

# Napa County Groundwater Sustainability Agency

## Annual Report – Water Year 2020

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**Luhdorff &  
Scalmanini**  
Consulting Engineers



# Outline



Water Year 2020  
Highlights



Monitoring Results



Sustainability Metrics



SGMA Planning &  
Implementation Activities



# Water Year 2020 Highlights



## Water Year 2020

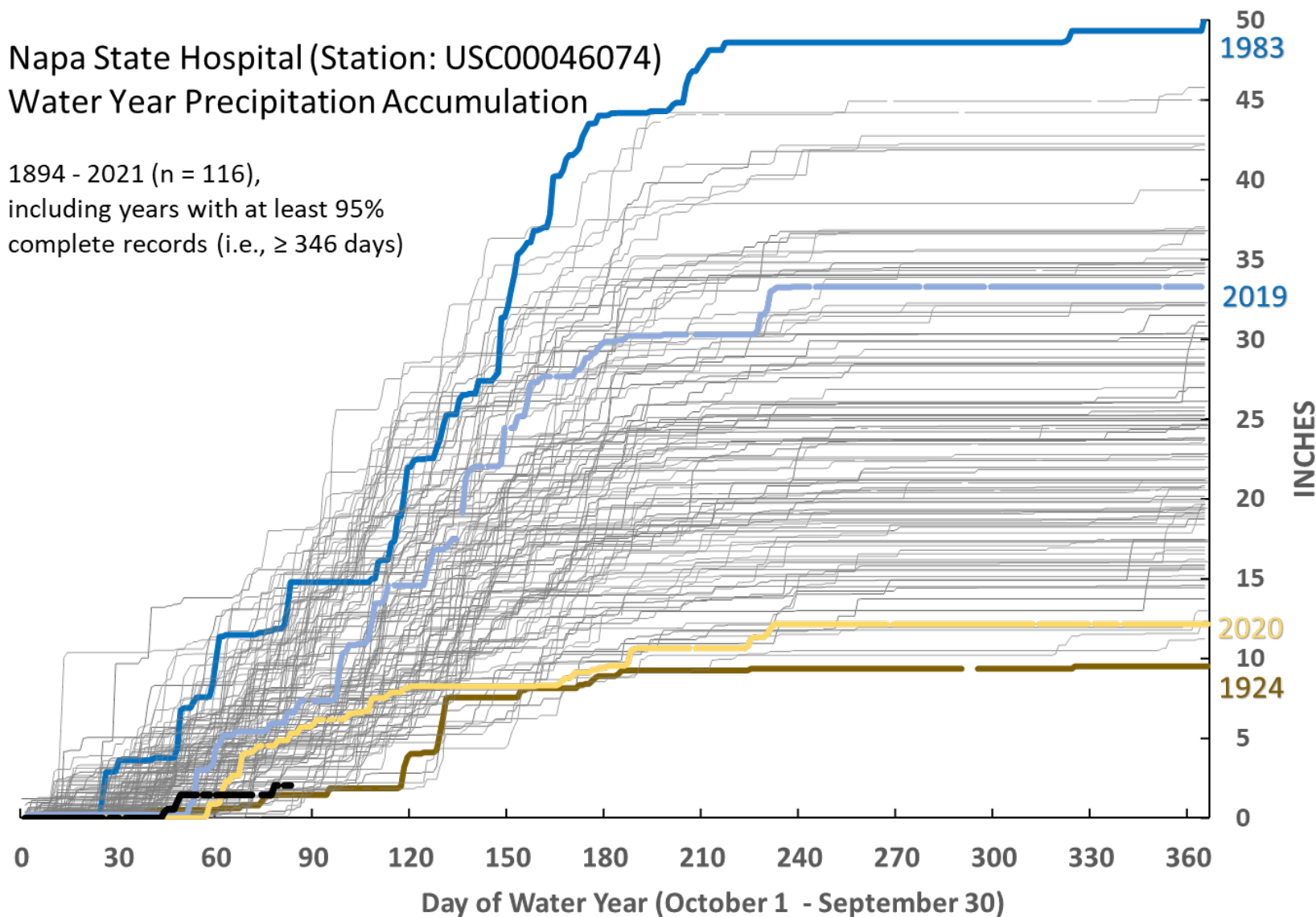
- **Very Dry,**
- **~ 50% of average**
- Third driest since 1894 in Napa
- Third driest since 1932 in Calistoga

