

Presented By
East Rio Hondo
Water Supply Corporation



Annual
WATER
QUALITY
REPORT

Reporting Year 2011

PWS ID#: TX0310096/TX0310031/0310152

Meeting the Challenge

We are once again proud to present our annual water quality report, covering all testing performed between January 1 and December 31, 2011. Over the years, we have dedicated ourselves to producing drinking water that meets all state and federal standards. We continually strive to adopt new methods for delivering the best quality drinking water to you. As new challenges to drinking water safety emerge, we remain vigilant in meeting the goals of source water protection, water conservation, and community education while continuing to serve the needs of all our water users.

Please share with us your thoughts or concerns about the information in this report. After all, well-informed customers are our best allies.

Source Water Assessment

The TCEQ (Texas Commission on Environmental Quality) has completed an assessment of your source water, and results indicate that some of our sources are susceptible to certain contaminants. The sampling requirements for your water system are based on this susceptibility and previous sample data. Any detection of these contaminants will be found in this consumer confidence report. For more information on source water assessments and protection efforts, contact the TCEQ Region 15 office at (956) 425-6010.

Important Health Information

You may be more vulnerable than the general population to certain microbial contaminants, such as *Cryptosporidium*, in drinking water. Infants, some elderly, or immunocompromised 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 infection by *Cryptosporidium* are available from the Safe Drinking Water Hotline at (800) 426-4791.

Substances That Could Be in Water

To ensure that tap water is safe to drink, the U.S. EPA prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must 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 these contaminants does not necessarily indicate that the water poses a health risk.

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 can acquire naturally occurring minerals, in some cases, radioactive material, and substances resulting from the presence of animals or from human activity. Substances 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, or wildlife;

Inorganic Contaminants, such as salts and metals, which can be naturally occurring or may result from urban stormwater 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 stormwater runoff, and residential uses;

Organic Chemical Contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production and which may also come from gas stations, urban stormwater runoff, and septic systems;

Radioactive Contaminants, which can be naturally occurring or may be the result of oil and gas production and mining activities.

Contaminants may be found in drinking water that may cause taste, color, or odor problems. These types of problems are not necessarily causes for health concerns. For more information on taste, odor, or color of drinking water, please contact our business office. For more information about contaminants and potential health effects, call the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

Where Does My Water Come From?

Depending on where you live in the East Rio Hondo Water Supply Corporation (ERHWSC) service area, you receive processed Rio Grande River water from one of three treatment facilities. For 27 years, ERHWSC has operated the 3.2-million-gallon-per-day (MGD) Nelson Road Treatment Plant south of FM 1561. In March of 2009, we put into production our new 8.0 MGD Martha Ann Simpson Treatment Plant. Water is pumped from the Rio Grande River and transferred to both plants by Cameron County Irrigation District Number Two (CCID2). These two plants can deliver water to all locations in our service area, depending upon system demands. Members of the Arroyo City area receive water produced from the 0.6 MGD Arroyo City Water Treatment Plant located west of Arroyo City off FM 2925 or from ERHWSC through an interconnect pipeline located on FM 1847. The Arroyo City plant is also supplied water by CCID2. Members of the west of Combes and North Harlingen areas may receive water from ERHWSC, North Cameron Water Supply Corporation, or Harlingen Waterworks System (HWWS) via an interconnect pipeline with ERHWSC. Analyses for all four water sources are included in this report. Rio Grande water for the Rio Grande Valley is stored in both Amistad and Falcon reservoirs. These reservoirs fluctuate in level, depending on inflows from other states and from Mexico. Water quality varies depending on which area of the Rio Grande watershed the inflow originates.

Community Participation

You are invited to participate in our public forum and voice your concerns about your drinking water. We meet the second Monday of each month, beginning at 6 p.m., at the East Rio Hondo Water Supply Corporation (ERHWSC) Main Office, 206 Industrial Parkway, Rio Hondo, Texas.

Lead in Home Plumbing

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. ERHWSC is responsible for providing high-quality drinking water but cannot 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 you can take to minimize exposure is available from the Safe Drinking Water Hotline or at www.epa.gov/safewater/lead.

