

Yolo County Farmers' Perspectives on Water Management and the Sustainable Groundwater Management Act (SGMA)

Research Briefing 1 of 3: Farmer Concerns and Perceptions of Groundwater Conditions

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Background

Yolo County is largely rural and agricultural. Farmer concerns, experiences, practices, and perceptions play an important role in our basin's groundwater sustainability. In 2017, a mail survey was sent out to 638 farmers and landowners in Yolo County. The survey included questions about farm characteristics, perceptions of change in the county, water scarcity and management practices, the SGMA policy, groundwater sustainability, and demographics. The survey received 137 responses – a response rate of 22%. This briefing summarizes farmer concerns and perceptions of groundwater conditions in the Yolo Subbasin.

Details

A large majority of farmers overall expressed concern for potential groundwater issues in Yolo County. Ninety-one percent expressed concern for water quality degradation and 90% expressed concern for the reduction in groundwater storage. Similarly, farmers are concerned about the lowering of groundwater levels (87%), depletion of surface water (83%) and local subsidence (80%) (**Figure 1**).

Concern for Undesirable Results

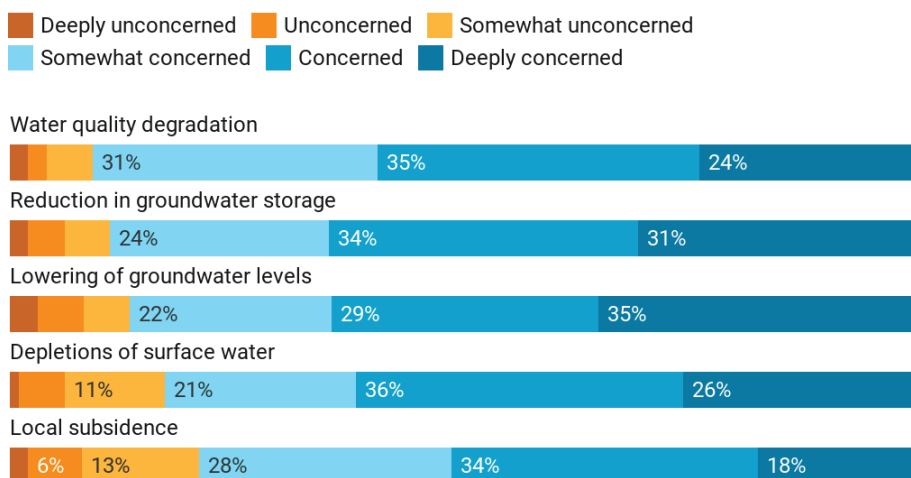


Figure 1. Yolo County farmers are broadly concerned about the occurrence of the five undesirable groundwater conditions in the county.

Key Findings

1. The majority of farmers indicated concern about groundwater in the basin, especially concern for water quality degradation, reduction in groundwater storage, and lowering of groundwater levels.
2. The majority of farmers think that the five undesirable groundwater results relevant to Yolo County are already occurring in the subbasin or will happen in the next 10 years.
3. A number of factors are important to farmers' use of groundwater in the Yolo Subbasin. Family/livelihood and wellbeing and economics ranked as the two most important factors while policy/regulatory factors ranked last.

Further, the majority of farmers reported already experiencing groundwater challenges in Yolo County or expressed a likelihood that they would occur in the next 10 years (**Figure 2**). Sixty-five percent of farmers reported currently experiencing a lowering of groundwater levels or expect to experience it in the next 10 years. Similarly, the majority of farmers are either experiencing or expect to be experiencing a reduction in groundwater storage (63%), depletions of surface water (58%), local subsidence (57%) and water quality degradation (55%) in the next 10 years.