## Water Year 2021

- **Very Dry**
- **~40% of average through April**

### Napa State Hospital (Station: USC00046074) Water Year Precipitation Accumulation

1894 - 2021 (n = 116),  
including years with at least 95%  
complete records (i.e.,  $\geq 346$  days)



# Monitoring Results

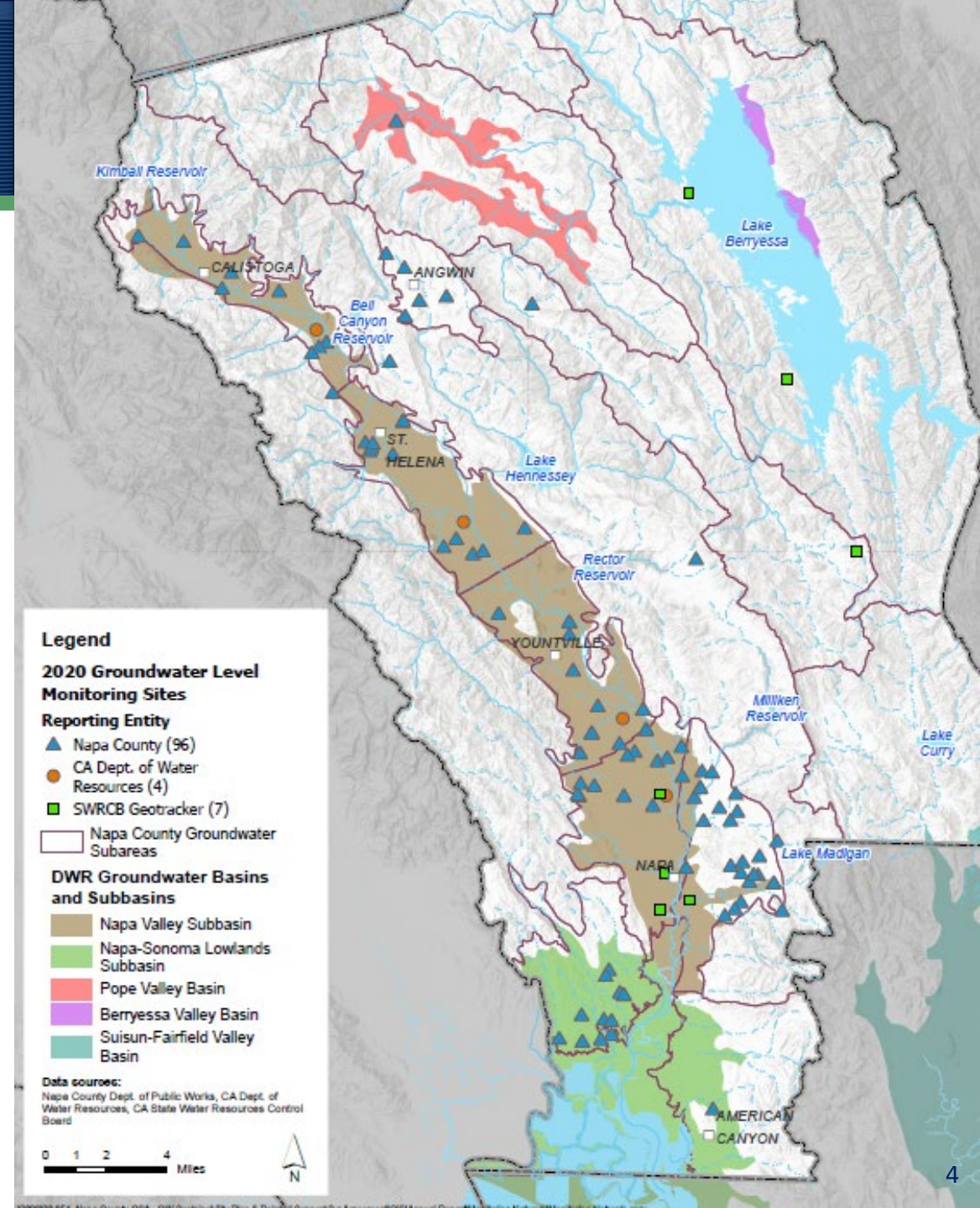


## Wells Monitored, by Reporting Entity

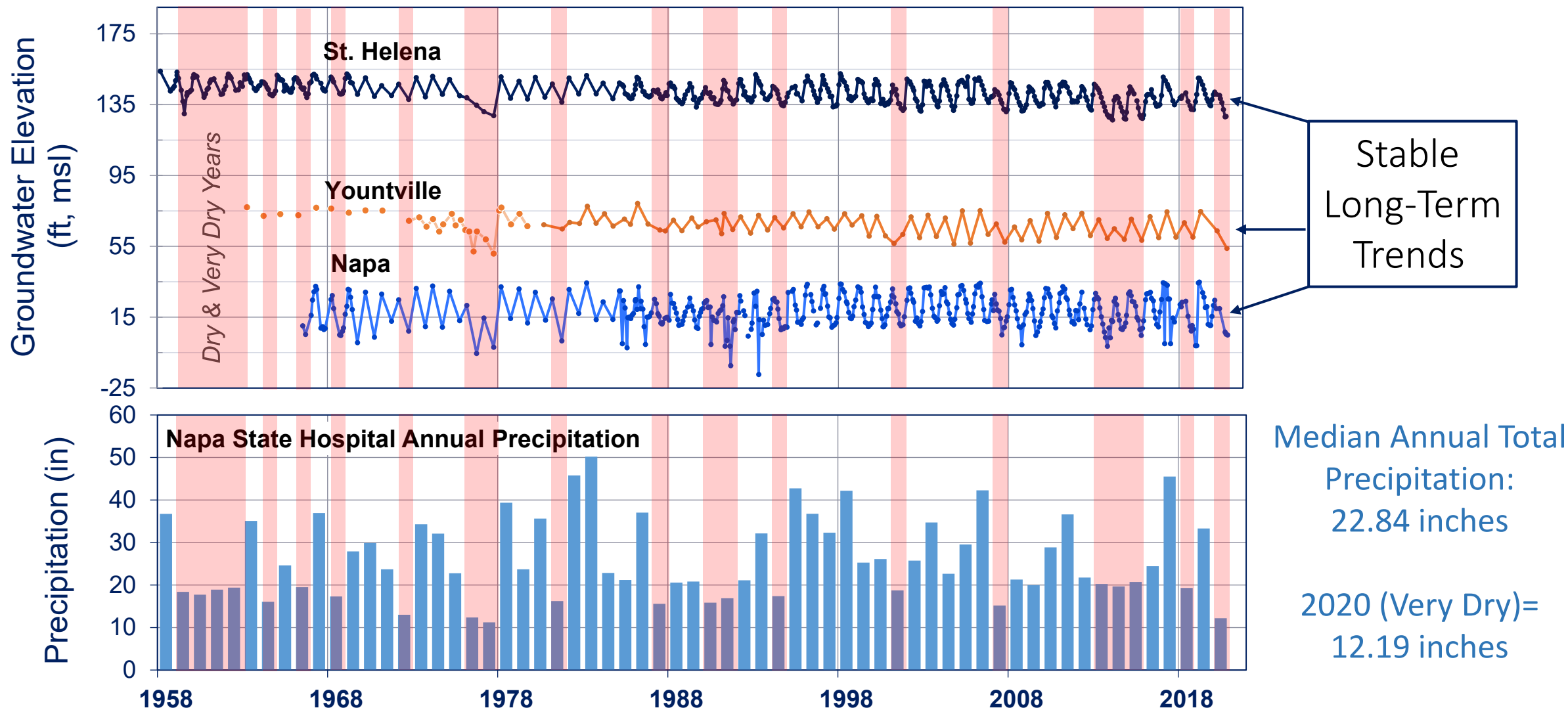
- ▲ Napa Co.: 96 (incl. 10 SW/GW)
- Department of Water Resources: 4\*
- State Water Resource Control Board GeoTracker: 7

