

First Annual Report Summary

Santa Ynez Basin - EMA

Presented by: Tim Nicely

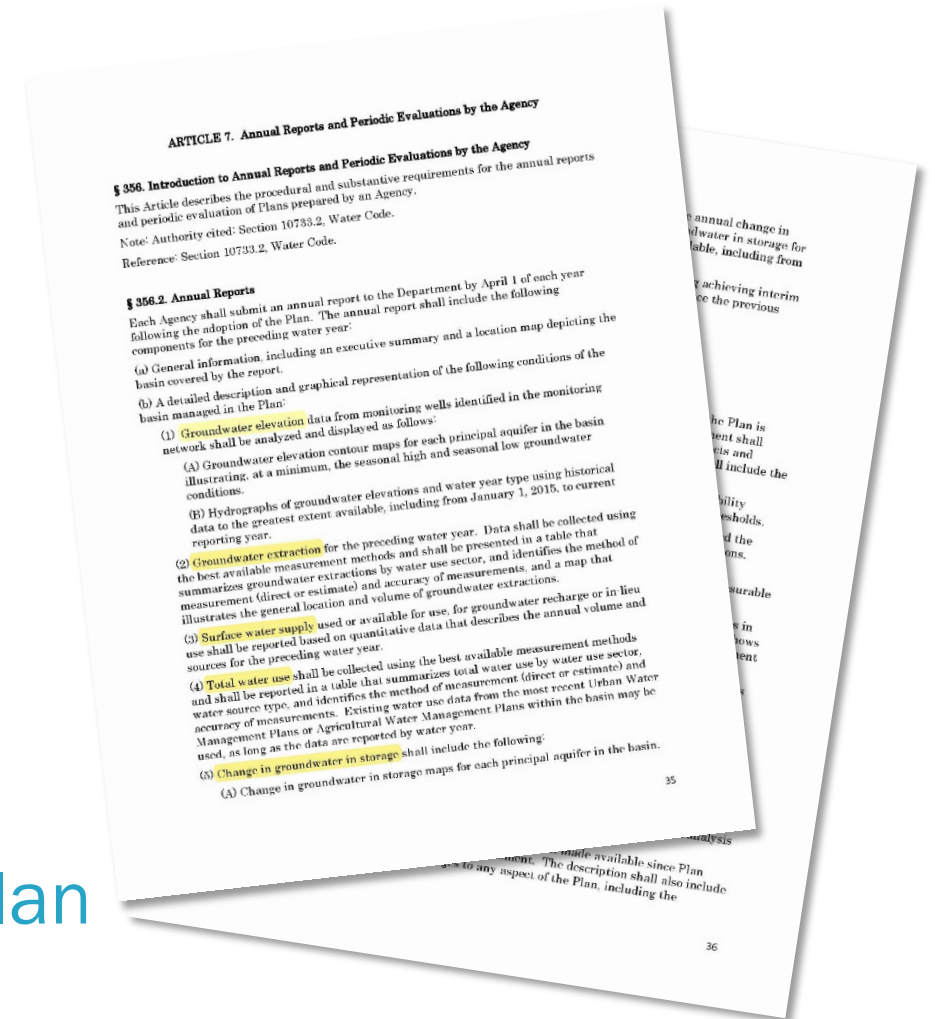
February 24, 2022



DWR Requirements

Description and presentation of

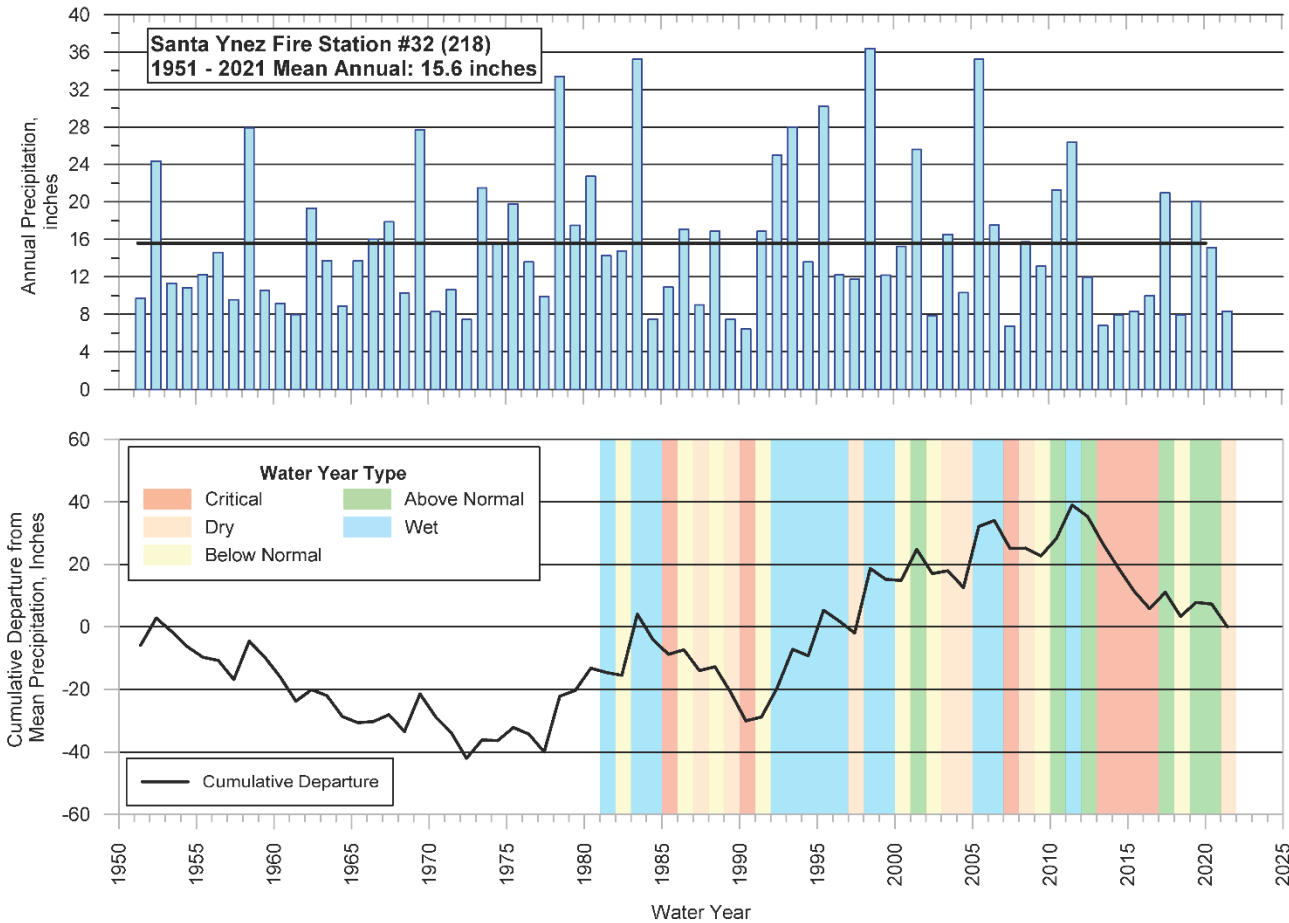
1. Groundwater elevation
2. Groundwater extraction
3. Surface water supply
4. Total water use
5. Change in groundwater in storage
6. Progress towards implementing the Plan



