

Case Study: Resource Conservation District of Santa Cruz County

Watershed: Pajaro River Watershed

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Year	Grant Program	Project Title	Watershed	Award Amount
2011-2014	DOC Watershed Coordinator Program	Watershed Coordination for the Pajaro River Watershed	Pajaro River	\$295,354

This case report summarizes the outcomes and processes of a single watershed coordinator grant received by the Resource Conservation District of Santa Cruz County. One grant supported two watershed coordinators who jointly supported activities across the Pajaro River watershed and within the jurisdictions of three resource conservation districts.

Overview

The Resource Conservation District of Santa Cruz County (RCDSCC) received a watershed coordinator grant in 2011 to coordinate activities in the Pajaro River watershed. During the grant's three-year term, funding supported two watershed coordinators working in both the upper and lower reaches of the watershed. The grant application included letters of support from two adjacent resource conservation districts in the upper watershed, San Benito Resource Conservation District and the Loma Prieta Resource Conservation District, with an understanding that RCDSCC would assist with organizational capacity building and increase the connectivity of watershed improvement efforts across the watershed.

Pajaro River Watershed

Bordered by the Santa Cruz Mountains in the north and the Galiban Range on its southern edge, the Pajaro River watershed encompasses an area of 1,300 square miles and stretches into four counties, including Santa Cruz, Santa Clara, Monterey and San Benito. Six main tributaries—the Corralitos, Uvas, Llagas, San Benito, Pacheco, and Santa Ana creeks—drain into the Pajaro River, which flows into Monterey Bay. Approximately 84% of water use in the Pajaro watershed is used for agriculture, which provides a revenue of almost \$1 billion annually. The Pajaro River watershed is one of few watersheds south of the Bay-Delta that does not import water from state or federal conveyance projects.

The Pajaro River watershed is divided diagonally by the San Andreas Fault, making the watershed geologically complex and unique. Constructed features such as levees and channels are considered impermanent due to the geologically active nature of the watershed and its shifting watercourses. The upper and lower reaches of the watershed are geographically distinct and characterized by different issues. In the lower watershed, the Pajaro Valley region is comprised of several farms and ranches, as well as businesses and residential areas concentrated around the City of Watsonville. A primary issue in the lower watershed concerns groundwater overdraft, and issues in the upper watershed center around flooding and wildlife connectivity.

Organizations

The Resource Conservation District of Santa Cruz County (RCDSCC) was officially established in 1978 following the merging of two RCDs in the Lower Pajaro River watershed. The merge expanded the RCDs' reach to encompass all of Santa Cruz County, including a service area of over 260,000 acres. Since its establishment, RCDSCC has maintained a mission to “help people protect, conserve, and restore natural resources through information, education, and technical assistance” by executing numerous conservation programs. As one of few RCDs in the state that receives funds from county collected property taxes, RCDSCC has what stakeholders identified as much higher capacity to obtain grant funding, coordinate activities, and implement large-scale projects than its neighboring RCDs. In addition to taxpayer revenue, RCDSCC operates from a diversified network of funding sources, including public and private grants as well as donations.

The San Benito Resource Conservation District (SBRCD), established in 1941, works with landowners across San Benito County, which lies within the Upper Pajaro River watershed. The Loma Prieta Resource Conservation District (LPRCD), established in 1942, serves the southern, unincorporated parts of Santa Clara County. Both SBRCD and LPRCD rely solely on grant funding to meet minimum requirements to maintain RCD status. Limited capacity contributes to challenges with staff turnover and inconsistency in program areas. With adjacent district boundaries, SBRCD and LPRCD work in close partnership with RCDSCC on many watershed endeavors (e.g., DOC watershed coordinator grant), and in many circumstances, RCDSCC represents all three RCDs in regional or statewide conversations.

Grant Summary

Coordination goals in the Pajaro broadly aimed to advance conservation activities concerning water supply and wildlife connectivity through collaborative approaches. To most effectively achieve objectives in both the Upper and Lower watersheds, RCDSCC split watershed coordination tasks between two watershed coordinators, each focused on different geographic areas. For the purposes of this report, “watershed coordinator 1” refers to coordination that is focused watershed-wide and on the Upper Pajaro River watershed; “watershed coordinator 2” refers to efforts in the Lower Pajaro River watershed, also referred to as the Pajaro Valley.

