Basin Boundary Modification Request Under SGMA for a Central Valley Water District

Erler & Kalinowski, Inc. ("EKI") is provided technical and strategic support to the Tejon-Castac Water District in Kern County related to the District's response to and implementation of the Sustainable Groundwater Management Act ("SGMA"). The District overlies several small groundwater basins in the Tehachapi Mountains as well as a small portion of the Kern Subbasin of the San Joaquin Valley Groundwater Basin. This latter basin is a large high-priority basin facing severe chronic overdraft conditions with a multitude of stakeholders, including private water users, water districts, and municipalities, to name a few. As such, implementation of SGMA in the Kern Basin will likely be extremely challenging from a technical and political perspective.

EKI is providing technical and strategic water resources management support to Tejon-Castac Water District related to the District's response to the Sustainable Groundwater Management Act ("SGMA"), California's landmark new law governing groundwater basin management. The District overlies portions of two groundwater subbasins, including the Kern County Subbasin located at the southern end of the San Joaquin Valley Groundwater Basin. Classified by the Department of Water Resources ("DWR") as being a high priority subbasin and also in a condition of critical overdraft, the Kern County Subbasin is subject to the most aggressive provisions of SGMA, including requirements to (1) establish one or more Groundwater Sustainability Agencies ("GSAs") comprised of local agencies with land or water use authority and (2) develop, on an accelerated timeline, one or more coordinated Groundwater Sustainability Plans ("GSPs") with goals, objectives, and actions aimed at achieving sustainable groundwater management.

Given the multitude of major groundwater users (i.e., potentially eligible and competing GSAs) within the Kern County Subbasin and the serious challenges facing those agencies related to addressing chronic overdraft conditions, the District chose to pursue a basin boundary modification (an option under SGMA) to modify the Kern County Subbasin boundary to carve out a new subbasin (i.e., the White Wolf Subbasin) along the White Wolf Fault, based on scientific evidence that the White Wolf Fault creates a significant impediment to flow from the White Wolf Subbasin to the rest of the Kern County Subbasin. This basin boundary modification would benefit the District by disentangling it from the many contentious issues facing the larger Kern County Subbasin and affording it greater control over its groundwater resources, thereby enhancing sustainable groundwater management in the area.

In the fall of 2015, DWR promulgated new regulations governing the basin boundary modification request process under SGMA. The process involved, among other things, stakeholder outreach, submittal of a formal request package that includes a technical report providing scientific justification for the request, and an explanation of how the modification would promote sustainable basin management. On behalf of the District, EKI prepared a technical report for inclusion in the District's submittal to DWR. To prepare this report, EKI compiled and reviewed a large amount of geologic and hydrogeologic information, including geologic maps depicting various fault traces, groundwater elevation data, water quality data, and land use/cropping data. EKI also conducted an aquifer pumping test to demonstrate the groundwater barrier effect. EKI then synthesized all of the information into a coherent hydrogeologic conceptual model and water balance for the proposed White Wolf Subbasin.

EKI also provided the District with overall guidance and strategy during the basin boundary modification request process to ensure that the District complied with all regulations. As part of these services, EKI prepared and delivered presentations describing the request process to the District and two other public water districts overlying the proposed subbasin to solicit their feedback on the proposal, and mapped out steps for the District to follow to complete its request. In June 2016, DWR announced that the District's basin boundary modification request was approved.

- **SGMA Support and Implementation**
- **Groundwater Management Strategy Development**
- **Technical Analysis of Groundwater Basin Boundary Modification**
- **Conceptual Model and Water Balance**
- **Governance Options for Groundwater Sustainability Agency Formation**