



Napa County

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Legislation Text

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TO: Board of Directors

FROM: Department of Planning, Building and Environmental Services

REPORT BY: David Morrison, Director

SUBJECT: 2020 Napa County Groundwater Sustainability Report submittal to the State
Department of Water Resources

RECOMMENDATION

Director of Planning, Building and Environmental Services requests the following:

1. Accept the Napa County Groundwater Sustainability:
Annual Report - Water Year 2020; 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 2020 is the seventh Annual Report, with five previous reports prepared for the years 2014 through 2019. This is a technical report and includes recommendations for the Agency's review and acceptance.

A presentation will be provided by the County's groundwater consultant, Luhdorff & Scalmanini Consulting Engineers.

Staff will provide updates on the 2021 groundwater monitoring program, Groundwater Sustainability Plan (GSP) development, GSP grant awarded by the Department of Water Resources and next steps.

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 & STRATEGIC PLAN IMPACT

Is there a Fiscal Impact?

No

County Strategic Plan pillar addressed:

Vibrant and Sustainable Environment

ENVIRONMENTAL IMPACT

ENVIRONMENTAL DETERMINATION: Consideration and possible adoption of a Categorical Exemption Class 14: It has been determined that this type of project does not have a significant effect on the environment and is exempt from the California Environmental Quality Act. [See Class 14 (“Minor Additions to Schools”) which may be found in the guidelines for the implementation of the California Environmental Quality Act at 14 CCR §15314.]

BACKGROUND AND DISCUSSION

Since 2008, the County 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 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 Monitoring Plan recommended annual reports on groundwater conditions and modifications to the countywide groundwater monitoring program as needed. To date, six prior Annual Reports have been prepared. This is the fourth report that also meets the annual reporting requirements of the Sustainable Groundwater Management Act (SGMA) as required by Section 356.2 of the. Groundwater Sustainability Plan (GSP) Regulations.

The Napa County Groundwater Sustainability: Annual Report - Water Year 2020 (Report) presents an update on groundwater conditions in Napa County. The Report meets reporting requirements of SGMA for the Napa Valley Subbasin (Subbasin), which underlies much of the Napa Valley Floor. 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 provides an update on the implementation of management actions presented in the Napa Valley Groundwater Sustainability: 2016 Basin Analysis Report (Alternative Groundwater Sustainability Plan - 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.

Annual Report - Water Year 2020 Summary

Groundwater level trends in the alluvial aquifer system of the Napa Valley Subbasin (Subbasin) are stable in most wells with long-term groundwater level records. Many monitored wells experienced somewhat decreased (i.e., deeper) groundwater levels in 2020 compared to 2019, consistent with very dry water year conditions in 2020. Overall, the depth to groundwater in the alluvial aquifer of the Subbasin ranged between 7 and 50 feet in Spring 2020.

In 13 of 20 representative monitoring wells, groundwater levels recorded in 2020 were above the minimum thresholds established as SGMA sustainability criteria. Where available, subsequent measurements at the same wells showed levels returning to above the minimum threshold in November and December 2020. The reduction of groundwater levels below the minimum thresholds are consistent with the Very Dry water year 2020 conditions.

Due to the high recharge potential of the Subbasin in most years and relatively low water requirements for agriculture, the Subbasin remains relatively full compared to its storage capacity. A total of 440 acre-feet of recycled water was used for agricultural irrigation in water-year 2020. Cumulative changes in groundwater storage show a net decrease of 8,945 acre-feet from water years 1988 to 2020, reflecting long-term stability in groundwater supplies across the Subbasin.

Estimated groundwater extraction in the Subbasin in water year 2020 was 17,933 acre-feet. This volume is within the sustainable yield range of 17,000 to 20,000 acre-feet per year identified in the Basin Analysis Report (LSCE, 2016). These and other findings on groundwater conditions and trends demonstrate that the Napa Valley Subbasin has continued to be managed sustainably through 2020.

An analysis of groundwater use by Groundwater Dependent Ecosystems (GDEs) finds that evapotranspiration by GDEs during the dry season, when reliance on groundwater by GDEs is greatest, was between 3,492 acre-feet and 4,184 acre-feet. This 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.

