Tahoe Sierra IRWMP Drought Preparedness Project

Attachment 2: Drought Impacts

The Tahoe Sierra IRWM Drought Preparedness Project has the following drought impacts:

- *At risk of not meeting existing drinking water demands*

The **Squaw Valley** aquifer's water table is predicted to go lower in 2014 than any previous drought. Current drought impacts are: The lower water table will force reduced pumping in existing wells to avoid pumping into the well screens; SVPSD completed two emergency well rehab projects in preparation for drought impacts next summer and continued drought in 2015 will require drought funding rates and surcharges.

Lukins Water system, **South Lake Tahoe,** is being impacted by the recent drought as they rely solely on immediate groundwater supply. Lukins does not readily have water storage to provide customers in the event one of the wells goes down and would need to rely on the emergency intertie with South Tahoe Public Utility District to provide drinking water. Property owners with failing private wells are requesting connection to the Lukins system, resulting in increased water demand on our system. The potential exists that the continuation of the drought could result in higher contaminant levels in groundwater.

The community of **Tahoe City** currently relies on two groundwater wells for drinking water supply with no backup measures in place. Groundwater elevation data, tracked by the District since the late 1990s, for Tahoe City wells 02 and 03, is shown in Figures 1 and 2, respectively. Groundwater elevations vary seasonally, based on precipitation and the associated snowpack; however, a trending long-term decline in static groundwater elevations is evident, especially within the three (3) year drought period, as shown on Figures 3 and 4. "

