

# Future Water Budget Revision

Santa Ynez Basin- EMA

March 25, 2021



# Topics of Discussion

- Revision to Future Water Budget
- Next Steps

# Future Water Budget Revision

- Municipal and domestic water use
  - Data: SBCAG growth forecasts, census, others
- Agricultural acreage and water use
  - Data sources: SYRWCD agricultural pumping
  - Land use surveys 1985, 1996, 2014, 2016
  - Statewide farmland mapping
  - Crops that are not expected to change substantially
- Climate change
  - Data sources: streamflow, precipitation, evapotranspiration
  - Projections

# Future Water Budget Revision

- Municipal and domestic water use
  - Data sources:
    - SBCAG growth forecasts
    - Census data
    - Solvang
    - ID No. 1
    - MWCs

## Summary of Projected Municipal and Industrial Pumping

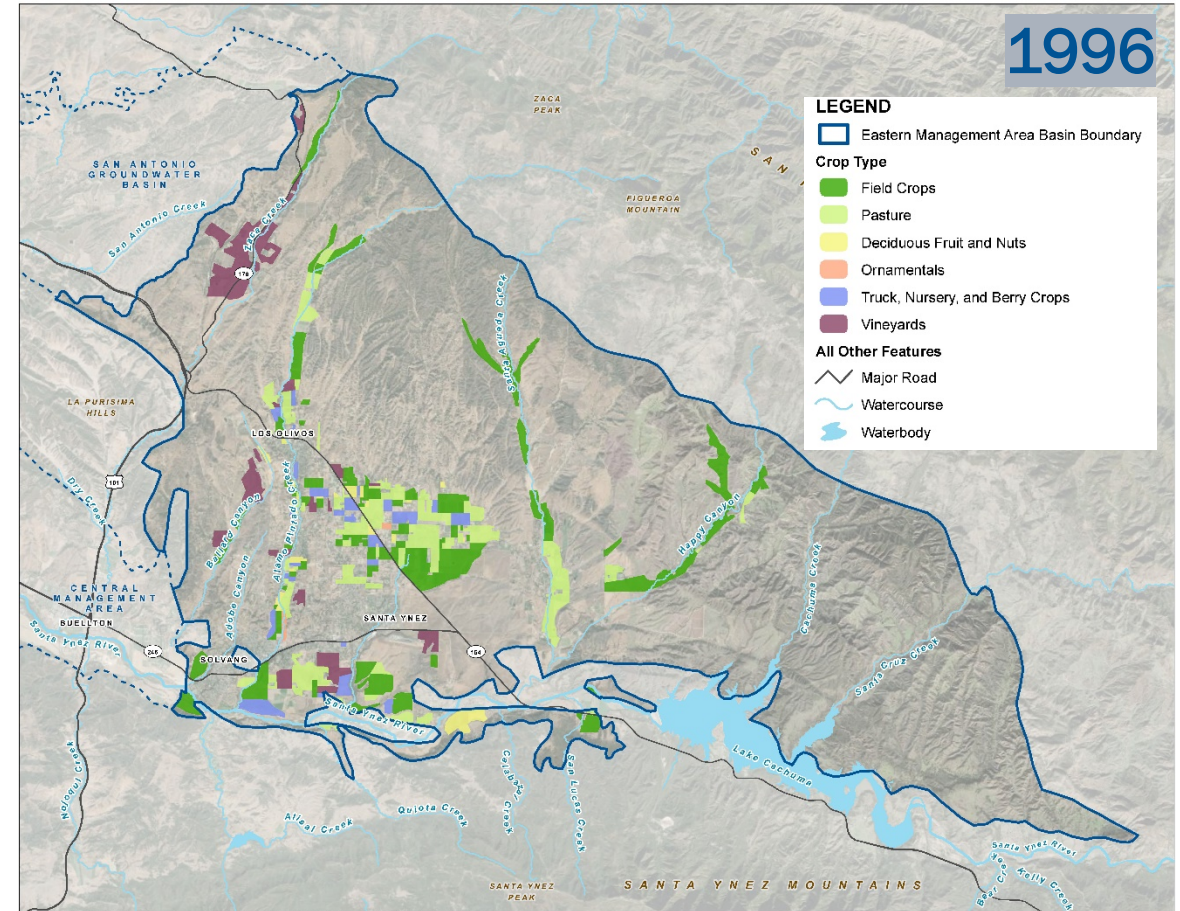
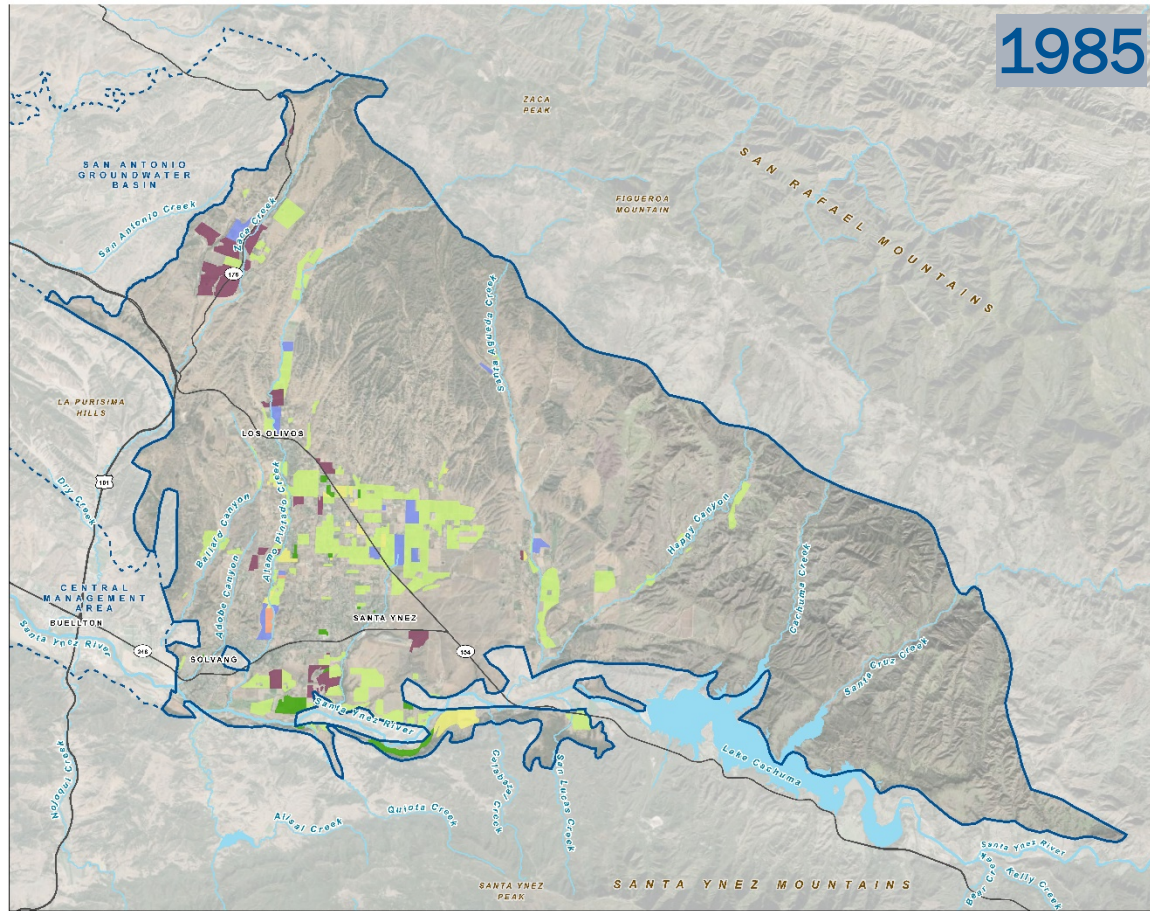
(Values in acre-feet per year)

Water budget Component	Historical Average	2042 (Projected)	2072 (Projected)
Solvang and ID No. 1 (non-agricultural)	1,940	2,040	2,150
Mutual Water Companies	820	860	910
Rural Domestic	300	320	330
<b>Total Municipal and Industrial</b>	<b>3,060</b>	<b>3,220</b>	<b>3,390</b>
Change, AFY	–	+ 160	+ 330
Change, Percent	–	+ 5 %	+ 11 %

