RESOURCE CONSERVATION DISTRICT OF MONTEREY COUNTY

YEAR IN REVIEW 2021

Letter from RCDMC Board Vice President

What an amazing year it's been. We had a wide variety of projects implemented on many fronts: farm runoff water quality, Spanish-language small farmer in-field water management assistance, forest and range fire fuels management, Salinas River arundo control and flood management, fish passage improvements, and high school soil science education—among others!

In my experience with RCDMC (going back about 10 years), this is the most on-the-ground work conducted and most diverse array of projects that RCDMC has supported in a given year. This is the outgrowth of years of relationship-building, technical planning, agency negotiations and hard work. It's a testament to our staff and board's commitment, quality, and consistency. I am proud of the number of farmers assisted, acres improved and projects completed, especially considering the size and history of our organization and that every dollar is hard-earned through competitive grant applications and contract negotiations.

Over the past 10 years, our budget has grown from $400K to nearly $2.8M, allowing us to increase our staff three-fold and build our programs. This doesn't take into account the millions of dollars in conservation technical and financial assistance that our steadfast partner (and landlord) the Natural Resources Conservation Service provided in Monterey County during that same period.

In 2022 and 2023, we are planning new fish passage improvement projects, denitrification bioreactors, vegetation management, and Spanish-language small farmer assistance projects. Each year continues to build on prior years' work. This trend continues as we build partnerships, our internal skill base, financial resources, community awareness, and confidence in our growing capacity and services, to inform our vision in developing a new 5-year strategic plan in 2023. We will reach out to all those interested in our work for participation and feedback on how we can better serve and respond to our various communities' needs moving forward. I hope you will join us. Stay tuned!

Sincerely, *Jennifer Clarke*

RCDMC hosted the Fall Central Coast RCD Regional Meeting in October. RCDs gathered to discuss current programs and partnerships and toured two fish passage project sites, including the Cachagua Creek Ford Fish Passage Project (shown above) under construction.

2021 Highlights

- Educational Events
- Salinas River Programs
- Irrigation Management & Engineering Assistance
- Fire Fuels Reduction
- Monterey Regional Monarch Alliance
- Fish Passage Permitting & Permit Streamlining
- RCDMC Board Changes
- Fiscal Year Financial Summary

The Mission of the Resource Conservation District of Monterey County is to conserve and improve our natural resources, integrating the public interest for environmental protection with the needs of agricultural and urban users. We seek to achieve the sustainable management of natural resources including soil, water, vegetation and wildlife throughout Monterey County.

Who's Who

RCDMC Directors
Benny Jefferson, President
Jennifer Clarke, Vice-President/Secretary
Bill Lipe, Treasurer
Brent Plemmons, Director
Jynel Gularte, Director
John Doud, Director
Ignacio Mendoza, Associate Director
Marissa Ritter, Associate Director
Advisors:
Melissa Duflock, Paul Binsacca, Joanna Devers, Emily Gardner, Linda Ferrasci, Rebecca King

RCDMC Staff
Paul Robins, Executive Director
Maggie Errea, Finance Manager
Emily Zefferman, Ecologist
Megan Barker, Environmental Scientist
Laura Murphy, Soil Scientist
Adrienne Carter, Civil Engineer
Aysha Peterson, Ag Technical Specialist
Jamie Tuitele-Lewis, Forest Health Coordinator
Brandt Bates, Stream Maintenance Coordinator
Jasmine Ruvalcaba, Field Manager
Cammy Chabre, Biological Monitor

Natural Resources Conservation Service
Ariel DeLara, District Conservationist
Allison Tokunaga, Soil Conservationist
Evelyn Nordberg, Agronomist
Javier Flores, Ag Engineer
Jennifer Nowark, Programs Specialist

2021 Special Events

September 23 Speak-Off Contest

This year's Speak Off Contest topic was *"What can Resource Conservation Districts do to help create a more inclusive dialogue about conservation work?"* The purpose of the Speak Off Contest is to help students develop public speaking skills around resource conservation issues. As in 2020, the Contest was held virtually due to the COVID-19 pandemic. Gonzales High School Junior Jesus Gonzales won the Monterey County contest for the second year in a row, competing as part of the Center for Land-Based Learning's FARMS (Farming, Agriculture, and Resource Management for Sustainability) Advanced Program. Jesus went on to represent Monterey County at the state competition in November (also held on Zoom) where he placed third. Judges for the RCDMC Speak Off Contest were NRCS Engineer Javier Flores, NRCS Agronomist Evelyn Nordberg and RCDMC Soil Scientist Laura Murphy.

NRCS Agronomist Evelyn Nordberg (left) demonstrates the soil profile analysis proccess to high school students during the RCDMC Land Judging Competition in October.

