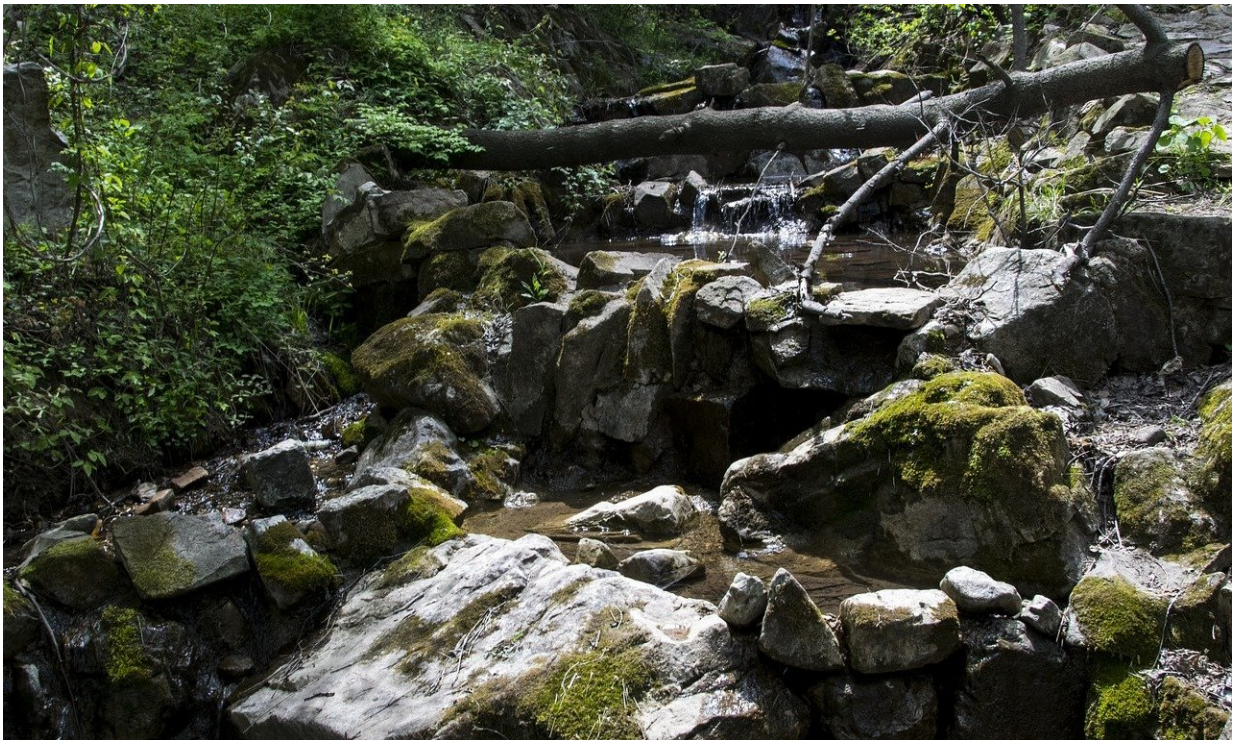


# Avoiding 'adverse impacts' of groundwater pumping on surface waters

September 26 2018, by Megan Glatzel

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New report informs local agencies on how to avoid inadvertent threats to surface water as defined by new California groundwater law.

Local agencies in critically overdrafted [groundwater](#) basins in California have less than a year and a half to draft their plans to achieve sustainable

groundwater management. These Groundwater Sustainability Agencies (GSAs), formed under California's 2014 Sustainable Groundwater Management Act (SGMA), will need to avoid six specified "[undesirable results](#)" ranging from seawater intrusion and degraded water quality to land subsidence. A new [report](#) by Water in the West visiting scholar Letty Belin guides these agencies through how to understand and comply with the requirement that GSAs must not cause "[significant and unreasonable adverse impacts on beneficial uses of surface water](#)."

"In many parts of California, groundwater pumping has dried up wetlands, reduced streamflows and harmed the fish and wildlife that depend on those waters and ecosystems," said Belin, a WitW Landreth fellow and former Counselor to the Deputy Secretary of the U.S. Department of the Interior. "In enacting SGMA, for the first time, the state has taken direct aim at this problem, placing limits on the damage to [surface water](#) uses that may be caused by groundwater depletions."

GSAs will need to analyze the extent to which groundwater depletions affect "beneficial uses of [surface](#) water" (including human water uses, stream flows, and wetlands) and to understand various legal protections for surface water within their boundaries to ensure any effects of groundwater pumping do not violate SGMA's "significant and unreasonable" standard. However, ensuring compliance could be difficult since the law does not spell out what a "significant or unreasonable adverse impact" actually is. This requirement is also challenging because groundwater and surface water have been treated as legally separate in California, despite their physical connections, and understanding those connections is a new task for many agencies.

To help agencies navigate how to interpret the law, the report reviews state and federal laws, regulations and other resources that provide guidance on the issue. Summarizing the State Water Resources Control Board's 23 "beneficial uses" of water, the state's reasonable use and

public trust doctrines and "significant effects" under California's Environmental Quality Act, the report describes what the state and federal governments seem to suggest constitutes negative impacts on surface water.

Belin reviews the relevant state and federal standards and establishes categories for circumstances that could impact surface water. These include: green light (situations with no obvious concerns), yellow light (situations that may require further analysis), and red light (situations where remedial actions will likely need to be considered). The report also includes specific hypothetical situations that may lead to adverse impacts on surface water and sample responses to address them.

As the state continues its transition from a system of completely unregulated groundwater usage to one of increased accountability and regulation, understanding the law and what is expected for compliance will be paramount for planning and shaping benchmarks for success.

"Many GSAs face a daunting set of tasks over the coming years to comply with SGMA," said Belin. "This report is meant to fill an important gap by providing tools to better understand and comply with SGMA's mandate regarding impacts to beneficial uses of surface [water](#)."

**More information:** Guide to Compliance With California's Sustainable Groundwater Management Act.

[stacks.stanford.edu/file/druid:kx058kk6484/Woods](https://stacks.stanford.edu/file/druid:kx058kk6484/Woods)

[%20Groundwater%20Mgmt%20Act%20Report%20v06%20WEB.pdf](#)

Provided by Stanford University

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