Scope of Report

- Water Years 2019 through 2021 (3 years)
 - Bridging the gap between the Plan (1981 – 2018) and the most recent water year (2021)
- Summarizes data collected through the most recent water year (September 2021)
- Describes progress towards implementing the Plan

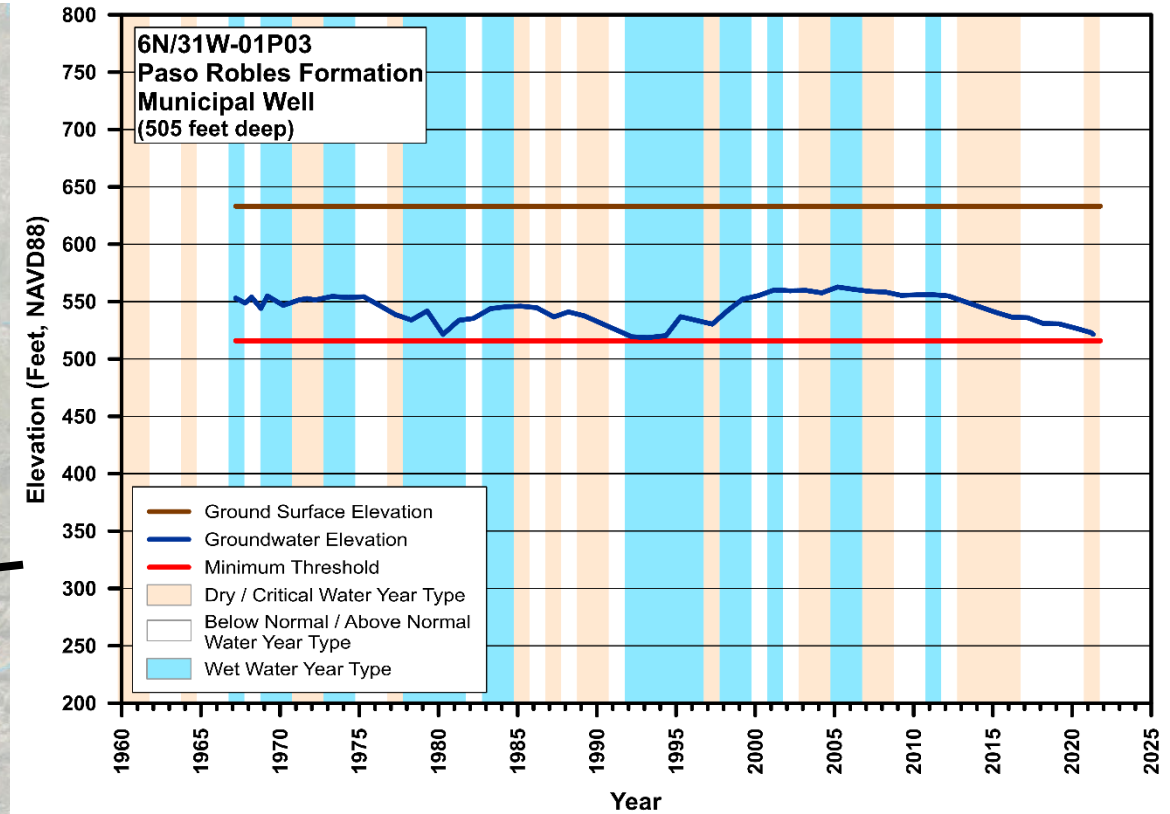
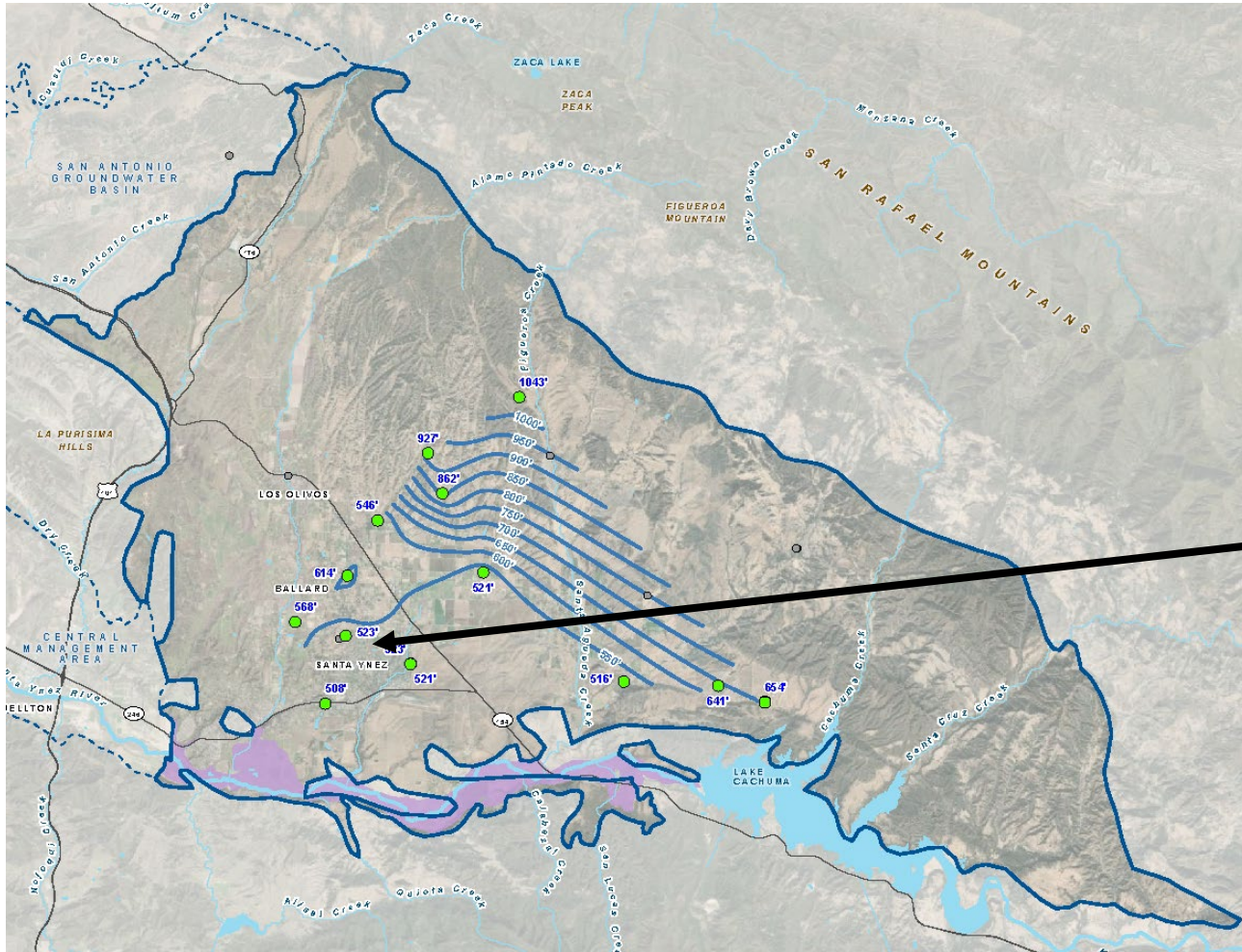
Water Year Types since 2018



Water Year	Annual Precipitation (inches)	Water Year Type
2018	7.9	Below Normal
2019	20.1	Above Normal
2020	15.1	Above Normal
2021	8.3	Dry

- Calculated using latest DWR guidelines (2021)
- Each water year ranked against preceding 29 years
- Factors in precipitation from current and previous water year