About Our Violation

Violation Type: Arroyo City; Monthly MCL (TCR Beginning: 09/01/2011, Ending: 09/30/2011)

Steps to correct violation: Issued public notice and performed repeat sampling as required until all samples tested were negative for any and all coliforms. We increased routine sampling for September and October of 2011 and accessed and upgraded both the designated sample sites and our sampling procedures per the TCEQ Recommended Coliform Sample Collection Procedures.

Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, bacteria may be present. Coliforms were found in more samples than allowed, and this was a warning of potential problems.

QUESTIONS?

For more information about this report, or for any questions relating to your drinking water, please call Elizabeth White at (956) 748-3633.

Sampling Results

During the past year, we have taken hundreds of water samples in order to determine the presence of any radioactive, biological, inorganic, volatile organic, or synthetic organic contaminants. The table below shows only those contaminants that were detected in the water. The state requires us to monitor for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	East Rio Hondo Water Supply Corporation		Harlingen Water Works System		VIOLATION	TYPICAL SOURCE
				AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH		
Antimony (ppb)	2011	6	6	0.603	0.603–0.603	NA	NA	No	Discharge from petroleum refineries; Fire retardants; Ceramics; Electronics; Solder
Arsenic (ppb)	2011	10	0	0.70	0.70–0.70	NA	NA	No	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium (ppm)	2011	2	2	0.11	0.11–0.11	NA	NA	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Beta/Photon Emitters ¹ (pCi/L)	2009	50	0	6.4	6.4–6.4	NA	NA	No	Decay of natural and man-made deposits
Chloramines ^{2,3} (ppm)	2011	[4]	[4]	3.44	0.50–5.5	NA	NA	No	Water additive used to control microbes
Chlorine (ppm)	2011	[4]	[4]	3.20	0.90–3.20	NA	NA	No	Water additive used to control microbes
Chlorine Dioxide (ppb)	2011	[800]	[800]	12	ND–12	NA	NA	No	Water additive used to control microbes
Chlorite (ppm)	2011	1	0.8	0.99	0.03–0.99	NA	NA	No	By-product of drinking water disinfection
Chromium (ppb)	2011	100	100	1.28	1.28–1.28	NA	NA	No	Discharge from steel and pulp mills; Erosion of natural deposits
Fluoride (ppm)	2011	4	4	0.27	0.27–0.27	0.32	0.32–0.32	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Haloacetic Acids [HAA] (ppb)	2011	60	NA	23.9	14.7–23.9	NA	NA	No	By-product of drinking water disinfection
Nitrate (ppm)	2011	10	10	0.21	0.21–0.21	0.17	0.16–0.18	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Selenium (ppb)	2011	50	50	NA	NA	NA	NA	No	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines
TTHMs [Total Trihalomethanes] (ppb)	2011	80	NA	46.3	29.3–46.3	NA	NA	No	By-product of drinking water disinfection
Total Coliform Bacteria (# positive samples)	2011	More than 1 positive monthly sample	0	0	NA	NA	NA	Yes	Naturally present in the environment
Total Organic Carbon (ppm)	2011	TT	NA	2.25	0.86–2.25	NA	NA	No	Naturally present in the environment
Turbidity ⁴ (NTU)	2011	TT = 1 NTU	NA	0.29	0.01–0.29	0.3	ND–0.3	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	2011	TT = 95% of samples < 0.3 NTU	NA	100	NA	100	NA	No	Soil runoff

