# *City of Mesquite*
# *2013 Annual Water Quality Report*
**(Consumer Confidence Report)**

MESQUITE TEXAS Real. Texas. Service.

**Our drinking water is regulated**
In 1996, the United States Congress amended the Safe Drinking Water Act to require all water suppliers to distribute a Consumer Confidence Report to every water customer in the system. The City of Mesquite strives to provide high quality drinking water that is both safe and reliable and is proud to provide the following report to our customers. The City of Mesquite water system maintains a "superior" water system rating with the Texas Commission on Environmental Quality (TCEQ).

**Water sources**
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 before treatment include: microbes, inorganic contaminants, pesticides, herbicides, radioactive contaminants, and organic chemical contaminants.

**Where do we get our drinking water?**
Mesquite is a member of the North Texas Municipal Water District (NTMWD) which supplies water to over 35 cities across North Texas. The primary source for Mesquite's water is SURFACE water delivered from Lavon Lake and is supplemented by water from Lake Texoma (currently offline due to the invasive species infestation of the zebra mussel), Jim Chapman Lake, Lake Tawakoni and the East Fork Raw Water Supply Project (Wetland). Mesquite's water is treated at the NTMWD facility in Wylie, Texas and is delivered to customers through the city's distribution system. The NTMWD conducts daily tests on both the raw water in Lavon Lake and the treated water delivered to the City of Mesquite. A Source Water Susceptibility Assessment is currently being updated by the Texas Commission on Environmental Quality (TCEQ). This information describes the susceptibility and types of constituents that may come into contact with your drinking water source based on human activities and natural conditions. Some of this source water assessment information is available on the Texas Drinking Water Watch at dww.tceq.state.tx.us/DWW/. For more information about source water assessments and protection efforts at our system please contact us at 972-216-6278 or contact the North Texas Municipal Water District.

**Special Notice for people with weakened immune systems**
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; people with HIV/AIDs or other immune system disorders can be particularly at risk for infections. You should seek advice about drinking water from your 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.

**All drinking water may contain contaminants**
When drinking water meets federal standards there may not be any health based benefits to purchasing bottled water or point of use devices. 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 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. For more information on taste and odor or color of drinking water, please call 972-216-6278.

**Disinfection Byproducts Extension**
The City of Mesquite has been granted a two-year extension by the Texas Commission on Environmental Quality (TCEQ) to the Stage 2 Disinfection Byproducts Rule (DBP2) in accordance with 30 TAC 290.115 (a)(2) because it buys its water from the North Texas Municipal Water District (NTMWD). This extension is warranted because the NTMWD is making extensive and complex capital improvements to the Wylie Water Treatment Plant to facilitate compliance with the rule. The NTMWD and its customers have demonstrated a need for the extension by having one or more locations where high DMP results were evident or possible during drought conditions. The extension is valid from April 1, 2012 to March 30, 2014. During this period, compliance monitoring will continue under the Stage 1 Disinfection Byproduct Rule. Compliance monitoring for DBP2 will begin on April 1, 2014.

**Issued by the City of Mesquite—June 2014**
**www.cityofmesquite.com/utilities**
**PWS No. 0570014**

| Contaminant | Collection Date | Violation | Range of Levels | Highest Level Detected | MCL | MCLG | Unit of Measure | Possible Source |
|---|---|---|---|---|---|---|---|---|
| **INORGANIC CONTAMINANTS** | | | | | | | | |
| Antimony | 2013 | No | 0-0 | Not detected | 6 | 6 | ppb | Discharge from petroleum refineries, fire retardants, etc |
| Arsenic | 2013 | No | 0.00-1.21 | 1.21 | 10 | 0 | ppb | Erosion of natural deposits, etc |
| Barium | 2013 | No | .04-.04 | 0.04 | 2 | 2 | ppm | Erosion of natural deposits, etc |
| Chromium | 2013 | No | 0.00-0.96 | 0.96 | 100 | 100 | ppb | Discharge for steel and pulp mills; erosion of natural deposits |
| Fluoride | 2013 | No | 0.36-0.76 | 0.76 | 4 | 4 | ppm | Water additive promoting strong teeth |
| Nitrate | 2013 | No | 0.56-0.8 | 0.8 | 10 | 10 | ppm | Runoff from fertilizer |
| Beta/proton emitters | 2010 | No | 4.4-4.4 | 4.4 | 50 | 0 | pCi/L | Decay of natural & manmade deposits |
| Gross alpha | 2010 | No | 0-0 | Not detected | 15 | 0 | pCi/L | Erosion of natural deposits |
| **ORGANIC CONTAMINANTS** | | | | | | | | |
| Atrazine | 2013 | No | 0.36-0.4 | 0.4 | 3 | 3 | ppb | Runoff from herbicides |
| Simazine | 2013 | No | 0.18-0.18 | 0.18 | 4 | 4 | ppb | Runoff from herbicides |
| **DISINFECTION BYPRODUCTS** | | | | | | | | |
| Total Haloacetic Acids | 2013 | No | 14.9-19.4 | 19.4 | 60 | NA | ppb | Byproduct of drinking water disinfectant |
| Total Trihalomethanes | 2013 | No | 25.6-42.4 | 42.4 | 80 | NA | ppb | Byproduct of drinking water disinfectant |