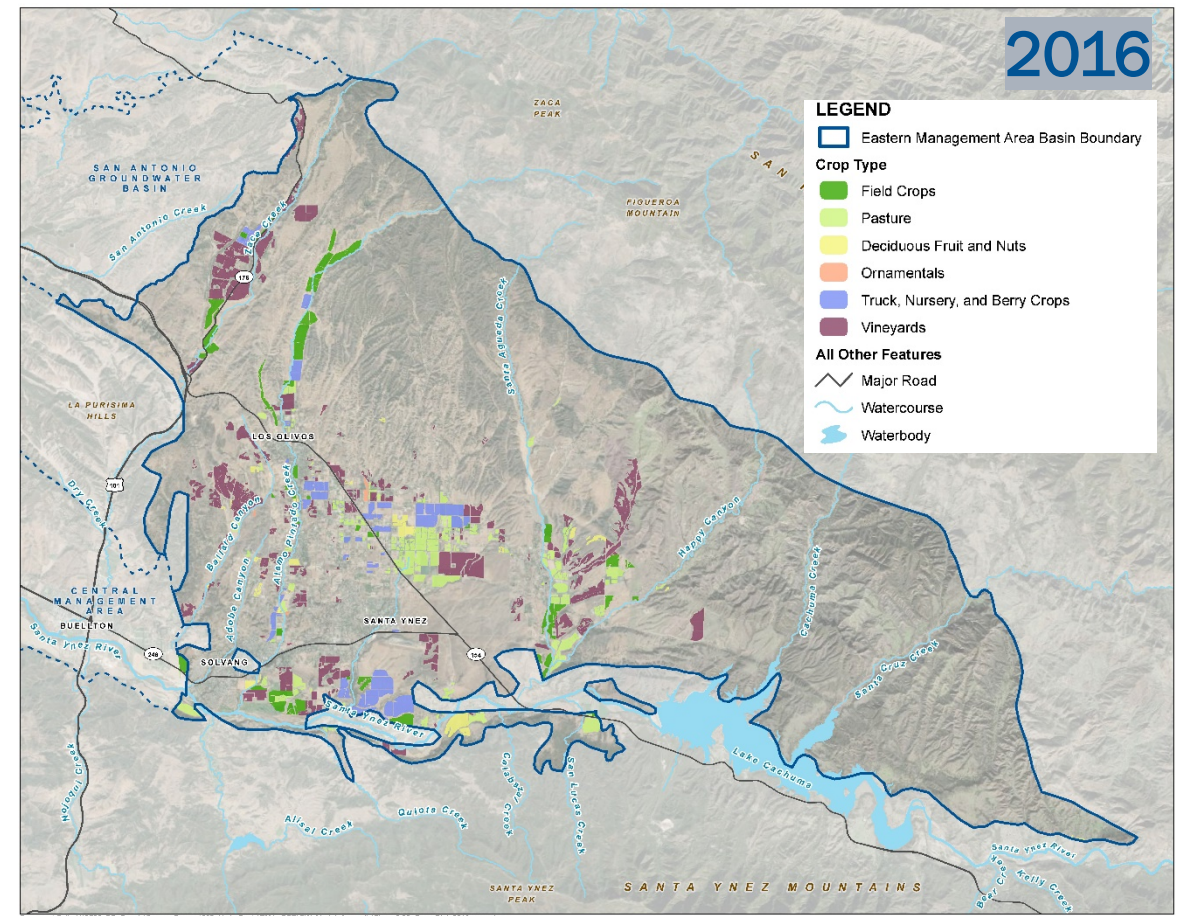
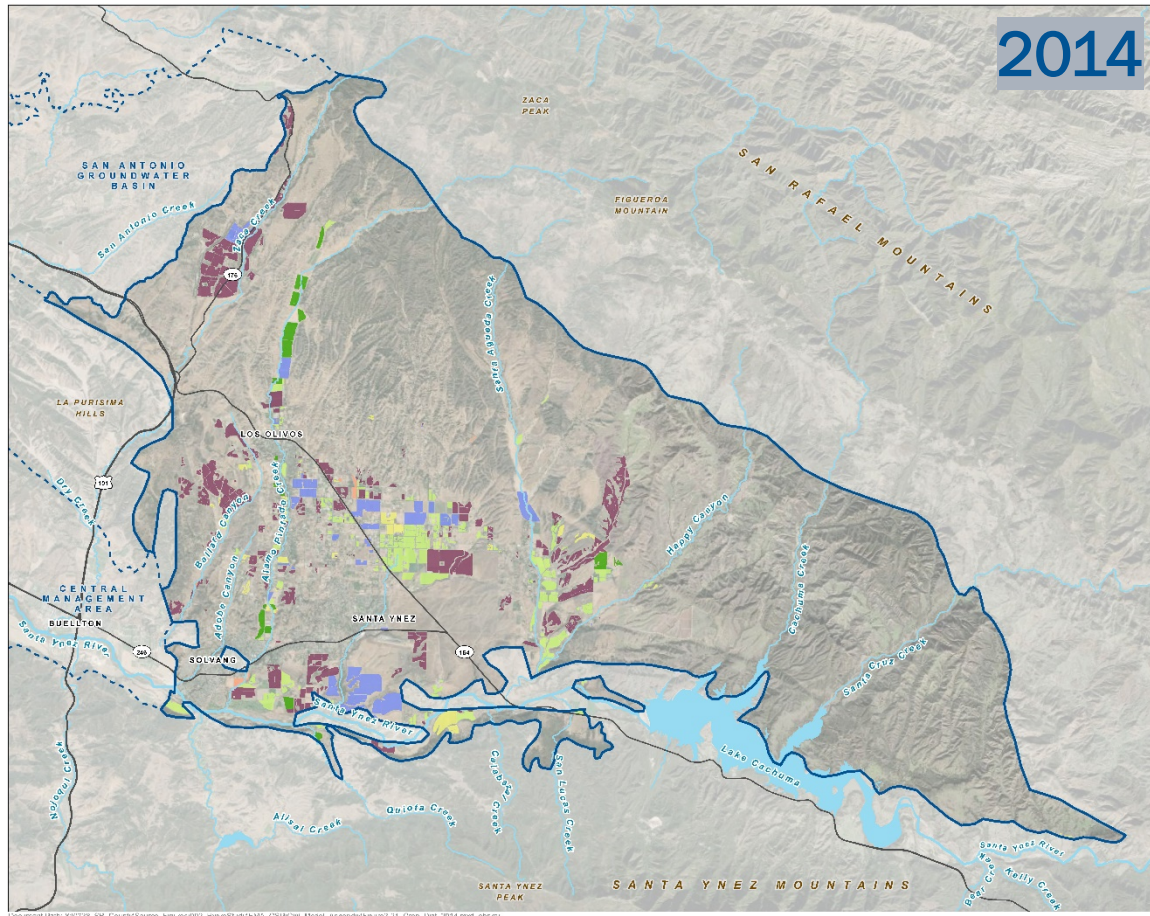
# Future Water Budget Revision

