**WATER QUALITY 2011**

**CONSUMER CONFIDENCE REPORT**

Santa Ana’s Water Makes A Big Splash As One Of The World’s Best Tasting On Tap!

Santa Ana’s Water Resources Division was recently recognized for producing one of the best tasting and highest quality tap water in the world. The City received the silver award in the “Best Municipal Water” category at the Berkeley Springs International Water Tasting Festival, a serious and accredited competition that attracts water submissions from all over the world each year.

“This is the second consecutive year our water has rated among the top in the world, an award we are proud to receive,” says Ray Burk, former Water Resources Manager, City of Santa Ana. “It demonstrates the stringent standards we set for our tap water, which are above and beyond the drinking water health standards required by both state and federal agencies.”

These health standards are outlined in this Water Quality Report, which demonstrates how Santa Ana’s water is meeting all of the drinking water health standards required by both the State of California Department of Public Health and the United States Environmental Protection Agency.

The major role of the Public Works Agency’s Water Resources Division is to protect Santa Ana’s water quality, maintain its water system, and assist residents with water cons- (Continued on page 2)

**Your Water, Your Health**

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. You can learn more about contaminants and potential health effects by calling the U.S. Environmental Protection Agency’s (USEPA) Safe Drinking Water Hotline at 800-426-4791 or visiting their website at epa.gov/safewater/.

To ensure that tap water is safe to drink, the USEPA prescribes regulations, which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water. Both sets of requirements protect public health. Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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/CDC (U.S. Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline 800-426-4791. Cryptosporidium is a microbial pathogen found in surface water throughout the U.S. To date, Cryptosporidium has not been detected in our water supply.

Beginning in October 2007, water that is received by the City of Santa Ana from MWD will have fluoride added to it. Our well water currently has a naturally occurring fluoride range level of 0.18 to 0.56 ppm. Water provided by MWD will have a fluoride level of 0.7 to 0.8 ppm. This plan was approved by the CDC and the California Department of Public Health. Additional information may be found by calling MWD’s Water Quality Information Hotline at: 800-354-4420. You can also download a fact sheet at mwdbh2o.com/fluoridation/fluoridationfactsheet.pdf or visit ada.org/fluoride.aspx.

A copy of the complete assessment is available at the Water Resources Agency office. You may request a summary of the assessment be sent to you by contacting us at 714-647-3320. If you have questions about your water quality, contact:

**City of Santa Ana**

Nabil Saba, P.E., Interim Water Resources Manager

**Public Works Agency**

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(Read this important health information about drinking water contaminants.)
1. What are the sources of the water Santa Ana delivers?
The City of Santa Ana depends on two sources for the 16.3 billion gallons of water we supply each year—62% is groundwater and 38% is imported water, purchased from the Metropolitan Water District of Southern California (MWD).

The groundwater accumulates and is stored beneath the surface of the earth and then pumped to the surface by 20 city-owned wells. MWD brings Colorado River water from Lake Havasu and runoff from the snow pack in the Sierra Nevada Range in Northern California. The water is then treated at either the Diemer Filtration Plant in Yorba Linda or the Weymouth Filtration Plant in LaVerne before it is delivered to Santa Ana.

There are seven MWD connections located in the City. Most of our customers receive a blending of the two sources, groundwater and imported water. For more details, see the Water Quality Standards for each of these sources in the data that follows. Groundwater and imported water are listed in separate columns.

2. What’s in my drinking water?
Your tap water may contain different types of chemicals (organic and inorganic), microscopic organisms (e.g., bacteria, algae, viruses) and radioactive materials (radionuclides), many of which are naturally occurring. Health agencies require monitoring for these constituents, because at certain levels they could make a person sick. The column marked “Parameter” lists the constituents found in the water used by Santa Ana.

3. What are the maximum allowed levels for constituents in drinking water?
Health agencies have maximum contaminant levels for constituents so that drinking water is safe and looks, tastes and smells good. A few constituents have the letters “TT” in the MCL column because they do not have a numerical MCL. Groundwater and imported water are listed in separate columns.

4. Why are some of the constituents listed in the section labeled “Primary Standards” and others in the “Secondary Standards”?
 Constituents that are grouped in the primary standards section may be unhealthy at certain levels. Constituents that are grouped under the secondary standards section can affect the appearance, taste and smell of water, but do not affect the safety of the water unless they also have a primary standard.

