

**HARRIS COUNTY MUNICIPAL UTILITY DISTRICT NO. 148  
SURFACE WATER CONVERSION**

**FREQUENTLY ASKED QUESTIONS (FAQ)**

The purpose of this FAQ is to inform the customers of Harris County Municipal Utility District No. 148 (the "District") about issues related to the District's conversion from groundwater to surface water, which is expected to occur within the next several weeks. Please go to our website, [www.mud148.org](http://www.mud148.org), for more information.

**1. Where does the District obtain its current water supply?**

Answer: The District currently receives all of its water from water wells located within the District.

**2. Why is the District converting to surface water?**

Answer: Beginning in 1990, the Harris-Galveston Subsidence District required that all public and private water systems (except individual houses) convert to surface water, in phases, by the year 2030. Reduction of groundwater usage across the region can minimize and eventually stop land surface subsidence caused by over pumping of groundwater wells.

**3. What is the Harris-Galveston Subsidence District (the "HGSD")?**

[Website: [subsidence.org](http://subsidence.org)]

Answer: The HGSD is a special purpose district created by the Texas Legislature in 1975, to provide for the regulation of groundwater withdrawal throughout Harris and Galveston counties. The District is located within Area Two of the boundaries of the HGSD and the District's ability to pump groundwater from its wells is subject to annual permits issued by the HGSD.

On April 14, 1999, the HGSD adopted a Regulatory Plan applicable to all water well owners to reduce groundwater withdrawal through surface water conversion. Under the Regulatory Plan, the portions of the District that are within Area 2 must convert to 80% surface water by 2030. The District is able to comply with current conversion requirements through its 2001 Groundwater Reduction Plan Contract (the "GPR" Contract) with the City of Houston ("City"), and, upon completion of the Water Transmission Line Project, will receive water from the City under a 2009 Water Supply Agreement.

**4. How does the HGSD pay for its activities?**

Answer: The HGSD currently pays for its services by charging permit renewal fees for most water wells and assessing a groundwater disincentive fee of \$5.00 per 1,000 gallon of water for non-compliant systems. The District complies with HGSD regulations by participating with the City in the GRP contract.

**5. Where will the District obtain surface water?**

Answer: The District will purchase treated surface water from the City, which has raw water available in the Brazos, Trinity and San Jacinto River basins. The water for the District will originate from the Northeast Water Purification Plant on Lake Houston.

**6. Is this surface water safe to drink?**

Answer: Yes. The surface water treatment process produces water which meets Environmental Protection Agency ("EPA") and Texas Commission on Environmental Quality ("TCEQ") public drinking water standards. The City performs regular testing of the treated water to demonstrate compliance with these drinking water standards. The City has been on surface water for over 25 years.

**7. Will converting to surface water cost the district's customers more?**

Answer: Yes. Surface water costs more than groundwater because of the cost to construct the reservoirs such as Lake Houston, the cost of surface water treatment, and the cost of transporting the water from surface water treatment plants to user distribution plants.

A large part of these increased costs have already been included in the current water bills to the District's customers, however, there will be additional cost increases in the future.

**8. Will surface water taste different from the groundwater that we are use to?**

Answer: Some people notice a difference in taste between surface water and groundwater, however, many people who notice the difference get use to the taste over time.

**9. Will an activated carbon filter help with the surface water taste?**

Answer: Yes, it could. Activated carbon filters like those found on many refrigerators or under the sinks may change the taste of surface water.

**10. Is the District's current groundwater supply "hard water" or "soft water"?**

Answer: The District's groundwater, like most of the groundwater in Harris County, is moderately "hard water". Hard water has a tendency to leave hard water scale (primarily calcium mineral deposits) deposits in plumbing fixtures and piping, and has the tendency to make makes soaps or detergents less effective. In extreme cases this scale can build up and ruin water heaters and plug home water pipes.

**11. Will surface water be "hard water" or "soft water"?**

Answer: The surface water within the City area is relatively soft water.

**12. Will changing from hard water to soft water cause any noticeable problems?**

Answer: Possibly. Some homeowners have experienced the results of the soft water beginning to break down the accumulated mineral scale and deposits from the hard

groundwater in their home piping systems. Since groundwater in Harris County often has small quantities of iron, which may be included in the mineral deposits, this may cause an orange to reddish color in the water for a period of time.

Some customers who live in older homes with galvanized pipes have experienced the exposure of pin-hole leaks caused by years of corrosion which were plugged up by mineral scale.

**13. Why will surface water be treated with "chloramines" rather than "chlorine" which is typically used for groundwater?**

Answer: The EPA and TCEQ require that surface water be disinfected with chloramines rather than chlorine in order to minimize the production of chlorinated organic byproducts in the treated water. Most groundwater has so little organic matter in it that chlorine disinfection is not a problem.

**14. Why are districts required to notify their customers in advance of switching to the use of "chloramines" versus the use of "chlorine" for disinfection?**

Answer: You have likely received one or more communications from the District notifying you of the conversion to chloramines disinfection and the groups of people who need to be aware of the change. For instance, chloramines can cause problems to dialysis machines that do not have the correct type of pre-filter to remove chloramines. Homeowners and medical clinics must check to be sure that their dialysis machines have the proper pre-filters. In addition, owners of aquarium tanks must be sure to use the proper "de-chlorinating" chemical when filling tanks, because the additives that remove or neutralize "chlorine" may not work for "chloramines." Homeowners with swimming pools using chlorine disinfection will need to modify their procedures as well.

**15. If I experience a taste, odor or color problem in my water, who should I contact?**

Answer: You should contact the District's Operator, Water WasteWater Management Services Inc. ("WWWMS Inc.") at 281-895-8547.

**16. Do "chloramines" cause the surface water to taste differently from groundwater?**

Answer: No. The use of chloramines, at the appropriate dosing rate, will not cause a different taste than when "chlorine" is used as a drinking water disinfectant. Any change in taste is more likely to be because of the difference in taste between groundwater and surface water.

**17. Will the District use its groundwater wells again?**

Answer: Yes. The District will maintain its groundwater wells in working condition for two reasons. First, the City of Houston will not provide sufficient treated surface water to meet everyone's needs during peak demands (i.e. summer months). Secondly, the District's wells will be used in case there is any disruption in the supply of treated surface water from the City of Houston, whether because of planned maintenance or an accident.