October 21 Land Judging Contest

Students from Gonzales and Soquel High Schools competed in the land judging contest, in partnership with the Center for Land-Based Learning's FARMS Leadership Program. A Land Judging Contest is an annual competition in which high school students compete in their ability to assess a soil's capacity for supporting different land uses with emphasis on agricultural production. Wayne Gularte from Rincon Farms generously hosted the competition at a ranch south of Salinas. Gonzales High School Student Brandon Flores placed first in the competition.

Programs and Results

Salinas River Arundo Control

In the summer and fall of 2021, RCDMC continued our ongoing battle with the noxious weed *Arundo donax*, completing our eighth season of the Salinas River Arundo Control Program. The program aims to eradicate arundo along the river to reduce flood and fire risk to neighboring land, save water, and restore important habitat for fish and wildlife. This year, our work focused on herbicide treatment of 117 acres of arundo that were mowed in 2020. We also returned to the "original" stands of arundo mowed at the start of the program in 2014 to conduct spot treatments upstream – a task that must be completed every few years to control any resprouts that emerge from this tenacious invader.

We were pleased this year to diversify our funding sources for arundo control, with a large portion of

Work crews clear Arundo along the Salinas River. Photo credit: Jasmine Ruvalcaba

arundo treatment funding coming from the USDA Natural Resources Conservation Service's Regional Conservation Partnership Program. The other primary sources of funding were the California Wildlife Conservation Board and the Monterey County Agricultural Commissioner, with additional support from private landowners' donations of funds and labor. Contact Emily Zefferman for information

Salinas River Stream Maintenance

RCDMC managed the eighth season of the landowner and farmer based Salinas River Stream Maintenance Program (SMP), maintaining a total of 23 "secondary channel" work areas. Acreages worked this year include 130 acres of secondary channel maintenance, 105 acres of arundo removal for mitigation, and 3 acres of sediment management. Since the start of the year, RCDMC has been playing a more active role in program development and is thrilled to see continued growth in landowner participation along the 95 mile stretch of Salinas River.

The Salinas River Stream Maintenance Program maintained 23 secondary channels along the Salinas River in 2021 through mowing, arundo removal and sediment management.

Improved communication pathways with the CA Dept of Fish and Wildlife resulted in more timely approvals and execution in 2021. RCDMC, in partnership with the Salinas River Management Unit Association, is also pleased to announce the funding available from the California Department of Water Resources through their Integrated Regional Water Management Grant Program to offset the permit compliance costs for establishing new secondary channels.

Contact Brandt Bates for information

Winter Cover Crop and Organic Amendments

In 2021, RCDMC assisted nine Monterey County farmers through the winter erosion prevention cover crop seed reimbursement program, offered in partnership with the Monterey County Agricultural Commissioner's Office, to protect erodible farmlands. Also, RCDMC Soil Scientist Laura Murphy participated in an ongoing trial with RCD of Santa Cruz County staff to evaluate soil health benefits of adding co-composted biochar to vegetable production fields with sandy soils. The trial will conclude in 2022. RCDMC did not have funds available this year to provide organic amendments to growers, but staff have been helping farmers sign up for the Compost Connector program, which aims to provide free compost to farmers beginning in March 2022. Laura and other RCDMC staff are also working closely with UCCE advisor Richard Smith and USDA-ARS researcher Eric Brennan to collect data to inform the newly adopted Regional Water Quality Control Board nitrogen credit for winter cereal cover crops. Contact Laura Murphy for information

CDFA Technical Assistance for Healthy Soils and Water Efficiency

Soil Scientist Laura Murphy and Ag Technical Specialist Aysha Peterson supported more than 40 farmers with technical assistance through the CDFA Healthy Soils Program and ten farmers through State Water Efficiency and Enhancement Program in 2021. Laura and Aysha provided one-on-one guidance towards NRCS EQIP and other funding sources to implement healthy soils and water conservation practices. RCDMC staff will help with implementation and administration of any HSP and SWEEP funded projects in Monterey County in 2022.

Contact Laura Murphy for information

Numbers from 2021

200	Spanish-language Irrigation Workshop Attendees
84	Technical Assistance Consultations & Site Assessments (nutrient management, irrigation, erosion control, post-fire)
117	Acres of Arundo treated & mowed along Salinas River
23	Stream Maintenance Program channels managed
17	FARMS Field Day Students

RCDMC Soil Scientist Laura Murphy downloads data from a soil moisture monitoring station installed in a block of celery at ALBA in Salinas.

ALBA Small Farmers and Spanish-language Irrigation Efficiency Workshops

RCDMC staff provided technical training to beginning farmers at the Ag Land-Based Training Association (ALBA) throughout the year, including several virtual Spanish-language workshops about irrigation distribution uniformity and evapotranspiration-based irrigation scheduling. Regular field visits to farmers at ALBA resulted in further assistance with soil sampling and analysis of results, optimization of fertilizer source and application rates to prevent nitrate losses, and referrals to other resources (such as UC Cooperative Extension) for questions related to pest management and reduction of pesticides.

