

# Geologic stratigraphy

Wells in the Sprague River Valley: consist of mixed formations of

- volcanic (basalts) and
- sedimentary (clays, sands)

Which have very different hydro-geologic properties for water flow, both

- horizontally
- vertically

### OWRD Model Review

In Prior years, OWRD's model and "draft" OAR guidance was predicated on a model based partly on the model by Hunt (Hunt, 2003).

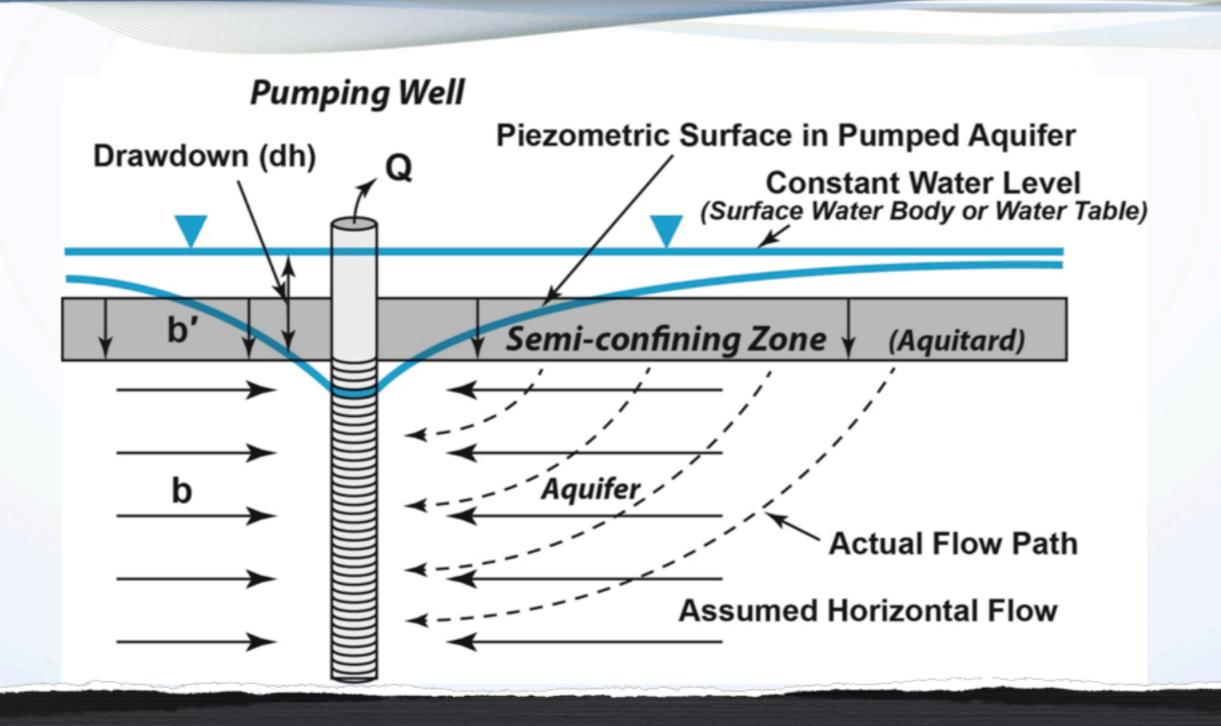
Current, Div. 9 Guidance uses some version USGS model, as of 2017.

