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MISSION STATEMENT

McAllen Public Utility is dedicated to providing clean, safe drinking water for many generations to come. We are committed to consistently providing quality services and quality of life to all who live, work and visit the city of McAllen. We are working hard to educate the public on the issues surrounding water use and conservation.
I am pleased at the opportunity to briefly communicate our passion here at McAllen Public Utility for providing safe, affordable, high quality drinking water to all our McAllen residents and rate payers alike. We stand by our product, our people and our water and waste water infrastructure. My hope is that all may enjoy the benefits of our staff's outstanding commitment to servicing customers, our system's impeccable reliability that residents have grown accustomed to and our product that is vital to a vibrant, growing community. Quality of life is comprised of several amenities, none of which are as important as good, safe, quality water. May we never take it for granted.

Sincerely,  

Marco A. Vega, P. E.  
General Manager.
McAllen Public Utility has been designated by the Texas Commission on Environmental Quality (TCEQ) a Superior Public Water System in view of the high standards of water service made available to the residents of McAllen. For over 25 years we have been recognized as a Public Water Supply System which achieves and maintains recognition who exceed the minimum acceptable standards of the TCEQ.
The Administration Department is responsible for the management and oversight of the general operation of the Utility, and bond projects under direction of the McAllen Public Utility Board. This department handles matters such as administration of water and sewer, and the preparation of materials for the McAllen Public Utility Board meetings. Essentially, the department handles all the administrative tasks necessary to keep McAllen Public utility running in an efficient manner.

The Utility Engineering Department, also known as Sewer Administration, of the McAllen Public Utility provides technical planning, oversight and inspection of water and wastewater infrastructure projects and also supports the Utility’s operations staff, who operates the treatment plants and pipeline systems. To ensure our systems develop according to a high standard and an overall, long-term plan, we guide the consultants and developers who design most of our new treatment facilities, pipelines and pump stations. Our engineering staff also produces designs in-house for some of the smaller-scale infrastructure projects. Once a design is approved, we inspect the construction work, making sure it is built according to design.

Charged with performing financial, investment, procurement accounting and treasury functions, the Treasury Management Department’s mission is to develop and implement a comprehensive and systematic approach to financial planning that guides McAllen Public Utility in its efforts to provide the best and most economical water and sewer services to present and future customers.
The Customer Relations Department serves as the primary point of contact for citizens wishing to connect or disconnect water, sewer and sanitation services and for payment of those services. You may visit the Customer Relations Department for any of the following: inquire on your account, connect and disconnect services, request to have meter reread or tested, initiate Public Works services, assistance with online account. You may also update your customer information such as phone numbers, email, mailing address, or authorized personnel.

The Billing staff imports the meter readings to our billing software, where certain type of reports are generated. They are responsible for reviewing and verifying these reports, which contains the customer’s consumption information for their respective account and location. These exceptions include, but are not limited to the following: consumption too high, consumption too low, and zero consumption. If a discrepancy exists on a customer's account, the billing staff will submit a “billing recheck.” These billing rechecks (also known as service orders) are used for the verification of meter readings, and to make sure that the meter is working properly. When the billing rechecks have been completed, the billing clerks will review the information, and then proceed with billing the accounts.

The Meter Reader Department is divided into two groups, meter readers and meter technicians. Meter Readers

Their primary function is to read all the water meters within the City of McAllen. The readers capture the readings in a handheld computer that alerts them when the readings are above or below set parameters and prompts them to recheck and re-enter the readings and to make other observations about the location on the spot. On a scheduled basis meter readers also clean the inside and outside of the meter box. However, the glass on the register is cleaned at the time the meter is read.
In 2009 and with a dynamic population of 154,500 people, the 3 McAllen Water Treatment Plants must now meet a minimum daily production capacity of 44.5 million gallons of water. With the addition of a new 1.4MGD groundwater well, current system capacities are 59.6 Million gallons of treated water per day and growing.

The McAllen Central Water Laboratory’s responsibility is to assure the water plants product water provided to the citizens of McAllen is potable and 100% safe for consumption. In doing this, the lab performs on average 96,000 chemical and microbiological analyses annually. From providing water system analytical support to problem solving water quality concerns for our citizens, the water laboratory is on alert 7 days a week.

In 2009 and with a dynamic population of 154,500 people, the 3 McAllen Water Treatment Plants must now meet a minimum daily production capacity of 44.5 million gallons of water. With the addition of a new 1.4MGD groundwater well, current system capacities are 59.6 Million gallons of treated water per day and growing.
The Wastewater Treatment Plants operates under a permit which has been established to control pollutant discharges. The permit is designed to regulate the manner, nature, volume and frequency for discharging from a particular source. The permit establishes specific limits on standards for discharging according to the rules and regulations of the State of Texas, orders of the Texas Commission on Environmental Quality and according to the Environmental Protection Agency. This permit also insures that the limits and standards established are met through proper enforcement such as annual plant inspections, bio-monitoring, and compliance monitoring.

The South Wastewater Treatment Plant has a design capacity of 10 Million Gallons per Day and is located on the South side of McAllen at 4100 Idela Ave. The South Wastewater Treatment Plant provides about 240 million gallons of reclaimed treated effluent yearly to the McAllen Palm View Golf Course for irrigation.

