

Santa Ana River Basin Action Plan

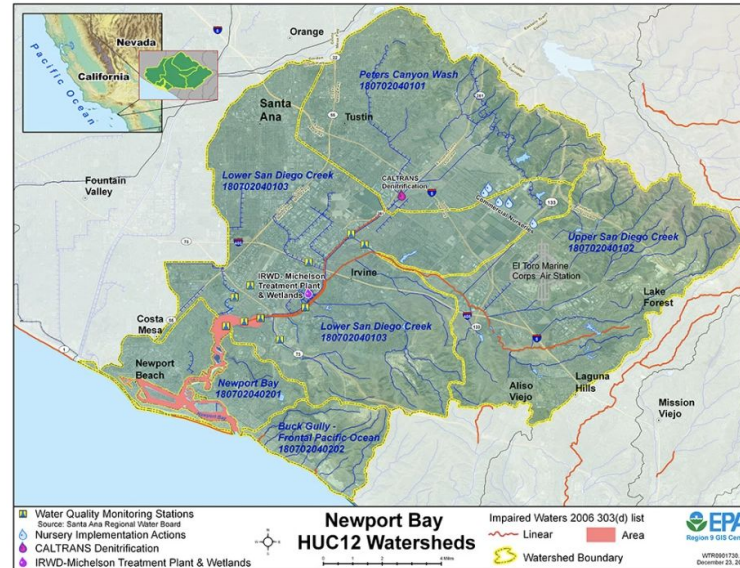
SARA P



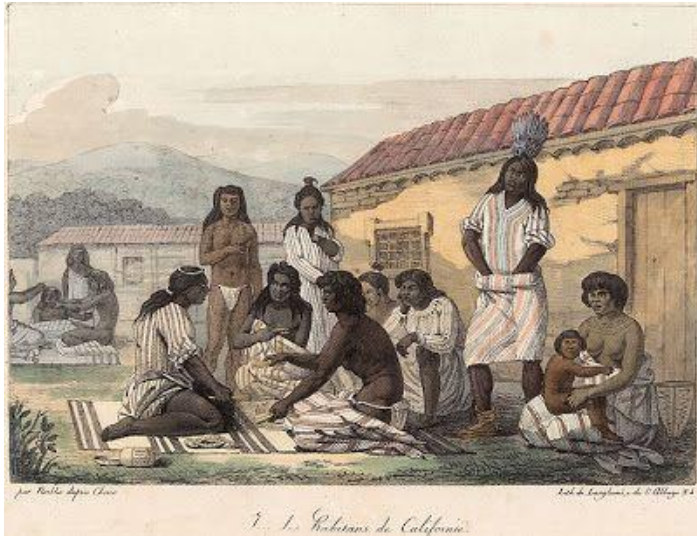
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Introduction to the Santa Ana River Watershed



History of the Santa Ana River Basin: People



Painting of Native Americans in California



California Gold Rush

History of the Santa Ana River Basin: Major Floods

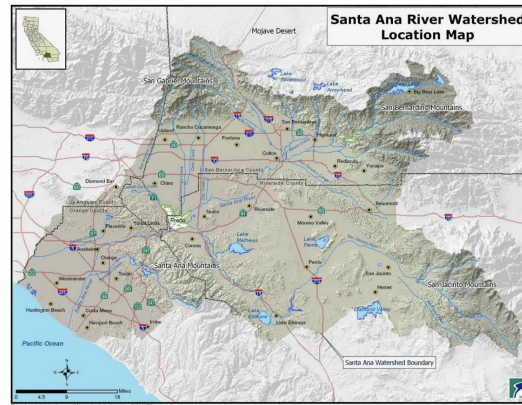


Major flood in 1938



Mission Statement

SARA P's mission is to reduce and mitigate drought, bacteria and pathogens, and heavy metals through sustainable and efficient methods that will contribute to a safe and clean environment for nearby communities and species.



Current Mandates In Place

- Santa Ana Watershed Project Association (SAWPA)
- Santa Ana Watershed Association (SAWA)
- Drainage Management Plan
- Orange County Plan (2018)
- Clean Water Act



Problem 1 & Proposed Solution

Droughts:

- Precipitation and runoff are decreasing while water demand is increasing.
- Dry periods are becoming more common as climate change is becoming more prominent.

Solution:

- Water recycling - using “gray water” to clean parks/fields
- Desalination - treating salt water

Water conservation and the protection of freshwater will lessen the effects of droughts.



Problem 2 & Proposed Solution

Bacteria and Pathogens:

- Lack of proper wastewater treatment has led to increased bacteria concentrations.
- The land and water has become uninhabitable for species, such as blue herons and willows.

Solution:

- EPA
 - Promoting collaboration
 - Awarding grants to states who are operating nonpoint source management programs



Problem 3 & Proposed Solution

Heavy Metals:

- Cadmium, copper, lead, and zinc
- Dissolved metals taken up directly by organisms and bioaccumulate
- Increased industrialization adds more metals to urban runoff

Solution:

- Grants from the EPA to help fund plans and goals
- MOFs
 - Metal Organic Frameworks



Summary of Goals & Conclusion

- Water Recycling
- Decrease Excess Nutrients
- Reduce Heavy Metals
- Santa Ana River Action Plan (SARA P) will help the watershed.



Thank you!

