

Readers' Guide to the Annual Water Quality Report

The following questions and answers are provided to help Sacramento Suburban Water District (SSWD or District) customers understand and interpret the District's Annual Water Quality Report (AWQR). Further information about the water system is available at sswd.org or at SSWD's office at 3701 Marconi Avenue in Sacramento.

1. What is the purpose of the Annual Water Quality Report?

Public water agencies such as SSWD are required by law to provide water quality information annually to their customers. The AWQR was prepared in accordance with state and federal regulations and includes information about the major sources of SSWD's drinking water supplies, what constituents, if any, are in those supplies, and how those constituents may affect public health. It also indicates how the District's water supplies compare with state and federal safe drinking water standards. Federal and state law dictates the content of the AWQR.

2. What is the cost to produce the AWQR?

The 2010 costs to design, print and mail the AWQR to nearly 71,000 customers was \$18,175 or about \$0.26/customer.

It is staff's intent to provide a publication that is appealing and inviting to encourage customers to read the AWQR. When determining the format of the AWQR, staff takes into consideration many factors such as size and weight of paper (for postal rate), readability of the graphs, text size, graphics to enhance the text and opacity of the paper. For example, plain copy paper would bleed through from one side to the other making the AWQR difficult to read, especially the graphs. A three color process is used, which is close to the same cost as using two or even one color. The cost of color printing has greatly reduced in recent years due to technological advances.

SSWD staff is very aware and sensitive to decisions that could increase operation costs and ultimately could affect water rates. Publications that are attractive which draws in the customer to read and become informed is the goal. Producing an easy to read, inviting, educational, cost effective AWQR is a yearly challenge for District staff.

3. What are the major sources of water delivered by SSWD?

SSWD delivers water from several sources. In the District's South Service Area (SSA), the primary source is groundwater pumped from 46 active wells. Treated surface water from the American River, purchased from the City of Sacramento, supplements the SSA supply. In the District's North Service



SSWD Administrative Office

3701 Marconi Avenue, Suite 100 ♦ Sacramento, CA 95821-5346 ♦ Phone: 916.972.7171 ♦ Fax: 916.972.7639
Business Hours: Monday-Friday 8:00 a.m. to 4:30 p.m. ♦ sswd.org

Area (NSA), the primary source of water is groundwater pumped from 41 active wells. Surface water purchased from Placer County Water Agency and treated by the San Juan Water District supplements the NSA water supply.

4. What kinds of constituents are found in drinking water?

To ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (EPA) and the California Department of Public Health (DPH) have established regulatory standards that limit the amount of certain constituents in drinking water provided by public water systems.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some constituents, many of which are naturally occurring. Constituents such as microscopic organisms (bacteria, algae and viruses), and certain minerals can enter water as it travels over land surfaces or through the ground. The presence of constituents does not necessarily indicate the water poses a health risk.

Per the latest AWQR, SSWD's water continues to meet all state and federal drinking water standards.

5. How do constituents get into the water supply?

Some constituents are natural and enter the water supply from the environment. Others come from cities, farms and certain industrial land uses and processes, including dry cleaning and rocket fuel manufacturing. Some constituents are byproducts of the water disinfection process.

For each constituent detected in SSWD's supplies, the AWQR indicates the most likely source of that constituent. Examples include erosion of natural mineral deposits, contact with naturally occurring organic materials such as leaves, waste discharges from municipal and industrial sites, leaching from fertilizer use or septic tanks, or runoff from livestock feedlots.

6. How are constituents measured and reported in the Annual Water Quality Report?

Constituents are measured and reported in extremely small quantities such as parts per million, parts per billion and in some cases parts per trillion. The "units" column of the AWQR tables identifies the quantity for each individual constituent tested. All analyses are performed by a state certified laboratory to meet minimum detection limits for reporting requirements.

