WHY IS MY WATER USAGE SO HIGH?

During the summer months of June, July, August and September water usage in the greater Houston area increases dramatically because of increased outdoor water usage, including yard irrigation. That makes sense…..and not surprisingly, during this same time period Environmental Development Partners (EDP), MUD 501's water system operator, receives an increased number of phone calls from customers concerned that their water meter was either misread or the meter is not reading the water usage accurately. Below is information (in a question/answer format), which may be helpful for residents to understand the process of how the water meters are read and recorded for billing purposes.

Question 1. I have been told that EDP doesn't read all of the meters each month and simply estimates usage for those meters they have not read. Does EDP read every meter every month?

Answer-EDP personnel do manually read all of the meters each month. The only time an estimate would be made would be in the case where a meter was not accessible, such as if a large debris pile was placed on top of the meter box. This is an extremely rare occurrence. MUD 501 knows that, many times, meter boxes end up filled with water. This does not affect the functioning of the meter, and EDP personnel have tools so that they can read a meter even when it is submerged in water.

Question 2. My meter readings seem way out of line. How do I know that EDP isn't intentionally inflating the readings so they can make more money?

Answer-EDP is a contractor and works for MUD 501 under a written contract. The compensation EDP receives has absolutely nothing to do with and is not dependent upon the volume of water on the customer's bills. In other words, EDP makes the same amount of money regardless of whether 1,000 gallons of water is consumed or 50,000 gallons is consumed. They have no financial incentive to intentionally inflate the meter readings. In addition, although not required, the MUD 501 Board of Directors encourages residents to learn about and from time-to-time to read their own meters, including to check the leak indicator for any potential leaks and to get a sense for how much water you use on a daily or weekly basis during different times of the year. For information on how your meter works, please visit: https://youtu.be/M9nVkSZ6_H4. Additional information on how to read your meter is available on MUD 501's website, at: http://www.hcmud501.org/wp-content/uploads/2019/10/hcmud501_how_to_read_your_water_meter.pdf.

Question 3. How many customer calls does EDP receive regarding the possibility of meters being misread or not working properly?

Answer-MUD 501's Board recently requested that EDP provide the Board with meter reading information to determine what their representative "error rate" is, which is shown below.

Time Period: July 11, 2018-August 12, 2019
Number of Meter Reads-16,900
Number of Customer Requested Field Investigations-36
Percent of Customers Calls Related to Meter Reads-0.21%
Number of Incorrect Meter Reads-0
Number of Inaccurate Meter Measurements-0
(Each field investigation includes an on-site accuracy test of the meter)

In the last 13 months in MUD 501, the number of field investigations for customer's calls questioning their meter reads represented far less than 1% of the actual reads. Does this mean that EDP never makes a mistake? No…..from time to time a meter misread will occur, and on rare occasions the actual water meter will be determined to be inaccurate. In these cases, adjustments are made to customer's bills. According to EDP, who works for 67 water districts, this information associated with MUD 501's operations is very consistent with their experience in other districts.

Question 4. I'm still not convinced that there aren't more mistakes made in the meter reading process. This process is very human driven. Are there any quality controls in this process?

Answer. There are three separate quality control features in the meter reading process, which are described below.

The first quality control check occurs at the initial reading of the meter. The water technician visually reads the meter and utilizes an electronic device to input the meter reading. The device does not display the previous meter reading, and if the new reading records a number which is outside the expected parameters, the device alerts the technician to re-read the meter and re-enter the reading a second or even third time if needed. The second quality control check occurs after the meter reading information is uploaded into the billing system. In the event the reading and the associated bill fall outside the expected parameters, an alert occurs, which requires the meter to be read again. This second meter read check is completed by a different person. Finally, in the event that the customer is concerned about their reading and contacts EDP, the meter is read again and during this read the water meter is also checked onsite to ensure it is measuring accurately.

Question 5. What if the customer is still not satisfied with the meter reading results and/or the accuracy of the meter?

Answer-In certain situations, EDP may choose to contract with an independent certified third party to run what is called a "bench test" of the meter itself. This testing process, which is recognized nationally, determines whether the meter is accurate. In virtually every bench test, the results find that the meter in question is operating within the designed standards. In the event the bench test determines there is an issue with the accuracy of the meter, the meter is replaced. In almost all cases when a meter is found to be inaccurate, it's because the meter is

recording *less* water than is actually being used (in other words, the customer is being billed for less water than they're actually using).