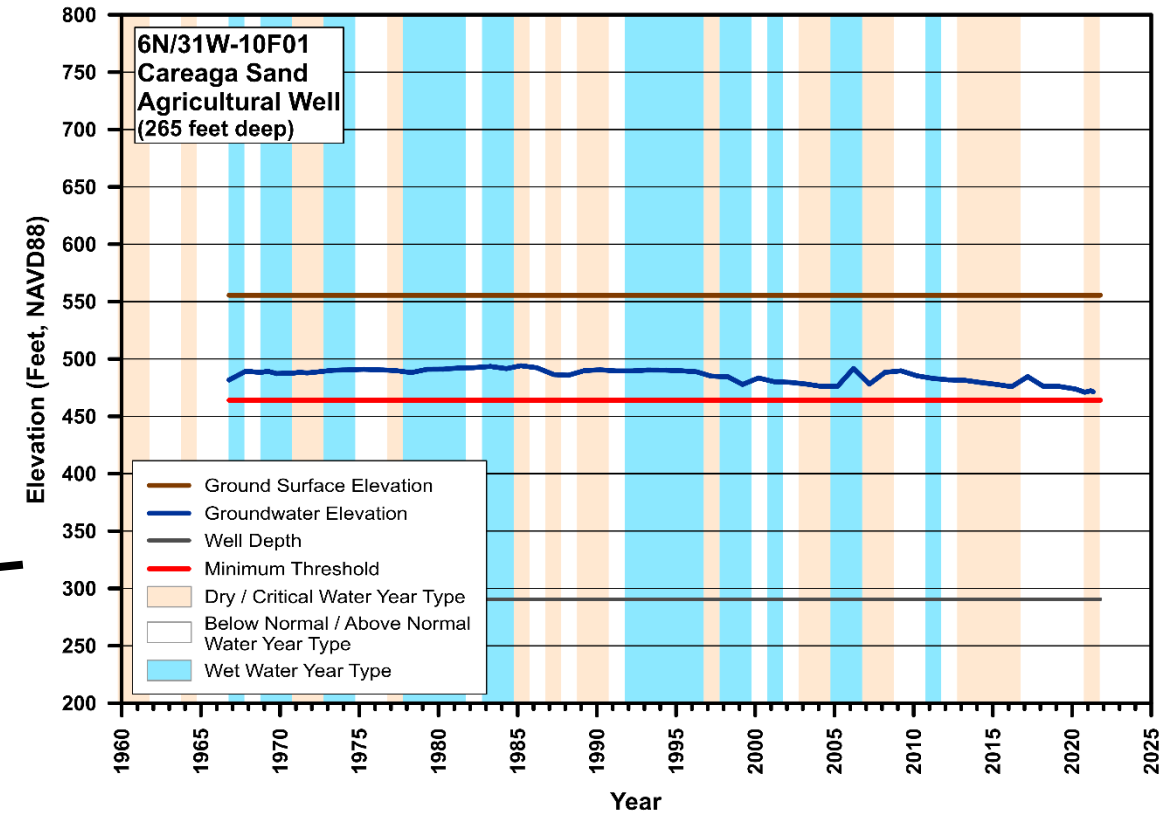
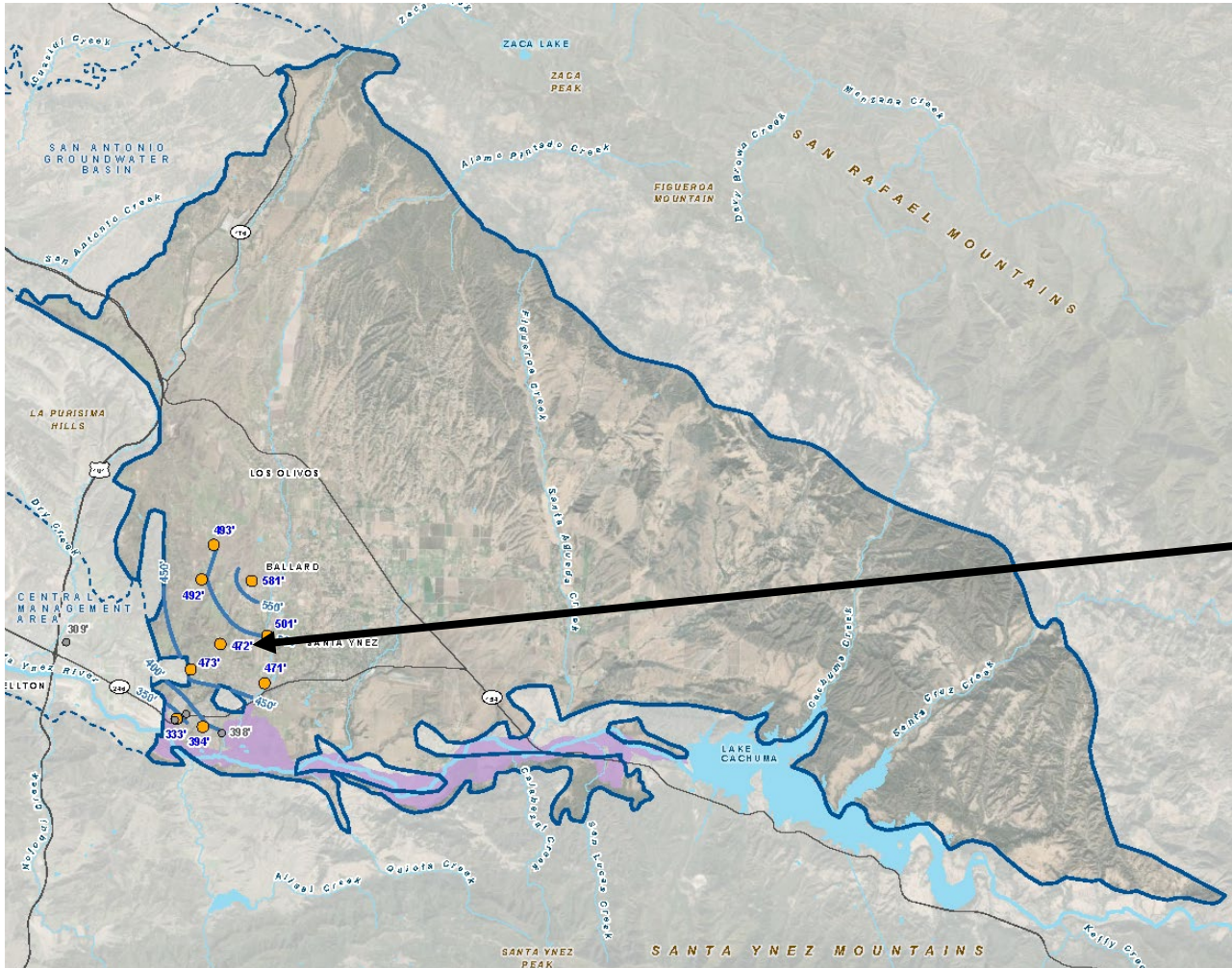
1. Groundwater Elevation – Paso Robles



