

2010 ANNUAL WATER QUALITY REPORT

(Consumer Confidence Report)

City of Selma PWS TX0150492
Phone Number (210) 651-6661

SPECIAL NOTICE

Special Notice for the *ELDERLY, PARENTS OF INFANTS, CANCER PATIENTS, those with HIV/AIDS, or OTHER IMMUNE PROBLEMS:*

You may be more vulnerable than the general population to certain microbial contaminants, such as cryptosporidium, in drinking water. Infants, some elderly or immuno-compromised persons such as those undergoing chemotherapy for cancer, those who have undergone organ transplants, those who are undergoing treatment with steroids, and people with HIV/AIDS or other immune system disorders can be particularly at risk from infections. You should seek advice about drinking water from your physician or health care provider. Additional guidelines on appropriate means to lessen the risk of infections by cryptosporidium are available from the Safe Drinking Water Hotline at (800) 426-4791.

PUBLIC PARTICIPATION OPPORTUNITIES

2nd Thursday of every month, 6:30 p.m.
Selma City Hall, 9375 Corporate Drive
Selma, Texas 78154
Phone Number (210) 651-6661

To learn about future public meetings concerning your drinking water, or to request to schedule one, please call us.

EN ESPAÑOL

Este informe incluye información importante sobre el agua potable. Si tiene preguntas o comentarios sobre este informe en español, favor de llamar al tel. (210) 651-6661 para hablar con una persona bilingüe en español.

OUR DRINKING WATER IS REGULATED

This report is a summary of the quality of the water that the City of Selma provides to its customers. The analysis was made by using data from the most recent U.S. Environmental Protection Agency (EPA) required tests and is presented in the attached pages. We hope that this information helps you to become more knowledgeable about what is in your drinking water.

SOURCE OF OUR DRINKING WATER

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 picks up substances resulting from the presence of animals or human activity, dissolves and carries naturally-occurring minerals, and, in some cases, carries radioactive materials.

Contaminants that may be present in source water include:

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

Where do we get our drinking water?

Selma's drinking water comes from two ground water sources. These are the Edwards Aquifer and the Carrizo-Wilcox Aquifer. Roughly speaking, if you are located south of the Cibolo Creek in Selma, your water is usually from the Edwards Aquifer. If you are located north of the Cibolo Creek in Selma, your water is usually from the Carrizo-Wilcox Aquifer. Selma pumps and treats the Edwards water, and purchases treated Carrizo-Wilcox water from the Schertz-Seguin Local Government Corporation (SSLGC). A Source Water Susceptibility Assessment for Selma's drinking water sources is currently being updated by the Texas Commission on Environmental Quality (TCEQ) and will be provided to us this year. The report will describe the susceptibility and types of constituents that may come into contact with your drinking water source based on human activities and natural conditions. The information contained in the assessment allows us to focus source water protection strategies. Some of the source water assessment is found at Texas Drinking Water Watch, at <http://dww/tceq/state/tx/us/DWW>. For more information on source water assessments and protection efforts at our public water system, please contact us.

All drinking water may contain contaminants.

When drinking water meets federal standards there may not be any health benefits to purchasing bottled water or point of use devices such as bubblers or reverse osmosis systems. 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 EPA's Safe Drinking Water Hotline at (800) 426-4791.

Secondary Constituents

Many constituents (such as calcium, sodium, or iron) which are often found in drinking water can cause taste, color, and odor problems. The taste, color, and odor constituents are called secondary constituents and are regulated by the State of Texas, not the EPA. These constituents are not causes for health concern. Therefore, secondaries are not required to be reported in this document but they may greatly affect the appearance and taste of your water.

Required Additional Health Information regarding Lead

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. Selma's Public Water System is responsible for providing high quality drinking water but can not control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing 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 that you can take to minimize exposure is available from the Safe Drinking Water Hotline at (800) 426-4791 or <http://www.epa.gov/safewater/lead>.

Abbreviations

The following abbreviations are used in the rest of this report:

- ppm – parts per million, or milligrams per liter (mg/L)
- ppb – parts per billion, or micrograms per liter
- pql – practical quantitation limit (lowest measurable quantity)
- pCi/L – picocuries per liter (a measure of radioactivity)
- mrem/yr – millirems per year (a measure of radioactivity)

Definitions

The following definitions are for terms and acronyms used in the rest of this report:

- 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 allow for a margin of safety.
- Maximum Contaminant Level (MCL) – the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology
- Maximum Residual Disinfectant Level (MRDL) – the highest level of a disinfectant allowed in drinking water. There is convincing evidence that the 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 contamination.
- Action Level (AL) – the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Public Water Supply Data

