

# **Santa Ana Watershed Community Water Ethnography**

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## **Acknowledgements**

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## **Executive Summary**

The Santa Ana Watershed Community Water Ethnography Project aims to assess strengths and challenges of water supply in disadvantaged communities through a community inreach approach to identify technical assistance water projects supported by Proposition 1 to address the water management needs. This final report elaborates on these water-related issues in the following five chapters. Chapter 1 provides the background of the Santa Ana River Watershed and the Disadvantaged Community Involvement (DCI) Program funded by California Department of Water Resources. Chapter 2 describes the objectives of the Santa Ana Watershed Community Water Ethnography project through a collaboration effort of community-based program partners. It also includes a brief summary description of my involvement in the project as a Water Resources and Policy Initiatives Community Water Intern. Chapter 3 illustrates the qualitative social science research method of the project, an ethnographically informed interviewing and listening sessions through community inreach as well as data processing involving transcribing, coding, and data analysis. Chapter 4 provides my outcomes of the project. Finally, Chapter 5 concludes with lessons learned and skills gain during the project.

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## 1 Background

The Santa Ana River Watershed flows through four counties in Southern California including San Bernardino, Riverside, Los Angeles, and Orange as illustrated in Appendix A. The watershed lies on groundwater, wetlands, and lakes serving as a source of water supply for drinking, irrigation, and streams. Over 6 million residents live across the watershed with 1.7 million of those residing in disadvantaged communities<sup>1</sup> as designated by the State (see Appendix B). Disadvantaged communities include underserved and underrepresented communities as well as tribal communities who suffer from economic, environmental, and health impacts. Disadvantaged communities compared to other groups are more vulnerable to high poverty, unemployment, and health risks. Following this general trend, the underserved communities within the Santa Ana River Watershed are likely to have less access to water quality and water supply due to the lack of funding for water infrastructure.

To improve the water service delivery in disadvantaged communities, the Disadvantaged Communities Involvement (DCI) Program endeavors to assess the strengths and needs of water quality and water supply through community engagement to identify water implementation projects that provide a sustainable and reliable service delivery as well as an equitable representation of disadvantaged communities. As part of the DCI program, the Santa Ana Watershed Community Water Ethnography project focuses on capacity building by working with community members, elected officials, and water agencies to strengthen community engagement using a bottom-up approach by ensuring the participation of community members in the decision-making process to identify water needs in their communities. A \$6.3 million state grant from Proposition 1 Integrated Regional Water Management (IRWM) Disadvantaged Community

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<sup>1</sup> Santa Ana Watershed Project Authority's Disadvantaged Communities Involvement Program. <https://sawpa.org/owow/owow-activities/disadvantaged-communities-involvement-program/>

Involvement Grant Program will fund this project from May 2017 to April 2020 through the support of the Department of Water Resources.<sup>2</sup>

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<sup>2</sup> Proposition 1 is the Water Quality, Supply, and Infrastructure Improvement Act (2014) that addresses long-term water management needs through the Disadvantaged Community Involvement Program. <https://water.ca.gov/Work-With-Us/Grants-And-Loans/IRWM-Grant-Programs/Proposition-1>

## 2 Project Objectives

Through community engagement and education, this three-year project aims to understand the strengths and needs of water supply in disadvantaged communities within the Santa Ana River Watershed to identify technical assistance water projects<sup>3</sup> that meet the requirements of Proposition 1. The priorities of this project include gathering data by conducting ethnographically informed interviews and listening sessions, analyzing the data collection to learn about the strengths and opportunities of water service delivery, identifying water projects for implementation that respond to the water management needs in the watershed, and incorporating the findings into a final report and One Water One Watershed (OWOW) Plan Update 2018<sup>4</sup>.