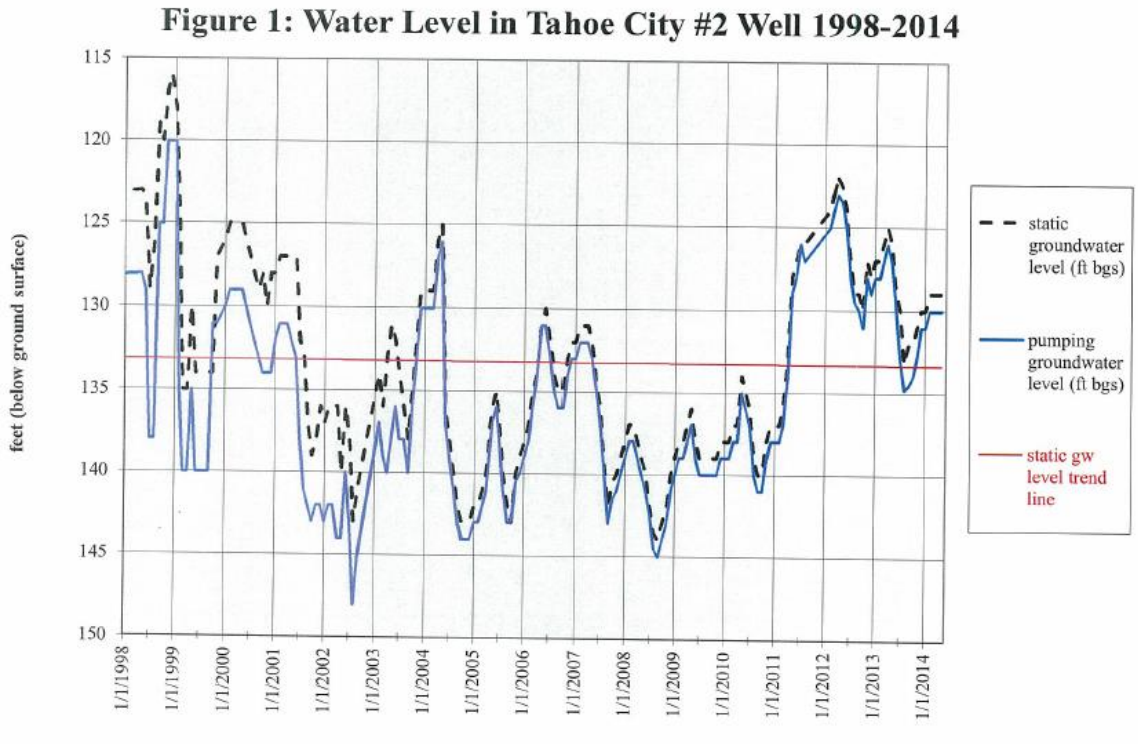


Figure 2: Water Level in Tahoe City #3 Well 1999-2014

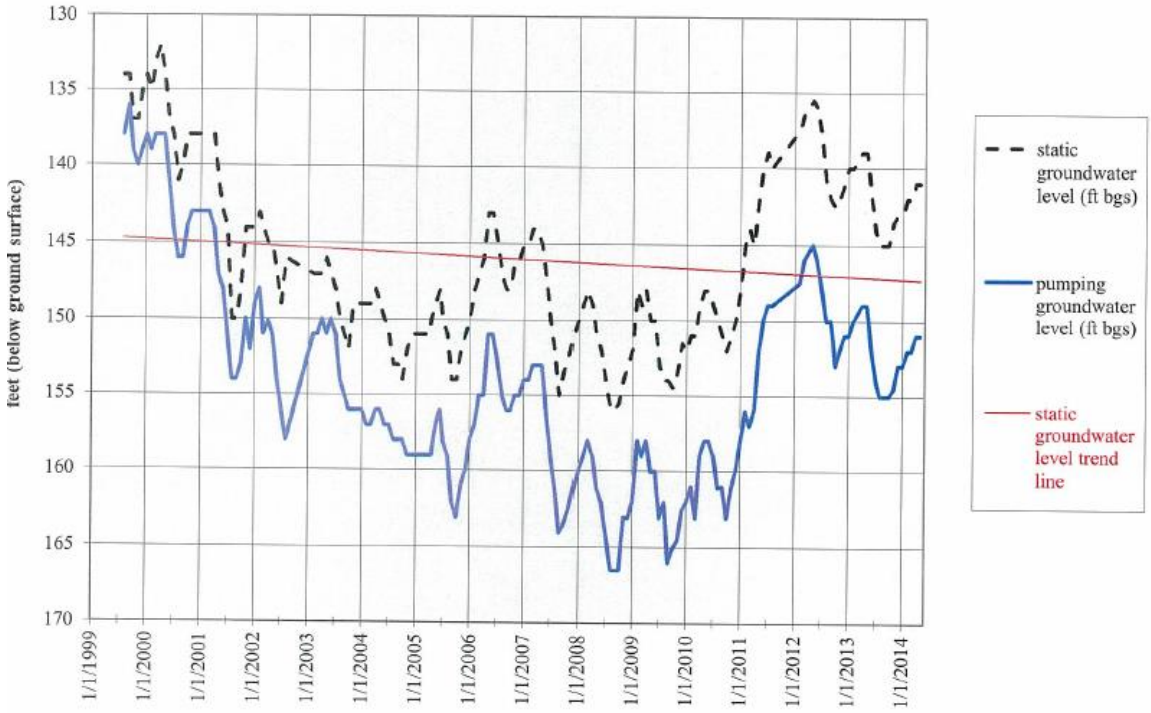


Figure 3: Water Level in Tahoe City #2 Well 2011-2014

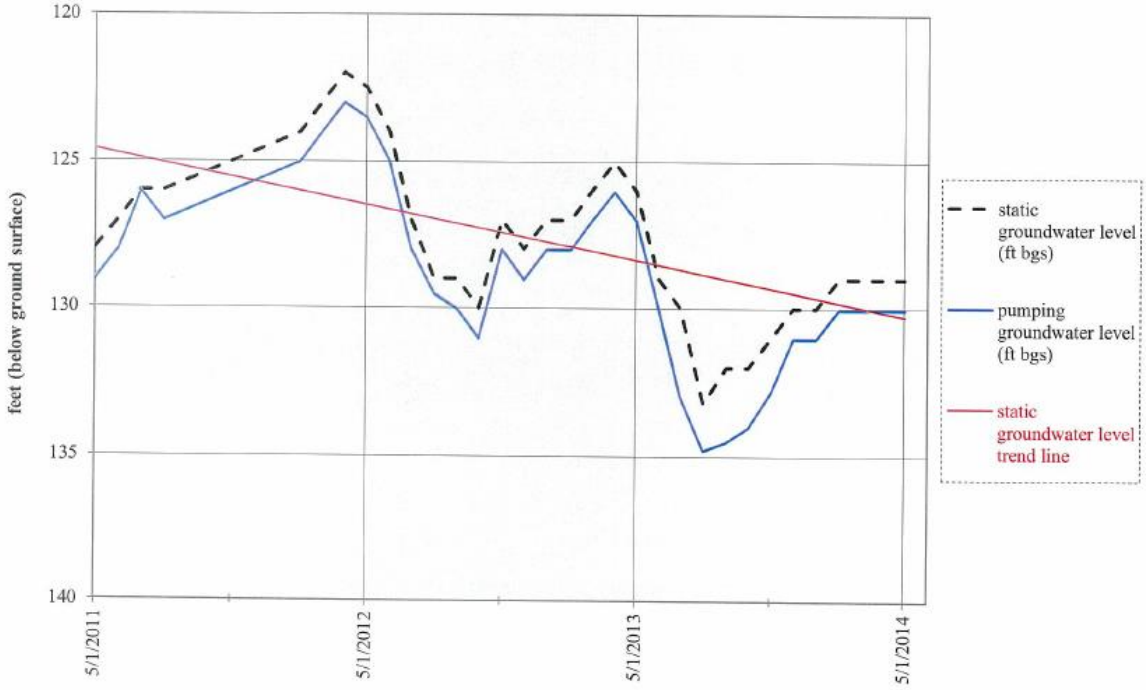
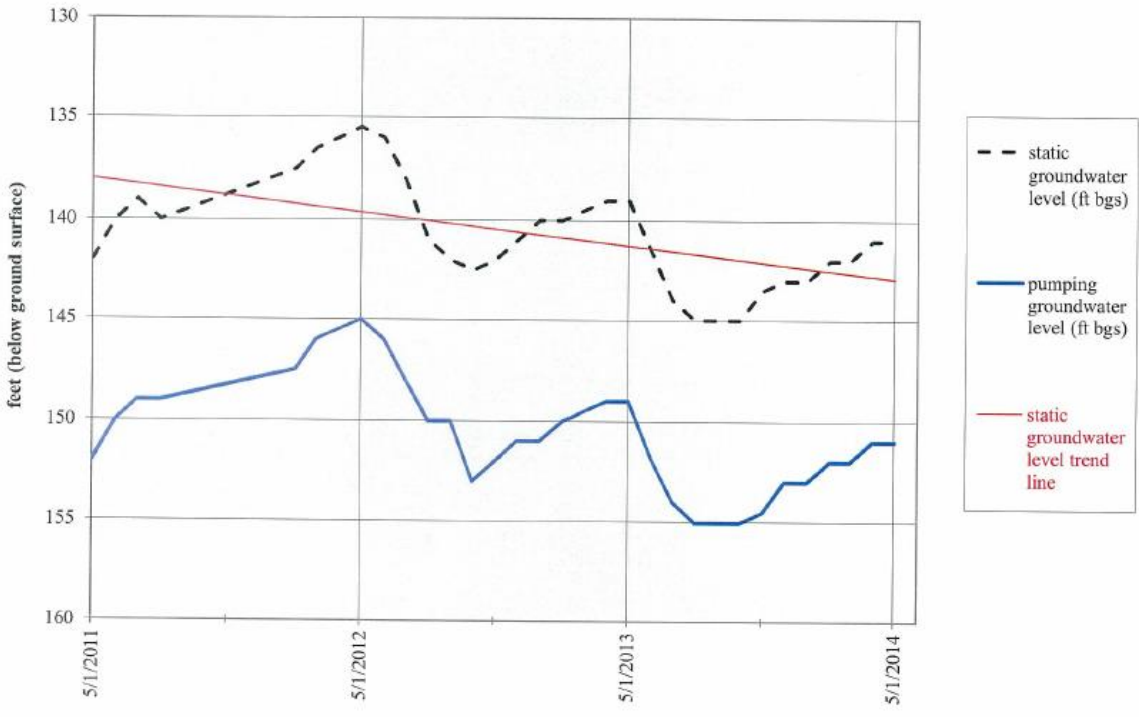
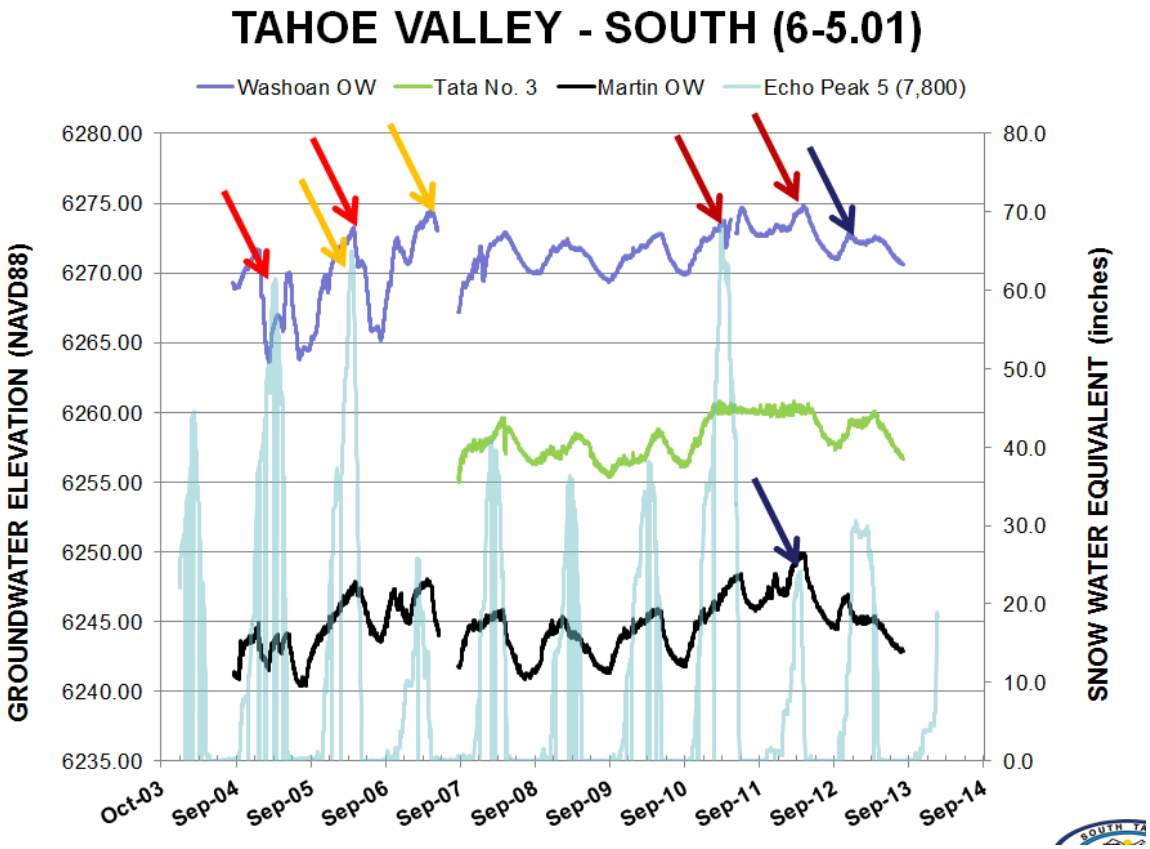


Figure 4: Water Level in Tahoe City #3 Well 2011-2014



South Tahoe Public Utility District, **South Lake Tahoe**, is experiencing lower than normal recharge to the groundwater basin supplying the drinking water and a higher water demand based upon earlier irrigation usage and hotter, drier weather. Near-Future Conditions if drought continues will be a declining groundwater elevation trend. See figure below:



- *At risk of not meeting existing agricultural water demands – not applicable*
- *At risk of not meeting ecosystem water demands – not applicable*
- *Drinking water MCL violations*

Lukins Water system, **South Lake Tahoe,** just last week discovered two of the three drinking water wells that supply all the systems drinking water have PCE levels exceeding the MCL (Well #2 26ppb and Well #5 16ppb). Both wells have been shut down and an intertie with the neighboring water system, South Tahoe Public Utility District, has been opened to provide emergency drinking water. The potential exists that this contamination may be the result of groundwater basin declining elevations and/or overdraft but further studies will be needed to determine this.

- *Groundwater basin overdraft*

Please see information and tables provided above for the potential impacts on groundwater basins if drought continues into 2015.

- *Discharge water TMDL violations – not applicable*
- *Or other drought related adverse impacts – not applicable*