL or more, it must discontinue use of the contaminated water source immediately.[80]

Monitoring Requirements for Treated Water

If a water provider treats a water source in order to comply with an MCL for any organic chemical, it must collect monthly samples of the source at a location prior to the source entering the distribution system. DPH may require even more frequent monitoring, depending on the treatment process used, the treatment effectiveness and efficiency, and the concentration of the organic chemical in the water source.[81] If at any time the treated water exceeds the MCL, the provider must collect a second sample and then report the result within 48 hours of confirmation.[82]

Reduced Monitoring and Waivers

If a water provider collects four quarterly samples from a water source and a particular organic chemical is not detected in any of those samples, the source automatically qualifies for a reduction in monitoring frequency.[83]

Alternatively, the provider may apply for a waiver from monitoring that source altogether, which DPH may grant if the agency determines either that:

- the source can be designated non-vulnerable, because there is documentation that the source has not been exposed to the chemical, or
- the source is not susceptible to contamination by that chemical, based on a review of multiple factors.[84]

Both monitoring reductions and monitoring waivers depend on the classification of the organic chemical.

Volatile Organic Chemicals (VOCs)

If the chemical is a VOC, then the reduced monitoring frequency or waiver schedule depends on the type of water source:

- Surface Water Sources: If the water source is surface water, then the provider only needs to test for that chemical in that source once per year.[85]

  Alternatively, the provider can opt to apply for a waiver (either after four quarterly samples or three consecutive annual samples), and if DPH determines that the source qualifies, then the provider does not need to test for the chemical for the term of the waiver granted (up to three years).[86]

- Groundwater Sources: If the water source is groundwater, then the provider only needs to test for that chemical in that source once per year for three years. If, after three years of annual testing, the chemical still has not been detected in any of the samples, then the provider only needs to test for that chemical in that source once per three-year compliance period.[87]

  Alternatively, the provider can opt to apply for a waiver (either after four quarterly samples or three consecutive annual samples), and if DPH determines that the source qualifies, then the provider only needs to test for that chemical in that source once every six years.[88]

Synthetic Organic Chemicals (SOCs)

If the chemical is an SOC, then the provider can opt to apply for a waiver (either before any initial monitoring has been conducted or after three consecutive annual samples yield no detection of the chemical). If DPH determines that the source qualifies, then the provider does not need to test for the particular SOC for the term of the waiver granted (up to three years).[89]

If DPH does not grant the water system a waiver, then the reduced monitoring frequency for the SOC depends on the size of the system:

- *Water systems serving 3,300 people or fewer* only need to test for the particular chemical in the particular source once during each three-year compliance period.[90] DPH shall designate the specific year during which the water provider must collect the sample.[91]
- *Water systems serving more than 3,300 people* only need to test for the particular chemical in the particular source twice, with a three-month interval between tests (two quarterly samples), during each three-year compliance period.[92] DPH shall designate the specific year during which the water provider must collect the two quarterly samples.[93]

Total Coliform (Bacteria)

Routine Monitoring

Total coliform (bacteria) monitoring must be conducted according to the following schedule, which depends on the size of the PWS:[94]

Generally, every PWS must collect samples at regular time intervals throughout the month. However, a system using groundwater that serves 4,900 people or fewer can collect all of its required samples for the month on a single day if it takes the samples from different sites within the system.[95]

In addition, a PWS using surface water, rather than groundwater, must either use established treatment techniques,[96] or collect at least one sample at or before the first service connection every day that the turbidity level of the water exceeds one NTU. The PWS must collect the daily sample within 24 hours of the turbidity level rising above one NTU, unless there are circumstances beyond the provider's control and the provider requests an extension from DPH. Those samples must be tested for total coliform and reported to DPH.[97]

NTU (nephelometric turbidity units)

NTUs are the units used to measure turbidity, which refers to water clarity. The higher the NTUs, the more particulate matter is in the water, and the cloudier it appears.

Table 2.3: Total Coliform Monitoring Schedule

Monthly Population Served	Service Connections	Minimum Number of Samples
25 – 1000	15 – 400	1 per month
1,001 – 2,500	401– 890	2 per month
2,501 – 3,300	891 – 1,180	3 per month
3,301 – 4,100	1,181 – 1,460	4 per month
4,101 – 4,900	1,461 – 1,750	5 per month
4,901 – 5,800	1,751 – 2,100	6 per month
5,801 – 6,700	2,101 – 2,400	7 per month
6,701 to 7,600	2,401 to 2,700	2 times per week
7,601 to 12,900	2,701 to 4,600	3 times per week
12,901 to 17,200	4,601 to 6,100	4 times per week
17,201 to 21,500	6,101 to 7,700	5 times per week
21,501 to 25,000	7,701 to 8,900	6 times per week
25,001 to 33,000	8,901 to 11,800	8 times per week
33,001 to 41,000	11,801 to 14,600	10 times per week
41,001 to 50,000	14,601 to 17,900	12 times per week
50,001 to 59,000	17,901 to 21,100	15 times per week
59,001 to 70,000	21,101 to 25,000	18 times per week
70,001 to 83,000	25,001 to 29,600	20 times per week
83,001to 96,000	29,601 to 34,300	23 times per week
96,001 to 130,000	34,301 to 46,400	25 times per week
130,001 to 220,000	46,401 to 78,600	30 times per week
220,001 to 320,000	78,601 to 114,300	38 times per week
320,001 to 450,000	114,301 to 160,700	50 times per week
450,001 to 600,000	160,701 to 214,300	55 times per week
600,001to 780,000	214,301 to 278,600	60 times per week
780,001 to 970,000	278,601 to 346,400	70 times per week
970,001 to 1,230,000	346,401 to 439,300	75 times per week
1,230,001 to 1,520,000	439,301 to 542,900	85 times per week
1,520,001 to 1,850,000	542,901 to 660,700	90 times per week
1,850,001 to 2,270,000	660,701 to 810,700	98 times per week
2,270,001 to 3,020,000	810,701 to 1,078,600	105 times per week
3,020,001 to 3,960,000	1,078,601 to 1,414,300	110 times per week
3,960,001 or more	1,414,301 or more	120 times per week

Repeat Monitoring

If a PWS finds total coliform in any sample described above, it must collect repeat samples within 24 hours of being notified of the presence of total coliform and report the results to DPH.[98]

Violations

A PWS is in violation of the MCL for total coliform if:

1. more than one sample collected during any month is total coliform positive;
2. any repeat sample is fecal coliform positive or *E. coli* positive; or
3. any repeat sample following a fecal coliform positive or *E. coli* positive routine sample is total coliform positive. (Note, the requirements are slightly different for a large PWS that routinely collects more than 40 samples per month.) [99]

If a system is in violation of the total coliform MCL, or a routine or repeat sample reveals that fecal coliform or *E. coli* is present in the water, the provider must contact DPH within 24 hours of being notified of the result. Additionally, the PWS must submit information on the system's infrastructure and operating procedures that may have caused the elevated bacterial concentration.[100] The provider must also notify users through its emergency notification plan.[101]

Variances and Reductions in Monitoring

A water provider can apply for a variance from total coliform monitoring if the system meets a number of specific requirements, which, together, essentially indicate that a dangerously high level of bacterial contamination in the system is unlikely.[102] However, if a PWS collects less than five routine samples per month, then DPH must conduct "sanitary surveys" (inspections) of the system every five years.[103]

In addition, a community water system that uses groundwater and only serves 25 - 1,000 people can request permission from DPH to reduce bacteria monitoring to one sample every three months.[104] Nontransient, noncommunity water systems and transient, noncommunity water systems that serve less than 1,000 people may request reductions in sampling as well.[105]

Emergency Notification Plans

Every PWS must have an approved ***Emergency Notification Plan***, which describes how the water provider will give immediate notice to its customers if there is any significant rise in bacterial count in the water or other failure to comply with any primary drinking water standard that represents imminent danger to the health of water users.

For more information, see the section on Notice Requirements later in this part of the *Legal Reference Guide*.

Radioactive Contaminants

Certain minerals are radioactive and may emit radiation in drinking water, which may in turn cause people who drink that water over long periods of time to have an increased risk of getting cancer.[106]

The following table contains the MCLs and DLRs for radionuclides in California drinking water:

Table 2.4: Maximum Radionuclide Contamination[107]

Constituent	Maximum Contaminant Level (MCL)	Detection Limit for Purposes of Reporting (DLR)
Combined Radium-226 and Radium-228	5 pCi/L (combined radium-226 & radium-228)	1 pCi/L
Gross Alpha particle activity (including Radium-226 but excluding Radon and Uranium)	15 pCi/L	3 pCi/L
Uranium	20 pCi/L	1 pCi/L
Tritium	20,000 pCi/L	1000 pCi/L
Strontium-90	8 pCi/L	2 pCi/L
Beta/photon emitters	4 millirem/year annual dose equivalent to the total body or any internal organ	4 pCi/L (Gross beta particle activity)

All community water systems must conduct an initial monitoring sequence by taking four consecutive samples from each water source at three-month intervals (*i.e.*, quarterly monitoring for one year) to test for the presence of Radium-226, Radium-228, Gross Alpha particle activity, and Uranium.[108]

The routine monitoring schedule depends on the average of the results obtained during the initial monitoring sequence. If the initial average is below the DLR, the system only needs to conduct routine monitoring once every nine years.[109] If the average is above the DLR but less than half the MCL, the system must monitor once every six years, and if the average is greater than half the MCL but still less than the MCL, the system must monitor once every three years.[110] Finally, if the average exceeds the MCL, the system must monitor quarterly until the results of four consecutive samples do not exceed the MCL.[111] Thereafter, if any sample result causes the annual average to exceed the MCL, the system is out of compliance.[112]

Community water systems whose source waters are deemed vulnerable to effluent or other contamination from nuclear facilities must monitor for Tritium, Strontium-90, and Gross Beta particle activity according to a schedule set by DPH.[113]

Lead & Copper Rule (LCR)

The Lead and Copper Rule (LCR) only applies to community and nontransient, noncommunity PWSs.[114] It has the following basic requirements:

1. PWSs must control plumbing corrosion that causes the leaching of lead and copper into the water by monitoring for certain water quality parameters (WQPs) in homes and at the entry points of the source water into the distribution system, as well as installing corrosion control treatment;[115]
2. PWSs must monitor tap water levels of lead and copper in homes, particularly for customers who have lead service lines or lead-based solder in their plumbing system.[116]

Note that there are some differences in the requirements depending on the size of the PWS.[117]

Routine Monitoring

Systems must monitor a set number of sites (homes) every six months—the number of required sample sites depends on the size of the system (see Table 2.5).[118]

Table 2.5: Lead and Copper Monitoring Schedule

Size Category	System Size	Number of Lead and Copper Tap Sample Sites[119]		Number of WQP Tap Sampling Sites[120]	
		Standard	Reduced	Standard	Reduced
Large	> 100 K	100	50	25	10
	50,001-100K	60	30	10	7
Medium	10,001 – 50K	60	30	10	7
	3,301 – 10K	40	20	3	3
Small	501 -3,300	20	10	2	2
	101 – 500	10	5	1	1
	≤ 100	5	5	1	1

As of 2007, all PWSs must provide notice of tap water monitoring results for lead and copper to owners and/or occupants of homes and buildings who consume water from the taps that are part of the PWS's sampling program.[121]

Action Levels (AL)

If action levels (AL) are exceeded (0.015 mg/L for lead and 1.3 mg/L for copper) in more than 10% of the samples, the PWS must do the following:

1. Monitor source water to ensure that is not the source of significant lead or copper;[122]
2. Use public notices and public education programs to educate those members of the public using water from the PWS about lead and suggest actions they can take to reduce their exposure to lead through public notices and public education programs.[123]
3. Conduct additional monitoring and optimize corrosion control treatment.[124]

Persistent Violations

If a PWS, after installing and optimizing corrosion control treatment, continues to fail to meet the AL, it must begin replacing the service lines containing lead or copper under its ownership.[125] However, it does not have to replace plumbing in customers' homes, which is not owned by the PWS.

Reduced Monitoring

If previous monitoring shows that there is low risk for lead and copper problems, systems can apply for reduced monitoring frequency and a reduced number of sites (see Table 2.5), and small systems may apply for waivers to reduce monitoring to once every nine years.[126]

Secondary Contaminants

Secondary contaminants are drinking water contaminants that are of concern primarily because of consumer acceptability. In other words, at least at low levels, secondary contaminants are not a health concern. However, their presence is detectable and distasteful to the consumer, which may cause the consumer to avoid drinking the water. Therefore, DPH has established Secondary Maximum Contaminant Levels (secondary MCLs) to regulate contaminants that may affect the taste, odor, or color of drinking water or that may cause cosmetic skin or tooth discoloration or damage to a water system's infrastructure.[127]

Secondary MCLs are also referred to as "consumer acceptance levels."[128] While water with high levels of secondary contaminants is not considered acceptable for public drinking water supplies, because these contaminants are not considered health risks,[129] there is far less public funding available to address these problems.

Table 2.6a lists those secondary contaminants that have fixed consumer acceptance levels and therefore have ***strict*** secondary MCLs.

Table 2.6a: Contaminants with Strict Secondary MCLs[130]

Constituent	Secondary Maximum Contaminant Level
Aluminum	0.2 mg/L
Color	15 Units
Copper	1 mg/L
Foaming Agents (MBAS)	0.5 mg/L
Iron	0.3 mg/L
Manganese	0.05 mg/L
Methyl-tert-butyle ether (MTBE)	0.005 mg/L
Odor	3 Units
Silver	0.1 mg/L
Thiobencarb	0.001 mg/L
Turbidity	5 Units
Zinc	5 mg/L

Table 2.6b lists those secondary contaminants for which DPH has not established fixed consumer acceptance levels,[131] and are therefore permitted at a range of levels, depending on the circumstances.

Table 2.6b: Contaminants with Flexible Secondary MCL Ranges[132]

Constituent	Recommended Contaminant Level	Upper Contaminant Level (*if necessary*)	Short-Term Contaminant Level (*pending systemic changes*)
Total Dissolved Solids	500 mg/L	1,000 mg/L	1,500 mg/L
Specific Conductance	900 micromhos	1,600 micromhos	2,200 micromhos
Chloride	250 mg/L	500 mg/L	600 mg/L
Sulfate	250 mg/L	500 mg/L	600 mg/L

Routine Monitoring

Community water systems must monitor for all the of the secondary contaminants listed in the tables above, as well as bicarbonate, carbonate, hydroxide alkalinity, calcium, magnesium, sodium, pH, and total hardness. Systems using groundwater must monitor every three years, while systems using surface water must monitor annually.[133]

Nontransient, noncommunity and transient, noncommunity water systems must monitor for bicarbonate, carbonate, hydroxide alkalinity, calcium, iron, magnesium, manganese, pH, specific conductance, sodium, and total hardness at least once. Nontransient, noncommunity water systems must also monitor for the constituents in Tables 2.6a and 2.6b at least once.[134] However, unless specifically required by DPH, there are no additional monitoring requirements on these types of systems, regardless of the results.

Violations

If a water sample contains a contaminant listed in Table 2.6a at a concentration greater than its MCL, the provider must begin monitoring for that contaminant every three months (quarterly). Thereafter, compliance is determined by taking the average of any four consecutive quarterly samples. If the average exceeds the MCL, the system is in violation, and the provider must notify DPH.[135] A source that exceeds one or more of the MCLs in Table 2.6a and does not have a compliance waiver (see below), can only be used as standby source (see Box 2.4) if it reports all use to DPH, notifies the public prior to use, and takes corrective measures such as flushing to reduce constituent levels.[136]

For all contaminants listed in Table 2.6b, DPH recommends maintaining these contaminants at a low level for purposes of desirability, but permits concentrations at the upper secondary MCL if it is not feasible for the system to provide better-quality water.[137] High levels at the short-term contaminant level are only permissible for existing systems on a temporary basis while new treatment facilities or water sources are being developed.[138] Generally, new sources for community water systems that have levels between the upper and short term levels will not be approved unless there are compelling reasons or progress is demonstrated towards improving the water quality.[139]

Monitoring Waivers

A provider may apply to DPH for a waiver from the routine monitoring frequencies for the contaminants listed in Tables 2.6a & 2.6b (as well as for bicarbonate, carbonate, hydroxide alkalinity, calcium, magnesium, sodium, pH, and total hardness), if the PWS has conducted at least three rounds of monitoring (*i.e.*, nine years) of routine monitoring for groundwater or three years for surface water), and the result of every test was below the secondary MCL. If DPH grants a waiver, the term of the waiver may not exceed nine years, and the provider must collect at least one sample while it is in effect.[140]

Compliance Waivers

If a community water system is in violation of a secondary MCL, DPH can grant it a compliance waiver so that it does not have to comply with the MCL or monitor for that contaminant for nine years if the average of four consecutive quarterly samples is less than three times the secondary MCL (see Table 2.6a) and less than the notification level (see sidebar). A compliance waiver is not available for a secondary contaminant that also has a primary MCL (*i.e.*, aluminum, MTBE, and thiobencarb).[141]

In order to obtain this compliance waiver, however, a community water system must submit an application with the following:

1. A log of customer complaints or any other evidence of customer dissatisfaction;
2. An engineering report that evaluates all reasonable alternatives and costs for bringing the water system into compliance, including a recommendation of the most cost-effective and feasible approach. For iron and/or manganese this report must include an evaluation of sequestration options, in addition to treatment;
3. The results of a customer survey distributed to all the water system's billed customers that asks whether the public would prefer to pay for treatment or live with the current water quality, with a no response being counted as in favor of treatment. The survey must have at least a 50% response rate from the customers;
4. An agenda, list of attendees, and a transcript of at least one public meeting in which customers were invited to give input and the results of the survey and engineering report were discussed with the public.[143]

Notification Levels & Response Levels[142]

Notification levels, also known as action levels (AL), are health-based advisory levels established by CDPH for chemicals in drinking water that lack maximum contaminant levels (MCLs).

Generally, if levels are above the notification level, a system must notify consumers. If a chemical is present in drinking water at concentrations considerably greater than the notification level, CDPH recommends that the drinking water system take the source out of service. The level at which DPH recommends that a source be taken out of service is the response level.

Once an MCL is established for a contaminant, that MCL replaces the notification and response levels. For a list of current notification levels and response levels set by DPH, see *Appendix 4*.

The waiver may be renewed at the discretion of DPH, although the system must request approval at least six months prior to the end of the current waiver period.[144]

Box 2.4 - Standby or "Back-up" Sources

A standby source is a well or other water source that is only used for short-term emergencies of five consecutive days or less, and for less than 15 calendar days a year.[145] Anytime a standby source is used, the water supplier must notify DPH within 3 days and include information on the reason for and duration of use.[146]

Standby sources must still be monitored a minimum of once every compliance cycle (9 years) for all inorganic, organic, and reiological MCLs, unless DPH has issued the system a waiver for that well. If previous monitoring results indicate that nitrate or nitrite levels are equal or greater than 50% of the MCL, the standby source must be monitored annually. Additionally, if the standby source with higher nitrate or nitrite levels is used, a sample must be taken and reported to DPH within 24 hours of use.[147]

A standby source cannot be used as a regular source of drinking water supply unless the source meets all existing drinking water standards.[148]

Distribution System Physical Water Quality

Most primary and secondary MCL requirements are designed to monitor the quality of the sources from which a PWS draws its water. However, water quality can also be affected by the physical distribution system. For example, even if an aquifer is contaminant-free, old pipes may leach particles into the water that ultimately flows through a consumer's kitchen faucet. Therefore, every PWS is also required to determine the physical water quality in its distribution system as well, assessing the water's color, odor, and turbidity.[149]

The PWS may make this determination based on flushing records (if the provider flushes its water system) or consumer complaint records, or else it must collect samples at representative points in the distribution system.[150] The sampling schedule depends on the number of service connections.[151] Ultimately, every PWS must "be free from significant amounts of particulate matter."[152]

Flushing

What does it mean to flush the system?

Flushing is a process by which water is moved through a water pipe at a high velocity so that a scouring action is created and stagnant water and sediment can be removed from the main pipes. Routine flushing of water distribution pipelines helps deliver cleaner and clearer water to taps. Flushing may result in reduced water pressure or discolored water during the operation. When the flushing operation is complete, the normal pressure and clear water should return. Dead end lines should be flushed every three months, or as needed, to remove stagnant water and sediment. The storage tank should be flushed every three months, or as needed, to remove sediment and keep it from entering the distribution system. Keep record of the flushing date and your observations.[153]

Unregulated Chemicals

Many other chemicals may be present in drinking water but not regulated by the state or federal Safe Drinking Water Acts. In an effort to identify new chemicals of concern that may be in drinking water, the DPH is required to establish a list of unregulated chemicals and require monitoring of those contaminants by PWSs.[154] Both the federal EPA and state DPH have programs generally requiring monitoring for a set number of unregulated contaminants. For a list of results from previous monitoring lists from DPH, see **http://www.cdph.ca.gov/certlic/drinkingwater/Pages/UCMR.aspx**, or from the federal EPA, see **http://www.epa.gov/safewater/ucmr/index.html**.

As of the date of publication of this guide, DPH has repealed its list of unregulated contaminants and does not require all systems to monitor for any unregulated contaminants, unless specifically required to do so.[155] However, EPA has set a list of 10 unregulated contaminants and requires that all large community or nontransient, noncommunity water systems (serving more than 10,000 people) conduct one year-long round of monitoring between 2008 and 2010 (see Table 2.7).[156]

Table 2.7: EPA Monitoring List for Unregulated Contaminants[157] (2008 – 2010)

• Dimethoate
• Terbufos sulfone
• 2,2′,4,4′-tetrabromodiphenyl ether (BDE-47)
• 2,2′,4,4′,5-pentabromodiphenyl ether (BDE-99)
• 2,2′,4,4′,5,5′-hexabromobiphenyl (HBB)
• 2,2′,4,4′,5,5′-hexabromodiphenyl ether (BDE-153)
• 2,2′,4,4′,6-pentabromodiphenyl ether (BDE-100)
• 1,3-dinitrobenzene
• 2,4,6-trinitrotoluene (TNT)
• Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)

Treatment Requirements

In order to comply with the regulations governing primary and secondary contaminants and to render water healthful for human consumption, a PWS may treat the water supply.[158] The following are some of the most pertinent requirements governing water treatment.

Treatment Technology

A PWS can only use water treatment devices that DPH has certified for use in California.[159] DPH publishes a list of approved treatment technologies for microbiological contaminants, radionuclidees, organic chemicals, and inorganic chemicals in the California Code of Regulations.[160]

Fluoridation[161]

Large PWSs with 10,000 service connections or more must install a fluoridation system if DPH provides sufficient funding for installation and operation.[162] Fluoridation is the process of adding fluoride to drinking water for the purpose of protecting dental health.[163] The precise amount of fluoride that a PWS must add to the water to achieve an optimal fluoride level depends on the temperature of the water in the system.[164] When a PWS is operating a fluoridation system, it must monitor its fluoride levels daily.[165]

Box 2.5 - The Fluoride Controversy

Background: Fluoride is one of the most common elements found on earth and is found naturally in many water sources. In addition, fluoride has been added to the drinking water supplies of most US cities for more than a half century to prevent cavities in children. On the other hand fluoridation is not a common practice for small communities. For instance, none of the water systems in Tulare County currently add fluoride to their water supplies.

There is a great deal of disagreement among health professionals and advocates over the potential health impacts and benefits of fluoridation. The American Dental Association (ADA) considers water fluoridation to be the single most effective public health measure to prevent tooth decay. At the same time, both the ADA and the National Academies of Science (NAS) advise parents not to give infants under one year of age water containing fluoride, because of concerns of fluorosis. Additionally, the ADA advises that children under age two not be given fluoride toothpaste and that children under 6 not use fluoride mouthwash.

While fluorosis is a largely cosmetic condition, some studies have also linked fluoride intake to increased bone fractures and bone cancer. As a result, the NAS has asked the US EPA to review its MCL for naturally occurring fluoride. Given these concerns, the availability of fluoridated toothpaste (for children age 6 and older) and the difficulty in accurately regulating the individual dosage of fluoride (due to differences in individual water consumption and the presence of fluoride from other food and beverage sources), many organizations, including Clean Water Fund, no longer support water system fluoridation.

If your water system contains fluoride, you should purchase bottled water for young children (infants and young children less than one year of age). Some bottled water also contains fluoride, so check the label when purchasing. If your tap water contains fluoride, so will the local vended water machines.

The California Department of Public Health Drinking Water Program maintains a list of water agencies that add fluoride to their water, or that have naturally occurring levels in their source water. That information can be found on the web at **http://www.cdph.ca.gov/certlic/drinkingwater/Documents/Fluoridation/PWSFluoridationTable-12-06-2007.xls**. Your annual Consumer Confidence Report is also required to report on levels of fluoride found in your tap water.

Disinfectant Residuals (Chlorine)

Disinfectants can be applied to drinking water to kill bacteria and other disease-causing microorganisms.[166] If a PWS uses chlorine or chloramines as part of the drinking water treatment process, it must limit the amount so that the residual chlorine or chloramines in the water do not exceed four milligrams per liter (4 mg/L).[167] However, a PWS may temporarily increase the amount of residual chlorine or chloramines if necessary to protect public health and to address specific microbiological contamination problems, including infrastructural damage, storm runoff, natural disasters, or other isolated events that contaminate the system's water sources. In these circumstances, the PWS must notify DPH immediately.[168]

If a PWS uses chlorine dioxide to disinfect its water supply, it must limit the amount so that the residual chlorine dioxide in the water does not exceed 0.8 mg/L under any circumstances.[169]

Routine Monitoring

If a PWS applies chlorine or chloramines, it must monitor for residual disinfectant levels in the water at the same time that it monitors for the presence of total coliforms. (For the total coliform monitoring schedule, see Table 2.3.) If a PWS applies chorine dioxide, however, it must monitor for residual disinfectant levels daily.[170]

Disinfectant Byproducts[171]

Disinfectant byproducts are created when disinfectants, used to treat water to protect against microorganisms and diseases, react with naturally occurring organic and inorganic matter present in the water. While disinfectants are important to protect health, the byproducts of these same chemicals have been linked to health impacts.[172] Thus far, studies indicate that disinfectant byproducts pose a potential risk of cancer, liver, and nervous system health impacts, although the existing evidence does not indicate a definitive cause and effect. The evidence is more tenuous on reproductive or developmental effects. For more information on health impacts of disinfectant byproducts, see the *Community Health Guide* later in the Guide.

In 2006, the federal EPA and the California DPH issued new rules for disinfectant byproducts to reduce exposure in drinking water. For PWSs with a population under 10,000, the new rules, beginning in 2013, will limit the ability to meet the MCL by averaging all of their test results. Instead, all water systems will need to find and treat "hot spots" in their system. [173]

Routine Monitoring:

Generally, all community and nontransient, noncommunity water systems that treat water with a chemical disinfectant must monitor for two primary types of disinfectant byproducts, trihalomethanes (TTHMs) and five haloacetic acids (HAA5), according to the frequency schedule associated with the size of the system (see Table 2.8).[174]

In addition, community and nontransient, noncommunity water systems using chlorine dioxide to treat water must monitor for chlorite by taking daily samples at the entrance to the distribution system.[175] And community and nontransient, noncommunity systems using ozone to treat water must monitor for bromate on a monthly basis at the entrance to the distribution system.[176]

What are Trihalomethanes?

Total trihalomethanes (TTHMs) consist of the sum of concentrations of bromodichloromethane, dibromochloromethane, trichloromethane (chloroform), and tribromomethane (bromoform).

Table 2.8: Routine and Increased Monitoring Frequency for TTHM and HAA5[177]

Type of system	Persons served	Minimum monitoring frequency	Sample location in the distribution system & increased monitoring frequencies
Systems using approved surface water	>/=10,000	Four samples per quarter per treatment plant	At least 25 percent of all samples collected each quarter at locations representing maximum residence time. Remaining samples taken at locations representative of at least average residence time in the distribution system and representing the entire distribution system, taking into account number of persons served, different sources of water, and different treatment methods.
	500-9,999	One sample per quarter per treatment plant	Locations representing maximum residence time.
	<500	One sample per year per treatment plant during month of warmest water.	Locations representing maximum residence time. If the sample (or average of annual samples, if more than one sample is taken) exceeds a MCL, the system shall increase monitoring to one sample per treatment plant per quarter, taken at a point reflecting the maximum residence time in the distribution system.
Systems using only ground water not under direct influence of surface water and using chemical disinfectant	>/=10,000	One sample per quarter per treatment plant	Locations representing maximum residence time.
	<10,000	One sample per year per treatment plant during month of warmest water temperature	Locations representing maximum residence time. If the sample (or average of annual samples, if more than one sample is taken) exceeds a MCL, the system shall increase monitoring to one sample per treatment plant per quarter, taken at a point reflecting the maximum residence time in the distribution system.

Violations

Generally, if the average level detected in samples over a period of three months or one year (depending on the frequency with which a system monitors) exceeds the MCL (see Table 2.9), then a system is in violation.[178] All sampling results, locations, and averages must be reported to DPH.[179]

Reduced Monitoring:

Systems may apply to DPH to reduce monitoring frequency if results over the past year show low levels; however, if future sampling shows high levels the system must increase frequency.[180]

Table 2.9: Maximum Contaminant Levels (MCLs) and Detection Limits for Purposes of Reporting Disinfection Byproducts[181]

Disinfection Byproduct	Maximum Contaminant Level (MCL) (mg/L)	Detection Limit for Purposes of Reporting (mg/L)
Total Trihalomethanes (TTHM)	**0.080**	
Bromodichloromethane		0.0005
Bromoform		0.0005
Chloroform		0.0005
Dibromochloromethane		0.0005
Haloacetic Acids (five) (HAA5)	**0.060**	
Monochloroacetic Acid		0.002
Dichloroacetic Acid		0.001
Trichloroacetic Acid		0.001
Monobromoacetic Acid		0.001
Dibromoacetic Acid		0.001
Bromate	**0.010**	0.005
Chlorite	**1.0**	0.02

Notice Requirements[182]

Emergency Notification Plans

Every PWS must have an ***Emergency Notification Plan*** and submit it for approval to the local primacy agency (see Box 2.7) or DPH. This plan must describe how the water provider will give immediate notice to its customers if there is any significant rise in bacterial count in the water or other failure to comply with any primary drinking water standard that represents imminent danger to the health of water users. No permit, variance, or exemption may be issued or amended and a system is not supposed to operate at all until an Emergency Notification Plan has been submitted and approved by the local primacy agency or DPH.[183]

General Notice Requirements

Whether an emergency or not, water providers must inform members of the public, and especially the system's water users, of any Safe Drinking Water Act violations or other events which pose a risk to public health. DPH has recently remodeled its notice requirements using the federal EPA's notice requirements as a template.[184] The time allowed to provide a notice varies depending on the risk. However, the required content of the notice remains the same for every kind of notice issued.[185]

Required Content

Every public notice (except those required when a PWS is operating under a variance or exemption, *i.e.*, Tier 3) must contain the following information:[186]

1. a clear and readily understandable explanation of the violation, including the date it occurred;
2. the potential adverse health effects of the contaminants present;
3. the population at risk (including particularly vulnerable subpopulations, such as pregnant women and small children);
4. the steps that the water provider is taking to correct the violation and when it expects the problem to be resolved;
5. whether it is necessary to seek alternative water supplies;
6. a telephone number of the water provider where additional information concerning the notice can be obtained;
7. a statement encouraging the reader to distribute the notice to other water users; and
8. for monitoring and testing procedure violations, specific word-for-word language regarding the provider's duties and failure.[187]

Every public notice also must be formatted in a manner that is comprehensible to all of the system's water users: the information must be displayed so that it catches attention (no print smaller than 12-point font), it must be understandable at the eighth-grade reading level (no complicated technical language), and it must not contain language that contradicts or minimizes the required information.[188]

If the notice pertains to a water quality violation caused by the presence of one of the various regulated contaminants or by residuals or byproducts of the treatment process, the notice must also contain additional word-for-word language regarding the relevant health effects caused by the particular form of contamination.[189]

Requirements for Spanish and Other Non-English Language Translations

Current DPH regulations state that every public notice must contain a section in Spanish explaining the importance of the notice and listing a telephone number or address where Spanish-speaking residents may contact the provider to obtain a copy of the notice translated into Spanish or assistance in Spanish.[190] Identical information must also be included in any other non-English languages for which there is a significant subset of the population in the region served by the water provider (specifically, 1000 residents or 10% of the resident population, whichever is less).[191] However, the regulatory requirements regarding translation are currently being reconsidered to ensure that systems comply fully with other state laws.

Template Notices

For a list of templates that public water systems can use to send out notices, see **http://ww2.cdph.ca.gov/certlic/drinkingwater/Pages/Notices.aspx** or contact DPH. Some template notices available from DPH are already translated into Spanish.

In California, there are three primary laws that provide additional language access rights, the Dymally-Alatorre Bilingual Services Act (BSA),[192] the California Civil Rights Act,[193] and the federal Civil Rights Act (Title VI).[194] The BSA requires that local agencies that serve a substantial number of non-English speaking people and that provide materials explaining services in English, provide the same type of materials in any non-English language spoken by a substantial number of the public served by the agency.[195]

Additionally, the California Civil Rights Act prohibits the "denial of full and equal access to the benefits of... any program or activity that is conducted, operated, or administered by the state or by any state agency, is funded directly by the state, or receives any financial assistance from the state" on the basis of "race, national origin, ethnic group identification, or color."[196] This means that any state agency or recipient of state funding (including water systems that receive state funding) must provide interpretation or translation services necessary to ensure that non-English speaking people can receive its services and participate in its activities.

Similarly, the regulations implementing the federal Civil Rights Act of 1964 (also referred to as Title VI)[197] require recipients of federal financial assistance to ensure meaningful access to their programs and activities by persons with limited English proficiency.[198] This means that any water system that receives federal funding is required to provide translation or interpretation services necessary to ensure that non-English speaking people can benefit from its services and participate in its activities.

In short, given the requirements of state and federal law, notices regarding the quality of water provided to customers or other services, particularly by governmental entities or recipients of state or federal funding, should be fully translated into all languages spoken by a substantial number of the public served. Additionally, if you need interpretation at a meeting or translation of a document in order to get information regarding your water service, you have the right to request that from your water provider, particularly if your water provider is a governmental agency or receives state or federal funding. In such cases, your water system has an obligation to provide these services unless it would constitute an extreme financial hardship.