5. How do I know how much of a constituent is in my water and if it is at a safe level?
With a few exceptions, if the AVERAGE amount of a constituent found in tap water over the course of a year is no greater than the MCL, then the regulatory requirements are considered to be satisfied. The highest and lowest levels measured over a year are shown in the RANGE. Requirements for safety, appearance, taste and smell are based on the AVERAGE levels recorded and not the RANGE.

6. How do constituents get into our water?
Drinking water (both tap water and bottled water) comes from 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. The most likely source for each constituent is listed in the last column of the table.

7. Are there any potential sources of contamination in our system?
An assessment of the drinking water wells for the City of Santa Ana was completed in December 2006. The City’s wells are considered most vulnerable to the following activities associated with contaminants detected in the water supply: historic agricultural activities, golf courses, and application of fertilizers. The City’s wells are considered most vulnerable to the following activities not associated with detected contaminants: chemical/petroleum pipelines, chemical/petroleum processing stores, dry cleaners, gas stations, junk/scrap/salvage yards, metal plating/finishing/fabrication, plastics/synthetic producers, and sewer collection systems.

The MRDL is the maximum level of a disinfectant added for water treatment that is allowed in water. While disinfectants are necessary to kill harmful microbes, drinking water regulations protect against too much disinfectant being added. Another constituent, turbidity, has a requirement that 95 percent of the measurements taken must be below a certain number. Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the efficiency of the filtration system.

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(Continued from page 2)
**Terms and Abbreviations**

The following glossary of definitions will help you understand the terms and abbreviations used in this report.

**Primary Standards**—Mandatory Health-Related Standards that may cause health problems in drinking water. Secondary Standards—Aesthetic Standards (non-health-related) that could cause odor, taste, or appearance problems in drinking water. Unregulated Parameters—Information about contaminants that are monitored but are not currently regulated by federal and state health agencies. Additional Parameters—Information that may be of interest to our customers.

**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.

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

**SPECIAL EDUCATIONAL STATEMENT REGARDING NITRATE:** Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. Nitrate in drinking water at levels above 45 mg/L, a health risk for infants of less than six months of age. Such nitrate levels in drinking water can interfere with the capacity of the infant's blood to carry oxygen, resulting in a serious illness; symptoms include shortness of breath and blueness of the skin. Nitrate levels above 45 mg/L may also affect the ability of the blood to carry oxygen in other individuals, such as pregnant women and those with certain specific enzyme deficiencies. If you are caring for an infant, you should ask advice from your health care provider.

**TARGETING SAMPLING SITES:**

**Targeting Sampling Sites**

(a) The turbidity level of the filtered water shall be less than or equal to 0.3 NTU in 95% of the measurements taken each month and shall not exceed 1 NTU at any time. The averages and ranges of turbidity shown in the Secondary Standards were based on the treatment plant effluent.

(b) The State required raw wateriform monitoring for all treatment plants beginning March 2008. Reporting level is 1 CFU/100mL for total Bacteria (b) and 0.1 CFU/100mL for Total Coliform (b). The percentage of results exceeding the action level is reported for each sample.

**Primary Standards—Mandatory Health-Related Standards**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>MCL (mg/L)</th>
<th>PHG (mg/L)</th>
<th>Imported Water</th>
<th>Groundwater</th>
<th>Typical Source Of Contaminant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arsenic (ppb)</td>
<td>10.004</td>
<td>NA</td>
<td>ND</td>
<td>ND</td>
<td>2.6</td>
</tr>
<tr>
<td>Barium (ppb)</td>
<td>1,000</td>
<td>2</td>
<td>ND</td>
<td>ND</td>
<td>1.36</td>
</tr>
<tr>
<td>Fluoride (ppm)</td>
<td>2</td>
<td>1</td>
<td>ND</td>
<td>0.3</td>
<td>0.18</td>
</tr>
<tr>
<td>Fluoride (ppm)</td>
<td>0.5-1</td>
<td>0.8</td>
<td>NA</td>
<td>NA</td>
<td>0.17-0.53</td>
</tr>
<tr>
<td>Nitrate (as NO3 ppm)</td>
<td>45</td>
<td>45</td>
<td>ND</td>
<td>0.4</td>
<td>33.3</td>
</tr>
<tr>
<td>Nitrate and Nitrite (as N ppm)</td>
<td>10</td>
<td>10</td>
<td>ND</td>
<td>ND</td>
<td>7.51</td>
</tr>
<tr>
<td>Selenium (ppb)</td>
<td>50</td>
<td>50</td>
<td>ND</td>
<td>ND</td>
<td>2.45</td>
</tr>
</tbody>
</table>