- Agricultural acres and water use
  - Data sources:
    - SYRWCD pumping (self-reported)
    - Land use surveys 1985, 1996, 2014, 2016 (including third party review of this survey)
    - Statewide farmland mapping

# Future Water Budget Revision



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- Agricultural acres
  - Crop trends
    - SYRWCD
    - Outside of SYRWCD

## Summary of Historical and Projected Irrigated Agricultural Acreage, Outside of Santa Ynez River Water Conservation District

(Values in acres)

Crop Group	Recent Trend	1996	2014	2016	2042 (Projected)	2072 (Projected)
Deciduous Fruit and Nuts	Unchanged	37	93	93	93	93
Field Crops	Rising (+ 3.7% / year)	267	273	812	1,243	1,741
Ornamentals	Unchanged	5	29	21	30	30
Pasture	Unchanged	1,350	839	858	858	858
Truck, Nursery, And Berry Crops	Unchanged	141	714	675	675	675
Vineyards	Slight recent rise (+ 1% / year)	944	1,804	1,932	2,504	3,388
Cannabis	Projected minor total acreage	0	0	0	200	200
<b>Total</b>		<b>2,743</b>	<b>3,752</b>	<b>4,390</b>	<b>5,603</b>	<b>6,986</b>
Change since 2016					<b>+ 1,213</b>	<b>+2,596</b>
Change, Percent					<b>+ 28%</b>	<b>+ 59%</b>