Types of Notices

There are three levels of notification that decrease in urgency (Tier 1, Tier 2, and Tier 3). The more serious the health risk posed by the violation, the more stringent the notice requirements for informing the public about the violation.[199]

New Customers

Every time a PWS receives a new customer, it must inform that customer of any exemptions or variances under which the system is operating, any events that have triggered Tier 1 public notices in the previous 30 days, and any ongoing violations or circumstances which pose a potential health risk.[200]

Tenants, Employees, & Students

Every time landlords, employers, or schools receive a notice from a PWS, they must in turn inform their tenants, employees, or students (or parents if students are minors) of the contents of the notice within ten days. Failure to fulfill this obligation subjects the landlord, employer, or school to a civil penalty of up to $1000 per day of failure to give notice.[201]

Tier 1 Public Notices

Water quality violations that are dangerous even at short-term exposure levels trigger a Tier 1 public notice.[202] For Tier 1 notices, the provider must notify the public as soon as possible within 24 hours of learning of a violation and initiate consultation with DPH to determine if any additional notice requirements are necessary to protect public health.[203] The provider must use a method of delivery that reaches all water users (both residents and transients), which must include at least one of the following methods: radio or television, posting in conspicuous locations, hand delivery, or some other method approved by DPH.[204] The plan for how each PWS will notify customers of Tier 1 events should be detailed in its Emergency Notification Plan.[205]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Events Triggering a Tier 1 Notice

The following are some of the violations that trigger a Tier 1 public notice: waterborne microbial disease outbreaks, fecal coliform and *E. coli* violations, nitrate/nitrite violations (including failure to take a repeat sample within 24 hours), perchlorate violations (including failure to take a repeat sample within 24 hours), or failure to treat water properly after a turbidity violation (unless the provider consults with DPH within 24 hours and gets the Tier 1 notice requirement waived).[206]

Tier 2 Public Notices

For Tier 2 notices, the provider must notify the public as soon as possible within 30 days of learning of a violation.[207] However, the provider can request an extension of up to 60 days from DPH if it has resolved the problem and public health and welfare were not adversely affected. Community water systems must contact bill-paying customers by mail or direct delivery, and other persons (such as tenants) by publication in a local newspaper, posting on the internet or in conspicuous places served by the water system, or delivery to community organizations.[208] Noncommunity water systems must post in conspicuous places ***and*** publish in a newspaper or newsletter, post on the internet, directly deliver to every customer, or send emails to employees or students.[209]

In addition, the provider must maintain a posted notice for at least seven days and then for as long as the violation persists thereafter, and repeat the notification process every three months for as long as the violation persists.[210]

Events Triggering a Tier 2 Notice

The following are violations that trigger a Tier 2 public notice: violation of a variance or exemption, any MCL or treatment technique violation not assigned to Tier 1, and any procedural violation not deemed Tier 3 (based on potential health impacts and persistence of the violation). [211]

Tier 3 Public Notices

If a provider begins operating under an exemption or variance, or if it discovers that it has violated any procedural requirements, it must issue a Tier 3 public notice within one year.[212] Community water systems must contact bill-paying customers by mail or direct delivery and other persons (such as tenants) by publication in a local newspaper, posting on the internet or in conspicuous places served by the water system, or delivery to community organizations.[213] Noncommunity water systems must post in conspicuous places ***and*** publish in a newspaper or newsletter, post on the internet, directly deliver to every customer, or send emails to employees or students.[214]

In addition, the provider must maintain a posted notice for at least seven days and then for as long as the violation persists thereafter, and repeat the notification process every year for as long as the violation persists.[215]

Alternatively,[216] the provider may issue an annual report detailing the occurrences within the last twelve months, or it may include this information in its annual Consumer Confidence Report. For more information on these reports, see the section on Consumer Confidence Reports in this part of the *Legal Reference Guide*.

Special Notice Requirements

Disinfectants & Disinfectant Byproducts

If a PWS uses chlorine, chloramines, or chlorine dioxide as part of its treatment process, it must include specific language, word for word, explaining what the chemical is and why it is applied to the water source, as well as a description of the potential health risks caused by the presence of residual disinfectant in the drinking water.[217] In addition, the system must explain what disinfectant byproducts are, with specific reference to bromate and chlorite.[218]

Unregulated Contaminants

If a PWS is required to monitor for unregulated contaminants, it must notify water users of the results no later than one year after receiving the test results in a manner designed to reach all of the system's water users (including mail or direct delivery for bill-paying customers and newspaper publication or posting in public places for other water users, such as tenants).[219] The information may be included with a Consumer Confidence Report (CCR) instead, if the CCR is issued within the required time frame.[220]

Reporting Requirements

Consumer Confidence Reports

All community and nontransient, noncommunity water systems must prepare and deliver an annual Consumer Confidence Report to each customer.[221] Systems must also make a good faith effort to reach customers who are served by the water system but are not bill-paying customers, such as renters or workers.[222] Copies of every report must be mailed out by July 1st each year and copies must be kept for at least five years by the water system.[223]

Each Consumer Confidence Report (CCR) must contain the following information:[224]

1. the type of water delivered by the water system and the commonly-used name and location of the source water (for an explanation on the different sources of water, *e.g.*, surface water or groundwater, see Box 1.3 in the *Getting Started* section);
2. whether a source water assessment has been completed, and if so, when it was completed, how to obtain it, and a brief summary of the system's vulnerability (see Box 2.6 for more information on source water assessments);
3. any violation(s), both of water quality and procedural drinking water laws, how long the violation(s) lasted, potential adverse health effects, and what has been done to correct the violation(s);
4. information on any exemptions or variances the system may be operating under;
5. the telephone number of the owner, operator, or designee of the water system as a source of additional information concerning the report;
6. the time and place of regularly-scheduled board meetings and any other opportunities for public participation in decisions that may affect the quality of the water;
7. definitions for the terms "maximum contaminant level," "primary drinking water standard," and "public health goal;"
8. information on the level of unregulated contaminants for which monitoring is required; and
9. the level of all regulated contaminants found in the drinking water and the corresponding public health goal and primary drinking water standard for each contaminant.

Box 2.6 - Source Water Assessments

Each water system must have a source water assessment that describes the following for all sources of drinking water:

- the area around a drinking water source through which contaminants might move and reach that drinking water supply;
- the possible contaminating activities in the area that might lead to the release of microbiological or chemical contaminants; and
- the possible contaminating activities to which the drinking water source is most vulnerable, among other issues.

More information on source water assessments can be found at **http://www.cdph.ca.gov/certlic/drinkingwater/Pages/DWSAP.aspx** or by contacting the DPH at (916) 449-5600.

CCRs in Languages Other Than English

All CCRs must contain information in Spanish explaining the importance of the report or contain contact information for where Spanish-speaking residents may obtain a translated copy of the report or assistance in Spanish.[225] Additionally, for all other non-English speaking groups that exceed 1,000 residents or 10% of the residents in a community, whichever is less, the CCR must also contain information in that language on the importance of the report or contain contact information for where residents can obtain a translated copy or assistance in that language.[226] See the discussion on "Requirements for Spanish and Other Non-English Language Translations" in the Notice Requirements section earlier in this part of the *Legal Reference Guide* for more information regarding language access rights.

Other Required Reports on a Water System

DPH must issue the following reports:

- A report evaluating the public water system oversight program of each local health officer every three years, which must be submitted to the local health officer and the local board of supervisors.[227]
- A Safe Drinking Water Plan for California to the state legislature every five years. This report must include, among other things, an assessment of current drinking water quality and an identification of drinking water problems.[228]
- A report to the state legislature on the source water protection program every two years. This program includes completion of source water assessments for all PWSs.[229] See Box 2.6 for more information on source water assessments.
- A list of devices that are approved for treatment.[230]

In addition, the local primacy agency must submit monthly reports to DPH regarding the compliance of every PWS within his or her jurisdiction. DPH must evaluate each local primacy agency and issue a report of the evaluation at least annually.[231] See Box 2.7 for more information on local primacy agencies.

Records that Must Be Maintained

The following records must be kept by every PWS on or at a convenient location near the water provider's premises:[232]

1. all complaints received, both verbal and written, and corrective action taken for the last five years;[233]
2. records of bacteriological analyses for the last five years and chemical analyses for the last ten years;
3. records and corrective actions taken for all violations for at least three years after the final action has been taken to correct a particular violation;
4. copies of any written reports, summaries, or communications relating to sanitary surveys of the system for at least the last ten years;
5. documentation of all variances or exceptions granted to the system for not less than five years after the variance or exemption expires.
6. copies of any Tier 1, Tier 2, and Tier 3 public notices, for not less than three years.

Operational Requirements

In order to receive a permit to operate, a new PWS must demonstrate that it has the financial resources and managerial and technical capacity to maintain a safe drinking water system and comply with all monitoring and treatment requirements. This applies to new water providers when a PWS changes ownership, as well.[234]

Every community water system must use water treatment plant and distribution system operators who have been certified by DPH.[235] Different sizes and types of water systems require different levels of operator certification.[236]

Certified Operators

To learn more about how to become a certified operator, contact the following agencies or organizations:

- California Department of Public Health (DPH) at **www.cdph.ca.gov/certlic/occupations/Pages/DWopcert.aspx** or (916) 449-5611
- California State University Sacramento's Office of Water Programs at **www.owp.csus.edu** or (916) 278-6142 (offers online and correspondence trainings to become a certified operator and manuals on operating drinking water systems)
- California Rural Water Association at **www.calruralwater.org** or (800)833-0322
- The Rural Community Assistance Corporation at **www.rcac.org** or (916) 447-2854

These agencies may also be able to direct you to certified operators in your area.

Water Shortages

Any PWS can declare a water shortage emergency whenever the ordinary demands of water consumers cannot be satisfied without depleting the water supply to the extent that there is insufficient water for human consumption, sanitation, and fire protection.[237] Generally, the provider must hold a public hearing before such an emergency can be declared, although a hearing is unnecessary if there is a break or failure in a dam, pump, pipe line, or conduit that causes an immediate emergency.[238] Once an emergency has been declared, the water provider must adopt restrictions on the delivery and consumption of water to "conserve the water supply for the greatest public benefit with particular regard to domestic use, sanitation, and fire protection."[239] Once those needs have been met, the provider must set priorities for other users without discriminating among consumers using water for the same purpose or purposes.[240]

Exemptions

Maximum Contaminant Levels and Treatment Requirements

Under the California Safe Drinking Water Act, DPH can exempt any PWS from any MCL or treatment requirement, if it finds ***all*** of the following:[241]

1. the PWS was already operating or had applied for a permit when the MCL or treatment requirement became effective;
2. the PWS cannot comply with the requirement or implement measures to develop an alternative water supply because either:
    a. there are compelling economic reasons; or
    b. DPH determines, after review and a public hearing, that the entire service area of the PWS meets established state affordability criteria and therefore constitutes a disadvantaged community;[242]
3. the exemption will not result in an unreasonable risk to health; and
4. no management and/or restructuring changes can reasonably be made that will result in compliance or at least improve the quality of the drinking water.

However, if DPH does exempt a PWS from a primary drinking water standard, it must set a schedule for the system to come into compliance and require interim control measures during the period in which the system is out of compliance.[243] This schedule accompanying any exemption must require the PWS to come into compliance within 12 months of granting the exemption.[244]

A system that serves less than 3,300 people and needs financial assistance to make the improvements necessary to come into compliance can be granted an exemption for up to six years if DPH finds that it cannot meet the standards without the improvements and the system is taking all practicable steps to meet the standard.[245]

Also, DPH can issue an exemption from an MCL or treatment requirement to a PWS for up to two years if the system submits a reasonable plan to bring the system into compliance by any of the following means:[246]

1. physically consolidating the system with one or more other system(s);
2. consolidating the management and administrative functions of the system with one or more other system(s); or
3. transferring ownership.

However, before DPH can issue any exemption from an MCL or a treatment requirement, the agency must first give notice (must notify the PWS in writing and publish the notice one time in a local newspaper), and it must provide an opportunity for a public hearing.[247]

The federal Safe Drinking Water Act provides an additional source of authority for variances from MCLs and treatment requirements.[248] Under federal law, DPH may grant a variance in situations where the quality of reasonably-accessible water sources are so poor that even using the most effective treatment methods available, a PWS is still unable to comply with an MCL.[249] In order to be eligible for a variance, however, the water system must actually install and use the best available treatment methods.[250] In addition, DPH must determine that the variance will not cause an unreasonable health risk and it must notify the public of the proposed variance and provide an opportunity for a public hearing on the matter.[251]

State Small Water Systems

State Small Water Systems – systems with 5 service connections[252] – are subject to less extensive regulatory requirements than larger systems.[253] These systems need to test for the presence of fluoride, iron, manganese, chlorides, total dissolved solids, and inorganic chemicals from each water source at least once, and if designated as vulnerable, then they need to test for volatile organic chemicals at least once as well.[254] In addition, State Small Water Systems must provide continuous disinfection treatment to each surface water source before entry into the distribution system, and they must routinely monitor for total coliform bacteria every three months.[255]

State Small Systems

are those systems that serve at least five but not more than 14 service connections and do not regularly serve drinking water to more than an average of 25 people daily for more than 60 days of the year.[256]

Agricultural Water District Exclusions

It is permissible for a water provider to supply non-potable water if that provider was in existence before May 18, 1994, supplies water primarily for agricultural uses, and if the water provider or users provide alternative water or treatment for residential use.[257] As a condition, DPH can require that either the water provider or the water system users take reasonable, cost-effective actions to ensure that the alternative water or treated water will not be injurious to health.[258] DPH must periodically monitor and review whether the conditions for this agricultural exclusion continue to be met,[259] and it must ensure that the exclusion does not conflict with the requirements of the federal Safe Drinking Water Act.[260]

The water provider must record a document with the county entitled "Notice of Noncompliance with Safe Drinking Water Requirements" that lists what actions DPH requires, and the provider must send a written notice to all property owners within the district regarding the existence of that recorded document.[261] In addition, each year the water provider must publish a report in a local newspaper describing both DPH's requirements and the water provider's compliance record,[262] and inform any new customers of the exemption under which the system is operating.[263]

Additionally, all landlords, employers, or schools that receive a notice from a PWS operating under such an exemption must in turn inform their tenants, employees, or students (or parents if students are minors) of the contents of the notice within ten days. Failure to fulfill this obligation subjects the landlord, employer, or school to a civil penalty of up to $1000 per day of failure to give notice.[264]

Enforcement

Drinking Water Enforcement Agencies

DPH must inspect each water system regularly according to the following schedule:[265]

1. PWSs with any surface water source with treatment must be inspected once every year.
2. PWSs with any groundwater source subject to treatment, and no surface water source, must be inspected once every two years.
3. PWSs with only groundwater sources not subject to treatment must be inspected once every three years.

For systems under 200 connections in counties that have local primacy, inspections are conducted by the county local primacy agency (see Box 2.7).

California Department of Public Health (DPH)

DPH is the primary state agency charged with regulating public drinking water systems in California to protect public health. DPH's responsibilities include:[266]

1. enforcing the federal Safe Drinking Water Act and relevant federal regulations;
2. enforcing the California Safe Drinking Water Act;
3. adopting and enforcing detailed state administrative regulations to ensure that every PWS provides safe drinking water; and
4. conducting research to develop new and improved methods for achieving safe drinking water.

Delegation to Local Primacy Agencies

For small public water systems with less than 200 service connections, DPH can delegate responsibility to a local health officer (called the "local primacy agency") to enforce drinking water laws.[267] The local primacy agency is usually the county environmental health department. See Box 2.7 for a list of local primacy agencies that are currently responsible for small system oversight:

Box 2.7: Local Primacy Agencies in California

Local Primacy Agencies are county environmental health jurisdictions that have been granted regulatory authority to oversee some or all of the small public water systems in their county. As of October 2008, DPH has entered into local primacy agreements with 35 counties:[268]

Counties with DPH local primacy agreements			
Alpine	Los Angeles	Plumas	Santa Cruz
Amador	Madera	Riverside	Shasta
Butte	Marin	Sacramento	Stanislaus
Calaveras	Merced	San Bernardino	Tehema
Contra Costa	Mono	San Diego	Tulare
El Dorado	Monterey	San Joaquin	Toulumne
Imperial	Napa	San Luis Obispo	Yolo
Inyo	Nevada	San Mateo	Yuba
Kings	Placer	Santa Barbara	

For a list of contacts for county environmental health offices, see **http://www.ccdeh.com/roster.asp**.

Regardless of any delegation arrangements, however, DPH retains the ultimate responsibility for overseeing the safety of the drinking water supplied by every PWS.[269] DPH must step in to enforce safe drinking water laws if a PWS has been in violation for a period of at least 90 days within the previous year or if a particular drinking water contaminant presents an imminent danger to the health of the system's water users.[270]

Box 2.8 - Understanding Drinking Water Agencies

United States Environmental Protection Agency (USEPA): Administers the federal Safe Drinking Water Act (SDWA) by setting drinking water rules and standards that all states must meet.

Department of Public Health (DPH):

Oversees implementation and enforcement of the California Safe Drinking Water Act by issuing regulations, maximum contaminant levels (MCLs), and permit requirements for public drinking water systems. The state standards (including MCLs) must be at least as strict as the federal standards, and are supposed to balance the public health goal with cost and technical feasibility.

Office of Environmental Health Hazard Assessment (OEHHA):

Conducts an assessment and peer review process to set state public health goals (PHGs) for drinking water contaminants. These goals are then used by DPH to set the Maximum Contaminant Levels (MCLs) for drinking water.

Local Primacy Agency (county) Drinking Water Programs:

In many counties, DPH gives authority to a county department for enforcement and implementation of requirements (including permitting, monitoring, and reporting) for systems under 200 connections.

Public Drinking Water Systems (PWSs) with 200 or more connections, or PWSs in counties with no local primacy agency jurisdiction:

Any system that provides drinking water to at least 25 people or 15 service connections at least 60 days a year from its own source of water is a public drinking water system. These include cities, municipal water districts, public utility districts, community services districts, and private companies, among many others. Each type of entity has its own unique governing structure and may have different restrictions on rates and governance. But all must meet drinking water standards and operational requirements.

Public Drinking Water Systems (PWSs) with less than 200 connections in counties with local primacy agency jurisdiction:

Includes many schools, restaurants, camp sites, mobile home parks, rest stops, labor camps, apartment complexes, and very small communities that have their own sources of water.

Enforcement Tools

Enforcement Tools Available to DPH

DPH and local primacy agencies have a variety of methods for enforcing safe drinking water laws. These enforcement tools are called "remedies" in legal jargon. The enforcing agency may select whichever remedy or remedies that are appropriate for a given situation,[271] as effective enforcement sometimes requires the use of more than one method. These tools can be used to penalize procedural violations as well as actual water quality violations, and the PWS against which these tools are used must reimburse DPH and/or the local primacy agency for any reasonable enforcement costs incurred.[272]

Administrative Remedies

First, there are number of enforcement tools that DPH can use without resorting to filing a lawsuit:

Table 2.10: Administrative Remedies

Type of Remedy	Description
Inspections	DPH may inspect the physical water system and its records, install monitoring equipment, and collect water samples.[273]
Orders	DPH may issue an order directing a violator to take specific, appropriate action to ensure compliance with the law.[274]
Citations	DPH may issue a written citation to a violator describing the violation.[275]
Civil Penalties	DPH may impose a monetary fine on a violator for failing to comply with the law or for failing to comply with a subsequent departmental order or citation. The size of the fine depends on the type of violation but may not exceed $1000 per day.[276]
Summary Abatement (Public Nuisance)	Any public officer, including DPH or a local health officer, can take direct, immediate action to fix a PWS that is in violation of a primary drinking water standard (a primary MCL). This could include, for example, temporarily discontinuing service.[277]
Permit Revocation or Suspension	DPH may conduct a formal hearing to suspend or revoke a water provider's operating permit for failure to comply with the law, a departmental order, or the terms of the permit, or for making a false misrepresentation on a required document.[278]

Civil Judicial Remedies

In addition, DPH can file a lawsuit against a water provider in the superior court located in the county where the water system is located, seeking the following remedies:

Table 2.11: Civil Judicial Remedies

Type of Remedy	Description
Injunctions	The court may issue an order, called an injunction,[279] directing a water provider to stop engaging in a particular practice that violates the law (including administrative orders and permits) and/or directing the provider to take positive action to comply with the law. If a water provider has been supplying water without a valid permit issued by DPH, the agency can file a civil lawsuit in any court of competent jurisdiction, not just a superior court. If the court rules in DPH's favor, the court can order the water provider to stop operating the system altogether.[280]
Civil Penalties (Infractions)	The court may impose monetary fines on a water provider for operating without a valid permit, violating drinking water laws, engaging in false misrepresentation, and/or failing to provide an adequate and reliable supply of wholesome, healthful, potable water. The maximum fines range from $5,000 to $25,000 per violation or per day, depending on the circumstances.[281]
Receivership	The court may appoint a "receiver" to take over temporary possession and operation of the water system if the provider abandons the system, does not adequately serve its users, or is unresponsive to DPH's rules.[282]

Civil Lawsuits

When one party (such as a private citizen or a governmental agency) sues another party (such as a water provider or a private citizen), this is classified as a civil lawsuit. The court overseeing the proceedings can only order the losing party to pay money or to perform or stop performing a specific action. It is not possible for a court to convict someone of a crime in a civil proceeding.

Criminal Penalties

Certain intentional violations that negatively impact the health and safety of a PWS constitute criminal activity and can be prosecuted. Crimes include ***knowingly*** engaging in false misrepresentation, destroying, altering, or concealing required documentation, withholding critical safety information, operating a system without a permit, or tampering with a water system with the intention to harm other people. If convicted, the violator can be subject to a term of imprisonment of up to five years and/or a monetary fine of up to $30,000.[283]

Criminal Trials:

A government prosecutor can initiate a criminal trial against an individual private citizen (a defendant). If the court overseeing the proceeding convicts the defendant of a crime, the court can sentence the defendant to a monetary fine, a term of imprisonment, or both.

Legal Remedies Available to Water Users

Aside from lobbying for DPH or a local primacy agency to step in, an individual water user's ability to enforce compliance with safe drinking water laws is limited. However, a private citizen or a nongovernmental organization can file a civil lawsuit requesting an injunction under the circumstances described in Table 2.12.

Table 2.12: Injunctions Available to Private Litigants

Type of Violation	Description
Contamination Caused by Domestic Users or Animals	Anyone can file a civil lawsuit seeking an injunction ordering someone who is polluting a water source (*e.g.*, bathing or washing clothes in a source, dumping dead animal carcasses or manure in the source, etc.) to stop.[284]
Public Nuisance	At least for those chemicals for which primary MCLs have been established, it may be possible for a private citizen to file a civil lawsuit under the theory of public nuisance, seeking an injunction from the local superior court ordering a polluter to stop contaminating a water source with a regulated contaminant or ordering a water provider to install a treatment or purification system to reduce regulated contamination levels.[285]

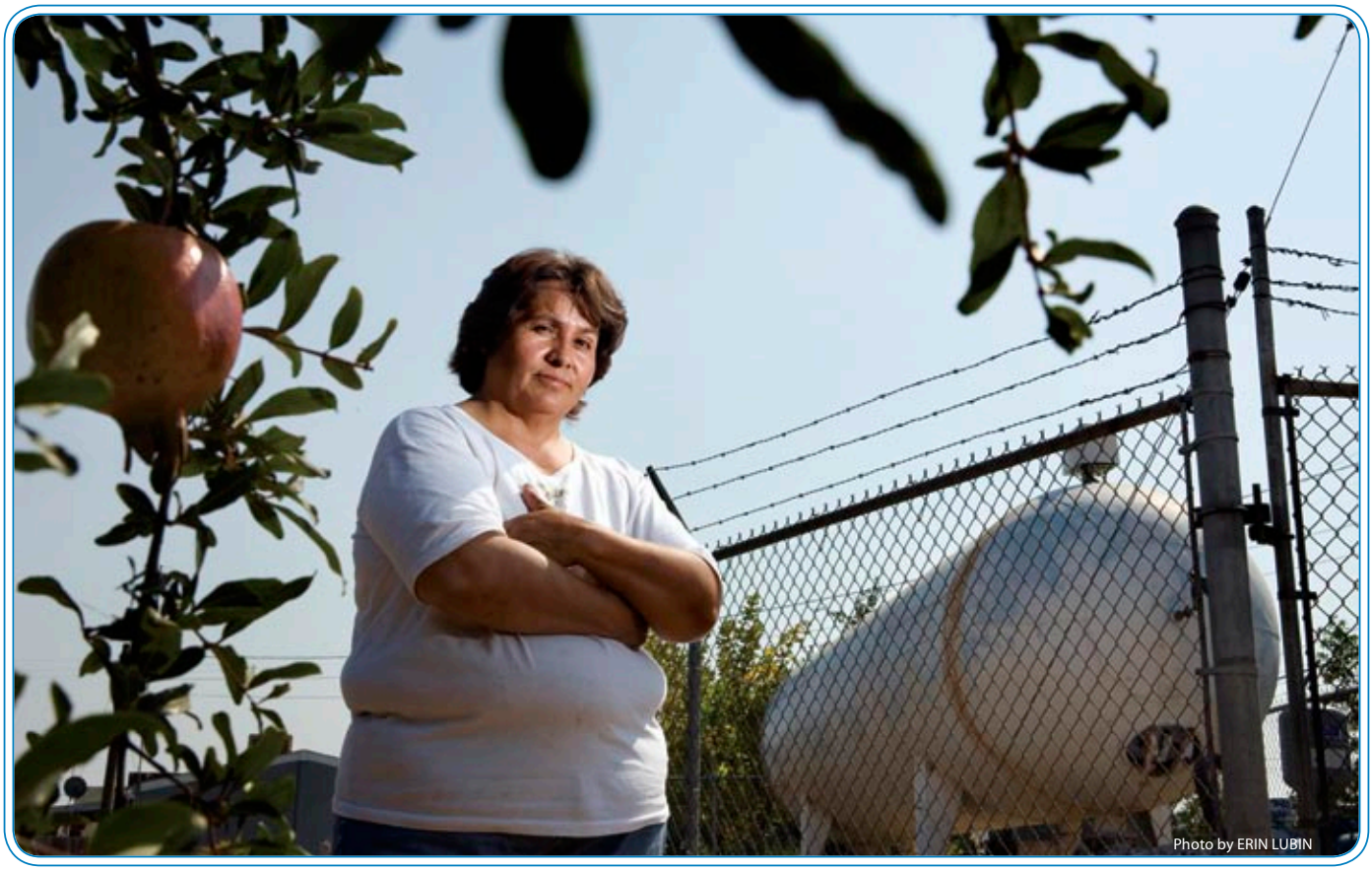


Photo by ERIN LUBIN

LEGAL REFERENCE GUIDE

Part 2 - Legal Requirements for Specific Types of Water Providers

While the water quality laws contained in the federal and state Safe Drinking Water Acts apply uniformly to all drinking water providers, other types of laws, such as those concerning who can control the actions taken by the provider, vary according to the water provider's governing structure. Many different types of local entities can supply drinking water in California, but loosely speaking, drinking water providers can be divided into three major categories: governmental water providers, private water utilities, and other nongovernmental water providers. Governmental water providers are public in nature and therefore are subject to a number of laws that regulate and restrict governmental action by public agencies. Private water utilities are subject to regulation by the California Public Utilities Commission (PUC). Other nongovernmental water providers are not subject to the PUC's jurisdiction or laws governing public agencies and therefore have a great deal more flexibility to establish their own governing structures in their articles of incorporation and bylaws.

Legal Reference Guide - Part 2

Legal Reference Guide - Part 2 *continued*

Governmental Water Providers

Governmental water providers include cities, municipal utilities, and all special districts, including irrigation districts, community services districts, public utility districts, municipal water districts, and county water districts.

Features Common to All Governmental Water Providers

Governmental water providers are public entities, and therefore, a number of state laws regulate their actions. In particular, state laws guarantee members of the public the rights to access information and to participate in decision making processes. State laws also set out procedures for resolving injury-related disputes between a member of the public and a provider, as well as procedures that providers must follow in order to increase the rate consumers pay for drinking water.

Access to Information (The Public Records Act)

As public entities, governmental water providers are subject to the Public Records Act.[286] This law requires the water provider to make all public records available for inspection at all times during the water provider's office hours.[287] The Public Records Act provides that every member of the public has a right to inspect any public record, with some exceptions, and has a right to receive an exact copy of an identifiable record, unless impracticable.[288] For a handout on the Public Records Act, see *Appendix 2.4*.

Who can access public records?

The Public Records Act applies to all local and state governmental agencies, not just water providers.[289] Any member of the public has a right to make a request for information or records, regardless of whether a person is a customer, a citizen, or a homeowner.

How must a request be made?

While technically requests do not have to be in writing, requests should be in writing whenever possible so that there is clear documentation regarding what was requested and when it was requested. Not only is it easier for the agency to respond to written requests, but it is easier to pursue in court, should that be necessary. Sometimes agencies have their own Public Records Act request forms, which allow the agency to direct it to the appropriate person more quickly.

Requests do not have to cite the Public Records Act, however it often helps to show the agency that you know your rights by including the following in your request:

> "Pursuant to the Public Records Act, Government Code § 6250, *et seq.*, I request __[insert your request here]_____."

Clearly state all records that you would like to review as specifically as possible. You do not have to know the exact name of a document or report, but you should give a clear sense of the type of information that you want to review. The agency may contact you to help narrow down your request if it is too vague and voluminous. (See *Appendix 3.1* for a Public Records Act request template.)

What information can I request?

Any information related to the public business of the agency should be made available, regardless of the form it takes (*i.e.*, written documents, pictures, audio records, symbols, electronic data).[290]

Keep in mind, however, that the agency does not have to create a record for you that does not already exist. For example, if you want a graph showing water contamination levels over the past 10 years, the agency does not have to create that graph just for you. However, if the agency has already made that graph, it must produce it for you. Additionally, the agency would need to provide any reports or data showing contamination levels over the past 10 years.

Exceptions to the Public Records Act generally involve issues around confidentiality and privacy.[291] For example, the public does not generally have the right to see employee files or personal information of clients, such as home addresses and social security numbers. Employment contracts, however, are

generally available. Additionally, concerns around homeland security have made water providers and state and local agencies withhold exact information on well locations, in most cases. Other exceptions include attorney-client discussions, certain information regarding pending litigation or contract negotiations, and preliminary drafts and notes if they are not normally kept and the public interest in withholding the drafts clearly outweighs the public interest in disclosure.[292] However, the presumption is that the agency should disclose information to the public unless there is a strong overriding conflicting right or need (*i.e.*, privacy, security, etc.).

When and how can I have access to the information I requested?

If the information is readily available, the agency should respond immediately by allowing for inspection at the office during regular business hours. While agencies should respond as promptly as possible, the agency is allowed up to 10 days to respond if necessary, and may take an additional 14 days if the request is voluminous or complex.[293]

The agency cannot charge a fee for inspection of public information, however, it may charge a copy fee if copies are needed.[294] The agency cannot charge for the time spent finding or compiling documents, nor for time spent present in a room while you are viewing documents.[295]

What happens if I am denied access to public information?

The agency can be forced to comply with a Public Records Act request by filing suit in state court. If you do have to file suit in court, and as a result the agency is forced to disclose the information, the agency must pay your attorney fees and court costs.

How can I get more information on the Public Records Act?

A handout on the Public Records Act can be found in *Appendix 2.3* and a template for Public Records Act requests can be found in *Appendix 3.1*. You can also get more information on the Public Records Act from the following organizations that specialize in ensuring public access to information:

- The California First Amendment Coalition, at **http://www.cfac.org/content/index.php/cfac-records/index/** or by calling (415) 460-5060
- The First Amendment Project at **http://www.thefirstamendment.org/** or by calling (510) 208-7744

Participation in Governance (The Brown Act)

Governmental water providers are also subject to the Brown Act,[296] which requires that members of the public be allowed to attend all board meetings and be allowed a public comment period during each meeting to speak on any issue within the board's jurisdiction. The Brown Act also requires that a board post a notice of its meetings and the agenda showing what subjects will be discussed. The Brown Act was created with the intent of ensuring that local governmental bodies remain transparent and open to public participation. Therefore, these boards cannot discuss related business or make decisions outside of a public meeting. Certain limited issues may be discussed in a "closed session" where no member of the public is present; however an agenda must show the topics being discussed.[297] For a handout on the Brown Act, see *Appendix 2.3*.

Who is covered by the Brown Act and when is it triggered?

In general, all local governmental agency boards or councils that make policy decisions are covered by the Brown Act.[298] In practice, this means city councils and boards of supervisors, as well as the boards of governmental entities such as community services districts and public utility districts.

The Brown Act applies to any "meeting," in which a majority of members are present or included, as long as any issue within the board's jurisdiction is discussed. In other words, if a majority of members of a board attended a baseball game, it would not necessarily trigger the Brown Act. However, if two members at the game discussed their positions on an issue coming before the board next week and then one member spoke to another member and that member discussed it with another member, and ultimately a majority of members had discussed the issue before the public meeting, those discussions may be considered a "serial meeting" that is prohibited by the Brown Act.[299] Basically, the law tries to ensure that decisions are made in an open fashion and not "rigged" beforehand.

How can I find out what will be discussed at a meeting?

The Brown Act requires that local governmental agencies post an agenda in a location that is freely accessible to the public at least 72 hours before regular meetings,[300] 24 hours before special meetings, and one hour before emergency meetings. Stronger notice requirements and hearing procedures are required before an agency can impose new taxes or assessments.[301] The agenda must include a brief description of the subjects to be discussed (both in open and closed sessions), as well as the time and location of the meeting. Often the agenda is posted outside the agency's office. Any member of the public may also request that a notice be sent to them by mail, however the agency can charge a reasonable annual fee for this service.[302] Additionally, the public must have access to materials furnished to the board at the time that those materials are furnished to the board. Each agenda must indicate where the public can review those materials if they are provided as part of the board's agenda packet.[303]

Special & Emergency Meetings

Special meetings can be called outside of regular meetings if there is a pressing issue or special need, such as a matter that may take more time or attention.

Emergency meetings can only be called in certain extreme circumstances, such as a work stoppage or a crippling disaster or other activity which severely impairs public health or safety.

How can I participate in a meeting?

The Brown Act requires that meetings be held locally and in an accessible location where any member of the public may attend without having to pay a fee or fulfill any other requirement.[304] It is common to have sign-in sheets at meetings, however the agency cannot require any member of the public to sign-in or provide any personal information in order to attend or participate in a public meeting.[305]

If any document is distributed to the board, the public has a right to see that document without delay. Additionally, any member of the public has the right to record the proceedings and show or distribute those recordings to the public.

All members of the public have the right to address the board on any issue on the agenda before action is taken. Additionally, at all regular meetings the board must give any member of the public the opportunity to address the board on any issue under the jurisdiction of that board, whether or not that issue is on the agenda.[306] Generally, this opportunity is given during a "public comment period" at the beginning or end of a meeting.[307] Boards may make rules limiting the length of public comments, however those rules must be reasonable and evenhanded, meaning for example that it cannot limit one side of a controversy and not the other.

If individuals of the public are willfully disruptive and make it impossible to run an orderly meeting, those individuals may be removed. Additionally, if order cannot be restored by only removing the willfully disruptive group, the board can clear the room and continue the meeting, however it must allow journalists to remain in the room.[308]

What can be decided in a closed session?

All items must be discussed in an open, public meeting unless it falls into certain specified exceptions for closed sessions. Exceptions include pending litigation, contract negotiations, and some personnel issues. The agenda must briefly describe any issues that will be discussed in closed session, and generally, the board should report any action taken during closed session to the public when the meeting is re-opened. Exceptions to this rule, however, include decisions on pending contract negotiations or litigation that is not yet resolved in which disclosure might endanger the outcome.[309]

Can board members talk informally and decide what they will do before the public meeting?

Any attempt to communicate directly or indirectly by a majority of the board to decide an issue informally outside of a public meeting is prohibited. However, a member of the public can meet individually with board members outside of public meetings to discuss an issue so long as there is not communication between members to agree on how to vote on an issue. There are exceptions which do allow a majority of board members to meet outside a publicly noticed meeting (like social occasions), but they are prohibited from discussing agency matters.

What can I do if an agency has not followed the Brown Act?

If an agency has violated the Brown Act, a number of remedies are available in court. A member of the public can sue to force the agency to comply with the Brown Act or declare an action void. However, a person must give notice in writing to the agency asking it to correct the action within 90 days of the violation, or 30 days if the violation was because of inadequacies on the agenda. The agency then has 30 days to take action. If the agency does nothing or refuses to take action at the end of the 30 days, the person must file in court within 15 days to void the action. Generally attorney fees are awarded if you prevail in court. Often the local District Attorney will contact the board if a Brown Act complaint is made because the Brown Act includes criminal penalties.

How can I get more information on the Brown Act?

A handout on the Brown Act can be found in *Appendix 2.2*. You can also get more information on the Brown Act from the following organizations that specialize in ensuring public access to information:

- The California First Amendment Coalition, at **http://www.cfac.org/content/index.php/cfac-meetings/index/** or by calling (415) 460-5060.
- The First Amendment Project at **http://www.thefirstamendment.org/** or by calling (510) 208-7744.

Initiatives

The initiative process allows voters to circumvent a water board and adopt an ordinance on their own. Specifically, any person can circulate a petition within the water district or municipality, and if the petition receives enough signatures from registered voters, then the water board or municipal council must either adopt the proposed ordinance or submit it to the voters at a special election.[310] If the ordinance receives a majority vote at the special election, or if the water board or municipal council adopts the proposed ordinance without submitting it to an election, then the board or council cannot later amend or repeal the ordinance without submitting the proposed amendment or repeal to the voters.[311] In other words, once voters pass a law governing a water provider's practices or policies, the provider cannot change the law after that without the voters' permission. For information on the process to get an initiative on the ballot, contact your local elections office. Often your county or city elections office will have a user-friendly guide showing the forms and technical requirements in your local jurisdiction.

