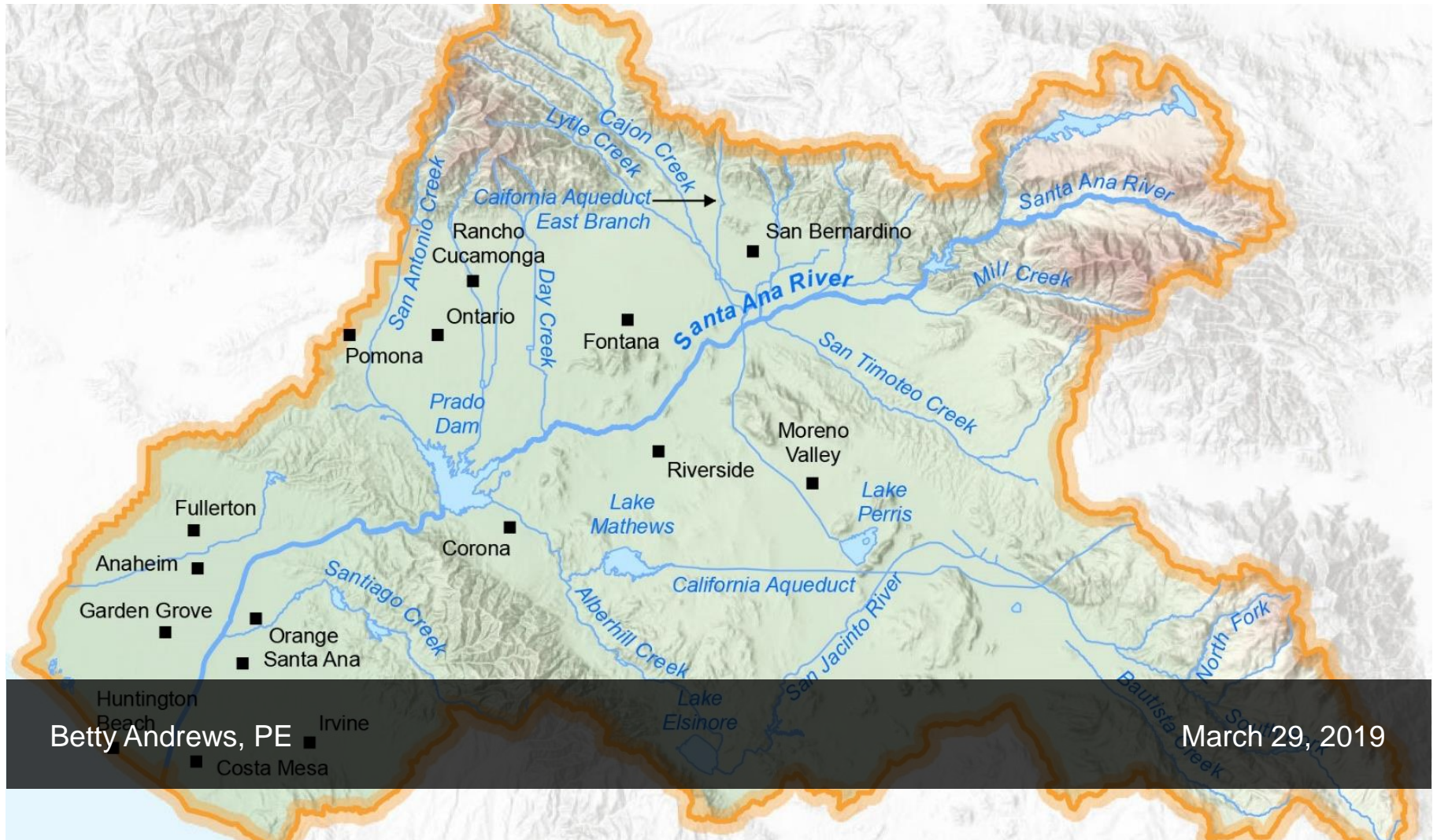


The Santa Ana River Sustainability Assessment: *in support of impactful watershed-scale decision-making*