Specific objectives identified in the work plan included: 1) collaborate with stakeholders, and coordinate efforts on water quality and resource protection in a coordinated and integrated watershed-wide approach; 2) facilitate community and agency dialogue and information exchange to initiate discussions on how to effectively integrate and coordinate complex water quality and resource conservation issues in the Pajaro River watershed; 3) coordinate watershed education and outreach program, with a particular emphasis on the Pajaro's disadvantaged communities, to improve understanding of watershed health and water conservation activities, concerns, and solutions to create a broader base of participation; 4) provide technical assistance, and promote and support water quality protection programs and projects related to a diversity of land uses (e.g, agriculture, rural roads, livestock lands, rural residential, and urban); 5) increase availability and access to funding to evolve the watershed program and implement high priority projects; and 6) integrate and coordinate local resource conservation efforts with regional and

statewide efforts. As part of the program's six-month drought emergency response extension, the RCD updated work plan objectives to include additional emphases on drought-related issues.

Outcomes and Process

Watershed-wide and Upper Pajaro River watershed efforts

Pajaro Watershed Council

Prior to having a watershed coordinator in the Pajaro, the Pajaro River Watershed Council formed to provide a forum for information-sharing, originating from multiple stakeholders' recognition that opportunities to partner were being overlooked in a landscape of scattered efforts. The council was and remains a loosely structured semi-annual forum, where a variety of stakeholders rotate hosting responsibilities and entities with water interests can present on a range of topics (e.g., Integrated Regional Watershed Management Plan updates, groundwater management, conservation incentives, water quality, agricultural viability, etc.). In 2012, watershed coordinator 1 took over coordination and outreach for the council and organized two meetings, engaging well over 100 diverse stakeholders.

Upper Pajaro Conservation Partnership

Seeing the benefits of information-sharing within Pajaro Watershed Council and integrated conversations, the watershed coordinator worked with local stakeholders to establish the Upper Pajaro Conservation Partnership (Partnership). The Partnership, consisting of 10 local organizations, landowners, governmental entities and other stakeholders, began informally meeting in 2012 in support of sustainable maintenance of ranches, farms, and open spaces and to preserve the region's environmental and economic viability (The Pajaro Compass, 2016). The original goal of the Partnership aimed to address the lack of geologic and jurisdictional connectivity through a watershed-wide approach, encouraging collaborative conversations with stakeholders from both the upper and lower reaches of the watershed. Through watershed-wide efforts to define the Partnership's purpose, stakeholders determined that issues in the lower watershed were distinct from issues in the upper watershed. Therefore, lower watershed stakeholders became less active in the Partnership's activities, but they did continue to support and stay informed about the group's efforts.

At the onset of establishing the Partnership, watershed coordinator 1 sought individual conversations with numerous stakeholders across the watershed to assess priorities, issues, and needs. As one interview participant explained, one-on-one conversations enabled the watershed coordinator to find commonalities and overlap among government, private, and nonprofit interests, and in doing so, laid a foundation for identifying steps to move from conversation into action. Individual conversations highlighted two collective needs: 1) increased scope and frequency of conversations, and 2) a central forum through which independent and collective priorities could be discussed and prioritized.

As the Partnership attracted active participation, it became a key contributor to the Bay Area Critical Linkages Project (BACLIP) for the Galiban, Santa Cruz and Diablo ranges, as well as

part of the Bay Area Open Space Council's "Conservation Lands Network" project, which addressed biodiversity loss and habitat fragmentation by identifying opportunities for connectivity among wildland areas. The Partnership's momentum also gained the involvement of the Nature Conservancy (TNC), which became a key partner in advancing the group's goals in the Upper Pajaro watershed. Stakeholders considered TNC's involvement to be atypical, having a newfangled focus on engaging Pajaro partners in a creative visioning process rather than pursuing a standard biological assessment approach. Inspired by a visioning document produced by the Open Face Authority of Santa Clara, TNC promoted the development of a wide-scale vision and plan, supported by multiple stakeholders and backed by data and science. Actions taken to advance the wide-scale vision and address priorities identified in conversations with watershed coordinator launched the development of the Pajaro Compass.

Pajaro Compass

The Pajaro Compass (Compass) grew out of Upper Pajaro Conservation Partnership efforts to develop a vision and plan for conservation across the Pajaro region. The compass grew out of the collective desire to increase conversation and information-sharing through a mechanism supported by diverse stakeholders, multi-disciplinary science, and scientific data. With watershed coordinator 1's facilitation, members of the Partnership conceptualized and defined the structure of the Compass, and identified triple bottom line¹ objectives for the advancement of conversation and conservation. The 2016 Pajaro Compass is defined as: 1) a document and framework to advance the pace and scale of voluntary conservation throughout the watershed; 2) an initial assessment that identifies components on the landscape that are important to participants; 3) an analysis that illustrates how diverse conservation values may be drawn together productively; 4) a resource that helps stakeholders understand common priorities and facilitates collaboration; 5) an ongoing and flexible forum; 6) a way for network members to know where other participants are working; and 7) a statement of support that addresses the needs and opportunities for keeping working agricultural lands viable.