The Initiative Process

The initiative process is ***not*** available to consumers whose water providers are irrigation districts, or in water districts that do not permit elections or pass ordinances, or in water districts that violate the democratic principle of one-person-one-vote (that is, weigh the votes of some people more heavily than others).[312]

Grievance Procedures

If you have general complaints about the way your governmental water provider conducts its business, you may want to start by attending meetings and/or reviewing relevant business records at the provider's district office. In addition, the following methods may be used to challenge or dispute an action taken by the water provider.

Writs

If a governmental entity (such as a water board) has acted in violation of the law, you may be able to bring a civil proceeding in court challenging the action or decision. These civil proceedings are called Extraordinary Writs, and there are a number of different kinds that may be used depending on the type of challenge. Writs of Mandate (or mandamus) are used to challenge a local or state agency's decision if it failed to act or acted in violation of legal duties.[313] For example, if a local water board adopted a policy that conflicted with a state or federal law, any person or organization that may be affected by that policy could challenge that decision in court through a writ. Additionally, a writ could be used to challenge a local water board decision in court if a board failed to follow the process required by state or federal law (*e.g.* proceedings required under the Brown Act or Prop. 218). In general, to bring a writ, you must be affected by the decision,[314] and have "exhausted administrative remedies," which means you must have tried to resolve the issue through any proceedings available to you with the board or agency before bringing the issue to the court.[315] If you think that a water board acted in violation of the law, you should contact an attorney immediately since in some cases there are short time limits (*e.g.* 30 days) on when a decision may be challenged in court.

Challenging Ordinances by Referendum

The referendum process allows voters to prevent a recently-adopted ordinance from going into effect. Specifically, if a water board or municipal council adopts an ordinance, then, within 30 days after the water board's secretary or the city clerk attests the ordinance, any person who is eligible to vote within the water district or municipality can circulate a petition among registered voters of the district or municipality.[316] If the petition receives enough signatures, then the water board or municipal council must either repeal the ordinance or submit it to the voters at the next regularly-scheduled election or a special election.[317] If the water board or municipal council repeals the ordinance, or if a majority of voters do not vote in favor of the ordinance, then the board or council may not attempt to readopt the same ordinance for at least one year.[318] In other words, if voters reject a law passed by the water board, the water provider cannot attempt to reenact that law for at least a year.

The Tort Claims Act

As a general rule, an entity of state or local government cannot be sued in a court of law for monetary compensation (referred to as "damages") without the state government's permission. In California, that permission comes in the form of the state Tort Claims Act,[319] which specifies the limited situations in which a public entity, such as a governmental water provider, can be held financially liable for injuries caused by the entity's action or inaction. The situations in which liability may be imposed that are most relevant to governmental water providers are: 1) the existence of a dangerous condition on a water provider's property,[320] and 2) a water provider's failure to fulfill a duty imposed upon it by statute.[321]

In addition, the Tort Claims Act establishes the procedures that both a potential claimant (the person with the grievance) and the water provider must follow if a grievance involving monetary damages arises.[322] In particular, before a claimant can file a lawsuit in court seeking money damages from a governmental water provider, the claimant must first present the claim to the provider, thereby giving the provider an opportunity to pay the claim out of court if the provider so chooses.[323]

What is a tort?

In the United States, a "tort" refers to the kind of civil lawsuit brought when someone is injured by an action or inaction, *e.g.*, someone gets sick from a water system's failure to chlorinate. Some other foreign countries categorize this kind of lawsuit as a "civil wrong," "civil responsibility," "delict," or the "law of obligations." Generally, the lawsuit is seeking monetary damages, although it may also seek that a defendant take a certain action, such as installing a chlorinator.

The California State Tort Claims Act

only applies to lawsuits against governmental water providers in which a claimant seeks monetary compensation. The Act does not limit other kinds of legal action, such as seeking a declaration or a court order demanding the provider to perform or cease performing some action.

Limits on Power to Increase Water Rates

Governmental water providers do not have unlimited power to increase water rates or impose new fees and charges related to water service. Specifically, Proposition 218 requires all governmental water providers (including all special districts) to follow a set process before they can raise rates. It also sets limits on why the rates can be increased. While there are a number of cases that have tried using other legal tools to challenge rate increases in court, Proposition 218 remains the most useful. Below is more detailed information on these tools and requirements.

Proposition 218 (Article XIIID of the California Constitution)

Article XIIID of the California Constitution (commonly referred to as "Prop. 218") requires the provider to first satisfy a number of procedural and substantive requirements before it can raise rates. Procedurally, the provider must satisfy the following steps:[324]

1. Identify the parcels of land within its jurisdiction that will be affected by the rate increase.
2. Notify the affected landowners in writing of the proposed rate increase, specifying the following information:
    - the amount of the rate increase;
    - why the increase is needed;
    - how the provider calculated the amount of the needed increase; and
    - when and where the provider will conduct a public hearing on the proposed increase.
3. Conduct a public hearing on the proposed rate increase and consider all protests by property owners.

Check for updates in Prop. 218 case law

Court interpretations of Proposition 218 are continually evolving and changing. Make sure you check with an attorney to find out if new cases have changed the interpretations presented here.

If a majority of property owners within the service district submit written protests at the hearing, the provider must withdraw its proposal.[325]

Box 2.9 - Prop. 218 - Do ***Tenants*** Have Veto Power?

As the list of procedural steps demonstrates, the language of Article XIIID clearly gives ***landowners*** the power to veto a governmental water provider's proposed water rate increase by majority protest. The question remains whether residential tenants wield similar power. No court has decided this issue, but Article XIIID defines property ownership expansively to include tenants, at least in situations where tenants are directly liable to pay for fees or charges.[326] Therefore, it is probably not unreasonable to construe Article XIIID extending veto power to those tenants who pay water bills directly to the water provider; however, those tenants whose water use charges are included in the monthly rent paid to the landlord probably do not qualify for veto power.

Even if a majority of property owners do not veto the proposed rate increase, the increase must still satisfy the following substantive requirements to be valid:[327]

1. The provider must tie the rate increase to a particular targeted service enhancement (for example, augmenting water supplies or improving delivery system infrastructure). That purpose may ***not*** include funding "general governmental services" that are available to the general public

as well as to property owners. (In other words, the provider cannot impose a water rate increase to pay for unrelated services, such as police, fire, ambulance, or library services.)

2. The provider may not use the revenue generated by the rate increase for any other purpose than the one for which the increase is targeted. (In other words, after identifying a particular purpose for the rate increase, the water provider may not subsequently divert the funds elsewhere.)
3. The provider must calculate the amount of the rate increase precisely to cover the cost of the funds needed to provide the service. (In other words, the agency cannot generate a profit from increased water rates.)
4. The cost imposed on each property owner must be proportional to that property owner's water use. (Increases in consumption-based water use charges would appear to satisfy this requirement.)
5. The provider must base the rate increase on actual use, not estimated use or potential future use. (Again, increases in consumption-based water use charges would appear to satisfy this requirement.)

Other Limitations on Water Rate Increases

The fees and charges a governmental water provider imposes on its users must be reasonable, fair, and equitable in nature.[328] However, when a governmental water provider passes an ordinance fixing water rates, this constitutes a legislative function, and courts therefore accord substantial deference to the provider's decision.[329] Historically, the court will presume that the ordinance is valid, and the person challenging the rate increase bears the burden of proving otherwise.[330] This is an extremely difficult standard to meet.[331]

On the other hand, in the wake of Proposition 218 and the adoption of Article XIIID of the Constitution, it appears that a governmental water provider no longer has a right to earn a reasonable rate of return (profit) from an increase in water rates.[332] Instead, water charges must remain closely tied to the cost of delivering the water and maintaining the system.[333] This suggests that, if challenged in court, perhaps a provider might need to produce some evidence after all of the linkage between the revenues generated by its rate increase and the operational costs toward which those funds are disbursed.

Finally, in contrast to private water utilities, which are governed by the PUC, governmental water providers are not required to pass along any cost savings to customers.[335] The theory is that, unlike privately-owned corporations that are in the business of earning a profit, "the electoral process is a sufficient check on [the] functioning" of governmental water providers.[336]

Discriminatory Rates

California courts have consistently held that in order to challenge a rate increase as being discriminatory in violation of the Equal Protection Clause, "a showing that rates lack uniformity is by itself insufficient to establish that they are unreasonable and hence unlawful. To be objectionable, discrimination must draw an unfair line or strike an unfair balance between those in like circumstances having equal rights and privileges. It is only unjust or unreasonable discrimination which renders a rate or charge unreasonable."[334] Therefore, even if a rate increase impacts some users more heavily than others, or is not the same amount for all users, that fact alone does not establish unlawful discrimination. Rather, the differences in rates or impacts must also be unjust or unreasonable in order for that rate increase to be illegal.

Types of Governmental Entities that Provide Drinking Water

In addition to the laws that govern all local governmental entities in California, each type of governmental water provider has its own set of laws that set out specific structural issues, such as the purpose of the entity, who can serve on the governing board, and how board members are elected. Below is an overview of the laws governing the most common types of governmental water providers.

Special Districts

Special districts are local public agencies that provide many of the same services as a city government. In most unincorporated communities, special districts are the only local governmental entities. While there are many different types of special districts, the discussion below is limited to some of the most common types of special districts that act as local water providers: irrigation districts, community services districts, public utility districts, and municipal water districts.

There are over twelve different types of water districts in the California Water Code alone, each with their own set of laws governing the formation, powers, and other rules of the district. However, most of these water districts, such as County Water Districts, Water Conservation Districts, California Water Districts, California Water Storage Districts, Reclamation Districts, and County Waterworks Districts, generally focus on providing water supply for irrigation or flood control and often do not provide potable water directly to residents. Additionally, there are many other types of districts in other parts of the California Code that can provide drinking water, such as County Sanitation Districts, but whose primary purpose may be broader. In short, if your PWS is a special district that is not discussed in this Guide, ask your water provider or your Local Agency Formation Commission (LAFCO) for a copy of the laws governing that district.

LAFCOs

Each of California's 58 counties has a Local Agency Formation Commission (LAFCO), which, among other things, oversees the formation of special districts within the county. One of the primary purposes of each county's LAFCO is to encourage the "orderly formation and development of local agencies" within the county.[337]

Box 2.10 - Other County Water Districts

There are a number of different types of county districts that may provide drinking water.

County Sanitation Districts may provide potable water, although often they are formed to provide sewer or waste disposal services regionally.[338] The boards of these districts are composed of representatives of any cities or sanitation districts within these regional districts, as well as a member of the county board of supervisors if the district includes unincorporated areas.[339]

County Service Areas (CSAs) are assessment districts formed by the county to provide specific services to unincorporated areas that it does not perform on a county-wide basis.[340] Often counties use these CSAs to provide water to communities in unincorporated areas. CSAs are administered by county staff (traditionally Public Works or the Resource Management Agency) under the direction of the county board of supervisors.

County Water Districts (CWDs) are regional districts whose purpose is to control water for any present or future beneficial use within the district.[341] CWDs often do not provide potable water directly. A CWD is governed by an elected board of five directors. Any person registered to vote within the district is eligible to serve on the board of directors.[342]

County Waterworks Districts are special districts with the power to provide water for irrigation, domestic, industrial, or fire protection purposes.[343] They are governed by the board of supervisors of the county, unless a board of directors has been appointed by the board of supervisors.[344]

Irrigation Districts

Overview

Purpose of Irrigation Districts

As the name would suggest, an irrigation district's primary function is to provide irrigation water to landowners within the district.[345] However, irrigation is broadly defined to include both commercial, agricultural uses ***and*** domestic, residential uses.[346] Other district powers include land drainage,[347] flood control,[348] distribution of electrical power,[349] sewage disposal (if district voters assent),[350] and the operation of public recreational facilities on dams and reservoirs as a source of revenue.[351]

Irrigation Districts

In irrigation districts where water use is primarily agricultural, the water quality requirements for PWSs specified in California's Safe Drinking Water Act may not apply. An irrigation district may supply non-potable water, so long as the district and its water consumers take reasonable precautions to ensure a supply of safe drinking water for domestic users.[352] See the previous section on Exemptions in the first part of the *Legal Reference Guide*.

Laws Governing Irrigation Districts

Irrigation districts are governed by Division 11 of the California Water Code, comprising Sections 20500-29978. The laws governing irrigation districts are vast and span significantly more sections of code than the laws regulating the other types of special district water providers.

Caution!! This section contains a description of the default laws that apply to ***most*** irrigation districts. However, many sections of the Water Code apply only to individual, specifically-named irrigation districts. (For example, an entire chapter is devoted only to the El Dorado Irrigation District.) Therefore, be sure to review the Water Code (available at **http://www.leginfo.ca.gov/cgi-bin/calawquery?codesection=wat&codebody=&hits=20)** or check with your local district to see whether there are particular laws that apply specifically to your irrigation district.

Governance

Governing Structure

In general, each irrigation district is governed by a five-member board of directors, which manages the district's affairs.[353] An irrigation district must also maintain a district office at a fixed place, although the office does not need to be located within the district.[354]

Who can serve on the board?

A district is generally divided into five geographic divisions, each of which elects one member to the board of directors.[355] In order to become a member of the board, you must be a voter and a landowner in the district, as well as a resident of the division you wish to represent, both when nominated or appointed and during the entire term.[356] Districts are given wide latitude to change their election procedures,[357] however, so check with your local office for possible differences.

Who has the right to vote?

Any registered voter living in the district is eligible to vote in any district election.[358]

Box 2.11 - Exceptions to Universal Voting for Irrigation Districts

In the following irrigation districts, only landowners may vote, and they do not have to reside in the district:[359]

- Big Springs Irrigation District
- Camp Far West Irrigation District
- Corcoran Irrigation District
- Cordua Irrigation District
- Glenn Colusa Irrigation District
- Jackson Valley Irrigation District
- James Irrigation District
- Montague Water Conservation District
- Princeton-Codora-Glenn Irrigation District
- Provent Irrigation District
- Richvale Irrigation District

How can a board member be removed?

If a board member willfully violates a legal duty, any person who pays assessments to the irrigation district can file a lawsuit in the local superior court seeking to remove that member from the board.[360] Unfortunately, the court can take a long time to resolve the matter, and it is difficult to prove that a board member's misconduct was intentional.

Alternatively, you may also contact the local county elections office for more information on the recall process for special district elected offices.

Public Participation & Access to Information

Meetings

The Water Code requires that all meetings of the irrigation district board be open to the public.[361] While exceptions may apply, in general, the board is supposed to hold a regular meeting on the first Tuesday of each month at the district office.[362] In addition, as public entities, the Brown Act requires irrigation districts to give members of the public an opportunity to comment at each meeting. See the previous section on the Brown Act in this part of the *Legal Reference Guide* for more information.

Public Information

The Water Code allows, but does not require an irrigation district to inform the public about its activities.[363] However, in addition to the Public Records Act, the Water Code obligates an irrigation district to make all of its records available to the public at the district office during regular business hours.[364] For more information, see the previous section on the Public Records Act in this part of the *Legal Reference Guide*.

Direct Democracy

District voters cannot circumvent the irrigation district's board of directors to adopt ordinances by initiative, as the California Elections Code specifically exempts irrigation districts from this particular form of participatory governance.

Grievance Procedures

If you have general complaints about the way your irrigation district conducts its business, you may want to start by attending meetings and/or reviewing relevant business records at the district office.

Challenging Ordinances

As irrigation districts are public entities, voters can use the referendum process to veto any ordinance passed by the board, and individuals or community groups can challenge the legality of any ordinance by petitioning a court for a writ of mandamus. See the previous section on Writs and Challenging Ordinances by Referendum in this part of the *Legal Reference Guide* for more information on this process.

Tort Lawsuits

Individuals can sue an irrigation district or one of its employees in tort, although, because irrigation districts are public entities, the Government Code places certain limitations on a victim's ability to receive monetary compensation from an irrigation district for the injuries it causes. See the previous section on the Tort Claims Act in this part of the *Legal Reference Guide* for more information.

Injunctions

The Water Code provides specific recourse for an individual whose legal entitlement to water is violated by the district. Much of the routine, daily work of the irrigation district is carried out by a "watermaster," the official charged with regulating water use within the district.[365] If the watermaster injures someone who has an express legal right to water by failing to distribute that water, the injured person may file a lawsuit with the local superior court requesting an injunction.[366]

Injunction

An injunction is a court order that can be used to stop the district's improper actions or compel it to perform a specific duty. The individual who requests the injunction cannot receive monetary compensation from the district through this procedure.

Administrative Oversight

The California Department of Water Resources (DWR), a statewide agency, has the authority to inspect the affairs of an irrigation district and request reports or other information from the members of the board.[367] A private citizen cannot force DWR to act upon this authority, but bringing an irrigation district's seemingly improper actions to DWR's attention could influence a decision by the agency to exercise this power.

Community Services Districts

Overview

Purpose of Community Services Districts

Community services districts (CSDs) function much like a city government for unincorporated areas, providing a wide range of what are traditionally considered municipal services. In addition to supplying water in the same manner as a municipal water district, CSDs have the power to dispose of sewage, wastewater, storm water, and solid waste, to maintain roads, parks, libraries, cemeteries, and community centers, to provide services such as fire and police protection, law enforcement, flood protection, transportation, hydroelectric power, snow removal, animal and pest control, mail delivery, environmental protection, and ambulance services,[368] and even to supply electricity in some circumstances.[369]

Community Services Districts (CSDs)

primarily serve unincorporated areas, although they do not automatically lose their powers if some or all of the land they serve gets annexed into a city or is incorporated (*i.e*, if a city is formed).

Laws Governing CSDs

CSDs are governed by Title 6, Division 3 of the California Government Code, comprising Sections 61000 – 61226.5. The statutory provisions governing CSDs are less extensive than the laws governing other types of special districts that supply water. CSDs thus have wide latitude in their functioning, and individual districts may vary significantly from one another in their operations.

Governance

Governing Structure

In general, each CSD is governed by a five-member board of directors, which establishes policies to govern the district's operations.[370] The board appoints a treasurer and a general manager, who implements the board's policies.[371] As cost-saving measures, the board may appoint the county treasurer to serve as a treasurer for the CSD; if the board so chooses, that same individual may also serve as the general manager.[372]

Who can serve on the board?

Generally, every qualified voter is eligible to become a member of the board of directors.[373] Board members are selected by election,[374] and hold office for a term of four years.[375] Some CSDs elect board members at large (meaning, every voter in the district can vote on every candidate for the board of directors), while other CSDs divide themselves into geographical divisions, each of which elects one resident to the board of directors.[376]

However, if the CSD consists only of unincorporated territory in a single county and has less than 100 voters, the county board of supervisors must also serve as the board of the CSD until voters within the district approve a transition to an elected board of directors (usually within five years after the district's formation or when the number of voters in the district reaches 500).[377]

Who has the right to vote?

All registered voters residing in district can vote in district elections.[378]

How can a board member be removed?

The provisions of the Government Code pertaining to CSDs do not provide a standardized method for removing members of the board for misconduct. Therefore, contact your county elections office for more information on the recall process for special district elected offices. This office will have information on who can be recalled, who initiates and conducts a recall, how to start the recall process, petition and signature requirements, how to file recall petitions, the rules governing recall elections, and more. The county may also provide you with examples and templates for you to use.

Public Participation & Access to Information

The Government Code does not contain any provisions specifically obligating a CSD to include the public in its decision making processes or notify the public about its activities. However, CSDs are public entities and therefore subject to the Public Records Act (requiring CSDs to make most records available to members of public), the Brown Act (requiring CSDs to hold board meetings open to the public and receive public comments), and the initiative process (which empowers voters in a district to adopt ordinances regarding water provision without the consent of a CSD's governing board).

Grievance Procedures

If you have general complaints about the way your CSD conducts its business, you may want to start by attending meetings and/or reviewing relevant business records at the district office.

The provisions of the Government Code concerning CSDs do not provide any specific grievance procedures for individuals or community groups who are unhappy with actions taken by their district. However, the standard procedures for lodging grievances against public entities are available against CSDs (*i.e.*, challenging a district ordinance by referendum or writ of mandamus, or suing a district or one of its employees in tort). See the previous section on Grievance Procedures common to all governmental entities in this part of the *Legal Reference Guide* for more information.

Public Utility Districts

Overview

Purpose of Public Utility Districts

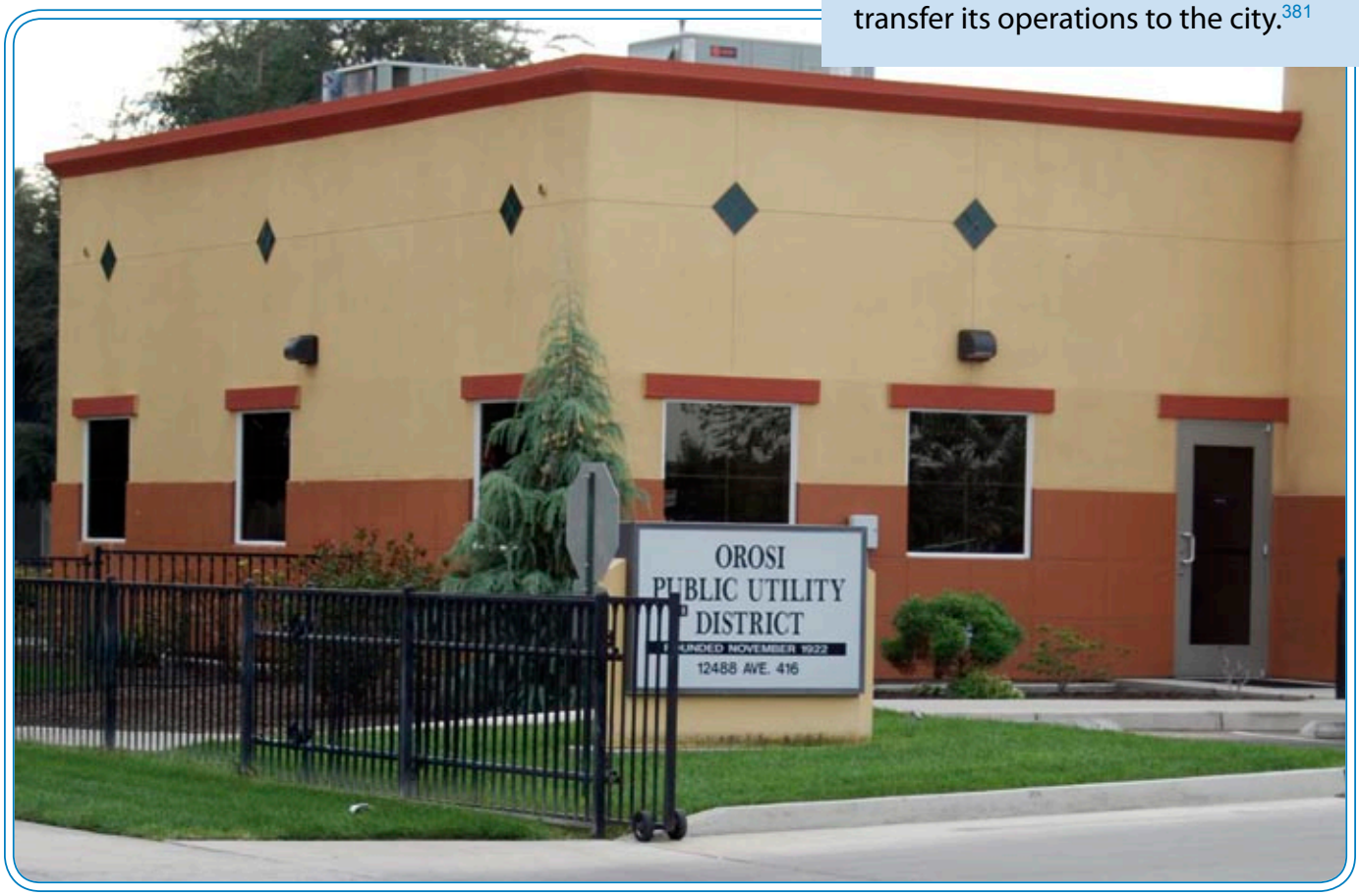
Public utility districts (PUDs) are publicly-owned corporations[379] authorized to provide a range of utility services to their residents, such as electricity, water, heat, transportation, communications, garbage collection, sewage disposal, emergency services, street lighting, and drainage. PUDs are also authorized to operate recreational facilities, such as public parks and swimming pools, as well as fire department.[380]

Laws Governing Public Utility Districts

PUDs are governed by Division 7 of the California Public Utilities Code, comprising Sections 15501-18055.

PUDs

PUDs provide services to specific unincorporated areas. If the PUD's entire area of coverage gets annexed or incorporated into a city, the PUD must transfer its operations to the city.[381]



Governance

Governing Structure

Each PUD is governed by an elected board of directors, which exercises the powers of the district.[382] Generally, the board consists of three directors, who serve staggered, four-year terms.[383] The board can only act by motion, resolution, or ordinance, and its decisions are made by a majority vote among the directors.[384] Ordinances passed by the board do not take effect until 30 days after passage.[385]

The board selects a president from among its members and also appoints four additional officers: a clerk, an accountant, a general manager, and a treasurer.[386] The general manager controls the construction, operation, and maintenance of the PUD's water system.[387] The clerk acts as a secretary to the board and must work fulltime for the PUD during office hours.[388] The accountant must maintain a system of auditing and accounting for the PUD at all times.[389] As cost-saving measures, a single person may hold more than one of these appointed offices,[390] and the board may assign the county treasurer to perform the treasury duties for the PUD.[391]

Who can serve on the board?

Any person who is registered to vote and resides in the district is eligible for nomination as a board member.[392]

Box 2.12 - Composition of PUD Board of Directors

The requirements governing the composition of a PUD's board of directors is relatively more complicated than in other special district water providers. Each PUD is made up of at least one "territorial unit," which is defined as all of the unincorporated area within the boundaries of a single county.[393] Each territorial unit that has a population of at least 5,000 may elect one director to the board.[394] If the PUD consists of less than three territorial units eligible to elect directors, the remaining positions on the board must be filled at-large (meaning, every eligible voter in the district can vote on the candidates for those remaining positions on the board).[395] If the entire PUD resides within the boundaries of a single county, elections for all three directors must be at-large. Elections for the board of directors must take place every two years (specifically, on the first Tuesday after the first Monday in November on odd-numbered years.)[396]

If a PUD lies entirely within the boundaries of one county, the voters may approve an ordinance to increase the number of board members to five, all of whom must be elected at-large. (The proposed ordinance may be submitted to the voters either as a voter-driven initiative or as a proposition by the board.)[397]

Who has the right to vote?

Any registered voter residing in the district can vote in district elections.[398]

How can a board member be removed?

Although the Public Utilities Code does not specify the procedures by which board members can be removed from office, the code does specify a number of grounds for removal.[399] These include:

1. Conflicts of Interest: Entering into a contract that will create a conflict of interest for one or more of the board members (such as a contract from which board member(s) will profit).[400]
2. Improper Accounting Procedures: Failure to follow proper accounting procedures (*i.e.*, making unauthorized appropriations from the PUD's various funds, or failing to either 1) pay the PUD's operating receipts into the PUD treasury on a daily basis, 2) maintain the PUD's accounting books accurately, or 3) provide for an audit of those books).[401]

3. Avoiding Due Diligence: Failure, when requested by 15% of the voters, to hire a qualified consultant selected by the California Public Utilities Commission to inspect the PUD's management and operations for a reasonable fee, in time for the consultant's completed report to be filed in the district office within thirty days of the next district election.[402]
4. Improper Rate-Setting: Failing to charge customers for the PUD's services at a rate sufficient to enable the PUD to generate enough revenue to remain self-sustaining (*i.e.*, at a rate sufficient to cover the PUD's operating expenses and administrative expenses, its principal and interest due on any debt incurred for the construction or purchase of the utility, and a fund for future system maintenance and repairs).[403]
5. Improper Taxation: Failing to utilize the PUD's property tax power appropriately (*i.e.*, failing to either 1) levy an additional tax if the PUD's revenues are inadequate to cover its expenses, 2) pass an ordinance stating the total amount that needs to be raised by the tax and the purpose for which the tax is necessary, 3) provide a manner to equalize assessments on taxable property within the district, or 4) collect delinquent taxes and bring legal proceedings against the delinquent property owners in the district).[404]
6. Improper Tax Delegation: If choosing to delegate the PUD's property tax collection to the county assessor, failing to 1) pass an ordinance declaring this decision, 2) fix the property tax before September 1 at a rate sufficient to raise the necessary amount, and immediately thereafter, 3) inform the county auditor of the rate.[405]

Contact your County Elections Office for more information on the recall process for special district elected officials in your jurisdiction.

Public Participation & Access to Information

Meetings

The Public Utilities Code requires the board to hold all of its legislative sessions open to the public. In addition, as public entities, the Brown Act requires a PUD to give members of the public an opportunity to comment at each meeting.[406] See the previous section on the Brown Act in this part of the *Legal Reference Guide* for more information.

Public Information

The Public Utilities Code requires the board to record votes on all of its proceedings in a journal,[407] and at the end of each fiscal year, it must publish a statement describing the PUD's financial condition in a newspaper of general circulation within the district.[408] This statement must show all the receipts and disbursements made during the past year and explain their source and purpose.[409] The board must also notify district residents of a recently-passed ordinance no less than a week before an ordinance is scheduled to take effect. Specifically, the clerk must post copies of the ordinance in three public places in the district and publish a copy in a local newspaper of general circulation.[410] Additionally, the Public Records Act requires a PUD to make most of its records available to members of the public. See the previous section on the Public Records Act in this part of the *Legal Reference Guide* for more information.

Direct Democracy

As public entities, PUDs are subject to the initiative process, which empowers voters in the district to adopt ordinances regarding water provision without the consent of the PUD's governing board. See the previous section on Initiatives in this part of the *Legal Reference Guide* for more information.

Grievance Procedures

If you have general complaints about the way your PUD conducts its business, you may want to start by attending meetings and/or reviewing relevant business records at the district office.

Challenging Ordinances

The Public Utilities Code authorizes members of the public to challenge certain ordinances passed by the PUD involving tax levies by filing a petition during the 30-day window before an ordinance takes effect. This petition suspends operation of the ordinance and forces the board either to repeal the ordinance or submit it to the voters in the district.[411] Likewise, because PUDs are public entities, voters can use the referendum process to veto any ordinance passed by a PUD, and individuals or community groups can challenge the legality of any ordinance by petitioning a court for a writ of mandamus. See the previous sections on Writs and Challenging Ordinances by Referendum in this part of the *Legal Reference Guide* for more information.

Tort Lawsuits

Individuals can sue a PUD or one of its employees in tort, although, because PUDs are public entities, the Government Code places certain limitations on a victim's ability to receive monetary compensation from a PUD for the injuries it causes. See the previous section on the Tort Claims Act in this part of the *Legal Reference Guide* for more information.

Municipal Water Districts

Overview

Purpose of Municipal Water Districts

The primary function of a municipal water district (MWD) is to control water for the beneficial use of the district.[412] This includes supplying potable and non-potable water, as well as disposing of or recycling wastewater.[413] In addition, an MWD has the authority to generate and distribute electric power, to provide fire protection and waste disposal services, and to use its existing facilities for public recreation (for example, boating and fishing).[414]

Laws Governing Municipal Water Districts

MWDs are governed by Division 20 of the California Water Code, comprising Sections 71000-73001.

Governance

Governing Structure

An MWD is governed by an elected board of directors, which exercises the powers of the district.[415] The board consists of five directors, who serve staggered, four-year terms.[416] The board can only act by motion, resolution, or ordinance, and its decisions are made by a majority vote among the directors.[417]

The board selects a president (and has the option of also selecting a vice president) from among its members.[418] It also appoints at least five additional officers: a secretary, a treasurer, an attorney, an auditor, and a general manager.[419] The general manager controls the construction, operation, and maintenance of the MWD's water system.[420]

Who can serve on the board?

An MWD is divided into five geographic divisions, and each division elects one director to the board.[421] To serve on the board of directors, a person must be a resident of the division from which he or she is elected.[422]

Who has the right to vote?

Any registered voter living in the district is eligible to vote in any district election.[423]

How can a board member be removed?

The provisions of the Water Code pertaining to MWDs do not provide a standardized method for removing members of the board for misconduct. Contact your local elections office for more information on the recall process for special district elected officials.

Public Participation & Access to Information

Meetings

MWDs are public entities and therefore subject to the Brown Act, which requires an MWD to hold its meetings open to members of the public and receive public comments. See the previous section on the Brown Act in this part of the *Legal Reference Guide* for more information.

Public Information

The Water Code requires the board to record votes on all ordinances in a journal.[424] In addition, the Public Records Act requires an MWD to make most of its records available to members of public. See the previous section on the Public Records Act in this part of the *Legal Reference Guide* for more information.

Direct Democracy

The Water Code specifically empowers district voters to use the initiative process, as codified in the Elections Code, for the purpose of adopting ordinances regarding water provision with or without the consent of the MWD's governing board.[425] See the previous section on Initiatives in this part of the *Legal Reference Guide* for more information.

Grievance Procedures

If you have general complaints about the way your MWD conducts its business, you may want to start by attending meetings and/or reviewing relevant business records at the district office.

Challenging Ordinances

The Water Code specifically empowers district voters to use the referendum process, as codified in the Elections Code, for the purpose of vetoing an ordinance passed by the board.[426] In addition, because MWDs are public entities, individuals or community groups can challenge the legality of an ordinance by petitioning a court for a writ of mandamus. See the previous sections on Writs and Challenging Ordinances by Referendum in this part of the *Legal Reference Guide* for more information.

Tort Lawsuits

The Water Code specifies that MWDs can be sued in a court of law, including for torts committed by an MWD or one of its employees.[427] However, because MWDs are public entities, the Government Code places certain limitations on a grievant's ability to receive monetary compensation from an MWD for the injuries it causes. See the previous section on the Tort Claims Act in this part of the *Legal Reference Guide* for more information.

Cities

Cities are areas that have incorporated to form a semi-autonomous local government, which has the power to make rules for the general welfare and provide a wide array of services within its boundaries. Cities can provide water directly or allow another entity to provide water, including private companies. A city does not have to provide water,[428] but if it does it cannot discriminate. Therefore, if a city does choose to provide water directly, it must make that service available to all areas of the jurisdiction under reasonable rules and regulations.[429]

If a city does provide water, it is common for a city to have a public works department to oversee the water system; however each city can create its own structure. Ultimately the city council and mayor oversee city policies and operations. Therefore, if a city does provide water directly, the city council is often where policy decisions are made and can be challenged. Because each city is different and can enact its own laws and structure, it best to check with your city directly to determine the structure and rules regarding water service.

The Brown Act, Public Records Act, and Prop. 218 do apply to city governments, and decisions can be challenged through writs in court or through referendums. Cities may also be sued for damages in court under tort law, with some limitations. See the previous section on Features Common to All Governmental Water Providers in this part of the *Legal Reference Guide* for more information on these laws and tools.

Nongovernmental Water Providers

Private Water Utilities

Private water utilities are private companies that provide water as commercial, for-profit enterprises and are regulated by the California Public Utilities Commission (PUC). They can also be referred to as "public utilities" or "investor-owned utilities."

Box 2.13 - The Public Utilities Commission (PUC)

The California Public Utilities Commission (PUC) is a state agency with regulatory authority over private companies that provide public utility services directly to consumers.[430] Regulated utilities include but are not limited to water, electricity, natural gas, telephones, and certain forms of public transportation.[431] The PUC's stated mission includes "protecting consumers and ensuring the provision of safe, reliable utility service and infrastructure at reasonable rates[.]"[432]

Which Water Providers are Regulated by the PUC?