In a collaborative effort, Santa Ana Watershed Project Authority (SAWPA), California State University (CSU), University of California-Irvine (UCI), Local Government Commission, California Rural Water Association, and Water Education Foundation selected approximately 10 disadvantaged communities within the Santa Ana River Watershed and focused on capacity building by partnering with community stakeholders that included community members, elected leaders, and water agencies to increase partnerships among these relevant groups and learn through their shared experiences of water related issues and assets. Due to my affiliation with UCI in particular, the goals of this project for UCI's Department of Anthropology included: 1) conducting ethnographically informed interviews and listening sessions to collect data from community stakeholders, 2) processing data of listening sessions and interviews by transcribing and coding audio files, 3) analyzing coded data and categorize the common themes among the data collection, and 4) writing up a report on the findings.

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<sup>3</sup> Technical assistance water projects include watershed protection and restoration and surface/groundwater storage. [https://www.waterboards.ca.gov/water\\_issues/programs/grants\\_loans/proposition1/tech\\_asst\\_funding.html](https://www.waterboards.ca.gov/water_issues/programs/grants_loans/proposition1/tech_asst_funding.html)

<sup>4</sup> OWOW Update Plan 2018 is an Integrated Regional Water Management Plan for the Santa Ana River Watershed. <https://sawpa.org/owow/owow-irwm-plans/owow-plan-update-2018/>

As a graduate student in the Master of Public Policy Program at UCI, I became interested in environmental policy and more specifically in water policy. My involvement in this project as Water Resources and Policy Initiatives (WRPI) Community Water Intern began in mid-November 2018. At the time, the program goals of year 1 had been completed which included listening sessions and interviews, data collection, data processing, data analysis, and write ups of findings which were incorporated into the OWOW Plan Update 2018. To hit the ground running, I reviewed the project background, SAWPA's website and OWOW Plan Update 2018 (published a week prior to the start of my internship), received an intern orientation & training, and completed online trainings<sup>5</sup> for Institutional Review Board (IRB) clearance to review datasets of individual interviews. My goal as a WRPI community Water Intern was to learn more about water in California and gain analytical skills by analyzing water-related issues.

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<sup>5</sup> Online trainings for IRB clearance: 1. The Collaborative Institutional Training Initiative (CITI) Human Research Protections Training Course 2. the CITI Research and HIPAA Privacy Protections Course.



### **3 Project Approach**

Ethnographic research is a qualitative method that focuses on the study of cultural views and practices thereby immersing in a social setting for a long period of time which involves an in-depth observation of this setting and interacting with its members. Ethnography generates insightful narratives that help to understand the social context by identifying the themes, hidden aspects, linkage, patterns of the social phenomenon under study. Since this project is limited to a short period of three years, we used an ethnographically informed method to engage and develop quality relationships with participants, emerge in the participants' environment during listening sessions and interviews, learn about the strengths and needs of their community from their perspectives, and define water projects that meet needs of the community. This field method of community inreach uses a bottom-up approach to gain insights into the viewpoints of experts in the community who share their water stories and first-hand experiences on water issues. Community inreach differs from community outreach such that community inreach builds and sustains relationships across relevant groups to support long-term needs of a community whereas community outreach engages with the community or specific groups that address short-term community needs.

The data collection of listening sessions and interviews was semi-structured using open-ended questions to produce multilevel narratives of community stakeholders (community members, elected leaders, and water agencies) that provides an understanding of the water needs in the community. The length of time for listening sessions took up to 75 minutes whereas individual interviews took about 30 minutes. Using recorded listening sessions and interviews, we were able to capture the strengths and assets of water supply from the lens of each participant.