In 1987 The North Wastewater Treatment Plant was constructed with the capacity of treating 4 Million Gallons per Day (MGD) Max Flow and subsequently Upgraded an additional 2 MGD in 1997 to treat 6 Million Gallons per Day (MGD) Max Treatment Capacity and again in 2005 was upgraded an additional (2 MGD) to a design capacity of 8 MGD Max treatment Capacity. In 2012 started a brand new Treatment Facility capable of treating 15 MGD Max Flow

The Wastewater Collection Department goal is to insure uninterrupted flow of wastewater in order to protect the city’s populace from water borne disease exposure and toxic contamination. The department consist of 23 employees who take pride in their job. They use their skills, State issued license and equipment to maintain and repair sewer lines, lift stations and manholes to prevent any backups or sanitary sewer overflows.

The Department provides maintenance, installation and replacement of the sewer collection system including proactive preventative line cleaning, root control, odor control and video inspection of the collection system. When crews are not repairing sewer lines, they are routinely flushing and unclogging them of debris such as rags, grease or any obstruction that prevent sewer from reaching its destination. The division maintains 54 sanitary sewer lift stations throughout the City of McAllen and City of Alton that distribute the sewage to the wastewater treatment plants for treatment. Wastewater Collection also installs minor line extensions.
The McAllen Public Utility (MPU) is governed by the McAllen Public Utility Board (MPUB), which is an elected board. The Board of Trustees of the McAllen Public Utility was created February 2, 1945 to oversee all aspects of water and wastewater for the City of McAllen. The Board consists of four members elected at large by place, in a citywide election for four-year terms and one ex-officio member appointed by the Mayor.

The MPUB meet on the second and fourth Tuesdays of the month, convening at 4:00 PM at the City Commissions Chambers on the 3rd floor at City Hall, 1300 Houston Ave, McAllen, Texas. These meetings are also broadcast live and recorded for viewing on MCN 12, which is also available for viewing at www.mcallenpublicutility.com.
Our drinking water is regulated. This report is a summary of the quality of the water we provide to our customers. The analysis was made using the data from the most recent U.S. Environmental Protection Agency required tests and is presented in the attached pages. We hope this information helps you become more knowledgeable about your drinking water supply.
SPECIAL NOTICE
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.

EN ESPAÑOL
Este informe incluye información importante sobre el agua potable. Si tiene preguntas o comentarios sobre éste informe en español, favor de llamar al teléfono (956)681-1700 para hablar con una persona bilingüe en español.
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, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, which can be naturally occurring 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 byproducts 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?
The sources of drinking water used by McAllen Public Utility are Surface Water and Ground Water. A Source Water Susceptibility Assessment for your drinking water source is currently being updated by the Texas Commission on Environmental Quality. 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. The information contained in the assessment allows us to focus source water protection strategies. Some of this source water assessment information is available on Texas Drinking Water Watch at http://dww.tceq.state.tx.us/DWW For more information on source water assessments and protection efforts at our system, please contact us.

MPU receives water from the Falcon and Amistad Dams, located in Starr and Val Verde Counties, respectively.
Falcon Dam and Reservoir. This international dam creates a reservoir of some 3,978,416 acre-feet for flood control, conservation and hydroelectric generation as well as recreational uses. The international boundary crosses the center of the dam.

AMISTAD DAM looking from the United States. This international dam creates a reservoir of some 5,250,000 acre-feet for flood control, conservation, hydroelectric generation as well as recreational uses. The international boundary crosses the center of the dam.
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 a faucet filtration system). 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 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 1-800-426-4791.

The TCEQ 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 detections of these contaminants may be found in this Consumer Confidence Report. For more information on source water assessments and protection efforts at our system, contact Jose Solis, Water Systems Director, at (956)681-1700.
SECONDARY CONSTITUENTS
Many constituents such as calcium, sodium, or iron, which are often found in drinking water, can cause taste, color, or 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.

REQUIRED ADDITIONAL HEALTH INFORMATION FOR 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. 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.epagov/safewater/lead.
WATER TREATMENT PROCESS
Our water is transferred from the Rio Grande River by the Irrigation districts into our reservoirs. A reservoir is an artificial lake used to store water. Here in the City of McAllen we have three reservoirs.

Boeye Reservoir was established in 1958. This reservoir can hold up to 180 million gallons.

The North Water Plant Reservoir was established in 2004 and can hold 200 million gallons.

The new Boeye Reservoir was established in 2011 and can hold up to 300 million gallons.
**Disinfection**
Disinfection is the first step in the water treatment process. In this step we will combine chlorine and sodium chlorite to generate chlorine dioxide. It is then injected into our raw water line where it will kill harmful bacteria.

**Flocculation**
Coagulant is introduced to raw water and mixed rapidly to create a floc. Water will flow through decreasingly slower mixers allowing floc to conglomerate.

**Secondary Disinfection**
A second disinfection process occurs by utilizing chlorine and ammonia to form Chlorinates. This secondary disinfection process ensures that disinfection is carried out to the distribution systems.
Sedimentation
After the flocculation process, water flows into a sedimentation basin. This basin allows the flocculated water to settle. A detention time of at least 6 hours is required to allow the floc to settle. The settled floc called sludge is then collected with a rake system to the center of the basin. The sludge is then disposed of to the lagoons then dewatered and hauled to sanitary landfills.

Filtration
Filtration is the final step in removing suspended matter and chlorine resistant microorganisms such as Giardia and Cryptosporidium. These filters consist of anthracite coal, and two types of sand which are coarse and fine and various sizes of gravel, which are layered on top of an under drain system.