According to the California Public Utilities Code, any corporation (or person) that owns, controls, operates, or manages water for compensation, and delivers some water to, or provides some water-related service for, members of the public, and receives payment in return, is a public utility subject to regulation by the PUC.[433] It does not matter whether the water is for irrigation, reclamation, manufacturing, power generation, or municipal or domestic use.[434]

The Code carves out certain exceptions for water providers who do not classify as public utilities subject to PUC oversight, including mutual water companies, water wholesalers, and certain providers that only supply water to water conservation districts, mobile home parks, and residential apartment complexes.[435] Mutual water companies may supply water ***at cost*** to their members, to their members' tenants, to other mutual water companies, and to governmental entities for the purpose of providing fire protection or operating park facilities, without becoming subject to PUC regulation. However, if a mutual supplies water ***for compensation*** to anyone besides its members, including governmental entities, other mutuals, or individual consumers, it classifies as a public utility and becomes subject to PUC regulation.[436]

If there is any question regarding whether a water provider qualifies as a public utility, the PUC will conduct a hearing on the matter, and its determination will be final.[437] (This means that neither the water provider nor the water consumers can petition a court of law to review the PUC's decision.)

The PUC also does not have jurisdiction over municipal utilities or special water districts, presumably because these are governmental entities over which water users can exert voting power. At least in theory, the political process provides an adequate substitute for public utility regulation.

A full list of all regulated water utilities in California is available from the PUC at :
http://docs.cpuc.ca.gov/published/REPORT/48786.htm
or by calling (415) 703-1818.

Private Utility Regulation

The Public Utilities Code places various restrictions on private water utilities (meaning, water providers regulated by the PUC).[438] Some of the requirements include maintaining a physical office in the county[439] and adequate water system infrastructure,[440] keeping proper accounting records,[441] submitting various reports to the PUC,[442] and paying an annual fee for the commission's oversight.[443] Of primary importance, however, is the PUC's oversight role in setting the water rates that a utility charges its customers.

> ***Caution!!***
>
> The PUC does not govern PUDs.
>
> Remember, Public Utility Districts (PUDs) are special districts and not governed by the Public Utility Commission (PUC). See the previous section on Public Utility Districts in this part of the *Legal Reference Guide* for an overview of the laws governing PUDs.

Water Rates

The Public Utilities Code requires that rates be just and reasonable,[444] balancing the utility's need to earn a reasonable return on its investment with water customers' need for affordable, reliable water service, among other factors.[445] The PUC is responsible for enforcing these standards.[446] Accordingly, a utility that desires to change its rate structure in a manner that will increase the utility's revenue must follow specific procedures established by the PUC. These include, at a minimum, filing a rate increase request with the PUC and providing a notice to customers in their next monthly water bill, which must include the amount of and reason for the proposed increase and contact information for customers who wish to inquire about the scheduling of a hearing before the PUC.[447] If the PUC holds a hearing on the proposal, it must allow an opportunity for individual utility customers and civil society organizations representing those customers to testify.[448]

The PUC also has to consider and "may implement" programs to provide rate relief for low income ratepayers.[449] For more information, see **http://www.cpuc.ca.gov/PUC/Water/CurrentClassAPrgms.htm** or call (415) 703-1818.

Grievance Procedures for Customers of Regulated Utilities

For those water providers that are regulated by the PUC, consumers can bring complaints to the PUC if they feel that water rates are not "just and reasonable."[450] To file a complaint against a private water utility, call (800) 649-7570 or go to **http://www.cpuc.ca.gov/PUC/forms/Complaints/**.

Other Nongovernmental Water Providers

There are a number of types of other nongovernmental water providers that have much fewer requirements on issues like public access to information, governance, and rates increases. The most common ones are listed below.

Mutual Water Companies (Nonprofit Mutual Benefit Corporations)

Overview

Purpose of Mutual Water Companies

A mutual water company (mutual) is a nonprofit mutual benefit corporation that is organized to sell, distribute, supply or deliver water for irrigation purposes or domestic use.[451] Mutuals are essentially cooperatives formed by landowners in small communities to provide for the water needs of their properties. In that sense, a mutual is a customer-owned water provider.

Laws Governing Mutual Water Companies

Mutual water companies

can also be referred to as mutuals, mutual benefit corporations, nonprofit mutual benefit corporations, and nonprofit mutual water associations. These are all the same thing.

A nonprofit mutual benefit corporation

is an organization (a corporation) formed to provide for the mutual benefit of its members.

Mutuals are governed by assorted provisions of the California Corporations Code, including: Title 1, Division 2, Parts 1 and 3, comprising Sections 5002 – 5080 and 7110 – 8910 and Title 1, Division 3, Part 7, Chapter 1, comprising Sections 14300 – 14303.

Box 2.14 - Additional Laws Governing Specialized Kinds of Mutuals

Mutuals Eligible for State Assistance:

Some small mutual water companies (particularly those started by female, minority, and/or disabled entrepreneurs and those whose mission includes local economic development in economically disadvantaged areas) may qualify for incorporation as "small business development corporations."[452] Small business development corporations, which are also referred to as "small business financial development corporations,"[453] are eligible for state assistance (including loans and grants, management assistance, and business education)[454] and are subject to additional statutory requirements in the Corporations Code, namely, Title 1, Division 3, Part 5, Chapter 1, comprising Sections 14000 – 14091.[455] Of particular importance for mutual water companies considering this option is Article 6, comprising Sections 14045 – 14052, which describes the specific organizational requirements imposed on eligible corporations.

Mutuals Serving Cities, Towns, or Counties:

Mutual water companies that supply water to cities, towns, and/or counties are subject to additional statutory requirements in the Corporations Code, namely, Title 1, Division 3, Part 10, comprising Sections 14450 – 14452.

Mutuals Serving Residential Subdivisions:

Mutual water companies that are formed to supply water to new residential subdivisions are subject to additional statutory requirements in the Corporations Code, namely, Title 1, Division 3, Part 7, Chapter 2, comprising Sections 14310 – 14318.[456]

Governance

Governing Structure

A mutual is governed by a board of directors, which is responsible for conducting the activities and affairs of the mutual and exercising all of the mutual's corporate powers.[457] A mutual's articles of incorporation (articles) and bylaws determine the number of directors on the board.[458]

A mutual must also have either a chairman of the board or a president (or both). If the mutual has a chairman, he or she serves as the mutual's general manager and chief executive officer; otherwise, the president must fulfill this role. Other required officers include a secretary and a chief financial officer.[459] Unless the articles or bylaws specify otherwise, the board appoints all of the officers, and one person can hold any number of offices.[460]

Who can serve on the board?

The articles and bylaws of each mutual establish the qualifications for who can serve on the board of directors.[461] Most mutuals require that directors be landowners that live within the boundaries of the mutual service area.

A mutual's articles and bylaws also determine whether board members are elected or appointed.[462] If elected, then the length of their terms will again depend on the articles or bylaws but cannot exceed four years.[463] If the articles and bylaws do not specify term lengths, then the default term length is one year.[464]

Election Monitoring

If a member requests, the chairman of the board must appoint one or three election inspector(s) to monitor the fairness and validity of a mutual's election process, determine the results, and resolve disputes about voting procedure.[465]

Who has the right to vote?

Generally, only members of the mutual can vote.[466] The articles and bylaws define who can be a member.[467] These documents can also create different classes of membership with different voting rights.[468] Often, members of mutuals are allotted one vote for each property or parcel owned.[469]

Box 2.15 - Members vs. Shareholders

Members are people who can vote on major organizational decisions. The specific types of decisions on which members will be permitted to vote depends on the mutual's articles and bylaws, but some examples include the election of directors, amendments to articles or bylaws, or dissolution of the corporation.[470] Not all nonprofit mutual benefit corporations have members; in fact, as a default, a mutual will not have any members unless the articles or bylaws provide for them.[471]

Shareholders, in contrast, are people who hold units of proprietary interest in the mutual, which units are called "shares" or "shares of stock."[472] The terms stockholder and shareholder are used interchangeably.

In mutual water companies, members and shareholders are frequently one and the same, as each share of stock in the mutual equates to a right to purchase a specific quantity of water ("water stock"). Shares of water stock are usually linked to a particular parcel of land, or, in legal terminology, each share is appurtenant to the land, such that when a property owner sells the land to someone else, the new owner also acquires the water stock and becomes a shareholder of the mutual water company that supplies the water. Likewise, membership in the mutual water company is usually linked to ownership of the underlying land to which the water stock is appurtenant.[473]

Additionally, a share of water stock is equivalent to a right to ***purchase*** a specified quantity of water from the mutual, not an unqualified right to the water itself. The mutual may charge a reasonable rate for water use (usually actual cost plus necessary expenses), and is permitted to levy assessments on shareholders or members for this purpose. If delinquent shareholders or members refuse to pay, they may forfeit their membership or stock in the mutual, and thus, their right to water.[474]

Because, in practice, members or shareholders essentially have the same rights, this Guide uses the term "members" to mean both members and shareholders.

How can a board member be removed?

There are three ways to replace a member of the board:

1. Majority Rule (Members): Members of the mutual can remove a director without cause (meaning, even if the director did not technically do something wrong) if a majority votes in favor of removing him or her. The calculation of "majority" depends on the size of the mutual, however. For small mutuals with fewer than 50 members, a majority of all the votes ***entitled to be cast*** must vote affirmatively to remove the director.[475] For large mutuals with 50 or more members, only a majority of the votes ***actually cast*** need to vote affirmatively to remove the director, although at least one third of the eligible voting power must be present at the time of the vote.[476] (Note that removal procedures become more complicated if the articles or bylaws create different classes of membership and voting rights,[477] or if the director was designated rather than elected.)[478] This election can take place at a regular or special meeting of the members or by written ballot.[479]

2. Declaration of the Board: The board can remove one of its directors for cause (meaning, because the director has done something wrong or is no longer qualified) in four situations:[480]

   - if a court declares the director is "of unsound mind;"
   - if the director is convicted of a felony;
   - if the bylaws provide that a director can be removed for missing a specified number of meetings, and the director misses the specified number of meetings; or
   - if the articles or bylaws provide certain prerequisite qualifications (for example, owning land within the mutual's jurisdiction), and a majority of the qualified directors determines that a director no longer meets those qualifications (for example, if the director sells his or her property).

3. Court Order (Derivative Lawsuit): A director or a group of members can file a lawsuit against the mutual in superior court seeking an order removing a director from the board if the director has (a) performed fraudulent or dishonest acts or (b) grossly abused his or her discretion or authority. To initiate a lawsuit, the group of members must constitute at least 10% of the voting members or 20 members, whichever is less.[481] (Note that this minimum number of voting members is different for extremely large corporations where there are 1,000 or more votes entitled to be cast for a director.)[482] However, this method is costly and may be difficult to prove.

Public Participation & Access to Information

Meetings

Access to a mutual's board meetings may be limited because mutuals are not governmental entities and thus not subject to the Brown Act. Instead, the articles and bylaws will determine who may attend meetings.[483]

Public Information

Similarly, access to information about a mutual's operations may be limited since the Public Records Act does not apply to mutuals either. The Corporations Code provides that all ***members*** have a right to inspect the mutual's records and reports,[484] but whether non-members are granted similar access will depend on the articles and bylaws.[485]

Members have a right to view the mutual's accounting books, records, and minutes from meetings, as well as a list of the mutual's individual members and their addresses, so long as the member intends to use this information for a proper purpose.[486] Members also have the right to inspect the mutual's articles and bylaws at the mutual's principal office and to request the mutual to inform them of the results of a vote within 60 days of an election.[487]

Additionally, those mutuals that receive US$10,000 or more a year in gross revenue or receipts must prepare an annual report on the financial affairs of the corporation, showing in detail the mutual's assets and liabilities. The mutual must notify members annually of their right to receive this report and must submit the report to a member upon request.[488] Finally, the mutual must supply members annually with a report detailing any of the mutual's transactions in which one of the directors or other officers or at least 10% of the members had a substantial financial interest.[489]

Limitations on Water Rates

Articles of incorporation for mutuals often require that the company provide water at actual cost plus necessary expenses. However, necessary expenses generally include reserves for maintenance and upgrades, so there is a lot of room for deference to the water provider. Therefore, in mutuals, water users generally must fight rate abuses by pressuring their local board or electing new board members.

Grievance Procedures

The Corporations Code permits mutuals to be sued in a court of law, pursuant to the California Code of Civil Procedure.[490] Therefore, an aggrieved member may file a lawsuit against the mutual in the local superior court under the following circumstances:

1. Information Requests: Any member can file a lawsuit to compel his or her mutual to provide information to which the member is legally entitled, such as financial records or membership lists.[491] However, if the mutual is reasonably concerned that the member intends to use this information for an improper purpose (meaning, for a purpose that does not relate to membership in the mutual), it can offer the requesting member an alternative method to satisfy the member's stated purpose for requesting the information.[492] If the member rejects this offer, the mutual can file a lawsuit in the local superior court requesting a protective order, which, if granted, permits the mutual to withhold the information from the member.[493] Similarly, the mutual or any of the members can petition the court to limit another member's inspection rights if the inspection would violate any member's constitutional rights.[494]
2. Election Challenges: Second, any member or director can file a lawsuit to challenge the validity of an election or the appointment or removal of a director.[495] To resolve the case, the superior court may apply the mutual's articles and bylaws to determine the winner or order a new election, or the court may determine the validity of someone's membership status or right to vote.[496]

Other Private Companies

Other private companies that provide drinking water but are often not "private water utilities" include some mobile home properties, restaurants, and some apartment complexes. The Public Records Act, Brown Act, Prop. 218, writs, referendum, and initiative law do not apply to these corporations, nor does the public utilities commission generally have jurisdiction. Therefore, your only recourse for problems often lies in the courts, either through tort, landlord tenant or contract law, or through enforcement of the Safe Drinking Water Act or local and state health ordinances. If you are served water by this other kind of private company, start by contacting the company directly. If the problem involves the quality of the water, monitoring, or the information provided, you should contact the regulatory agency (either DPH or local primacy agency). In the case of mobile home parks, customers may file a complaint with the PUC on the rates charged or service provided, even though mobile home parks are not generally regulated by the PUC. To file a complaint with the PUC, call (800) 649-7570 or go to **http://www.cpuc.ca.gov/PUC/forms/Complaints/**. If the issue is not resolved, contact an attorney or your local legal services organization.

COMMUNITY HEALTH GUIDE

Common Drinking Water Contaminants in California's Central Valley

This guide provides an overview of the most common drinking water contaminants in California's Central Valley. Because drinking water contaminants do not have a distinct smell or taste in water, it is difficult to determine whether or not a contaminant is present in the water except by testing for it.

If you are exposed to a contaminant in your drinking water, there are a number of factors that affect whether you will be harmed. These factors include how much you are exposed to, how long you are exposed, and how you come in contact with it. Other important factors include what other chemicals you are exposed to, as well as your age, sex, diet, genetics, lifestyle, pregnancy, and state of health. This guide is not meant to give you medical or legal advice, but provides information to help you understand what impacts each contaminant may have and what you can do to protect your family if a contaminant is found in your drinking water. For a list of websites with more in-depth information on drinking water contaminants, see *Appendix 1*.

How to Use this Guide

For each contaminant, information is included on the following:

Legal and Public Health Limits

California's Office of Environmental Health Hazard Assessment (OEHHA) sets public health goals (PHGs) that are the level at which a contaminant is considered safe if ingested at that level continuously throughout life based solely on protecting public health, without taking into account cost or the technology available to achieve that standard. These levels are only goals and are not enforceable. However, no health impacts are expected to result from exposure to water with contaminants below these PHG levels. For more information on PHGs, see **www.oehha.ca.gov/water/phg/allphgs.html**.

The federal Environmental Protection Agency (EPA) sets legal limits for the level at which a contaminant is allowed in drinking water under the federal Safe Drinking Water Act. This limit is called a Maximum Contaminant Level (MCL). To set an MCL, EPA evaluates not only safety concerns, but also technology and costs, to determine the level at which a water system can reasonably be required to take steps to remove this contaminant should it occur in drinking water. Therefore, this level may not be protective of all people in all situations, depending on some of the factors listed above.

The California Department of Public Health (DPH) also sets MCLs for California drinking water under the state Safe Drinking Water Act. These limits cannot be less protective than federal levels but may be more protective. This guide indicates when the state limit is different than the federal limit.

Many MCLs, such as the MCL for nitrate, are set directly at the PHG. When a PHG is set at a certain level due to the contaminant's possibility of causing cancer (examples include arsenic and DBCP), an MCL may be less protective than the PHG. Therefore, MCLs are always set at levels that are deemed to be protective of non-cancer health impacts, although they may not be fully-protective of cancer health impacts in all cases.

Box 3.1 - **Understanding Units in Drinking Water Standards**

mg = milligram = one-thousandth of a gram

mg/L = milligram per liter = part per million (ppm)

mcg or µg = microgram = one-millionth of a gram

mcg/L or µg/L = microgram per liter = part per billion (ppb)

Sources of Contaminants

Contaminants in drinking water may come from a variety of natural or man-made sources. Some common sources are listed to help you understand how your drinking water may have become contaminated.

Possible Short-term Health Impacts

These are health impacts and symptoms which may occur very soon after exposure at high levels (above the MCL). These may occur after one or more exposure(s).

Possible Long-term Health Impacts

These are health impacts and symptoms that have been linked to long-term (years) exposure to high levels (above the MCL) of a contaminant. This list does NOT mean that a contaminant WILL cause these effects, but rather that some studies have linked these health effects with high exposure to that contaminant in drinking water. Often there are multiple things a person is exposed to that can cause the same health outcome, and a person can be exposed to the same contaminant in multiple ways. It's likely that all of these exposures contribute to any health outcome that occurs. MCLs do, however, take into account other routes of exposure and assume that water represents only a portion of the potential total environmental exposure.

Sensitive populations

This is a list of the types of people that are more likely to be impacted by exposure to a particular contaminant. More caution should be taken with people in these groups if they live in homes that have contaminants over the PHG.

Pathways of Exposure

The pathways of exposure are listed to explain how contaminants can enter your body from your tap water.

Tips to Reduce Exposure at Home

If you do have a contaminant in your tap water, there are steps you can take to reduce your exposure, including treating your water. Make sure that if you do buy filtered water or home treatment devices, that the device you purchase is certified to remove the particular contaminant from your water. Just because a filter is expensive does not necessarily mean the filter will remove the particular contaminant that is in your tap water. For more information on filters or for more information on chemical contaminants, see *Appendix 1*.

Warnings:

- Always make sure a treatment device or filter is certified to reduce or remove the specific contaminant(s) in your water. Lists of certified devices are updated each spring at **http://www.ca.gov/certlic/device/Pages/watertreatmentdevices.aspx**.
- Water treatment devices that are not maintained properly (e.g., failure to regularly change the filters) may release pulses of very high levels of contaminants and can be dangerous.
- Remember that boiling water does not remove most contaminants and may actually make many contamination problems worse.
- A vended water machine should never be used when the machine is connected to a public water supply with a contaminant over the MCL. Always check to see that the machine has posted a service date that is less than a month old before using a vended water machine.

Looks can be deceiving...

East-Orosi's clear water is far more dangerous than the murky water from Ducor.

Photo by ERIN LUBIN

Arsenic

- Legal Limit (MCL): 10 parts per billion (ppb)
- Public Health Goal (PHG): 0.004 parts per billion (ppb) or 4 parts per trillion (ppt)

Common sources of the contaminant in the Central Valley

Arsenic occurs naturally in rocks, soil, plants and animals.[a] However, it can also come from industrial and agricultural activities, particularly from wood preservatives, fertilizers, pesticides, animal feeding operations, and mining activities.[b] Historically, arsenic was used in pesticides on cotton and orchards, and some forms continue to be used on cotton today.[c] Additionally, increased alkalinity (increased pH) may increase the levels of arsenic in groundwater because it dissolves naturally occurring arsenic in surrounding rocks and soils.[d]

Possible health effects of short-term exposure[e]

- Stomach pain, nausea, vomiting, diarrhea
- Numbness or tingling in hands, nose, ears, and feet
- Skin discoloration or rashes
- Thickening of skin, corns in palms and bottom of feet

Possible health effects of long-term exposure[f]

- Cancer of the bladder, lungs, skin, kidneys, nasal passages, liver and prostate
- Increased blood pressure, hypertension and cardiovascular disease
- Reduced mental functioning in children
- Effects on nervous system, including tremors and numbness
- Some respiratory illnesses
- Type 2 diabetes

Sensitive populations[g]

Young children, infants, and pregnant women are particularly at risk.

Pathways of exposure[h]

You can be directly exposed to arsenic from drinking or cooking with contaminated water. Arsenic is not easily absorbed by skin, so bathing or doing dishes is not a significant source of exposure.

Tips for reducing exposure at home

- Remind children to keep their mouths closed while taking a bath.
- Buy bottled water or use an approved arsenic treatment device at home. Most approved arsenic treatment devices are reverse osmosis units. Under-the-sink units typically range from $150 - $400. Water filter pitchers, such as Brita, do not remove arsenic. A full list of certified filter devices is available at **http://ww2.cdph.ca.gov/certlic/device/Documents/WTDDirectory2008/Section6A.pdf** or by calling the California Dept. of Public Health at (916) 449-5600. Note that DPH updates this list each spring.

Warning: Boiling does not remove arsenic, but instead can actually concentrate arsenic levels in water!

Arsenic References

a. EPA (2007), "Arsenic in Drinking Water," available at **http://www.epa.gov/safewater/arsenic/basicinformation.html** (last visited Nov. 19, 2008).

b. EPA (2007), "Arsenic in Drinking Water," available at **http://www.epa.gov/safewater/arsenic/basicinformation.html** (last visited Nov. 19, 2008); WHO (2003), "Arsenic in Drinking Water," available at **http://www.who.int/water_sanitation_health/dwq/chemicals/arsenic.pdf** (last visited Nov. 19, 2008).

c. ATSDR (2007), "Toxicological Profile for Arsenic, Public Health Statement," available at **http://www.atsdr.cdc.gov/toxprofiles/phs2.html** (last visited Nov. 19, 2008).

d. WHO (2003), "Arsenic in Drinking Water," available at **http://www.who.int/water_sanitation_health/dwq/chemicals/arsenic.pdf** (last visited Nov. 19, 2008).

e. ATSDR (2007), "Toxicological Profile for Arsenic, Health Effects," available at **http://www.atsdr.cdc.gov/toxprofiles/tp2-c3.pdf** (last visited Nov. 19, 2008); WHO (2003), "Arsenic in Drinking Water," available at **http://www.who.int/water_sanitation_health/dwq/chemicals/arsenic.pdf** (last visited Nov. 19, 2008); EPA (2007), "Arsenic in Drinking Water," available at **http://www.epa.gov/safewater/arsenic/index.html** (last visited Nov. 19, 2008).

f. ATSDR (2007), "Toxicological Profile for Arsenic, Health Effects," available at **http://www.atsdr.cdc.gov/toxprofiles/tp2-c3.pdf** (last visited Nov. 19, 2008); WHO (2003), "Arsenic in Drinking Water," available at **http://www.who.int/water_sanitation_health/dwq/chemicals/arsenic.pdf** (last visited Nov. 19, 2008); OEHHA (2004), "Public Health Goals for Chemicals in Drinking Water – Arsenic," available at **http://www.oehha.ca.gov/water/phg/pdf/asfinal.pdf** (last visited Nov. 19, 2008); EPA (2007), "Arsenic in Drinking Water," available at **http://www.epa.gov/safewater/arsenic/index.html** (last visited Nov. 19, 2008).

g. ATSDR (2007), "Toxicological Profile for Arsenic, Public Health Statement," available at **http://www.atsdr.cdc.gov/toxprofiles/phs2.html** (last visited Nov. 19, 2008).

h. ATSDR (2007), "Toxicological Profile for Arsenic, Public Health Statement," available at **http://www.atsdr.cdc.gov/toxprofiles/phs2.html** (last visited Nov. 19, 2008); OEHHA (2004), "Public Health Goals for Chemicals in Drinking Water – Arsenic," available at **http://www.oehha.ca.gov/water/phg/pdf/asfinal.pdf** (last visited Nov. 19, 2008).

For more information:
www.communitywatercenter.org or call (559) 733-0219

Chlorine[a]

- Legal Limit (MRDL[b]): 4 mg/L[c]
- Public Health Goal (MRDLG[d]): 4 mg/L

Common sources of the contaminant in the Central Valley

Chlorine is not generally considered a contaminant because it often is intentionally added to water as a disinfectant to kill germs such as giardia and *E. coli*.[e] While chlorine is important to help keep people from getting sick, it does have some health impacts, particularly if not applied properly or in large amounts. However, most health impacts from drinking water are associated with disinfectant byproducts, which is what chlorine turns into once it mixes and reacts with other substances in water. Health impacts from disinfectant byproducts are discussed separately (see Trihalomethanes).

Possible health effects of short-term exposure[f]

- Respiratory problems
- Skin rashes
- Sinus irritation
- Dry and itchy eyes
- Light headedness or dizziness
- Stomach discomfort

Possible health effects of long-term exposure[g]

- Potential increased risk of cancer (particularly bladder cancer), although the evidence is conflicting.

Sensitive populations

Children and people with respiratory diseases, such as asthma, or skin sensitivity are more sensitive to the health effects associated with high levels of chlorine in water.[h]

Pathways of exposure[i]

People are more highly exposed to chlorine from inhaling rather then drinking. When water containing chlorine is hot and is made into droplets, some of the chlorine becomes a gas that can be breathed in. This occurs while showering, washing dishes, bathing, and doing laundry. Chlorine is also easily absorbed through the skin, particularly when it is in warm water. However, exposure can also come from drinking over-chlorinated tap water or ice-cubes.

Tips for reducing exposure at home

- Keep windows open, especially when showering or using hot water. If you don't have a window in your bathroom, use the vent or fan in your bathroom. If you don't have a ceiling fan or a window – you can use a regular floor fan with the door of the bathroom open.
- Avoid taking long, hot showers or baths.
- If possible, install a carbon filter on your shower head and faucets to reduce the amount of chlorine in the water, or get a home treatment device that filters water before it enters the home.

Chlorine References

a. Chlorine is highly reactive, meaning that it reacts to other substances in water and becomes another chemical, also called a byproduct. For more information on chemical byproducts, see the Trihalomethanes informational sheet in this guide.

b. Maximum Residual Disinfectant Level (MRDL) - The highest level of a disinfectant allowed in drinking water. There is convincing evidence that some use of a disinfectant is necessary for control of microbial contaminants.

c. EPA (2007), "Drinking Water Contaminants, List of Contaminants and their MCLs," available at **http://www.epa.gov/safewater/contaminants/index.html#d_dbps** (last visited Nov. 29, 2008); EPA (2001) "Stage 1 Disinfectants and Disinfection Byproducts Rule: A Quick Reference Guide," available at **http://www.epa.gov/safewater/mdbp/qrg_st1.pdf** (last visited Nov. 29, 2008).

d. Maximum Residual Disinfectant Level Goal (MRDLG) - The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

e. EPA (2006), "Drinking Water Contaminants, Disinfectants," available at **http://www.epa.gov/safewater/hfacts.html** (last visited Nov. 29, 2008).

f. EPA (2006), "Drinking Water Contaminants, Disinfectants," available at **http://www.epa.gov/safewater/hfacts.html** (last visited Nov. 29, 2008); WHO (2003) "Chlorine in Drinking-water," available at **http://www.who.int/water_sanitation_health/dwq/chlorine.pdf** (last visited Nov. 29, 2008); ATSDR (2007), "Toxicological Profile for Chlorine, Public Health Statement," available at **http://www.atsdr.cdc.gov/toxprofiles/phs172.html** (last visited Nov. 29, 2008).

g. WHO (2003) "Chlorine in Drinking-water," available at **http://www.who.int/water_sanitation_health/dwq/chlorine.pdf** (last visited Nov. 29, 2008).

h. ATSDR (2007), "Toxicological Profile for Chlorine, Public Health Statement," available at **http://www.atsdr.cdc.gov/toxprofiles/phs172.html** (last visited Nov. 29, 2008); ATSDR (2007), "Toxicological Profile for Chlorine, Health Effects," available at **http://www.atsdr.cdc.gov/toxprofiles/tp172-c3.pdf** (last visited Nov. 29, 2008).

i. ATSDR (2007), "Toxicological Profile for Chlorine, Public Health Statement," available at **http://www.atsdr.cdc.gov/toxprofiles/phs172.html** (last visited Nov. 29, 2008); ATSDR (2007), "Toxicological Profile for Chlorine, Health Effects," available at **http://www.atsdr.cdc.gov/toxprofiles/tp172-c3.pdf** (last visited Nov. 29, 2008).

For more information:
www.communitywatercenter.org or call (559) 733-0219

Coliform Bacteria

- Legal Limit (MCL): 5% of monthly samples[a]
- Public Health Goal (MCLG): zero

Common sources of the contaminant in the Central Valley[b]

Coliform bacteria is a general name for a variety of bacteria, including fecal coliform and *E. coli* bacteria. Bacteria generally enter the drinking water system through cracks in lines or wells. Coliform bacteria does not necessarily mean that there is fecal coliform or *E. coli* bacteria, but follow-up testing is required to verify whether there is a problem.

Fecal coliform and *E. coli* are more dangerous bacteria that come from animal and human waste, generally from poorly maintained or constructed septic systems, cracks in sewer lines, or animal waste near a water source.

Possible health effects of short-term exposure[c] *to tap water contaminated with fecal coliform and E. coli*[d]

- Diarrhea, cramps, nausea
- Jaundice (yellowing of the skin and eyes)
- Headaches
- Fatigue
- Kidney failure

Sensitive populations[e]

In general, young children, the elderly, and others with weak immune systems are the most sensitive to bacteria in the water.

Pathways of exposure[f]

Exposure to bacteria in water occurs primarily by drinking contaminated water, or accidentally swallowing it when bathing or brushing your teeth. Exposure can also happen from eating food off a plate that is still wet from recently washing it, ice, and washed fruits and vegetables that are eaten raw.

Tips for reducing exposure at home[g]

- Boil water for one minute before drinking, cooking, brushing teeth, making ice cubes, and washing produce.
- After washing dishes, let dishes dry completely before using.
- Remind children to keep mouths closed while in the bath to avoid swallowing water.
- Buy bottled water or use a certified point-of-use treatment device. Most approved bacterial treatment devices include chlorine, ultraviolet light, or ozone technology. On-Tap Faucet filters (*e.g.*, Brita) do not remove bacteria. A full list of certified filter devices is available at **http://ww2.cdph.ca.gov/certlic/device/Documents/WTDDirectory2008/Section6F.pdf** or by calling the California Dept. of Public Health at (916) 449-5600. Note that DPH updates this list each spring.

Coliform Bacteria References

a. EPA has set a limit of more than 5.0% of all samples total coliform-positive in a month for very large systems that collect at least 40 routine samples per month. However, for water systems that collect fewer than 40 routine samples per month (most small systems), no more than one sample can be total coliform-positive per month. Every sample that has total coliform must be analyzed for either fecal coliforms or *E. coli*. If a system has two consecutive total coliform positive samples, and one is also positive for E.coli or fecal coliforms, the system has an acute MCL violation. EPA (2007) "Drinking Water Contaminants," available at **http://www.epa.gov/safewater/contaminants/index.html#micro**.

b. EPA (2006), "Drinking Water Contaminants, Microbes," available at **http://www.epa.gov/safewater/hfacts.html#Microbiological** (last visited Nov. 29, 2008).

c. No information is available on the long-term health effects of *E. coli* bacteria exposure. However, some people with kidney problems (hemolytic uremic syndrome) have immediate complications with lifelong implications, such as blindness, paralysis, persistent kidney failure, and the effects of having part of their bowel removed. Many persons with hemolytic uremic syndrome have mild abnormalities in kidney function many years later. Center for Disease Control and Prevention (2006), "Escherichia coli 0157:H7," available at **http://www.cdc.gov/ncidod/dbmd/diseaseinfo/escherichiacoli_g.htm**.

d. EPA (2006), "Basic Information on *E. coli* 0157:H7 in Drinking Water," available at **http://www.epa.gov/safewater/contaminants/ecoli.html** (last visited Nov. 29, 2008); Center for Disease Control and Prevention (2006), "Escherichia coli 0157:H7," available at **http://www.cdc.gov/nczved/dfbmd/disease_listing/stec_gi.html** (last visited Nov. 29, 2008).

e. EPA (2006), "Basic Information on *E. coli* 0157:H7 in Drinking Water," available at **http://www.epa.gov/safewater/contaminants/ecoli.html** (last visited Nov. 29, 2008).

f. EPA (2006), "Basic Information on *E. coli* 0157:H7 in Drinking Water," available at **http://www.epa.gov/safewater/contaminants/ecoli.html** (last visited Nov. 29, 2008).

g. EPA (2006), "Basic Information on *E. coli* 0157:H7 in Drinking Water," available at **http://www.epa.gov/safewater/contaminants/ecoli.html** (last visited Nov. 29, 2008).

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Dibromochloropropane (DBCP)

- Legal Limit (MCL): 0.2 ppb or .0002 mg/L[a]
- Public Health Goal (PHG): .0017 ppb

Common sources of the contaminant in the Central Valley[b]

DBCP was used as a soil fumigant for many years, particularly on grapes and tomatoes. However, the pesticide has been banned in California since the late 1970's. DBCP evaporates relatively quickly in surface water (days - months); but once it enters groundwater, it remains for a very long time (decades), which is why it is still found in drinking water sources today.[c]

Possible health effects of short-term exposure[d]

- Kidney and liver damage
- Nausea and vomiting
- Headaches, light headedness, weakness
- Damage to male reproductive organs and fertility

Possible health effects of long-term exposure[e]

- Kidney damage
- Damage to the male reproductive system, sterility
- Cancer

Sensitive populations[f]

Males and people with kidney or liver problems may be most at-risk from high exposures to DBCP.

Pathways of exposure[g]

Most exposure is from ingesting contaminated drinking water, but DBCP can also be absorbed by the skin or inhaled when bathing or washing dishes with contaminated water.

Tips for reducing exposure at home[h]

- When showering, remember to keep your mouth closed, to avoid accidental exposure.
- Avoid taking showers or washing dishes with hot water.
- Buy bottled water or use an approved treatment device. Some on-tap faucet filters (Brita) do remove DBCP and typically cost $30 - $40. A full list of certified filter devices is available at **http://ww2.cdph.ca.gov/certlic/device/Documents/WTDDirectory2008/Section6K.pdf** or by calling the California Dept. of Public Health at (916) 449-5600. Note that DPH updates this list each spring.

Dibromochloropropane (DBCP) References

a. This is the same level, just expressed using different units of measurement.

b. EPA (2006), "Consumer Fact Sheet on: Dibromochloropropane," available at **http://www.epa.gov/safewater/dwh/c-soc/dibromoc.html** (last visited Nov. 29, 2008).

c. ATSDR (2007), "Toxicological Profile for 1,2-Dibromo-3-chloropropane, Public Health Statement," available at **http://www.atsdr.cdc.gov/toxprofiles/phs36.html** (last visited Nov. 29, 2008).

d. EPA (2006), "Consumer Fact Sheet on: Dibromochloropropane," available at **http://www.epa.gov/safewater/dwh/c-soc/dibromoc.html** (last visited Nov. 29, 2008); ATSDR (2007), "Toxicological Profile for 1,2-Dibromo-3-chloropropane, Public Health Statement," available at **http://www.atsdr.cdc.gov/toxprofiles/phs36.html** (last visited Nov. 29, 2008).

e. EPA (2006), "Consumer Fact Sheet on: Dibromochloropropane," available at **http://www.epa.gov/safewater/dwh/c-soc/dibromoc.html** (last visited Nov. 29, 2008); ATSDR (2007), "Toxicological Profile for 1,2-Dibromo-3-chloropropane, Public Health Statement," available at **http://www.atsdr.cdc.gov/toxprofiles/phs36.html** (last visited Nov. 29, 2008).

f. ATSDR (2007), "Toxicological Profile for 1,2-Dibromo-3-chloropropane, Health Effects," available at **http://www.atsdr.cdc.gov/toxprofiles/tp36-c2.pdf** (last visited Nov. 29, 2008).

g. OEHHA (1999), "Public Health Goals for 1,2-Dibromo-3-chloropropane (DBCP) in Drinking Water," available at **http://www.oehha.ca.gov/water/phg/pdf/dbcp_f.pdf** (last visited Nov. 29, 2008); ATSDR (2007), "Toxicological Profile for 1,2-Dibromo-3-chloropropane, Public Health Statement," available at **http://www.atsdr.cdc.gov/toxprofiles/phs36.html** (last visited Nov. 29, 2008).

h. OEHHA (1999), "Public Health Goals for 1,2-Dibromo-3-chloropropane (DBCP) in Drinking Water," available at **http://www.oehha.ca.gov/water/phg/pdf/dbcp_f.pdf** (last visited Nov. 29, 2008); ATSDR (2007), "Toxicological Profile for 1,2-Dibromo-3-chloropropane, Public Health Statement," available at **http://www.atsdr.cdc.gov/toxprofiles/phs36.html** (last visited Nov. 29, 2008).

