Introduction

The Yuba Subbasins Water Management Plan: A Groundwater Sustainability Plan (GSP) is the cornerstone of groundwater management in the Central Valley portions of Yuba County. The GSP was put together under the authority granted by the Sustainable Groundwater Management Act, or SGMA, passed in 2014 by the State of California. Yuba Water Agency, Cordua Irrigation District, and the City of Marysville formed Groundwater Sustainability Agencies under SGMA and worked cooperatively to develop the GSP, which was adopted in 2020.

The GSP development process included technical analysis and stakeholder outreach to engage groundwater users and the broader community in the groundwater management process. The document supports informed decision making through a logical progression, starting with developing a common understanding of groundwater conditions; defining goals, associated measurable criteria, and monitoring activities; and establishing implementation activities to achieve goals.

Common Understanding of Groundwater Conditions

The GSP provides background on the groundwater system to support policy decisions presented later in the document. This background includes details on governmental agencies, planning documents, and GSP outreach efforts, in addition to technical information.

Technical information focuses on the groundwater system and the four applicable sustainability indicators. The GSP outlines sustainable groundwater conditions within the Yuba Subbasin, much of which is driven by three key factors:

- A proven record of conjunctive water management with agricultural use of surface water resources supplementing and recharging groundwater resources
- The presence of near-surface clays which creates ideal conditions for rice cultivation and also results in substantial separation between very near-surface conditions and conditions within the one principal aquifer
- Areas of recharge along surface water courses, notably the Yuba Goldfields, which comprise 8,000 acres of dredged cobbles adjacent to the Yuba River

Groundwater levels in the North Yuba Subbasin have been generally stable since at least the 1950s while those in the South Yuba Subbasin were generally declining from the 1940s through the early 1980s but have recovered since the introduction of surface water to the subbasin in 1983. In the Yuba Subbasins, groundwater levels typically decline in the summer, due to demand to irrigate fields and water lawns, and recover in the fall and winter from precipitation and higher streamflow. Similarly, on an annual basis groundwater levels typically decline in dry years and recover in normal and wet years due to weather conditions and conjunctive water management.

Long-term sustainability of groundwater levels are further analyzed in the GSP through groundwater budgets, which account for inflows, outflows, and changes in the volume of groundwater stored. These budgets are developed for historical, current, projected, and projected with climate change conditions to allow for long-term planning and show sustainable conditions, with balanced or increasing groundwater storage.

Similar to groundwater level data, regional groundwater quality, land subsidence, and depletions of interconnected surface waters are described in the GSP.

The components of the GSP are focused on the four sustainability indicators defined through SGMA that are relevant to the Yuba Subbasin:

- Chronic lowering of groundwater levels
- Significant and unreasonable degraded water quality
- Significant and unreasonable land subsidence
- Depletions of interconnected surface water

The GSP covers the Yuba Subbasins, representing the western portions of Yuba County.
Defining Goals, Associated Criteria, and Monitoring Activities

The Yuba Subbasins have a long history of successful groundwater management and the water budget analysis estimates sustainable groundwater conditions into the future. With this history of sustainable conditions, sustainable management criteria were developed with measurable objectives that are similar to current conditions and minimum thresholds that allow for changes in the subbasin to the extent they are not significant and unreasonable.

Monitoring networks are established for the applicable sustainability indicators. The monitoring networks monitor conditions across the Yuba Subbasins so that the GSAs have the necessary technical information to continue to manage groundwater sustainably.

Implementation Activities to Achieve Goals

As the Yuba Subbasins are currently being sustainably managed, there are no projects or management actions that are required to achieve sustainability. However, projects and management actions can assist in enhancing management capability and improving the understanding of the groundwater system. Most projects and management actions will be implemented with an as-needed, opportunistic approach based on funding availability and identified need at a given time.

Implementation activities, including monitoring activities and implementation of projects and management actions, will be reported in annual reports produced and submitted to DWR every year by April 1, reporting on conditions and activities from the previous water year. Every five years, evaluation reports will be developed to document progress in implementation and to reconsider elements of the GSP.

The GSP, annual report, and related information are available at Yuba Water Agency’s GSP website: https://www.yubawater.org/2017/Sustainable-Groundwater-Management-Act

Monitoring results are a key component of management, which is directed by the Sustainable Management Criteria. These criteria include:

- **Undesirable Results**
  - the significant and unreasonable occurrence of one or more of the sustainability indicators

- **Minimum Thresholds**
  - a numeric value used to define when undesirable results occur, based on exceedance of minimum thresholds in a percentage of sites in the representative monitoring network.

- **Measurable Objectives**
  - specific, quantifiable goals for the maintenance or improvement of specified groundwater conditions to achieve the sustainability goal.

- **Historically Full Aquifer Level**
  - a non-regulatory criterion related to historical high March groundwater level incorporated only in the groundwater level indicator to assist in local management.

![Graph showing Groundwater Levels over Time](image-url)