

# Water Level Monitoring

Program Update

By Vickie Newlin

As part of the implementation of the Groundwater Protection ordinance, Chapter 33 of the Butte County Code, the County is required to establish a well-monitoring grid to have a greater understanding of the sub-surface aquifer. Data gathered from these wells will provide information to better enable the County to identify and prevent third-party impacts associated with a water transfer permit.

In order to determine what type of monitoring was already in place, in August 1997, Butte County staff drafted and distributed a survey regarding the well monitoring activities that were already taking place within the county to discover where there might be gaps in the data. This survey was distributed to all water districts and water purveyors within the County, both domestic and agricultural. In addition, staff contacted appropriate state and federal agencies such as the Department of Toxic Substances Control, The State Water Resources Control Board, Regional Water Quality Control Board and USGS to inquire about their well monitoring activities. We discovered that although some of these agencies are charged with conducting water quality tests, they also have data on water levels.

With the help of the Northern District Department of Water Resources (DWR), all of this information was plotted on a map along with the monitoring sites currently monitored by DWR. This map was presented to the Technical Advisory Committee (TAC) for the Water Commission for their input on where there were possible data gaps in the monitoring grid. Gary Cole, who represents Valley Water Protection Association, also joined in this TAC discussion.

The TAC identified where they thought additional water level monitoring should take place. In addition, since the ordinance also calls for the prevention of subsidence, the TAC determined where subsidence would likely occur based on what is known about the subsurface geologic properties. Using this information, they made a recommendation for where to place extensometers, which are devices capable of measuring land subsidence. All of these recommended locations were plotted on the map.

Using these recommendations, the County has worked to increase the number of monitoring wells through the identification of idle well within the county. In cooperation with landowners, we have added six new monitoring sites to the grid and have also installed two extensometers in potential land subsidence areas. In addition, DWR has installed three dedicated monitoring wells within the County for a total of NINE new monitoring sites throughout the county.

Most recently, the County has approached agricultural irrigation districts supplied by surface water to encourage their involvement in the monitoring program. In January, the

Richvale Irrigation District approved the purchase of a continuous recorder to install on a well within their district. The County is also scheduled to meet with representatives of Western Canal Water District, who have independently conducted water level monitoring since the summer of 1994.

We are very excited that this cooperative program is moving forward and would like to thank DWR, BBWUA, the districts and various agencies for supplying information, and of course the individual landowners that have agreed to participate. This cooperative effort is a credit to our community.