Data Sources:

- County Water Level Monitoring Data
- ID No. 1

1. Groundwater Elevation – Careaga Sand



Data Sources:

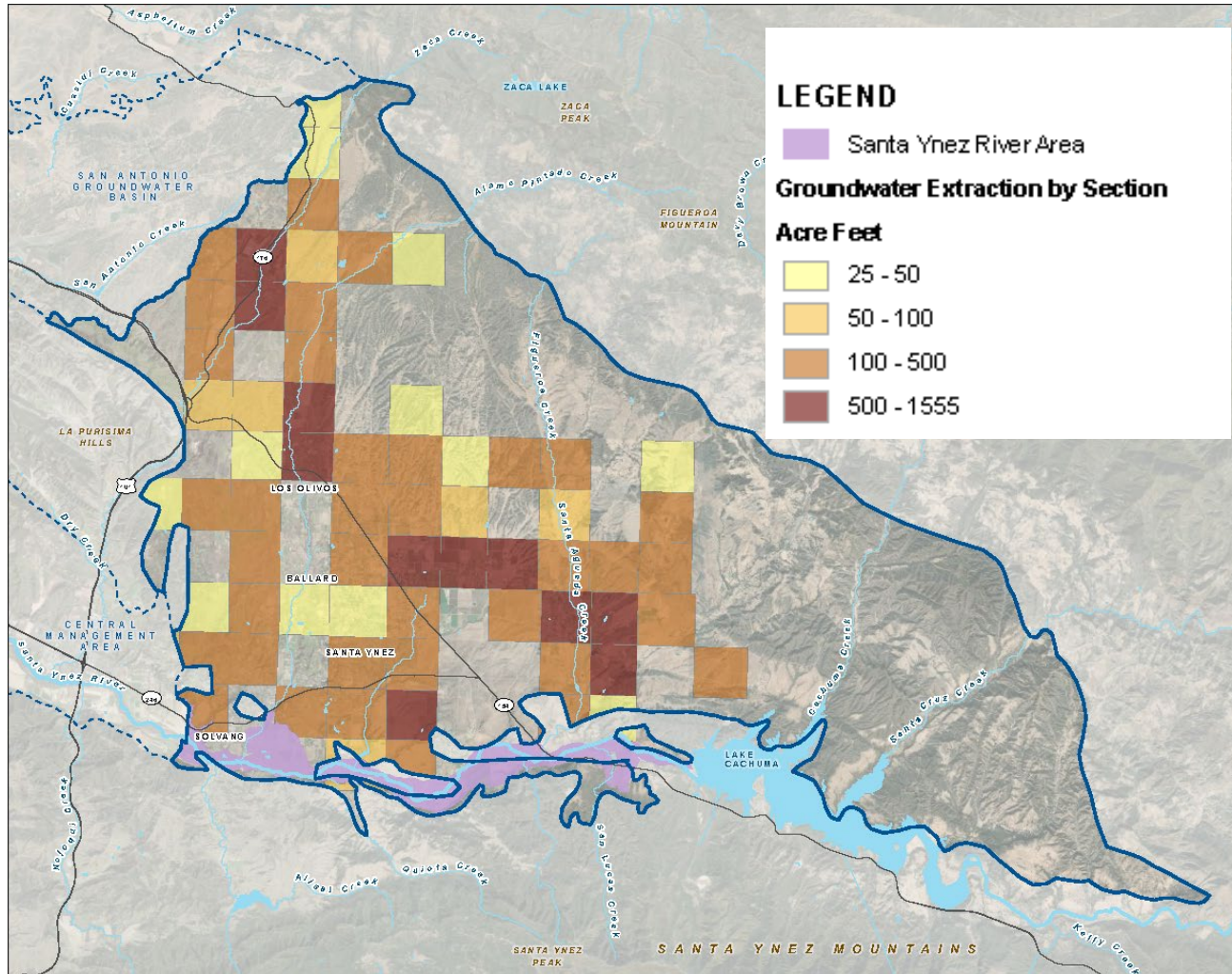
- County Water Level Monitoring Data
- City of Solvang

2. Groundwater Extraction

Values in acre-feet

Water Year	Groundwater Extractions by Water Use Sector				Total (AF)
	Municipal / Reported Domestic	Small Public Water Systems	Rural Domestic	Agriculture	
2018	2,060	945	303	11,876	15,200
2019	1,431	951	305	12,278	15,000
2020	1,880	957	307	11,812	15,000
2021	2,320	963	309	13,379	17,000
Method of Measure	Provided by ID No.1 (metered), City of Solvang (metered), and SYRWCD (user reported)	Estimated based on population data	Estimated based on population data	Within SYRWCD: Reported Outside District: Estimated based on agricultural land use surveys, crop duty factor, and OpenET	

2. Groundwater Extraction



Location and Volume Of Groundwater Extraction (2021)

3. Surface Water Supply

Values in acre-feet

Water Year	Imported Surface Water – State Water Project			River Well Sources	Total
	City of Solvang	ID No. 1	ID No. 1 Exchange		
2018	484	274	1,012	3,097	4,900
2019	759	50	2,213	2,557	5,600
2020	745	315	1,740	2,280	5,100
2021	612	0	1,439	1,439	5,200

