



Water Budget

The Kern County 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. As a result of the coordination efforts, Cawelo GSA’s Checkbook water budget indicates a deficit of 12,101 AFY of the KGA total budget deficit of 256,281 AFY.

Cawelo GSA Average Water Supply	Cawelo GSA Average Demand	Checkbook Water Budget
94,851 AFY	106,952 AFY	-12,101 AFY

Projects and Management Actions

Cawelo has identified several Projects and Management Actions for the path to groundwater sustainability in the Cawelo GSA area. Several projects are already underway including current construction work on the Friant Pipeline and negotiations on new imported water supplies. The goal is to focus on implementing supply projects immediately and throughout the 1st ten years of the implementation period. As we approach 2030, Cawelo will evaluate the success of water supply projects and begin implementing demand reduction management actions as necessary.

Supply Projects (AF/Year)	Project Type	Range of Annual Benefit	Annual Benefit at 2040	Start Date
P1 New Water Supply Purchases	SW & Banking	5,000 to 23,000	5,800	2020
P2 Increase Recharge and Banking Capacity	Banking	500 to 1,500	400	Complete by 2030
P3 New Cawelo GSA Banking Partners	Banking	500	100	2020
P4 Water Treatment Facilities	SW & Banking	7,500 to 20,000	15,000	2020
P5 Friant Pipeline Project	SW & Banking	1,500 to 2,500	500	2019
P6 Poso Creek Flood Water Capture	SW & Banking	150	30	Potential 2030 Completion
P7 Surface Water Storage	Increased Storage	500	500	Potential 2030 Completion
P8 Increased Imported Water Capacity	SW & Banking	500 to 4,000	1,250	2020
TOTAL			23,580	

Demand Reduction Mngmnt. Actions/Projects	Project Type	Range of Annual Benefit	Annual Benefit at 2040	Start Date
MA 1 Voluntary Land Conversion	Demand Reduction	2,000	2,000	2020
MA 2 Crop Conversion and Irrigation Efficiency	Demand Reduction	>2000	3,800	2026
MA 3 Land Acquisition	Demand Reduction	2,500	2,400	2036
TOTAL			8,200	

Additionally, Cawelo GSA will exercise adaptive management strategies as necessary and will continuously evaluate the Projects and Management Actions during the 20 year implementation period. Additional projects and Management Actions may be added or modified as appropriate for the Cawelo GSA area.

Measurable Objectives and Minimum Thresholds

The Cawelo GSA selected 7 representative monitoring wells and established Measurable Objectives and Minimum Thresholds for each well. As one of the management actions, an 8th representative well will be secured to provide an additional monitoring location.

The MO for each representative monitoring well is to maintain groundwater levels at or above the lowest groundwater levels measured during the latest drought. Groundwater levels generally are about 300 to 500 feet below ground and the MTs are set at about an average 80 feet below the MOs ranging from 78 to 84 feet.

Well ID	Minimum Threshold Elevation	Measurable Objective Elevation	2012 – 2016 Lowest Groundwater Elevation	Interim Milestone 2025	Interim Milestone 2030	Interim Milestone 2035
Units	Acre-ft	Acre-ft	Acre-ft	Acre-ft	Acre-ft	Acre-ft
T26SR26E-24R	-43	35	35	-23	-3	17
T27SR26E-04R	-24	60	60	-4	16	36
T27SR26E-12H	25	103	103	45	65	85
T27SR26E-33C2	-64	20	20	-44	-24	-4
T28SR26E-11M	-81	3	3	-61	-41	-21
T28SR27E-06C	-85	-1	-1	-65	-45	-25
T28SR27E-28L	26	110	110	46	66	86
TBD	C.U.	C.U.	C.U.	C.U.	C.U.	C.U.

Stakeholder Outreach

Cawelo GSA held 4 public workshops at the Cawelo Water District office:

1. Cawelo GSA, GSP, and SGMA Information - April 5, 2018
2. Potential Fees to Fund the Cawelo GSA and Related SGMA Activities - July 27, 2018
3. Groundwater Model, Water Budget, and Potential Yields - February 28, 2019
4. Development of the GSP for the Cawelo GSA - August 5, 2019

Additionally, Cawelo GSA actively participated in 2 SGMA Open House events:

1. SGMA Open House - May 14, 2019
2. GSP Public Review Open House - September 26, 2019

On December 16, 2019, a public hearing was held to discuss the proposed Cawelo GSA Management Area Sustainability Plan, to discuss comments received, provide opportunity for additional comments, and consider the adoption of the Plan.

Cawelo GSA received 2 comment letters from the Wonderful Company and Grow View Enterprises. Responses were provided in a matrix format which has been included in the Plan. There were no changes to the Plan as a result of the comments.