

## REPORT SUMMARY: NAPA COUNTY GROUNDWATER SUSTAINABILITY ANNUAL REPORT – WATER YEAR 2018

The 2018 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 General Plan Goals & Policies
- New groundwater resources studies began in 2009
- Created Groundwater Resources Advisory Committee to lead implementation and outreach (2011-2014)
- Provide ongoing community outreach through the Watershed Information & Conservation Council

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

- 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<sup>1</sup> and 2018 Basin Analysis Report Amendment<sup>2</sup> 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 decreased groundwater levels in 2018 compared to 2017, consistent with dry water year conditions in 2018.
- In 19 of 20 representative monitoring wells, groundwater levels recorded in 2018 were above the minimum thresholds established as SGMA sustainability criteria (see Section 5.1.3). The County is reviewing conditions in the vicinity of one well that showed a fall level below the minimum threshold, including water use, the



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

<sup>2</sup> 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.

location and operation of nearby wells, and data from other monitored wells nearby that did not experience similar water level conditions in fall 2018.

- Overall, the depth to groundwater in the alluvial aquifer of the Subbasin remained relatively shallow, ranging between 5 and 41 feet in spring 2018.
- 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 4,388 acre-feet from water years 1988 to 2018 (see Section 5.1.4), reflecting long-term stability in groundwater supplies across the Subbasin.
- Groundwater extraction in the Subbasin in water year 2018 was 17,889 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 2018.**
- A total of 440 acre-feet of recycled water was used for agricultural irrigation.
- A new 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 3,632 acre-feet and 4,721 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.

**SGMA sustainable groundwater management activities underway or completed in 2018 include:**

- Providing tools and training to Napa County well owners to support monitoring and awareness of groundwater conditions in wells that they own.
- Development of datasets to support the expansion of the groundwater flow model developed for the Northeast Napa Management Area to the entire Napa Valley Subbasin.
- Updated mapping and evaluation of water use by Groundwater Dependent Ecosystems
- Developing best available water use data by incorporating data from DWR and the State Water Resources Control Board.
- Revised conditions of approval for discretionary projects so permittees are required to monitor project wells and record the volume of groundwater pumped.
- Ongoing coordination with other local and regional water management and planning programs.

**For additional information:** <https://www.napawatersheds.org/groundwater>