107 Wells Countywide

60 Wells in the Napa Valley Subbasin



# Monitoring Results – Groundwater Levels

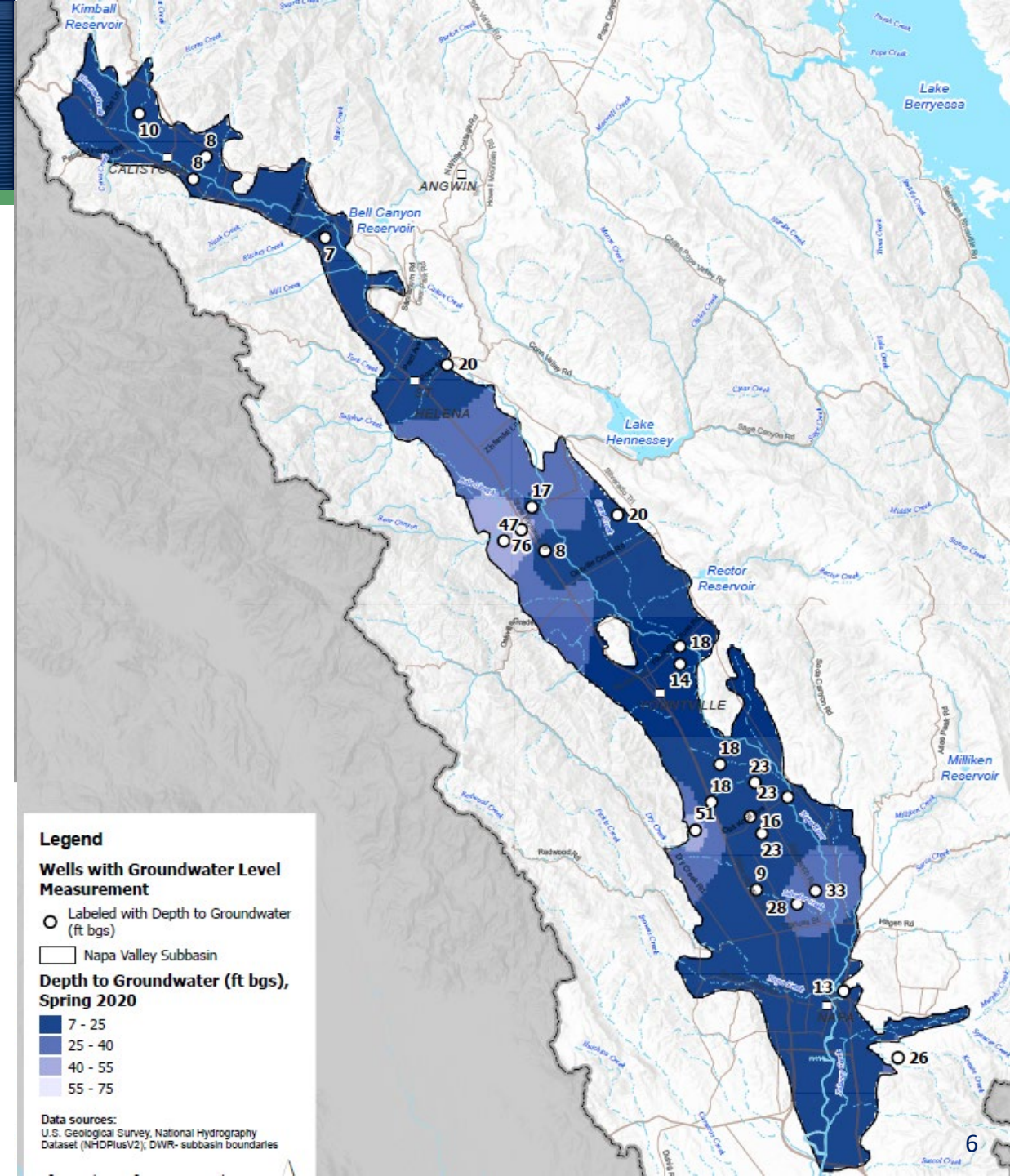


# Monitoring Results Groundwater Levels



## Napa Valley Subbasin

- Spring Depth to Water (DTW) in the Subbasin generally shallow and stable over time
- **2020 Spring DTW 10 to 50 ft below ground surface**



### Legend

#### Wells with Groundwater Level Measurement

- Labeled with Depth to Groundwater (ft bgs)