For more information:
www.communitywatercenter.org or call (559) 733-0219

Nitrate

- Legal Limit (MCL):[a]
  - EPA: 10 mg/L (as N)
  - DPH: 45 mg/L (as NO_3)
- Public Health Goal (PHG): same as the MCLs

Common sources of the contaminant in the Central Valley[b]

The main source of nitrate contamination, both in ground and surface water, comes from the use of fertilizers that contain nitrogen. Additional sources include animal and human waste, including dairies, septic tanks and sewer systems.

Possible health effects of short-term exposure[c]

- Methemoglobinemia or Blue Baby Syndrome (symptoms include shortness of breath and blueness or darkening of skin, especially around the mouth, particularly in infants). Without immediate treatment, this can be fatal.
- Diarrhea and vomiting
- Spontaneous abortions, stillbirths or Sudden Infant Death Syndrome (SIDS)

Possible health effects of long-term exposure[d]

- Diuresis, increased starchy deposits and hemorrhaging of the spleen
- In pregnant women: preeclampsia, anemia, or premature births
- Hypotension (low blood pressure)
- Potential Cancer Risk[e]

Sensitive populations[f]

The most sensitive population is infants younger than six months, particularly premature infants, and pregnant women, particularly after the 30th week. People with low gastric acidity, iodine deficiencies, or low vitamin C are also more susceptible. Drinking water with both nitrate and bacterial contamination may lead to higher risk of nitrate health impacts.

Pathways of exposure[g]

The main pathways of exposure are through drinking water that has high levels of nitrates. Infants can be exposed when contaminated water is mixed with their formula or when nursing mothers drink water with high nitrate levels. Inhaling steam from water containing nitrate is not a route of exposure.

Tips for reducing exposure at home[h]

- Do not boil water to try to remove the contaminant. Boiling actually increases the concentration because some of the water evaporates while boiling, leaving all of the nitrate in less water.
- Breast feed infants, and do not mix formula with contaminated water.
- Buy bottled water or use an certified treatment device in your home. Certified home treatment systems for nitrate primarily include reverse osmosis and ion exchange units. Under-the-sink units typically range from $150 - $400. Pitcher filters (*e.g.*, Brita) or chlorination do not remove nitrate. A full list of certified home filtration devices is available at **http://ww2.cdph.ca.gov/certlic/device/Documents/WTDDirectory2008/Section6H.pdf** or by calling the California Dept. of Public Health at (916) 449-5600. Note that DPH updates this list each spring.

Warning: Boiling water does not remove nitrate, but can concentrate levels of nitrate in the water!

Nitrate References

a. The EPA set the federal MCL at 10 mg/L for nitrate measured as N, but the DPH set the state MCL at 45 mg/L for nitrate measured as NO_3. However, these levels are essentially the same, just measured in different ways (different chemical structures).

b. EPA (2006), "Consumer Fact Sheet on: Nitrates/Nitrites," available at **http://www.epa.gov/safewater/dwh/c-ioc/nitrates.html** (last visited Nov. 29, 2008).

c. EPA (2006), "Consumer Fact Sheet on: Nitrates/Nitrites," available at **http://www.epa.gov/safewater/dwh/c-ioc/nitrates.html** (last visited Nov. 29, 2008); OEHHA (1997), "Public Health Goals for Nitrate and Nitrite in Drinking Water," available at **http://www.oehha.ca.gov/water/phg/pdf/nit2_c.pdf** (last visited Nov. 29, 2008); WHO (2007), "Nitrate and Nitrite in Drinking Water," available at **http://www.who.int/water_sanitation_health/dwq/chemicals/nitratenitrite2ndadd.pdf** (last visited Nov. 29, 2008); ATSDR (2007) "Case Studies in Environmental Medicine, Nitrate/Nitrite Toxicity," available at **http://www.atsdr.cdc.gov/csem/nitrate/no3physiologic_effects.html** (last visited Nov. 29, 2008).

d. EPA (2006), "Consumer Fact Sheet on: Nitrates/Nitrites," available at **http://www.epa.gov/safewater/dwh/c-ioc/nitrates.html** (last visited Nov. 29, 2008); ATSDR (2007) "Case Studies in Environmental Medicine, Nitrate/Nitrite Toxicity," available at **http://www.atsdr.cdc.gov/csem/nitrate/no3physiologic_effects.html** (last visited Nov. 29, 2008).

e. There is conflicting data regarding whether nitrate can cause cancer.

f. OEHHA (1997), "Public Health Goals for Nitrate and Nitrite in Drinking Water," available at **http://www.oehha.ca.gov/water/phg/pdf/nit2_c.pdf** (last visited Nov. 29, 2008); WHO (2007), "Nitrate and Nitrite in Drinking Water," available at **http://www.who.int/water_sanitation_health/dwq/chemicals/nitratenitrite2ndadd.pdf** (last visited Nov. 29, 2008).

g. EPA (2006), "Consumer Fact Sheet on: Nitrates/Nitrites," available at **http://www.epa.gov/safewater/dwh/c-ioc/nitrates.html** (last visited Nov. 29, 2008).

h. EPA (2006), "Consumer Fact Sheet on: Nitrates/Nitrites," available at **http://www.epa.gov/safewater/dwh/c-ioc/nitrates.html** (last visited Nov. 29, 2008); OEHHA (1997), "Public Health Goals for Nitrate and Nitrite in Drinking Water," available at **http://www.oehha.ca.gov/water/phg/pdf/nit2_c.pdf (last visited Nov. 29, 2008)**; DPH (2007), "Devices Certified for the Reduction of Nitrate," available at **http://www.cdph.ca.gov/certlic/device/Documents/WTDDirectory2008/Section6H.pdf** (last visited Nov. 29, 2008).

For more information:
www.communitywatercenter.org or call (559) 733-0219

Trihalomethanes (TTHMs/THMs) – A disinfectant byproduct

- Legal Limit (MCL): 80 ppb or .08 mg/L

Common sources of the contaminant in the Central Valley[a]

Trihalomethanes (THMs) are a byproduct of the chlorination process. When water is disinfected with chlorine, chlorine reacts with organic matter to create THMs, the byproduct. THMs most often occur in surface water; groundwater has less organic matter, so there is less chance the THMs will be created. Additionally, levels of THMs are generally much higher in warmer months than in colder months.

Possible health effects of short-term exposure[b]

- Liver, kidney and thyroid damage

Possible health effects of long-term exposure[c]

- Increased problems with the liver, kidneys, and central nervous systems
- Increased risks of cancer (especially bladder and colon cancer)
- Increased risk of miscarriages, still born babies, premature births and birth defects

Sensitive populations[d]

Pregnant women are particularly at risk for health impacts.

Pathways of exposure[e]

THMs primarily enter the body through drinking tap water that has THMs. Additionally, THMs easily evaporate, and can be inhaled while showering, cooking, washing dishes and clothes, or absorbed through the skin. Bottled water from chlorinated sources may also have THMs.

Tips for reducing exposure at home

- Avoid taking long, hot showers.
- Keep windows open or use the fan or vent in your bathroom while showering, cooking, or washing clothes or dishes;
- Buy bottled water from non-chlorinated sources, or use approved home treatment devices or let water stand uncovered on the counter or in the fridge before drinking it. Certified home treatment devices include some carbon block filters, some granular activated charcoals units, and reverse osmosis units, including some on-tap faucet filters (*e.g.,* Brita).[f] A full list of approved filter devices is available at **http://ww2.cdph.ca.gov/certlic/device/Documents/WTDDirectory2008/Section6K.pdf** or by calling the California Dept. of Public Health at (916) 449-5600. Note that DPH updates this list each spring.

Warning: Bottled water from chlorinated sources may also have high levels of THMs. Read the label carefully and only buy bottled water from non-chlorinated sources.

Trihalomethanes (TTHMs/THMs) References

a. EPA (2006), "Drinking Water Contaminants, Disinfectant Byproducts," available at **http://www.epa.gov/safewater/hfacts.html** (last visited Nov. 29, 2008); WHO (2005), "Trihalomethanes in Drinking Water," available at **http://www.who.int/water_sanitation_health/dwq/chemicals/THM200605.pdf** (last visited Nov. 29, 2008).

b. WHO (2005), "Trihalomethanes in Drinking Water," available at **http://www.who.int/water_sanitation_health/dwq/chemicals/THM200605.pdf** (last visited Nov. 29, 2008); EPA (2005), "Drinking Water Criteria Document for Brominated Trihalomethanes," available at **http://www.epa.gov/waterscience/criteria/drinking/brthm.html** (last visited Nov. 29, 2008).

c. EPA (2006), "Drinking Water Contaminants, Disinfectant Byproducts," available at **http://www.epa.gov/safewater/hfacts.html (last visited Nov. 29, 2008)**; WHO (2005), "Trihalomethanes in Drinking Water," available at **http://www.who.int/water_sanitation_health/dwq/chemicals/THM200605.pdf** (last visited Nov. 29, 2008).

d. WHO (2005), "Trihalomethanes in Drinking Water," available at **http://www.who.int/water_sanitation_health/dwq/chemicals/THM200605.pdf (last visited Nov. 29, 2008)**.

e. WHO (2005), "Trihalomethanes in Drinking Water," available at **http://www.who.int/water_sanitation_health/dwq/chemicals/THM200605.pdf** (last visited Nov. 29, 2008).

f. DPH (2007), "Devices Certified for the Reduction of Volatile Organic Compounds (VOCs)," available at **http://www.cdph.ca.gov/certlic/device/Documents/WTDDirectory2008/Section6K.pdf** (last visited Nov. 29, 2008).

For more information:
www.communitywatercenter.org or call (559) 733-0219

Uranium

- Legal Limit (MCL):[a]
  - EPA: 30 µg/L
  - DHP: 20 pCi/L
- Public Health Goal (PHG): 0.5 ppb

Common sources of the contaminant in the Central Valley[b]

Uranium is naturally occurring in some rocks and soil and is weakly radioactive. Uranium can also enter the environment in the production and use of phosphate fertilizers, or from mining and industrial processing activities.

Possible health effects of short-term exposure[c]

- Nausea, vomiting, diarrhea
- Liver and kidney damage

Possible health effects of long-term exposure[d]

- Kidney damage
- Liver damage
- Cancer (particularly of the bone and liver)

Sensitive populations[e]

Children and pregnant women may be more at risk.

Pathways of exposure[f]

The primary pathway of exposure is drinking water with high levels of uranium. You also may be exposed by inhaling uranium-contaminated vapor or absorbing uranium-contaminated water through your skin.

Tips for reducing exposure at home

- Avoid showering or washing dishes or food, particularly with hot water.
- Drink bottled water or use an certified treatment device. Pitcher filters, such as Brita, do not remove uranium. For more information on certified treatment devices, contact the California Dept. of Public Health at (916) 449-5600.

Uranium References

a. The state DPH MCL is measured in a unit called a "Curie," which is a measurement of radioactivity. The federal EPA MCL is shown in a unit of mass. The same mass of Uranium may vary in its radioactivity, depending on the isotopes of Uranium.

b. OEHHA (2001), "Public Health Goals for Chemicals in Drinking Water, Uranium," available at **http://www.oehha.ca.gov/water/phg/pdf/uranium801.pdf (last visited Nov. 29, 2008)**; WHO (2005) "Uranium in Drinking Water," available at **http://www.who.int/water_sanitation_health/dwq/chemicals/uranium290605.pdf** (last visited Nov. 29, 2008).

c. ATSDR (1999), "Toxicological Profile for Uranium, Health Effects," available at **http://www.atsdr.cdc.gov/toxprofiles/tp150-c2.pdf** (last visited Nov. 29, 2008); OEHHA (2001), "Public Health Goals for Chemicals in Drinking Water, Uranium," available at **http://www.oehha.ca.gov/water/phg/pdf/uranium801.pdf** (last visited Nov. 29, 2008); WHO (2005) "Uranium in Drinking Water," available at **http://www.who.int/water_sanitation_health/dwq/chemicals/uranium290605.pdf** (last visited Nov. 29, 2008).

d. OEHHA (2001), "Public Health Goals for Chemicals in Drinking Water, Uranium," available at **http://www.oehha.ca.gov/water/phg/pdf/uranium801.pdf** (last visited Nov. 29, 2008); ATSDR (1999), "Toxicological Profile for Uranium, Health Effects," available at **http://www.atsdr.cdc.gov/toxprofiles/tp150-c2.pdf** (last visited Nov. 29, 2008); WHO (2005) "Uranium in Drinking Water," available at **http://www.who.int/water_sanitation_health/dwq/chemicals/uranium290605.pdf** (last visited Nov. 29, 2008).

e. ATSDR (1999), "Toxicological Profile for Uranium, Public Health Statement," available at **http://www.atsdr.cdc.gov/toxprofiles/phs150.html** (last visited Nov. 29, 2008).

f. OEHHA (2001), "Public Health Goals for Chemicals in Drinking Water, Uranium," available at **http://www.oehha.ca.gov/water/phg/pdf/uranium801.pdf** (last visited Nov. 29, 2008); ATSDR (1999), "Toxicological Profile for Uranium, Public Health Statement," available at **http://www.atsdr.cdc.gov/toxprofiles/phs150.html** (last visited Nov. 29, 2008); WHO (2005) "Uranium in Drinking Water," available at **http://www.who.int/water_sanitation_health/dwq/chemicals/uranium290605.pdf** (last visited Nov. 29, 2008).

For more information:
www.communitywatercenter.org or call (559) 733-0219

Appendix 1:

Where to Find More Information

Where to Find More Information

COMMUNITY WATER CENTER
EL CENTRO COMUNITARIO POR EL AGUA

CWC provides organizing, education, and advocacy assistance to communities seeking to secure safe, clean, and affordable water in the San Joaquin Valley.

www.communitywatercenter.org
(559) 733-0219

1.1 Advocacy & Community Assistance Organizations with Water Expertise in California

- California Rural Legal Assistance Foundation provides technical, legal and advocacy assistance to farmworker communities on issues that impact heath and civil rights.
  http://www.crlaf.org
  (916) 446-7901
- Center on Race, Poverty & the Environment provides legal, and organizing assistance to environmental justice communities.
  http://www.crpe-ej.org
  (661) 720-9140 (Southern San Joaquin Valley)
  (415) 346-4179 (All other regions)
- Clean Water Action / Clean Water Fund provides advocacy and technical assistance to help secure safe and affordable drinking water.
  http://www.cleanwateraction.org
  http://www.cleanwaterfund.org
  (415) 369-9160
- Environmental Justice Coalition for Water provides a network of support and expertise to environmental justice communities working on water issues throughout the state.
  http://www.ejcw.org
  (510) 286-8400
- Latino Issues Forum provides advocacy and assistance to Latino communities on water and other health and civil rights issues.
  http://www.lif.org
  (415) 284-7220

- Self Help Enterprises provides assistance for communities developing water and wastewater systems in the San Joaquin Valley by helping them secure funding and technical assistance.
  http://www.selfhelpenterprises.org
  (559) 651-1000

1.2 California Law

- Avoiding SLAPP and Defamation suits guides for nonprofit and community groups are available from the First Amendment Project.
  http://www.thefirstamendment.org/resources.html
- Brown Act guides are available in English and Spanish from the California First Amendment Coalition.
  http://www.cfac.org/content/index.php/cfac-meetings/index/
- California Legal Codes are available from the State of California. Just check the box next to a code and click on "search" to access the code's table of contents. From there, you can scroll down to find the relevant section.
  http://www.leginfo.ca.gov/calaw.html
- Municipal Law guide is available from the American Legal Publishing Corporation.
  http://www.amlegal.com/ca%5Fhandbook/
- Prop. 218 guides and information is available from the Legislative Analyst's Office.
  http://www.lao.ca.gov/1996/120196_prop_218/understanding_prop218_1296.html
- Public Records Act guides are available in English and Spanish from the California First Amendment Coalition.
  http://www.cfac.org/content/index.php/cfac-records/index/
- Public Utilities Commission rules, complaint proceedings, and contact information for a public advisor are all available from the PUC.
  http://www.cpuc.ca.gov/PUC/water/
  http://cpuc.ca.gov/PUC/forms/Complaints/
  (800) 649-7570

1.3 Certified Labs for Water Testing

- Department of Public Health (DPH) provides lists of certified laboratories. Usually laboratories provide their own containers and procedures and some send technicians to take samples at your home.
  http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx
  (510) 620-3155

1.4 Certified Operators

- California Department of Public Health (DPH) has information on how to become a certified operator.
  http://www.cdph.ca.gov/certlic/occupations/Pages/DWopcert.aspx
  (916) 449-5611
  (916) 449-5610
- California Rural Water Association has information about how to become a certified operator.
  http://www.calruralwater.org
  (800) 833-0322
- California State University Sacramento's Office of Water Programs offers online and correspondence trainings to become a certified operator and manuals on operating drinking water systems.
  http://www.owp.csus.edu
  (916) 278-6142
- The Rural Community Assistance Corporation has information about how to become a certified operator.
  http://www.rcac.org
  (916) 447-2854

1.5 Conservation

- AWWA has information on water efficiency, including water conservation ideas and other resources.
  http://www.waterwiser.org
- California Urban Water Conservation Council provides tips, guidebooks and other information for consumers and water providers on water conservation technology and best practices.
  http://www.cuwcc.org/
  (916) 552-5885

1.6 Consumer Confidence Reports (CCRs)

- Clean Water Fund has a consumer guide to understanding CCRs.
  http://www.safe-drinking-water.org/pdf/makesense.pdf
- DPH has information on CCRs.
  http://www.cdph.ca.gov/certlic/drinkingwater/Pages/CCR.aspx
- EPA has information on CCRs.
  http://www.epa.gov/safewater/ccr/index.html
- NS Foundation has information on understanding your CCR.
  http://www.nsf.org/consumer/drinking_water/dw_quality.asp?program=WaterTre#understand

1.7 Drinking Water Contaminants

- Agency for Toxic Substances and Disease Registry has toxicological profiles of many contaminants.
  http://www.atsdr.cdc.gov/toxpro2.html#bookmark05
  (888) 422-8737
- Center for Disease Control has information on many drinking water contaminants.
  http://www.cdc.gov/health/water.htm
- DPH has information on drinking water contaminants.
  http://www.cdph.ca.gov/certlic/drinkingwater/Pages/Chemicalcontaminants.aspx
- EPA has information on drinking water contaminants.
  http://www.epa.gov/ogwdw/hfacts.html
- National Toxicology Program has information on most contaminants.
  http://ntp.niehs.nih.gov/
- Office of Environmental Health Hazard Assessment has a list of public health goals for chemicals in drinking water and links to the studies on which those levels are based.
  http://www.oehha.ca.gov/water/phg/allphgs.html
- World Health Organization has background documents on drinking water contaminants.
  http://www.who.int/water_sanitation_health/dwq/chemicals/en/index.html

1.8 Funding Sources for Community Groups Addressing Water Issues

- Agape Foundation provides funding for community-based groups working for non-violent social justice.
  http://www.agapefdn.org
  (405) 701-8707
- Center for Environmental Health offers small grants to community-based organizations through the Community Environmental Action and Justice Fund.
  http://www.cehca.org/the-justice-fund
  (510) 594-9864
- Common Counsel Foundation administers a number of grant programs for community-based organizations working on social and environmental justice.
  http://www.commoncounsel.org
  (510) 834-2995
- Northern CA Environmental Grassroots Fund provides grants of up to $5,000 for community-based organizations working on environmental issues. Groups do not have to be a 501(c)(3) tax exempt organizations to apply.
  http://rosefdn.live.radicaldesigns.org/article.php?list=type&type=36
  (510) 658-0702
- The State Water Resources Control Board's Citizen Monitoring Program provides an updated list of grant sources for citizen groups.
  http://www.waterboards.ca.gov/nps/funding.html

- Vanguard Public Foundation offers grants to community-based organizations working on social justice.
  http://www.vanguardsf.org
  (415) 487-2111

1.9 Funding Sources for Water Systems

- California Department of Public Health (DPH) administers a number of programs that provide grants and loans to water systems to improve drinking water quality.
  http://www.cdph.ca.gov/certlic/drinkingwater/Pages/DWPfunding.aspx
  (916) 449-5600
- Department of Housing and Urban Development (HUD) provides Community Development Block Grants for drinking water improvements in low income neighborhoods.
  http://cfpub.epa.gov/fedfund/search2.cfm?prog_num=16
  (415) 489-6400
- Department of Water Resources (DWR) administers a number of grant and loan programs to evaluate and improve water reliability.
  http://www.grantsloans.water.ca.gov/
  (916) 653-5791
- State Water Resources Control Board (SWRCB) administers a number of funding programs for water quality and wastewater management projects.
  http://www.waterboards.ca.gov/water_issues/programs/grants_loans/
  (916) 341-5250
- United States Department of Agriculture (USDA) Rural Development Utilities Program provides grants, loans, and loan guarantees for rural water and wastewater systems.
  http://www.usda.gov/rus/water/index.htm
  (530) 792-5810

1.10 Home Water Filters & Treatment

- DPH has a guide on home treatment devices and a list of certified treatment devices updated each spring.
  http://www.cdph.ca.gov/certlic/device/Pages/watertreatmentdevices.aspx
  (916) 449-5600.
- NS Foundation has a list of certified treatment devices and a guide for treatment devices for different water contaminants.
  http://www.nsf.org/consumer/drinking_water/dw_treatment.asp?program=WaterTre

1.11 Legal Advice & Referrals for Low-Income Residents in California

- California Rural Legal Assistance Inc. provides legal assistance to low-income residents in 21 offices throughout California.
  http://www.crla.org
  (415) 777-2752
- Central California Legal Services provides free legal assistance to low-income families and individuals in Fresno, Kings, Mariposa, Merced, Tulare, and Tuolumne counties.
  http://www.centralcallegal.org/
  (559) 570-1200 (Fresno)
  (209) 723-5466 (Merced)
  (559) 733-8770 (Visalia)
- Greater Bakersfield Legal Assistance, Inc. provides free legal assistance to low-income residents in much of Kern County.
  http://www.gbla.org/
  (661) 325-5943
- Law Help California provides legal aid referrals and self-help tools in a number of languages.
  http://www.lawhelpcalifornia.org/CA/index.cfm.
- The Legal Services Corporation provides a list of contacts for all legal services organizations serving low-income residents in California.
  http://www.lsc.gov/map/state_T32_R6.php.
- Legal Services of Northern California provides free legal assistance to low-income residents in 23 northern California counties.
  http://www.lsnc.info/
  (916) 551-2150

1.12 Local Groundwater Quality & Watershed Information

- The Department of Pesticide Regulation updates an annual inventory of groundwater monitoring data.
  http://www.cdpr.ca.gov/docs/emon/grndwtr/index.htm
- EPA has a number of databases to look up water quality in your area:
  - The Superfund Database includes information on all federal superfund and brownfield sites in California.
    http://www.epa.gov/region09/cleanup/california.html
  - The Watershed Database includes information on watershed health, water uses, citizen groups, etc.
    http://cfpub.epa.gov/surf/locate/index.cfm
- The State Water Resources Control Board provides access to most state agency databases.
  - GeoTracker:
    http://geotracker.waterboards.ca.gov/

    - The Groundwater Ambient Monitoring Assessment Program (GAMA): **http://www.waterboards.ca.gov/gama/grid.html**

- United State Geological Survey (USGS) has a number of databases available on local water quality.
  http://water.usgs.gov/data.html

1.13 Miscellaneous Water Organizations & Agencies

- The American Water Works Association (AWWA) is a national organization of water utilities.
  http://www.awwa.org
- Association of California Water Agencies (ACWA) is an advocacy organization for public water agencies in California.
  http://www.acwa.com
- EPA's Office of Water has links to various federal water programs.
  http://www.epa.gov/ow/index.html
- The Water Education Foundation has a variety of educational materials on water resources.
  http://www.water-ed.org

1.14 Private Well Owners

- EPA has information for private wellowners.
  http://www.epa.gov/safewater/privatewells/index2.html
- The National Groundwater Association has information.
  http://www.wellowner.org/

1.15 Technical Assistance Organizations for Water Systems

- California Department of Public Health (DPH) provides templates of notices for different drinking water violations that public water systems can use to notify customers, some of which are already translated into Spanish. Its technical operations section can also help systems identify appropriate treatment technologies.
  (Notice Templates)
  http://ww2.cdph.ca.gov/certlic/drinkingwater/Pages/Notices.aspx
  (916) 449-5600
  (Technical Assistance)
  http://www.cdph.ca.gov/programs/Pages/DWP.aspx
  (916) 449-5600
- California Rural Water Association provides free technical trainings for rural water systems.
  http://www.calruralwater.org
  (800) 833-0322

- National Environmental Services Center provides technical information, advice, and a free magazine called *On Tap*.
  http://www.nesc.wvu.edu/ndwc/
  (800) 624-8301
- The Rural Community Assistance Corporation provides free trainings and resources for rural drinking water and waste water systems.
  http://www.rcac.org
  (916) 447-2854
- The United States Environmental Protection Agency (EPA) provides assistance on a wide range of issues regarding safe drinking water.
  http://www.epa.gov/safewater
  Safe Drinking Water Hotline – 1(800) 426-4791

1.16 Water Districts

- ACWA provides an overview of different types of water districts.
  http://www.acwa.com/mediazone/waterfacts/view.asp?ID=51
- UC Berkeley Library provides links to individual water districts and associations.
  http://www.lib.berkeley.edu/WRCA/district.html#assoc
- Guide to Forming a Water District is available from the PUC.
  http://docs.cpuc.ca.gov/published/REPORT/61369.htm

Appendix 2:

Trainings & Handouts

General Trainings

2.1 - Water Board Basics

2.2 - The Brown Act Basics

2.3 - Public Records Act Basics

2.4 - Proposition 218 & Water Rate Increases

2.5 - Understanding California Water Agencies

2.6 - How to Read Your Consumer Confidence Report

Trainings for Mutual Water Board Members

2.7 - Developing Rate Policies for Small Mutual Water Companies

2.8 - How to Run a Meeting

Water Board Basics[a]

As a member of a water board, you take on two primary legal duties (also called "fiduciary duties") to

1. Act with the interests of the water board before your own personal interests in every official decision you make, and
2. Actively take part in the board and review all necessary information before making a board-related decision.

In addition to your fiduciary duties, a water board member also has five main responsibilities:

1. To see that the water system complies with the law;
2. To develop and enact policies to direct the water system operations;
3. To set and oversee the annual budget for the water system;
4. To hire and maintain a certified operator to run the technical operations of the water system; and
5. To keep operational, legal, financial and managerial records for the water system.

More specifically, the legal responsibilities of each member of a water board include the following:

1. *To make sure that the water company or agency over which you preside follows all applicable federal, state, and local laws.* Such laws include not only safe drinking water regulations, but laws, such as the Brown Act, that may govern how meetings must be held. It is a good idea to have copies of applicable laws available at meetings in case questions or concerns arise.
2. *To make sure that any decision that is binding on the water company/agency is made by the board as a whole, and not by individual members.* Record votes taken, including objections, and ensure that the minutes accurately reflect what took place in each meeting.
3. *To avoid even the appearance of a conflict of interest.* If any board decision involves matters that may affect you personally, including family, employers, and close friends, you should refrain from voting on those matters.
4. *To make sure that the water system maintains all records according to state and federal law.* All financial records must be retained and made available in accordance with legal standards. In addition, minutes should be taken at each meeting and later approved by the board to make sure they are correct. It is a good idea to have applicable laws available at meetings in case questions or concerns arise.
5. *To make sure that the water system is financially sound.* As part of a board member's fiduciary duties, he or she must ensure that the system secures sufficient funds to cover costs, as well as some savings for infrastructure improvements and maintenance. An operating budget and financial audit should be reviewed and approved annually, and you should be sure you understand them.
6. *To remain ultimately in charge of all decisions made on behalf of the water company/agency.* The board can, and should, delegate certain tasks to staff or contractors. However, the board is ultimately responsible for every decision made on behalf of the water company/utility and therefore should have an adequate oversight system in place when decisions are delegated.
7. *To make sure that bylaws and other relevant legal frameworks for the operation of the board are being followed.* Be sure that minutes are recorded and go over them later to be sure they are accurate. Also, be sure to record all votes, including objections. It is a good idea to have a copy of the bylaws on hand in case any concerns or questions arise during a meeting.
8. *To know the status of the water system's assets.* You have a duty to know whether assets are being misused or misappropriated, so keep informed of the financial status and ask questions. Insist on understanding your financial statements and budget summaries.
9. *The board as a whole must formally approve all contracts.* It is important to record all votes, including objections.
10. *To attend board meetings regularly.* As part of your fiduciary duties, you must be an active member of the board and regularly attend meetings.

[a] Based on "Water Board Basics: Keys for Success" by Rural Community Assistance Corporation, available at **http://www.rcac.org/assets/files/water_board_basics/Legal_Responsibilities.pdf**. For additional training materials for water board members, see **http://www.rcac.org/doc.aspx?111**.

The Brown Act Basics[b]

The Brown Act (Cal. Gov't Code §§ 54950–54960.5) was enacted to ensure that local public governing bodies conduct business through open and public meetings. If a water board acts in violation of the Brown Act, that action may be voided.

Who is covered by the Brown Act?

Local government agencies, such as counties, cities, community services districts, public utility districts, and other local water districts.

Who is NOT covered by the Brown Act?

Private non-governmental entities (*e.g.,* mutual water companies and private water companies).

What is required at an open meeting?

- An agency must post a notice and an agenda for any regular meeting and mail a notice to anyone who requests it at least three days before a regular meeting, one day before a special meeting, and one hour before an emergency meeting.
- An agency must allow the public to address the board on any item in the agency's jurisdiction that has not already been addressed at an earlier open meeting.
- All documents provided to the board must be provided to the public without delay, unless they are also exempt under the Public Records Act.
- An agency must hold the meetings in places accessible to all, with no fee, and in the local jurisdiction of the agency.
- An agency must allow members of the press to remain in meetings even if a meeting is cleared due to public disturbance.
- An agency must allow non-disruptive recording and publishing of recordings of agency meetings.
- An board must vote publicly and cannot use secret ballots.
- An agency may not require a "sign-in" to attend or speak at meetings.

When can agencies hold closed meetings?

Agencies can close meetings to the public to discuss certain topics where confidentiality is required. Those topics, defined by law, include:

- some personnel issues
- pending litigation
- labor negotiations
- property negotiations

What is required at a closed meeting?

The agency still must report all actions taken and all votes cast during a closed session, as well as provide copies of any contracts or settlements approved. Also, special notice and agenda requirements apply.

Practice Tips:

You must act to enforce the Brown Act within set time limits after a violation has occurred in order to void an action taken by an agency. Specifically, a person must give written notice to the agency asking it to correct the action within 90 days of the violation (or 30 days if the violation was due to an inadequate agenda). The agency then has 30 days to take action to correct the violation. If the agency has not corrected the violation after 30 days, a person has 15 days to file in court to void the action. Attorney fees are generally awarded if you prevail in court.

[b] This information has been adapted from the First Amendment Project's Pocket Guide to the Brown Act, available at **http://www.thefirstamendment.org/Brown-Act-Brochure-DEC-03.pdf**. Additional information can be found at **http://www.cfac.org/content/index.php/cfac-meetings/index/**.

Public Records Act Basics[c]

The Public Records Act (Government Code Sections 6250–6276.48) requires that public records be open to inspection at all times during the office hours of an agency, and that every person has the right to inspect and receive an exact copy of a record, unless impracticable. However, there are some exceptions, which will be described below.

Who is covered by the Public Records Act?

- All state and local governmental agencies, including the California Department of Public Health, counties, cities, community services districts, public utilities districts, and other water districts.

Who is NOT covered the Public Records Act?

- Courts
- Private, non-governmental entities, including nonprofit organizations, mutual water companies, and other private companies.

What can the public have access to?

Any member of the public can have access to all communications related to public business, regardless of what physical form or other characteristics the record has. This includes written documents, pictures, audio records, symbols, and electronic data.

What are the exceptions?

The following types of public records are exempt from Public Records Act disclosure requirements:

- Attorney-client discussions
- Home addresses
- Personnel, medical, and other similar files that would reveal intimate, private details. This does not include employment contracts, however, which are not exempt from the Act.
- Individuals' financial data, including tax, welfare, and family adoption and birth records.
- Police incident reports, rap sheet and arrest records.

In addition, the following information is only sometimes available:

- Records regarding agency litigation are exempt until the claim is resolved or settled.
- Preliminary drafts and notes may be withheld only if they are not normally kept and the public interest in withholding the drafts clearly outweighs the public interest in disclosure.
- Appointment calendars and phone records which reveal the thought process of government decision-makers may be withheld only if the public interest in withholding the drafts clearly outweighs the public interest in disclosure.

Practice tips:

- Public officials do not have to create a record that does not otherwise exist just because of a Public Records Act request.
- A fee cannot be charged for inspection of records, but agencies may require a "copy cost," as set by the state legislature.
- While inspection in an office should be immediate, the agency does have 10 days to decide if copies will be provided and may take an additional 14 days if the request is complex or voluminous.

[c] This information has been adapted from the First Amendment Project's Pocket Guide to the Public Records Act, available at **http://www.thefirstamendment.org/publicrecordsact.pdf**. More information can be found at **http://www.cfac.org/content/index.php/cfac-records/index/**.

Proposition 218 & Water Rate Increases

Caution!!

Court interpretations of Proposition 218 are continually evolving and changing. Make sure you check with an attorney to find out if new cases have changed the interpretations presented here.

Who must comply with Prop 218?

All governmental water providers, including cities, counties, community services districts, and public utility districts. It does NOT apply to private companies, mutual water companies, or utilities regulated by the Public Utility Commission (PUC).

What procedures must a water provider follow in order to raise rates?

1. Identify the parcels of land within its jurisdiction that will be affected by the rate increase and the corresponding people who hold water accounts.
2. Send a written notice of the proposed rate increase to all affected landowners and all tenants that pay a bill directly.
3. At least 45 days after notices are sent, conduct a public hearing on the proposed rate increase and count and record all written protests by property owners or tenants that pay a bill directly.

What information must the water provider include in the notice?

- The amount of the rate increase;
- Why the increase is needed;
- How the provider calculated the amount of the needed increase; and
- When and where the provider will conduct a public hearing on the proposed increase.

How can a rate increase be stopped?

- **If a majority (50% +1) of property owners or tenants that pay a water bill directly within the service district submit written protests at the hearing, the provider cannot raise rates as proposed. A sample written protest is attached.**
  - ***NOTE:*** If a property owner or tenant that pays a water bill directly does not submit a written protest, it is counted as a vote in favor of the increase.
- **Even if a majority of property owners do not protest against the proposed rate increase, the increase must still satisfy the following substantive requirements to be valid:**
  - The provider must identify a particular water-related purpose for the rate increase and the funds from the increase may not be used for any other purpose.
  - The provider must calculate the amount of the rate increase precisely to cover the cost of the funds needed to provide the service. The agency cannot generate a profit from increased water rates.
  - The cost imposed on each property owner must be proportional to that property owner's water use.
  - The provider must base the rate increase on actual use, not estimated use or potential future use.