Ag Water Management Specialist Aysha Peterson is developing a close working relationship with ALBA staff and spending one day per week supporting ALBA farmers and alumni with emphasis on irrigation system design and management. She also supported four first-year strawberry farmers and two alumni to plant mustard as a winter furrow cover crop.

Contact Laura Murphy for information

On-Farm Nutrient Management Collaboration

In 2021, RCDMC staff completed a collaborative USDA Conservation Innovation Grant (CIG) project with regional partners as part of an on-going effort to explore, test and demonstrate the challenges and benefits of cooperative farm water quality treatment efforts in the Salinas Valley. This project coupled on-farm irrigation and nutrient management practices to reduce nutrient movement off-farm with 'downstream' water quality treatment wetlands to meet state surface water quality objectives. In the Moro Cojo Slough, project partners the Central Coast Wetlands Group (CCWG) and the California Marine Sanctuary Foundation (CMSF) successfully documented such water quality improvements and submitted them to the Regional Water Quality Control Board as part of an appeal to recognize proactive farmers' efforts by reducing regulatory reporting burdens.

Together with RCDMC, CCWG and CMSF, the other project partners—The Nature Conservancy, the Central California Grower-Shipper Association, Central Coast Water Quality Preservation Inc., and the Monterey Bay National Marine Sanctuary—initiated pilot farm water quality management watershed groups among growers in several subwatersheds in the Lower Salinas Valley to help facilitate more cost-effective compliance with the new 'Ag Order 4.0' water quality regulation. This team continues to collaborate beyond the CIG project term with other funding.

Contact Paul Robins for information

Engineering Services

RCDMC Civil Engineer Adrienne Carter developed engineered conservation project designs and guided construction for multiple farming companies. A major push for the summer and fall was construction of a 4,600 square-ft in-ground woodchip denitrification bioreactor along Blanco Drain with grant funding from State Water Resources Control Board and Tanimura and Antle Company. RCDMC Environmental Scientist Megan Barker provided permit management assistance. Carter is shepherding development of a second 'modular' bioreactor in partnership with CCWG and Preservation Inc, which should be operational at its initial farm demonstration site by July 2022. Carter also assisted the NRCS with their site visits in the aftermath of the 2020 post-fire mud flows and provided general

The woodchip denitrification bioreactor along the Blanco Drain features a unique 'vertical flow' design for maximum treatment efficiency with a design flowrate of 5 gallons/minute, or 10% of the Blanco Drain base-flow during irrigation season.

erosion control recommendations for agricultural fields as part of the Environmental Quality Incentives Program (EQIP).

Forest Health and Post-Fire Assessments

In 2021, RCDMC continued to play in an important role in fire fuels reduction work throughout the region.

RCDMC Forest Health Coordinator Jamie Tuitele-Lewis continued our involvement with the Central Coast Prescribed Burn Association (CCPBA), which conducted two successful burns during an exceptional drought year, with three more burns planned for the next two years. The CCPBA was also awarded a second CAL FIRE Fire Prevention grant for approximately $705,023 to expand the CCPBA's scope and capacity, including new burn plans, new implementable burns, new equipment, Spanish language outreach, and an apprenticeship program for local Tribal members to become burn bosses.

RCDMC worked collaboratively with many local groups, including the Fire Safe Council of Monterey County, Carmel Valley Association and CAL FIRE to develop a process to educate the residents of Carmel Valley about wildfire, defensible space, home hardening, firescaping, proactive preparation and emergency evacuation. A series of five Thriving Earth Exchange online webinars offered from April to June 2021 provided education for more than 150 Carmel Valley community members about the risk posed by wildfires.

RCDMC also initiated development of a Public Works Plan (PWP) in Monterey County to provide streamlined Coastal Development Permits and environmental analysis for vegetation management projects in the Coastal Zone. We are working with the County of Monterey, the California Coastal Commission, CAL FIRE and State Parks to develop this permitting pathway and hope to have a draft PWP in place by the end of summer 2022. These efforts will leverage the work of newly established PWPs in San Mateo, Santa Cruz and San Luis Obispo counties, all led by their respective RCDs.

The Los Padres Strategic Community Fuelbreak Collaborative Project had some major milestones this year: work commenced on State Parks portions of the project, including invasive weed treatment in Julia Pfeiffer Burns State Park and the beginning of some coastal prairie restoration in Andrew Molera State Park; we purchased a skid-steer masticator to help maintain fuelbreaks on San Clemente Rancho; work began on the Santa Lucia Preserve to implement their roadside vegetation treatments; 93 acres of fuelbreak maintenance work commenced on the Los Padres National Forest; and the CEQA Initial Study and Mitigated Negative Declaration for the East Pico Blanco shaded fuelbreak was completed.

