

SAB GSA SUSTAINABLE MANAGEMENT CRITERIA

Chronic Lowering of GW Levels / Reduction of GW in Storage

MT

Minimum Threshold

Groundwater levels at 25 feet below Fall 2018 measured groundwater levels at Representative Monitoring Sites (RMSs)

MO

Measurable Objective

Groundwater levels equal to groundwater levels at RMSs measured in Spring 2015.

IM

Interim Milestone

- Implement Projects and Management Actions
- Trajectory for water levels in RMSs to reach MOs by 2042 set at 5-year intervals.

Potential Undesirable Results

- Groundwater levels drop below the minimum threshold after average and above-average precipitation periods in 50 percent of representative wells for 2 consecutive years.
- An acute or chronic, measurable impact to GDEs associated with interconnected surface water, specifically Barka Slough, caused by groundwater pumping in the Basin.
- Existing agricultural, municipal, and domestic wells are unable to produce historical average quantities of water due to chronic decline in groundwater levels (e.g., depletion of supply).
- Reduction of groundwater in storage results in an inability to produce estimated annual volume of groundwater equal to the sustainable yield for the Basin

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Degraded Water Quality

MT

Minimum Threshold

- No minimum thresholds have been established for contaminants because state regulatory agencies, including the RWQCB and the DTSC, have the responsibility and authority to regulate and direct actions that address contamination.
- WQOs defined in the Central Coastal Basin Plan are the minimum thresholds for TDS, chloride, sulfate, boron, sodium, and nitrate as measured by SWRCB ILRP and DDW programs in 20 percent of wells monitored.
- In cases where the ambient (prior to January 2015) water quality exceeds the WQO, the minimum threshold concentration is 110 percent of the ambient water quality in 20 percent of the wells.

MO

Measurable Objective

- Contaminants - maintain groundwater quality equal to or below regulatory standards or, equal to or below concentrations present in groundwater when SGMA was enacted.
- Salts and Nutrients - maintain groundwater quality equal to or below Water Quality Objectives presented in the Basin Plan, or equal to or below concentrations present in groundwater when SGMA was enacted.

Potential Undesirable Results

- Concentrations of regulated contaminants in untreated groundwater from private domestic wells, agricultural wells, or municipal wells exceed regulatory thresholds as a result of pumping or GSA activities.
- Groundwater pumping or GSA activities cause concentrations of TDS, chloride, sulfate, boron, sodium, and nitrate to increase and exceed WQOs since SGMA was enacted in January 2015.

IM

Interim Milestone

- None

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Land Subsidence

MT

Minimum Threshold

The rate of subsidence does not exceed 0.05 feet (0.6 inches) per year for 3 consecutive years measured at the UNAVCO CGPS Station ORES.

MO

Measurable Objective

The average rate of subsidence as measured at the UNAVCO CGPS Station ORES from 2000 to 2020 (0.04 feet per year).

IM

Interim Milestone

- None

Potential Undesirable Results

- Groundwater extraction results in subsidence that substantially interferes with surface land uses.
- Groundwater extraction results in subsidence that causes land surface deformation that impacts the use of critical infrastructure and roads.
- Groundwater extraction results in land subsidence greater than minimum thresholds at the UNAVCO CGPS Station ORES.

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Depletion of Interconnected Surface Water

MT

Minimum Threshold

Average of 0.15 cfs of surface water flow measured at the Casmalia stream gage west of the Slough over 3 consecutive months from June to September.

MO

Measurable Objective

Surface water flow measured at the Casmalia stream gage equal to the geometric mean daily discharge (0.5 cfs) measured at the Casmalia stream gage between 2015 and 2018) (since enactment of SGMA through the end of the historical and current water budget).

IM

Interim Milestone

- Outlined in the next slide

Potential Undesirable Results

- Permanent loss or significant degradation of existing native riparian or aquatic habitat due to lowered groundwater levels and reduced surface water flow into Barka Slough caused by groundwater pumping.