2014 Consumer Confidence Report

Water System Name: **Skylonda Mutual Water Company** Report Date: June 29, 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: **Surface Water:** Creek, Reservoir **Ground Water:** Wells

Name & general location of source(s): La Honda Creek (flows from Skyline Blvd westward through La Honda), Reservoir (Blakewood Way), Well 6 (Skyline Blvd), Well 7 (Skylonda Drive), Well 8 (Big Tree Way)

Time and place of regularly scheduled board meetings for public participation: Board Meetings are held on the second Tuesday each month at 227 Blakewood Way, Skylonda, CA at 7:30 PM. The public is welcome to attend.

For more information, contact: Jeff Adan, Distribution/Treatment Operator Phone: (650) 851-0154

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.

ND: not detectable at testing limit

DLR: detection limit for purpose of reporting

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

ppb: parts per billion or micrograms per liter (µg/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 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 U.S. Environmental Protection Agency (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.

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 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 those that are transplant recipients, undergoing chemotherapy, afflicted with HIV/AIDS, individuals suffering from other immune system disorders, and 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).

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Skylonda Mutual Water Company is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. After water has been sitting in the pipes for several hours, you can minimize the potential for lead exposure by running your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods and steps you can take to minimize exposure is available from the Safe Water Drinking Hotline or at **http://www.epa.gov/safewater/lead.**

Tables 1-8 list all of the drinking water contaminants that were detected during the most recent sampling for the constituent. The State Board allows us to monitor for certain contaminants less than once per year thus some of the data, though representative of the water quality, is more than one year old.

TABLE 1 – SAMPLING RESULTS SHOWING THE DETECTION OF COLIFORM BACTERIA

Microbiological Contaminants (complete if bacteria detected)	**Highest No. of Detections**	**No. of months in violation**	**MCL**	**PHG (MCLG)**	**Typical Source of Bacteria**
Total Coliform Bacteria	(In a mo.) 1	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) 1	1 (duration was 2 days)	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 (complete if lead or copper detected in the last sample set)	**Sample Date**	**No. of samples collected**	**90th percentile level detected**	**No. sites exceeding AL**	**AL**	**PHG (MCLG)**	**Typical Source of Contaminant**
Lead (ppb)	9/25/14	5	N/A	0	15 ug/L	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm)	9/25/14	5	0.695 mg/L	0	1.3 mg/L	0.3	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)	Multiple 2014	22 mg/L	18 – 26 mg/L	none	none	Salt present in the water and is generally naturally occurring
Hardness (ppm)	Multiple 2014	139.2 mg/L	123 – 203 mg/L	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 (and reporting units)	**Sample Date**	**Level Detected**	**Range of Detections**	**MCL**	**PHG (MCLG)**	**Typical Source of Contaminant**
INORGANIC CONTAMINANTS						
***Barium (ppm)**	**Multiple 2014**	***1.527 mg/L**	**0.91 - 3.1mg/L**	**1 mg/L**	**2 mg/L**	Discharge of oil drilling wastes and from metal refineries; erosion of natural deposits
Fluoride (ppm)	3-13-14 12-18-14	0.14 mg/L	0.13 – 0.15 mg/L	2.0 mg/L	1 mg/L	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate (as NO_3, ppm)	Multiple 2014	1.3 mg/L	< DLR (2.0) – 3.9 mg/L	45 mg/L	45 mg/L	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
DISINFECTANT BYPRODUCTS (Results shown are the Running Annual Average (RAA) = average of quarterly test results over the last 4 quarters)						
***TTHMs (Total Trihalomethanes, ppb)**	**Multiple 2014**	**107 ug/L**	**82.4 - 124.11 ug/L**	**80 ug/L**	**N/A**	By-product of drinking water disinfection
Haloacetic Acids (HAA5, ppb)	Multiple 2014	50.8 ug/L	18.3 - 78.7 ug/L	60 ug/L	N/A	Byproduct of drinking water disinfection
RADIOACTIVE CONTAMINANTS						
Combined Radium 226 228 (pCi/L)	12-4-07	1.06 pCi/L	N/A	5 pCi/L	(0)	Erosion of natural deposits
Gross Alpha Particle Activity (pCi/L)	12-4-07	1.9 pCi/L	N/A	15 pCi/L	(0)	Erosion of natural deposits
Gross Beta Particle Activity (pCi/L)	6-15-12	1.97 pCi/L	N/A	50 pCi/L	(0)	Decay of nature and man-made deposits
Uranium (pCi/L)	12-4-07	0.12 pCi/L	N/A	20 pCi/L	0.43 oCi/L	Erosion of natural deposits