Pumping and Storage.
After the treatment process, the water is sent to storage dorms which can hold up to 2 million gallons each. From there, we have several pumps that push up to 30 million gallons in the system, including the water towers. These water towers store up to 2.25 million gallons of water.
WATER TESTING PROCESS

As the personnel in charge of producing this water, a licensed individual is responsible for maintaining each of the chemical levels, disinfectants, turbidities, residuals, and pressure in the drinking water supply.

When the raw water enters the plant it is tested for turbidity, temperature, alkalinity, hardness, and pH. It will be injected with Chlorine Dioxide (NaClO₂) as a primary disinfectant and routed to the primary mixing chambers (rapid mixers).

In the primary mixing chambers it will be treated with a Liquid Aluminum Sulfate/Polymer blend and sent to the secondary mixers (flocculators) which will allow the particulates in the water to conglomerate and settle out in the settling chambers (clarifiers).

Upon entering the settling chambers it is injected with Chlorine and Liquid Ammonia Sulfate and allowed to settle for a minimum of 2 hours. All settled sludge will be removed via drains in the bottom of the chambers.

After leaving the settling chambers it will be directed to the filters where it will be filtered and sent to the clearwell for pumping into the distribution system or transferred to the ground storage tanks by the transfer pumps.
Samples are collected at various points throughout the treatment process to provide necessary readings to the TCEQ on the Monthly Operating Reports and for plant quality control purposes.
The following diagram shows details and explanations on a sample water quality result for MPU.
List of regulated, monitored, inorganic, radioactive, semivolatiles, volatile and organic compounds.

<table>
<thead>
<tr>
<th>Constituent</th>
<th>Collection Date</th>
<th>Highest Level Detected</th>
<th>Range of Levels Detected</th>
<th>MCLG</th>
<th>MCL</th>
<th>Units</th>
<th>Violation</th>
<th>Likely Source of Contamination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disinfectants and Disinfection byproducts</td>
<td>4/25/2016</td>
<td>40</td>
<td>&lt;10 - 40</td>
<td>N/A</td>
<td>50</td>
<td>ppb</td>
<td>No</td>
<td>By product of drinking water chlorination.</td>
</tr>
</tbody>
</table>

- **The concentration of the contaminant detected.**
- **The lowest amount of a contaminant TCEQ or EPA allows in drinking water.**
- **Standard measurement of a contaminant.**
- **How a contaminant ends up in the drinking water.**
- **The date in which the tests were conducted.**
- **The amount from lowest to highest of a contaminant detected in the drinking water.**
- **The highest amount of a contaminant TCEQ or EPA allows in drinking water.**
- **Whether or not there was a violation by TCEQ or EPA standards.**
## WATER QUALITY RESULTS

### Coliform Bacteria

<table>
<thead>
<tr>
<th>Maximum Contaminant Level Goal</th>
<th>Highest number of positives</th>
<th>Total number of positive Total coliform samples</th>
<th>Total number of positive Fecal coliform samples</th>
<th>Total Coliform MCL</th>
<th>Violation</th>
<th>Likely Source of Contamination</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0.02</td>
<td>No</td>
<td>Present in soil, water, human and animal digestive tract</td>
</tr>
</tbody>
</table>

### Lead and Copper Rule

<table>
<thead>
<tr>
<th>Disinfectants and Disinfection byproducts</th>
<th>Collection Date</th>
<th>90th Percentile</th>
<th>Range of Levels Detected</th>
<th>MCLG</th>
<th>MCL</th>
<th>Units</th>
<th>Violation</th>
<th>Likely Source of Contamination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead</td>
<td>June-September 2015</td>
<td>0.0017</td>
<td>&lt;0.001-0.007</td>
<td>0</td>
<td>0.02</td>
<td>ppm</td>
<td>No</td>
<td>Corrosion of household plumbing systems; erosion of natural deposits</td>
</tr>
<tr>
<td>Copper</td>
<td>June-September 2015</td>
<td>0.1407</td>
<td>0.0042-0.32</td>
<td>1.3</td>
<td>1.3</td>
<td>ppm</td>
<td>No</td>
<td>Corrosion of household plumbing systems; erosion of natural deposits</td>
</tr>
</tbody>
</table>

