

## Ground Water Issue

Q: Don, if you were the 'czar of Texas' what would you recommend that we do with the ground water issue? What is the best, most equitable solution?

A:

I'd handle subsurface resources of all kinds like every country I know about where the resources are owned by the State. Only in the US and Canada are subsurface resources privately owned. But that's not going to happen.

Most likely our legislature will make subsurface water the property of the owner of the subsurface oil and gas. This will certainly complicate the lives of surface land owners who do not also own the subsurface. If they have drilled wells to the subsurface aquifers, the Edwards and or the Trinity here in Central Texas, they will be producing water that does not belong to them. Bad news!

There is another way to determine ownership using geology but it is fraught with problems of determining exactly what the geological conditions are in a specific area. Since subsurface fresh water is recent rain water that has soaked into the ground and formed a layer of fresh water on top of salt water that is millions of years old (it is ancient sea water trapped in the sediments when they were deposited in an ancient sea. Later, when those sediments were converted to rocks the salt water was retained in the rock pores). Thus, there is a clear-cut geological separation of the very young fresh water layer and the underlying very old salt water that is associated with oil and gas accumulations. Unfortunately the depth to the top of the fresh water can vary from "grass roots" to hundreds of feet.