



A Tradition of Stewardship  
A Commitment to Service

Agenda Date: 3/19/2019  
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Set Time: 9:00 AM  
Estimated Report Time: 1 hr

## NAPA COUNTY BOARD OF SUPERVISORS Board Agenda Letter

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**TO:** Board of Supervisors

**FROM:** Steven Lederer - Director of Public Works  
Public Works

**REPORT BY:** Patrick Lowe, Natural Resources Conservation Mgr - 259-5937

**SUBJECT:** Napa County Groundwater Sustainability: Annual Report - Water Year 2018 and SGMA Update

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### **RECOMMENDATION**

Director of Public Works requests the following:

1. Accept the Napa County Groundwater Sustainability: Annual Report - Water Year 2018 and;
2. Authorize submittal of the report to the State Department of Water Resources (DWR).

### **EXECUTIVE SUMMARY**

The Napa County Groundwater Sustainability: Annual Report - Water Year 2018 is the fifth Annual Report, with four previous Annual Reports prepared for the years 2014 through 2017. This is the second Annual Report prepared to also meet the annual reporting requirements of the Sustainable Groundwater Management Act (SGMA). This is a technical report and includes recommendations for the Board's review and acceptance.

The Sustainable Groundwater Management Act (SGMA) update, to be given by staff, will provide the latest information from the Department of Water Resources (DWR) regarding the status/actions for the Napa Valley Subbasin Basin Analysis Report/Alternative, local basin boundary adjustments and reprioritizations, and next steps.

This item supports the County's strategic goal to provide greater environmental protection for environmental resources, particularly agricultural land, forests, air and water (Goal 12) and strategic actions related to the adoption of the Alternative Groundwater Sustainability Plan (12G), and integration of water data, monitoring, and permitting programs between Planning Building and Environmental Services and Public Works (12H).

### **PROCEDURAL REQUIREMENTS**

1. Receive staff report and presentation
2. Public Comment
3. Motion, second, discussion and direction to staff
4. Vote on the Items

### **FISCAL IMPACT**

Is there a Fiscal Impact?                      No

### **ENVIRONMENTAL IMPACT**

**ENVIRONMENTAL DETERMINATION:** The proposed action is not a project as defined by California Code of Regulations 15378 (State CEQA Guidelines) and therefore CEQA is not applicable.

### **BACKGROUND AND DISCUSSION**

#### **Introduction**

The Napa County Groundwater Sustainability: Annual Report – Water Year 2018 (Report) presents an update on groundwater conditions and water use in the Napa Valley Subbasin, as required by Section 356.2 of the Groundwater Sustainability Plan (GSP) Regulations. As in the past, the Report extends beyond the requirements of the GSP regulations by also including an update on groundwater conditions elsewhere in the county (i.e., outside of the Napa Valley Subbasin). The Report also provides an update on implementation of management actions presented in the Napa Valley Groundwater Sustainability: 2016 Basin Analysis Report (2016 BAR) and the 2018 BAR Amendment - Northeast Napa Management Area: an Amendment to the 2016 Basin Analysis Report (2018 BAR Amendment). The 2016 BAR and the 2018 BAR Amendment were developed to maintain groundwater sustainability.

Since 2008, the County, along with the efforts of others, has been instrumental in implementing groundwater management actions to better understand groundwater conditions, establish monitoring to track conditions, conduct education and outreach, and develop programs to assess and maintain groundwater sustainability. These efforts included the adoption of Goals and Policies in Napa County's 2008 General Plan, commencing new studies of the county's groundwater resources in 2009, and creation of a Groundwater Resources Advisory Committee (GRAC; 2011 to 2014) to spearhead groundwater sustainability planning, management implementation, and community outreach.

A Napa County Groundwater Monitoring Plan was prepared in 2013 to formalize and augment groundwater monitoring efforts conducted as part of a Comprehensive Groundwater Monitoring Program. The Plan recommended annual reports on groundwater conditions and modifications to the countywide groundwater monitoring program as needed. To date, four prior Annual Reports have been prepared. This is the second Annual Report that was prepared to also meet the annual reporting requirements of the Sustainable Groundwater Management Act (SGMA). In December 2016, Napa County submitted the Napa Valley Groundwater Sustainability: 2016 Basin Analysis Report as an alternative to a Groundwater Sustainability Plan (GSP) in accordance with the GSP Regulations developed by the California Department of Water Resources (DWR). In March 2018, following completion of a Special Study (Northeast Napa Area: Special Groundwater Study), review of available data, and staff recommendation, the Board approved a Northeast Napa Groundwater Management Area and an amendment to the 2016 BAR. The 2018 BAR Amendment was the result of findings in the Special Study and recommendations that were presented to the Board of Supervisors on October 24, 2017 and to the Watershed Information and

Conservation Council (WICC) on January 25, 2018. The 2018 BAR Amendment provides supplemental information developed since the 2016 BAR, but does not change the findings of the 2016 BAR. In April 2018, in accordance with GSP regulations, the 2018 BAR Amendment and required annual reporting for Water Year 2017 was submitted to DWR.