### Turbidity

<table>
<thead>
<tr>
<th></th>
<th>Limit (Treatment Technique)</th>
<th>Level Detected</th>
<th>Violation</th>
<th>Likely Source of Contamination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highest single measurement</td>
<td>1 NTU</td>
<td>0.8 NTU</td>
<td>N</td>
<td>Soil runoff.</td>
</tr>
<tr>
<td>Lowest monthly % meeting limit</td>
<td>0.3 NTU</td>
<td>100%</td>
<td>N</td>
<td>Soil runoff.</td>
</tr>
<tr>
<td>Regulated Contaminants</td>
<td>Collection Date</td>
<td>Highest Level Detected</td>
<td>Range of Levels Detected</td>
<td>MCLG</td>
</tr>
<tr>
<td>------------------------</td>
<td>----------------</td>
<td>------------------------</td>
<td>-------------------------</td>
<td>------</td>
</tr>
<tr>
<td>Disinfectants and Disinfection By-Products</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chlorite</td>
<td>2016</td>
<td>0.83</td>
<td>0.3 - 0.83</td>
<td>0.5</td>
</tr>
<tr>
<td>Haloacetic Acids (HAA5)</td>
<td>2016</td>
<td>16</td>
<td>9.2 - 22</td>
<td>No goal for the total</td>
</tr>
<tr>
<td>Total Trihalomethanes (THM)</td>
<td>2016</td>
<td>46</td>
<td>22.1 - 68</td>
<td>No goal for the total</td>
</tr>
<tr>
<td>Inorganic Contaminants</td>
<td>Collection Date</td>
<td>Highest Level Detected</td>
<td>Range of Levels Detected</td>
<td>MCLG</td>
</tr>
<tr>
<td>Arsenic</td>
<td>2016</td>
<td>3</td>
<td>0 - 3.3</td>
<td>0</td>
</tr>
<tr>
<td>Barium</td>
<td>2016</td>
<td>0.111</td>
<td>0.0793 - 0.111</td>
<td>2</td>
</tr>
<tr>
<td>Fluoride</td>
<td>2016</td>
<td>0.5</td>
<td>0.53 - 0.54</td>
<td>4</td>
</tr>
<tr>
<td>Nitrate [measured as Nitrogen]</td>
<td>2016</td>
<td>0.09</td>
<td>0.06 - 0.09</td>
<td>10</td>
</tr>
<tr>
<td>Selenium</td>
<td>2016</td>
<td>4.6</td>
<td>0 - 4.6</td>
<td>50</td>
</tr>
<tr>
<td>Radioactive Contaminants</td>
<td>Collection Date</td>
<td>Highest Level Detected</td>
<td>Range of Levels Detected</td>
<td>MCLG</td>
</tr>
<tr>
<td>Beta/photom emitters</td>
<td>06/10/2015</td>
<td>5.3</td>
<td>5.3 - 5.3</td>
<td>0</td>
</tr>
<tr>
<td>Combined Radium 226/228</td>
<td>02/03/2012</td>
<td>2.9</td>
<td>2.9 - 2.9</td>
<td>0</td>
</tr>
<tr>
<td>Gross alpha excluding radon and uranium</td>
<td>06/10/2015</td>
<td>3.1</td>
<td>2 - 3.1</td>
<td>0</td>
</tr>
<tr>
<td>Uranium</td>
<td>06/10/2015</td>
<td>1.1</td>
<td>1.1 - 1.1</td>
<td>0</td>
</tr>
</tbody>
</table>

*EPA considers 50 pCi/L to be the level of concern for beta particles.*
<table>
<thead>
<tr>
<th>Radioactive-GRAB</th>
<th>Collection Date</th>
<th>Highest Level Detected</th>
<th>Range of Levels Detected</th>
<th>MCLG</th>
<th>MCL</th>
<th>Units</th>
<th>Violation</th>
<th>Likely Source of Contamination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disinfectants and Disinfection byproducts</td>
<td>6/10/2015</td>
<td>0.0011</td>
<td>0.0011-0.0011</td>
<td>O</td>
<td>30</td>
<td>ppb</td>
<td>No</td>
<td>Erosion of natural deposits</td>
</tr>
<tr>
<td>Gross Alpha</td>
<td>6/10/2015</td>
<td>3.1</td>
<td>3.1-3.1</td>
<td>N/A</td>
<td>15</td>
<td>pCi/L</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>(Including Radon &amp; Uranium)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gross Beta</td>
<td>6/10/2015</td>
<td>5.3</td>
<td>5.3-5.3</td>
<td>N/A</td>
<td>50</td>
<td>pCi/L</td>
<td>No</td>
<td>Decay of natural and man-made deposits</td>
</tr>
<tr>
<td>Radium</td>
<td>6/10/2015</td>
<td>&lt;1.0</td>
<td>&lt;1.0-&lt;1.0</td>
<td>O</td>
<td>5</td>
<td>pCi/L</td>
<td>No</td>
<td>Erosion of natural deposits</td>
</tr>
</tbody>
</table>
DEFINITIONS

connection—a single family residential unit or each commercial or industrial establishment to which drinking water is supplied from the system.

contaminant source inventory—the process of identifying and inventorying contaminant sources within delineated source water protection areas through recording existing data; describing sources within the source water protection area; identifying likely sources for further investigation; collecting and interpreting new information on existing or potential sources through surveys and verifying accuracy and reliability of the information gathered.

contamination—the presence of any foreign substance (organic, inorganic, radiological, or biological) in water, which tends to degrade its quality and can constitute a hazard or impair the usefulness of the water.

conveyance—refers to canals, aqueduct, or piping that carries water from the intake or well to the general area of the distribution system. It does not include the distribution system itself or storage tanks, treatment plants, or other infrastructure associated with the distribution system.

cross-connection—a physical connection between a public water system and either another supply of unknown or questionable quality, any source which may contain contaminating or polluting substances, or any source of water treated to a lesser degree in the treatment process.

Cryptosporidium—a protozoan associated with the disease cryptosporidiosis in humans. The disease can be transmitted through ingestion of drinking water, person-to-person contact, or other exposure routes. Cryptosporidiosis may cause acute diarrhea, abdominal pain, vomiting, and fever that lasts 1-2 weeks in healthy adults, but may be chronic or fatal in immunocompromised people.

detection—some amount of contaminant was found, not necessarily in an amount that exceeds the MCL.

drinking water—all water distributed by any agency or individual, public or private, for the purpose of human consumption or which may be used in the preparation of foods or beverages or for the cleaning of any utensil or article used in the course of preparation or consumption of food or beverages for human beings. The term “drinking water” shall also include all water supplied for human consumption or used by any institution catering to the public.

drinking water standards—the commission rules covering drinking water standards in §290.101-290.121 (relating to Drinking Water Standards Governing Drinking Water Quality and Reporting Requirements for Public Water Supply Systems).

