

DEFINING SUSTAINABILITY

Undesirable Results:
What are significant
or unreasonable?



Chronic lowering of groundwater levels.



Reduction of groundwater storage



Degraded water quality, including the migration of contaminant plumes that impair water supplies



Land subsidence that substantially interferes with surface land uses



Depletions of interconnected surface water

POTENTIAL SOCIOECONOMIC IMPACTS OF SGMA:

What are community characteristics that the GSP should be considering?

What does SGMA mean for me as a community member?



**POTENTIAL
SOCIOECONOMIC
IMPACTS OF SGMA:**

What are your concerns?

What are your hopes for
water for the future?



**OUTREACH &
EDUCATION**

What are you interested
in learning more about?

How do you like to be
informed and educated?



FINDING SOLUTIONS:

HOW CAN WE ACHIEVE SUSTAINABILITY AND COMPLY WITH SGMA?

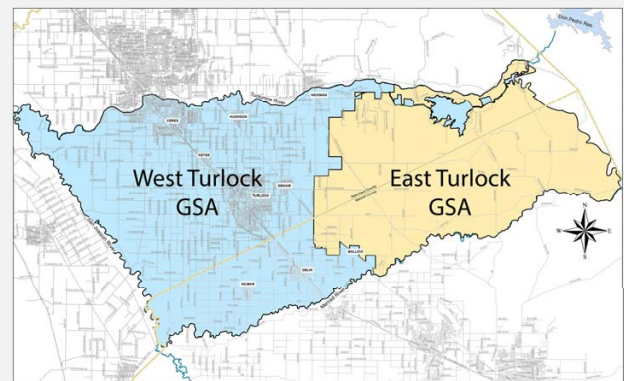
PROJECTS & MANAGEMENT ACTIONS: **MANY DIFFERENT PATHS TO EVALUATE/ CONSIDER**

- Counteracting groundwater overdraft with direct and indirect recharge
- Continuing current conservation improvements
- Conjunctively managing surface and groundwater supplies
- Sharing regional surface water supplies
- Land use planning
- Other

BEST MANAGEMENT PRACTICES (BMP)

“Best management practice” refers to a practice, or combination of practices, that are designed to achieve sustainable groundwater management and have been determined to be technologically and economically effective, practicable, and based on best available science.

–GSP Regulations §351(h)



PROJECTS AND MANAGEMENT ACTIONS

Use existing and/or **develop new** projects and management actions to achieve sustainability in the groundwater basin. Projects and actions included in existing programs like these (and not limited to these):

- IRWMPs
- UWMPs
- WMPs
- AWMPs
- GMPs

How do you envision land use for the Turlock Subbasin in the year 2042?

- Existing non-irrigated land with no reliable surface or groundwater; do we zone as “un-developable?”
- Should the ‘first-in-time’ doctrine for surface water right holders apply to groundwater rights?
- Residential development has similar water demands as irrigated agriculture. Should zoning principles and water use restrictions in urban areas apply to Ag areas?
- Other land use regulations could be used to manage water use. What are your ideas?

PROJECTS AND MANAGEMENT ACTIONS: EXISTING & PROPOSED PROJECTS

- Turlock Irrigation District (TID) incentivizes its customers to use surface water ‘in-lieu’ of pumping groundwater
- TID has a direct groundwater recharge project operating near the end of its Highline Canal
- Eastside and Ballico-Cortez WDs buy surface water from TID for in-lieu groundwater recharge
- TID, the City of Turlock & others plan to treat surface water for drinking ‘in-lieu’ of groundwater
- EWD has funded and is designing its Diffused Surface Water Project to help offset its groundwater pumping
- EWD also buys surface water from Merced ID
- Other ideas?

PROJECTS AND MANAGEMENT ACTIONS: SUSTAINABLE LAND USE – VISION 2042



Photo: Turlock, CA: California State University – Stanislaus via city-data.com



Photo via www.nrcs.usda.gov "Profiles in Soil Health: Michael Crowell, Turlock, CA"

PROJECTS AND MANAGEMENT ACTIONS: WATER CONSERVATION/EFFICIENCY PROJECTS

EXAMPLES



Municipal End Use Efficiency:

- What potential system(s) will be effective to incentivize “smartscares” (e.g., xeriscapes) to reduce outdoor water use?
- What regulations will be necessary (e.g., landscape restrictive regulations)?



