

**WEBB COUNTY UTILITIES
SURFACE WATER MONTHLY OPERATING REPORTS, (SWMORs or MORs)**

FREQUENTLY ASKED QUESTIONS

1. Who is supposed to make sure the water from the Rio Bravo Water Treatment Plant is safe to drink?

Webb County has to make sure the water is safe to drink because it operates the Rio Bravo Water Treatment Plant. The Rio Bravo Water Treatment Plant has to meet safe drinking water standards set by the Safe Drinking Water Act. The Texas Commission on Environmental Quality (TCEQ) regulates compliance with the Safe Drinking Water Act in Texas. If Webb County is not complying with the laws regulating safe drinking water, it is TCEQ's responsibility to make the County follow the law.

Webb County's water plant director has to ensure that plant personnel test water quality each day and compile Monthly Operating Reports (MORs) containing water quality data. The MORs are sent to TCEQ each month. TCEQ keeps tabs on the water quality at the plant by reviewing the MORs.

2. What are Surface Water Monthly Operating Reports (MORs)?

Surface Water Monthly Operating Reports are called SWMORs or simply MORs. They report information to the TCEQ about the operation of the Rio Bravo Water Treatment Plant. They also depict the quality of the water in the Plant and in the community.

3. Who completes the MORs?

Information from continuous meters and lab testing completed at the plant is entered into the report spreadsheet and the MOR report is generated.

4. Why should anyone care what MORs say?

The MORs show whether drinking water meets federal and state standards and is safe to drink. In a settlement of a lawsuit brought by Alianza de Rio Bravo por Agua Pura and Comité de Ciudadanos Unidos de El Cenizo, Webb County agreed to post these reports on line. Webb County also posts these reports so anyone can know how the Plant is operating and get information about water safety.

5. Who reads the MORs?

Engineers and scientists at your Plant and the TCEQ read the report. These reports help them know whether there are problems with the Plant or the water quality.

6. What do Treatment Plant Performance sections of the MOR describe?

There are four parts of this reporting.

The first describes **turbidity** of the water in the Plant. Turbidity measures the clarity of the water (so whether there is silt, algae or other substances). The maximum turbidity level is 0.3 NTU (nephelometric

turbidity units), but water is still safe to drink with some turbidity. If the turbidity level of the water leaving the Plant reaches 1.0 NTU, then the Plant must send you a boil water notice. The final line on the left reports how many days the water had turbidity levels over 1.0 NTU.

The second section discusses **crypto** or cryptosporidium, a parasite. The key numbers to review are “crypto credit required,” which describes the efficiency of removal of cryptosporidium the plant is required to meet. The required number is expressed as log credits; 4.0 log credits means the plant must remove cryptosporidium to a 99.99% level. The 4 corresponds to the numbers of 9’s required. A log of 3 is 99.9%. Currently, the Rio Bravo Water Treatment Plant only provides 99.9% removal efficiency or three log removal credit (3.0 Log) for cryptosporidium and therefore cannot meet the 4-Log treatment requirements for cryptosporidium at this time. Webb County is scheduled for November of 2015 installation of an Ultraviolet Disinfection System that will provide treatment above the required 4.0 log credits.

The third section also reports on bacteria and the time the drinking water was exposed to the proper concentration of chlorine. **CT is a product of the concentration of a disinfectant (chlorine) and the contact time with the water.** Complicated tests have been done to determine how much time the water must be exposed to precise levels chlorine to be safe to drink. In the box to the left, the Plant must report how many days the water wasn’t exposed to correct concentrations of chlorine for long enough time.

The final section describes **minimum residual**. This documents the residual (or remaining) chlorine in the water leaving the Plant. The water leaving the Plant must have at least 0.5 milligrams of total chlorine for every liter of water (mg/L). That keeps the water safe all the way to your house. The third line reports how many days the residual was too low when it left the Plant.

Webb County has a produced a video that shows how water is tested in the Plant. That video is available at <http://www.webbcountytx.gov/WaterUtilities/TestingVideos/>

7. What does Distribution System section of the report describe?

The **Distribution System** includes the pipes that leave the Plant and deliver the water to homes and businesses. Scientific tests in the distribution system report the chlorine residual that remains in the drinking water pipes in the community. The chlorine is tested every day. The water in the pipes in your community system should have at least 0.5 milligrams of chlorine for each liter. To the right side of the section, the document reports the percentage of readings with low chlorine. This percentage calculation should be no more than 5% on a monthly basis. TCEQ uses these readings as a measure of safe levels of disinfection (Chlorine) residual in the distribution lines, and requires public notification when more than 5% of these readings are below 0.5 mg/L in two (2) consecutive months.

Webb County has a produced a video that shows how water is tested in Rio Bravo and El Cenizo. That video is available at <http://www.webbcountytx.gov/WaterUtilities/TestingVideos/>

8. Does the Safe Drinking Water Act require the County to post these MORs on line?

No.

The state does not require the MORs to be provided to customers; however, that County has approved making these reports available on their website so anyone can know how the Plant is operating and get information about water safety. The County settled a lawsuit with Alianza de Rio Bravo por Agua Pura and Comité de Ciudadanos Unidos de El Cenizo, which requires the reports to be posted on line so you can review them.

9. How is the water sampled?

Webb County has produced videos that show how sampling is done. There is a specific scientific method that must be used. <http://www.webbcountytx.gov/WaterUtilities/TestingVideos/>

10. How does an MOR show that my water is safe to drink?

So long as the turbidity numbers are below 1.0 NTU and the chlorine residual is 0.3 mg/L, then your water meets the basic safe drinking water standards.