E. coli—Escherichia coli. A bacteria which can cause acute intestinal distress.

exposure—contact between a person and a chemical. Exposures are calculated as the amount of chemical available for absorption by a person.

fecal coliform—a bacteria used to indicate the presence of other disease-causing organisms.

fluoride—in drinking water decreases the incidence of tooth decay when the water is consumed during the period of enamel calcification. Excessive quantities in drinking water consumed by children during the period of enamel calcification may cause a characteristic discoloration (mottling) of the teeth.

Giardia lamblia—a protozoan, which can survive in water for one to three months, associated with the disease giardiasis. Ingestion of this protozoan in contaminated drinking water, exposure from person-to-person contact, and other exposure routes may cause giardiasis. The symptoms of this gastrointestinal disease may persist for weeks or months and include diarrhea, fatigue, and cramps.

maximum contaminant level—is defined in the SDWA as the maximum permissible level of a contaminant in water which is delivered to any user of a public water system.
contaminant level goal (MCLG)—the level of a contaminant in drinking water below which there is no known or expected risk to health.
milligrams per liter. Roughly equivalent to ppm.

ND—not detected.
NTU—Nephelometric turbidity units.
nitrate—inorganic compounds that can enter water supplies from fertilizer runoff and sanitary wastewater discharges. Nitrates in drinking water are associated with methemoglobinemia, or ‘blue baby syndrome,’ which results from interferences in the blood’s ability to carry oxygen.
nonregulated—contaminants which require monitoring but do not have MCLs.

organics—chemical molecules that contain carbon and other elements such as hydrogen. Organic contaminants of concern to drinking water include chlorohydrocarbons, pesticides, and others.

PG/l—Picocuries per liter. Unit of measurement for radioactive substances. A pg/l is equivalent to two atoms disintegrating per minute per liter.
PPB—parts per billion. Roughly equivalent to g/l.
PPM—parts per million. Roughly equivalent to mg/l.

regulated—contaminants that require monitoring with specific MCLs set by the EPA.

risk—the potential harm for people exposed to chemicals in order for there to be risk, there must be both hazard and exposure.

SOC—synthetic organic compound. Chemicals commonly used in pesticides, herbicides, plastics, and fuels.

THM—trihalomethane. A by product of the disinfection process which have certain health effects.
treatment technique—a specific treatment method required by the EPA to control the level of contaminant in drinking water. In specific cases, where the EPA has determined it is not technically or economically feasible to establish an MCL, the EPA can instead specify a treatment technique.

Total Coliform—bacteria that are used as indicators of fecal contaminants in drinking water.

VOC—volatile organic compound. Chemicals that evaporate into the air and are commonly found in gasoline, paint, solvents, plastics, and adhesives.

watershed—a topographic boundary area that is the perimeter of the catchment area of a stream.
well—refers to groundwater intakes including the well structure (i.e. casing, etc.) and wellhead.
In the Water Loss Audit submitted to the Texas Water Development Board for the time period of January to December 2016, our system had an estimated 12 percent water loss. If you have any questions about the water loss audit please call (956) 681-1700.
COST OF WATER

McALLEN TAP

$0.0093
PER GALLON

NAME BRAND

$100
PER GALLON
READING YOUR BILL

Match the numbers on the bill for more information on each section.

#1-When bill was printed
#2-8 digits customer number
#3-7 digits account number
#4-Reading dates
#5-Payment is due on this date
#6-Total amount due includes any balance, including past due bills
#7-Tier 1 = first 13,000 gallons at a rate of $1.35 per thousand gallons
   Tier 2 = between 13,000 to 18,000 gallons at a rate of $1.65 per thousand gallons
   Tier 3 = anything over 18,000 gallons at a rate of $1.85 per thousand gallons
   Commercial/multi-family tier 1 $1.35 under fiscal average, tier 2 at $1.85 over fiscal average.
#8-Under water use, meter numbers (water and/or sprinkler) will appear including previous and current read with billing days and usage.
#9-Sprinkler commodity is charged for consumption on accounts that have sprinkler meters, all consumption is charged at a rate of $1.85 per thousand gallons
#10-Previous balance includes any payments and any forwarded balance to this bill
#11-Sewer commodity is charged on water meter consumption and charged at a rate of $1.60 per thousand gallons
#12-Usage is calculated in thousand gallons. For example 13.5 = 13,500
Current charges = any current bills or charges for this billing period only
Past due amount = this past due balance is due immediately
Current due date = due date for current charges on this bill
Total due = past due amount + current charges
Recycle fee = blue bin
Sanitation = black bin
Brush fee = brush collection
Commercial dumpster or roll off charges are included under sanitation

McAllen Public Utility
1300 W. Houston
PO Box 280
McAllen, TX 78505-0280
Office 956-681-1600
Evenings/Weekends 956-681-1717

Customers can access account information and pay bills online at http://mpu.mcallen.net

#13-Mailing address: where the bill is sent to
#14-Past due amount = this past due balance is due immediately

Current charges = any current bills or charges for this billing period only
Past due amount = this past due balance is due immediately
Current due date = due date for current charges on this bill
Total due = past due amount + current charges
Recycle fee = blue bin
Sanitation = black bin
Brush fee = brush collection