REGULATED SUBSTANCES

				Arroyo City Water Treatment Plant		North Cameron Regional Water Supply Corporation			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Antimony (ppb)	2011	6	6	0.529	0.529–0.529	0.195	0.195–0.195	No	Discharge from petroleum refineries; Fire retardants; Ceramics; Electronics; Solder
Arsenic (ppb)	2011	10	0	2.06	2.06–2.06	4.57	4.57–4.57	No	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium (ppm)	2011	2	2	0.125	0.125–0.125	0.00212	0.00212–0.00212	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Beta/Photon Emitters ¹ (pCi/L)	2009	50	0	8.6	8.6–8.6	NA	NA	No	Decay of natural and man-made deposits
Chloramines ^{2,3} (ppm)	2011	[4]	[4]	3.85	0.60–3.90	2.5	0.5–2.5	No	Water additive used to control microbes
Chlorine (ppm)	2011	[4]	[4]	0.60	0.60–3.80	0.50	0.50–2.50	No	Water additive used to control microbes
Chlorine Dioxide (ppb)	2011	[800]	[800]	NA	NA	NA	NA	No	Water additive used to control microbes
Chlorite (ppm)	2011	1	0.8	NA	NA	NA	NA	No	By-product of drinking water disinfection
Chromium (ppb)	2011	100	100	NA	NA	NA	NA	No	Discharge from steel and pulp mills; Erosion of natural deposits
Fluoride (ppm)	2011	4	4	0.58	0.58–0.58	0.15	0.15–0.15	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Haloacetic Acids [HAA] (ppb)	2011	60	NA	26.9	26.9–26.9	NA	NA	No	By-product of drinking water disinfection
Nitrate (ppm)	2011	10	10	2.82	2.82–2.82	0.07	0.07–0.07	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Selenium (ppb)	2011	50	50	7.31	7.31–7.31	1.67	1.67–1.67	No	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines
TTHMs [Total Trihalomethanes] (ppb)	2011	80	NA	35.3	35.3–35.3	NA	NA	No	By-product of drinking water disinfection
Total Coliform Bacteria (# positive samples)	2011	More than 1 positive monthly sample	0	2	NA	0	NA	Yes	Naturally present in the environment
Total Organic Carbon (ppm)	2011	TT	NA	1.78	1.19–1.78	NA	NA	No	Naturally present in the environment
Turbidity ⁴ (NTU)	2011	TT = 1 NTU	NA	0.38	0.01–0.38	NA	NA	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	2011	TT = 95% of samples < 0.3 NTU	NA	99.1	NA	NA	NA	No	Soil runoff

Tap water samples were collected for lead and copper analyses from sample sites throughout the community

				East Rio Hondo Water Supply Corporation		Arroyo City Water Treatment Plant			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	MCLG	AMOUNT DETECTED (90TH%TILE)	SITES ABOVE AL/ TOTAL SITES	AMOUNT DETECTED (90TH%TILE)	SITES ABOVE AL/ TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2010	1.3	1.3	0.088	0/30	0.083 ⁵	0/10 ⁵	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	2010	15	0	0.98	0/30	2 ⁵	0/10 ⁵	No	Corrosion of household plumbing systems; Erosion of natural deposits

