Case Study: Earth Resource Foundation

Watershed: Santa Ana River
Researchers: Kaily Bourg and Lauren Miller

Year	Grant Program	Project Title	Watershed	Award Amount
2004-2007	DOC Watershed Program	Watershed Coordination for the Santa Ana River Watershed	Santa Ana River	$178,135

This case study involves an assessment of a single coordinator grant received by the Earth Resource Foundation. Findings of this research are based on stakeholder interviews.

Overview

The Earth Resource Foundation was founded in 1999 as a community-based nonprofit with the mission to "preserve, conserve, and restore the earth to a healthy and sustainable state by redirecting available human, technological, monetary and academic resources." In 2004, Earth Resource Foundation received a Department of Conservation watershed coordinator grant, which provided funds to expand the organization's reach, stimulate momentum among stakeholders across the Santa Ana River watershed, and engage local youth in watershed-related activities. The organization's partnership with another local non-profit, Friends of Harbors, Beaches, and Parks, which is active in promoting environmental and community wellbeing throughout Orange County, was a primary stimulus for seeking the watershed coordinator grant. Following the end of the grant term, the 2008 economic collapse heavily impacted the region and halted much of the momentum that had been gained through watershed coordination efforts. The economic collapse's impacts on Earth Resource Foundation's administrative capacity combined with other factors, resulted in the organization not completing a final report for the watershed coordinator grant, and Earth Resource Foundation eventually closed its doors.

Santa Ana River Watershed

The Santa Ana River watershed drains a 2,650 square-mile area and spans much of Orange County, the northwestern portion of Riverside County, and the southwestern portion of San Bernardino County, including a small area within Los Angeles County. The Santa Ana River's headwaters are located in the San Bernardino Mountains, and from there, runs 100 miles to the Pacific Ocean near Huntington Beach, making it the largest coastal stream in Southern California. The Santa Ana River and its 50-plus tributaries total approximately 700 miles.

The upper portion of the watershed is largely uninhabited natural land or national forest land, and the lower watershed is highly urbanized, making up about 32% of the watershed. Fifty-eight cities lie within the Santa Ana River watershed. The population of the watershed continues to grow, now over 6 million people, underscoring the need to adopt best management practices to effectively address water supply, water quality, and flood control. In conjunction with a growing population, the watershed faces many threats, including high flood risk, urban and agricultural runoff, diminished natural habitat on river banks, water quality concerns linked to industrial operations, and inland pollution flowing into the ocean.

2004-2007 Watershed Coordination Grant

Grant Summary

In the second annual report submitted to DOC, the watershed coordinator summarized the grant's goals, which broadly addressed watershed management, ecosystem restoration and maintenance, water use efficiency, and watershed-related education in the Santa Ana watershed. Specific objectives included: 1) develop a stakeholder-based watershed group to serve as a forum for establishing collective watershed management goals; 2) organize watershed events and tours for the public and elected officials; 3) build on past watershed studies and develop a stakeholder-supported watershed assessment for the Santiago Creek watershed; 4) implement measures to restore natural wetlands and reduce discharge of nutrients, pesticides, herbicides, chlorine, fecal bacteria, and trash; 5) promote physical preservation and restoration activities; 6) improve water use practices by commercial and residential users; 7) build local capacity for stakeholders in the Santa Ana River watershed and increase community awareness and participation; 8) increase awareness of water quality and its relationship to natural resources; and 9) promote compatible development along the river (Annual report submitted to DOC, 2006). Performance measures under each objective help determine to what extent short-term watershed coordination goals were met.

Outcomes and Process

The watershed coordinator grant supplemented funding for Earth Resource Foundation's executive director, who also served as watershed coordinator, and enabled the organization to hire part-time staff. The grant contributed to the organization's advancing projects, including various cleanup events, and pursuing new initiatives, such as establishment of the Santa Ana River Watershed Alliance (SARWA). SARWA developed as a forum involving stakeholders from nonprofits, community groups, agencies, and private businesses to identify and address watershed management goals in major local watersheds. On average, 25 stakeholders attended monthly meetings in which the watershed coordinator and consultants facilitated round-table updates and watershed management goal development. Earth Resource Foundation staff developed and maintained a SARWA website and regularly issued e-newsletters to over 250 stakeholders. Partnerships and information-sharing networks established through early SARWA processes led to the group's development of a project inventory, which included existing restoration projects, potential project sites, funding needs and possibilities, and opportunities for partnering and volunteering. Stakeholders reported the inventory to be a useful tool for increasing stakeholder participation and engagement, as well as encouraging project implementation.