*Commercial dumpster or roll off charges are included under sanitation

Water Use

<table>
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<tr>
<th>Service-Mtr #</th>
<th>Previous Read</th>
<th>Current Read</th>
<th>Billing Days</th>
<th>Usage in 1000s of Gallons</th>
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<tr>
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<td>12140</td>
<td>12291</td>
<td>32</td>
<td>15.1</td>
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<tr>
<td>SP-7654321</td>
<td>52588</td>
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<td>20.0</td>
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Last Year | Current

Water Use in Thousands of Gallons

7175245

Please Return This Portion With Your Payment Made Payable To:

McAllen Public Utility
1300 W Houston/P O Box 280
McAllen, TX 78505-0280
Office # 956-681-1600
Evenings/Weekends # 956-681-1717
http://mpu.mcallen.net

Billing Date: 1/14/2013
Name: JOHN DOE
Service Address: 1234 E EXAMPLE AVE
Customer Account#: 0008127

<table>
<thead>
<tr>
<th>Past Due Amount</th>
<th>Current Charges</th>
<th>Current Due Date</th>
<th>Total Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>$ 0.00</td>
<td>$ 112.38</td>
<td>01/24/2013</td>
<td>$ 112.38</td>
</tr>
</tbody>
</table>

John Doe
1234 E Example Ave
McAllen TX 78501

Please Remit to:

McAllen Public Utility
1300 W Houston
P O Box 280
McAllen, TX 78505-0280
Reclaimed water is converting wastewater into water that can be reused again for landscaping, industry, fire protection, construction (soil compaction and dust control), etc., but where reclaimed water’s true benefit arises from a city is conserving water. With the Rio Grande Valley prone to droughts, McAllen Public Utility (MPU) has always been a leader in the conservation of water and is the first Valley city to create a residential reclaimed water irrigation program to conserve potable water. In the north side of McAllen a residential community known as Tres Lagos will have the benefit of using reclaimed water; furthermore, MPU will distribute reclaimed water to the new McAllen Sport Complex. McAllen Public Utility thru the Texas Water Development Board received an $8.35 million low interest funding which included approximately $1.3 million of loan forgiveness. These monies are intended to fund both the Reclaimed Water Transmission Line Project and the North Wastewater Treatment Plant Facility Improvements Project. These projects will pay dividends in the future averaging 302 million gallons per month for the next three years in water conservation and by 2035 averaging over 671 million gallons per month in water conservation. MPU is already saving over 10 billion gallons per year distributing reclaim water too Calpine energy. By reclaiming our water McAllen Public Utility continues to be the leader in being the Premier Water Utility is South Texas.
PROTECTING OUR ENVIRONMENT

With the growing concerns around the United States in protecting the environment, municipal wastewater treatment plants have been given the task in reducing or eliminating nutrients known as nitrogen and phosphorus from their effluent. Effluent is outflow from a source, such as a reservoir, basin or wastewater treatment unit. Nitrogen and phosphorus are two harmful chemical nutrients that cause enrichment of an ecosystem known as eutrophication that may cause summer algae bloom and cause low dissolved oxygen, fish kills, murky water and depletion of desirable flora and fauna. In the Rio Grande Valley we have such an issue where agriculture runoff, storm water runoff, and municipal wastewater treatment plant effluent discharges via the Hidalgo drainage ditch system flow into the Arroyo Colorado that flow into the lower Laguna Madre. The Arroyo Colorado in fresh water is vital to the entire Rio Grande Valley in ecotourism and recreational area of boating and fishing. McAllen Public Utility is doing its part by investing and constructing a $56 million 10 Million Gallon Per Day Biological Nutrient Removal Wastewater Treatment Plant in the south side of McAllen known as BNR. The BNR plant will be the largest of its kind in the Rio Grande Valley. BNR is a process used for the removal of nitrogen and phosphorus from wastewater before the effluent is discharged into the surface water. The BNR will not only remove these harmful nutrients, but it will continue to clean up the effluent so it may be used for reclaimed water. Conventional wastewater treatment plants are designed to meet certain criteria in cleaning up the wastewater, it typically does not remove nitrogen and phosphorus to the extent needed to protect the marine ecosystem. The investment in BNR will not only protect the environment by removing these harmful nutrients, but the BNR has been designed to meet future residential and commercial growth in the south side of McAllen. With the rules and regulations from Federal and State agencies becoming more stringent, McAllen Public Utility continues to invest in better processes in cleaning up our wastewater to protect our environment for future generations to come.
City of McAllen has installed a fixed network (Sensus Flex Net), for the collection of meter readings. It operates on a Primary FCC-licensed 900MHz narrow band PCS or Mas. MPU owns the license. It consists of three long range base stations, strategically located in the south, central and north areas of McAllen and a Regional Network Interface which receives the data forwarded from the three base stations. The three base stations provide MPU resilient redundant overlapping coverage; if one station does not pick up a reading we can count on the next one to pick it up. In the case of a catastrophe the transceivers can be read using a walk/drive by system using handhelds. The network also provides communication to and from the water meters in the field. MPU can communicate with the meter on demand as well as automatically receive the monthly readings.