□ Napa Valley Subbasin

#### Depth to Groundwater (ft bgs), Spring 2020

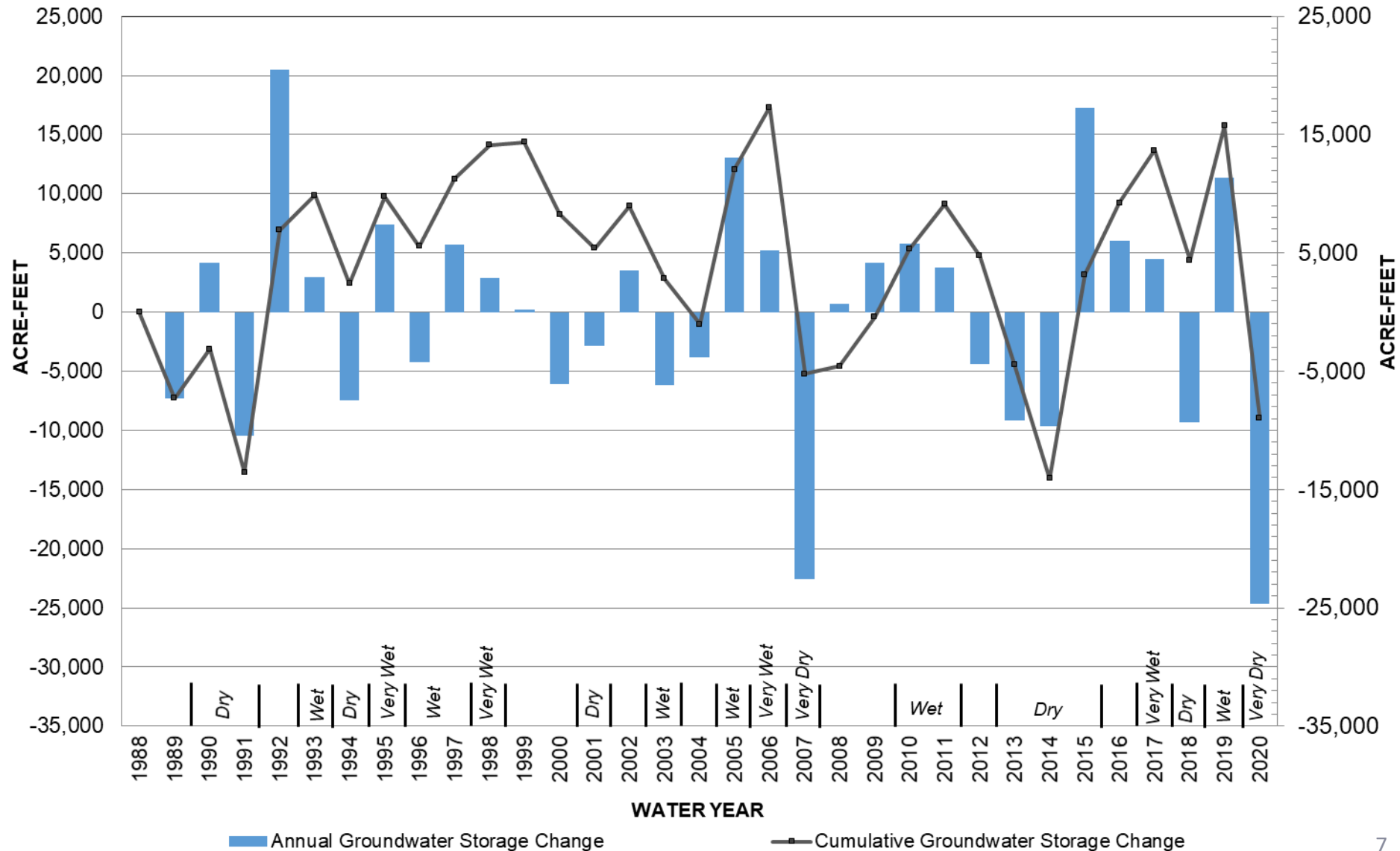
- 7 - 25
- 25 - 40
- 40 - 55
- 55 - 75

Data sources:  
U.S. Geological Survey, National Hydrography Dataset (NHDPlusV2); DWR- subbasin boundaries