Timeframe for Undesirable Results

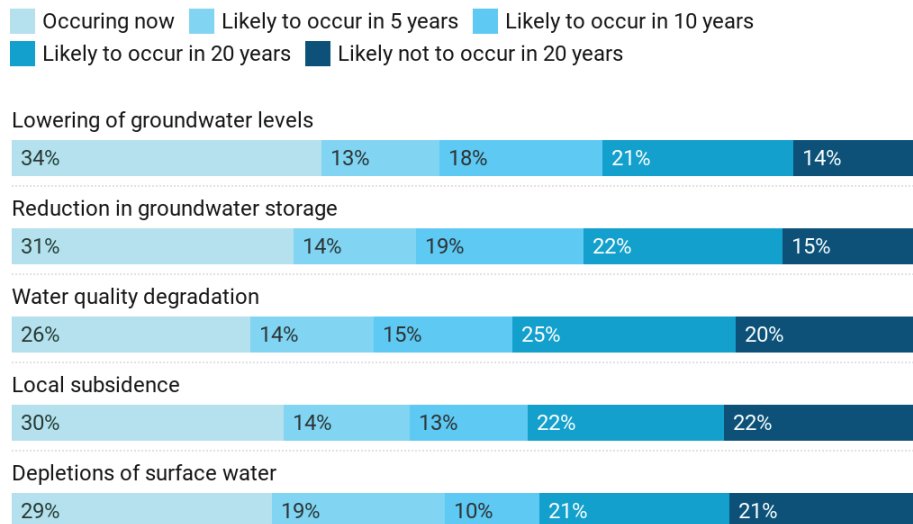


Figure 2. Most Yolo County farmers believe that groundwater challenges will occur within the next 10 years if they are not already occurring.

When considering groundwater pumping, Yolo County farmers consider a number of factors (1 = very important) with family/self-livelihood and wellbeing (2.62 mean rank) and economics (3.34 mean rank) ranking as the two most important factors as shown in **Figure 3**. Following these top considerations, farmers take into

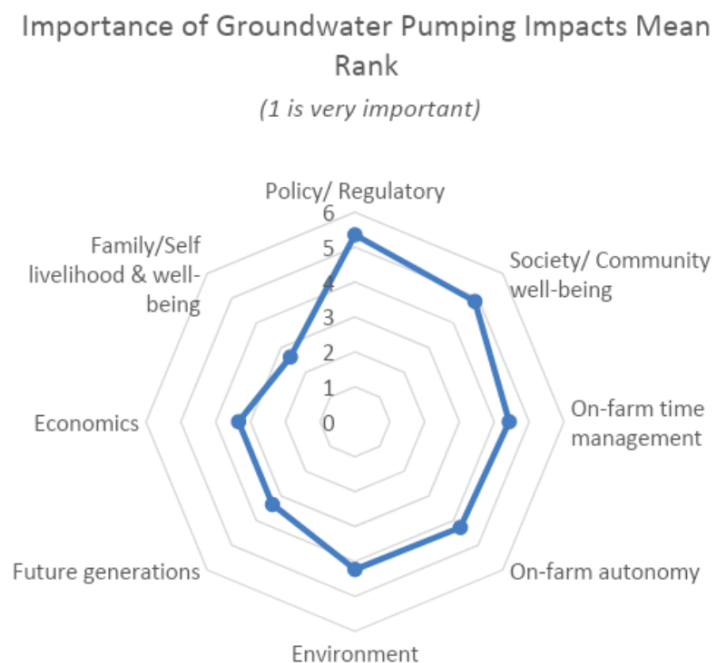


Figure 3. Yolo county farmers consider family/self-livelihood and well-being as the most important factor they consider as it relates to groundwater pumping

account, in descending importance: future generations (3.35 mean rank), the environment (4.23 mean rank), on-farm autonomy (4.28 mean rank), on-farm time management (4.43 mean rank), society and community well-being (4.87 mean rank) and lastly policy/regulatory (mean rank 5.35).

Importance and Next Steps

Current and future agricultural practices will play an important role in shaping the Yolo Subbasin's Groundwater Sustainability Plan. A collective understanding of our farmers' concerns has emerged from this survey. In the other two briefings, we report on Farmer Participation and Policy Preferences for SGMA; and Farmer Current and Future Groundwater Management Practices. These insights are informing Yolo Subbasin Groundwater Agency's (YSGA) development of local management strategies.

Acknowledgements

This survey is a part of a US Department of Agriculture (USDA)-funded project (Grant #2016-67026-25045) run by researchers at the University of Vermont, the Stockholm Environment Institute, and ERA Economics. We sincerely thank the Yolo County Flood Control and Water Conservation District, especially Tim O'Halloran and the Yolo County Farm Bureau, especially Denise Sagara, for their time commitment to the project as well the farmers who participated in the survey. We thank the Water Foundation who provided support to produce this article.

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