### **Annual Report - Water Year 2018**

Results from the County's groundwater monitoring show that groundwater level trends in the Napa Valley Subbasin are stable in the majority of wells with long-term groundwater level records. Groundwater levels show continued stable conditions in water year 2018. Water year 2018 was a Dry year (19.3 inches). Spring 2018 groundwater levels were generally somewhat lower compared to spring 2017, which conversely was a Very Wet year. Despite the reduced recharge potential in 2018 due to Dry year conditions, groundwater levels in fall 2018 remained comparable to levels in recent years. Groundwater levels in spring and fall 2018 were also generally above levels recorded in 2014, the most recent water year with a similar annual precipitation total.

Through February 2019, water year 2019 precipitation has already exceeded the entire water year 2018 total and is above the long-term median annual total for all water years since 1950. Total precipitation and groundwater monitoring results for water year for 2019 will reported in March 2020.

Groundwater level monitoring was conducted at a total of 108 sites across Napa County in 2018, including 61 wells within the Napa Valley Subbasin. The number and distribution of wells monitored in 2018 was generally consistent with monitoring conducted since 2014.

Groundwater levels recorded in 2018 were above the minimum thresholds established as sustainability criteria in 19 of 20 SGMA Representative Wells. The reduction of groundwater levels below the minimum threshold at one of the twenty SGMA Representative Wells in the fall of 2018 was most likely the result of a localized groundwater condition, possibly influenced by the Dry water year. Two other wells in the vicinity of this well did not experience similar groundwater level conditions in fall 2018. Subsequent monitoring has found that water levels at that one well have increased throughout the winter of 2018-2019, including an increase of 14 feet even before substantial rainfall occurred. These observations indicate that the fall 2018 groundwater measurement does not reflect a changed condition in the Napa Valley Subbasin. Nevertheless, in response to the fall 2018 groundwater level at this one site, the County is reviewing conditions in the vicinity of the well, including water use and the location and operation of nearby wells.

Within the primary aquifer system of the Napa Valley Subbasin, the volume of groundwater in storage decreased in spring 2018 (a dry year) relative to spring 2017 (a very wet year). The volume of groundwater in storage declined in 2018 by 9,300 acre-feet to a total of 210,000 acre-feet. From 1988 through 2018, the cumulative annual storage changes are a positive 4,400 acre-feet, reflecting a basin in balance and the absence of long-term depletions of groundwater storage within the Subbasin.

Groundwater pumping in water year 2018 was comparable to amounts in recent years dating back to 2004. Over the full 30-year period, annual storage changes in the aquifer system have fluctuated between positive and negative values, generally in accordance with varying amounts of precipitation (water year type). The fluctuation in cumulative changes in storage between positive and negative values indicate stable groundwater storage conditions and the absence of long-term chronic depletion. Groundwater pumping in the Napa Valley Subbasin in water year 2018 remained within the sustainable yield range of 17,000 to 20,000 acre-feet per year identified in the 2016 Basin Analysis Report. Together, the findings presented in this report regarding groundwater conditions at representative monitoring sites, changes in groundwater storage, and groundwater pumping demonstrate that the Napa Valley Subbasin has continued to be managed sustainably through 2018.

A new analysis was conducted as part of the 2018 Annual Report to account for water use by Groundwater Dependent Ecosystems (GDEs) and improve the understanding of GDE groundwater use relative to other users in

the Subbasin. Estimated groundwater use by GDEs in water year 2018 was between 3,630 acre-feet and 4,720 acre-feet during the months when groundwater would be the dominant source of available water. The result indicates that groundwater use by GDEs in water year 2018 was approximately 20% to 26% of the total groundwater pumping of 17,889 acre-feet by other uses and users in the Subbasin. The new analysis provides a numerical point of comparison that will be useful going forward, along with updated GDE mapping, to understand the distribution and health of GDEs over time.

