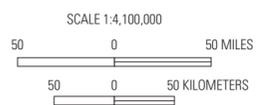


CALIFORNIA PRINCIPAL AQUIFERS

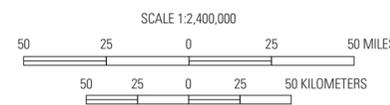
PREDICTED pH—DOMESTIC-SUPPLY  
DEPTH ZONE<sup>1</sup> (100 feet below land surface)

PREDICTED pH—PUBLIC-SUPPLY  
DEPTH ZONE<sup>1</sup> (325 feet below land surface)

Base modified from U.S. Geological Survey Principal Aquifers of the 48 Conterminous United States, Hawaii, Puerto Rico, and the U.S. Virgin Islands ([http://water.usgs.gov/GIS/metadata/usgswrd/XML/aquifers\\_us.xml](http://water.usgs.gov/GIS/metadata/usgswrd/XML/aquifers_us.xml)), Groundwater Availability of the Central Valley Aquifer, California (<http://pubs.usgs.gov/pp/1766/>), and other Federal digital data, various scales; Albers Equal-Area Conic projection, standard parallels are 29° 30' and 45° 30'; North American Datum of 1983



Base modified from U.S. Geological Survey digital data, various scales; Albers Equal-Area Conic projection, standard parallels are 29° 30' and 45° 30'; North American Datum of 1983



**EXPLANATION**

- |                                |                                 |  |
|--------------------------------|---------------------------------|--|
| Basin and Range basin fill     | Other rocks                     | Study area boundary                              |
| Basin and Range carbonate rock | Pacific Northwest basaltic rock | Prediction model boundary                        |
| California Coastal Basin       | Pacific Northwest basin fill    | Boosted regression tree training wells (n=1,003) |
| Central Valley aquifer system  |                                 |  |

**EXPLANATION**

- |  |             |             |             |                           |
|--|-------------|-------------|-------------|---------------------------|
| <b>Predicted pH, in standard units</b> |             |             |             | Prediction model boundary |
| >6.4 to 6.6                            | >6.8 to 7.0 | >7.2 to 7.4 | >7.6 to 7.8 |                           |
| >6.6 to 6.8                            | >7.0 to 7.2 | >7.4 to 7.6 | >7.8 to 8.0 |                           |

<sup>1</sup>Domestic and public supply depth zones represent median well depths of the training boosted regression tree (BRT) dataset that were stratified into shallow and deep drinking water supply depths, respectively, based on previous work. See data release link for summary of details and citation.

# Predicted pH in Depth Zones Used by Domestic and Public Drinking Water Supply Wells, Central Valley, California

By

Celia Z. Rosecrans, Bernard T. Nolan, and Jo Ann M. Gronberg

2017

Any use of trade, product, or firm names in this publication is for descriptive purposes only and does not imply endorsement by the U.S. Government. This map was printed on an electronic plotter directly from digital files. Dimensional calibration may vary between electronic plotters and between X and Y directions on the same plotter, and paper may change size due to atmospheric conditions; therefore, scale and proportions may not be true on plots of this map. Digital files available at <https://doi.org/10.3133/sim3377> or <http://pubs.usgs.gov/sim/3377/>. Data release, boosted regression tree (BRT) model method, and model fit statistics are available at <https://doi.org/10.5066/F7FX77K4>. Suggested citation: Rosecrans, C.Z., Nolan, B.T., Gronberg, J.M., 2017. Predicted pH at the domestic and public supply drinking water depths, Central Valley, California: U.S. Geological Survey Scientific Investigations Map 3377, 1 sheet, scale 1:2,400,000, <https://doi.org/10.3133/sim3377>.