The inventory also informed the region's "Green Vision Map," an initiative started in 2000 by the Friends of Harbors, Beaches, and Parks (FHBP) that documents current locations of projects, and includes a "wish list" of potential sites for projects. As a result of information shared through the SARWA network, many projects were added to FHBP's Green Vision Map, which aims to leverage stakeholder support for existing and new projects in the watershed. With increasing awareness of SARWA activities, The Wildlands Conservancy (TWC) awarded grants of $5,000 to promote the establishment of a "Blue Ribbon Task Force" in each city adjacent to the Santa

Ana River. As part of TWC's grant requirement, cities were tasked with developing a restoration and parkway vision for riverside areas within each city's jurisdiction. The watershed coordinator was involved with establishing or reestablishing task forces in the cities of Santa Ana, Huntington Beach, Newport Beach, and Costa Mesa. The vision documents produced by cities contributed to TWC's plan for a 110-mile Santa Ana River Trail and Parkway that has a completion date set in 2019.

Some stakeholders recognized that the most significant process executed during SARWA's active years involved the development of the Santiago Creek Assessment and visioning document. The Santiago Creek Assessment was a priority project by SARWA stakeholders, and it was considered a pilot to future assessments of major local watersheds. The process was facilitated by the watershed coordinator, guided by SARWA stakeholders and experts, and developed by a team of graduate students in the landscape architecture program at California Polytechnic State University. The assessment identified watershed goals, existing conditions and problems, and a prioritized set of restoration projects. Though stakeholders cite the document produced for Santiago Creek Assessment as a remarkable outcome, the product itself has not achieved its long-term goals in terms of use and application. According to stakeholders, the assessment has not resulted in outcomes beyond the production of the assessment report. Stakeholders speculated that improved and active distribution of the assessment would have contributed to more effective management of the Santiago Creek watershed and catalyzed assessments of other local watersheds.

Numerous workshops, conferences, and cleanup events throughout the Lower Santa Ana watershed were made possible with support of the watershed coordinator grant. The watershed coordinator organized multiple "Got River?" workshops in partnership with TWC, City of Huntington Beach, City of Santa Ana, Trust for Public Land, Latino Health Access, and the Metropolitan Water District, who provided a $3,000 grant for the second workshop. Workshops focused on water transport and sediment and were open to community members, nonprofit organizations, and water agencies. The coordinator also organized a daylong "River of Life Conference" that included participation from local businesses and government agencies. The conference provided networking opportunities to participants and showcased discussions on rebate programs, tiered water rates, and innovative water conservation technologies and strategies. The coordinator held a "Working at the Watershed Level" summer camp to provide watershed education to 30 "at-risk" girls through Girls, Inc. and hosted multiple annual "Human Broom Cleanups," where hundreds of high school students cleaned up trash on beaches. Other initiatives included planting native plant gardens at three elementary schools in Santa Ana and presenting at local schools covering topics like water quality, water conservation, and plastic pollution. The watershed coordinator estimated that presentations reached approximately 3,000 students.

Working with Trails4All, another local non-profit organization, the watershed coordinator helped organize and promote the annual Inner-Coastal and Watershed Cleanup (ICWS) event in the Santa Ana River watershed. Spearheaded by Trails4All in 1997, the ICWS event originated from the concept of removing trash from inland creeks and rivers to promote clean beaches and oceans. The event attracts over 1,000 volunteers each year, with over 2,000 volunteers, on average, between 2004-2009, and peaking at 4,400 volunteers in 2008. The greatest participation took place during the years of the watershed coordinator grant, and consistent with stakeholder

reports. Watershed coordinator involvement was critical to the planning, organizing, and promotion of the event. Cities within Orange County continue to host cleanup actives each year on the day of the event.

Key Findings

The DOC grant and watershed coordination efforts produced a number of outcomes in the Santa Ana River watershed that met performance measures and satisfied immediate objectives of the grant. Some initiatives, such as cities' visionary plans for the Santa Ana River and ongoing volunteerism with ICWS, continue to have impact in the watershed, while several others halted with the end of the grant. Impacts of grant outcomes touched broad goals relating to general watershed management, water use efficiency, and ecosystem restoration; however, disappointment echoed in stakeholder perspectives regarding the long-term application, duration, and longevity of the grant's impacts. Shortfalls in achieving goals with lasting impacts are a result of the Earth Resource Foundation's limited administrative capacity, the complexity of coordination needs in a dynamic urban setting, and effects from external events, such as the 2008 economic collapse. Challenged by the aforementioned factors and the dissolution of the organization, data for this case were limited.