Betty Andrews, PE

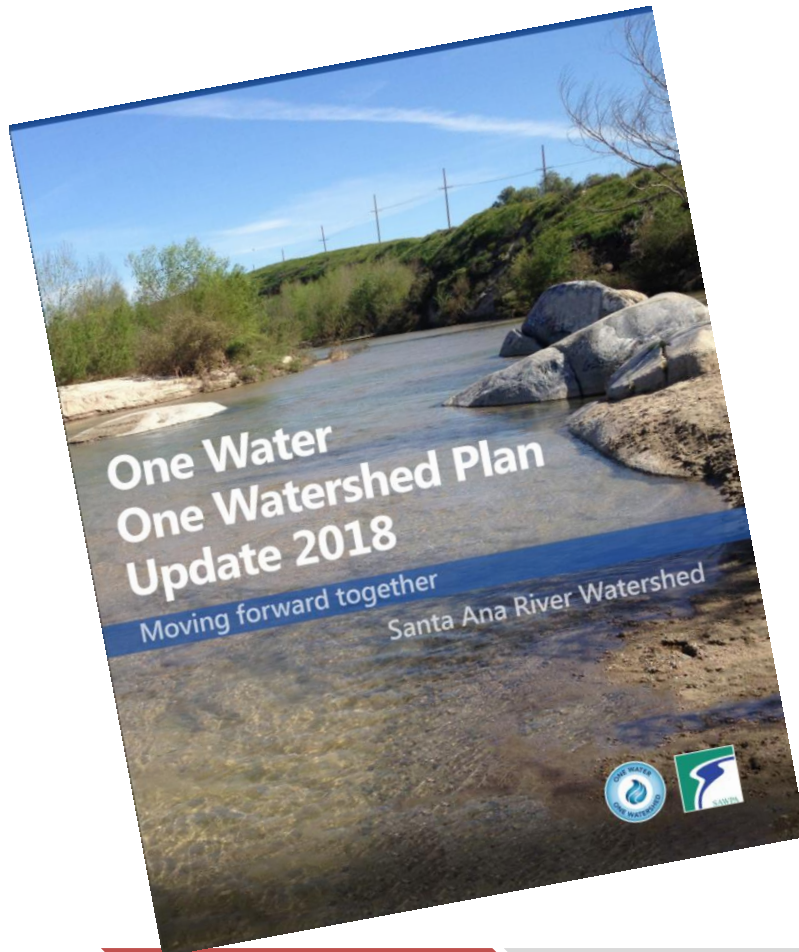
March 29, 2019

Presentation

1. Introduction
2. Strategic Approach
3. Implementation
4. Role in the California Water Plan



Regional action for sustainability



The One Water One Watershed Plan Update 2018 describes how collaborative watershed planning, water and land management, and project implementation supports improved sustainability, resilience, and quality of life throughout the Santa Ana River Watershed through 2040.

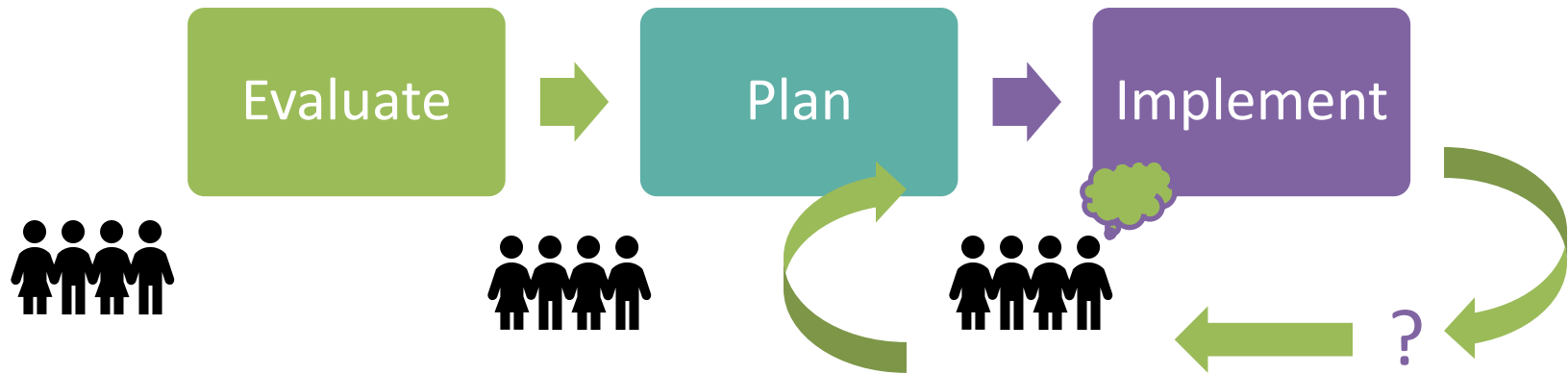
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OWOW is a plan...



Are we making adequate progress toward our goals?

Indicators

- Six goals in OWOW
- Two indicators per goal
- Indicators based on key aspects of each goal

Metrics

- Measurable fact
- One (or, if necessary, two) metrics per indicator

We sought indicators (metrics) that are:

- Responsive to actions
- Easy to implement
- Meaningful to stakeholders

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Indicators and metrics

Achieve resilient water resources through innovation and optimization.

- *Maximization of locally-managed supplies*
- *Efficiency of outdoor water use*

Ensure high quality water for all people and the environment.

- *Maintenance of groundwater salinity at or below target levels*
- *Safety of water for contact recreation*

Preserve and enhance recreational areas, open space, habitat, and natural hydrologic function.

