

# 2014 Consumer Confidence Report

JUN 29 2015

Water System Name: SMWD – Nichols Institute Report Date: 05/25/2015

*We test the drinking water quality for many constituents as required by state and federal regulations. This report shows the results of our monitoring for the period of January 1 - December 31, 2014 and may include earlier monitoring data.*

**Este informe contiene información muy importante sobre su agua potable. Tradúzcalo ó hable con alguien que lo entienda bien.**

Type of water source(s) in use: Groundwater (Well ) and Santa Margarita Water District

Name & general location of source(s): Nichols Well (Ortega #3): City of San Juan Capistrano, CA 92675  
Santa Margarita Water District: Rancho Santa Margarita, CA 92688

Drinking Water Source Assessment information: Completed in 1999. Copy of complete assessment may be viewed at:  
SWRCB-DDW, Santa Ana District Office, 28 Civic Center Plaza, Room 325, Santa Ana, CA 92701

Time and place of regularly scheduled board meetings for public participation: 4<sup>th</sup> Wednesday of the month at 7pm.  
26111 Antonio Pkwy, Rancho Santa Margarita, CA 92688

For more information, contact: Rachel Pasco Phone: ( 949 ) 459 6674

## TERMS USED IN THIS REPORT

**Maximum Contaminant Level (MCL):** The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

**Maximum Contaminant Level Goal (MCLG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency (USEPA).

**Public Health Goal (PHG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

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

**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.

**Primary Drinking Water Standards (PDWS):** MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

**Secondary Drinking Water Standards (SDWS):** MCLs for contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with SDWSs do not affect the health at the MCL levels.

**Treatment Technique (TT):** A required process intended to reduce the level of a contaminant in drinking water.

**Regulatory Action Level (AL):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

**Variations and Exemptions:** State Board permission to exceed an MCL or not comply with a treatment technique under certain conditions.

**ND:** not detectable at testing limit

**ppm:** parts per million or milligrams per liter (mg/L)

**ppb:** parts per billion or micrograms per liter ( $\mu\text{g/L}$ )

**ppt:** parts per trillion or nanograms per liter (ng/L)

**ppq:** parts per quadrillion or picogram per liter (pg/L)

**pCi/L:** picocuries per liter (a measure of radiation)

**The sources of drinking water** (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

**Contaminants that may be present in source water include:**

- *Microbial contaminants*, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- *Inorganic contaminants*, such as salts and metals, that can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- *Pesticides and herbicides*, that may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- *Organic chemical contaminants*, including synthetic and volatile organic chemicals, that are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems.
- *Radioactive contaminants*, that can be naturally-occurring or be the result of oil and gas production and mining activities.

**In order to ensure that tap water is safe to drink**, the USEPA and the State Water Resources Control Board (State Board) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. State Board regulations also establish limits for contaminants in bottled water that provide the same protection for public health.

**Tables 1, 2, 3, 4, 5, and 6 list all of the drinking water contaminants that were detected during the most recent sampling for the constituent.** The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. The State Board allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of the data, though representative of the water quality, are more than one year old.

**TABLE 1 – SAMPLING RESULTS SHOWING THE DETECTION OF COLIFORM BACTERIA**

| Microbiological Contaminants<br>(complete if bacteria detected) | Highest No. of Detections | No. of months in violation | MCL  | MCLG | Typical Source of Bacteria           |
|---|---------------------------|----------------------------|--|------|--------------------------------------|
| Total Coliform Bacteria   | (In a mo.)<br>0           | 0                          | More than 1 sample in a month with a detection   | 0    | Naturally present in the environment |
| Fecal Coliform or <i>E. coli</i>                                | (In the year)<br>0        | 0                          | A routine sample and a repeat sample detect total coliform and either sample also detects fecal coliform or <i>E. coli</i> | 0    | Human and animal fecal waste         |

**TABLE 2 – SAMPLING RESULTS SHOWING THE DETECTION OF LEAD AND COPPER**

| Lead and Copper<br>(complete if lead or copper detected in the last sample set) | Sample Date | No. of samples collected | 90 <sup>th</sup> percentile level detected | No. sites exceeding AL | AL  | PHG | Typical Source of Contaminant   |
|---|-------------|--------------------------|--|------------------------|-----|-----|---|
| Copper (ppm)  | 1/08/2014   | 21                       | 1.30                                       | N/A                    | 1.3 | 0.3 | Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives |
| Copper (ppm)  | 7/19/2014   | 21                       | 0.86                                       | N/A                    | 1.3 | 0.3 |   |

**TABLE 3 – SAMPLING RESULTS FOR SODIUM AND HARDNESS**

| Chemical or Constituent<br>(and reporting units) | Sample Date | Level Detected | Range of Detections | MCL  | PHG (MCLG) | Typical Source of Contaminant  |
|--|-------------|----------------|---------------------|------|------------|--|
| Sodium (ppm)                                     | 2014        | 100            | 94 – 100            | none | none       | Salt present in the water and is generally naturally occurring   |
| Hardness (ppm)                                   | 2014        | 335            | N/A                 | none | none       | Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring |

