Summer 2011

Heartbeat of the Hickory

"Water is life's mater and matrix, mother and medium. There is no life without water."Albert Szent-Gyorgyi

Radionuclides

The topic of radionuclides has re-emerged. This issue is not a new one. Several times in the past the District has printed information regarding this issue. The following has been derived from those articles.

Radionuclides are naturally occurring radioactive materials found in rocks and soil and transferred into groundwater. As uranium and thorium decay, radium is formed. The most common radionuclides are Radium 226 and Radium 228. The EPA has set a maximum contaminant level (MCL) for radium of 5 picocuries per liter. A Curie is the number of atoms decaying each second. One Curie is equal to 37,000,000,000 atoms decaying each second. A picocurie is one trillionth of a Curie.

In 2000, the EPA adopted the revision of these standards originally established in 1977. Prior to revision, this area was in compliance. As a matter of fact the July 18, 1991 issue of the Federal Register proposed increasing the standards to 20.0 pCi/l.

The water in the Hickory averages less than 30 picocuries per liter. According to some experts, radioactivity levels in common consumables are substantially higher than Hickory water. For example, whiskey is 1,200 picocuries/liter, beer is 390, milk is 1,400 and salad oil a whopping 5,000! *Source: U.S. Army Corps of Engineers, Buffalo District*

The EPA contends that a correlation between radium and certain types of cancer, specifically bone cancer, exists. Some approximations contend that an individual would have to drink two liters of water a day for 70 years before levels in the body would be elevated to a potentially dangerous degree. One study conducted by the Medical College of Wisconsin and Dr. Peter Layde, one of the nation's top epidemiologists, concluded a reduction in drinking water radium levels was not medically or scientifically warranted. The study released August 8, 2000 showed no correlation between radium and bone cancer. *Source: http://fcd.mcw.edu/?module=search&func=showPublication&pmid=12530595*

The bottom line is that the effects of the radionuclides are controversial to say the least.

There are several methods the ordinary citizen can use to remove or lower the levels in drinking water. According to wateronline.com, Ion Exchange removes 90% of radionuclides. Lime softening can remove radium from drinking water with 80% to 95% efficiency. RO can remove 87% to 98% of radium from drinking water. Greensand filtration can remove up to 56% of radium.

The District does NOT test for radionuclides/radium but the TCEQ offers the following link for labs that are certified to test levels:

http://www.tceq.state.tx.us/assets/public/compliance/compliance_support/qa/txnelap_lab_list.pdf

Hickory UWCD No. 1
P.O. Box 1214
111 East Main Street
Brady, TX 76825

Phone: 325-597-2785
Fax: 325-597-0133
Email: hickoryuwcd@yahoo.com
Website: http://www.hickoryuwcd.org

BULK RATE
U.S. POSTAGE PAID
PERMIT NO. 09
BRADY, TX 76825

LEGISLATIVE SUMMARY

As Yogi Berra said, “It ain’t over till it’s over.” That’s the case with this state legislative session. As the special session continues, more bills are being filed so any legislative summaries are a bit premature at this time. We can however report on the bills that passed to date.

CSSB 332, by Sen. Troy Fraser and Rep. Allan Ritter would amend the Water Code by stating that the Legislature recognizes that a landowner owns the groundwater below the surface of the landowner’s land as real property.

The groundwater ownership and rights would entitle the landowner, including lessees, heirs, or assigns, to drill for and produce the groundwater below the surface of real property without causing waste or malicious drainage of other property or negligently causing subsidence, but would not entitle a landowner to the right to capture a specific amount of groundwater below the surface of the land, and would not affect the existence of common law defenses or other defenses to liability under the rule of capture. The bill would delete the phrase “except as those rights may be limited or altered by rules promulgated by a district” in relation to the landowner’s rights.

The bill would state that nothing in the law could be construed as granting the authority to deprive or divest a landowner of the groundwater ownership and rights. CSSB 332 would **not:**

- prohibit a district from limiting or prohibiting the drilling of a well by a landowner for failure or inability to comply with minimum well spacing or tract size requirements adopted by a groundwater conservation district;
- affect the ability of a groundwater conservation district to regulate groundwater production; or
- require that a rule adopted by a district allocate to each landowner a proportionate share of available groundwater for production from the aquifer based on the number of acres owned by the landowner.

Sen. Juan Hinojosa and Sen. Glenn Hegar introduced CSSB 660 would make various changes to TWDB administration and water management. It would amend the current process for developing desired future conditions (DFCs) for aquifers. This would include amending the public notice requirements for joint planning meetings in groundwater management areas and for the adoption of DFCs of aquifers, and it would require proof of notice in submission of DFCs to TWDB. CSSB 660 would require groundwater management areas to document factors considered in adopting DFCs and to submit that documentation to TWDB. The bill would remove TWDB from determinations of the reasonableness of a DFC and instead require districts to adopt relevant DFCs through rule, with the proper adoption of the rule subject to challenge in district court, under the same procedures currently used to challenge district rules.

CSSB 660 would require a representative of a groundwater conservation district in each groundwater management area that overlaps with a regional water planning group to serve as a member of that regional water planning group, require regional water planning groups to use the desired future conditions in place at the time of adoption of TWDB’s state water plan in the next regional water planning cycle, provide that the state water plan include an evaluation of the state’s progress in meeting future water needs, provide for the development of a uniform system for calculating municipal water use in gallons per capita per day to be used for water
conservation plans, define TWDB’s water financial assistance bonds status for the state debt limit, provide for legal action to be taken for default of payment on TWDB’s financial assistance programs, charge the director of the Texas Natural Resources Information System (TNRIS) to serve as the state geographic information officer, and abolish the Texas Geographic Information Council.

Stay tuned for more as the Special Session develops.