**Additional abbreviations used below:**

- A: aggressiveness index
- AL: action level
- CPU: Colony-Forming Units
- MFL: million fibers per liter
- NA: not applicable
- NL: notification level
- NS: not standard
- NTU: nephelometric turbidity units—a measure of suspended material in water
- pCi/L: picocuries per liter (a measure of radioactivity)
- ppm: parts per billion, or micrograms per liter (µg/L)
- ppb: parts per billion, or micrograms per liter (µg/L)
- ppml: parts per million, or milligrams per liter (mg/L)

**Unregulated Parameters**—Information about contaminants that are monitored but not currently regulated by federal and state health agencies.

**WATER QUALITY DATA**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Import</th>
<th>Water</th>
<th>Targeting</th>
<th>Sampling Sights</th>
<th>Typical Source of Contaminant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copper (ppm)</td>
<td>AL = 1.3</td>
<td>0.3</td>
<td>ND</td>
<td>ND</td>
<td>0.19</td>
</tr>
<tr>
<td>Lead (ppb)</td>
<td>AL = 15</td>
<td>0.2</td>
<td>ND</td>
<td>ND</td>
<td>0.0</td>
</tr>
<tr>
<td>Methyl-ethyl-buthyl-ether (MTBE) (ppb)</td>
<td>5</td>
<td>13</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
</tr>
</tbody>
</table>

**Disinfection By-Products, Disinfectant Residuals — Values are for the distribution system based on annual running average:**

- **Total Trihalomethanes (THMs) (ppb):** 80
- **Nitrogen Dioxide (NO2) (ppb):** 60
- **Total Chlorine Residual (ppb):** 40

- **FCU:** picocuries per liter (a measure of radioactivity)
- **pCi/L:** picocuries per liter
- **ppb:** parts per billion, or micrograms per liter (µg/L)
- **ppml:** parts per million, or milligrams per liter (mg/L)
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**ABREVIATURAS Y DEFINICIONES**

El siguiente glosario de términos le ayudará a entender los términos y abreviaturas usados en este reporte.

Nivel Máximo de Contaminante (MCL): Es el nivel de contaminante más alto permitido en el agua potable. Los MCL’s son establecidos por el EPA, de manera que se estén a un nivel próximo a los PHG o I MCLGs como es económicamente y tecnológicamente posible. Los MCL’s son regulados para proteger el olor, el sabor y el aspecto del agua potable.

Nivel de Salud Pública (PHG): Es el nivel de un contaminante presente en el agua potable cuyo bajo nivel no presenta riesgo conocido ni esperado para la salud.

Nivel Máximo de Residuo de Desinfectante (MDRL): Es el nivel de desinfectante añadido para el tratamiento del agua que no debe de estar excedido en el grifo del consumidor.

Nivel Máximo de Meta de Residuo de Desinfectante (MMDRL): Es el nivel de desinfectante añadido para el tratamiento del agua cuyo bajo nivel no presenta riesgo conocido ni esperado para el agua.

Nivel Acción Regulatoria: Es la concentración de un contaminante que, si se excede, desencadena un tratamiento u otros requisitos que deben de tenerse en cuenta en un sistema de agua. La tabla adjunta lista los datos de los niveles de contaminantes regulados que fueron detectados en nuestro suministro de agua desde enero 1 hasta diciembre 31 del 2011. La presencia de estos contaminantes en el agua potable no indica necesariamente que el agua plantea un riesgo a la salud.

**Cómo Leer Su Contador De Agua**

Su contador de agua está por lo general localizado entre la calle y la acera, bajo una tapa de cemento. Quite la tapa usando un destornillador en la abertura de su casa y las llaves exteriores, luego revise el contador de agua. Su contador de agua está por lo general localizado en el subsuelo y el mando de la casa. Sin embargo, el agua contaminada puede ser una amenaza para la salud y el bienestar de la comunidad. No es necesario que se exerse un tratamiento. La contaminación puede resultar de una infinidad de fuentes, incluyendo la fuga de agua entre el contador y el sistema de fontanería.

**Cómo Leer Su Contador De Agua**

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1. **Lovin’ Home Indicator** es el indicador que los amantes de su agua usan para medir los contaminantes en el agua.
2. **Indicador de bajo consumo de agua** es el indicador que los amantes de su agua usan para medir los contaminantes en el agua.
3. **Momen Largo** es e indicador que los amantes de su agua usan para medir los contaminantes en el agua.

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