Land Use Efficiency:

- What potential system(s) will be effective to incentivize optimization of irrigation of grass/use of native plantings?



Agricultural Fallowing/Efficiency:

- What potential system(s) will be effective for fallowing agriculture?
- What is the future for agriculture?
- Irrigation efficiencies for remaining agriculture?

*This slide adapted from the County of San Diego

What are some authorities GSAs possess?

Power or Authority	Water Code Reference
GSAs may adopt rules, regulations, ordinances, and resolutions.	§ 10725.2(b)
GSAs may conduct investigations.	§ 10725.4(a)
GSAs may require registration of a groundwater extraction facility.	§ 10725.6
GSAs may require that the use of every groundwater extraction facility be measured by a water-measuring device satisfactory to the GSA. All costs associated with the purchase and installation of the water-measuring device shall be borne by the owner or operator of each groundwater extraction facility.	§ 10725.8(a), (b)
GSAs may require pumpers to file an annual statement indicating the total extraction in acre-feet of groundwater from the facility during the previous water year.	§ 10725.8(c)
GSAs may acquire by grant, purchase, lease, gift, devise, contract, construction, or otherwise, and hold, use, enjoy, sell, let, and dispose of, real and personal property of every kind, including lands, water rights, structures, buildings, rights-of-way, easements , and privileges, and construct, maintain, alter, and operate any and all works or improvements, within or outside the agency.	§ 10726.2(a)
GSAs may appropriate and acquire surface water or groundwater and surface water or groundwater rights , import surface water or groundwater into the agency, and conserve and store within or outside the agency.	§ 10726.2(b)
GSAs may provide for a program of voluntary fallowing of agricultural lands or validate an existing program.	§ 10726.2(c)
GSAs may provide surface water in exchange for a groundwater extractor's agreement to reduce or cease groundwater extractions (in-lieu recharge).	§ 10726.2(d)
GSAs may impose spacing requirements on new groundwater well construction to minimize well interference and impose reasonable operating regulations on existing groundwater wells to minimize well interference, including requiring extractors to operate on a rotation basis.	§ 10726.4(a)(1)
GSAs may control groundwater extractions by regulating, limiting, or suspending extractions from individual groundwater wells or extractions from groundwater wells in the aggregate , construction of new groundwater wells, enlargement of existing groundwater wells, or reactivation of abandoned groundwater wells, or otherwise establishing groundwater extraction allocations.	§ 10726.4(a)(2)
GSAs may impose fees , including, but not limited to, permit fees and fees on groundwater extraction or other regulated activity, to fund the costs of a groundwater sustainability program, including, but not limited to, preparation, adoption, and amendment of a groundwater sustainability plan, and investigations, inspections, compliance assistance, enforcement, and program administration, including a prudent reserve.	§ 10730(a)

State Intervention – The State Backstop

Sustainable Groundwater Management Act (SGMA)

SGMA and State Intervention

SGMA requires the formation of local groundwater sustainability agencies (GSAs) in California’s high- or medium-priority groundwater basins. GSAs are required to develop groundwater sustainability plans (plan) that make basins sustainable within 20 years of implementation. If locals are unable or unwilling to sustainably manage their basin or subbasin, the State Water Resources Control Board (State Water Board or Board) can step in to protect groundwater using a process called state intervention. State intervention is triggered by one of the following events:

Date	Event
July 1, 2017	Entire basin is not covered by GSA(s).
Feb. 1, 2020	Basin is in critical overdraft and there is either 1) no plan or 2) the Department of Water Resources (DWR) fails the plan.
Feb. 1, 2022	There is either 1) no plan or 2) long-term overdraft and DWR fails the plan.
Feb. 1, 2025	DWR fails plan and basin has significant surface water depletions.