The majority of the Milliken-Sarco-Tulucay (MST) Subarea is not part of a groundwater basin as mapped by the Department of Water Resources, though it is a groundwater subarea for local planning purposes. Groundwater level declines observed as early as the 1960s-1970s have stabilized since about 2009. Within the MST Subarea, groundwater level responses differ indicating that localized conditions, whether geologic or anthropogenic, are likely the primary influence on groundwater conditions. An expanding recycled water distribution system in the MST Subarea, supplied by the Napa Sanitation District, delivered 422 acre-feet of recycled water to users in the MST Subarea in water year 2020. Increased use of this new source of water along with continued land use permitting constraints are expected to aid in maintaining stable groundwater level conditions in the MST Subarea in the future.

Summary of Sustainable Groundwater Management Activities in 2020

- A. Formation of the 25-member Napa Valley Groundwater Sustainability Plan Advisory Committee (GSPAC) in June 2020, with monthly public meetings held since July 2020.
- B. Development of the Napa County Groundwater Sustainability Agency Stakeholder Communication and Engagement Plan (CEP), which was adopted by the GSA and submitted to DWR a deliverable under its Proposition 68 Sustainable Groundwater Management Program Grant.
- C. Data analysis and preparation of draft Groundwater Sustainability Plan (GSP) Sections addressing the Subbasin setting, historical and current groundwater and surface water conditions, monitoring networks, hydrogeologic conceptual model, and existing land use and water management programs.
- D. Collaboration and coordination with outside experts including through presentations at GSPAC public meetings by Professor Thomas Harter of UC Davis, Professor Barton “Buzz” Thompson of Stanford University Law School, Pepperwood Preserve/USGS, the California Department of Fish & Wildlife, the California Environmental Flows Framework Technical Team, and the Department of Water Resources.
- E. Development and launch of the Napa County Groundwater Sustainability Agency website (www.countyofnapa.org/3074/groundwater-sustainability <<http://www.countyofnapa.org/3074/groundwater>>), including an interactive web map providing access to groundwater and surface water data collected by the County as well as state and federal agencies.
- F. Development of an online tool for groundwater use data reporting by permittees with a requirement to report data to the County.
- G. Refined the PBES permitting database to improve the capture of data regarding well locations and construction details, informed by an existing well completion report database maintained by DWR.
- H. Coordination with other local and regional water management and planning agencies and programs, particularly the Drought Contingency Plan.

Recommended Implementation Actions

The following are implementation actions recommended in the 2020 Annual Report. These nine recommendations align with previous Annual Reports. The majority of these recommendations are ongoing efforts that are currently programmed or incorporated into the

Groundwater Sustainability Plan (GSP) work plan for the Napa Valley Subbasin. The only recommendations that are not currently scheduled are updates to the Napa County Groundwater Ordinance for the Northeast Napa Management Area, and the development of new well testing standards. Those updates will be programmed and coupled with other any other needed updates that may be identified in the completed GSP; which is expected in January 2022.

1. Address existing data gaps by Including additional monitoring wells within the subbasin - Ongoing staff effort
2. Continue to conduct water quality sampling at existing monitoring wells - Ongoing staff effort
3. Coordinate data collection between Public Works and PBES to provide a comprehensive database - Ongoing staff effort
4. Evaluate strategic recharge and water conservation opportunities - underway as a part of the GSP
5. Evaluate distribution of groundwater dependent ecosystems (GDEs) - underway as a part of the GSP
6. Update the Napa County Groundwater Ordinance for the Northeast Napa Management Area - Not currently programmed
7. Continue to implement improvements to the data management system - underway as a part of the GSP
8. Develop well testing standards - Not currently programmed
9. Develop a Napa Valley Groundwater Model to provide improved water budget analyses consistent with SGMA requirements - underway as a part of the GSP

The PBES Director requests that the Board of Directors accept the Annual Report - Water Year 2020 and authorize its submittal to the State Department of Water Resources.