Edwards and Carrizo-Wilcox Water Data

Coliform Bacteria

Year	Maximum Allowed Positive Findings for Total Coliform	Highest Number of Positive Samples Submitted	Maximum Allowed Positive Findings for E. Coli or Fecal Coliform	Highest Number of Positive E. Coli or Fecal Coliform Samples Submitted	Violation	Likely Source of Contamination
2010	Zero	0	Zero	0	No	Naturally present in the environment

Maximum Residual Disinfectant Level

Year	Disinfectant	Average Level	Minimum Level (single sample)	Maximum Level (single sample)	MRDL	MRDLG	Unit of Measure	Source of Disinfectant
2010	Free Chlorine	1.37	0.54	2.20	4.0	<4.0	ppm	Chlorine gas

Disinfection Byproducts (Regulated Contaminants)

Year	Contaminant	Highest Level Detected	Range of Levels Detected	MCL	Unit of Measure	Violation	Source of Contaminant
2010	Total Trihalomethanes	2.7	1 – 2.7	80	ppb	No	Byproduct of drinking water chlorination
2010	Total Haloacetic Acid	<1.0	<1.0	60	ppb	No	Byproduct of drinking water chlorination

Disinfection Byproducts (Unregulated Contaminants)

Year or Range	Contaminant	Average Level	Minimum Level	Maximum Level	MCL	Unit of Measure	Description
2005 - 2007	Dibromochloromethane	0.65	0	1.3	N/A	ppb	Byproduct of drinking water chlorination

Edwards and Carrizo-Wilcox Water (Continued)

Lead and Copper

Year	Contaminant	MCLG	Action Level (AL)	90 th Percentile	No. of Sites Over AL	Unit of Measure	Violation	Source of Contaminant
2009	Copper	1.3	1.3	0.175	0	ppm	No	Erosion of natural deposits; leaching from wood preservatives; corrosion of household plumbing systems.
2009	Lead	0.015	0.015	0.00309	0	ppm	No	Corrosion of household plumbing systems; erosion of natural deposits.

Edwards Aquifer Water Data

Inorganic Contaminants

Year or Range	Contaminant	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Unit of Measure	Violation	Source of Contaminant
2010	Aluminum	Levels lower than pql	Levels lower than pql	0.2	0.2	ppm	No	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder.
2010	Antimony	Levels lower than pql	Levels lower than pql	0.006	0.006	ppm	No	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder.
2010	Arsenic	Levels lower than pql	Levels lower than pql	0.01	0.01	ppm	No	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes.
2010	Barium	0.0862	0.0637-0.0862	2	2	ppm	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
2010	Beryllium	Levels lower than pql	Levels lower than pql	0.004	0.004	ppm	No	Discharge from metal refineries and coal-burning factories; discharge from electrical, aerospace, and defense industries.
2010	Cadmium	Levels lower than pql	Levels lower than pql	0.005	0.005	ppm	No	Discharge from metal refineries and coal-burning factories; discharge from electrical, aerospace, and defense industries.
2010	Chromium	0.00109	Less than pql - 0.00109	0.1	0.1	ppm	No	Discharge from steel and pulp mills; erosion of natural deposits.
2007 - 2009	Fluoride	0.24	0.16 - 0.24	4	4	ppm	No	Erosion of natural deposits; discharge from fertilizer and aluminum factories. Fluoride is not added to water in Selma.
2010	Manganese	Levels lower than pql	Levels lower than pql	0.05	0.05	ppm	No	Abundant naturally occurring element.
2010	Mercury	Levels lower than pql	Levels lower than pql	.002	.002	ppm	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.

Edwards Aquifer Water Data (Continued)

Inorganic Contaminants (Continued)

Year or Range	Contaminant	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Unit of Measure	Violation	Source of Contaminant
2010	Nickel	Levels lower than pql	Levels lower than pql	0.1	0.1	ppm	No	Erosion of natural deposits
2010	Nitrate (measured as nitrogen)	1.76	1.74 - 1.76	10	10	ppm	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
2010	Selenium	Levels lower than pql	Levels lower than pql	0.05	0.05	ppm	No	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines.
2010	Silver	Levels lower than pql	Levels lower than pql	0.1	0.1	ppm	No	
2010	Thallium	Levels lower than pql	Levels lower than pql	0.002	0.002	ppm	No	Discharge from electronics and glass production; leaching from ore processing sites; drug factories.
2010	Zinc	0.0240	0.0108 – 0.0240	5	5	ppm	No	Moderately abundant naturally occurring element; used in the metal industry

Organic Contaminants

Year or Range	Contaminant	Average Level	Minimum Level	Maximum Level	MCL	MCLG	Units of Measure	Source of Contaminant
2009	Di(2-ethylhexyl) phthalate	1.57	0.91	2.22	6	0	ppb	Discharge from rubber and chemical factories