Surface water supply serves areas within the entire EMA including Santa Ynez Uplands (SGMA jurisdiction) and Santa Ynez River Area (SYRWCD jurisdiction)

4. Total Water Use

Values in acre-feet

Water Year	Groundwater Use	Surface Water Use	Total (AF)
2018	15,184	4,867	20,100
2019	14,965	5,579	20,500
2020	14,956	5,081	20,000
2021	16,972	5,208	22,200

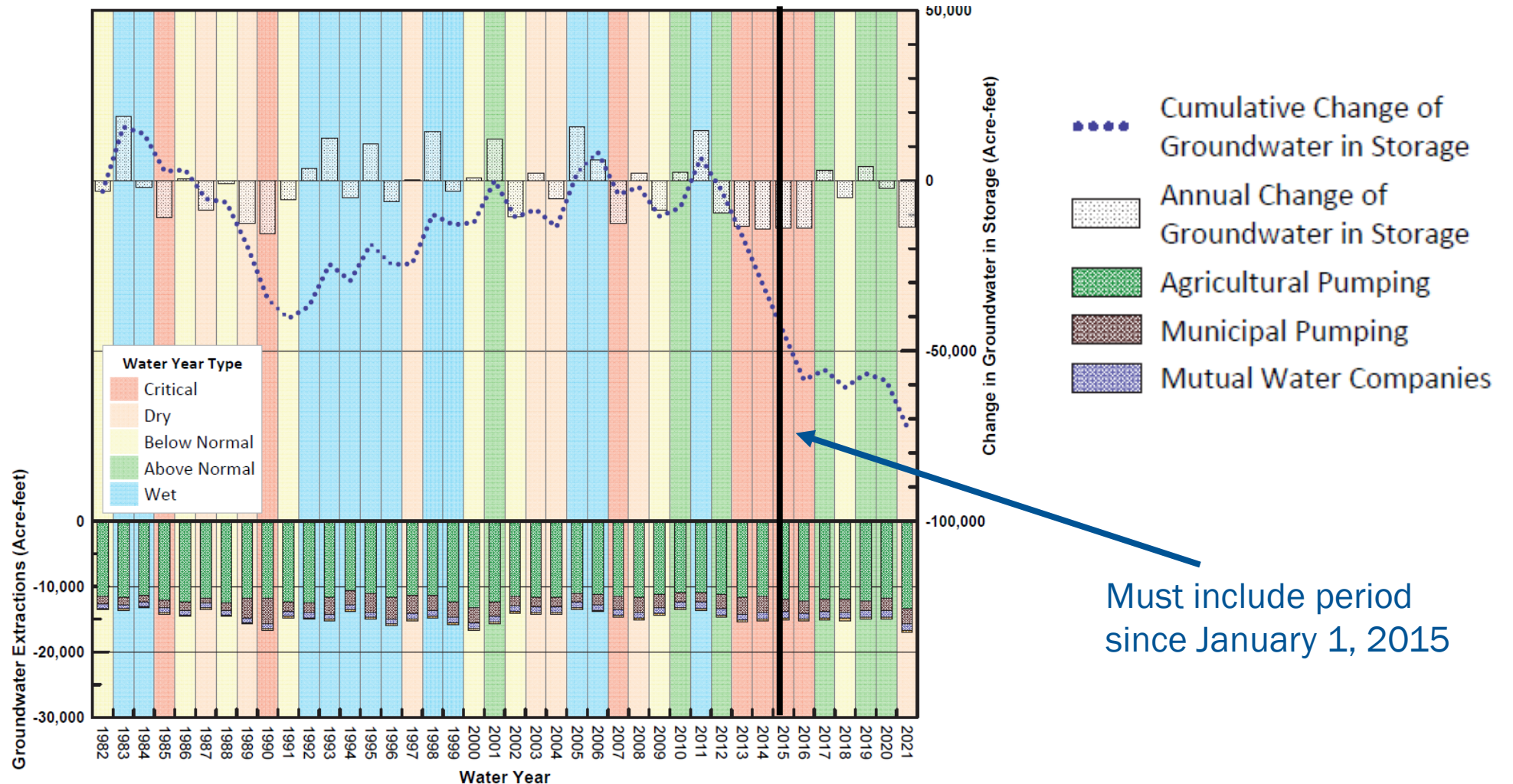