Proposition 218 Protest Vote

I, _____

[*insert name of person on water bill or property owner*]

submit this protest vote to oppose the proposed rate increase by

_____ on behalf of the

[*insert the name of your water provider*]

following property:

_____

[*Insert address or parcel number of property*]

_____

[*Insert address or parcel number of additional property*]

Signed,

_____ _____

[*Sign here*] [*Insert Date*]

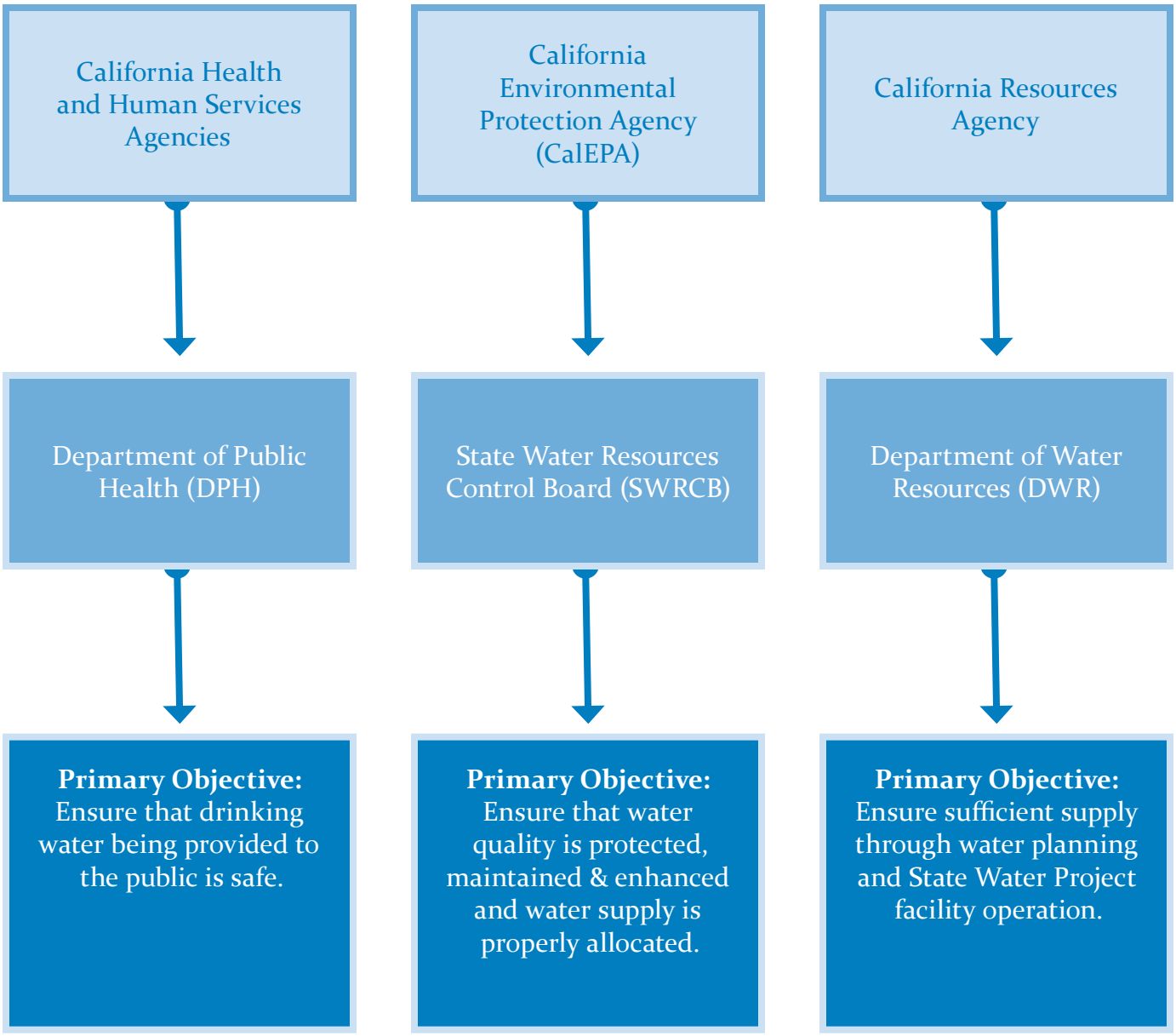
_____

[*Print name of person on water bill or property owner*]

Remember to make a copy for your own records after you fill this out.

Understanding California Water Agencies

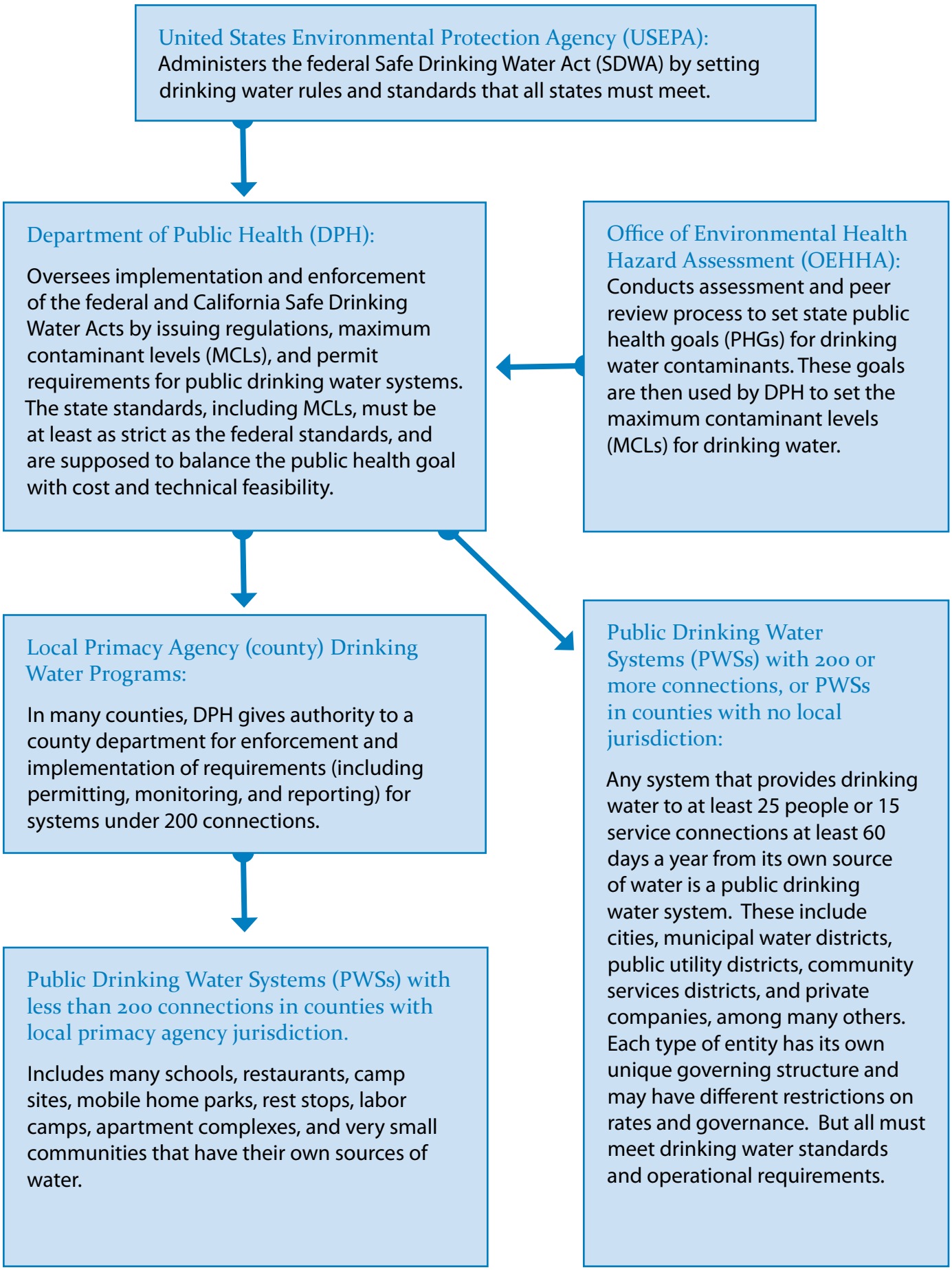
There are three state agencies that have primary jurisdiction over water resource management in California.



While these three agencies have separate areas of focus, there are many areas of overlap and virtually no coordination between agencies. Further complicating the issue, there are programs in other state agencies, such as at the Department of Pesticide Regulation (DPR), and the Office of Environmental Health Hazard Assessment (OEHHA), that directly focus on water issues. And of course there are federal and local water agencies with jurisdiction over different aspects of water management as well.

To navigate the maze of agencies, it is easiest to split them up into subject areas. Below are maps of agencies charged with drinking water management and water quality management. As you can see, even though drinking water quality depends on the water quality of local water sources, the agencies charged with these responsibilities are almost entirely separate and there is no exchange of information in water management decision-making.

California Drinking Water Management



California Water Quality Management

United States Environmental Protection Agency (USEPA): Administers the federal Clean Water Act (CWA) by setting water quality rules and requirements that all states must meet.

California Environmental Protection Agency (Cal EPA):

Responsible to ensure state implementation of both the federal CWA and the state's Porter-Cologne Water Quality Control Act (Porter-Cologne).

State Water Resources Control Board (SWRCB):

Responsible for implementation and enforcement of the CWA & Porter-Cologne as a sub-agency of the Cal EPA. Board members are appointed by the Governor. The SWRCB not only has oversight authority over all nine regional boards and authority to set statewide policies, but also directly approves all allocations and transfers for surface water rights.

Regional Water Quality Control Boards (RWQCBs):

There are nine regional boards in the state that are responsible for creating Basin Plans, which set water quality goals for the region, and issuing requirements for all entities that impact or threaten to impact surface or groundwater quality. These regional boards are made up of members appointed by the Governor. Each board issues Total Maximum Daily Load (TMDL) limits and National Pollutant Discharge Elimination System (NPDES) permits for surface water dischargers under the federal CWA, as well as waivers or Waste Discharge Requirements (WDRs) for surface and groundwater dischargers under the state Porter-Cologne Water Quality Control Act.

County or City Governments:

Set zoning and permit requirements to determine where different activities may be located and may set ordinances to control polluting activities and protect water quality.

Local Water Agencies:

Local water agencies with management authority, such as water conservation districts and irrigation districts, may set requirements to protect water quality.

Individual Dischargers:

Any entity that pollutes or threatens to pollute surface or groundwater may be required to obtain a permit from the regional water board and may be subject to additional requirements from local agencies. Examples of individual dischargers include municipal sewage treatment facilities, landfills, gas stations, dry cleaners, processing facilities, dairies, and refineries.

How to Read Your Consumer Confidence Report

Look here to find the dates that the water was tested.

This is the average level of each contaminant detected in your water.

Look here to see the highest and lowest levels detected in different samples.

This is the legal limit (also sometimes called Action Levels). Check to see how this compares to the level detected.

This is the public health goal, the safe level for a contaminant. Compare to the level detected.

Look here to find out what types of sources this contaminant may come from in your area.

Look here to find the contaminants that your water system has tested for.

TEST RESULTS: DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD

Chemical or Constituent (and reporting units)	**Sample Date**	**Level Detected**	**Range of Detections**	**MCL [MRDL]**	**PHG (MCLG) [MRDLG]**	**Typical Source of Contaminant**
Dibromochloropropane (DBCP), ppt	9/28/06	9.5	ND to 38	200	1.7	Banned nematocide that may still be present in soils due to runoff/leaching from former use on soybeans, cotton, vineyards, tomatoes, and tree fruit
Nitrate as NO_3, ppm	9/28/06 11/29/06 12/25/07 4/26/07 5/23/07	48	34.1 to 65	45	45	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Arsenic, ppb	1/20/05 9/28/06	5	2 to 8	10	.004	Erosion of natural deposits; runoff from orchards
Fluoride, ppm	1/20/05 9/28/06	.25	0.20 to 0.30	2.00	1	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Barium, ppm	1/20/05 9/28/06	0.84	0.33 to 1.35	1	NA	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits

Nitrate is over both the public health goal (PHG) and the maximum contaminant level (MCL), and therefore should be a concern. Look in your CCR for an explanation of what your system is doing to fix the problem.

The average sample of Barium was not over the MCL, but one sample was over the MCL. So you may want to follow-up with your water system to find out what is being done to make sure no one is exposed to levels over the MCL.

Arsenic is not over the MCL, but is over the PHG. Therefore, while there is not a violation, you may want to take precautions, particularly if you have vulnerable people in your home such as pregnant women or children.

Developing Rate Policies for Small Mutual Water Companies

Why create rate policies?

All water systems need clear, written policies so that the board and the staff can make consistent and fair decisions.

What makes good rate policies?

Policies should be clear to everyone. Policies should be written and distributed to all users, board members, and employees. Policies should be fair and equitable so that no one is treated differently unless there is a valid reason, in writing, for doing so. Sample rate policies used by small mutual water companies are included in *Appendix 3*.

How do we set rate policies?

1. Do your homework. Study your budget to determine your costs and income; identify your users and differential costs of serving different types of users; identify where there are shortfalls that need to be addressed (for example, late payments). The bookkeeper should help the board interpret the system's needs and costs.
2. Get community input. Either develop a citizens' advisory committee to help set rate policies, or at least hold a meeting and send out draft policies and explanatory information with the water bill. Involve the community early in this process so that the community can be part of the process and understand why rate policies are being set as they are.
3. Publicize the rules. Vote on a final set of policies and distribute them widely to users, board members, and employees.
4. Enforce policies uniformly. There is no point in setting fair and equitable rate policies unless they are enforced fairly and equitably.

Note: Additional requirements under Proposition 218 apply to governmental water providers. Proposition 218 does not apply to mutuals.

How to Run a Meeting

1) Create an agenda.

- The agenda sets out what topics will be discussed at the meeting and the order in which they will be discussed.
- Each meeting should start with calling the meeting to order, noting the time, date, and place in the minutes.
- Next, the agenda should include a "Roll Call" to determine who is present and if there is a quorum.
- Other topics that should be included on a typical agenda are the following: a public comment period, approval of minutes from the previous meeting, approval of bill payments (also called warrants), as well as any new or old business topics.

> A ***quorum*** is the minimum number of board members that must be present at a meeting in order for the board to make decisions or approve transactions.

2) The Secretary should take minutes.

- Minutes do not have to be word for word transcripts, but should be summaries of what was discussed and what decisions were made.
- All actions of the board should be noted by what motion was made, who made it, who seconded and how people voted (for, against, and abstentions). A template for minutes of water board meetings is included in *Appendix 3* (3.4).

> ***Minutes*** are notes that serve as a written record of what was discussed and what actions were taken at the meeting.

3) The President should lead the meeting, going through each item on the agenda.

- All items on the agenda should be discussed or tabled for a later meeting.
- The President should make sure discussions stay on topic.
- The President should ensure that people have a chance to speak on any given topic, including any members of the public in attendance. The President may set limits on the time each person can speak in the interest of keeping a meeting moving and finishing the full agenda in a reasonable time. However, it is important to set those limits from the beginning and make an effort to be fair and allow all sides equal time to talk. It is not uncommon for Boards to ask that people only speak for 2-5 minutes if there are a lot of people present in order to allow everyone a chance to speak on the issue.

4) If the board needs to make a decision, it should vote through a formal process.

- One member of the board makes a motion to take a certain action by saying, "I move that …[insert action to be taken]."
- Another member must second the motion by saying, "I second."
- If people have questions about the motion, they can clarify. But usually the board should discuss the topic before someone makes a motion.
- All board members vote, either in favor, opposing, or abstaining. Generally the President says, "all those in favor say 'aye'" or "all those in favor raise your hands." Then, "all those opposed raise your hands," and so on.
- The Secretary should record the vote in the minutes so that later the board can show what was decided and how board members voted.

5) Once you are done with the agenda, you should adjourn the meeting.

- Any member of the board should make a motion to adjourn, or close the meeting.
- Another member seconds and then all the members vote.
- Record the motion and vote in the minutes and note the time that the meeting was adjourned.

> ***Note:*** If you are running a meeting for a government agency, such as a Community Services District, which is covered by the Brown Act, additional requirements apply. This guide was created for mutual water companies and other non-governmental community-based organizations.

Appendix 3:

Samples & Templates

Contents: Included below are samples of existing policies, bylaws and other documents that have been used by local mutual water companies and community groups. These samples are not meant to provide legal advice, nor are they endorsed as models. They are merely intended to serve as examples of what is currently used in local communities.

Samples and Templates for Community Advocates

Samples and Templates for Local Water Boards

Pueblo Unido
PO Box 123
Pueblo, CA 93291

Jan. 1, 2009

Pueblo Public Utility District
PO Box 123
Pueblo, CA 93291

Re: Public Records Act request

Dear Mr. Smith :

On behalf of Pueblo Unido, I request the following public records, pursuant to the Public

Records Act, Government Code § 6250, *et seq.*:

- The most recent Consumer Confidence Report
- The annual budget for the current fiscal year
- The source water assessment
- Current rate policies
- All notices of violations and/or health advisories currently in effect

Additionally, we respectfully request that all of this information be provided in both English and Spanish. Most water users in our community are predominantly Spanish-speaking and would like access to this basic information on the services provided.

We also would like to call your attention to the requirement of the Dymally-Alatorre Bilingual Services Act (BSA) (California Government Code §7291), which requires that local agencies that serve a substantial number of non-English speaking people and provide materials explaining services in English, provide the same type of materials in any non-English language spoken by a substantial number of the public served by the agency. Similar efforts to translate materials are required by the California Civil Rights Act (Government Code §11135), which prohibits "the unlawful denial of full and equal access to the benefits of... any program or activity that is conducted, operated, or administered by the state or by any state agency on the basis of race, national origin, ethnic group identification, or color." Given this community's demographics, it is appropriate for all public communications to be available in English and Spanish. We encourage you to see that this policy of providing multilingual information is continued in the future.

We look forward to receiving this information. If you have any questions or concerns please contact me,

Maria Martinez at (555) 123-4567.

Sincerely,

Maria Martinez
Sign Here

on behalf of Pueblo Unido.

_____
_____
_____

__ / __ / __

_____

_____

_____

Re: Public Records Act request

Dear _____ :

_____ request the following public records, pursuant to the Public

Records Act, Government Code § 6250, *et seq.*:

_____

_____

Additionally, ____ respectfully request that all of this information be provided in both English and Spanish. Most water users in our community are predominantly Spanish-speaking and would like access to this basic information on the services provided.

____ also would like to call your attention to the requirement of the Dymally-Alatorre Bilingual Services Act (BSA) (California Government Code §7291), which requires that local agencies that serve a substantial number of non-English speaking people and provide materials explaining services in English, provide the same type of materials in any non-English language spoken by a substantial number of the public served by the agency. Similar efforts to translate materials are required by the California Civil Rights Act (Government Code §11135), which prohibits "the unlawful denial of full and equal access to the benefits of... any program or activity that is conducted, operated, or administered by the state or by any state agency on the basis of race, national origin, ethnic group identification, or color." Given this community's demographics, it is appropriate for all public communications to be available in English and Spanish. ____ encourage you to see that this policy of providing multilingual information is continued in the future.

____ look forward to receiving this information. If you have any questions or concerns please contact me, _____ at (____) ____ - _____.

Sincerely,

_____

on behalf of _____

PUEBLO UNIDO BYLAWS
(Sample 1)

ARTICLE 1

MISSION STATEMENT

Pueblo Unido works to improve the quality of life in Pueblo, address problems facing the community, and secure equality for all Pueblo residents.

ARTICLE 2

THE PRINCIPAL OFFICE

The principal contact point shall be the Primary Spokesperson of Pueblo Unido.
PO Box 123
Pueblo, CA 93291

ARTICLE 3

MEMBERSHIP

SECTION 1: Pueblo Unido members at the time of the adoption of these bylaws shall be referred to as "charter members."

SECTION 2: Any resident of Pueblo can become a member of Pueblo Unido by attending two consecutive regular meetings. Members must be eight years old or older.

SECTION 3: It shall be the responsibility of each member to ask permission from the group before attending any meetings, conferences, or functions as a representative of Pueblo Unido. In special situations, between regular meetings, members can seek approval to represent Pueblo Unido at an event with the permission of the Primary Spokesperson and the Substitute Spokesperson. An oral or written report about such meetings, conferences, etc., shall be submitted to the group at a

regular meeting by the attending member.

SECTION 4: RESIGNATION OF MEMBERSHIP: To resign, a member must give oral or written notice of resignation at a regular meeting and attempt to bring someone else to fill the vacancy.

ARTICLE 4

MEETINGS

SECTION 1: PLACE OF MEETINGS: Regular meetings of Pueblo Unido shall be held in front of the local church.

SECTION 2: REGULAR MEETINGS: Regular meetings will be held on the fourth Tuesday of each month at 5 pm. The Coordinator will give notice of the meeting by calling all participating members on the telephone and by posting a notice in the local store.

SECTION 3: A quorum shall consist of five members. Decisions on behalf of the group will be made through a majority vote at a meeting in which at least five members are present. Members may also place their votes absentee by submitting a signed letter with another member.

ARTICLE 5

SPOKESPERSONS AND COORDINATOR

SECTION 1: Pueblo Unido members shall elect Spokespersons to voice the positions decided on by the group. Spokespersons shall only speak on behalf of Pueblo Unido on positions taken by the group after a formal majority vote at a meeting of the members.

SECTION 2: A Primary Spokesperson and Substitute Spokesperson shall be elected to act as the principal point of contact for Pueblo Unido.

SECTION 3: The Coordinator of Pueblo Unido will be responsible for planning and notifying members of regular meetings.

SECTION 4: REMOVAL: A Spokesperson or the Coordinator may be removed at a regular meeting through a majority vote so long as a replacement is elected into office at the same meeting.

ARTICLE 6

ELECTION OF SPOKESPERSONS AND COORDINATOR

SECTION 1: All Spokespersons, including the Primary Spokesperson, shall hold the position for a term of six months, with the ability to serve unlimited consecutive terms. The Coordinator shall hold office for six months, with the ability to serve unlimited consecutive terms.

SECTION 2: A Spokesperson and/or the Coordinator can be nominated at any regular meeting of the members. Elections for that Spokesperson or Coordinator shall be held at the next regular meeting of the members following a nomination. Spokespersons and the Coordinator must be re-nominated and re-elected every six months in order to extend their term of office.

SECTION 3: Each member of Pueblo Unido, including those holding office, shall have the right to vote for Spokespersons and the Coordinator. Voting shall be done by raised hands. Non-members shall not participate in the process of elections. Candidates receiving a majority of the vote will be elected into office.

ARTICLE 7

AMENDMENT OF BYLAWS

These bylaws may be amended at any time by a two-thirds majority vote of Pueblo Unido members at large for specific changes. These changes may be recommended by a bylaws committee or by an individual member's request or motion at a regular meeting that a certain change be voted on at the next regular meeting.

PUEBLO UNIDO BYLAWS
(Sample 2)

ARTICLE 1

MISSION STATEMENT

Pueblo Unido will advocate to improve the quality of life in Pueblo, address problems facing the community, and secure equality for all Pueblo residents.

ARTICLE 2

THE PRINCIPAL OFFICE

The principal office for the transaction of the business of Pueblo Unido shall be

PO Box 123

Pueblo, CA 93291

ARTICLE 3

MEMBERSHIP

SECTION 1: Pueblo Unido members at the time of the adoption of these bylaws shall be referred to as "charter members."

SECTION 2: New members shall, upon nomination by a board member, sign a declaration supporting the mission statement. Pueblo Unido reserves the right to deny membership to those persons who, by word or deed, do not support the mission statement. Minors shall obtain parental consent.

SECTION 3: It shall be the responsibility of each member to ask permission from the President or, in his/her absence, any other officer of the board before attending any meetings, conferences, or functions as a representative of Pueblo Unido. A written report about such meetings, conferences, etc., shall be submitted to the board by the attending member.

SECTION 4: RESIGNATION OF MEMBERSHIP: A member shall resign by submitting a letter to the board.

ARTICLE 4

MEETINGS

SECTION 1: PLACE OF MEETINGS: Meetings of the board of directors of Pueblo Unido shall be held at any location within the state of California, as may be agreed upon by members of the board.

SECTION 2: REGULAR MEETINGS: A regular meeting of the board shall be held on the first week of every third (3rd) month or on an as-needed basis. Only members of the board will be authorized to participate in the formal business matters of the board, including making corrections to minutes, making motions, and voting. Attendance and input from Pueblo Unido members shall be encouraged.

SECTION 3: SPECIAL MEETINGS: Special meetings of the board for any purpose whatsoever may be called at any time by petition of three members, provided that no less than 48 hours notice be given to the members.

SECTION 4: NOTICE OF MEETINGS: A written notice of each quarterly meeting of the board shall be mailed no less than 14 days preceding the meeting to each member of the board and Pueblo Unido members. The notice shall specify the date, time, and place of the meeting and shall set forth the agenda for the meeting. Where time permits, the same notice provisions shall apply to special meetings. Otherwise, notice of special meetings shall be given personally, by e-mail, and/or by telephone.

SECTION 5: ORDER OF BUSINESS: The order of business at regular meetings shall be as follows:

1. Call to order (by President; if not present, then by Secretary)
2. Roll call (will be noted by Secretary in minutes)
3. Visitors presentation (if any, and limited to three - five minutes per group/organization)
4. Approval of minutes
5. Correspondence
6. Reports
    a. Officers

b. Members

7. Old business
8. New business
9. Schedule next meeting
10. Adjournment

SECTION 6: A quorum shall consist of three board members.

ARTICLE 5

BOARD OF DIRECTORS

SECTION 1: Pueblo Unido members shall elect the following officers:

a. President

b. Secretary

c. Youth representative (with parents' permission, if under 18)

d. Two at-large board members

SECTION 2: The duties of the President shall be to preside over the board meetings and perform those duties customary to the office of President, to maintain order while a meeting is in session, to remove any person who behaves in a grossly disrespectful way towards any other person, to be responsible for signing any legal documents necessary, and to serve as the Pueblo Unido representative and media representative. The President shall also appoint other Committee or Subcommittee Chairs when appropriate.

SECTION 3: The Secretary shall have the following duties:

a. Handle correspondence pertaining to Pueblo Unido;

b. Circulate attendance sheets at each meeting;

c. Take the minutes of the meetings;

d. Supervise archives; and

e. Keep everyone up to date.

SECTION 4: The Youth Representative shall have the following duties and have a vote on the board:

a. Youth input

b. Report on any youth activities, etc.

SECTION 5: More than two consecutive unexcused absences (not informing board of intended absence) will result in that member's dismissal from the board. In case of dismissal, the Secretary shall prepare a letter to the member with the President's signature.

ARTICLE 6

ELECTION OF OFFICERS

SECTION 1: All officers shall hold office for a term of two years.

SECTION 2: Nominations shall take place in the month of December.

SECTION 3: Election of officers will take place in January at the regularly scheduled board meeting.

SECTION 4: All vacancies shall be filled by a special election if the seat is vacated before a term is finished. A nomination and election to fill the position(s) shall be held within three months after the vacancy is formally declared.

SECTION 5: Each member of Pueblo Unido, including those holding office, shall have the right to vote for officers. Voting shall be done by secret ballot. Non-members shall not participate in the process of elections.

ARTICLE 7

AMENDMENT

These bylaws may be amended at any time by a two-thirds majority vote.

Name of Water Board

Minutes

Date:		Time:	
Location:			

Call to Order: Time:	By:

Roll Call: Check box if present.

President:	☐	Member:	☐
Vice President:	☐	Member:	☐
Secretary:	☐	Alternate:	☐

Introduction of Visitors:

Public Comments:

Reading and Approval of Minutes:

Notes on Discussion:

Motion:	Second:		
	Vote: Yes	No	Abstain

Approval of Bill Payments:

Notes on Discussion:

Motion:	Second:		
	Vote: Yes	No	Abstain

New Business:

*Notes on Discussion: (May include many topics)**

Topic 1:

Topic 2:

Topic 3:

Motion:	Second:		
	Vote: Yes	No	Abstain

Old Business:

*Notes on Discussion: (May include many topics)**

Topic 1:

Topic 2:

Topic 3:

Motion:	Second:		
	Vote: Yes	No	Abstain

Closed Session (Issues concerning personnel, litigation, or property negotiations)

Time Entered:	Time Exited:		
Closed Session Action:	Motion:		
	Second:		
	Vote: Yes	No	Abstain

Adjournment:

Motion:	Second:		
	Vote: Yes	No	Abstain

Next Meeting Date:	Time:	Location:

Notes: (May include topics for next month's agenda.)

* If notes on discussion for each topic require additional space, attach additional sheet.

Pueblo Mutual Water Company

Water Service Termination Policy

Water bills are sent out on the 1st of each month. Customers with unpaid bills on the 25th day of the month will be mailed a "Notice of Discontinuance of Service" giving the customer 15 days from the date of mailing to pay the overdue charges.

At least 24 hours before shut-off, the Pueblo Mutual Water Company shall attempt to contact the owner. Any discontinuance of service shall occur on business days only (no weekend or holidays). **A $25 administrative fee will be charged for each 24-Hour Notice given.**

Customers subject to termination of water service will be charged a disconnect fee of $40 to cover administrative and labor costs, in addition to all notice fees and the monthly payment.

Customers may avoid termination of service by: (1) paying the amount in arrears to the Pueblo Mutual Water Company before the scheduled shut-off date; or (2) receiving a hardship deferment and signing a deferred time payment plan specifying payment terms before the scheduled shut-off date.

Customers may appeal a notice of termination of water service. The Pueblo Mutual Water Company Board is designated for hearing customer appeals of notice of termination of water service. The Board is authorized to correct errors of the Pueblo Mutual Water Company and adjust the amount due the Pueblo Mutual Water Company, receive payment to satisfy the amount in arrears, and negotiate deferred payment plans. A written hearing record of a customer appeal will be prepared and maintained on file by the Board of the Pueblo Mutual Water Company.

Pueblo Mutual Water Company

Policy regarding Deferred Payment Plans for Hardship Cases

A customer may apply for deferred payment before the shut-off date by claiming a hardship. If the hardship qualifies, the customer must sign a deferred payment plan.

Hardships eligible for time payment plans include: Loss of job; medical emergency; excessive bill; and extraordinary financial difficulties.

The maximum length of a deferred payment plan shall be 90 days unless the approved plan specifies otherwise.

Minimum monthly payment amounts shall not be less than one-third of the total amount due unless the approved plan specifies otherwise.

Deferred payment amounts shall be in addition to regular service bill amounts.

Pueblo Mutual Water Company

Rate Schedule

1. Standard Residential Rate: The standard residential rate is currently $40 each month.

2. Multiple Residential Use Property: Where more than one residence is connected to a single water main service connection, the monthly water fee for that property shall be the standard monthly residential water fee plus an additional standard residential fee (currently $40) for each additional home served by that connection. For example, if there is a home and a mobile home on a single lot parcel, both connected to the same service connection, then the current monthly water rate would be $80. Multiple residential use properties include properties with more than one trailer home or similar residential developments.

2.1. Vacant Lots or Homes: Vacant lots or empty homes already connected to the Pueblo Mutual Water Company that do not wish to use any water may request to be put on a standby fee schedule of $10.00 per month. This standby fee reserves your share in the Pueblo Mutual Water Company and helps ensure that there will be water capacity for that lot or home in the future. If you wish to request to be put on a standby fee schedule, you must contact the Board. Once you have been granted permission to be on standby, you may not use any water in that vacant lot or home until you have notified the Board that you wish to be taken off standby. The Board reserves the right to charge a penalty of up to the standard residential water rate for all months a property was on standby, should the Board find that a standby lot or home is no longer vacant or that Pueblo Mutual Water Company water has been used without prior Board notification.

2.2 Agricultural Use Property: Any area larger than ½ acre that is irrigated with water from the Pueblo Mutual Water Company shall be considered agricultural use property and shall be charged $40 per month. If a residence is using a single water main connection to serve one home and irrigate agricultural use property then the monthly charge will be an additional $40 to the standard residential water rate (currently $40). The Pueblo Mutual Water Company reserves the right to charge additional fees and/or install meters if Pueblo Mutual Water Company water is used to irrigate agricultural use property that is larger than 1 acre.

2.3 Cows, Horses and other Livestock: Each property is allowed to water up to 5 head of cattle or horses. Any property watering over 5 head will be charged an additional $5.00 per head per month. All property is subject to use restrictions as set by the county.

2.4 Filling of Pools and Other Abnormally Large Water Use: Filling of pools and other abnormally large water use shall be charged a fee of $15 for each incident.

When an abnormally large quantity of water is desired for filling a swimming pool or for other purposes, arrangements must be made with the Pueblo Mutual Water Company prior to taking such water in order to ensure that it does not interfere with basic water use by other users.

3. Change in Ownership Service Activation Fee: When a new owner purchases a property, he or she must complete a "Contract for Services" with the Pueblo Mutual Water Company that includes this "Rate Schedule" and updates the proper billing information. A one time charge for a change in ownership of $50.00 will be charged to cover the administrative costs incurred through this process. All fees must be paid in full before membership can be transferred to a new owner.

4. NSF Returned Check Fee: A $ 25.00 fee will be charged for any returned checks.

5. New Construction Connection Fee: No new dwellings, lots, or structures shall be connected to the existing Pueblo Mutual Water Company system unless otherwise approved by the Pueblo Mutual Water Company. The Pueblo Mutual Water Company reserves the right to refuse service to new dwellings, lots, or structures.

If a new home is built and permission is granted to connect to the Pueblo Mutual Water Company, a New Construction Connection Fee of $2,500 will be charged to cover the added capacity needs for the system, plus the cost of any new line construction, parts, and labor.

Except as otherwise directed by the Pueblo Mutual Water Company, the Pueblo Mutual Water Company will install all service connections, making connections from the property line to the main distribution lines and charging the property owner for the cost thereof. This installation will terminate at the property line (street right of way line); line and grade to said termination will be determined by the Pueblo Mutual Water Company, as will procedures for requesting such installations. All costs and expenses incident to the installation and connection of a service connection shall be borne by the owner.

6. Late Fees and Discontinuation of Services: As per the Termination Policy, if a bill has not been paid on the 25th day of the month or later, the Pueblo Mutual Water Company shall mail a "Notice of Discontinuance of Service," giving the owner 15 days from the date of mailing to pay the overdue charges. At least 48 hours before the scheduled shut-off date, the Pueblo Mutual Water Company shall deliver and/or post a "48-Hour Notice" at the premises. A $25 administrative fee will be charged to all customers for each 48-Hour Notice given. Any discontinuance of service shall occur on business days only (no weekends or holidays). Customers subject to termination of water service will be charged a disconnect fee of $50 to cover administrative and labor costs, in addition to all notice fees and the monthly payment.

7. Water Service Reinstatement Fee: When water service has been shut off for non-payment, a fee of $50 will be charged to recover the costs incurred for reinstatement of service. Reinstatement will not be allowed until full payment of arrears or a Deferred Payment Plan has been signed.

8. Reasonable Use: The Pueblo Mutual Water Company relies on each user to voluntarily adhere to the following water usage rules, although the Board reserves the right to take punitive action for unreasonable water use (including fines and disconnection of water service after warnings have been given).

a. Any and all leaks and drips in the plumbing of water users shall be repaired promptly.

b. With any air conditioning or air cooling system that uses water for cooling purposes, there shall not be any significant waste of water.

c. Irrigation of gardens and lawns shall at all times be reasonable. Free running hoses left on the ground are not allowed; sprinklers, spray nozzles, or other water control devices are required. Sprinklers must never be left on overnight. Automatic clock operated sprinkler systems can be operated any time, day or night, but the system must not be designed to use larger than ¾-inch pipe. Please do not allow our water to be wasted by running off your property and down the road. Surface runoff from irrigation shall be a measure of unreasonable use.

d. When an abnormally large quantity of water is desired for filling a swimming pool or for other purposes, arrangements must be made with the Board prior to taking such water.

e. Open pasture irrigating is prohibited and use of Pueblo Mutual Water Company water for irrigating more than ½ acre requires permission from the Board and additional fees.

f. The Pueblo Mutual Water Company reserves the right to install a meter, increase rates, or terminate service for a property whenever the Board finds that use has been unreasonable and warnings have been given.

SAMPLE

BYLAWS OF THE PUEBLO MUTUAL NONPROFIT WATER COMPANY

ARTICLE ONE: CORPORATE POWERS AND PURPOSE.

Section One. THE DELIVERY OF WATER.

The sole purpose of the PUEBLO MUTUAL NONPROFIT WATER COMPANY (the Company) is to provide water at cost plus necessary expenses to the houses, businesses, or lots of all members of the Company.

To further this purpose, the Company may develop new wells and other water supplies, maintain the water delivery and distribution system, apply for grants and carry out any other activity permitted by the articles of incorporation, these bylaws, and the California Corporations Code.