Although designated as a groundwater subarea for local planning purposes, the majority of the Milliken-Sarco-Tulocay (MST) Subarea is not part of a groundwater basin as mapped by DWR. Groundwater level declines observed in the MST Subarea as early as the 1960s and 1970s have stabilized since about 2009. Groundwater level responses differ within the MST Subarea and even within the north, central, and southern sections of this subarea, indicating that localized conditions, whether geologic or anthropogenic in nature, might be the primary influence on groundwater conditions in the subarea. Some wells in the subarea have shown multi-year recovery from their lowest groundwater levels, those wells are scattered amongst other wells that remain steady relative to their lowest groundwater levels. Although there are signs of localized improvements, it is too early to confidently state that the overall MST Subarea condition is improving.

### **Recommendations and Request for Board Direction**

Napa County's groundwater sustainability program efforts are proposed to be prioritized in the upcoming year to implement the recommendations of the Annual Report - Water Year 2018. See Chapter 8: Summary and Recommendations (p.92-97) for details on the following recommendations:

- | 8.1.1 Update the Napa County Groundwater Program Communication and Education Plan (SGMA Implementation Recommendation 5.1b and 5.2a)
- | 8.1.2 Data Gap Refinement (SGMA Implementation Recommendations 11, 13 and 14)
- | 8.1.3 Ongoing Water Quality Sampling (SGMA Implementation Recommendation 15)
- | 8.1.4 Improve Data Collection and Evaluation from Discretionary Permittees Required to Monitor Groundwater Conditions and Groundwater Use (SGMA Implementation Recommendations 16 and 25)
- | 8.1.5 Evaluate Strategic Recharge and Water Conservation Opportunities (SGMA Implementation Recommendation 8 and 19)
- | 8.1.6 Evaluate Distribution of Groundwater Dependent Ecosystems; Coordinate Evaluation with Guidance Developed by DWR, Nature Conservancy, California Native Plant Society or Others (SGMA Implementation Recommendations 11 and 20)
- | 8.1.7 Update the Napa County Groundwater Ordinance for the Northeast Napa Management Area (SGMA Implementation Recommendation 28)
- | 8.1.8 Continue to Implement Improvements to Napa County's Data Management System (SGMA Implementation Recommendation 1.1b)
- | 8.1.9 Develop Well Testing Standards (SGMA Implementation Recommendation 30)

### **Sustainable Groundwater Management Act Update**

SGMA requires DWR to reprioritize groundwater basins throughout the state. In 2018 DWR reprioritized the Napa Valley Subbasin from a Medium to High priority. The increase in rank was based upon the relative importance of groundwater within the basin and is not a reflection of basin management or declining groundwater levels. The changed rank from Medium to High of the Napa Valley Subbasin does not affect the County's requirements under SGMA nor recommended management actions. DWR has proposed changing the ranking of the Napa-Sonoma Lowlands Subbasin (Carneros) from a Very Low priority to a Medium priority. If approved, a Medium ranking would require additional management action, including the creation of a Groundwater Sustainability Agency for the basin and the development of a Groundwater Sustainability Plan, and a significant cost impact could be expected. Comments and additional available data have been submitted to DWR along with a request that DWR reconsider its reprioritization of the basin, ranking it as a Low priority. Due to the recently approved boundary adjustments to align the basin with the county line, final DWR reprioritization of the Napa-Sonoma Lowlands

Subbasin will likely be announced in May 2019.

DWR has yet to complete its review of the Napa Valley Groundwater Sustainability: 2016 Basin Analysis Report (BAR) submitted in December 2016 as an alternative to a Groundwater Sustainability Plan (GSP). It is expected that DWR will provide the County with a response by summer 2019 (if not sooner). If DWR rejects the BAR, it would significantly impact the County's current Groundwater Program, requiring the creation a Groundwater Sustainability Agency for the Napa Valley Subbasin and subsequent development of a Groundwater Sustainability Plan.

**Staff Recommendation**

Discuss and provide direction to staff. Existing resources/budget are expected to address the above recommendations, and these costs will be included as a part of the Department's FY 2019-20 budget request. Grant opportunities are also being sought to support implementation priorities and supplement existing budgets where possible. Staff recommendation is to accept the Annual Report - Water Year 2018 and authorize its submittal to the State Department of Water Resources (DWR).

**SUPPORTING DOCUMENTS**

- A . Napa County Groundwater Sustainability Annual Report - Water Year 2018
- B . Report Summay - 2 pgs.

CEO Recommendation: Approve

Reviewed By: Leigh Sharp