

Guadalupe-Blanco River Authority
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www.gbra.org

Water Quality and Fracking

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Guadalupe-Blanco River Authority

What is hydraulic fracking, also known as “fracking”?

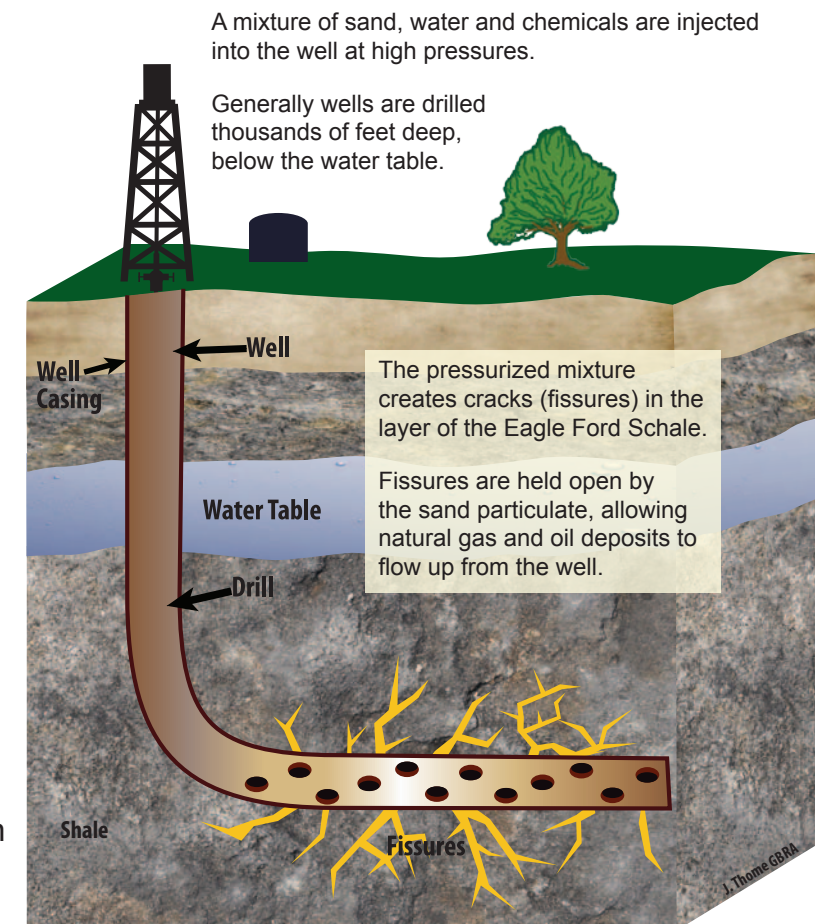
Are you concerned about how hydraulic fracturing or “fracking” may affect the water quality of your water wells? If so, it might help you to know that such issues are being considered on the national, state, and local levels.

The first question one might ask is, “What is fracking?” Well, fracking is a process used by gas producers to stimulate wells and recover natural gas and oil from sources such as coal beds and shale gas formations. The technique creates fractures that extend from a well bore into rock or coal formations. These fractures allow the oil or gas to travel more easily from the rock pores, where the oil or gas is trapped, to the production well. To create fractures, a mixture of water, proppants (sand or ceramic beads) and chemicals is pumped into the rock or coal formation. The chemicals used in this process are what pose the question – it is not exactly clear to the public what those chemicals are.

Are there concerns about fracking at the federal level?

In its Fiscal Year 2010 budget report, the U.S. House of Representatives Appropriation Conference Committee identified the need for a focused study of this topic. Environmental Protection Agency (EPA) scientists, at the direction of Congress, are undertaking a study of the practice to better understand potential impacts of hydraulic fracturing on drinking water and groundwater. The EPA consulted with experts in the field through peer review, and technical workshops and engaged stakeholders in a dialogue about the study through facilitated public meetings. A draft study plan is under review with a Scientific Advisory Board. After the study begins, initial research results will be evaluated with an EPA goal of producing a report in 2014. For more information, visit:

www.epa.gov



How is the state addressing the issue?