Set performance measures were met through consistent coordination of stakeholder-based meetings and educational workshops, project planning opportunities, and volunteer events. As reflected in stakeholder accounts, the keys to achieving outcomes in the Santa Ana River included having a watershed coordinator, who served as an information-sharing hub and provided organizational assistance to entities in planning endeavors. The watershed coordinator was an organizer, connector, and supporting agent, whose most essential task was to connect people and resources to project opportunities. Connections were often cultivated by the watershed coordinator's presence at stakeholder-based meetings of other groups both locally and regionally rather than focusing on stakeholders "to attend your own meetings." The watershed coordinator's widespread presence increased awareness of SARWA members' projects among outside groups and vice versa. Stakeholders characterized the watershed coordinator as reliable and focused, and noted that efforts in the watershed were most connected and held the most momentum when an active watershed coordinator was present. Stakeholders based in the unincorporated parts of the watershed especially commended the watershed coordinator's efforts to keep them "in the know" regarding current watershed activities and opportunities.

It is unclear whether performance measures aimed at decreasing water use and pollution by specific percentages were met, as stakeholders did not identify an active monitoring program tracking these measures. Accentuating the organization's limited administrative capacity, the watershed coordinator expressed the challenges for small organizations like Earth Resource Foundation to allocate appropriate time and resources necessary to complete detailed financial and quarterly reports as grant requirements. The coordinator recognized a future need for supplemental support from the granting agencies to help prepare small organizations in completing the administrative components of grants. As a result of these challenges, a final report document was not submitted to the granting agency, and Earth Resource Foundation's summary of accomplishments was not included in the Department of Conservation's catalogued final report for the 2004-2007 grant cycle.

Working in a highly urbanized and fragmented watershed, and with a landscape comprised of 58 city jurisdictions and over 100 water districts, underscores the need to identify a suitable scope for watershed coordination activities and becomes a critical factor in identifying achievable goals for a single watershed coordinator. Complexity of the urban landscape may have overwhelmed the already limited capacity of the watershed coordinator, making watershed-scale activities unfocused and lacking durability. Consistent with this finding, a frequently cited accomplishment among stakeholders was the development of the Santiago Creek Assessment, which was characterized as having a clear focus and localized scope of work. A sense of ownership over the assessment was reflected in stakeholder sentiment regarding its development, with only disappointment resonating in its lack of use. Here, ownership, commitment, and passion are linked as drivers for successful outcomes, though other constraining factors were also at play.

Related to challenges with complexity, some informants noted that heavy reliance on a single coordinator may have been disadvantageous to the continuation of overall group efforts. Stakeholders reflected that often the momentum of projects strongly relied on the involvement of long-term "charismatic individuals," or champions in the watershed, though successful completion of projects may be hindered when the individual leaves. This sentiment is reflected in the current state of many efforts set in motion by the watershed coordinator—a stakeholder group that no longer meets, an assessment of a sub-watershed that is minimally used, and uncertainty and disconnection among stakeholders regarding ongoing and new projects. Though recognizing that many outcomes were achieved, the efforts lacked the momentum needed to sustain through crippling external events like the 2008 economic collapse. In this case, the watershed coordinator, also executive director of the organization, saw the challenging events as an opportunity to refocus efforts into a establishing a new organization with a changed mission, however, without a successor to maintain Earth Resource Foundation's activities. While many coordination efforts supported by the DOC grant in the Santa Ana watershed are considered dissolved today, stakeholders remain inspired by prospects to improve processes in future endeavors.

Appendix A

Methods

This case study is based on five stakeholder interviews that occurred in the Santa Ana region and a review of grant documents provided by the Department of Conservation. Limited grant documentation was available, which presented a challenge in reporting a detailed summary of grant outcomes. The five interviews were conducted in-person by two researchers. See Appendix B for a list of interview participants. Interviews were recorded by handwritten notes and synthesized into this case study report. The visit to Santa Ana was part of a five-day trip to the South Coast region, where the two researchers conducted interviews for a total of 11 grants.

Appendix B

Interview Participants include:

Earth Resource Foundation, *Executive Director and Watershed Coordinator*
Technical Consultant and Facilitator
Trail4All, *Executive Director*
Orange County Public Works, *Environmental Engineering Specialist*
Naturalist For You, *Executive Director*

Appendix C

Available Grant Documents and References

Earth Resource Foundation	**Grant Proposal** (Submitted to granting agency)	**Quarterly or Annual Update(s)**	**Final Report** (Submitted to granting agency)	**Catalogued Description** (Published by granting agency)	**Catalogued Final Report** (Published by granting agency)	**Other**
Watershed Coordination for the Santa Ana River Watershed		X				