# Future Water Budget Revision

- Crop water use requirement
  - Source
  - Values

## Crop Water Use Requirements

(Values in acre-feet per acre per year)

Crop Group	Annual Crop Demand
Deciduous Fruit and Nuts	2.14
Field Crops	1.05
Ornamentals	3.00
Pasture	3.50
Truck, Nursery, And Berry Crops	3.11
Vineyards	1.60
Cannabis	1.50

# Future Water Budget Revision

- Agricultural water use
  - Projected pumping

## Summary of Projected Irrigated Agricultural Pumping

(Values in acre-feet per year)

Crop Group	2016	2042 (Projected)	2072 (Projected)
Deciduous Fruit and Nuts	198	199	199
Field Crops	851	1,304	1,827
Ornamentals	62	90	90
Pasture	3,003	3,003	3,003
Truck, Nursery, And Berry Crops	2,099	2,099	2,099
Vineyards	3,092	4,007	5,421
Cannabis	0	300	300
SYRWCD	3,166	3,166	3,166
<b>Total</b>	<b>12,471</b>	<b>14,168</b>	<b>16,105</b>
	<b>Change</b>	<b>+ 1,697</b>	<b>+ 3,634</b>
	<b>Change, Percent</b>	<b>+ 13.6 %</b>	<b>+ 29 %</b>