# Monitoring Results – Change in Groundwater Storage



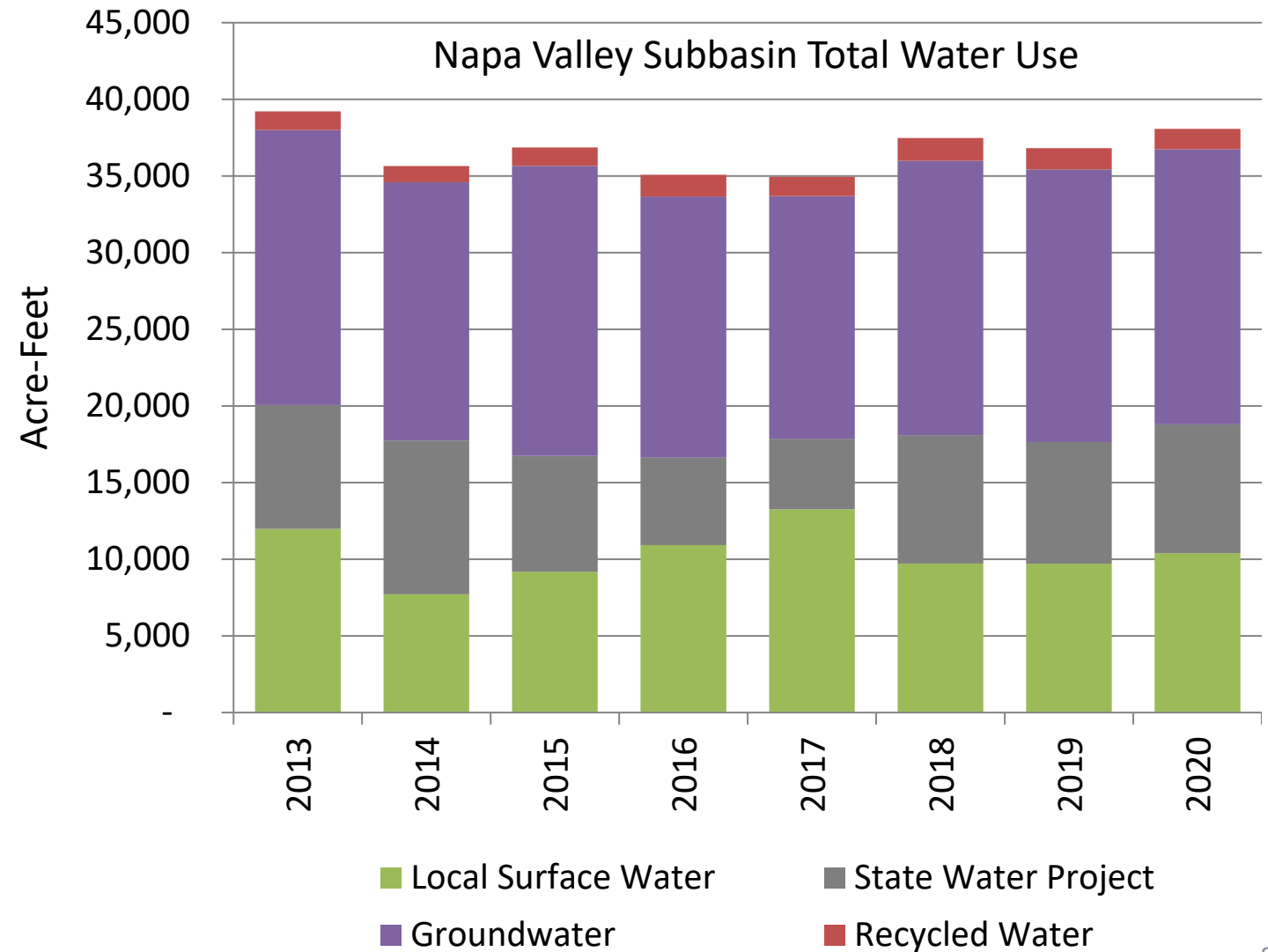
- Change in groundwater storage influenced by water year and pumping
- Total storage capacity approximately 200,000 acre-feet
- From 1988 to 2020, cumulative storage changes show no chronic depletion of supply.