5. Change in Groundwater in Storage

Methods used to estimate change in storage

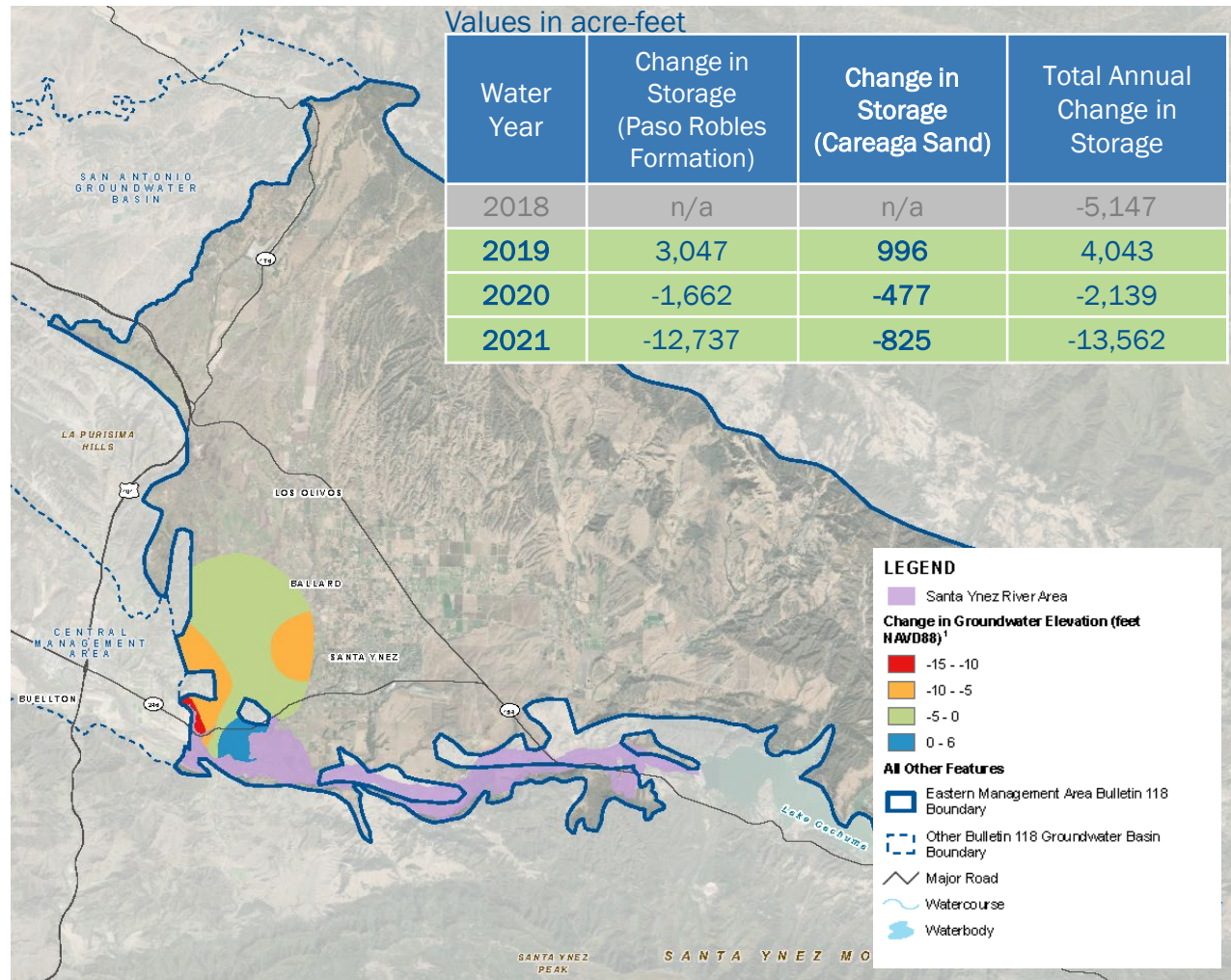
1. Change in groundwater in storage maps
(Required by annual reporting regulations)
2. Water budget method
(Used previously as required in the Plan)

Data availability and uncertainty guided our decisions regarding which method to use.