SYNTHETIC ORGANIC CONTAMINANTS: ND (not detected) (including Pesticides, Herbicides)
VOLATILE ORGANIC CONTAMINANTS: ND (not detected)

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

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	Typical Source of Contaminant
Chloride (ppm)	3/13/14 12/18/14	21 mg/L	15 - 27 mg/L	500 mg/L	Runoff/leaching from natural deposits; seawater influence
Color (Units)	3/13/14 12/18/14	5.5 Units	<5.0 – 6 Units	15 Unit	Naturally occurring organic materials
Iron (ppb)	Multiple 2014	226 ug/L	ND – 1400 ug/L	300 ug/L	Leaching from natural deposits; industrial wastes
Manganese (ppb)	Multiple 2014	34 ug/L	ND – 190 ug/L	50 ug/L	Leaching from natural deposits
Specific Conductance (EC - uS/cm)	Multiple 2014	521.7 umhos/cm	300 - 600 umhoms/cm	1600 umhoms/ cm	Substances that form ions when in water; seawater influence
Sulfate (ppm)	Multiple 2014	40.3 mg/L	14 – 80 mg/L	500 mg/L	Runoff/leaching from natural deposits; industrial wastes
Turbidity (Units)	3/13/14 12/18/14	1.005 Units	0.31- 1.7 Units	5 Units	Soil runoff
Total Dissolved Solids (TDS - ppm)	3/13/14 12/18/14	260 mg/L	210 – 330 mg/L	1000 mg/L	Runoff/leaching from natural deposits

There are no PHGs, MCLGs, or mandatory standard health effects language for these constituents because secondary MCLs are set on the basis of aesthetics.

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
Barium	La Honda Creek and Well 6 are the two major water sources and their outputs are stored in the lake. Well 6, the biggest producing well supplying our water system, has elevated barium levels by its nature. Between June 30th and November 1st each year, we are not permitted to draw water from the creek increasing reliance on well 6 as the primary water source. Without the creek water entering the lake and in part, diluting the barium from well 6, the barium level of the lake begins to rise. After a few months, the level exceeds the MCL of 1 mg/L. After Once water begin to flow in the creek after November 1st, water from the creek starts to contribute its output to the lake, the barium level begins to decrease, and within 4-5 months, are at or below the MCL. The trend is cyclical.	**September 2013 – December 2014**	Since receiving the barium citation in 2013, Skylonda Mutual has completed the validation phase of a small-scale test system which uses an ion-exchange filter to remove barium from well 6 water. Engineering plans for the installation, protocols for the implementation of the filtration system and permit applications for approval are currently underway. In this interim waiting phase, well 6 has been taken offline to prevent the addition of barium to the water system.	Some people who drink water containing barium in excess of the MCL over many years may experience an increase in blood pressure

TTHM (total trihalo-methanes)	The level of TTHMs is a measure of the byproducts from the use of chlorine as a disinfectant agent for drinking water. Due to the high levels of barium in well 6 and issues with the filter associated with well 8 (to remove excess manganese), Skylonda Mutual has had to rely heavily on water from the creek (available between November 1 and July 1) and reservoir both of which are designated as surface water sources. By their very nature, surface water is inherently high in organic content, and contain significantly higher organic matter than ground water sources (from wells). With increased levels of organic matter entering the system, the amount of chlorine required to effectively treat the water increases thereby creating more disinfectant byproducts from the interaction of chlorine and organic material.	**June 2014 – December 2014**	In order to reduce the TTHM levels immediately, two simultaneous actions were taken. Well 8 (a ground water source low in organic content), was brought back into use and the water mains throughout the system, were flushed. Water from well 8 was used to supply the upper system . With its low organic content, the chlorine demand is reduced thereby lowering TTHMs. Because of the persistent drought over the past several years and conscientious conservation efforts, flushing of the mains had been on hold for the past few years due to the inevitable water loss. Flushing of the mains in combination with the use of well water lead to a dramatic reduction in the TTHM levels. Moving forward, the mains will be flushed on a regular annual or biannual schedule (depending on drought conditions) and when surface water is heavily in use, well water will also be added to offset the organic load from the surface water.	Some people who drink water containing TTHMs in excess of the MCL *over many years* may experience liver, kidney, or nervous system problems, and may have an increased cancer risk.