### OWRD Model

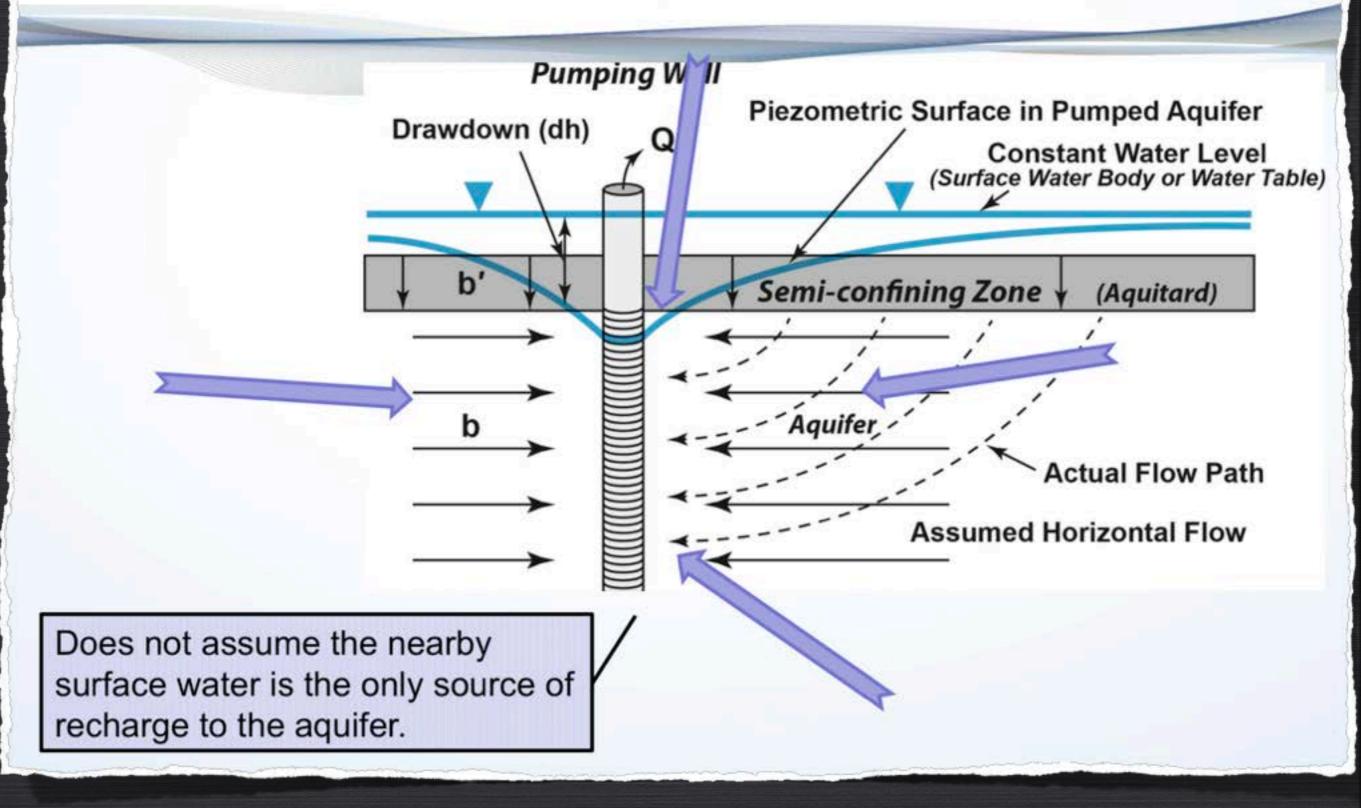
Assumes the only source of water to wells is coming from nearby surface water because of:

- artificial one-mile proximity
- vertical hydraulic conductivity
   is too high relative to the
- horizontal hydraulic conductivity.

#### **Conceptual Model of Leaky Aquifer**



## Alternate Model, Leaky Aquifer Analysis Differences with OWRD Model



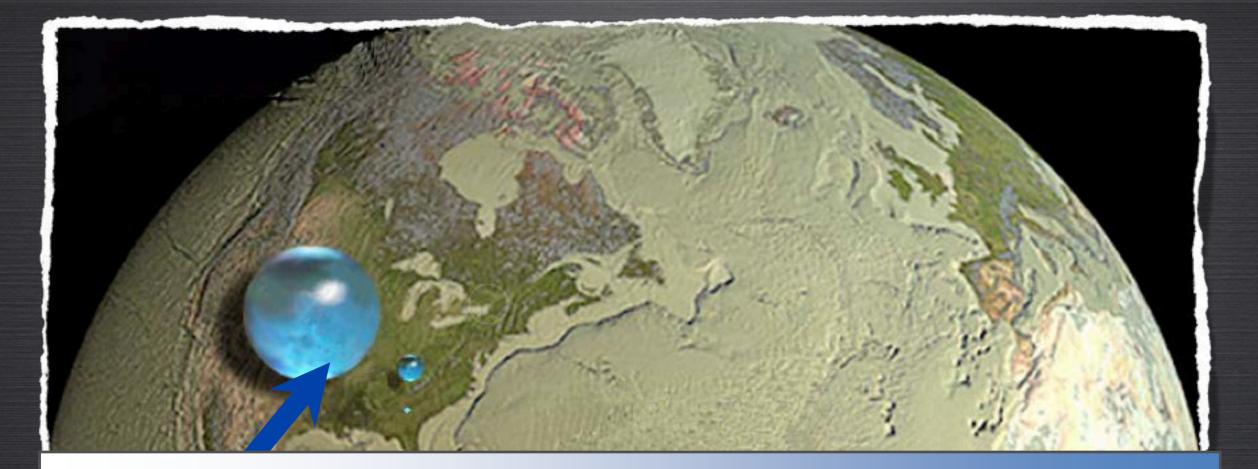
### Recommendations

- 1. Establish standards
- 2. Establish water right-holder "Habeus Corpus"
- 3. Commissioner Review and public comment for Model and regulatory Changes