Question 6. If the bench test of the meter determines that the meter is accurately measuring water flow, why would my readings be significantly higher than normal?

Answer-MUD 501 has no way of determining how water is being consumed once it flows through the meter. Based on EDP's experience, the higher than expected water usage might be related to an internal leak such as a toilet flapper being stuck open, an irrigation system leak, or a pool automatic fill line continuously running. However, often times it's simply more water being used for irrigation purposes, particularly during long stretches with the Houston summer heat and little or no rain. We have also found many instances in which sprinkler heads are broken or an irrigation system controller is set or resets itself to run more often and/or for a longer duration than expected. Many times irrigation is done early in the morning and the homeowner never sees the wasted water. Finally, it is not uncommon for sprinkler heads to be "buried" beneath the grass, and during the watering of the respective zone the water flow is significantly higher than expected but invisible to the homeowner because it occurs below the grass line and the water either puddles and eventually is absorbed or finds its way to the street and into the storm sewers.

In the event the customer discovers and repairs a leak, MUD 501 has a leak adjustment policy in which the customer may be able to receive a partial adjustment for the water loss. The leak adjustment policy and required application form are available on the MUD 501 website, http://www.hcmud501.org. All costs associated with determining the existence of a leak on the customer's side of the meter, including issues associated with the customer's irrigation system, are the sole responsibility of the customer. If you believe there is a leak on MUD 501's side of the meter, or with other MUD 501 facilities, including fire hydrants, please call EDP's 24-hour customer care line at (832) 467-1599, to report the issue.

Question 7. Certainly at some point water meters will begin to fail. Does EDP have a process to replace meters after a given number of years?

Answer-EDP will replace defective water meters as may be required from time to time, but it's up to the Board of Directors of MUD 501 to create and approve a program containing guidelines for an "across the board" water meter replacement. The meters used within MUD 501 are mechanical and typically these meters have an expected life of 8-10 years. As a result, one of the decisions the MUD 501 board will soon be faced with is when to begin replacing its meters and what type to use.

Question 8. What other types of water meters are available, and is there any technology available for customers to actually see what's being measured on a real time basis?

Answer-There are newer versions of water meters, referred to as "smart" or "electronic" meters, that can still be read manually, but also allow both the operator and the customer to

remotely read the meter through a website and/or phone app. This is particularly helpful when there is a leak causing excessive water use, if there is an issue with the customer's irrigation system, or if the customer simply wants to be able to view their water use on a real time basis, rather than once a month when the bill comes in the mail. The MUD 501 Board will likely be assessing possible alternatives to the current traditional mechanical meter presently in use in the near future. As with all matters affecting district operations, the Board must consider a number of different factors including the operational value of making any changes compared with the cost of such changes. All meetings of the Board where these discussions will occur will be open to the public, and the Board welcomes the public's input on these matters. The agenda for each meeting is posted on the MUD 501 website, http://www.hcmud501.org/, at least 72 hours in advance.

Question 9. It seems like my water costs continue to increase. Why is this?

Answer-The customer's cost of water is based on 1) usage, 2) MUD 501 charges to cover its operating costs and 3) the surface water and groundwater pumpage fees charged by the West Harris County Regional Water Authority (WHCRWA). MUD 501's water supply comes from MUD 500 (in its capacity as the Master District), which purchases surface water from the WHCRWA. Because of significant infrastructure costs associated with reducing groundwater withdrawal through the delivery of surface water to the Northwest and West sides of Harris County, as required by the Harris Galveston Subsidence District (the Subsidence District), these surface water costs are expected to continue increasing each year for at least the next several years. MUD 501 (or any other MUD using surface water) has no way of impacting the actual cost of water from this source, thus the only real way to mitigate future water costs is to be more efficient in the use of water. More information about MUD 501's water cost, the WHCRWA, and the Subsidence District can be found on the MUD 501 website, http://www.hcmud501.org.

Question 10. Does MUD 501 provide any type of customer education regarding water conservation?

Answer-MUD 501 is committed to the importance of water conservation and finding ways to better educate its customers. Information is periodically provided to customers on their bills as well as inserts included in the billing statements. Additional information regarding conservation can be found on the MUD 501 website, http://www.hcmud501.org. Most recently MUD 501 took an active role in the formation of a group called the Towne Lake Water Conservation Coalition whose focus is educating customers on water conservation. Members of the Coalition include MUD 500, MUD 501, MUD 502, MUD 172 and MUD 165…..all of which serve portions of Towne Lake. Keep an eye out for more information from the Coalition as it gets up and running!