On the state level, the Texas Railroad Commission (RRC) is also considering the issue. RRC staff has been tasked with completing the entire rulemaking process requiring disclosure of chemicals used in hydraulic fracturing by July 1, 2012. The Texas Legislature sent a bill to Governor Rick Perry that requires the RRC to write disclosure rules for hazardous chemicals by July 1, 2012. The bill also requires the RRC to complete rulemaking for all other chemicals used in the process by July 1, 2013. The RRC and Texas Commission on Environmental Quality (TCEQ) already have regulations in place for groundwater protection. For more information, visit the websites of the RRC and the TCEQ:

www.rrc.state.tx.us or www.tceq.state.tx.us

What is GBRA's stance?

GBRA's 10-county statutory district intersects with a significant portion of the Eagle Ford Shale Formation. This sedimentary rock formation underlies much of South and East Texas and is one of the most actively drilled targets for oil and gas in the United States. GBRA officials are taking an observe-and-monitor approach to Eagle Ford Shale fracking activities, and are closely following state and federal findings.

What can you do?

While fracking wells tend to be drilled significantly deeper than groundwater wells drilled for human and livestock consumption, some landowners may feel compelled to be more proactive in monitoring their groundwater. The GBRA's NELAP accredited Regional Laboratory can be a resource in the effort to ensure the water quality of groundwater has not been affected in private wells on or near the Eagle Ford Shale region. If you have a private well in this region and would like to have your groundwater analyzed for various substances or compounds, please bring water samples to the GBRA Regional Laboratory for testing at discounted rates.



What substances or compounds could be of concern?

GBRA staff is not privy to all of the substances or compounds that are used in a given fracking operation, nor specifically the operations occurring on the Eagle Ford Shale Formation. However, the American Water Works Association (AWWA) compiled a list of "potential hydrofracking chemicals" for its *Opflow Magazine* (July 2011 issue):

2,2-Dibromo-3-Nitrilopropionamide	Hydrochloric Acid	Ethoxylated Alcohol Prop-2-yn-1-01
2-butoxyethanol	Mesh Sand (Crystalline Silica)	Isopropyl Alcohol
5-chloro-2-methyl-4-isothiazotin-3-one	Monoethanolamine	Ethoxylated Alcohol Propan-2-01
Acetic Acid	Polyethylene Glycol Mixture	Propargyl Alcohol
Acetic Anhydride	Polysaccharide	Ethylhexanol
Aliphatic Alcohol	Potassium Carbonate	Formaldehyde
Aromatic Hydrocarbon Mesh Sand	Sodium Chloride	Sucrose
Boric Acid	Tetramethylammonium Chloride	Hemicellulase Enzyme
Boric Oxide	Glycol Ethers	Hydrotreated light distillate
Butan 1-01	2-methyl-4-isothiazolin-3-one	Methanol
Cristobalite Polyethoxylated Alkanol (1)	Isopropanol	Petroleum Distillate Blend
Crystalline Silica	Polyglycol	Polysaccharide
Dazomet	Aliphatic Acid	Propylene
Diatomaceous Earth	Ammonia Persulfate	Potassium Hydroxide
Ethane-1, 2-diol	Aromatic Ketones	Sodium Hydroxide
Ether	Mineral Spirits	Magnesium Nitrate
Ethoxylated Alcohol	Monoethanolamine	Volatile Organic Compounds
Ethoxylated Octylphenol	Citric Acid	Chlorides
Ethylene Glycol	Sodium Bicarbonate	Conductivity
Ferrous Sulfate Heptahydrate	Polyethoxylated Alkanol (2)	Hydrogen Sulfide
Glutaraldehyde	Dazomet Polyethylene Glycol Mixture	Gas Organics and Diesel Organics
Guar Gum	Diesel (use discontinued)	Oil and Grease

Laboratory Testing Fees and Information

Individual Prices:

Volatile organic compounds*\$185
Chlorides	\$20
Conductivity	\$11
Hydrogen sulfide*\$60
Total petroleum hydrocarbons*\$100
Oil and grease	\$58
Heavy metals* (As, Ba, Cd, Cr, Pb, Se, Ag, Hg) each . . .	\$25

Discounted Total Fracking Package:.....\$375
Subcontracted*

For more information about the "fracking analysis package," please contact the GBRA Regional Laboratory at:

830-379-5822 or 800-413-4130

or by email:
Josie Longoria - jlongoria@gbra.org