MPU is installing a digital water meter and transceiver for every new account and in some instances for difficult to access meters. The transceiver is a Flex Net Smart Point MD transceiver that provides MPU inbound and outbound access to the water meter. It is a fully two-way system. The Smart Point obtains hourly readings and can monitor continuous flow over a programmable period of time, alerting the MPU to leak conditions. In addition, the Smart Point stores up to 840 consumption intervals equivalent to 35 days of hourly consumption. And provides MPU with the ability to extract detailed usage profiles for consumer information and dispute resolution.

This system increases operating efficiency, provides opportunity for the utility to be very proactive towards dispute resolution, provides a variety of management reports, summaries, and reduces the time required to collect meter readings.
Advanced Metering Infrastructure Systems (AMI)

Single Family Home

Your Smart Meter

Communication Device on Utility Pole

Utility Office
To help you understand how much water your home or business uses, you will want to know how to read your water meter. This also will help you identify leaks and discover ways to conserve water.

Step 1: Find your meter box, which is typically located in the front of the property near the street or back in the alley. Often the box is in a direct line with the main outside faucet. It is housed in a steel or plastic box usually marked “Water Meter Box”. Carefully remove the lid by using a tool such as a large screwdriver. Insert the tool into one of the holes and pry the lid off.

Step 2: Once you open the meter box lid, lift the protective cap on the meter. On the face of the meter there is a large dial and a display of numbers. For the typical residential meter, each rotation of the dial measures 10 gallons.

Read the number display from left to right. Be sure to include the stationary zero (the painted zero at the right of the number dials). This is your meter reading.

All water meters in the City of McAllen measure water in gallons. Charges for the amount of water consumed are based on the number of gallons you use during a billing period. Compare that reading to what your bill states as your current or present reading. Keep in mind that you might be checking your meter on a date different from the one used for billing. This could result in a difference in the amount you find, compared with the amount of which your bill is based.
To assist the reader, please keep the meter box free of garbage cans, boxes, piles of yard waste, or parked vehicles that cause a meter to be inaccessible.

Please do not install fences or plant trees or shrubs which restrict access to your meter or they may need to be removed. It is very common for meter boxes to become filled with dirt, leaves, and other yard debris. There are many factors contributing to this. Meter boxes are generally slightly lower than ground level and are also typically at lower spots in your yard, so all run-off makes it into the meter box.

It is our procedure to clean out the meter boxes so that the meter register is free from dirt and debris and easily read. However, it is common to clean out a meter box one month only to find the meter covered the following month. All it takes is a good rain or watering of the lawn for dirt to resettle over your meter from run-off.

Dirt over the meter does not mean your meter is not being read. Your meter reading has to be entered into the hand-held in order to be billed and cannot be estimated by the meter reader. Usually when we have reports of meter boxes being full of dirt and debris, the debris is easily cleared away and a meter reading can be taken. Dirt that is cleared away to read the meter can recover the meter even from insect or rodent activity or the result of slamming down the meter box lid.
FLUSHING LINES
What is the purpose of flushing?

The purpose of flushing is to maintain the water quality and reduce disinfectant byproducts. By flushing, we are maintaining our water distribution lines to ensure good quality water. The process that the City of McAllen-Transmission & Distribution Department follows is a required process by the TCEQ (290.46(I)) state law: “All dead end mains must be flushed at a monthly interval”. After the flushing has been done, the water has to be tested to measure the level of chlorine in the water which has to be as per state regulation from a 0.5–4.0 mg/L Cl₂.

Now if you as the customer experience any type of bad odor, bad taste, color in water and/or debris in your water please notify the Water Laboratory Department at (956)-681-1720. The Water Laboratory Department will notify the field technician to grab a sample from the residence/business. The technician will transport the sample back to the laboratory to perform bacteriological, analytical, and wet chemistry analysis. The test which takes the longest to report is the bacteriological testing, from the initial analysis it takes 24 hours to observe a result.

Once all analysis is completed it is composed into a customer report and a lab technician will notify the customer of the results, plus take any further action by notifying the Transmission and Distribution Department whom will immediately dispatch a unit and flush the nearest fire hydrant to the customers home or business.
Water distribution systems are designed with the intention of the water flowing in a certain direction from the distribution system to the consumer. However, hydraulic conditions within the system may alert these “normal” conditions, causing water to flow in the opposite direction in unprotected systems. This is called backflow.
WHAT IS BACKFLOW?
Backflow occurs when the pressure in the distribution system drops, siphoning water from the consumer’s system into the distribution system. This would also siphon any substance which may be in contact with the water system through a cross-connection. This type of backflow is called Backsiphonage and may occur when there is an unusually high use of water or undersized piping in area. For example, during fire fighting, or when a main water line breaks, water is “sucked” to the point of high usage, possibly drawing non-potable substance with it, filling the water line these substances.

Backsiphonage may occur through cross-connection such as a hose from a maintenance sink in a mop bucket, or a below-rim water inlet to a tank containing a toxic solution.

CROSS CONNECTIONS AND BACKFLOW AT YOUR HOME
A garden hose submerged into a hot tub or swimming pool, or inserted into your car’s radiator to flush out the antifreeze, or attached to an insecticide sprayer could siphon that material back into our water mains. An underground sprinkler system could cause a problem if the piping used is not drinking water quality, if the water stagnates in the system, or if pesticides or herbicides are used in the irrigation system in any way.
**MPU AND TCEQ**

Federal law requires water suppliers to protect their water system from contamination or pollution by cross-connections. To do this, water suppliers diligently conduct surveys of various facilities on their systems. This allows the water or health authority (which may be working in conjunction with water agency) to determine which type of backflow protection is necessary to protect the water system.