# Future Water Budget Revision

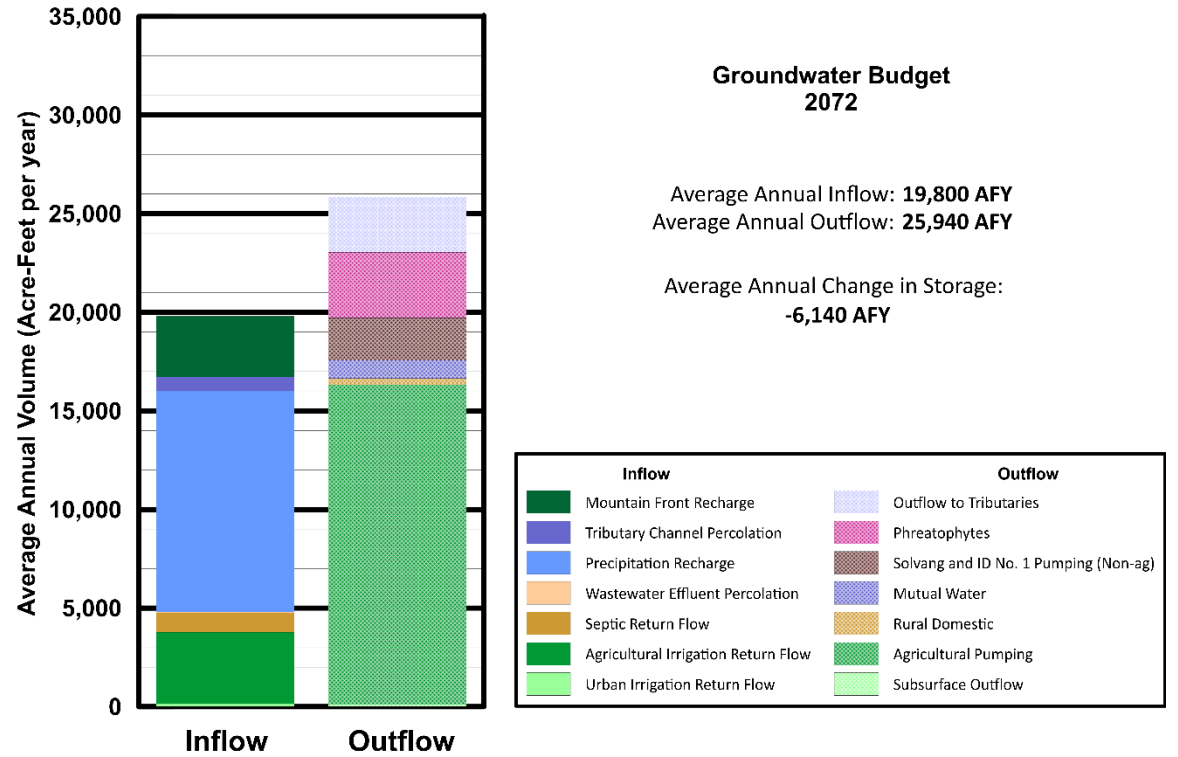
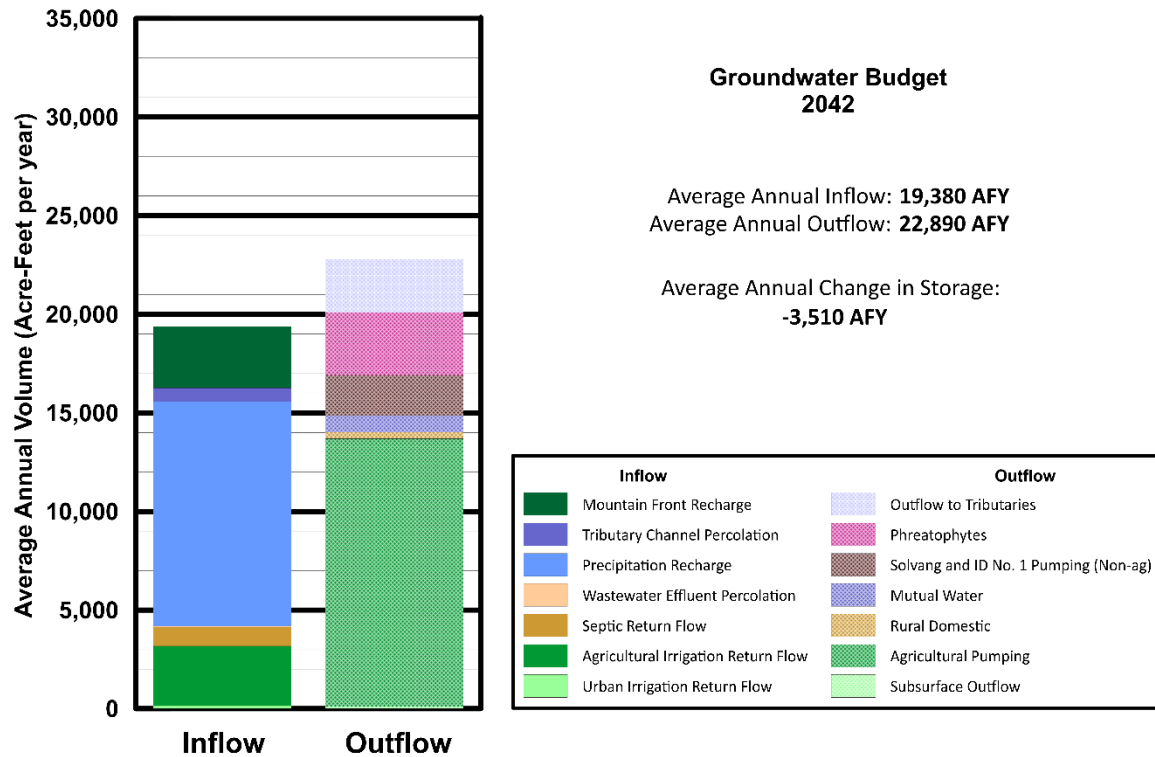
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<b>Change, Percent</b>		<b>+ 13.6 %</b>	<b>+ 29 %</b>
<b>Climate Change</b>	<b>-</b>	<b>+ 425 (+3%)</b>	<b>+ 1,228 (+8%)</b>
<b>Ag + Climate Change</b>	<b>12,471</b>	<b>14,593</b>	<b>17,393</b>
<b>Change since 2016</b>		<b>+ 2,122</b>	<b>+ 4,922</b>
<b>Change since 2016, Percent</b>		<b>+ 17 %</b>	<b>+ 39.5 %</b>

# Future Water Budget Evaluation



**Historical water budget Annual Change in Storage:  
1,800 AFY**

# Next Steps

- Release Draft Water Budget Section for Review
- Review Draft Sustainable Management Criteria
- Develop List of Possible Management Actions and Projects

**Thank you!**

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&  
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Photo Credit: Jeremy Ball, Courtesy of Longoria Wines