

**Proposed Keystone XL Project**

**Key Aquifers**

- Lower Cretaceous
- Lower Tertiary
- Confining Unit (Pierre Shale)
- Paleozoic
- Upper Cretaceous (Fox Hills/Hells Creek Aquifers)

**Northern High Plains Aquifer System**

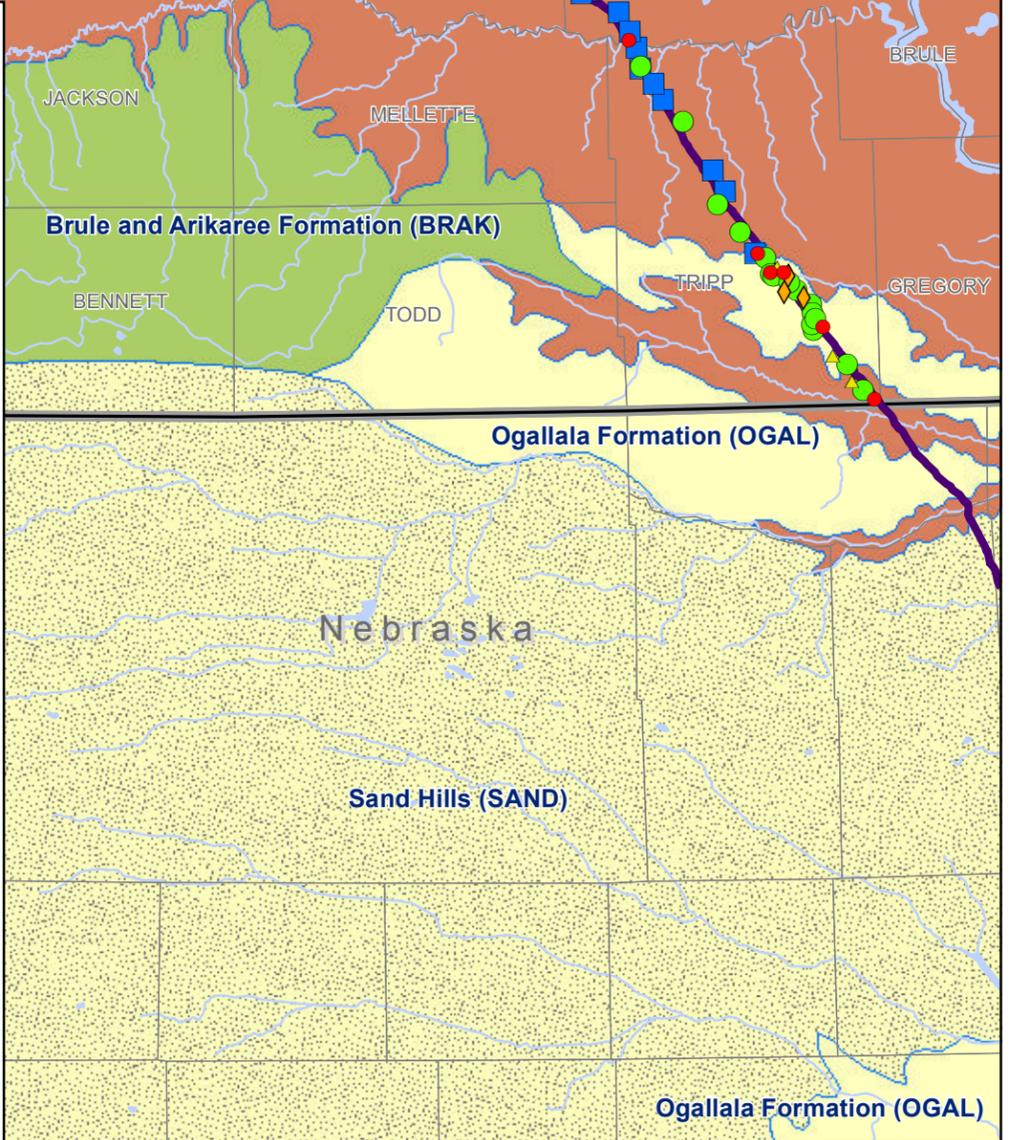
**Hydrogeologic Unit**

- Brule and Arikaree Formation (BRAK)
- Eastern Nebraska Formation (EAST)
- Ogallala Formation (OGAL)
- Platte River Valley Formation (PLAT)
- Sand Hills (SAND)

**Estimated Depths to Groundwater**

Categories:

- A - Very Shallow Water Depth (Static Water ≤ 10 feet and Total Well Depth ≤ 50 feet bgs) (11)
- ◆ B - Shallow Water Depth (Static Water > 10 feet and ≤ 50 feet and Total Well Depth ≤ 50 feet bgs) (13)
- ▲ C - Unclear Water Depth (Static Water ≤ 10 feet and Total Well Depth > 50 feet bgs) (5)
- D - Unclear Water Depth (Static Water > 10 feet and ≤ 50 feet and Total Well Depth > 50 feet bgs) (40)
- E - Deep Water Depth (Static Water > 50 feet and Total Well Depth > 50 feet bgs) (58)



Data Sources: Aquifers - National Atlas; NHPAQ - USGS; Water Wells - SD DENR, 2011; Basemap - ESRI.

Notes: bgs is below ground surface. Deep water depth also includes deep-screened artesian wells.

0 5 10 20 Miles

**KEYSTONE XL PROJECT**

Figure 3.3.1-2  
**Key Aquifers and Potable Water Wells within 2-mile Corridor (South Dakota)**