COMPETING AGRICULTURAL AND URBAN WATER USERS WITHIN A GSP

Water Law Symposium, UC Berkeley, January 20, 2018

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The Sustainable Groundwater Management Act of 2014 (SGMA) was a political reaction to the groundwater crises that arose as an immediate consequence of a prolonged drought, mainly in the Central Valley. The reasons behind the crisis, besides the drought, were the inadequate investment in surface water storage and conveyance infrastructure and the tangled policies on water allocation. As the availability of irrigation water became more problematic, the agricultural sector had to depend more and more on groundwater.

Between 1970 and 2009, the California population nearly doubled, agricultural production more than doubled, and the state GDP grew 16 times. But, out of the 37 largest reservoirs in the state (with a total volume of 33.4 MAF), only 8 reservoirs (7.5 MAF), representing a paltry 29% increase in the capacity, were opened since 1970, and only 2 of them after 1980. Water infrastructure investment in recent decades has clearly been falling far behind what we could have and should have made.

In California, water is allocated to three major uses: environmental, agricultural, and urban. In normal times, environmental programs receive some 50%, agriculture 40%, and urban 10% of the share. To meet the needs of the growing population, the agricultural sector has been increasing its output while holding down the input. Between 2010 and 2014, the inflation-adjusted farm GDP grew 43% from $41-billion to $59-billion while the farm acreage stayed virtually unchanged at 25.5-million acres. Irrigation water usage hovered around 30-million AF with a decreasing trend.

Some scholars believe that another 20% water efficiency improvement is possible. New technologies and farmers’ willingness to incorporate them to their BMPs do give us hope. But the bottom line is that agriculture needs water in order to survive and serve the increasing population. Farmers can get irrigation water only from allotments of surface water or pumping their wells. Groundwater is the last recourse when the surface water supply fails.

In and around Sonoma County where there is no irrigation district or Federal or State water project, farmers have to depend more on private wells. Many municipalities and urban water districts have their own wells (for being better positioned in dealing with the water wholesaler), but they don’t necessarily have to use them. Unlike urban water users, agriculture cannot get the public supply water through distribution pipelines. Such infrastructure will be considered urban growth-inducing by the Local Agency Formation Commission (LAFCO) and won’t be permitted. Thus, for the sake of orderly land use development, agriculture is made dependent on groundwater.

Napa County acknowledges the above fact, and sets a priority scheme in their General Plan as a Conservation Policy, to wit:

*Recognizing that groundwater best supports agricultural and rural use, the County discourages urbanization requiring net increase in groundwater use and discourages incorporated jurisdictions from using groundwater except in emergencies or as part of conjunctive-use programs that do not cause or exacerbate conditions of overdraft or otherwise adversely affect the County’s groundwater resources. (Policy CON-51)*

As long as we foresee potential conflicts among the groundwater end users, it would be advisable to set a similar public policy prioritizing the use on a rational basis. Otherwise, the priority in the GSP could be set by a majority vote of the GSA. In Sonoma County, urban water interests dominate all three GSA governing boards. These GSAs were created by JPAs among the GSA-eligible public agencies. All cities are GSA-eligible but private organizations aren’t. A*s* a result, there is only one genuine agricultural body serving on two of the three GSA governing boards, and no agency on any of the three that represents specifically the rural residential interest.

Under normal climatic conditions, however, conflicts can be and should be avoided by increased investments in water infrastructure, coherent policies on water allocation, and friendly competition among environmental, agricultural, and urban sectors for further improvement of the water use efficiency.

COMPETING ABRICULTURAL AND URBAN WATER USERES WITHIN A GSP *(Continued)*

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References:

* California Department of Food and Agriculture, *Agricultural Statistics Review*, 2011, 2015-2016.
* California Department of Water Resources, *California Water Plan Update 2013*, October 2014.
* Congressional Research Service, *California Agricultural Production and Irrigated Water Use*, June 2015.
* Congressional Research Service*, Irrigation in U.S. Agriculture: On-Farm Technologies and Best Management Practices*, October 2016.
* County of Napa, *Napa County General Plan*, June 2009.
* Natural Resources Defense Council/Pacific Institute, *Agricultural Water Conservation and Efficiency Potential in California*, June 2014.
* Pacific Institute, *California Agricultural Water Use; Key Background Information*, April 2015.
* Public Policy Institute of California*, Water Use in California*, July 2016.

GROUNDWATER PUMPING EFFECTS ON SURFACE FLOWS/FISHERIES

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The reason that a river keeps running many days after the last rain is that the stream is now fed by groundwater. The reason that the temperature of such a stream is cool is because it bears the groundwater temperature. And the reason that some reaches of a stream lose their flows is that the water seeps into aquifers in some places at certain times. That much we know, but little else.

SGMA mandates that a Groundwater Sustainability Plan (GSP) address the groundwater-surface water interaction. There has been much advance in recent years in the art of hydrologic modeling and water budget estimation. A recent study of the northeast Napa area groundwater concluded that doubling of the normal groundwater pumping in the area would make only about 5% difference in the groundwater input to the stream. Far more important determinants are climate-driven effects including recharge and subsurface lateral flows.

By the time Sonoma County’s GSPs are ready in 2022, we will have a go od grasp of our local pumping effects on surface flows and fisheries therein. However, even at that time, the reliability of the information would be less than certainty. Any attempt to regulate private groundwater pumping for the purpose of protecting surface flow-related public trust assets would trigger heated debates on nexus, proportionality, and just compensation.

For the time being, we may better direct our resources for preventing the conflicts rather than trying to resolve them with available legal tools. During the peak drought of 2015 when a Russian River tributary was drying up and threatening fish rearing habitat, some stored irrigation water was released voluntarily to give fish a respite. Similar actions should be encouraged to cope with other emergency situations. A more stable and longer-term solution would be enhanced aquifer recharge. If the aquifers that contribute to stream flows are kept adequately replenished, everybody should be happy – farmers, rural residents, and fish.

The above argument may sound like avoiding the task of helping law students prepare for future legal issues, and it is. Historians, jurists, and most of us are better in hindsight than in foresight. Their task is to clarify the line of logic in the past and project it correctly to the future. Where there is little relevant past, a novice can be as potent as a veteran. So, it would be everyone’s task to ponder on the proper legal role in resolving probable conflicts between groundwater pumping and surface water depletion.

References:

* Vicki Kretsinger Grabert, Luhdorff & Scalmanini Consulting Engineers, *Northeast Napa Area: Special Groundwater Study*, October 2017.
* Chief Judge Susan G. Braden, U.S. Court of Federal Claims, *Sacramento Grazing Association, Inc. et al. v. The United States*, Nov. 3, 2017.