**MAXIMUM RESIDUAL DISINFECTANT LEVEL**

| Disinfectant Type | Year | Average Level | Minimum Level | Maximum Level | MRDL | MRDLG | Units | Source of Chemical |
|---|---|---|---|---|---|---|---|---|
| Chloramines | 2013 | 2.58 | 0.95 | 3.7 | 4 | <4.0 | ppm | Disinfectant residual |
| Chlorine Dioxide | 2013 | <0.10 | 0 | 0.12 | 0.8 | 0.8 | ppm | Disinfectant |
| Chlorite | 2013 | 0.47 | 0.09 | 0.85 | 1.0 | NA | ppm | Disinfectant |

The contaminants below are disinfection byproducts. There is no maximum contaminant level for these chemicals at the entry point to distribution.

**UNREGULATED CONTAMINANTS**

| Contaminant | Date | Range of Levels Detected | Highest Level Detected | Units | Likely source |
|---|---|---|---|---|---|
| Chloroform | 2013 | 8.86-16.3 | 16.3 | ppb | Byproduct of drinking water disinfectant |
| Bromoform | 2013 | <1.0-1.53 | 1.53 | ppb | Byproduct of drinking water disinfectant |
| Bromodichloromethane | 2013 | 10.1-14.8 | 14.8 | ppb | Byproduct of drinking water disinfectant |
| Dibromochloromethane | 2013 | 6.61-9.70 | 9.70 | ppb | Byproduct of drinking water disinfectant |

**LEAD AND COPPER**

| Contaminant | Date | Violation | Action Level (AL) | # Sites Over AL | MCLG | 90th Percentile | Units | Likely source |
|---|---|---|---|---|---|---|---|---|
| Lead | 2013 | No | 15 | 3 | 0 | 1.71 | ppb | Corrosion of customer plumbing |
| Copper | 2013 | No | 1.3 | 1 | 1.3 | 0.47 | ppm | Corrosion of customer 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. This water supply 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 http:www.epa.gov/safewater/lead.

| UNREGULATED CONTAMINANT MONITORING RULE 2 (UCMR2) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| N-nitrosodimethlyamine (NDMA) | 2009 | No | 0-0.0023 | 0.0023 | NA | NA | ppb | Byproduct of manufacturing process |

NOTE: Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted. Any unregulated contaminants detected are reported in this report. For additional information and data visit http://www.epa.gov/safewater/ucmr/ucmr2/index.html, or call the Safe Drinking Water Hotline at (800) 426-4791.

| TURBIDITY | | | | |
|---|---|---|---|---|
| Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches. | | | | |
| | **Limit (Treatment Technique)** | **Level Detected** | **Violation** | **Possible Source** |
| **Highest single measurement** | 1 NTU | 0.82 NTU | No | Soil runoff |
| **Lowest monthly % meeting limit** | 0.3 NTU | 95.60% | No | Soil runoff |

| TOTAL ORGANIC CARBON | | | | | |
|---|---|---|---|---|---|
| **Year** | **Contaminant** | **Range of Levels** | **Highest Level** | **Unit of Measure** | **Source of Contaminant** |
| 2013 | Source Water | 4.59-5.61 | 5.61 | ppm | Naturally present in the environment. |
| 2013 | Drinking Water | 3.16-4.12 | 4.12 | ppm | Naturally present in the environment. |
| 2013 | Removal Ratio | 19%-37.9% | 37.9% | %removal* | N/A |
| * Removal ratio is the percent of TOC removed by the treatment process divided by the percent of TOC required by TCEQ to be removed. NOTE: Total organic carbon (TOC) has no health effects. The disinfectant can combine with TOC to form disinfection byproducts. Disinfection is necessary to ensure that water does not have unacceptable levels of pathogens. Byproducts of disinfection include trihalomethanes and haloacetic acids which are reported elsewhere in this report. | | | | | |

| TOTAL COLIFORM BACTERIA | | | | | |
|---|---|---|---|---|---|
| Total coliform bacteria are used as indicators of microbial contamination of drinking water because testing for them is easy. While not disease-causing organisms themselves, they are often found in association with other microbes that are capable of causing disease. Coliform bacteria are more hardy than many disease-causing organisms; therefore, their absence from water is a good indication that the water is microbiologically safe for human consumption. | | | | | |
| **Year or Range** | **Contaminant** | **Highest Number of Positive Samples** | **Violation** | **Total # of positive E Coli or Fecal Coliform samples** | **Possible Source** |
| 2013 | Total Coliform Bacteria | 0 | No | 0 | Naturally present in the environment |
| Reported monthly tests found no fecal coliform bacteria. | | | | | |

