2009 Consumer Confidence Report

Water System Name: **City of Escalon** Report Date: June 9, 2010

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, 2009.

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, Wells

Name & location of source(s): Well 1 central, Well 3A south, Well 9 northeast, Well 10 east

Drinking Water Source Assessment information: A source assessment was completed in 1999, see page 4.

Time and place of regularly scheduled board meetings for public participation: 1st and 3rd Mondays of every month in the Escalon Library conference room. Contact the City Clerk's Office for agenda information at 838- 4105.

For more information, contact: Matt Morgan, Water System Operator Phone: (209) 838-4139

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.

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

ND: not detectable at testing limit

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

ppb: parts per billion or micrograms per liter (ug/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 Department of Public Health (Department) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Department regulations also establish limits for contaminants in bottled water that provide the same protection for public health.

Tables 1, 2, 3, 4, and 5 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 Department 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	Highest No. of Detections	No. of months in violation	MCL	MCLG	Typical Source of Bacteria
Total Coliform Bacteria	(In a mo.) 0	0	More than 1 sample in a month with a detection	0	Naturally present in the environment
Fecal Coliform or *E. coli*	(In the year) 0	0	A routine sample and a repeat sample detect total coliform and either sample also detects fecal coliform or *E. coli*	0	Human and animal fecal waste

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

Lead and Copper	No. of samples collected	90th percentile level detected	No. sites exceeding AL	AL	PHG	Typical Source of Contaminant
Lead (ppb) Sample Date 8/2008	20	3.6	0	15	2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm) Sample Date 8/2008	20	0.141	0	1.3	0.17	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

TABLE 3 – SAMPLING RESULTS FOR SODIUM AND HARDNESS

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Sodium (ppm)	2007/2009	18	14-23	none	none	Salt present in the water and is generally naturally occurring
Hardness (ppm)	2007/2009	182	61-257	none	none	Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring

***Any violation of an MC or AL is asterisked. Additional information regarding the violation is provided later in this report.*

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

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Arsenic, ppb	2007/ 2009	2.6	1.9-3.1	10	0.004	Erosion of natural deposits: runoff from orchards; glass and electronic production wastes.
Cadmium, ppb	2007/ 2009	0.8	0-3	5	0.04	Internal corrosion of galvanized pipes; erosion of natural deposits; discharge from electroplating and industrial chemical factories, and metal
Fluoride, ppm	2007/ 2009	0.2	0.2-0.3	2	0.1	Erosion of natural deposits; water additive to promote strong teeth; discharge from fertilizer and aluminum factories.
Nitrate, ppm	2008/ 2009	20	19.3-30.1	45	10	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion from natural deposits.
Nitrate plus Nitrite, ppm	2007	4.6	3.1-6.9	10	none	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion from natural deposits.
Selenium, ppb	2007/ 2009	3	0-12	50	(50)	Discharge from petroleum, glass, and metal refineries; erosion of natural deposits; discharge from mines and chemical manufacturers; runoff from livestock lots (feed additive)

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

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Chloride, ppm	2007/ 2009	6	4-8	500	none	Runoff/leaching from natural deposits; seawater influence
Sulfate, ppm	2007/ 2009	12	3-27	500	none	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids, ppm	2007/ 2009	252	200-341	1,000	none	Runoff / leaching of natural deposits.

***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

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	Notification Level	Health Effects Language
Vanadium, ppb	2007/ 2009	18	5-26	50	The babies of some pregnant women who drink water containing vanadium in excess of notification level may have increased risk of developmental effects, based on studies in laboratory animals.

TABLE 6 - SAMPLING RESULTS FOR CHLORINE RESIDUALS FROM THE DISTRIBUTION SYSTEM

Chemical or Constituent	Sample Date	+Level Detected	Range of Detections	MRDL	MRDLG	Typical Source of Contaminant

(and reporting units)						
Chlorine (ppm)	2009	0.67	0.3-0.87	4	4	Drinking water disinfectant added for treatment

+The level detected is the highest quarterly result for four quarters of monitoring conducted in 2009. Quarterly monitoring is conducted once every three months.

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).

Nitrate in drinking water at levels above 45 ppm is 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 serious illness; symptoms include shortness of breath and blueness of the skin. Nitrate levels above 45 ppm may also affect the ability of the blood to carry oxygen in other individuals, such as pregnant omen and those with certain specific enzyme deficiencies. If you are caring for an infant, or you are pregnant, you should ask advice from your health care provider.

The city provides granulated activated carbon (GAC) removal treatment at Well1 to remove Dibromochloropropane (DBCP) from the raw well water prior to delivery of the water to the customer. All monitoring conducted in 2009 of the treated water for DBCP was non-detectable.

Drinking Water Source Assessment

An assessment of the drinking water sources for the City was completed in February 1999. The sources are considered most vulnerable to the following activities associated with contaminants detected in the water supply: septic systems in high densities (<1 acre), fertilizers, pesticides/herbicide application, and pesticide/fertilizer/petroleum storage and transfer areas. In addition, the sources are considered most vulnerable to these activities: known contaminant plumes, confirmed leaking underground storage tanks, automobile gas station, historic gas station, historic waste dumps/landfills, chemical/petroleum processing/storage, and metal plating/finishing/fabrication. A copy of the assessment is available at the City of Escalon, Public Works Department, 2103 Main Street, Escalon, CA. 95320 or contact Matt Morgan at (209) 838-4139 or at the Department of Public Health, Drinking Water Field Operations Branch, 31 East Channel Street, Room 270, Stockton, CA. 95202 or contact Joseph Spano, District Engineer at (209) 948-7696.