There are other treatment requirements, like removing 99.99% of the cryptosporidium from the Rio Grande, which Webb County currently does not meet. Webb County is scheduled to install an Ultraviolet Disinfection System by November of 2015, and as this is operated will provide and exceed the required 99.99% removal of Cryptosporidium. For more information on cryptosporidium see:

http://www.webbcountytx.gov/WaterUtilities/Resources/CryptoSupplimentalInformation_July%202015.pdf

Because the Plant does not yet meet the cryptosporidium treatment requirements, your water does not meet all safe drinking water standards.

Also, in El Cenizo, the water in the distribution system violated annual average for total trihalomethanes, chemicals that are byproducts of the chlorination process, in March 2015. For more information on total trihalomethanes, see:

http://www.webbcountytx.gov/WaterUtilities/Resources/THMSupplimentalInformation_July%202015.pdf

These standards are set by the federal and state government based on scientific research showing what makes water safe to drink.

11. Do I have to look at the MORs to know that my water is safe to drink?

No. If there is a serious problem with turbidity in the Plant, the new supervisory control and data acquisition (SCADA) system will provide immediate notification to the operators and management of a treatment concern. The SCADA system will also automatically shut down the Plant in certain situations, starting in the fall of 2015. Also, if there are serious problems with the water, they will be reported to the Plant manager and TCEQ. If water quality is such a problem that the water coming to your home may not be safe, the County is required to issue an immediate notice telling you to boil the water.

If you don't hear anything about your water, the tests show that it is meeting safe drinking water standards.

12. What is SCADA?

SCADA means supervisory control and data acquisition. It is a computer process that gathers real time data about a system. In April 2014, the Plant started using an automated system called SCADA. Now,

SCADA tests the water in the Plant every 15 minutes. SCADA also tests how the Plant operates. If there is a serious problem, SCADA will notify the operators of problems and in the fall of 2015 will shut down the Plant automatically. In addition, the Plant contains a redundant system involving chart recordation continuously monitoring the Turbidity and Chlorine Residual if SCADA is not operating correctly.

13. What is the new Ultraviolet System?

An ultraviolet system disinfects water using ultraviolet light. It is an additional way to treat water. The County agreed to install the Ultra Violet System as a Supplemental Environmental Project instead of paying fines to TCEQ for violations of the Safe Drinking Water Act. The UV system treats the cryptosporidium and removes it at a 99.999% efficiency (5 Log), which exceeds the standards required. The UV system will be used in addition to chlorine.

14. Why did the County issue the cryptosporidium and TTHM notices about problems with the Plant and water quality? Is there any cause for alarm?

The Rio Grande River has a high concentration of cryptosporidium, a bacteria that can cause gastrointestinal problems if it exists in high enough concentrations in drinking water. The County is required to remove 99.99% of the cryptosporidium, but it can only remove 99.9% of the cryptosporidium. The concentrations remaining in the water are not high enough to require citizens to boil water, but the County is not meeting the legal requirements. The new UV system will remove 99.999% of the cryptosporidium. Until then, people who are immune compromised, such as those receiving chemotherapy treatment or who have HIV/AIDS should consult their doctor whether they should take additional steps to protect their health. For more information on cryptosporidium, see <http://www.webbcountytx.gov/WaterUtilities/Resources/>.

Also, because the County only recently got its SCADA system working, until April 2014, Webb County did *not* comply with state regulations requiring continuous testing and reporting.

Additionally, in El Cenizo, the water in the distribution system violated annual average for total trihalomethanes, chemicals that are byproducts of the chlorination process, in March 2015. For more information on total trihalomethanes, see:

http://www.webbcountytx.gov/WaterUtilities/Resources/TTHMSupplimentalInformation_July%202015.pdf

Except for the cryptosporidium levels and total trihalomethane average in El Cenizo, the water coming out of the plant has complied with safe drinking water standards. The daily and monthly tests show that the water meets safe standards.

15. How can we have confidence, once and for all, that the water plant is working properly and producing safe drinking water?

TCEQ has the official authority and responsibility to ensure public water treatment plants, such as the Rio Bravo Water Treatment Plant, are working properly and producing safe drinking water. Last year it found Webb County's Rio Bravo Treatment Plant had not or was not complying with safe drinking water standards. The county agreed to correct those violations, but not all of them have been corrected. TCEQ recently completed a follow up investigation of the Plant to verify the County's reported Plant's compliance with water quality standards under the Safe Drinking Water Act. TCEQ found that the Plant

had not complied with all the requirements agreed to in 2013 and has other violations of the law. If you'd like a copy of TCEQ's report, please contact the County.

Consumer confidence in our drinking water depends on government officials, such as TCEQ, to tell us whether the water is safe to drink. The County has acquired the services of experienced professionals to assist Plant personnel address compliance issues and come into compliance with safe drinking water standards, but they do not have "lawful authority" to say the plant's water is safe or not safe to drink.

16. What is the Consumer Confidence Report?

Federal and state laws require water treatment plants to produce an annual report describing water quality in their system and the performance of their plants. It should also disclose specific problems with water quality at the plant during the reporting year. This report must be provided to the water plant's consumers by July 1 of each year. These reports are available at <http://www.webbcountytx.gov/WaterUtilities/ConsumerConfidenceReports/>.