For general SGMA information, visit: www.waterboards.ca.gov/water_issues/programs/gmp/sgma.shtml.

Levels of Intervention

Unmanaged Area

An unmanaged area is a part of a basin not within the management area of a GSA before July 1, 2017. Anyone that extracts groundwater from an unmanaged area must submit an extraction report to the State Water Board each year. The first extraction reports are due by Dec. 15, 2017, and must include well location and capacity, where the water was used, purpose of use, and monthly extraction volumes.

Probationary Basin

If local agencies fail to form a GSA, fail to develop an adequate sustainability plan, or fail to implement the plan successfully, the State Water Board may designate the entire basin probationary. Anyone who extracts groundwater from a probationary basin, including extractors under the management of a GSA, must file extraction reports with the Board unless the Board decides to exclude certain types of extractions. The Board may require the use of a meter to measure extractions and reporting of additional information.

Interim Plan

The State Water Board will allow local agencies time to fix the issues in the basin that led to probation. If local agencies are unable to fix those issues, the Board will develop an interim plan to directly manage groundwater extractions. An interim plan will contain corrective actions, a timeline to make the basin sustainable, and a monitoring plan to ensure corrective actions are working.

Extraction Reports

Well owners must ensure extraction reports are submitted to the State Water Board by Dec. 15 of each year for extractions made during the previous water year (Oct. 1 – Sep. 30). An extraction report is required for each well and must include monthly pumping data. Extractions must be measured by a method satisfactory to the Board. Extraction reports must be submitted online through the Board’s website. For more information about extraction reports, visit www.waterboards.ca.gov/water_issues/programs/gmp/reporting.shtml.

Intervention Fees

Each extraction report must be accompanied by a fee to cover State Water Board intervention costs. The draft fees for state intervention are detailed below.

Fee Category*	Annual Fee	Applicable Parties
Base Filing Fee	\$300 per well	All extractors required to report.
Unmanaged Rate	\$25 per acre-foot	Extractors in unmanaged areas. If extractors use a meter to measure extractions the rate is \$10 per acre-foot.
Probationary Rate	\$40 per acre-foot	Extractors in probationary basins.
Interim Plan Rate	\$55 per acre-foot	Extractors in probationary basins where the Board determines an interim plan is required.
De minimis Fee	\$100 per well	A well owner that extracts two acre-feet or less per year for domestic purposes in a probationary basin, if the Board decides these extractions are significant.
Late Fee	25% of total fee per month	Extractors that do not file reports by the due date.

*Draft fees are subject to change. Additional information available at waterboards.ca.gov/gmp.

Meters and Groundwater Management

The State Water Board can require the installation of meters in a probationary basin. The need for meters will depend on local conditions and the level of intervention required in the basin. The State Water Board is likely to require meters in the development of an interim plan, in order to develop corrective actions and verify compliance with pumping restrictions. Extractors will be responsible for installing and maintaining meters and paying the related costs – although it is unlikely that the Board would require meters for de minimis users (see below).

De minimis Users

A well owner who extracts two acre-feet or less per year from a parcel for domestic purposes is a de minimis user. Domestic purposes do not include commercial activities. A well owner that extracts more than two acre-feet per year from a parcel is not a de minimis user. De minimis users in unmanaged areas are exempt from reporting. However, the State Water Board can require reporting by de minimis users in probationary basins if necessary to manage the basin.

Interim Plans and Groundwater Sustainability Plans

State intervention is intended to temporarily protect groundwater. An interim plan is not intended to permanently manage a basin and is not designed to replace a groundwater sustainability plan. To regain local control, local agencies will have to demonstrate their ability and willingness to manage groundwater sustainably and address the issues that caused state intervention.

For More Information

Additional information on SGMA and state intervention is available at the State Water Board website: www.waterboards.ca.gov/gmp or the DWR website: www.water.ca.gov/groundwater/sgm.

Components of a GSP Steps toward Sustainability

- Based on a strong foundation of scientific analysis of the Subbasin
- Informs sustainability criteria
- Communication with stakeholders throughout the process