The data processing of the audio recordings involved using NVivo12, which is a qualitative data analysis software program, to transcribe an audio file to text. The transcription process took more than 8 hours for a one-hour audio recording. Transcribing was a lengthy process that required a lot of time and dedication to collect detailed evidence of every single word mentioned by each participant which in some listening sessions, up to 20 participants vocalized their stories and opinions. Followed by the completion of the data transcription, the validation process ensured the accuracy of the transcription thereby listening to the audio recording and validating the transcribed data. Transcribing the audio file produced the dataset which allowed us to move forward to the next step. The coding process categorized the different topics in the dataset. Through data analysis, emerging themes and patterns occurred across various individuals and groups as well as the frequency for each theme which measured the importance of the theme to help identify potential technical assistance water projects for implementation that responded to the water needs based on the frequency of the themes. The findings of the ethnographically informed interviewing and listening sessions for year 1 and year 2 will be included in the final report in the fall 2019.

At the beginning of my internship, I reviewed transcribed and coded datasets of individual interviews and listening sessions. Analyzing the dataset compiled during year 1 of the program, among other things, I found that there was a discord among local government, water agencies, and community members regarding water quality. For example, elected leaders and water companies expressed that the assets of the community which included access to quality water as demonstrated in the water quality report<sup>6</sup> whereas community members described discolored water or brown water from the kitchen sink water and bath water. This discord may have resulted from the fact that often elected officials and those who work in water agencies reside in other communities than

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<sup>6</sup> 2018 Water Quality Status Report provided by California Water Boards' Water Data Center  
<https://waterboards.maps.arcgis.com/apps/MapJournal/index.html?appid=64fc956fd3194c828234201c684e2a89>

the community they serve. Local government and water companies believe that they provide quality water and can justify this based on the water quality report. However, community members have actually let the water run until the discolored water becomes clear water and they are not able to concur with the water quality report. This could mean that the pipes may have rusted dispensing brown water. It is common that disadvantaged communities lack funding for infrastructure improvements so this project is important because it offers an opportunity to engage among community stakeholders to share opinions and ideas that help identify water project to address the needs of the community.

#### **4 Project Outcomes**

My internship came to an end in mid-June 2019 upon the completion of my graduate studies at UCI. During my time as a WRPI Community Water Intern, I gained technical experience through a qualitative social science research method by using NVivo 12 software to transcribe audio files. In addition, I learned about the importance of capacity building especially for long-term outcomes. I have also experienced that partnering with community stakeholders through community inreach can provide an opportunity for equitable solutions. Disadvantaged communities often go unnoticed, but the DCI program supports the involvement of disadvantaged community members, a bottom-up approach that help identify the water needs of their community that address the infrastructural and policy needs.

As discussed in Chapter 2, the data analyses, findings, and the draft report of year 1 have been completed by the time I started my internship. Even though year 2 activities began in April 2019, the datasets were not available to conduct an analysis. I would have loved to have had the opportunity to participate in data analysis process. Nevertheless, I am grateful for the opportunity to be part of this project as I had a great pleasure working with talented and amazing colleagues.

## 5 Conclusions

The WRPI Community Water Internship Program provided experiential learning opportunities that allowed me to socially engage with interns and professionals from different backgrounds and learn about the various roles and career paths. Through the CivicSpark Water Fellows and SAWPA Community Water Internship meetings, Brian Keener and Marisa Perez-Reyes facilitated water-related trainings about historical water issues in California that shaped the current water management issues we face today. In addition, Keener and Perez-Reyes supported my professional growth during my internship through monthly check-in calls and providing tools for my job search such as resume/cover letter writing, interviewing techniques, utilizing social media and developing networking skills to prepare and help me connect with other professionals in the water industry. With the support of CivicSpark Water Fellows and Mike Antos, I had the opportunity to attend the following networking events:

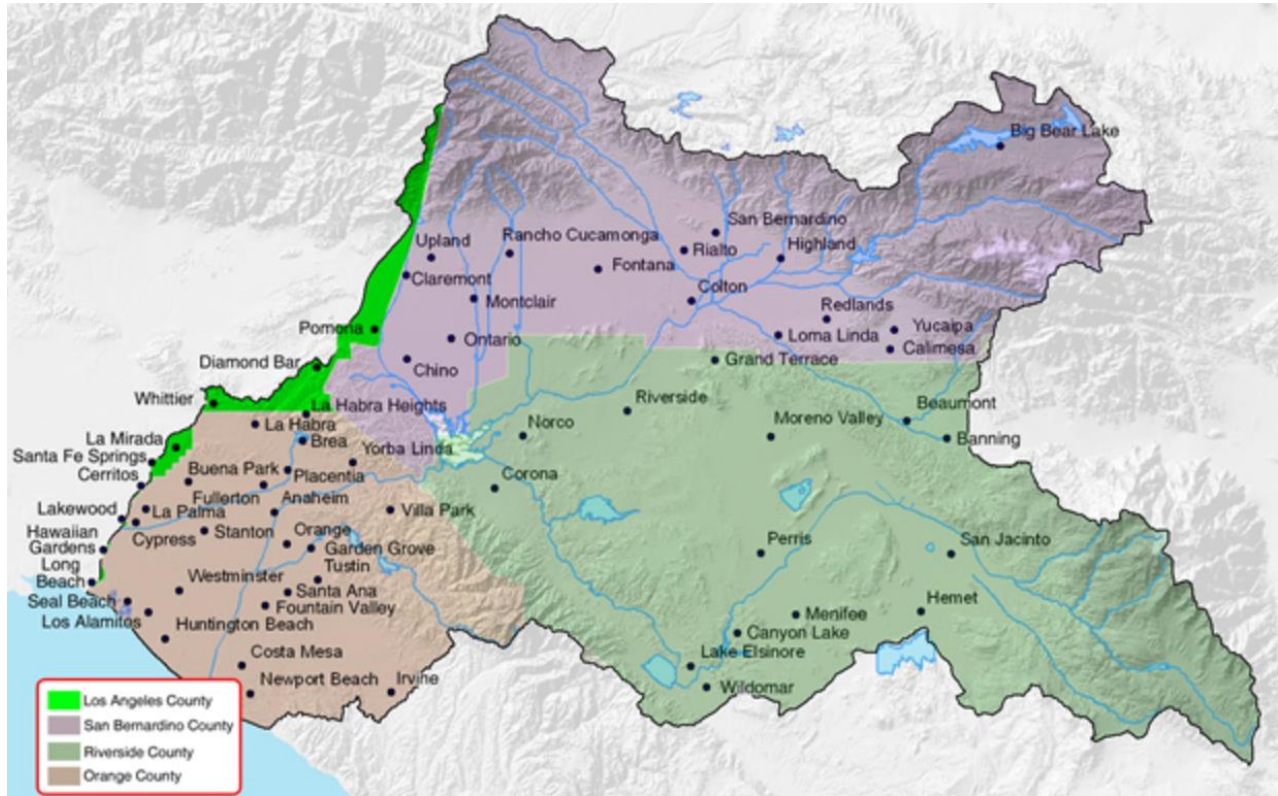
- Disadvantaged Communities Involvement Program All-Team Meeting (January 2019)
- Santa Ana Watershed Conference (March 2019)
- California Policy Institute Conference (April 2019)
- Water UCI Colloquium: Transitioning to Integrated Water Management (April 2019)

Upon attending these events, I increased my knowledge of water issues facing California such as demand and supply, infrastructure, management, lack of community engagement, and others.

The WRPI Community Water Internship Program provided an opportunity for experiential learning that exposed me to a career that matches my academic interests. I am grateful for all the support that I have received during my internship.