SECONDARY SUBSTANCES

				East Rio Hondo Water Supply Corporation		Harlingen Water Works System				
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	MCLG	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE	
Aluminum (ppb)	2011	200	NA	60	60–60	NA	NA	No	Erosion of natural deposits; Residual from some surface water treatment processes	
Chloride (ppm)	2011	300	NA	152	152–152	150	150–150	No	Runoff/leaching from natural deposits	
Iron (ppb)	2011	300	NA	70	70–70	NA	NA	No	Leaching from natural deposits; Industrial wastes	
Manganese (ppb)	2011	50	NA	1.69	1.69–1.69	NA	NA	No	Leaching from natural deposits	
pH (Units)	2011	6.5–8.5	NA	7.9	7.9–7.9	7.5	7.5–7.5	No	Naturally occurring	
Silver (ppb)	2011	100	NA	0.013	0.013–0.013	NA	NA	No	Industrial discharges	
Sulfate (ppm)	2011	300	NA	294	294–294	244	244–244	No	Runoff/leaching from natural deposits; Industrial wastes	
Total Dissolved Solids [TDS] (ppm)	2011	1,000	NA	797	797–797	707	696–707	No	Runoff/leaching from natural deposits	
Zinc (ppm)	2011	5	NA	0.01	0.01–0.01	NA	NA	No	Runoff/leaching from natural deposits; Industrial wastes	
				Arroyo City Water Treatment Plant		North Cameron Regional Water Supply Corporation				
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	MCLG	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE	
Aluminum (ppb)	2011	200	NA	127	127–127	2.04	2.04–2.04	No	Erosion of natural deposits; Residual from some surface water treatment processes	
Chloride (ppm)	2011	300	NA	238	238–238	267	267–267	No	Runoff/leaching from natural deposits	
Iron (ppb)	2011	300	NA	NA	NA	NA	NA	No	Leaching from natural deposits; Industrial wastes	
Manganese (ppb)	2011	50	NA	10.2	10.2–10.2	6.15	6.15–6.15	No	Leaching from natural deposits	
pH (Units)	2011	6.5–8.5	NA	7.2	7.2–7.2	8.5	8.5–8.5	No	Naturally occurring	
Silver (ppb)	2011	100	NA	NA	NA	NA	NA	No	Industrial discharges	
Sulfate (ppm)	2011	300	NA	257	257–257	142	142–142	No	Runoff/leaching from natural deposits; Industrial wastes	
Total Dissolved Solids [TDS] (ppm)	2011	1,000	NA	773	773–773	647	647–647	No	Runoff/leaching from natural deposits	
Zinc (ppm)	2011	5	NA	0.00506	0.00506–0.00506	0.0149	0.0149–0.0149	No	Runoff/leaching from natural deposits; Industrial wastes	

UNREGULATED AND OTHER SUBSTANCES ⁶

		East Rio Hondo Water Supply Corporation		Harlingen Water Works System		Arroyo City Water Treatment Plant		North Cameron Regional Water Supply Corporation		
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Bromodichloromethane (ppb)	2011	10.4	7.8–10.4	NA	NA	11.3	11.3–11.3	NA	NA	By-product of drinking water disinfection
Bromoform (ppb)	2011	17.4	7.4–17.4	NA	NA	5.8	5.8–5.8	NA	NA	By-product of drinking water disinfection
Chloroform (ppb)	2011	3.9	2.9–3.9	NA	NA	9.4	9.4–9.4	NA	NA	By-product of drinking water disinfection
Dibromochloromethane (ppb)	2011	17.1	10.2–17.1	NA	NA	8.8	8.8–8.8	NA	NA	By-product of drinking water disinfection
Hardness (ppm)	2011	345	345–345	NA	NA	284	284–284	117	117–117	Naturally occurring soluble mineral salts
Sodium (ppm)	2011	127	127–127	NA	NA	136	136–136	189	189–189	Runoff/leaching from natural deposits
Total Alkalinity (ppm)	2011	124	124–124	111	108–114	63	63–63	64	64–64	Naturally occurring soluble mineral salts

¹The MCL for beta particles is 4 mrem/year. The U.S. EPA considers 50 pCi/L to be the level of concern for beta particles.

²East Rio Hondo Water Supply Corporation: The MRDL/MRDLG of 4.0 ppm is based on a running annual average. After analyzing over 500 samples that include a wide range of locations representing the vast area of East Rio Hondo WSC's distribution coverage, our running annual average of Chloramine residual was 3.38 ppm in 2011.

³North Cameron Regional Water Supply Corporation: Free Chlorine was being used as a disinfectant from October 27, 2011, to November 21, 2011. Minimum Cl₂ is 0.2 ppm of Free Chlorine.

⁴Turbidity is a measure of the cloudiness of the water. It is monitored because it is a good indicator of the effectiveness of the filtration system.

⁵Sampled in 2009.

⁶Unregulated contaminants are those for which the EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist the EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.

Definitions

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

MCL (Maximum Contaminant Level): 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.

MCLG (Maximum Contaminant Level Goal): 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.

MRDL (Maximum Residual Disinfectant Level): 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.

MRDLG (Maximum Residual Disinfectant Level Goal): 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.

NA: Not applicable.

ND (Not detected): Indicates that the substance was not found by laboratory analysis.

NTU (Nephelometric Turbidity Units): Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

pCi/L (picocuries per liter): A measure of radioactivity.

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).

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