For Water Systems Providing Ground Water as a Source of Drinking Water

TABLE 7 – SAMPLING RESULTS SHOWING FECAL INDICATOR-POSITIVE GROUND WATER SOURCE SAMPLES

Microbiological Contaminants	Total No. of Detections	Sample Dates	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
E. coli (in distribution system)	(In the year) 1	9/13/14 9/15/14	0	(0)	Human and animal fecal waste

Summary Information for Fecal Indicator-Positive Ground Water Source Samples, Uncorrected Significant Deficiencies, or Ground Water TT

SPECIAL NOTICE OF FECAL INDICATOR-POSITIVE GROUND WATER SOURCE SAMPLE

On September 12, 2014, a routine bacteriological test sample came back positive for coliform from the testing site on Chapman Road. The tanks feeding that part of the system were immediately dosed with chlorine. The next day, on September 13, 2014 and in accordance with instructions from the State Board, 4 sites were sampled including a resampling of Chapman, and sites both upstream and downstream from the Chapman site. The fourth site to be tested was the ground water source, well 8, supplying Chapman. Since well 8 had not been in use and thus could not be the possible source of contamination, the storage tank (Gio tank) closest to well 8 was sampled instead. All the results were negative except for the storage that was positive for *E. coli.* The tanks were dosed again and eight test sites that spanned the entire distribution system were sampled including well 8. The following day, we were notified that all test results were negative for both coliform and *E.coli*. Since then, all test results have been negative for bacteriological contaminants.

*You may recall receiving notification of this incident and a boil water notice. The duration of the violation was two days and has not reoccurred.

For Systems Providing Surface Water as a Source of Drinking Water

TABLE 8 - SAMPLING RESULTS SHOWING TREATMENT OF SURFACE WATER SOURCES	
Treatment Technique [a] (Type of approved filtration technology used)	Memcor XP microfiltration, Sodium hypochlorite (chlorine) disinfection treatment
Turbidity Performance Standards [b] (that must be met through the water treatment process)	Turbidity of the filtered water must: 1 – Be less than or equal to 0.1 NTU in 95% of measurements in a month. 2 – Not exceed 1.0 NTU for more than eight consecutive hours during continual monitoring. 3 – Not exceed 1.01 NTU at any time.
Lowest monthly percentage of samples that met Turbidity Performance Standard No. 1.	100%
Highest single turbidity measurement during the year	0.04 NTU
Number of violations of any surface water treatment requirements	0

(a) A required process intended to reduce the level of a contaminant in drinking water

(b) Turbidity (measured in NTU) is a measurement of the cloudiness of water and is a good indicator of water quality and filtration performance. Turbidity results meeting performance standards are considered to be in compliance with filtration requirements.

SUPPLEMENTAL TABLE: CONTAMINANTS TESTED AND BELOW DETECTION (FOR INFORMATIONAL PURPOSES ONLY, CONTAINS A PARTIAL LIST OF CONTAMINANTS FAMILIAR TO THE GENERAL PUBLIC)

Chemical or Constituent (and reporting units)	**Sample Date**	**Level Detected**	**Range of Detections**	**MCL**	**PHG (MCLG)**	**Typical Source of Contaminant**
Arsenic (ppb)	3/13/14 12/18/14	<2 ug/L	N/A	10 ug/L	0.004 ug/L	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Asbestos (MFL)	12/28/10	<0.20 MFL	N/A	7 MFL	7 MFL	Internal corrosion of asbestos cement water mains; erosion of natural deposits
Beryllium (ppb)	3/13/14 12/18/14	<1.0 ug/L	N/A	4 ug/L	1 ug/L	Discharge from metal refineries, coal-burning factories, and electrical, aerospace, and defense industries
Chromium (ppb)	3/13/14 12/18/14	<10 ug/L	N/A	50 ug/L	(100 ug/L)	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits
Cyanide (ppb)	3/13/14 12/18/14	<100 ug/L	N/A	150 ug/L	150 ug/L	Discharge from steel/metal, plastic and fertilizer factories
Hexavalent Chromium (ppb)	11/25/14 12/18/14	ND	N/A	1000 ug/L	2 ug/L	Discharge from electroplating factories, leather tanneries, wood preservation, chemical synthesis, refractory production, and textile manufacturing facilities; erosion of natural deposits
Lead (ppb)	3/13/14 12/18/14	<5 ug/L	N/A	15 ug/L (AL=15)	0.2 ug/L	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Mercury (inorganic, ppb)	3/13/14 12/18/14	<1 ug/L	N/A	2 ug/L	1.2 ug/L	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills and cropland