# Appendix A

## Santa Ana River Watershed Counties Map

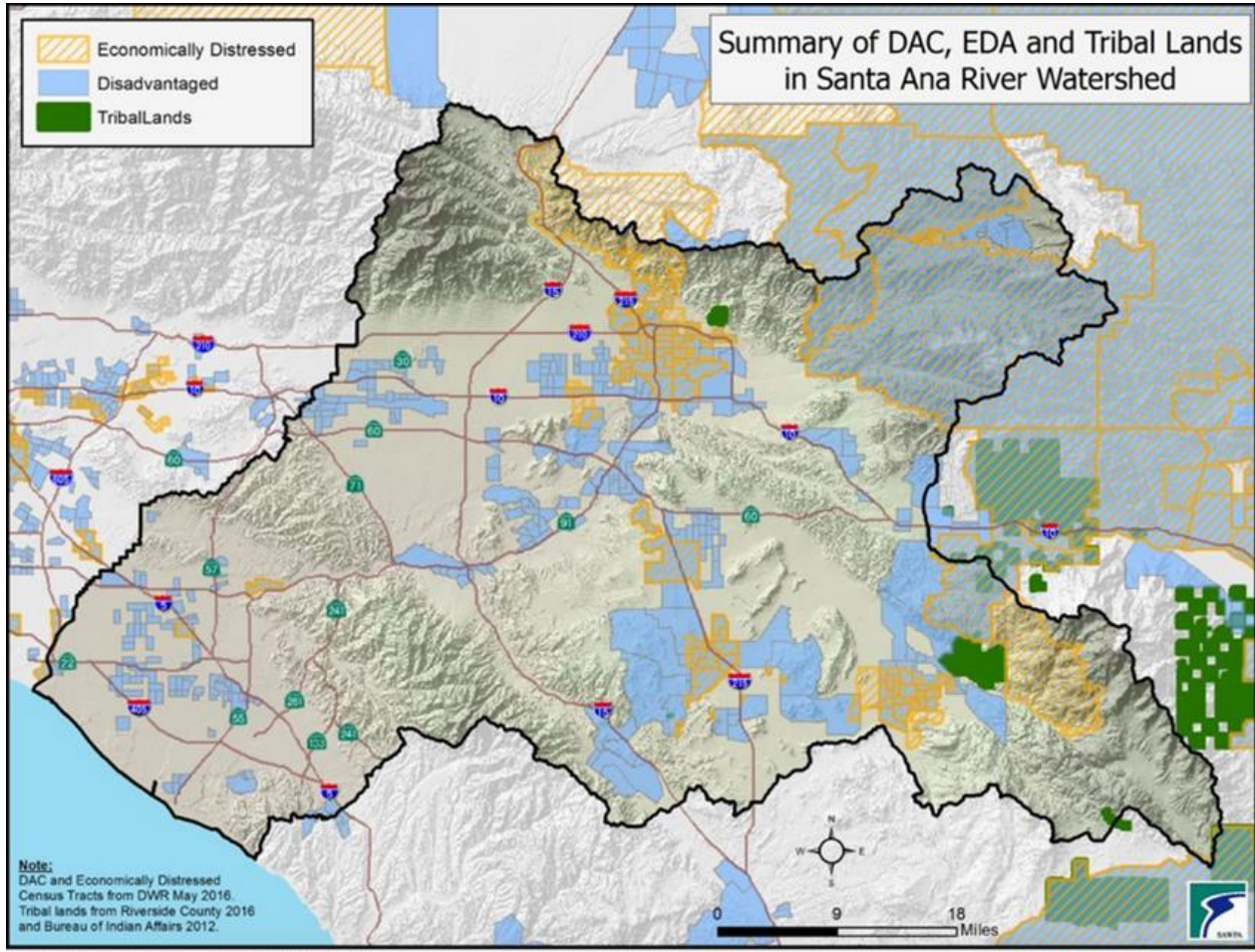


Source: SAWPA<sup>7</sup>

<sup>7</sup> SAWPA Map  
<http://sawpa.maps.arcgis.com/apps/MapJournal/index.html?appid=f9868183e5714117bd086f84c72060c6>

# Appendix B

## Santa Ana River Watershed Disadvantaged Communities Map



Source: SAWPA<sup>8</sup>

<sup>8</sup> SAWPA Map:  
<http://sawpa.maps.arcgis.com/apps/MapJournal/index.html?appid=f9868183e5714117bd086f84c72060c6>