Other Water Properties

Year or Range	Property	Average Level	Minimum Level	Maximum Level	Unit of Measure	Description
2010	Hardness as Ca/Mg	248.5	247	250	ppm	Naturally occurring calcium and magnesium
2007 - 2009	pH	7.3	7.2	7.4	units	Measure of corrosivity of water
2007 - 2009	Total Alkalinity as CaCO ₃	139	61	217	ppm	Naturally occurring soluble mineral salts
2007 - 2009	Total Dissolved Solids	235	151	318	ppm	Total dissolved mineral constituents in water

Edwards Aquifer Water Data *(Continued)*

Secondary and other constituents not associated with adverse health effects

Year or Range	Constituent	MCL	Average Level	Minimum Level	Maximum Level	Secondary Limit	Unit of Measure	Source of Constituent
2007 - 2009	Bicarbonate	N/A	194	61	265	N/A	ppm	Corrosion of carbonate rocks such as limestone
2010	Calcium	N/A	71.6	71.6	71.6	N/A	ppm	Abundant naturally occurring element.
2007 - 2009	Chloride	N/A	22	20	24	300	ppm	Abundant naturally occurring element.
2010	Iron	0.3	Levels lower than pql	Levels lower than pql	Levels lower than pql	N/A	ppm	Abundant naturally occurring element.
2010	Magnesium	N/A	16.4	16.2	16.6	N/A	ppm	Abundant naturally occurring element.
2010	Manganese	0.05	0.0000465	0.00003	0.000063	0.05	ppm	Abundant naturally occurring element.
2010	Nickel	0.1	0.000375	0.000367	0.000383	N/A	ppm	Erosion of natural deposits.
2010	Sodium	2000	18	10.7	11.4	N/A	ppm	Erosion of natural deposits; byproduct of oil field activity.
2007 - 2009	Sulfate	N/A	24	21	26	300	ppm	Erosion of natural deposits; byproduct of oil field activity.

Carrizo-Wilcox Aquifer Water Data *(Taken from Schertz CCR)*

Inorganic Contaminants

Year	Contaminant	Average Level	Minimum Level	Maximum Level	MCL	MCLG	Unit of Measure	Source of Contaminant
2006	Barium	0.092	0.092	0.092	2	2	ppm	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
2006	Fluoride	0.1	0.1	0.1	4	4	ppm	Erosion of natural deposits; discharge from fertilizer and aluminum factories. No fluoride is added by SSLGC.
2009	Nitrate (measured as nitrogen)	0.01	0.01 – 0.01	10	10		ppm	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
2006	Combined Radium 226 & 228	2.3	2.3	2.3	15	0	pCi/L	Erosion of natural deposits
2006	Gross Beta Emitters	10	10	10	4	0	mrem/yr	Decay of natural and man-made deposits

Carrizo-Wilcox Aquifer Water Data (*Continued*)

Synthetic Organic Contaminants including Pesticides and Herbicides

Year	Contaminant	Highest Single Sample	Range of Levels Detected	MCLG	MCL	Unit of Measure	Violation	Source of Contaminant
2009	Dalapon	Levels lower than detectable	0 - 0	200	200	ppb	No	Runoff from herbicide used on rights of way

Secondary and other constituents not associated with adverse health effects

Year or Range	Constituent	Average Level	Minimum Level	Maximum Level	Secondary Limit	Unit of Measure	Source of Constituent
2007	Bicarbonate	61	61	61	NA	ppm	Corrosion of carbonate rocks such as limestone.
2007	Calcium	13.9	13.9	13.9	NA	ppm	Abundant naturally occurring element.
2007	Chloride	20	20	20	300	ppm	Abundant naturally occurring element; used in water purification; byproduct of oil field activity
2007	Copper	0.1	0.1	0.1	1	ppm	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.
2007	Hardness as Ca/Mg	47	47	47	NA	ppm	Naturally occurring calcium and magnesium.
2007	Magnesium	3	3	3	NA	ppm	Abundant naturally occurring element.
2007	Manganese	0.0013	0.0013	0.0013	0.05	ppm	Abundant naturally occurring element.
2007	Nickel	0.002	0.002	0.002	NA	ppm	Erosion of natural deposits.
2007	pH	7.4	7.4	7.4	>7.0	units	Measure of corrosivity of water.
2007	Sodium	32	32	32	NA	ppm	Erosion of natural deposits; byproduct of oil field activity.
2007	Sulfate	21	21	21	300	ppm	Naturally occurring; common industrial byproduct; byproduct of oil field activity.
2007	Total Alkalinity as CaCO ₃	61	61	61	NA	ppm	Naturally occurring soluble mineral salts.
2007	Total Dissolved Solids	151	151	151	1000	ppm	Total dissolved mineral constituents in water.
2007	Zinc	0.032	0.032	0.032	5	ppm	Moderately abundant naturally occurring element; used in the metal industry.