5. Change in Groundwater in Storage



5. Change in Groundwater in Storage

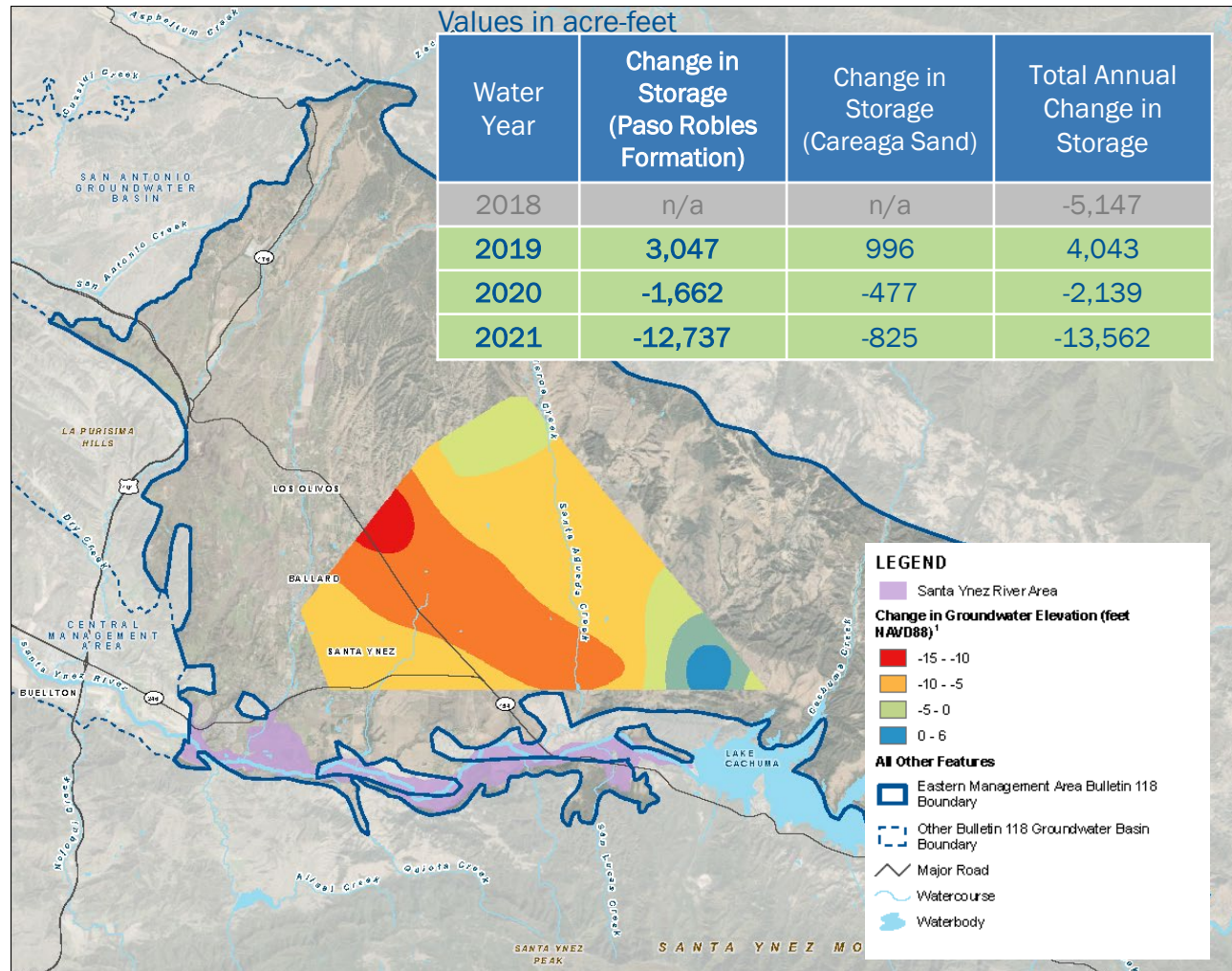


Careaga Sand

Change in storage calculated by contour method

- 2021 groundwater elevation surface compared to 2020 groundwater elevation
- Volume of gain / loss calculated in GIS
- Volume multiplied by specific yield to estimate change of water in storage

5. Change in Groundwater in Storage



Paso Robles Formation

Change in storage calculated by water budget method

- Contour method not feasible due to lack of spatial distribution in 2021 water levels
- Total change in storage for EMA (using water budget)
 - minus Careaga Sand contour method) equals
 - Change in storage in Paso Robles Formation

6. Progress Towards Implementation

- Where do we stand relative to our SMCs?
- What is our progress towards implementing Projects and Management Actions?

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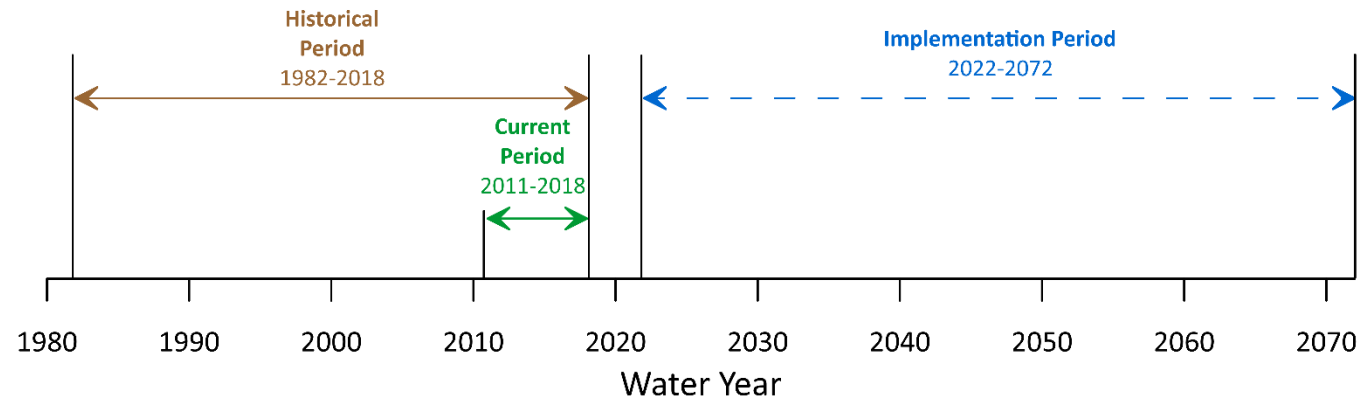
Number of Representative Wells with Water Levels Below the Minimum Threshold				
Aquifer	Minimum Threshold	Spring 2019	Spring 2020	Spring 2021
Paso Robles Formation	15 feet below spring 2018 levels	0 of 15	2 of 14	4 of 14
Careaga Sand	12 feet below spring 2018 levels	0 of 9	0 of 9	1 of 9

Note: Undesirable result could occur when

- 50 percent of water levels in representative wells fall below Minimum Threshold for 2 consecutive years
- of average and above-average precipitation

6. Progress Towards Implementation

- What is our progress towards implementing Projects and Management Actions?
 - As of September 2021, the Plan was under development



- Early 2022, completing first annual report

6. Progress Towards Implementation

- What is our progress towards implementing Projects and Management Actions?
 - In progress:
 - Annual reporting
 - Addressing data gaps
 - Expanding monitoring well network
 - Performing video surveys in representative wells
 - Installing piezometers in alamo pintado creek and zanja de cota creek
 - Reviewing / updating agricultural water usage
 - Surveying and investigating additional potential gdes
 - Groundwater pumping fee program
 - Well registration program and well meter installation program
 - Water use efficiency programs

6. Progress Towards Implementation

- Implementation Schedule
 - Tonight's meeting introduces first annual report
 - March 24, 2022 meeting to approve first annual report
 - March 31, 2022 submit annual report to DWR

Thank you!

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Photo Credit: Jeremy Ball, Courtesy of Longoria Wines