

Napa County’s Groundwater Sustainability Plan December 2022 Update for the Friends of the Napa River Membership

Where do we stand as 2022 winds down? In the arena of groundwater management, here is what the County listed as a kind of “To Do List” after the Groundwater Sustainability Plan (GSP) was submitted in January 2022:

“Napa County Submitted its Groundwater Sustainability Plan to the California Dept. of Water Resources as mandated by the Sustainable Groundwater Management Act by the January 31, 2022 deadline. The Napa Valley GSP was required to be developed as part of the Sustainable Groundwater Management Act (SGMA) for the purpose of assessing the conditions of the groundwater basin, analyzing the subbasin’s sustainability over a 50-year period, and identifying projects and actions needed to ensure the basin is sustainable by 2042.

Recognizing the importance and urgency of protecting groundwater resources, the County began implementation immediately upon adoption of the GSP. Many activities are ongoing or have been initiated since GSP adoption, including:

- *Formation of a Technical Advisory Group (TAG) and Stakeholder Advisory Group (SAG) to work on GSP implementation.*
- *Development of the eighth Annual Report for the County and the Subbasin for Water Year 2021, due to DWR by April 1, 2022.*
- *Ongoing groundwater monitoring, including expansion of the groundwater monitoring network.*
- *Development of a workplan for addressing data gaps and uncertainty regarding interconnected surface waters and groundwater dependent ecosystems.*
- *Development of a Water Conservation Plan, Groundwater Pumping Reduction Plan, and Storm Water Resource Plan.*
- *Ongoing public outreach.*

As promised, the County Board of Supervisors, acting as the Groundwater Sustainability Agency (GSA) Board of Directors, did appoint a TAG, but it is at present made up of only five members, and the range of subject areas for inquiry is broader than these five can reasonably be expected to cover given the gaps in their expertise versus the range of issues that were identified. Three members in one way or another are connected to Napa’s agriculture sector, which has caused concerns in some quarters about their independence.

SGMA requires an annual report on the state of groundwater resources in the Sub-basin, and the County has been preparing such reports since 2015. SGMA uses a framework of six measures of a groundwater basin’s status to assess whether or not a Basin or Sub-basin is being managed sustainably.

The Dept. of Water Resources has created a very user-friendly tool to enable anyone to see local groundwater trends. Here is a link to that resource:

<https://sgma.water.ca.gov/CalGWLIVE/#groundwater>

Every Groundwater Sustainability Plan must assess the status of its aquifer and plan for its management using the framework of the required Sustainability Indicators, establish Minimum Thresholds, Trigger Occurrences, and whether the Exceedance has caused an Undesirable Result. (The capitalized words are all terms of art defined in the Act and in its implementing language.)

This most recent full report for the Napa Sub-basin covers the Water Year ending September 30, 2021. A preliminary look at Water Year 2022 (ending September 30, 2022) was presented at the December 8th meeting of the TAG. The meeting is available via Zoom; here is a link to the TAG meeting:

<https://napa.legistar.com/Calendar.aspx>

It is fair to assume that given our current dry water year, the downward trend of water levels and total storage will be shown to have continued. Given that as background, the most pressing and potentially contentious issues before the TAG and ultimately the Supervisors (acting as the Groundwater Sustainability Agency Board of Directors) are how to measure groundwater use parcel by parcel, how to limit groundwater use fairly in times of shortage, and understanding and limiting the impact of groundwater pumping on groundwater-dependent ecosystems. One important outcome of the creation of the Plan is a deeper understanding of how to manage our water resources more wisely, and to enhance its recharge. These are all covered in the Workplan agenda outlined above.

As stated above, given the dry Water Year 2022, the trend of Exceedance noted last year is expected to continue. And if the Water Year 2023 is also below normal, we are in uncharted territory so far as water all over California and the West is concerned. Groundwater Sustainability Agencies all over California have noted data gaps in their ability to manage their groundwater and have described in their Plans the steps they will undertake to collect data and incorporate the information into their planning process. As a result of the very dry January-March 2022 period, the Governor issued an Executive Order to bolster water conservation efforts, building on his earlier Declarations of a State of Emergency related to the ongoing drought. Among other provisions, the Executive Order mandates that water agencies submit water shortage contingency plans to the Dept. of Water Resources. Here is a link:

<http://bit.ly/3iC6x5Z>

In response, Napa County wrote new well drilling rules to comply with the order, making for a great deal more scrutiny of wells in the Sub-basin, even ones drilled to replace old ones. Water pumping is capped at 0.3 acre-feet per acre per year. The County's FAQ page on the topic:

<https://www.countyofnapa.org/DocumentCenter/View/25906/Well-Permit-Standards-FAQs---15-July-2022>

In September, 2021, the Governor signed SB552, which mandates that every County create a Drought and Water Shortage Task Force. In response to this requirement, the Supervisors designated the Watershed Information & Conservation Council (WICC) plus three water agency staff and three members of the public as Napa County's Drought and Water Shortage Task Force. Here is a link from the WICC website:

https://www.napawatersheds.org/app_folders/view/15307

The County's municipal water agencies, Napa Sanitation District and the Napa County Flood Control and Water Conservation District received a grant from the US Bureau of Reclamation to craft a Drought Contingency Plan. The Plan was issued recently; it calls for testing the feasibility of purifying recycled water to meet drinking water standards and exploring how to better integrate the potable water delivery infrastructure, among other steps. The projects outlined can now qualify for Federal Bureau of Reclamation funding in the future. Here is a link:

<https://www.napawatersheds.org/dcp>

The Napa County Resource Conservation District (RCD) and the WICC have collaborated on a citizen science initiative called Stream Watch to enlist volunteers to make observations at selected stream sites to record when flow begins and when it ends during the season. This is a very important supplement to existing monitoring programs. Here is a link:

<https://naparcd.org/streamwatch/>

In summary, the ongoing drought continues to stress all local ecosystems, not just aquatic ones. Groundwater pumping is exceeding the sustained yield of the aquifer and therefore needs to be throttled down. But how to do that fairly while responding to the urgency of the drought that is unprecedented in the historical record for both intensity and duration? The creeks and river along with the plants and animals that inhabit them are under stress unlike any they have experienced since the ranchos were established two centuries ago. While all is not doom and gloom (the ongoing effort to eliminate fish passage barriers comes to mind), as a community we must come together to shrink our environmental footprint while preparing for the ongoing disruptive impact of climate change.

To recap, SGMA sets out six sustainability indicators that each Groundwater Sustainability Plan must take into account in managing its aquifer. Attached below is a summary breakdown of the Napa Groundwater Sustainability Plan, the Minimum Threshold Exceedances, the Triggers, the Undesirable Results, and the Policy Response to each Exceedance. These reports are copied directly from the County's documents.

The unprecedented drought has tested our understanding of our aquifer and our ability to manage it using existing tools. That the SGMA was enacted in 2014 as we entered a period of low rainfall punctuated by very wet years is fortunate – we are forced to have a robust response to the “water whiplash.” Overcoming the impacts of the drought and managing our resources in this “new normal” is a very big challenge that will require time, resources (financial, scientific, political), and unwavering commitment.

The Department of Water Resources has until January 31, 2024 to accept, reject or ask for revisions to the Plan. In the meantime, though, the Workplans will have been completed

We at Friends of the Napa River will continue to keep our members and the public up to date with periodic reports.

Table ES-4. Summary of Sustainable Management Criteria Status and Responses

Sustainability Indicator	Minimum Threshold Exceedances	Trigger Occurrence	Undesirable Result Occurrence	Response Summary
Chronic Groundwater Level Decline	Yes, 12 of 27 representative wells	Yes. Trigger occurs if 20% of designated RMS well levels fall below the MT in fall during a single year.	No	Management actions underway include (but are not limited to) a Groundwater Pumping Reduction Workplan and a Water Conservation Plan. These workplans, targeted to be completed in 2022, will help to curtail groundwater pumping and overall water use to enable the Subbasin to achieve the measurable objective established in the GSP of 10% reduction in average annual in groundwater pumping (see Section 7.2). Efforts to expand existing monitoring networks are also underway to address data gaps identified in the GSP (see Section 7.3).
Reduction in Groundwater Storage	Yes, two consecutive water years, 2020 and 2021	No. Trigger occurs if net groundwater extraction in three consecutive non-drought years, or four consecutive years including drought years, exceeds the sustainable yield.	Yes, the seven-year running average of groundwater extraction has exceeded the sustainable yield of 15,000 acre-feet/year*	
Depletions of Interconnected Surface Water	Yes, groundwater elevation at 1 of 5 representative wells and surface water depletion volume at 1 or 2 sites.	Yes. Trigger occurs if any groundwater level or surface water depletion volume MT is exceeded.	No	
Land Subsidence	Yes, 9 of 15 representative wells (60%); however, land surface displacement data indicate no MT exceedance.	Yes. Trigger occurs if either groundwater levels at 20% of the RMS wells exceed the MT, or land surface elevation at the RMS location exceeds 0.2 ft/year.	No	



Sustainability Indicator	Minimum Threshold Exceedances	Trigger Occurrence	Undesirable Result Occurrence	Response Summary
Degraded Water Quality	Not evaluated, data collection planned to occur in 2022.	Not evaluated. Concentrations exceeding 75% of the primary MCL (or exceed 25% more than the baseline concentration) = Trigger; statistically significant increases in concentration at any RMS indicating nearing exceedance of criteria for Trigger may also be considered a Trigger.	Not evaluated	-
Seawater Intrusion	Not evaluated, data collection planned to occur in 2022.	Not evaluated. Concentrations exceeding 75% of 250 mg/L, which is the secondary MCL (or exceed 25% more than the baseline concentration) = Trigger; Statistically significant increases in concentration at an RMS indicating nearing exceedance of criteria for Trigger may also be considered a Trigger.	Not evaluated	-
<p>* The seven-year running average of groundwater extraction has exceeded the sustainable yield of 15,000 acre-feet/year from 2016 to 2021. MT = Minimum Threshold RMS = Representative Monitoring Site MCL = Maximum Contaminant Level</p>				