It is very important McAllen public utility maintain a strong cross-connection control program in order to protect the purity of our drinking water.

**ANNUAL BACKFLOW TESTING**

Backflow devices assemblies must be tested for proper operation annually. This testing must be done on site by a certified backflow tester, and a maintenance report must be submitted to the McAllen Public Utility.

All consumers must be aware of cross-connection and prevent them, or protect such connections with the appropriate backflow preventer. These backflow prevents must be tested at least once each year to ensure that they are performing properly in preventing backflow.
BACKPRESSURE
When necessary they must be repaired in order to assure proper operation. Backpressure backflow is caused by a downstream pressure that is greater than the upstream or supply pressure in a public water system or consumer’s potable water system.

Backpressure can result from an increase in downstream pressure, a reduction in the potable water supply pressure, or a combination of both.

Increases in downstream pressure can be created by pumps, temperatures increase in boiler, etc. Reductions in potable water supply pressure occur whenever the amount of water being supplied increases dramatically, such as during water line flushing, fire fighting, or breaks in water mains.

CROSS CONNECTION AND BACKFLOW PREVENTION POLICY
The City of McAllen is required by the Texas Commission on Environment Quality (TCEQ) to eliminate any cross-connection from our system. The City must also maintain a Cross Connection Control Program for the potable water distribution system servicing your home or business.
Recently, the McAllen Public Utility (MPU) attended the 2017 Texas Water Conference where they picked up two Watermark Awards for Communications Excellence for their newsletter and summer camps. The award recognizes Texas Section American Water Works Association or Water Environment Association of Texas members who have produced top quality communications. The McAllen Public Utility won two separate awards for their division: small utility.

The first award was in Category II for periodicals, magazines or newsletters. The organization was awarded for MPU News, the McAllen Public Utility Internal Newsletter. MPU News is a regular publication of McAllen Public Utility. Its purpose is to improve internal communications by keeping all employees informed about important citywide, operational, organizational and community or social news.

The second award MPU received was in Category V school curriculums and was recognized for the MPU 2016 Water Camps, whose purpose was to educate students on the issues surrounding water use and conservation. The utility hosted four water-related camps for kids in the 3rd to 5th grades, geared toward science, technology engineering, art and mathematics. There is a March Madness Camp during spring break, as well as Beginners Summer Camp, Advanced Summer Camp and a Winter Camp during Christmas break. The camps are open to the surrounding cities and activities are educational and entertaining.
The Watermark

for raising the public’s level of understanding of Texas water issues

American Water Works Association • Texas Section
Water Environment Association of Texas

2017
OUTREACH

We provide tours to find out more information regarding water conservation, water quality, and the McAllen water treatment system. We can cater to any age group. All ages welcome. Please call our Water Education Specialist to schedule a tour at 956-681-1700.
WATER KIDS CLUB

Want to learn more about your City of McAllen water? McAllen Public Utility offers free, fun, and educational week-long, water camps for 3rd, 4th & 5th graders. We invite you to register and join the fun. Visit www.McAllenPublicUtility.com or contact our Water Education Specialist, Alondra at (956)681-1700 for more information.
Have questions regarding your water at your home, school, or business?

<table>
<thead>
<tr>
<th>DIRECTORY</th>
<th>AFTER HOURS CONTACT NUMBERS</th>
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<tbody>
<tr>
<td>Customer Service</td>
<td>956-681-1600 Customer Service (After hours) 681-1717</td>
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<tr>
<td>Utility Administration</td>
<td>956-681-1630 Wastewater (After hours) 648-4010</td>
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<td>Waste Water Plant</td>
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<td>Pretreatment</td>
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**UTILITY ADMINISTRATION**
1300 W Houston Ave #220, McAllen, TX 78501
Phone (956) 681-1630
Fax (956) 681-1639

**WATER PLANT**
2501 West Expressway 83
McAllen, Texas 78503
Phone (956) 681-1700
Fax (956) 681-1719

WE'RE SOCIAL!
Follow us on your favorite social media sites.

facebook.com McAllenPublicUtility
twitter.com MyMcAllenPU
youtube.com CityofMcAllen
McAllen Public Utility works to provide the best quality water and sewer services to the citizens of McAllen. We have recently created our Community Outreach Committee consisting of MPU Employees. The committee hosts several events throughout the year that give back to our local community. We have partnered up with the International Museum of Art & Science and Court Appointed Special Advocates of Hidalgo and other entities to strengthen our community and created a higher quality of live for our citizens of the Rio Grande Valley.
<table>
<thead>
<tr>
<th>CUSTOMER RELATIONS</th>
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<tr>
<td><strong>LOBBY HOURS</strong></td>
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</table>
| Monday through Friday  
8:00 AM to 5:00 PM |
| **DRIVE-THRU HOURS** |
| Monday through Friday  
7:30 AM to 5:30 PM |
| **PHONE HOURS**     |
| Monday & Friday  
8:00 AM to 5:00 PM  
Tuesday, Wednesday, & Thursday  
8:00 AM to 5:30 PM |
| **NIGHT DEPOSIT**   |
| Available to drop off payments 24/7  
Collected daily Monday through Friday at 7:30 AM |
As employees of the City of McAllen and McAllen Public Utility, we are committed to providing the best quality of work for all citizens and visitors of McAllen. We take great pride in our work and strive to exceed expectations. We hope to do you proud!