- *Abundance of vegetated riparian corridor*
- *Abundance of conserved open space*

Engage with members of disadvantaged communities and associated supporting organizations to diminish environmental injustices and their impacts on the watershed.

- *Equitable access to clean drinking water*
- *Proportionate implementation of climate change adaptation strategies*

Educate and build trust between people and organizations.

- *Collaboration for more effective outcomes*
- *Adoption of a watershed ethic*

Improve data integration, tracking and reporting to strengthen decision-making.

- *Broaden access to data for decision-making*
- *Participation in an open data process*

Scoring and rating



- Score leads to a rating
- Positive
- Neutral
- Negative
- **Quantitative** v. Qualitative

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Scoring and rating



- Score leads to a rating
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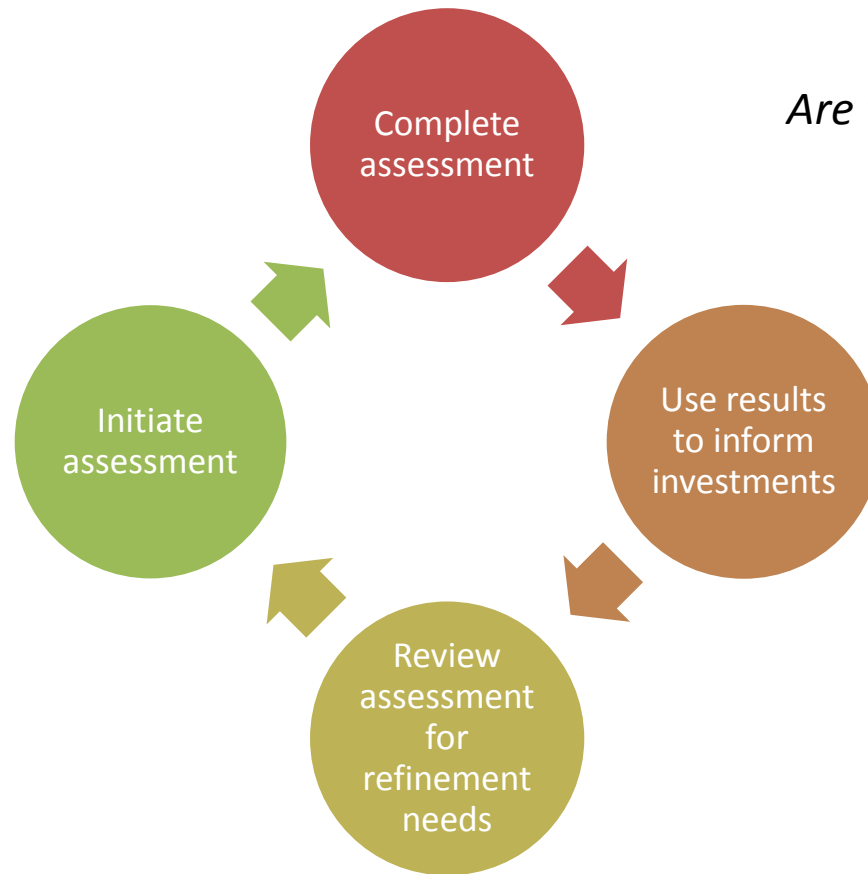
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OWOW Sustainability Assessment Summary				
Goal	Indicator	Metric	Rating*	Scoring
Achieve resilient water resources through innovation and optimization	Maximization of locally-managed supplies ¹	Percent of total annual supply sourced or managed locally		Trend scoring approach. Potentially fully scorable data set if data can be rectified. Qualitative trend assessment - inadequate data available.
	Efficiency of outdoor water use	Percent of watershed population in agencies using parcel-level data to assess outdoor water use		Trend scoring approach. One partial data set: incomplete assessment of all watershed retailers and how parcel-level data is actually used. Qualitative trend assessment - only one data point.
Ensure high quality water for all people and the environment	Maintenance of groundwater salinity at or below target levels	Non-exceedance of groundwater salinity standards		Good-bad scoring approach. Fully scoring using quantitative data. Compare most recent (2015) to average triennial quantitative data 2003-2012.
	Safety of water for contact recreation	Percentage of monitored sites where recreational use is likely and identified as low risk due to bacterial contamination		Good-bad scoring approach. Fully scoring using quantitative data.
Preserve and enhance recreational areas, open space, habitat, and natural hydrologic function	Abundance of vegetated riparian corridor	Area of vegetated riparian corridor		Trend scoring approach. Fully scoring based on quantitative data. Compare to average of prior 5 years of data.
	Abundance of conserved open space	Area of conserved open space		Trend scoring approach. Fully scoring based on quantitative data. Compare 2017 to 2016 data.
Engage with members of disadvantaged communities and associated supporting organizations to diminish environmental injustices and their impacts on the watershed	Equitable access to clean drinking water	Relative value of the drinking water contaminant index from CalEnviroScreen between less resourced parts of the community and more resourced parts of the community		Trend scoring approach. Qualitative trend assessment - only one data point.
	Proportionate implementation of climate change adaptation strategies	Relative value of tree and shrub density between less resourced parts of the community and more resourced parts of the community		Trend scoring approach. Qualitative trend assessment - only one data point.
Educate and build trust between people and organizations	Collaboration for more effective outcomes	Percent of entities regulated by a total maximum daily load (TMDL) that have made financial or in-kind contributions to TMDL implementation		Good-bad scoring approach. Fully scoring based on quantitative data. Compare 2017 to 2016 data.
	Adoption of a watershed ethic	Total gallons of potable water used per capita per day		Trend scoring approach. Fully scoring based on quantitative data. Compare to average of prior 10 years of data.
Improve data integration, tracking and reporting to strengthen decision-making	Broaden access to data for decision-making	Percent of watershed population in agencies whose residential customers receive relative performance information about their water use		Trend scoring approach. Qualitative trend assessment - only one data point.
	Participation in an open data process	Percent of watershed population in agencies participating in establishment of a regional data sharing system		Trend scoring approach. Qualitative trend assessment - inadequate data available.

