

The Kern Water Bank Storage Project within the Kern Groundwater Authority GSP

The Kern Water Bank is a Storage Project (KWB) within the Kern Groundwater Authority Groundwater Sustainability Agency (KGAGSA) and the KGA Groundwater Sustainability Plan. The KWB is an important pre-existing project that is critical to the ultimate sustainability of the basin. The project:

- Conserves surplus water by storing that water in the Kern Fan aquifer;
- Does not use groundwater consumptively; and
- Recovers previously stored water in dry years to supplement limited surface supplies, thereby reducing the reliance on native groundwater by others in the Kern Subbasin.

The KWB has been in operation for 24 years. Over that time the KWB has stored 2.8 MAF of water and recovered 1.6 MAF of water. Both the past operations of the KWB and its' future operations will provide a significant contribution to the sustainability of the Kern Sub-basin.

SGMA and Water Banking

SGMA regulations recognize the uniqueness of storage projects and their role within a GSA in Water Code Section 10726.2.(b) which states: "...the agency shall not alter another person's or agency's existing groundwater conjunctive use or storage program except upon a finding that the conjunctive use or storage program interferes with implementation of the agency's groundwater sustainability plan." The KGAGSA also recognizes this unique aspect of storage programs within its boundaries with the following provision in its Joint Powers Agreement: "the Authority shall not restrict or otherwise limit the extraction of water stored (whether through direct recharge or in lieu deliveries) in the Kern County Subbasin as a part of any banking or recharge project or program, or otherwise seek to regulate the operation of any such project or program..." Importantly, the KWBA has already undergone significant environmental review through CEQA, and that review has led to the development of extensive mitigation measures to reduce potential impacts from the project to less-than-significant.

SGMA Undesirable Results and KWB Operations

SGMA regulations are intended to minimize a series of undesirable results that can occur from the use of groundwater. The undesirable results that are applicable for the Kern County subbasin are:

- Chronic lowering of groundwater levels indicating a significant and unreasonable depletion of supply;
- Significant and unreasonable reduction of groundwater storage;
- Significant and unreasonable degraded water quality;
- Significant and unreasonable land subsidence;

With respect to these undesirable results, the KWB Storage project:

- Cannot cause a chronic lowering of groundwater levels.

- Cannot create a significant or unreasonable depletion of supply or reduction in groundwater storage;
- Has not degraded water quality, as documented by years of monitoring data; and
- Has not caused land subsidence.

KWB operations cannot cause a chronic lowering of groundwater levels, nor can it create a significant or unreasonable depletion of supply or reduction in groundwater storage, because the project can only recover water previously stored in the aquifer after appropriate losses. The project may cause a temporary lowering of groundwater levels during recovery operations. However, any potential impacts that may result from this temporary lowering of water levels is mitigated pursuant to CEQA commitments and other agreements and/or operating plans. With respect to water quality, the project has conducted significant groundwater quality monitoring over the last 24 years, and degraded water quality has not occurred. In fact, project operations actually have a net effect of exporting salt from the Kern Fan aquifer. With respect to subsidence, that potential in the Kern Fan area is monitored with an extensometer operated by the Department of Water Resources. No significant inelastic subsidence has been recorded, rather, since the inception of KWB operations, there has been an overall net rise of the land surface.

KWBA Mitigation Measures – The Joint Operations Plan

As stated earlier, extensive mitigation measures have been developed to reduce KWB operations to less-than-significant. Key measures are included in a Joint Operations Plan which applies to the KWBA and several other banking projects. The operations plan mandates the use of two models to determine with- and without-project conditions. If the banking projects impact landowner wells to certain levels, mitigation measures are available that may range from funding the lowering of well pumps to funding the deepening of wells.

KWBA Stakeholder Outreach

KWBA stakeholder outreach began in 1995, with the development of the Kern Water Bank MOU and continued with significant public review through the CEQA process and through negotiations with adjoining entities. The KWBA has also participated in the significant outreach efforts of the KGA.