



**Rosedale-Rio Bravo Management Area (RRBMA)
 Management Area Groundwater Sustainability Plan Summary
 Kern Groundwater Authority Board Meeting
 December 18, 2019**

Water Budget

The Subbasin’s dynamic conjunctive use programs, water banking operations, and water transfers/exchanges made it necessary to coordinate a GSA level water accounting methodology (Checkbook) using Subbasin specific values for supply, demand and net results. RRBMA’s Water Budget over the 1995-2015 hydrologic period is provided below.

ROSEDALE-RIO BRAVO MANAGEMENT AREA GSP		
Total Water Demand	Total Water Supply	Net Water Budget
District 108,032	93,111	(14,918)
White Land 10,822	5,623	(5,198)
KGA		
1,929,838	1,673,557	(256,281)

Note: values in acre-ft

Management/Projects/Action Plans

RRBMA has identified Projects, Management Actions and Adaptive Management Strategies with immediate and long-term benefits towards maintaining sustainability, many are already underway.

Projects – 27,500 AFY

- 2020 - West Basin Improvements (60 acres) and Stockdale East (200 acres) recharge expansion projects. Approximately 5,000 AFY.
- 2025 - Pilot Recharge Projects, James Groundwater Storage Project (2,070 acres), and the Onyx Project. Approximately 11,500 AFY.
- 2030 - Kern Fan Project recharge project (1280 acres). Approximately 10,000 AFY.
- 2035 - Western Rosedale In-Lieu Service Area. Approximately 1,000 AFY.

Management Action

- 2020 - White Land demand reductions by (5% per year) and 3rd party recharge and storage program. Approximately 1,510 AFY.
- 2025 - “Water Charge” for agricultural usage over project supply. Approximately 4,000 AFY.

Adaptive Management Strategies If either the projects or actions are unable to produce the projected supplies, or better options are found the RRBMA may deviate from the actions. At each 5-year planning window each project and action will be evaluated as well as new ones. The RRBMA will enact projects and actions to accomplish at least a linear path to sustainability. Compliance with demand reduction action will initially be voluntary in nature. However, to the extent that a landowner refuses to comply, the RRBWSD may terminate the contractual relationship that provides the landowner with SGMA compliance.

Management, minimum thresholds (MT), measurable objectives (MO)

RRBMA defined five monitoring zones each was based on similar groundwater conditions and land use patterns to allow areas with similar conditions to be grouped together so that MO, MT, values could be calculated.

MT’s were set at the previous low point (2012-2016 drought). Thresholds were evaluated by estimating pump lowering, well replacement, well-head treatment, and increased energy costs below the deepest levels. Level declines of 0, 25, 50, 75, and 100 ft deeper than 2016 levels brought undesirable results (\$0M, \$372M, \$640M, \$661M, \$675M respectively). Arsenic well-head treatment is the largest cost. MO’s were set at levels indicative of the historical record prior to the 2012-2016 drought.

RRBMA MT’s and MO’s coordinate well with management areas to the east, south, and west. MT’s of downgradient management areas to the north result in undesirable results in the RRBMA.

Stakeholder outreach

RRBMA stakeholder outreach to date has included; holding 11 public workshops with-in RRBMA; County-wide outreach efforts in coordination with KGA; and providing monthly updates to the RRBWSD board during regular board meetings. These efforts will continue in the future.

Public Comment

RRBMA received focused comments from one agricultural company related to definitions of native yield, stakeholder outreach, water markets, implementation of pumping restrictions, and data management. RRBMA incorporated those comments, as necessary, into the final MAP.