ARTICLE TWO: MEMBERS.

Section One. DEFINITION OF MEMBERS.

(A) Each real property owner owning a parcel in the PUEBLO MUTUAL NON-PROFIT WATER Company distribution system has a single membership in the Company for each parcel owned.

(B) Every member of the Company has full voting rights on all issues that members may vote on under these bylaws, including but not limited to:

1. Election of directors.
2. Removal of directors.
3. Amendment of bylaws.
4. Amendment of articles of incorporation.
5. Dissolution of the association.

(C) All members have an equal right to ensure that water is delivered from the Company's distribution system to the house, business, or lot.

Section Two. TRANSFER, CREATION, AND TERMINATION OF MEMBERSHIP.

(A)

(1) Upon the sale or other transfer of ownership of a house, business, or lot that receives water from the Company, the transferor's membership in the Company will automatically terminate. This membership will transfer to the new real property owner, subject to subdivision (2) of this Section, as long as the new owner agrees to sign a contract for assessment and monthly water fees and to fully abide by the bylaws of the Company.

(2) Upon the sale or transfer of ownership of a parcel, the seller is responsible for all fees due at the time of sale closure to the PUEBLO MUTUAL NONPROFIT WATER COMPANY. All fees must be paid in full before membership can be transferred to a new owner.

(B) If any member is delinquent in paying their monthly assessment fee for more than sixty (60) days or becomes delinquent more than six (6) times in any calendar year, the board of directors may vote to terminate the membership of the delinquent member.

Section Three. ANNUAL MEETING OF THE MEMBERS.

(A) An annual meeting of the members will be held in each year on the 2nd Tuesday of April at 7:30 p.m., unless this day falls on a legal holiday. In that event, the meeting will be held on the next succeeding business day that is not a legal holiday. Annual meetings of the members will be held at the Community Memorial Building or any other place within the county in the state of California that is determined by the board of directors and designated in the notice of that meeting.

(B) Business to be conducted at the annual meeting of the members shall include, but is not limited to:

1. Election of the board of directors;
2. Review of Consumer Confidence Reports, the previous year's annual budget and expenditures, the annual accounting to members, and the proposed new budget;
3. Approval of the proposed new budget and any rate increases.

(C) The order of business at the annual meeting of the members, and as far as possible at all other meetings of members shall be as follows:

SAMPLE

1. Call to order.

2. Proof of notice of meeting.

3. Reading and disposing of any unapproved minutes.

4. Reports of officers.

5. Reports of committees.

6. Election of directors.

7. Completion of unfinished business.

8. Completion of new business.

9. Adjournment.

(D) If, in any year, the election of directors is not held at the annual meeting of the members or an adjournment of that meeting, the board of directors shall call a special meeting of the members as soon afterwards as is reasonably possible for the purpose of holding the election and transacting other business that may be properly brought before the members. If the board of directors fails to call a special meeting as required above within two (2) months after the date set for the annual meeting, any shareholder may call such a meeting to elect directors and conduct all other business properly brought before the members.

(E) The time and place of a meeting of the members for the election of directors may not be changed within seven (7) days of the date for which the meeting is scheduled. Written notice of any change in the date or place of such a meeting must be given to each member at least seven (7) days before the date for which any meeting is scheduled.

(F) Any annual or special members meeting may be adjourned by the affirmative vote of a majority of the members represented at that meeting either in person or by proxy. An adjournment may be voted even if a quorum is not present.

Section Four. SPECIAL MEETINGS.

(A) Special meetings of members may be called at any time for any purpose by the board of directors or by written request signed by at least twenty percent (20%) of the members.

(B) On the written request of at least twenty percent (20%) of the total membership entitled to call a special meeting, the Secretary shall inform the board of directors of the request, and the board shall fix a time and place for the meeting. If the board fails to fix a time and place for such a meeting, the Secretary shall fix a time and place of the meeting.

SAMPLE

Section Five. NOTICE OF MEETINGS.

(A) All members must be given written notice specifying the place, date, and time of any meeting of the members. Such written notice must also include the general nature of the business to be transacted. Written notice must be given not less than seven (7) days and not more than thirty (30) days before the date of the meeting of the members.

(B) This notice may be given personally or by mail, which should be addressed to the address given to the Company for purposes of notice. If no such address has been given to the Company, notice shall be given by posting the notice at the Morgan and/or Alfred well(s).

(C) Notice shall be deemed to have been given at the time when deposited in the mail or delivered personally or published by the other means of written communication provided above.

Section Six. WAIVER OF NOTICE.

A member may waive notice of any meeting by signing a written notice of waiver either before or after the date of the meeting.

Section Seven. RECORD DATE.

(A) The board of directors may fix a date as the record date to determine, as of that date, the members in good standing who are entitled to receive notice of any meeting or to vote on any corporate action. This date shall be not less than seven (7) days and not more than thirty (30) days before the date of the meeting of the members.

(B) If no record date is fixed, the record date shall be the business day immediately before the day on which the first member notice is given.

Section Eight. QUORUM.

The presence, in person or by proxy, of 20% of the members shall constitute a quorum for the transaction of business. In determining whether quorum requirements have been met, only members in good standing as of the record date will be counted.

SAMPLE

Section Nine. PROXIES.

Every member entitled to vote on any issue at any meeting of the members may do so in person or may write and sign a proxy directing another member to vote in his or her place. Any member in good standing can hold no more than three (3) proxies at each meeting of the members. Proxies are to be dated and turned into the board secretary before voting takes place so that they may be counted. Proxies are effective for that meeting only.

ARTICLE THREE: BOARD OF DIRECTORS.

Section One. NUMBER, TENURE, QUALIFICATIONS, AND ELECTION.

The board of directors will consist of five (5) members who must be members of the Company and live within the Company's distribution system. Directors will be elected for a period of two (2) years by a majority of a quorum of members present at the annual meeting, and will serve until their successors have been elected or until removed. The number of directors may be increased or decreased by approval of the majority of a quorum of the members.

Section Two. GENERAL POWERS.

Subject to the limitations of the articles of incorporation, these bylaws, and the Corporations Code of the State of California, the board of directors has full power to conduct the business and affairs of the Pueblo Nonprofit Water System. These powers include but are not limited to:

1. To set the standard monthly water fees.
2. To collect the monthly water fees.
3. To assess late fees and/or fees for disconnecting and reinstating service.
4. To assess additional one-time charges for unforeseen extraordinary expenditures.
5. To maintain the Company's bank accounts and to make all payments.
6. To enter into such contracts as may be necessary to keep the water supply and distribution system in good repair at all times.
7. To approve the applications of new members.
8. To terminate the water supply to the house, business, or lot of any member whose monthly payment is delinquent by more than fifteen (15) days. Adequate notification will be given.
9. To terminate any member whose payment is delinquent for more than sixty (60) days or becomes delinquent more than six (6) times in any calendar year. Adequate notification will be given.

SAMPLE

Section Three. RATES AND MONTHLY FEES.

The fees established by the board of directors must bear a reasonable relationship to the cost of supplying the water, plus an additional amount sufficient to create and maintain a fund for the repair and replacement of the water supply and distribution system and repayment of any loans.

Section Four. GENERAL DUTIES.

The duties of the board of directors include, but are not limited to:

1. To keep all of the accounts of the Company and see that all accounts are paid promptly each month.
2. To establish and maintain a fund for the repair and replacement of the wells, pump, and other parts of the water supply and distribution system.
3. To ensure that the water supply and distribution system are regularly maintained and replaced as necessary to keep the system in good repair at all times.
4. To ensure that any accidents, break-downs, or other problems with the distribution system are fixed and full service is restored as soon as practically possible.
5. To make available the fiscal year-end financial statements to each member within one hundred and twenty (120) days of the close of each fiscal year.
6. To pay no more than fair market value to all employees and contractors of the Company for services rendered.
7. To appoint an alternate to the board of directors.

Section Five. BOARD OF DIRECTORS MEETINGS.

(A) The board of directors will meet regularly on the second Tuesday of January, March, May, July, September, and November at 6:00 p.m. at a location chosen by the board.

(B) Any officer of the board or any two board members may call a special board meeting at any other time by notifying all other board members by mail, by telephone, or in person within 48 hours of the date and time of the meeting.

(C) Copies of the minutes of all board meetings will be on file at the Secretary's home, or the Company's office if there is one in use, and will be made available for viewing to any member upon request.

(D) Any officer of the board may take action without a formal board meeting if he or she gets written approval for the action from three (3) of the board members. Copies of the written approval will be

SAMPLE

on file at the Secretary's home, or the Company's office if one is in use, and will be made available for viewing to any member upon request.

Section Six. QUORUM AND VOTING.

A majority (three (3)) of the board of directors will constitute a quorum for the transaction of business, and all decisions will be approved by a majority of the board members present. At any board meeting where less than a quorum is present, a majority of the board members present may adjourn the meeting until a quorum is present. If the meeting is adjourned for lack of a quorum, all board members not present at the initial meeting will be notified of the time and place of the new meeting.

Section Seven. VACANCIES.

(A) In the event that a board position becomes vacant for any reason, the board appointed Alternate will take the position and a new Alternate will be appointed.

(B) If more than one board position becomes vacant, the board will call a special meeting of the members for the purpose of electing a member to fill the additional vacant position for the remainder of the term. The replacement board member(s) will be elected by a majority of the members present at that meeting. A replacement Alternate shall also be elected by a majority of the members present at that meeting.

Section Eight. REMOVAL.

(A) Any director may be removed from office for any reason by a majority vote of the total members. A removal election may be called by a majority of the board or a written petition signed by no less than twenty percent (20%) of the members.

(B) New directors should be elected to replace the director(s) removed from office at the same meeting where the removal takes place. If the vacant office is not filled at that meeting, it shall be filled as provided in Article Two, Section Three, subsection (D), above.

SAMPLE

ARTICLE FOUR: ARTICLES OF INCORPORATION AND BYLAWS.

Section One. LOCATION AND INSPECTION.

A certified copy of the current articles of incorporation and the current bylaws will be kept on file at the Secretary's home, or at the Company's office if one is in use, and will be made available for viewing to any member upon request.

Section Two. AMENDMENT OF THE BYLAWS.

Bylaws may be amended at any time, either by a majority vote of the board or by a vote of twenty percent (20%) of the members. However, any amendment which would restrict or eliminate the rights of members must be approved by a vote of fifty-one percent (51%) of the total members.

Section Three. AMENDMENT OF THE ARTICLES OF INCORPORATION.

The articles of incorporation may be amended at any time to the extent permitted by the California Corporations Code, either by a majority vote of the board or by a vote of fifty-one percent (51%) of the total members.

SAMPLE

Appendix 4:

Drinking Water Limits

- **MCLs, DLRs, and PHGs for Regulated Drinking Water Contaminants**
- **Notification Levels**
- **Response Levels**

MCLs, DLRs, and PHGs for Regulated Drinking Water Contaminants

Last Update: July 5, 2008

The following table includes the California DPH's maximum contaminant levels (MCLs), and detection limits for purposes of reporting (DLRs), as well as public health goals (PHGs) from the Office of Environmental Health Hazard Assessment (OEHHA).

(Units are in milligrams per liter (mg/L), unless otherwise noted.)

	MCL	DLR	PHG	Date of PHG
Chemicals with MCLs in 22 CCR §64431—Inorganic Chemicals				
Aluminum	1	0.05	0.6	2001
Antimony	0.006	0.006	0.02	1997
Arsenic	0.010 (federal MCL)	0.002	0.000004	2004
Asbestos (MFL = million fibers per liter; for fibers >10 microns long)	7 MFL	0.2 MFL	7 MFL	2003
Barium	1	0.1	2	2003
Beryllium	0.004	0.001	0.001	2003
Cadmium	0.005	0.001	0.00004	2006
Chromium, Total - OEHHA withdrew the 1999 0.0025-mg/L PHG in November 2001	0.05	0.01	withdrawn	1999
Chromium-6 - MCL to be established - currently regulated under the total chromium MCL	--	0.001	--	--
Cyanide	0.15	0.1	0.15	1997
Fluoride	2	0.1	1	1997
Mercury (inorganic)	0.002	0.001	0.0012	1999[a]
Nickel	0.1	0.01	0.012	2001

	MCL	DLR	PHG	Date of PHG
Nitrate (as NO_3)	45	2	45	1997
Nitrite (as N)	1 as N	0.4	1 as N	1997
Nitrate + Nitrite	10 as N	--	10 as N	1997
Perchlorate	0.006	0.004	0.006	2004
Selenium	0.05	0.005	--	--
Thallium	0.002	0.001	0.0001	1999[b]
Copper and Lead, 22 CCR §64672.3 *Values referred to as MCLs for lead and copper are not actually MCLs; instead, they are called "Action Levels" under the lead and copper rule*				
Copper	1.3	0.05	0.3	2008
Lead	0.015	0.005	0.002	1997
Radionuclides with MCLs in 22 CCR §64441 and §64443—Radioactivity *[units are picocuries per liter (pCi/L), unless otherwise stated; n/a = not applicable]*				
Gross alpha particle activity - OEHHA concluded in 2003 that a PHG was not practical	15	3	none	n/a
Gross beta particle activity - OEHHA concluded in 2003 that a PHG was not practical	4 mrem/yr	4	none	n/a
Radium-226	--	1	0.05	2006
Radium-228	--	1	0.019	2006
Radium-226 + Radium-228	5	--	--	--
Strontium-90	8	2	0.35	2006
Tritium	20,000	1,000	400	2006
Uranium	20	1	0.43	2001

Chemicals with MCLs in 22 CCR §64444—Organic Chemicals (a) Volatile Organic Chemicals (VOCs)

	MCL	DLR	PHG	Date of PHG
Benzene	0.001	0.0005	0.00015	2001
Carbon tetrachloride	0.0005	0.0005	0.0001	2000
1,2-Dichlorobenzene	0.6	0.0005	0.6	1997
1,4-Dichlorobenzene (p-DCB)	0.005	0.0005	0.006	1997
1,1-Dichloroethane (1,1-DCA)	0.005	0.0005	0.003	2003
1,2-Dichloroethane (1,2-DCA)	0.0005	0.0005	0.0004	1999[a]
1,1-Dichloroethylene (1,1-DCE)	0.006	0.0005	0.01	1999
cis-1,2-Dichloroethylene	0.006	0.0005	0.1	2006
trans-1,2-Dichloroethylene	0.01	0.0005	0.06	2006
Dichloromethane (Methylene chloride)	0.005	0.0005	0.004	2000
1,2-Dichloropropane	0.005	0.005	0.0005	1999
1,3-Dichloropropene	0.0005	0.0005	0.0002	1999[c]
Ethylbenzene	0.3	0.0005	0.3	1997
Methyl tertiary butyl ether (MTBE)	0.013	0.003	0.013	1999
Monochlorobenzene	0.07	0.0005	0.2	2003
Styrene	0.1	0.0005	0.0005	2008 draft
1,1,2,2-Tetrachloroethane	0.001	0.0005	0.0001	2003
Tetrachloroethylene (PCE)	0.005	0.0005	0.00006	2001
Toluene	0.15	0.0005	0.15	1999
1,2,4-Trichlorobenzene	0.005	0.0005	0.005	1999

	MCL	DLR	PHG	Date of PHG
1,1,1-Trichloroethane (1,1,1-TCA)	0.2	0.0005	1	2006
1,1,2-Trichloroethane (1,1,2-TCA)	0.005	0.0005	0.0003	2006
Trichloroethylene (TCE)	0.005	0.0005	0.0008	1999
Trichlorofluoromethane (Freon 11)	0.15	0.005	0.7	1997
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	1.2	0.01	4	1997
Vinyl chloride	0.0005	0.0005	0.00005	2000
Xylenes	1.75	0.0005	1.8	1997
(b) Non-Volatile Synthetic Organic Chemicals (SOCs)				
Alachlor	0.002	0.001	0.004	1997
Atrazine	0.001	0.0005	0.00015	1999
Bentazon	0.018	0.002	0.2	1999
Benzo(a)pyrene	0.0002	0.0001	0.000004	1997
Carbofuran	0.018	0.005	0.0017	2000
Chlordane	0.0001	0.0001	0.00003	1997[c]
2,4-Dichlorophenoxyacetic acid (2,4-D)	0.07	0.01	0.07	1997
2,4-Dichlorophenoxyacetic acid (2,4-D)	--	--	0.02	2008 draft
Dalapon	0.2	0.01	0.79	1997
1,2-Dibromo-3-chloropropane (DBCP)	0.0002	0.00001	1.7E-06	1999
Di(2-ethylhexyl)adipate	0.4	0.005	0.2	2003
Di(2-ethylhexyl)phthalate (DEHP)	0.004	0.003	0.012	1997
Dinoseb	0.007	0.002	0.014	1997
Diquat	0.02	0.004	0.015	2000
Endrin	0.002	0.0001	0.0018	1999

	MCL	DLR	PHG	Date of PHG
Endothal	0.1	0.045	0.58	1997
Ethylene dibromide (EDB)	0.00005	0.00002	0.00001	2003
Glyphosate	0.7	0.025	0.9	2007
Heptachlor	0.00001	0.00001	0.000008	1999
Heptachlor epoxide	0.00001	0.00001	0.000006	1999
Hexachlorobenzene	0.001	0.0005	0.00003	2003
Hexachlorocyclopentadiene	0.05	0.001	0.05	1999
Lindane	0.0002	0.0002	0.000032	1999[a]
Methoxychlor	0.03	0.01	0.03	1999
Molinate	0.02	0.002	0.001	2008
Oxamyl	0.05	0.02	0.05	1997
Oxamyl	--	--	0.026	2008 draft
Pentachlorophenol	0.001	0.0002	0.0004	1997
Picloram	0.5	0.001	0.5	1997
Polychlorinated biphenyls (PCBs)	0.0005	0.0005	0.00009	2007
Simazine	0.004	0.004	0.004	2001
2,4,5-TP (Silvex)	0.05	0.001	0.025	2003
2,3,7,8-TCDD (dioxin)	$3x10^{-8}$	$5x10^{-9}$	$1x10^{-9}$	2007 draft
Thiobencarb	0.07	0.001	0.07	2000
Toxaphene	0.003	0.001	0.00003	2003
Chemicals with MCLs in 22 CCR §64533—Disinfectant Byproducts				
Chlorite	1	0.02	0.05	2008 draft

[a] OEHHA's 2005 review of this chemical resulted in no change in the PHG

[b] OEHHA's 2004 review of this chemical resulted in no change in the PHG

[c] OEHHA's 2006 review of this chemical resulted in no change in the PHG

Notification Levels

Last Updated December 2007

Chemical	Notification Level (milligrams per liter)
Boron	1
n-Butylbenzene	0.26
sec-Butylbenzene	0.26
tert-Butylbenzene	0.26
Carbon disulfide	0.16
Chlorate	0.8
2-Chlorotoluene	0.14
4-Chlorotoluene	0.14
Dichlorodifluoromethane (Freon 12)	1
1,4-Dioxane	0.003
Ethylene glycol	14
Formaldehyde	0.1
HMX	0.35
Isopropylbenzene	0.77
Manganese	0.5
Methyl isobutyl ketone (MIBK)	0.12
Naphthalene	0.017
N-Nitrosodiethyamine (NDEA)	0.00001
N-Nitrosodimethylamine (NDMA)	0.00001
N-Nitrosodi-n-propylamine (NDPA)	0.00001
Propachlor	0.09
n-Propylbenzene	0.26
RDX	0.0003
Tertiary butyl alcohol (TBA)	0.012
1,2,3-Trichloropropane (1,2,3-TCP)	0.000005
1,2,4-Trimethylbenzene	0.33
1,3,5-Trimethylbenzene	1,3,5-Trimethylbenzene
1,3,5-Trimethylbenzene	0.33
2,4,6-Trinitrotoluene (TNT)	0.001
Vanadium	0.05

Response Levels

(at which CDPH recommends removal of a source from service; additional notification is recommended if the source is not removed from service, as described below)

Chemical	Toxicological Endpoint	Response Level (Multiples of Notification Level)
1,4-Dioxane	Cancer risk	100 times the NL
RDX	Cancer risk	100 times the NL
TBA	Cancer risk	100 times the NL
1,2,3-TCP	Cancer risk	100 times the NL
TNT	Cancer risk	100 times the NL
NDPA	Cancer risk	50 times the NL
NDMA	Cancer risk	30 times the NL
NDEA	Cancer risk	10 times the NL
All others	Non-cancer	10 times the NL

End Notes

1. Based on the number of people served by water systems with MCL violations according to the CA Department of Public Health's Annual Compliance Reports for 2004-2006, available at **http://www.cdph.ca.gov/certlic/drinkingwater/Pages/Publications.aspx** (last visited Nov. 19, 2008).
2. Cal. Code Regs. tit. 22, § 64400 (2007).
3. See Cal. Health and Safety Code § 116275(i) (2008).
4. Cal. Code Regs. tit. 22, § 64400.25 (2008).
5. Cal. Code Regs. tit. 22, § 64400.25 (2008).
6. Cal. Health & Safety Code § 116470 (2008).
7. Cal Health & Safety Code §116460 (2008).
8. Cal. Health & Safety Code § 116275(h) (2008).
9. Cal. Health & Safety Code § 116395(b) (2007).
10. Cal. Code Regs. tit. 22, § 64414(c) (2008).
11. Cal. Health & Safety Code § 116275(n) (2008).
12. Cal. Health & Safety Code § 116275(o) (2008).
13. Cal. Health & Safety Code § 116275(h) (2008).
14. Cal. Gov't Code § 7291 (2007).
15. Cal. Gov't Code § 11135, *et seq. (2008).*
16. 42 U.S.C. § 2000d, *et seq. (2008)* (Title VI).
17. Cal. Civ. Code § 789.3 (2008)
18. Cal. Civ. Code § 789.3 (2008)
19. See Cal. Corp. Code §§ 18605–18620 (liability of members, directors, officers, and agents of unincorporated nonprofit associations). In general, there is more protection from contract liability than tort liability.
20. Cal. Health & Safety Code § 116275(h) (2008).
21. Cal. Health & Safety Code § 116275(h) (2008).
22. Cal. Code Regs. tit. 22, § 64415(b) (2007).
23. Cal. Health & Safety Code § 116390 (2007).
24. Cal. Health & Safety Code § 116385 (2007).
25. Cal. Code Regs. tit. 22, § 64402.20 (2008).
26. Cal. Health & Safety Code § 116365(a) (2007).
27. Cal. Health & Safety Code § 116365(b)(1) & (c) (2007).
28. See Cal. Health & Safety Code § 116365(h) (2007).
29. Cal. Health & Safety Code § 116365(a) & (b) (2007).
30. Cal. Health & Safety Code § 116365(g) (2007).
31. Cal. Code Regs. tit. 22, § 64431(a), Table 64431-A (2008).
32. Cal. Code Regs. tit. 22, § 64432(d), Table 64432-A (2008).
33. Cal. Code Regs. tit. 22, § 64432(e) (2007).
34. Cal. Code Regs. tit. 22, § 64432(e), (f) (2008).
35. Cal. Code Regs. tit. 22, § 64432(c) (2008); for individual monitoring frequency schedules see Cal. Code Regs. tit. 22, §§ 64432(a) (2008); 64432.2(a) (2008) (asbestos); 64432.3(a) & (c) (2008) (perchlorate); 64432.1(a) (2008) (nitrate); 64432.1(b) (2008) (nitrite).
36. Cal. Code Regs. tit. 22, § 64432(c)(1) (2008); but see Cal. Code Regs. tit. 22, § 64432(m) (2008).
37. Cal. Code Regs. tit. 22, § 64432(c)(1) (2008).
38. Cal. Code Regs. tit. 22, § 64400.25 (2008).
39. Cal. Code Regs. tit. 22, § 64432(c)(1) (2008).

40. Cal. Code Regs. tit. 22, § 64432(g) (2008); for each repeat monitoring frequency schedule, see Cal. Code Regs. tit. 22, §§ 64432(a) (2008); 64432.3(d) & (e) (2008) (perchlorate); 64432.1(a)(1) (2008) (nitrate); 64432.1(b)(1) (2008) (nitrite).
41. Cal. Code Regs. tit. 22, § 64432(g)(1) (2008).
42. Cal. Code Regs. tit. 22, § 64432(g)(2) (2008).
43. Cal. Code Regs. tit. 22, § 64432(c)(2) (2008).
44. Cal. Code Regs. tit. 22, § 64432(j) (2008).
45. Cal. Code Regs. tit. 22, § 64432(j) (2008).
46. Cal. Code Regs. tit. 22, § 64432(m) (2008).
47. Cal. Code Regs. tit. 22, § 64432.1(a) (2008).
48. Cal. Code Regs. tit. 22, § 64432.1(b) (2008).
49. Cal. Code Regs. tit. 22, § 64432.1(a)(1) (2008).
50. Cal. Code Regs. tit. 22, § 64432.1(a)(1), (b)(1), & (c) (2008).
51. Cal. Code Regs. tit. 22, §§ 64432.1(a)(1)(C) (2008), 64463.1(c) (2008).
52. Cal. Code Regs. tit. 22, § 64432.1(b)(2) (2008).
53. Cal. Code Regs. tit. 22, § 64432.1(a)(2) & (3) (2008).
54. Cal. Code Regs. tit. 22, § 64432.2(a) (2008).
55. Cal. Code Regs. tit. 22, § 64432.2(a)(1) & (2) (2008).
56. Cal. Code Regs. tit. 22, § 64432.2(a)(3) & (c) (2008).
57. Cal. Code Regs. tit. 22, § 64432.2(b) (2008).
58. Cal. Code Regs. tit. 22, §§ 64432(c)(2) (2008), 64432.2(a)(1) (2008).
59. Cal. Code Regs. tit. 22, §§ 64432(j) (2008), 64432.2(a) & (b) (2008).
60. Cal. Code Regs. tit. 22, § 64432.3 (2008).
61. Cal. Code Regs. tit. 22, § 64432.3(c) (2008).
62. Cal. Code Regs. tit. 22, § 64432.3(c) (2008).
63. Cal. Code Regs. tit. 22, § 64432.3(e) (2008).
64. Cal. Code Regs. tit. 22, § 64432.3(e) (2008).
65. Cal. Code Regs. tit. 22, § 64432.3(d) (2008).
66. Cal. Code Regs. tit. 22, § 64432.3(f) (2008).
67. Cal. Code Regs. tit. 22, § 64444, Table 64444-A (2008).
68. Cal. Code Regs. tit. 22, § 64445.1, Table 64445.1-A (2008).
69. Cal. Code Regs. tit. 22, § 64444, Table 64444-A (2008).
70. Cal. Code Regs. tit. 22, § 64445.1, Table 64445.1-A (2008).
71. Cal. Code Regs. tit. 22, § 64445(a), (c) (2007).
72. Cal. Code Regs. tit. 22, § 64445(a) (2007).
73. Cal. Code Regs. tit. 22, § 64445.1(c)(1) (2008).
74. Cal. Code Regs. tit. 22, § 64445.1(c)(4) (2008).
75. Cal. Code Regs. tit. 22, § 64445.1(c)(2) (2008).
76. Cal. Code Regs. tit. 22, § 64445.1(c)(3) (2008).
77. Cal. Code Regs. tit. 22, § 64445.1(c)(5) (2008).
78. Cal. Code Regs. tit. 22, § 64445.1(c)(5)(B) (2008).
79. Cal. Code Regs. tit. 22, § 64445.1(c)(5)(A) (2008).
80. Cal. Code Regs. tit. 22, § 64445.1(c)(7) (2008).
81. Cal. Code Regs. tit. 22, § 64445.2(b) (2008).
82. Cal. Code Regs. tit. 22, § 64445.2(a) (2008).
83. Cal. Code Regs. tit. 22, § 64445.1(b) (2008).
84. Cal. Code Regs. tit. 22, § 64445(d) (2008).
85. Cal. Code Regs. tit. 22, § 64445.1(b)(1) (2008).
86. Cal. Code Regs. tit. 22, § 64445(d)(3) (2008).
87. Cal. Code Regs. tit. 22, § 64445.1(b)(1) (2008).

88. Cal. Code Regs. tit. 22, § 64445(d)(3) (2008).
89. Cal. Code Regs. tit. 22, § 64445(d)(4) (2008).
90. Cal. Code Regs. tit. 22, § 64445.1(b)(3) (2008).
91. Cal. Code Regs. tit. 22, § 64445.1(b)(3) (2008).
92. Cal. Code Regs. tit. 22, § 64445.1(b)(2) (2008).
93. Cal. Code Regs. tit. 22, § 64445.1(b)(2) (2008).
94. Cal. Code Regs. tit. 22, § 64423(c), Table 64423-A (2007).
95. Cal. Code Regs. tit. 22, § 64423(a)(6) (2008).
96. The regulations governing treatment techniques for bacterial contamination in drinking water are contained in Cal. Code Regs. tit. 22, §§ 64650–64666 (2007).
97. Cal. Code Regs. tit. 22, § 64423(b) (2007).
98. Cal. Code Regs. tit. 22, § 64424(a) (2007); see Cal. Code Regs. tit. 22, § 64423.1(c) (2008) (requiring provider to submit monthly reports to DPH and to instruct laboratory to notify DPH of all test results for smaller systems and for all positive test results for larger systems). For more information on how repeat samples must be collected, see Cal. Code Regs. tit. 22, § 64424 (2008).
99. Cal. Code Regs. tit. 22, § 64426.1(b)(2)–(4) (2007). For more information on the rule for larger systems, see 22 C.C.R. § 64426.1(b)(1) (2007).
100. Cal. Code Regs. tit. 22, § 64426(a)(2)–(3), (b)(1)–(2) (2007).
101. Cal. Code Regs. tit. 22, § 64426(c) (2007).
102. Cal. Code Regs. tit. 22, § 64426.5 (2007).
103. Cal. Code Regs. tit. 22, § 64427 (2007).
104. Cal. Code Regs. tit. 22, § 64423(a)(1) (2007).
105. Cal. Code Regs. tit. 22, § 64423(a)(2)–(4) (2007).
106. See Cal. Code Regs. tit. 22, § 64465, Appendix 64465-C (2007) (detailing required health effects language for radioactive contaminants).
107. Cal. Code Regs. tit. 22, § 64442(a), Table 64442 (2007); Cal. Code Regs. tit. 22, § 64443(a), Table 64443 (2007).
108. Cal. Code Regs. tit. 22, § 64442(b)(1) & (3), (c) (2007).
109. Cal. Code Regs. tit. 22, § 64442(d)(4)(A) (2007).
110. Cal. Code Regs. tit. 22, § 64442(d)(4)(B) & (C) (2007).
111. Cal. Code Regs. tit. 22, § 64442(g) & (h) (2007).
112. Cal. Code Regs. tit. 22, § 64442(h)(3)(A) (2007).
113. Cal. Code Regs. tit. 22, § 64443(b) & (c) (2007).
114. Cal. Code Regs. tit. 22, § 64670, *et seq.* (2008).
115. Cal. Code Regs. tit. 22, §§ 64680–64684 (2008).
116. Cal. Code Regs. tit. 22, §§ 64675–64679 (2008).
117. Cal. Code Regs. tit. 22, §§ 64673 & 64674 (2008).
118. Cal. Code Regs. tit. 22, §§ 64671.55, 64675, 64675.5 & 64680–64682 (2008).
119. Cal. Code Regs. tit. 22, § 64675 (2008).
120. Cal. Code Regs. tit. 22, §§ 64680–64682 (2008).
121. 40 CFR § 141 (2008).
122. Cal. Code Regs. tit. 22, § 64685 (2008).
123. Cal. Code Regs. tit. 22, § 64687 (2008).
124. Cal. Code Regs. tit. 22, §§ 64682–64684 (2008).
125. Cal. Code Regs. tit. 22, §§ 64688–64690 (2008).
126. Cal. Code Regs. tit. 22, §§ 64675.5 & 64678.5 (2008).
127. See California Department of Public Health, Chemicals and Contaminants in Drinking Water, at **http://www.CDPH.ca.gov/certlic/drinkingwater/Pages/Chemicalcontaminants.aspx** (last visited Nov. 29, 2008); United States Environmental Protection Agency (U.S. EPA), Secondary Drinking Water Regulations: Guidance for Nuisance Chemicals, at

http://www.epa.gov/safewater/consumer/2ndstandards.html (last visited Nov. 19, 2008).
128. See Cal. Code Regs. tit. 22, § 64449(a) (2007).
129. U.S. EPA, Secondary Drinking Water Regulations: Guidance for Nuisance Chemicals, at http://www.epa.gov/safewater/consumer/2ndstandards.html (last visited Nov. 19, 2008).
130. Cal. Code Regs. tit. 22, § 64449(a), Table 64449-A (2007).
131. Cal. Code Regs. tit. 22, § 64449(d) (2007).
132. Cal. Code Regs. tit. 22, § 64449(a), Table 64449-B (2007).
133. Cal. Code Regs. tit. 22, § 64449(b)(1) & (2) (2007).
134. Cal. Code Regs. tit. 22, § 64449(g) (2008).
135. Cal. Code Regs. tit. 22, § 64449(c)(3) (2007). Note that this regulation's cross-reference to another regulation in Title 22 on reporting results to DPH is outdated – Cal. Code Regs. tit. 22, § 64451 no longer exists. Currently, the only regulation devoted to reporting monitoring results to DPH is Section 64469, which simply requires a provider to report analytical results from all samples to DPH by the tenth day of the following month. Cal. Code Regs. tit. 22, § 64469(a) (2007).
136. Cal. Code Regs. tit. 22, § 64449.4 (2008). See Cal. Code Regs. tit. 22, § 64414 (2008) for requirements on standby sources.
137. Cal. Code Regs. tit. 22, § 64449(d)(1) & (2) (2007).
138. Cal. Code Regs. tit. 22, § 64449(d)(3) (2007).
139. Cal. Code Regs. tit. 22, § 64449(e) (2008).
140. Cal. Code Regs. tit. 22, § 64449(f) (2007).
141. Cal. Code Regs. tit. 22, § 64449.2(a) (2008). Note that there are some additional restrictions if it is a new source being added to an existing community water system.
142. Cal. Health & Safety Code § 116455 (2008).
143. Cal. Code Regs. tit. 22, § 64449.2(b)–(d) (2008).
144. Cal. Code Regs. tit. 22, § 64449.2(g) (2008).
145. Cal. Code Regs. tit. 22, § 64414(c) (2008).
146. Cal. Code Regs. tit. 22, § 64414(d) (2008).
147. Cal. Code Regs. tit. 22, § 64414(a)–(b) (2008).
148. Cal. Code Regs. tit. 22, § 64414(e) (2008).
149. Cal. Code Regs. tit. 22, § 64449.5(a) (2007); see Cal. Code Regs. tit. 22, § 64449.5(b) (2007).
150. Cal. Code Regs. tit. 22, § 64449.5(a), (b) (2007).
151. Cal. Code Regs. tit. 22, § 64449.5(b) (1)–(3) (2007).
152. Cal. Code Regs. tit. 22, § 64449.5(d) (2007).
153. Cal. Code Regs. tit. 22, § 64575 (2008).
154. Cal. Health & Safety Code §116375 (2007); 40 CFR §§ 141.35, 141.40 (2007).
155. 22 Cal. Code Regs. tit. 22, § 64450 (repealed 2007); Cal. Health & Safety Code § 116375 (2007).
156. 40 CFR § 141.40 (2007).
157. 40 CFR § 141.40 (2007).
158. See Cal. Code Regs. tit. 22, §§ 63750.85, 64433(a), 64401.90 (2007).
159. See Cal. Code Regs. tit. 22, §§ 60400, 60435, 60440 (2007).
160. Cal. Code Regs. tit. 22, §§ 64447–64447.4 (2008).
161. For complete fluoride regulations, see Cal. Code Regs. tit. 22, §§ 64433 (System Requirements & Exemptions), 64433.2 (Optimal Fluoride Levels), 64433.3 (Monitoring and Compliance – Fluoride Levels), 64433.5 (Fluoridation System), 64433.7 (Recordkeeping, Reporting, & Notification for Water Systems Fluoridating), 64433.8 (Fluoridation System Operations Contingency Plan), & 64434 (Water System Priority Funding Schedule) (2007).
162. Cal. Code Regs. tit. 22, § 64433(a) (2007).
163. Cal. Code Regs. tit. 22, § 64400.2 (2007).
164. Cal. Code Regs. tit. 22, § 64433.2, Table 64433.2-A (2007).
165. Cal. Code Regs. tit. 22, § 64433.3(a) (2007).