As the Compass materialized, watershed coordinator funding ended, and watershed coordinator 1's involvement with the Compass halted. Stakeholders reported that TNC took on coordination of the Compass, and some have stated that the Compass no longer benefits from having a watershed coordinator's third-party facilitation and perspective. As reflected in stakeholder interviews, without a watershed coordinator, nourishment and maintenance of deeper, more intimate relationships among stakeholders has been lost. Though the watershed coordinator position halted, SCCRCD remains an active partner in Compass efforts and continues to represent SBRCD and LPRCD.

Partners in Restoration permit coordination program

Watershed coordinator 1, working with Natural Resource Conservation Services (NRCS), helped to revive the Partners in Restoration (PIR) permit coordination program, originally initiated by SBRCD and LPRCD in the early 2000s. The program streamlined permitting processes for landowners by offering a "one-stop" mechanism, requiring only a single coordinated permit that

¹ The triple bottom line framework incorporates social, environmental, and economic approaches to addressing a wide range of issues.

met multiple agency mandates. Due to the RCDs' lacking staffing capacity, the program was at a standstill for much of the mid-2000s. In 2011, with the added capacity of watershed coordinator 1, the program reemerged and engaged interested landowners in tours, meetings, and site visits. The events shared lessons from successful project implementation through PIR permit coordination, increased communication regarding agency permitting requirements, and exploration of potential permitting barriers. Despite revitalization efforts, stakeholders recognized the challenge in maintaining the program without robust RCD staff and expertise. Once funding for watershed coordinator 1 ceased, there was no longer a point of contact at the RCDs for the PIR permit coordination program. Interview participants speculated that the program has likely been moribund since.

Lower Pajaro River watershed outcomes

Community Water Dialogue

Beginning during the watershed coordinator grant term and continuing today, RCDSCC coordinates and facilitates the Community Water Dialogue (CWD) in the Lower Pajaro River watershed. CWD's origins stem from grassroots efforts with a small group of Pajaro Valley landowners, who in 2010, published a letter in the local paper expressing frustrations with historic and current water use methods, including aquifer overdraft in the Pajaro Valley and resulting divisiveness among water users. The letter broadly called for community collaboration to discuss issues and solutions concerning the valley's water supply and sustainability of practices. Outlined in the letter were three commitments for engagement: 1) a commitment to protect the Pajaro Valley as an important agriculture resource; 2) a recognition that the solution will involve an importation pipeline; and 3) a willingness to pursue diverse strategies which entail costs and sacrifices in order to bring the aquifer into balance. The initial gathering attracted overwhelming support from landowners (representing 70% of land in the valley), growers, researchers, conservationists, academics, and other interested stakeholders. Agreement with the three "core commitments" were and remain the primary rule for participation in the CWD, along with two added ground rules: 1) conversations will not include a review or rehash of past failures, and 2) discussions will not focus on the past actions or character of any individual community member in relation to the water issue.

Since its origins, the CWD has grown into an open forum of 50-60 diverse and interested groups and individuals who routinely gather to address water supply issues and solutions in the Pajaro Valley, all the while working to build trust and relationships among its participating entities. While the forum is characterized as "open," trust between different entities (e.g., landowners and agencies) remains delicate, and continually improving with time, increased conversations, and effective facilitation and coordination. Initially, representatives from Driscoll's, Inc. facilitated and coordinated CWD gatherings until RCDSCC stepped in as a formal third-party facilitator and fiscal sponsor. Stakeholders identified the need for the shift to third-party facilitation, requesting the services of RCDSCC, which facilitated a network that brought together key partners, and the ability to acquire grant funds. The DOC watershed coordinator grant funded RCDSCC's facilitation and coordination of CWD through 2014. Today, RCDSCC maintains its facilitation role through means of private donations from CWD participants. Now referred to as "program manager," the position is similar to that of a watershed coordinator.