Using the assessment

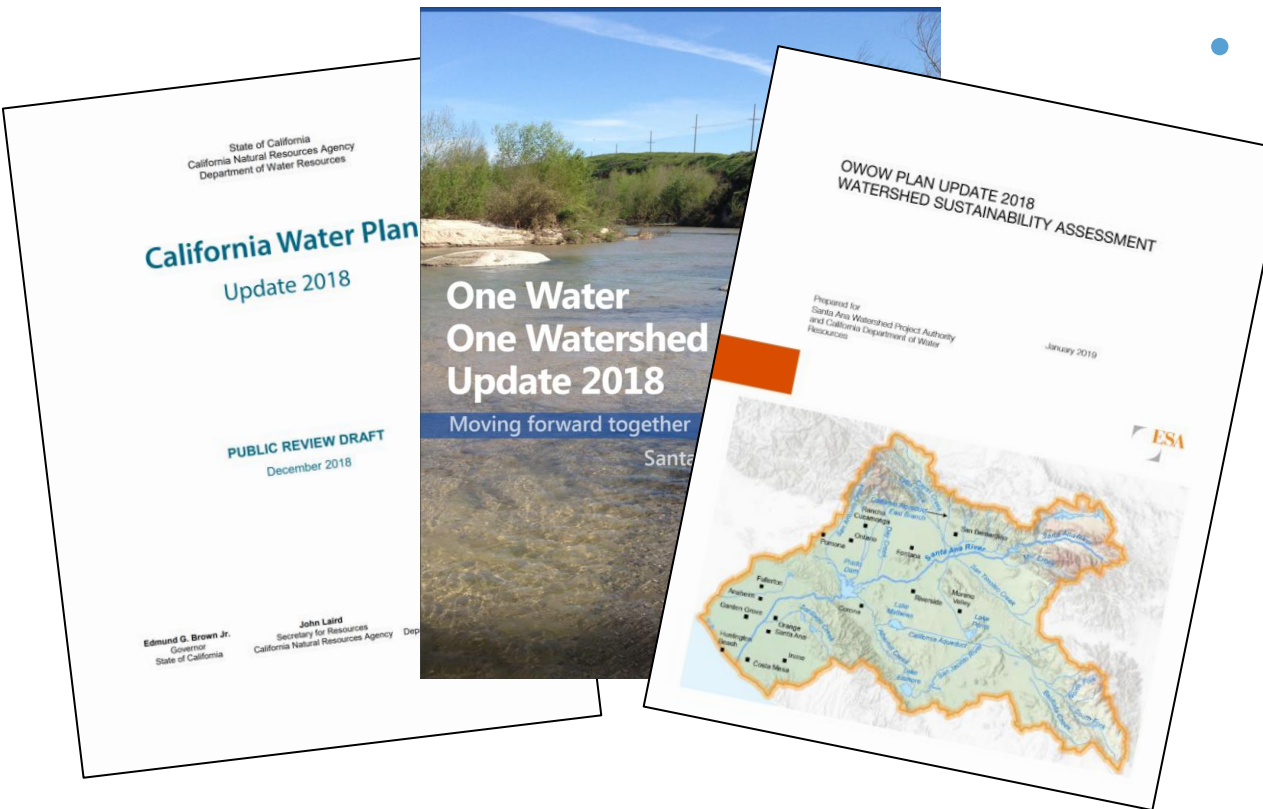


Are we making adequate progress?



Regional-scale pilot for the CA Water Plan

- What does a regional-scale sustainability assessment look like?
- How can sustainability assessment at the regional scale support statewide goals?



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