# Monitoring Results – Water Use



	Acre-Feet
2020 Groundwater Pumping	17,933
Sustainable Yield (Estimated Range)	17,000 to 20,000
2020 Recycled Water Use	1,338
2020 Local Surface Water Use	10,392
2020 State Water Project Use	8,410

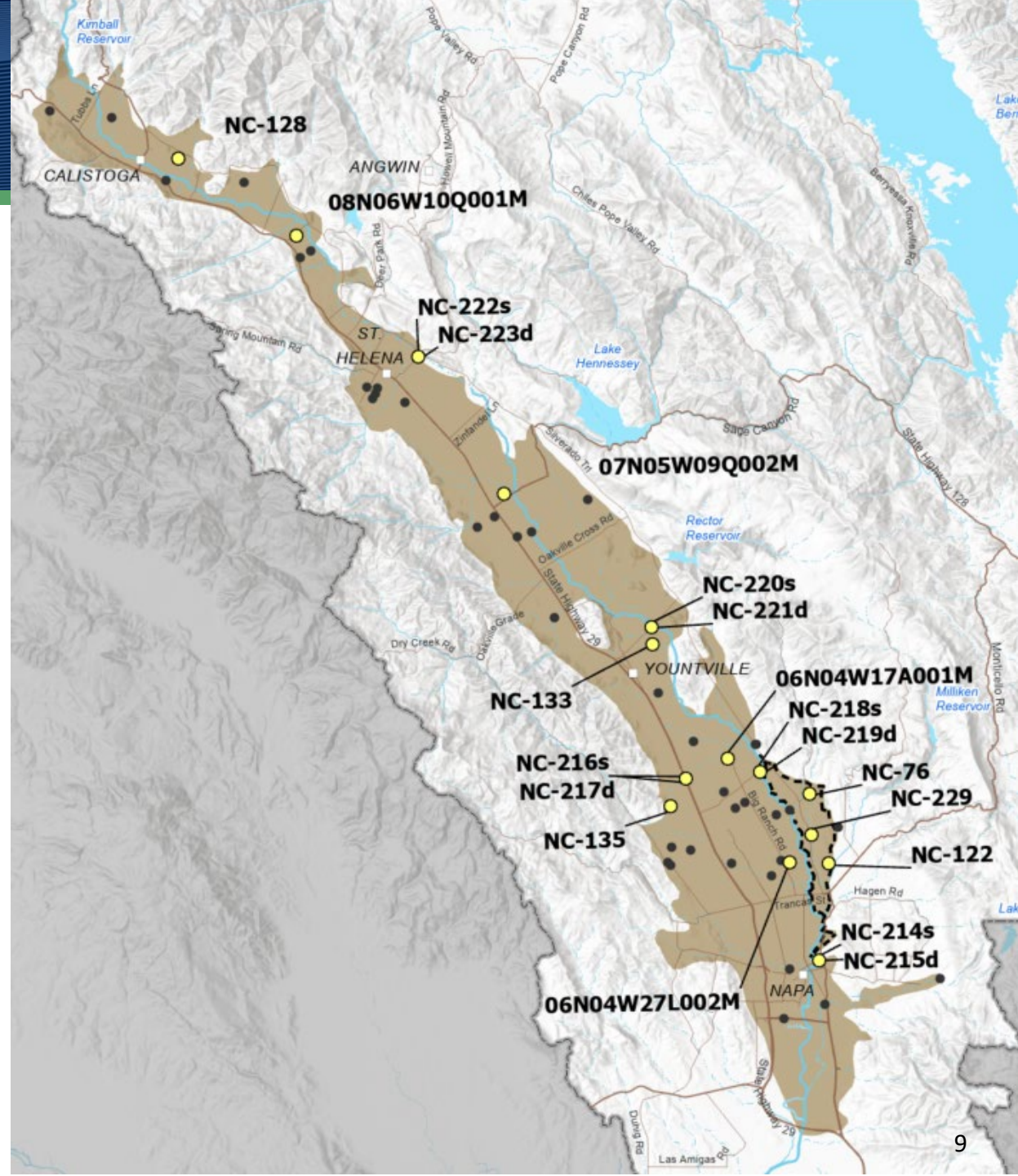


# Sustainability Metrics



Representative Monitoring Site	Date Monitored	Measured Minimum 2020 Fall Groundwater Elevation (GWE) (Feet) <sup>1</sup>	Streamflow Depletion Minimum Threshold (Fall GWE, Feet)	Measurable Objective (Fall GWE, Feet)
NapaCounty-128	10/19/2020	330	320	331
08N06W10Q001M	9/14/2020	<b>246</b>	269	281
NapaCounty-222s-swgw5	9/11/2020	185	185	190
NapaCounty-223d-swgw5	9/11/2020	<b>156</b>	164	175
07N05W09Q002M	9/14/2020	128	127	135
NapaCounty-220s-swgw4	9/11/2020	75	75	77
NapaCounty-221d-swgw4	9/11/2020	<b>74</b>	75	77
NapaCounty-133	10/23/2020	72	72	76
06N04W17A001M	10/5/2020	<b>31</b>	37	50
NapaCounty-216s-swgw2	9/11/2020	71	61	76
NapaCounty-217d-swgw2	9/11/2020	<b>60</b>	61	76
NapaCounty-218s-swgw3	9/11/2020	29	29	32
NapaCounty-219d-swgw3	9/11/2020	29	29	32
06N04W27L002M	11/9/2020	5	-2	12
NapaCounty-214s-swgw1	9/11/2020	3	2	4
NapaCounty-215d-swgw1	9/11/2020	3	2	4

1. Values below a minimum threshold shown in bold. Non-static measurements excluded, such as measurements affected by recent or nearby pumping.



# SGMA Planning and Implementation Activities



- Napa County GSA Stakeholder Communication and Engagement Plan (adopted Dec. 2020)
- SGMA stakeholder outreach survey and surveys on draft GSP Sections
  - Stakeholder survey June 2019 – July 2020
  - 7 Surveys on the Draft GSP and Sustainable Management Criteria Surveys: August 2020 - present
- Evaluating groundwater dependent ecosystems
- Tracking well permits and construction
- Development of a web-based tool for reporting groundwater use data

# Thank You

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