Effective coordination and cooperative participation from stakeholders in CWD transformed discussions of water management in the Pajaro Valley from what stakeholders described as mostly adversarial to solution-oriented. Broad participation in a solutions-based approach resulted in numerous enterprises working to replenish the Pajaro Valley's aquifer, including projects like the Managed Aquifer Recharge project, Wireless Irrigation Network project and recently, dialogues to develop a Covered Fallow Plan. The watershed coordinator played an essential role in forging steps to advance these individual projects, and stakeholders speculated that such participation and support for these projects would not have occurred without the forum that CWD provides.

Wireless Irrigation Network Project

The Wireless Irrigation Network Project (WIN) project grew out of the opportunity to monitor water use through a technology and cost-sharing network. The network utilizes Hortau technologies, which measures soil-tension through in-field probes purchased by farmers. Diagnostics are wirelessly sent to a base station or wireless tower, from which farmers could access the data and adjust their watering practices. The WIN project was conceived with the realization that despite the expense of wireless towers, they cover a range wide enough to cover multiple ranches, and that farmers can share towers and associated costs. The watershed coordinator helped secure local donations to purchase 14 wireless towers, and with seven others donated, established a network of 21 towers total. Working closely with Hortau, the watershed coordinator helped identify landowners to host the towers and conducted outreach to obtain buy-in from the growing community. Over 60 ranches participated in the network until the technology advanced and the towers were no longer needed. Utilizing Hortau technologies resulted in an average 30% water savings across individual ranches and farms, which translated to a 30% savings in the aquifer overdraft. Hortau technologies continues to benefit individual farmers by increasing precision with watering, mitigating issues associated with overwatering, and thus increasing or maintaining production levels while reducing overall water costs.

Organizational outcomes

Coordination and support of RCDs

A significant outcome enabled by the watershed coordinator grant involves the coordination and capacity support of other RCDs in the Pajaro River watershed. RCDSCC has a high financial and organizational capacity in relation to SBRCD and LPRCD, both located in the Upper Pajaro River watershed. As stated above, RCDSCC applied for the DOC watershed coordinator grant in partnership with SBRCD and LPRCD, which submitted letters of support for the application to uphold capacity building objectives. Prior to the watershed coordinator grant, both SBRCD and LPRCD had limited or intermittent staffing. The DOC grant enabled watershed coordinator 1 to fulfill basic staffing needs for SBRCD and LPRCD including tasks like attending board meetings, managing communications (i.e., phone calls and emails), updating websites, and other reporting and administrative tasks that allowed the districts to be in compliance with their RCD status. Watershed coordinator 1 represented all three RCDs at the California Association of Resource Conservation Districts (CARCD) conferences, another requirement of RCDs, and conducted outreach to local conservation partners to identify partnership and funding opportunities.

Organizational capacity for the grant recipient

In addition to benefitting projects and partners throughout the Pajaro watershed, the DOC watershed coordinator grant also bolstered the internal capacity of RCDSCC, increasing grant writing, outreach, and communication abilities. During the grant period, watershed coordinators and RCDSCC staff submitted 32 grant proposals or funding requests, 22 of which received awards totaling approximately \$2,730,000. Leveraged funds from grant led to the hiring of a full-time agronomist, augmenting the technical capacity of the RCD and the Pajaro Valley's agricultural community. Additionally, RCDSCC representation and level of participation at regional and statewide meetings, including presentations at the California Association of RCDs annual conference, increased with the support of watershed coordinator funds.

Key Findings

Watershed coordination in the Pajaro River watershed has contributed to enhanced organizational and community capacity, improved collaboration and connectivity, and increased innovation in water conservation locally and regionally. Stakeholders identified three significant factors that contributed to or influenced watershed coordination activities and outcomes including, historical context, organizational capacity, and grant structure and flexibility.

Context sets the tone of collaboration and trust building

Stakeholders highlighted that collaborative outcomes in the Pajaro Valley are significant, given the region's disputatious history between private landowners and the local water agency. Issues regarding jurisdictional responsibilities of water management, along with water rates structures historically in legal "hot water," has resulted in emotionally charged groundwater disputes. In 2010, grassroots efforts among the landowner community to find collaborative solutions gained momentum, and with support from watershed coordination, stakeholders launched a new approach among water interests in the Pajaro region that translated jurisdictional and geographical divisions and other contentious issues into collaborative and innovative opportunities.

Historically a delicate issue in the Pajaro Valley, in many ways groundwater is the sustenance of what stakeholders consider to be one of the most fertile and valuable agricultural regions in the nation. This area is frequently threatened by encroaching sea water, which lends a fragility to the system and those who rely on it. The CWD emerged as a means to foster a collective understanding among landowners, and advanced the idea that everyone can contribute in some way or another to the groundwater overdraft problem.