# Beautiful Blue Marble

75% Water



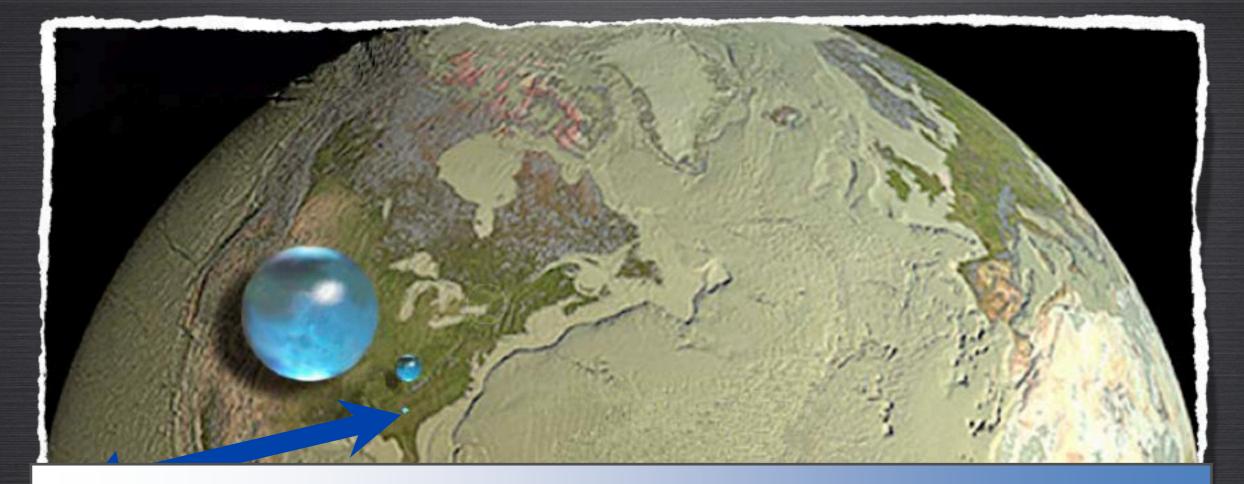
### All Water - 800 mi.



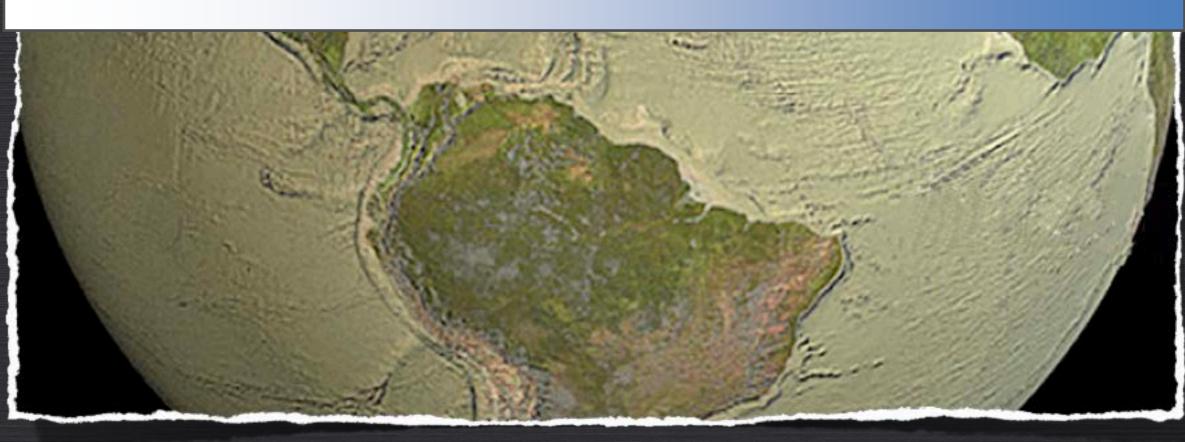


### Fresh Water - 169 mi.





### Fresh Surface - 35 mi.







### Thank You - Questions?