| SECONDARY AND OTHER CONSTITUENTS NOR REGULATED (No associated adverse health effects) | | | | | |
|---|---|---|---|---|---|
| **Year or Range** | **Contaminant** | **Highest Level Detected** | **Range of Levels** | **Unit of Measure** | **Possible Source** |
| 2013 | Calcium | 53.2 | 50.3-53.2 | ppm | Abundant naturally occurring element |
| 2013 | Magnesium | 4.07 | 3.99-4.07 | ppm | Abundant naturally occurring element. |
| 2013 | Manganese | 0.006 | 0.0011-0.006 | ppm | Abundant naturally occurring element. |
| 2013 | Sodium | 44.4 | 34.6-44.4 | ppm | Erosion of natural deposits; byproduct of oil field activity. |
| 2013 | Sulfate | 94 | 85.3-94 | ppm | Naturally occurring; common industrial byproduct; byproduct of oil field activity. |
| 2013 | Total Alkalinity as CaCO3 | 149 | 82-149 | ppm | Naturally occurring soluble mineral salts. |
| 2013 | Total hardness as CaCO3 | 146 | 142-146 | ppm | Naturally occurring calcium |

**These tables list the contaminants detected in the drinking water during calendar year 2013. The water quality surpasses standards for each contaminant as required by law. Below are definitions for abbreviations:**

**Maximum Contaminant Level (MCL)** The highest permissible level of a contaminant in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
**Maximum Contaminant Level Goal (MCLG) T**he 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 Residual Disinfectant Level (MRDL)** The highest level of 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 contamination.
**Treatment Technique** A required process intended to reduce the level of a contaminant in drinking water.
**Action Level** The concentration of a contaminant which, if exceeded, triggers treatment or other requirement a water system must follow
**NTU -** Nephelometric Turbidity Units
**MFL -** million fibers per liter (a measure of asbestos)
**ppm -** parts per million, or milligrams per liter (mg/L)
**ppb -** parts per billion, or micrograms per liter (ug/L)
**pCi/l -** picocuries per liter (measure of radioactivity)
**ppt -** parts per trillion
**ppq -** parts per quadrillion
**mrem/year -** millirems per year (measure of radiation absorbed by the body)
**ND** – None detectable.

# Why do we have water restrictions?

- Lake Texoma, which typically provides 28% of the raw water for the North Texas Municipal Water District, remains off-line due to the infestation of zebra mussels. Although the District has constructed a pipeline from Lake Texoma to the water treatment facility in Wylie, it will be an ongoing process to restore the full Texoma supply.
- As long as drought conditions persist and lake levels remain critically low, water restrictions will help insure adequate water supply for the City of Mesquite and all member and customer cities.

**Continuation of Stage 3 water management strategies are necessary to extend available supplies and will remain in effect until further public notice.**

For a complete listing of restrictions or to find out how to reduce indoor and outdoor water use:

**www.cityofmesquite.com/utilities**
or
**stage3@cityofmesquite.com**

**Stage 3 Hotline: 972-329-8533**

**Future changes will be posted on the City of Mesquite website. These restrictions will be enforced and citations issued for non-compliance.**

**Water your plants deeply, but less frequently,** to encourage deep root growth & drought tolerance.

**Check outdoor faucets,** sprinklers and hoses for leaks periodically.

**Did You Know That Runoff And Debris Collected In Storm Drains Goes Straight To Our Lakes And Waterways?**

Do your part to keep our waterways clean and never sweep, blow, or dump anything down storm drains. Our local streams, ponds, and lakes provide drinking water, recreation, a habitat for local wildlife, and more. It also violates City Ordinance to allow any pollutants to enter the storm drainage system.

**Public Participation Opportunities**

The Mesquite Utilities Division is a part of the City of Mesquite and is governed by the Mesquite City Council. The Council meets the first and third Mondays of the month at 757 N. Galloway Avenue. Questions or concerns about this report or water quality: 972-216-6278. Questions about your water bill: 972- 216-6208. This report was mailed to all Mesquite water customers. Copies are available on the City website at www.cityofmesquite.com/utilities. If you know someone who did not receive a copy of this report or you would like additional copies, please contact us at 972-216-6278 or at City of Mesquite Water Utilities, P.O. Box 850137, Mesquite, TX, 75185-0137.

***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 teléfono 972-216-6278. Para obtener una copia de este reporte en español favor visite: www.cityofmesquite.com/utilities