Set in a political context as divisive as groundwater and the intruding sea, CWD's initial challenge was laying a foundation for building trust, a necessary step that nurtured an information sharing network and fostered increased inclusion of divergent viewpoints in conversations between landowners and the water agency regarding best management practices. Stakeholders quickly added that the process did not happen overnight, frequently confronting skepticism from all sides regarding the cost and production risks associated with changing practices and a lack of landowner willingness to share data because of fear of how it might be

used. In the CWD, collaboration and applied work have been valuable to breaking through fears and differences.

Stakeholders identified a few “tried and true” key practices, which helped facilitate fruitful conversations within the CWD forum, resulting in active solutions. One key lesson concerns group structure and its potential impacts on the diversity of stakeholder participation. If the forum becomes too structured, enthusiasm from the grower community decreases. Despite the preferred informality in the CWD setting, enforcing specific ground rules were critical to maintaining the integrity and initial objectives of the stakeholder group. Another finding reveals that third-party facilitation remains necessary for the active solicitation of ideas from diverse members. Encouraging decisions that are reflective of diverse perspectives has and continues to contribute to the voluntary adoption of best practices by stakeholders across the watershed. Another key practice encouraged by the watershed coordinator included time spent cultivating motivation and trust by building ways for stakeholders to simply interact (e.g., food gatherings, dinners, bar-be-cues), echoing stakeholder sentiment that watershed management is just as much about the people as it is the issues.

Starting level of organizational capacity influences outcomes and longevity

This case illustrates a unique arrangement of how organizational capacity plays a role in outcomes that are achievable by a watershed coordinator. In the Pajaro River watershed, the watershed coordinator grant equally funded three RCDs, each demonstrating different existing levels of organizational capacity and associated administrative needs. Staffing capabilities are discussed here as an indicator of overall organizational capacity. Among the three RCDs in the Pajaro River watershed, one maintained a fully functioning staff, one completely lacked staff, and the other retained only a part time executive director. Given variable staffing capabilities, the watershed coordinators filled different roles for each RCD, attending to staffing duties needed and extending beyond administrative tasks when resources allowed. Some stakeholders suggested that essential administrative tasks (e.g., budgeting reports, responding to phone calls and emails) can distract a watershed coordinator from completing important coordination objectives. While organizational duties may fall within an organization’s desired work plan for a coordinator, stakeholders noted that having flexibility and autonomy to focus on activities unique to watershed coordination, such as communication and outreach, contributed to more significant outcomes involving a wider range of stakeholders with lasting impacts. An interview participant noted that having at least one staff person at an organization to maintain administrative responsibilities, collaborate on ideas, and provide a consistent point of contact increases the likelihood that programs or activities enacted by the watershed coordinator will endure. As this interview participant stated, “Without momentum internal to the organization, it is difficult to measure the ability for a watershed coordinator to make lasting outcomes.”

Grant structure and flexibility

Stakeholders directly and indirectly engaged with the watershed coordinator grant remarked that the mere flexibility of the watershed coordinator grant enabled a wide array of activities to be achieved. One interview participant outlined a simple “recipe,” which allowed RCDSCC to most efficiently and effectively administer the watershed coordinator grant funds for the benefit of the

three RCDs and the watershed. These three practices included: 1) allocating time to fill any administrative gaps by reading documents and learning about the watershed and its stakeholders, 2) developing a base of organizational and institutional knowledge to inform grant writing, and 3) utilizing leveraged funding to implement specific projects. In this case, the funds leveraged enabled watershed coordinators to dedicate time to specific projects and use the majority of watershed coordinator grant dollars to employ activities unique to watershed coordination (e.g., communication, outreach, developing partnerships, and connecting partners to resources). This simple recipe encouraged a positive feedback loop, in which increased outreach and partnerships leveraged funds across the watershed to advance the collective goal of conservation.

Appendix A. Methods

This case study is based on two phone-conducted interviews and four in-person interviews conducted by two researchers during a site visit to the Pajaro River watershed. During the site visit, researchers also attended a Community Water Dialogue meeting, where they met local stakeholders and learned about current issues in the lower watershed.

Appendix C. Interview Participants

Interview participants include one or multiple representative(s) from the following:

Central Coast Agriculture Quality Coalition

Driscoll's, Inc.

Hortau, Inc.

Resource Conservation District of Santa Cruz County

Appendix D. Available Grant Documents and References

RCD of Santa Cruz County	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 Pajaro River Watershed			X			X