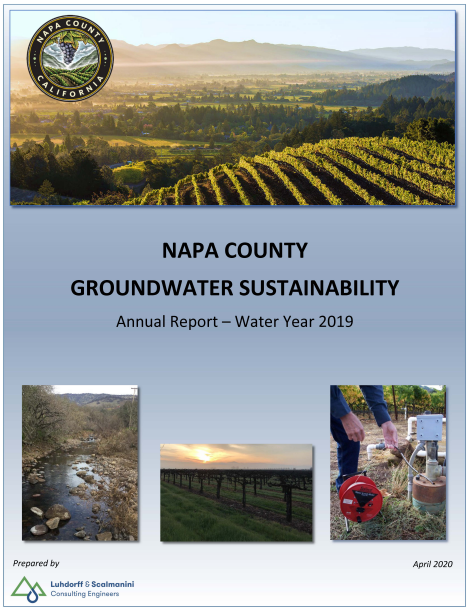
REPORT SUMMARY

NAPA COUNTY GROUNDWATER SUSTAINABILITY
ANNUAL REPORT – WATER YEAR 2019

The 2019 Annual Report provides the latest information on efforts underway since 2008 by Napa County and others to implement 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 have included:



- Adoption of 2008 Napa County General Plan Goals & Policies,
- New groundwater resources studies to address General Plan Goals & Policies beginning in 2009,
- Created the Groundwater Resources Advisory Committee to lead implementation and outreach (2011-2014),
- Provide ongoing community outreach through the Watershed Information & Conservation Council,
- Formation of the Napa County Groundwater Sustainability Agency.

The Annual Report meets reporting requirements of the Sustainable Groundwater Management Act (SGMA) for the Napa Valley Subbasin (Subbasin), which underlies much of the Napa Valley Floor, including:

- An update on groundwater conditions both in the Napa Valley Subbasin and in other areas across the county (see **Section 5**),
- An update on water use in the Napa Valley Subbasin (see **Section 6**),
- An update on the implementation of management actions presented in the 2016 Basin Analysis Report[1] and 2018 Basin Analysis Report Amendment[2] developed to maintain groundwater sustainability (see **Section 7**), and
- An update on planned near-term activities, consistent with Basin Analysis Report management recommendations, to maintain or improve groundwater conditions and ensure overall water resources sustainability in the Napa Valley Subbasin (see **Section 8**).

Key findings from the Annual Report include:

- Groundwater level trends in the alluvial aquifer system of the Napa Valley Subbasin are stable in most wells with long-term groundwater level records (see Sections 5.1.1 and 5.1.2).
- Many monitored wells experienced somewhat increased (i.e., shallower) groundwater levels in 2019 compared to 2018, consistent with wet water year conditions in 2019.
- Overall, the depth to groundwater in the alluvial aquifer of the Subbasin remained relatively shallow, ranging between 1 and 29 feet in spring 2019.
- In 19 of 20 representative monitoring wells, groundwater levels recorded in 2019 were above the minimum thresholds established as SGMA sustainability criteria (see Section 5.1.3). The County is reviewing conditions in the

[1] LSCE. 2016. *Napa Valley groundwater sustainability: a basin analysis report for the Napa Valley Subbasin*. https://www.napawatersheds.org/sustainable-groundwater-management

[2] LSCE. 2018. Napa Valley groundwater sustainability Northeast Napa Management Area: an amendment to the 2016 basin analysis report for the Napa Valley Subbasin, January 2018. https://www.napawatersheds.org/documents/view/9693

vicinity of one well that showed a fall level below the minimum threshold and data from other monitored wells nearby that did not experience similar water level conditions in fall 2019.

- While agricultural land use, especially vineyards, have covered much of the Napa Valley Floor for decades, water requirements for agriculture in the Subbasin (predominantly vineyards) are significantly lower than agricultural commodities grown elsewhere in California.
- Due to the high recharge potential of the Subbasin in most years and relatively low water requirements for agriculture, the Subbasin remains full relative to its storage capacity.
- Cumulative changes in groundwater storage, the difference between annual inflows and outflows to the groundwater system, show a net increase of 15,762 acre-feet from water years 1988 to 2019 (see Section 5.1.4), reflecting long-term stability in groundwater supplies across the Subbasin.
- Groundwater extraction in the Subbasin in water year 2019 was 18,005 acre-feet (see Section 6.1.4). 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 (see Section 5) demonstrate that the Napa Valley Subbasin has continued to be managed sustainably through 2019.**
- A total of 440 acre-feet of recycled water was used for agricultural irrigation.
- A remote sensing 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 4,110 acre-feet and 4,924 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 DWR, 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 (see Section 5.2). 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 297 acre-feet of recycled water to users in the MST Subarea in water year 2019. 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.

SGMA sustainable groundwater management activities underway or completed in 2019 include:

- In June 2019, Napa County published a stakeholder survey to guide outreach efforts specific to the Napa Valley Subbasin for SGMA purposes.
- In December 2019, the Napa County Board of Supervisors held a public hearing on December 17, 2019 and adopted Resolution No. 2019-152 approving the formation of the Napa County GSA for the Napa Valley Subbasin, pursuant of Water Code Section 10723.8.
- Updated mapping and evaluation of water use by Groundwater Dependent Ecosystems, incorporating new vegetation map data developed by the University of California-Davis for Napa County and guidance from resources agencies and environmental water user stakeholder groups on accounting to protected species.
- Expansion of the Streamflow Watch Program to track streamflow conditions at 26 priority locations to improve public awareness and provide an understanding of streamflow conditions as they change throughout the year.
- Ongoing coordination with other local and regional water management and planning programs.

For additional information: https://www.napawatersheds.org/groundwater