If these measurements are difficult to imagine, think about these comparisons:

Parts per million:	Parts per billion:	Parts per trillion:
1 drop in 14 gallons ¹	1 drop in 14,000 gallons	10 drops in enough water to fill the Rose Bowl
1 second in 12 days	1 second in 32 years	1 second in 32,000 years
1 inch in 16 miles	1 inch in 16,000 miles	1 inch in 16 million miles
1 cent in \$10,000	1 cent in \$10 million	1 cent in \$10 billion

¹A large bathtub holds about 42 gallons. An average swimming pool holds about 14,000 gallons.

7. What are the maximum allowed levels for constituents in drinking water?

EPA and DPH have set maximum constituent levels (MCL) for various constituents to ensure that drinking water is safe. The MCL listed for each constituent is the State's maximum permissible level of that constituent in the drinking water.

The column next to the MCL in the report reflects the Public Health Goal (PHG) for each constituent. PHGs are not regulatory requirements but rather an estimate of the level at which a constituent poses no significant health risk if consumed daily over a lifetime. In many cases, it may not be possible to remove or reduce a constituent to the level represented by the PHG because the technology may not yet exist or may be so costly that it would make tap water unaffordable.

8. What do “Primary Drinking Water Constituents,” “Secondary Drinking Water Constituents” and “Detected Unregulated Water Constituents” mean?

Constituents listed in the “primary” section are believed to pose a risk to public health if detected at levels greater than the MCL. Constituents listed in the “secondary” group can affect the appearance, taste and/or smell of water without affecting the safety of the water (unless they also have a primary standard.) In other words, primary constituents are thought to have health-related impacts above the MCL, while secondary constituents have aesthetic impacts above the MCL.

Constituents listed as “unregulated” are occasionally monitored to help state and federal agencies determine where certain constituents occur and whether they should be regulated. Unregulated constituents have no established standards.

9. Why does the 2011 report have a 2010 date?

State and federal regulations state that the report must be received by customers by July 1 of each year. Therefore a complete year of sampling is only available for the previous year. The report released in 2011 reflects that the samples were taken throughout the year of 2010.

10. Some sample dates listed in the report are older than others. Why isn’t all the data current?

DPH allows water systems such as SSWD to monitor some constituents less than once per year because the concentrations of these constituents do not change frequently. The data, though still representative, may be more than a year old.

11. What does SSWD do to ensure the safety of the drinking water it provides?

Providing customers with high-quality, reliable water is SSWD’s top priority. The District conducts regular water quality testing of its water supplies, both directly at the source and in the distribution system. SSWD’s water is tested about 7,000 times a year to ensure quality.

The District tests and maintains 87 groundwater production wells and more than 710 miles of water mains. SSWD serves over 171,200 people in a 36-square-mile area with more than 44,000 service connections.

12. How do I know if I am receiving surface water or groundwater?

SSWD supplies water based on availability. Some parts of the District’s service area may change from surface water to groundwater on relatively short notice in response to notifications from San Juan Water District or the City of Sacramento, both of which provide surface water to SSWD.

Customers should assume that the constituents identified in the report may be present at the listed amounts at any given time.



13. **Is it possible to get specific data for water that enters my home?**

Customers can contact Doug Cater, Superintendent Field Services, at 916.679.2887 or via email at dcater@sswd.org for details or more information.

Customers are encouraged to visit SSWD's web site at sswd.org to view the current and past Annual Water Quality Report.

Glossary of Terms – Constituents

Coliform and Total Coliform Bacteria: Microscopic organisms in water that are used as indicators of possible contamination.

Hardness: Hardness in water is caused by dissolved mineral compounds. It is expressed in parts per million (ppm) of calcium carbonate (CaCO₃). Water softening systems often express hardness as grains per gallon (grains/gal).

THMs: THMs, or trihalomethanes, are by-products of chlorine disinfection. They are formed when chlorine reacts with certain naturally occurring organic substances in water.

Turbidity: Turbidity in water is caused by suspended matter such as clay, silt, finely divided inorganic and organic matter, and biological material.