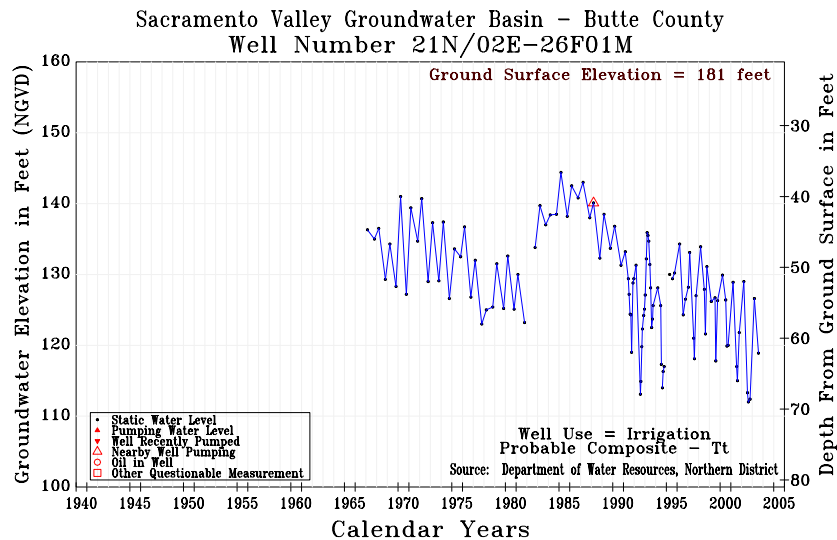


Pentz Sub-Area (Well Number 21N/02E-26F01M):

The figure below is a hydrograph for an active irrigation well 21N/02E-26F01M, just west of Highway 99, at the intersection of Durham-Pentz Road. Within a two-mile radius of the well, groundwater is used to support agricultural production of orchard and row crops, and small-scale industrial uses associated with a beverage distribution plant. The well is a deep irrigation well with shallow casing, and a groundwater level measurement record dating back to the mid-1960s. 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 (spring and fall) 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 that the average seasonal fluctuation in groundwater levels averages about 5 to 10 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 small decline in groundwater levels associated with the 1976-77 drought, followed by a larger decline associated with the 1986-94 drought. Groundwater levels in this well appear to recover from the 1986-94 drought to groundwater levels similar to those of the early 1980s. However, further long-term analysis of spring-to-spring groundwater levels indicates a 5 to 10 foot decline in groundwater levels since the late 1960s.



Hydrograph for Well 21N/02E-26F01M

Since 1996, spring, summer, and fall groundwater levels in this well have declined at a rate of about one foot per-year. Currently groundwater levels are comparable to the drought of the early 1990's. The reason for the decline is not fully known; however, it is

probably climate related. Hopefully, when precipitation returns to a more normal pattern, the downward trend will reverse itself. This sub-area needs to be watched closely in the future.