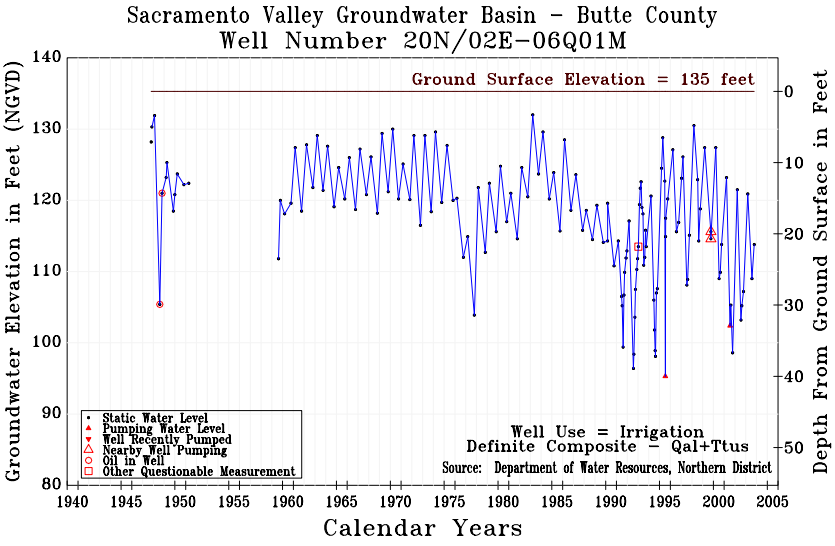
Durham-Dayton Sub-Area (Well Number 20N/02E-06Q01M):

The figure below is a hydrograph for well 20N/02E-06Q01M, located two miles south of Durham, adjacent to Butte Creek. This area marks a change in agricultural water uses from groundwater to the north and surface water use to the south. The well is a deep irrigation well with shallow casing, and a groundwater level measurement record dating back to the late-1940s. Groundwater levels in this well represent a mixture of the unconfined and confined portions of the aquifer system. The groundwater levels in this well were monitored on a semi-annual basis until 1991 and on a monthly basis from 1991 to about 1994. Since 1994, this well has been monitored four times a year during March, July, August and October.

The figure shows a seasonal fluctuation in groundwater levels of about 10 to 15 feet during years of normal precipitation and up to 20 feet during years of drought. Long-term comparison of spring-to-spring groundwater levels show a decline and recovery of groundwater levels associated with the 1976-77 and 1986-94 drought. Overall, comparison of spring-to-spring groundwater levels associated with this composite portion of the aquifer system, during years of normal precipitation, has changed little since the early 1970s.



Hydrograph for Well 20N/02E-06Q01M

The groundwater level time-history for this well is very similar to the key well in the M&T Sub-area. Groundwater levels have declined on average about two feet per-year since 1998. The reason for the decline is probably two fold. First climate is probably partly responsible for the groundwater level decline. Secondly, the well is in proximity to

the city of Chico so there may be an influence from the municipal groundwater extraction occurring in the California Water Service area. The relative impact by these two factors is currently unknown. The overall record suggests that when precipitation returns to a more normal pattern, that groundwater levels should recover. Currently, groundwater levels are near those recorded during the drought of the early 1990's. An examination of the overall record, however, reveals that long-term depletion of groundwater in storage is probably not occurring at this time. This is an area that needs to be watched carefully in the future.