HARRIS COUNTY MUNICIPAL UTILITY DISTRICT NO. 368
TOWN MEETING TO DISCUSS SURFACE WATER CONVERSION
NOVEMBER 9, 2010

FREQUENTLY ASKED QUESTIONS (FAQ)

The purpose of this FAQ and the Town Meeting on November 9th, 2010 is to inform the customers of HCMUD No. 368 ("District") about a number of issues relating to the conversion to surface water expected to occur within the District in the next several weeks.

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

Answer: The District currently obtains its water supply from 5 water wells in the Chicot and Jasper Aquifer.

2. Why is the District converting to surface water?

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

3. What is the North Harris County Regional Water Authority?

Answer: The North Harris County Water Authority, or NHCRWA, was created by the Texas Legislature and confirmed by local voters to provide treated surface water to north and northwest Harris County in a cost effective manner.

The NHCRWA has constructed large water transmission lines, storage tanks and a pump station to transfer treated surface water to users within its service area.

4. How does the NHCRWA pay for its activities?

Answer: The NHCRWA charges all water users within its service area a usage fee for both groundwater and surface water. In this way, all water users participate in the cost of surface water conversion, not just those districts which are required to convert first.

5. Where will the NHCRWA obtain surface water?

Answer: The NHCRWA purchases treated surface water from the City of Houston ("Houston"). For the most part, the treated surface water that the NHCRWA purchases will be from Lake Houston which has been treated at Houston's Northeast Water Purification Plant.

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. Houston performs regular testing of the treated water to demonstrate compliance with these drinking water standards.

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's 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 used to?

Answer: Some people notice a difference in taste between surface water and groundwater, and some do not. Many people who notice the difference get used 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 sink models can improve the taste of surface water.

10. Have there been some customer complaints in districts along 1960 which have recently converted to surface water?

Answer: Yes. Both the districts and the NHCRWA have been investigating the cause of the complaints. They have found that the complaints are due to a number of different sources. First, some of the complaints are taste and odors in the treated surface water supplied by Houston. The City of Houston has acknowledged these complaints and has taken measures to remedy the problem. Secondly, some problems have been traced to the water line flushing performed by the districts, which can have the unintended consequence of stirring sediment within the water lines. These problems were short term and have subsided. Thirdly, as discussed further below, some problems are caused by scale deposits in homeowner's piping being affected by the "softer" surface water.

11. 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 piping and plumbing fixtures, and makes soaps or detergents less effective. In extreme cases this scale can build up and ruin water heaters and plug home water pipes.

12. Will surface water be "hard water" or "soft water"?

Answer: The surface water in the Houston area is relatively soft water.

13. 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 in their home piping systems. Since groundwater in Harris County often has small quantities of iron, this iron is may be included in the mineral deposits and will have the effect of causing 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.

14. 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 chloramine rather than chlorine in order to minimize the production of chlorinated organic byproducts in the treated water. Most groundwater has so little organic compounds in it that chlorine disinfection is not a problem.

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

Answer: 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 they are preparing water to put into their aquarium tanks. This is because the additives that will work for removing or neutralizing "chlorine" to make it safe for the fish may not work for "chloramines." Homeowners with swimming pools using chlorine disinfection will need to modify their procedures.

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

Answer: You should contact the District's Operator, Eagle Water Management, at 281-374-8989.

17. 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 the use of "chlorine" as a drinking water disinfectant.

18. 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 NHCRWA will not provide sufficient treated surface water to meet everyone needs during peak demands (i.e. summer months). Secondly, the district wells will be used in case there is any disruption in the supply of treated surface water from the NHCRWA, whether because of planned maintenance or an accident.