166. Cal. Code Regs. tit. 22, § 64468.5(a)–(c) (2007).
167. Cal. Code Regs. tit. 22, § 64533.5(a), Table 64533.5-A (2007).
168. Cal. Code Regs. tit. 22, § 64533.5(b) (2007).
169. Cal. Code Regs. tit. 22, § 64533.5(a), Table 64533.5-A (2007); Cal. Code Regs. tit. 22, § 64533.5(b) (2007).
170. Cal. Code Regs. tit. 22, § 64534.4(a) & (b) (2007).
171. As of the date of publication, the California Code of Regulations still included an old section on Trihalomethanes, Cal. Code Regs. tit. 22, § 64439 (2007), which applies the interim federal requirements from 2001. In practice, however, this seems to be replaced by Chapter 15 requirements, which cover all disinfectant residuals, byproducts and precursors. Cal. Code Regs. tit. 22, §§ 64530–64537.6 (2007). Technically, however, both sets of requirements may be in effect in California, although many may be conflicting. This section describes only Chapter 15 requirements, as they are most recent and consistent with the new federal standards.
172. Cal. Code Regs. tit. 22, § 64468.5(d) (2007).
173. 40 CFR §§ 9, 141, 142 (2007). For more information on the Stage 2 Disinfectants and Disinfectant Byproducts Rule, see **http://www.epa.gov/ogwdw/disinfection/stage2/regulations.html#rule** (last visited Nov. 22, 2008).
174. Cal. Code Regs. tit. 22, §§ 64530, 64534.2 (2007); 40 C.F.R. § 141.12 (2002).
175. Cal. Code Regs. tit. 22, § 64534.2(b) (2007).
176. Cal. Code Regs. tit. 22, § 64534.2(c) (2007).
177. Cal. Code Regs. tit. 22, § 64534.2(a), Table 64534.2-A (2007).
178. Cal. Code Regs. tit. 22, § 64535.2 (2007)
179. Cal. Code Regs. tit. 22, § 64537.2 (2007).
180. Cal. Code Regs. tit. 22, § 64534.2(a)(1), (b)(3), (c)(2) (2007).
181. Cal. Code Regs. tit. 22, § 64533, Table 64533-A (2007).
182. Cal. Health & Safety Code §§ 116450, 116455 (2007).
183. Cal. Health & Safety Code § 116460 (2008).
184. 40 C.F.R. §§ 141.201–141.204 (2007) (federal regulations governing notice requirements).
185. Cal. Code Regs. tit. 22, § 64463(a) (2007).
186. Cal. Code Regs. tit. 22, § 64465(b) (2007).
187. Cal. Code Regs. tit. 22, § 64465(a) (2007).
188. Cal. Code Regs. tit. 22, § 64465(d) (2007).
189. Cal. Code Regs. tit. 22, § 64465, Appendices 64465-A–64465-H (2007).
190. Cal. Code Regs. tit. 22, § 64465(c) (2007).
191. Cal. Code Regs. tit. 22, § 64465(c) (2007).
192. Cal. Gov't Code § 7291 (2007).
193. Cal. Gov't Code § 11135 (2008).
194. 42 U.S.C. § 2000d, *et seq. (2008)* (Title VI).
195. Cal. Gov't Code § 7291 (2007).
196. Cal. Gov't Code § 11135 (2008).
197. 42 U.S.C. § 2000d, *et seq. (2008)* (Title VI).
198. See 28 CFR § 42.104(b)(2) (2007).
199. Cal. Code Regs. tit. 22, §§ 64463.1–64463.7 (2007).
200. Cal. Code Regs. tit. 22, § 64463(e) (2007).
201. Cal. Health & Safety Code § 116450(g) (2007).
202. Cal. Code Regs. tit. 22, § 64463.1(a) (2007).
203. Cal. Code Regs. tit. 22, § 64463.1(b) (2007).
204. Cal. Code Regs. tit. 22, § 64463.1(c) (2007).
205. Cal. Health & Safety Code § 116460 (2008).

206. Cal. Code Regs. tit. 22, § 64463.1(a) (2007).
207. Cal. Code Regs. tit. 22, § 64463.4(b) (2007).
208. Cal. Code Regs. tit. 22, § 64463.4(c)(1) (2007).
209. Cal. Code Regs. tit. 22, § 64463.4(c)(2) (2007).
210. Cal. Code Regs. tit. 22, § 64463.4(b)(1)–(2) (2007).
211. Cal. Code Regs. tit. 22, § 64463.4(a) (2007).
212. Cal. Code Regs. tit. 22, § 64463.7(a)–(b) (2007).
213. Cal. Code Regs. tit. 22, § 64463.7(c)(1) (2007).
214. Cal. Code Regs. tit. 22, § 64463.7(c)(2) (2007).
215. Cal. Code Regs. tit. 22, § 64463.7(b)(1) & (2) (2007).
216. Cal. Code Regs. tit. 22, § 64463.7(b)(3), (d) (2007).
217. Cal. Code Regs. tit. 22, § 64468.5(a)–(c) (2007).
218. Cal. Code Regs. tit. 22, § 64468.5(d)–(f) (2007).
219. Cal. Code Regs. tit. 22, § 64466(a) & (b), 64463.7(c) (2007).
220. Cal. Code Regs. tit. 22, §§ 64466(b), 64463.7(d)(1) & (3) (2007).
221. 42 U.S.C. § 300g-3(c)(4); Cal. Health & Safety Code § 116470 (2007); Cal. Code Regs. tit. 22, § 64480 (2008).
222. Cal. Code Regs. tit. 22, § 64483(b) (2008).
223. Cal. Code Regs. tit. 22, §§ 64480(a) & 64483(g) (2007).
224. Cal. Code Regs. tit. 22, § 64481 (2007).
225. Cal. Code Regs. tit. 22, § 64481(l) (2007).
226. Cal. Code Regs. tit. 22, § 64481(l) (2007).
227. Cal. Health & Safety Code § 116345 (2007).
228. Cal. Health & Safety Code § 116355(b)(1) (2007).
229. Cal. Health & Safety Code § 116762.60 (2007).
230. Cal. Health & Safety Code § 116845 (2007).
231. Cal. Health & Safety Code § 116330(d) (2007).
232. Cal. Code Regs. tit. 22, § 64470(b) (2008).
233. Cal. Code Regs. tit. 22, § 64470(a) (2008).
234. Cal. Health & Safety Code § 116540 (2007); see also Cal. Health & Safety Code § 116375(g) (2007) (directing DPH to adopt regulations requiring public water systems to make "minimum acceptable financial assurances" to demonstrate that the PWS is capable of providing "for the ongoing operation, maintenance, and upgrading of the system, including compliance with monitoring and treatment requirements and contingencies.").
235. Cal. Health & Safety Code § 116555(b) (2007).
236. Cal. Code Regs. tit. 22, §§ 63750.10–63850 (2008).
237. Cal. Water Code § 350 (2007).
238. Cal. Water Code § 351 (2007).
239. Cal. Water Code § 353 (2007).
240. Cal. Water Code § 354 (2007).
241. Cal. Health & Safety Code § 116425(a) (2007).
242. Cal. Health & Safety Code § 116425(a)(2)(B) (2007); 42 U.S.C. §§ 300g-5(a)(1), 300j-12(d)(3) (2008).
243. Cal. Health & Safety Code § 116425(b) (2007).
244. Cal. Health & Safety Code § 116425(c) (2007).
245. Cal. Health & Safety Code § 116425(e) (2007).
246. Cal. Health & Safety Code § 116425(h) (2007).
247. Cal. Health & Safety Code § 116425(f) (2007); Cal. Gov't Code §§ 6060, 6061 (2008).
248. 42 U.S.C. § 300g-4 (2008); U.S. EPA, *Variances and Exemptions from Maximum Contaminant Levels Under the Safe Drinking Water Act*, Water Supply Guidance (WSG) 18A (May 21, 1979), at **http://www.epa.gov/safewater/wsg/wsg_18a.pdf** (last visited Nov. 29, 2008).

249. 42 U.S.C. § 300g-4(a)(1)(A) (2008).
250. 42 U.S.C. § 300g-4(a)(1)(A) (2008).
251. 42 U.S.C. § 300g-4(a)(1)(A) & (C) (2008).
252. Cal. Code Regs. tit. 22, § 64214 (2007).
253. Cal. Health & Safety Code § 116340 (2007). Title 22, Chapter 14, Article 3, Sections 64211–64217 of the California Code of Regulations contains the regulatory requirements for State Small Water Systems.
254. Cal. Code Regs. tit. 22, § 64213(a), (b) (2007).
255. Cal. Code Regs. tit. 22, §§ 64212(a), 64217 (2007).
256. Cal. Health & Safety Code § 116275(n) (2008).
257. Cal. Health & Safety Code § 116286 (2007). See also Cal. Health & Safety Code § 116275(s) (2008) (defining "service connection" and providing very similar exemption).
258. Cal. Health & Safety Code § 116287(d) (2007).
259. Cal. Health & Safety Code § 116287(c) (2007).
260. See 40 C.F.R. § 141.2 (2007) (defining 'service connection'); U.S. EPA, *May a Community Public Water System Raise the Defense in an Enforcement Proceeding that it is not a "Public Water System," Under §1401(4) of the SDWA, Because it Does Not Provide Water for Human Consumption?*, WSG 12A (June 20, 1978), at **http://www.epa.gov/safewater/wsg/wsg_12a.pdf** (last visited Nov. 29, 2008); U.S. EPA, *Methods of Preventing States from Using Illegal Variances*, WSG 19A (Aug. 10, 1979), at **http://www.epa.gov/safewater/wsg/wsg_19a.pdf** (last visited Nov. 29, 2008).
261. Cal. Health & Safety Code § 116287(e) (2007).
262. Cal. Health & Safety Code § 116287(f) (2007).
263. Cal. Code Regs. tit. 22, § 64463(e) (2007).
264. Cal. Health & Safety Code § 116450(g) (2007).
265. Cal. Health & Safety Code § 116735(b) (2007).
266. Cal. Health & Safety Code § 116350 (2007).
267. Cal. Health & Safety Code § 116330(a) & (f) (2007). Detailed guidelines governing a local primacy agency's public drinking water program are contained in Cal. Code Regs. tit. 22, §§ 64251-64260 (2008).
268. California Department of Public Health, Small Water Systems – Technical Support Unit, at **http://www.CDPH.ca.gov/certlic/drinkingwater/Pages/Smallwatersystems.aspx** (last visited Nov. 29, 2008).
269. Cal. Health & Safety Code §§ 116325, 116330(a) (2007).
270. Cal. Health & Safety Code. § 116675 (2007).
271. Cal. Health & Safety Code § 116745(2007).
272. Cal. Health & Safety Code § 116577 (2007).
273. Cal. Health & Safety Code § 116735 (2007).
274. Cal. Health & Safety Code § 116655 (2007).
275. Cal. Health & Safety Code § 116650(a)–(d) (2007).
276. Cal. Health & Safety Code § 116650(e) (2007).
277. Cal. Health & Safety Code § 116670 (2007); see also American Public Health Association, Frank P. Grad, The Public Health Law Manual, Frank P. Grad, p.202-07 (3rd ed. 2005) ("Chapter 9: Abatement of Nuisances and Dangerous Conditions: The Use of Administrative Orders"), available at **http://books.google.com/books?id=eXJpV3rJACUC** (last visited Nov. 19, 2008).
278. Cal. Health & Safety Code § 116625 (2007).
279. Cal. Health & Safety Code § 116660(a) & (b) (2007).
280. Cal. Health & Safety Code § 116660 (2007).
281. Cal. Health & Safety Code § 116725 (2007).
282. Cal. Health & Safety Code § 116665 (2007).
283. Cal. Health & Safety Code §§ 116730 (2008), 116750 (2007).
284. Cal. Health & Safety Code § 117030 (2007).
285. See Cal. Code Civ. Proc. § 731 (2008). California has statutorily expanded the common law definition

of public nuisance to include "[a]nything done, maintained, or suffered as a result of a failure to comply with any primary drinking water standard . . . ." Cal. Health & Safety Code § 116670 (2007). However, it is open to interpretation as to whether the expanded public nuisance theory created by this statute applies to private litigants as well as public officers.

286. The Public Records Act is codified at California Government Code Title 1, Division 7, Chapter 3.5, Sections 6250–6276.48 (2007).

287. Cal. Gov't Code § 6253 (2007).

288. Cal. Gov't Code § 6253(a) (2007).

289. Cal. Gov't Code § 6253(a), (b) (2007).

290. Cal. Gov't Code § 6252(e) (2007).

291. Cal. Gov't Code § 6254(a-z) (2007).

292. Cal. Gov't Code § 6254(a-z) (2007).

293. Cal. Gov't Code § 6253(c) (2007).

294. Cal. Gov't Code § 6253(b) (2007).

295. Cal. Gov't Code § 6253 (2007).

296. The Brown Act is codified at California Government Code Title 5, Division 2, Chapter 9, Sections 54950–54963 (2007).

297. Cal. Gov't Code §§ 54954, 54954.2, 54954.5, 54957.7 (2007).

298. Cal. Gov't Code § 54951 (2007).

299. Cal. Gov't Code § 54952.2 (2007).

300. Cal. Gov't Code § 54954.2 (2007).

301. Cal. Gov't Code §54954.6 (2008).

302. Cal. Gov't Code § 54954.1 (2007).

303. Cal. Gov't Code § 54957.5 (2007).

304. Cal. Gov't Code § 54961(a) (2007).

305. Cal. Gov't Code § 54953.3 (2007).

306. Cal. Gov't Code § 54954.3(a) (2007).

307. Cal. Gov't Code § 54954.3(a) (2007).

308. Cal. Gov't Code § 54957.9 (2007).

309. Cal. Gov't Code §§ 54954, 54954.2, 54954.5, 54957.7 (2007).

310. Cal. Elec. Code §§ 9214 & 9215 (2007) (water board's required action on a valid petition if water provider is a municipality); Cal. Elec. Code §§ 9301 & 9311 (2007) (water board's required action on valid petition if water provider is a special district). Compare Cal. Elec. Code §§ 9202, 9203, 9207, 9302, & 9304 (2007) (referring to "any person" and "proponents of the matter" with no reference to the proponent needing to be an eligible voter) with Cal. Elec. Code § 9305 (2007) (in contrast, requiring the *signatures* of the petition be made by registered voters); see also Bighorn-Desert View Water Agency v. Verjil, 39 Cal. 4th 205, 216-17; 138 P.3d 220, 226-27; 46 Cal. Rptr. 3d 73, 81-82 (2006) (holding that it is permissible for voters "to reduce or repeal a public agency's water rates and other water delivery charges[]" by initiative.).

311. Cal. Elec. Code §§ 9217 & 9222 (2007) (municipal water providers); Cal. Elec. Code §§ 9320 & 9323 (2007) (special district water providers).

312. Cal. Elec. Code § 9300 (2008).

313. Cal. Code of Civ. Proc. §1085 & §1094.5 (2008).

314. Cal. Code of Civ. Proc. § 1086 (2008) (although when there is a public right involved, there is broader standing).

315. *See* Du Four v. Unemployment Ins. Appeals Bd., 49 Cal. App. 3d 863, 867 (1975).

316. Cal. Elec. Code §§ 9235, 9237 (as recently amended), & 9340 (2008).

317. Cal. Elec. Code §§ 9241, 9340 (2008).

318. Cal. Elec. Code §§ 9241, 9340 (2008).

319. See, e.g., Cal. Gov't Code §§ 815-823 (2008).

320. Cal. Gov't Code §§ 830-840.6 (2007).
321. Cal. Gov't Code § 815.6 (2007).
322. Cal. Gov't Code §§ 901, 905–915.4 (2008).
323. Cal. Gov't Code § 905 (2008); see also Cal. Gov't Code § 913(b) (2008) (requiring the board, when rejecting a claim, to inform the claimant that he or she only has six months within which he or she may file a lawsuit in court).
324. Cal. Const. art. XIIID, § 6(a); Bighorn-Desert View Water Agency v. Verjil, 39 Cal. 4th 205, 216-17; 138 P.3d 220, 226-27; 46 Cal. Rptr. 3d 73, 81-82 (2006) (holding that domestic water rates are fees or charges within the meaning of Article XIIID of the California Constitution, because water rates are "fees or charges" imposed on a person or property "as an incident of property ownership.") (rejecting any dichotomy between fixed charges – like pipeline charges – and consumption based charges).
325. Cal. Const. art. XIIID, § 6(a)(2).
326. Cal. Const. art. XIII, § 2(g) ("'Property ownership' shall be deemed to include tenancies of real property where tenants are directly liable to pay the assessment, fee, or charge in question."); see also Pajaro Valley Water Mgmt. Agency v. Amrhein, 150 Cal. App. 4th 1364, 1384-85; 59 Cal. Rptr. 3d 484, 497 (2007) (noting that the Article XIIID restrictions on fee increases apply to fees and charges levied on tenants, where tenants are liable to pay those fees).
327. Cal. Const. art. XIIID, § 6(b); Pajaro Valley Water Mgmt. Agency v. Amrhein, 150 Cal. App. 4th 1364, 1385; 59 Cal. Rptr. 3d 484, 497-98 (2007) (noting that Article XIIID also "imposes substantive limitations[]" on rate increases, "including restrictions on the use of revenues derived from such charges.").
328. Carlton Santee Corp. v. Padre Dam Mun. Water Dist., 120 Cal. App. 3d 14, 29; 174 Cal. Rptr. 413, 422 (1981) (concluding that there was sufficient evidence in support of trial court's finding of reasonableness, that municipal water district's fee was not arbitrary, capricious, or unreasonable because reasonableness was supported by substantial evidence in the record).
329. San Diego County Water Auth. v. Metro. Water Dist., 117 Cal. App. 4th 13, 23 n.4; 11 Cal. Rptr. 3d 446, 454 n.4 (2004) ("Substantial deference must be given to the Board's determination of its rate design.") (referring to the Board of the Metropolitan Water District and upholding a rate structure designed to recoup most of the district's operating and capital expenses); Am. Microsystems, Inc. v. City of Santa Clara, 137 Cal. App. 3d 1037, 1041-42; 187 Cal. Rptr. 550, 553 (1982) ("Because rate fixing is a legislative function within the exclusive province of the municipality, the courts will intrude only in the limited case where the rates are shown to be unreasonable, unfair, or fraudulently or arbitrarily established."); Brydon v. East Bay Mun. Utility District, 24 Cal. App. 4th 178, 196; 29 Cal. Rptr. 2d 128, 138 (1994) ("[W]here the District had the legislatively delegated authority to enact the regulatory means in dispute, it must be presumed the board did not act arbitrarily or unreasonably in enacting the ordinance, but that it was guided by sound discretion and a conscientious and intelligent judgment as to whether the best interests of the district would be served. . . . Given the quasi-legislative nature of the District's enactment of the rate structure design, review is appropriate only by means of ordinary mandate where the court is limited to a determination of whether District's actions were arbitrary, capricious or entirely lacking in evidentiary support.") (internal brackets, quotation marks, and ellipses omitted); Carlton Santee Corp. v. Padre Dam Mun. Water Dist., 120 Cal. App. 3d 14, 18-19; 174 Cal. Rptr. 413, 415 (1981) ("In light of the quasi-legislative nature of the District's actions, its promulgation of the rules in controversy are reviewable only by means of ordinary mandate where the court is limited to a determination of whether the District's actions were arbitrary, capricious or entirely lacking in evidentiary support, or whether it failed to follow the procedure and give the notices required by law.") (internal citations and quotation marks omitted).
330. Hansen v. City of San Buenaventura, 42 Cal. 3d 1172, 1180; 729 P.2d 186, 190; 233 Cal. Rptr. 22, 26 (1986) ("Rates established by the lawful rate-fixing body are presumed reasonable, fair and lawful. Thus, plaintiffs bear the burden of showing that the rates fixed are unreasonable or unfair.") (internal citations omitted).

331. See, *e.g.*, Boynton v. City of Lakeport Mun. Sewer Dist., 28 Cal. App. 3d 91, 95-96; 104 Cal. Rptr. 409, 411-12 (1972) (upholding sewer rate increase where provider did not offer *any* evidence to justify its sewer rates, because court was able to imagine a reasonable justification on its own).
332. Howard Jarvis Taxpayers Ass'n v. City of Roseville, 97 Cal. App. 4th 637, 647-659; 119 Cal. Rptr. 2d 91, 97-99 (2002) ("The theme of [Article XIIID, Sections 6(b)(1) & (2), of the California Constitution] is that fee or charge revenues may not exceed what it costs to provide fee or charge services. *Of course, what it costs to provide such services includes all the required costs of providing service, shortterm and long-term, including operation, maintenance, financial, and capital expenditures.* The key is that the revenues derived from the fee or charge are required to provide the service, and may be used only for the service. In short, the section 6(b) fee or charge must reasonably represent the cost of providing service.") (internal brackets & footnotes omitted) (also distinguishing as having been superseded by constitutional amendment the holding in Hansen v. City of San Buenaventura, 42 Cal. 3d 1172, 729 P.2d 186, 233 Cal. Rptr. 22 (1986), that a water provider is entitled to a reasonable rate of return and need not base its water rates purely on costs).
333. Howard Jarvis Taxpayers Assn. v. City of Fresno, 127 Cal. App. 4th 914, 923; 26 Cal. Rptr. 3d 153, 159 (2005) ("Together, subdivision (b)(1) and (3) of article XIII D, section 6, [of the California Constitution] makes it necessary—if Fresno wishes to recover all of its utilities costs from user fees—that it reasonably determine the unbudgeted costs of utilities enterprises and that those costs be recovered through rates proportional to the cost of providing service to each parcel.") (internal citation omitted); id. ("Cities are still entitled to recover all of their costs for utility services through user fees."); see also Rincon Del Diablo Mun. Water Dist. v. San Diego County Water Auth., 121 Cal. App. 4th 813, 819; 17 Cal. Rptr. 3d 666, 670 (2004) ("Historically, water rates are usually used to recover all costs incurred in providing water, including the costs of building, maintaining and improving the water system.").
334. Brydon v. East Bay Mun. Utility Dist., 24 Cal. App. 4th 178, 197; 29 Cal. Rptr. 2d 128, 139 (1994) (internal brackets, quotation marks, and ellipses omitted).
335. Am. Microsystems, Inc. v. City of Santa Clara, 137 Cal. App. 3d 1037, 1042-43; 187 Cal. Rptr. 550, 554 (1982); Dateline Builders v. City of Santa Rosa, 146 Cal. App. 3d 520, 531; 194 Cal. Rptr. 258, 266 (1983); see also Hansen v. City of San Buenaventura, 42 Cal. 3d 1172, 1183-84; 729 P.2d 186, 192; 233 Cal. Rptr. 22, 27-28 (1986).
336. Isaac v. City of L.A., 66 Cal. App. 4th 586, 601; 77 Cal. Rptr. 2d 752, 761 (1998).
337. Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000, Cal. Gov't Code §§ 56000–57550 (Title 6, Division 3); California Association of Local Agency Formation Commissions, What is LAFCO?, at **http://www.calafco.org/about.htm** (last visited Nov. 19, 2008); California State Assembly, Assembly Committee on Local Government, Guide to the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000, 2 (December 2007), available at **http://www.assembly.ca.gov/acs/committee/c17/Publications/2007%20CKH%20Guide.pdf** (last visited Nov. 19, 2008).
338. Cal. Health & Safety Code § 4700, *et seq. (2007).*
339. Cal. Health & Safety Code § 4730 (2007).
340. Cal. Gov't Code § 25210.1, *et seq. (2007).*
341. Cal. Water Code § 30000, et seq. (2008).
342. Cal. Water Code §§ 30500, 30575, 30576 (2007).
343. Cal. Water Code § 55330 (2007).
344. Cal. Water Code § 55301 (2007).
345. See Cal. Water Code §§ 20804, 22078; Rock Creek Water Dist. v. County of Calaveras, 29 Cal. 2d 7, 12; 172 P.2d 863, 866-67 (1946) ("A municipal water district['s] . . . principal function is to supply water for domestic service whereas an irrigation or water district is primarily concerned with supplying water for irrigation.").
346. Cal. Water Code § 20702 (2007).
347. Cal. Water Code § 22095 (2008).

348. Cal. Water Code § 22160 (2008).
349. Cal. Water Code § 22115 (2008).
350. Cal. Water Code §§ 22171, 22176 (2007).
351. Cal. Water Code §§ 22185, 22186 (2007).
352. Cal. Water Code § 22264 (2007); Cal. Health & Safety Code § 116286 (2007).
353. Cal. Water Code § 21385 (2007).
354. Cal. Water Code § 21400 (2007).
355. Cal. Water Code §§ 21550, 21551 (2007).
356. Cal. Water Code § 21100(a) (2008).
357. See, e.g., Cal. Water Code § 21552 (2007).
358. Cal. Water Code § 20527 (2007); Cal. Elec. Code §§ 321, 359 (2008).
359. Cal. Water Code §§ 20527.5–20527.13 (2007).
360. Cal. Water Code §§ 21196 (2007) (specifying procedure for removing officers for misconduct); 20524 (2007)(defining "Elective officers" to include directors); 20521 (2007) (defining "Board" as the irrigation district board of directors).
361. Cal. Water Code § 21382 (2007).
362. Cal. Water Code § 21377 (2007).
363. Cal. Water Code § 22235 (2007) ("A district may disseminate information to the public concerning the rights, properties, and activities of the district.").
364. Cal. Water Code § 21402 (2007).
365. Cal. Water Code § 22081 (2007).
366. Cal. Water Code §§ 22087, 22087.5 (2007).
367. Cal. Water Code §§ 22, 22338 (2007).
368. Cal. Gov. Code § 61100 (2008).
369. Cal. Gov't Code § 61102 (2007).
370. Cal. Gov't Code § 61040(a) (2007).
371. Cal. Gov't Code §§ 61040(a) & (e), 61050(a), 61051 (2007).
372. Cal. Gov't Code § 61050(b)–(d) (2007).
373. Cal. Gov't Code §§ 61040(b) (2007).
374. Cal. Gov't Code §§ 61021(a), 61025 (2007).
375. Cal. Gov't Code § 61042(a) (2007).
376. Cal. Gov't Code §§ 61020(b), 61025(a) & (e), 61040(b) (2007).
377. Cal. Gov't Code §§ 61022, 61027 (2007).
378. See Cal. Gov't Code § 61025 (2007).
379. See Cal. Pub. Util. Code §§ 15701, 15704, 15797 (2007).
380. Cal. Pub. Util. Code §§ 16461, 16463 (2007).
381. See Cal. Pub. Util. Code § 15533 (2007). But see Cal. Pub. Util. Code § 17381 (permitting a PUD to annex "the corporate area of any public corporation or public agency" without "destroy[ing] the identity or legal existence or impair[ing] the powers of any such public corporation or public agency[.]").
382. Cal. Pub. Util. Code §§ 15951, 15971, 16031 (2007).
383. Cal. Pub. Util. Code §§ 15951, 16001 (2007); see also Cal. Pub. Util. Code § 15972 (2007).
384. Cal. Pub. Util. Code §§ 16071, 16072 (2007).
385. Cal. Pub. Util. Code § 16075 (2007).
386. Cal. Pub. Util. Code §§ 16032, 16035, 16111 (2007).
387. Cal. Pub. Util. Code § 16114 (2007).
388. Cal. Pub. Util. Code § 16115 (2007).
389. Cal. Pub. Util. Code § 16116 (2007).
390. Cal. Pub. Util. Code § 16037 (2007).
391. Cal. Pub. Util. Code § 16036 (2007).
392. Cal. Pub. Util. Code § 15952 (2007).

393. Cal. Pub. Util. Code § 15953 (2007).
394. Cal. Pub. Util. Code § 15953 (2007).
395. Cal. Pub. Util. Code §§ 15951, 15954 (2007).
396. Cal. Pub. Util. Code § 16151 (2007).
397. Cal. Pub. Util. Code § 15972 (2007).
398. Cal. Pub. Util. Code §§ 15505, 16153 (2007).
399. Cal. Pub. Util. Code §§ 16042, 16043 (2007).
400. Cal. Pub. Util. Code § 16043 (2007).
401. Cal. Pub. Util. Code §§ 16042, 16601–16605 (2007).
402. Cal. Pub. Util. Code §§ 16042, 16606–16614 (2007).
403. Cal. Pub. Util. Code §§ 16042, 16467 (2007).
404. Cal. Pub. Util. Code §§ 16042, 16644–16647 (2007).
405. Cal. Pub. Util. Code §§ 16042, 16648–16652 (2007).
406. Cal. Pub. Util. Code § 16071 (2007).
407. Cal. Pub. Util. Code § 16072 (2007).
408. Cal. Pub. Util. Code § 16039, 16041 (2007).
409. Cal. Pub. Util. Code § 16040 (2007).
410. Cal. Pub. Util. Code § 16075 (2007).
411. Cal. Pub. Util. Code §§ 16077–16084 (2007).
412. Cal. Water Code § 71610 (2007).
413. While there is no language in the Water Code to this effect, the Supreme Court of California noted in a 1946 decision that "[a] municipal water district['s] . . . principal function is to supply water for domestic service whereas an irrigation or water district is primarily concerned with supplying water for irrigation." Rock Creek Water Dist. v. County of Calaveras, 29 Cal. 2d 7, 12; 172 P.2d 863, 866-67 (1946). See also Cal. Water Code §§ 71610, 71611, 71670 (2007).
414. Cal. Water Code §§ 71660, 71662–71663.5, 71680, 71689.20 (2007).
415. Cal. Water Code §§ 71270, 71300, 71501, 71502 (2007).
416. Cal. Water Code §§ 71251, 71252 (2007).
417. Cal. Water Code §§ 71274, 71276 (2007).
418. Cal. Water Code § 71273 (2007) (2007).
419. Cal. Water Code §§ 71273, 71305, 71340 (2007).
420. Cal. Water Code § 71362 (2007).
421. Cal. Water Code §§ 71160, 71501 (2007).
422. Cal. Water Code §§ 71250, 71501 (2007).
423. Cal. Water Code §§ 71017, 71453 (2007); Cal. Elec. Code § 359 (2008).
424. Cal. Water Code § 71277 (2007).
425. Cal. Water Code §§ 71452, 71530 (2007).
426. Cal. Water Code §§ 71452, 71531 (2007).
427. Cal. Water Code §§ 71750, 71753 (2007).
428. *See Glenbrook Dev. Co. v. City of Brea*, 253 Cal. App. 2d 267 (1967).
429. *See Nourse v. City of Los Angeles*, 25 Cal. App. 384 (1914).
430. See Cal. Const. art. XII, § 3 (conferring PUC jurisdiction over "private corporations and persons" that "own, operate, control, or manage a line, plant, or system for . . . the production, generation, transmission, or furnishing of . . . water . . . directly or indirectly to or for the public[.]").
431. California Public Utilities Commission, PUC History and Structure, at **http://www.cpuc.ca.gov/PUC/aboutus/puhistory.htm** (last visited Nov. 19, 2008).
432. California Public Utilities Commission, PUC Mission, Values, and Vision Statements, at **http://www.cpuc.ca.gov/PUC/aboutus/pucmission.htm** (last visited Nov. 19, 2008).
433. Cal. Pub. Util. Code §§ 216(a) & (b), 240, 241, 2701 (2008).
434. Cal. Pub. Util. Code § 240 (2008).

435. Cal. Pub. Util. Code §§ 2705, 2705.5, 2705.6, 2706 (2008).
436. Cal. Pub. Util. Code §§ 2702, 2703, 2705(a) & (b) (2008). See also Yucaipa Water Co. v. Public Utils. Com., 54 Cal. 2d 823, 831; 357 P.2d 295, 299; 9 Cal. Rptr. 239, 243 (1960) (subjecting to PUC regulation a mutual water company that was supplying water to nonmembers).
437. Cal. Pub. Util. Code § 2707 (2008).
438. Cal. Pub. Util. Code §§ 701, 702 (2008).
439. Cal. Pub. Util. Code § 791 (2008).
440. Cal. Pub. Util. Code §§ 761, 789.1(e), 790 (2007).
441. See Cal. Pub. Util. Code § 792 (2007) (authorizing PUC "to establish a system of accounts to be kept by the public utilties subject to its jurisdiction[]" and "prescribe the manner in which such accounts shall be kept").
442. Cal. Pub. Util. Code §§ 581, 582, 584 (2007).
443. Cal. Pub. Util. Code §§ 401, 404, 431 (2007).
444. Cal. Pub. Util. Code § 451 (2008).
445. Cal. Pub. Util. Code § 701.10 (2007).
446. Cal. Pub. Util. Code §§ 454(a), 455, 701, 727.5, 728, 729 (2007).
447. Cal. Pub. Util. Code § 454 (2008).
448. Cal. Pub. Util. Code § 454(c) (2008).
449. Cal. Pub. Util. Code § 739.8 (2007).
450. Cal. Pub. Util. Code § 415 (2007).
451. Cal. Corp. Code §§ 7312(e), 14300 (2008).
452. Cal. Corp. Code §§ 14046–14047 (2007); see also Cal. Corp. Code §§ 14001(b), 14002 (2007).
453. See Cal. Corp. Code § 14045(a).
454. See Cal. Corp. Code § 14001(b).
455. See Cal. Corp. Code §§ 14000 & 14051 (2007) (stating that small business development corporations are subject both to Nonprofit Mutual Benefit Corporation Law and to Small Business Financial Development Corporation Law).
456. Cal. Corp. Code § 14311 (2007).
457. Cal. Corp. Code §§ 5047, 7210 (2007).
458. Cal. Corp. Code §§ 7132(c)(6), 7151(a) (2008).
459. Cal. Corp. Code § 7213(a) (2007).
460. Cal. Corp. Code § 7213(a) & (b) (2007).
461. Cal. Corp. Code § 7132(c)(6), 7151(c) (2008).
462. Cal. Corp. Code § 7220(a) & (d) (2008).
463. Cal. Corp. Code §§ 7132(c)(6), 7151(c), 7220(a) (2008).
464. Cal. Corp. Code § 7220(a) (2008).
465. Cal. Corp. Code § 7614 (2008).
466. Cal. Corp. Code § 5056(a) (2008) (defining "member" as a person who can vote on major corporate decisions, like the election of directors or dissolution of the mutual).
467. Cal. Corp. Code §§ 7132(a)(3), 7151(c)(6) & (d), 7311, 7315(a) (2008).
468. Cal. Corp. Code §§ 7132(c)(3) & (4), 7312(b), 7330, 7331 (2008).
469. See Cal. Corp. Code §§ 7153, 7312(e), 14300 (2008).
470. Cal. Corp. Code §§ 5056(a), 5057 (2008).
471. Cal. Corp. Code § 7310(a) (2007).
472. Cal. Corp. Code §§ 5071, 5072 (2008); see also Cal. Corp. Code § 14300 (2008) (using "shares" and "shares of stock" interchangeably).
473. See Cal. Corp. Code §§ 7312(e), 14300–14302 (2008).
474. Cal. Corp. Code §§ 7351, 14301, 14303 (2008).
475. Cal. Corp. Code §§ 5033, 7222(a)(1) (2008).
476. Cal. Corp. Code §§ 5034, 7222(a)(2), 7512(a) (2008).

477. Cal. Corp. Code § 7222(a), (b)(1)–(3) (2008).
478. Cal. Corp. Code § 7222(a), (f) (2008).
479. See Cal. Corp. Code § 7513(a) (2008).
480. Cal. Corp. Code § 7221 (2008).
481. Cal. Corp. Code §§ 5036(a), 7223 (2008).
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485. Cal. Corp. Code §§ 7132(c)(6), 7151(c) (2008).
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488. Cal. Corp. Code § 8321 (2007).
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493. Cal. Corp. Code § 8331(a), (g) (2008).
494. Cal. Corp. Code § 8332(a) (2008).
495. Cal. Corp. Code §§ 7527, 7616(a) (2008).
496. Cal. Corp. Code § 7616(d) (2008).

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