**TABLE 4 – DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD**

| Chemical or Constituent<br>(and reporting units)  | Sample Date | Level Detected | Range of Detections | MCL<br>[MRDL] | PHG<br>(MCLG)<br>[MRDLG] | Health Effects Language  |
|---|-------------|----------------|---------------------|---------------|--------------------------|--|
| <b>Disinfection Byproducts, Disinfectant Residuals, and Disinfection Byproduct Precursors</b> |             |                |                     |               |                          |  |
| Chlorine (ppm)  | 2014        | 1.56           | 0.22 – 1.82         | [4.0]         | [4.0]                    | Some people who use water containing chlorine well in excess of the MRDL could experience irritating effects to their eyes and nose. Some people who drink water containing chlorine well in excess of the MRDL could experience stomach discomfort. |
| TTHMs [Total Trihalomethanes] (ppb)*  | 2014        | 25.4           | 25.4                | 80            | N/A                      | Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience liver, kidney, or central nervous system problems, and may have an increased risk of getting cancer.                                      |
| HAA5 [Haloacetic Acids] (ppb)*  | 2014        | 12.1           | 12.1                | 60            | N/A                      | Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.   |
| <b>Inorganic Contaminants</b>   |             |                |                     |               |                          |  |
| Chromium-6 (ppb)  | 2013        | 0.175          | 0.051 – 0.42        | 10            | 0.02                     | Some people who drink water containing hexavalent chromium in excess of the MCL over many years may have an increased risk of getting cancer.  |

**TABLE 5 – DETECTION OF CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARD**

| Chemical or Constituent<br>(and reporting units) | Sample Date | Level Detected | Range of Detections | MCL | PHG<br>(MCLG) | Typical Source of Contaminant                     |
|--|-------------|----------------|---------------------|-----|---------------|---|
| Iron (ppb)**                                     | 2014        | <b>640</b>     | ND – 640            | 300 | 300           | Leaching from natural deposits; industrial wastes |

\*\*The result for the sample collected on 1/31/2014 was 640 ug/L exceeds the MCL. Follow up sample was collected on 4/4/2014 and the result was non-detect. The well has been offline since May 2014.

**TABLE 6 – DETECTION OF UNREGULATED CONTAMINANTS**

| Chemical or Constituent<br>(and reporting units) | Sample Date | Level Detected | Range of Detections | Notification Level | Health Effects Language  |
|--|-------------|----------------|---------------------|--------------------|--|
| Boron (ppm)                                      | 2013        | 0.336          | 0.336               | 1                  | The babies of some pregnant women who drink water containing boron in excess of the notification level may have an increased risk of developmental effects, based on studies in laboratory animals.    |
| Molybdenum (ppb)                                 | 2013        | 3.4            | 1.7 – 4.4           | N/A                | N/A  |
| Vanadium (ppb)                                   | 2013        | 2.2            | 1.7 – 2.4           | 50 ppb             | The babies of some pregnant women who drink water containing vanadium in excess of the notification level may have an increased risk of developmental effects, based on studies in laboratory animals. |

\*Any violation of an MCL, MRDL, or TT is asterisked. Additional information regarding the violation is provided later in this report.

**TABLE 6 – DETECTION OF UNREGULATED CONTAMINANTS (Continued)**

| Chemical or Constituent<br>(and reporting units) | Sample Date | Level Detected | Range of<br>Detections | Notification Level | Health Effects Language  |
|--|-------------|----------------|------------------------|--------------------|--|
| Chlorate (ppb)                                   | 2013        | 449            | 39 – 1500              | 800 ppb            | N/A  |
| Strontium (mg/L)                                 | 2013        | 500            | 470 – 530              | N/A                | Some people who drink water containing strontium-90 in excess of the MCL over many years may have an increased risk of getting cancer. |

\*Any violation of an MCL, MRDL, or TT is asterisked. Additional information regarding the violation is provided later in this report.

### Additional General Information on Drinking Water

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline (1-800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. USEPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

### Summary Information for Violation of a MCL, MRDL, AL, TT, or Monitoring and Reporting Requirement

| VIOLATION OF A MCL, MRDL, AL, TT, OR MONITORING AND REPORTING REQUIREMENT  |  |                   |  |   |
|--|--|-------------------|--|---|
| Violation  | Explanation  | Duration          | Actions Taken to Correct the Violation   | Health Effects Language   |
| Monitoring & Reporting Requirement for<br>TTHMs [Total Trihalomethanes]<br>and<br>HAA5 [Haloacetic Acids] (ppb)* | SMWD failed to collect samples for Total Trihalomethanes (TTHMs) and Haloacetic acids (HAA5) at one of the two required locations and failure to monitor for TTHMs and HAA5 during the required time period, which was the first week of July 2014, to comply with Section 64534.2(d), Title 22, California Code of Regulations (CCR). The samples at Domestic Sample Site were collected on August 27, 2014 which was later than the approved schedule. | 07/2014 – 07/2015 | SMWD will collect the samples for 2015 in accordance with the approved Stage 2 DBP Monitoring Plan – two sample sets for TTHMs analyses from two designated sampling locations (Warehouse Sample Site and Domestic Sample Site) during the first full week of July 2015. | Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience liver, kidney, or central nervous system problems, and may have an increased risk of getting cancer.<br><br>Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer. |

\* Trihalomethanes (THMs) and Haloacetic Acids (HAAs) are the most common and most studied DBPs found in drinking water treated with chlorine. In 1979, the USEPA set the maximum amount of total THMs allowed in drinking water at 100 parts per billion as an annual running average. Effective in January 2002, the Stage 1 Disinfectants / Disinfection Byproducts Rule lowered the total THM maximum annual average level to 80 parts per billion and added HAAs to the list of regulated chemicals in drinking water. Stage 2 of the regulation was finalized by USEPA in 2006, which further controls allowable levels of DBPs in drinking water without compromising disinfection itself.

Your drinking water meets the Stage 2 Disinfectants/Disinfection Byproducts allowed concentration requirements. – Refer to Table 4.