Contact Jamie Tuitele-Lewis for information

A prescribed burn was completed at the Santa Lucia Preserve in November. RCDMC has continued its involvement with the Central Coast Prescribed Burn Association which secures funding and training for local prescribed burns.

Other RCD News

Monarch Working Group

RCDMC continued to coordinate the Monterey Regional Monarch Alliance (MRMA), a working group of area agencies and organizations involved in monarch butterfly conservation. Through MRMA, member organizations share knowledge and explore ways to collaborate to improve habitat and educate the public about monarch butterfly conservation. Notably, RCDMC assisted with a 2.5 acre pollinator planting

event organized by Monterey County Rotary Clubs at Laguna Seca Recreation Area in November. While the western monarch population has gone through a drastic decline in recent years, MRMA members were given a renewed sense of hope with the large increase in monarch butterflies counted at overwintering sites along the California coast in 2021, including over 13,000 at the Pacific Grove Monarch Butterfly Sanctuary. In 2021, MRMA developed a draft Action Plan with objectives to accomplish in 2022 and beyond to promote the long-term viability of the monarch population.

Wildlife Camera Monitoring

Over the summer, our partner Pathways for Wildlife wrapped up their two-year photo monitoring study on the effects of *Arundo donax* removal on wildlife movement in the Salinas River. They found that the presence of arundo was associated with fewer detections of animals such as deer, bobcat, coyotes, and racoons. After arundo mowing, which reduced dense stands to mulch, wildlife detections increased. They also found that areas treated earlier in the Arundo Control Program were showing greater species diversity and higher numbers of juvenile wildlife compared to more recently-treated sites. This is a hopeful and affirming sign that our work is benefiting the many wildlife species that make their home in the Salinas River riparian corridor.

A bobcat shown walking among a formerly arundo infested area of the Salinas River riparian corridor. A recent study completed by Pathways for Wildlife found increased wildlife activity in areas where arundo has been removed.

Fish Passage Barrier Removal Assistance

RCDMC Environmental Scientist Megan Barker provided permitting assistance and construction monitoring support to two Trout Unlimited fish passage improvement projects that were completed in the Carmel River Watershed this year. The Potrero Creek Culvert Replacement Project was completed at the Carmel Valley Athletic Club and the Cachagua Creek Ford Replacement Project was completed in Cachagua. Megan and Program Coordinator Brandt Bates are supporting design, permit applications and implementation of grant proposals for three more fish passage improvement projects in Carmel Valley, which should complete construction in 2023 and 2024. All of the projects have had funding provided by the California Department of Fish and Wildlife and Coastal Conservancy, and will allow federally threatened steelhead to access Carmel River tributaries for migration and spawning.

The Potrero Creek Fish Passage Project was ccompleted at the Carmel Valley Athletic Club in the fall. The project will make it easier for steelhead to migrate further up into Potrero Creek, the first spawning tributary of the Carmel River available to steelhead.

Monterey County Permit Streamlining for Conservation Projects

RCDMC partnered with the Central Coast Wetlands Group, California Marine Sanctuary Foundation, Big Sur Land Trust, Elkhorn Slough Foundation and NRCS to streamline permitting of environmentally-beneficial projects with Monterey County Housing and Community Development. The goal of the permit program is to expedite the County permit application review process for environmentally beneficial projects, relieving the administrative burden for both the County and local conservation project proponents. This should also alleviate some of the time pressures that are inherent with grant funded projects. In November, RCDMC received support from the Monterey County Board of Supervisors to carry forward the permit streamlining effort through development of a master permit. The master permit program is being developed with funding support from State Water Resources Control Board and strategic guidance from Kelli Camara (Camara Consulting).

Salinas River T-shirt Fundraiser

The Salinas River Management Unit Association, in partnership with RCDMC, raised over $21,000 to support multi-benefit work that mitigates flood risk

The Salinas River T-shirt Fundraiser brought in over $21,000 to support Salinas River stream maintenance work.

along the Salinas River. The t-shirt design featured original artwork commissioned by Christopher Bunn. Twenty-nine local businesses and donors contributed to the fundraiser, including Merrill Farms, D'Arrigo Brothers, Braga Fresh, Sunberry Growers, Brett George Company, Christensen & Giannini, Margaret Duflock, RC Farms, Crown Packing, and General Farm Investment, among others.

Laura Murphy Awarded NRCS "RCD Planner of the Year"

The USDA Natural Resources Conservation Service (NRCS) presented RCDMC Soil Scientist Laura Murphy with the "2021 Outstanding RCD Conservation Planner of the Year" Award in recognition of her work providing technical assistance to the historically underserved small-scale, Spanish-speaking farming community in Monterey County. In her first four years with RCDMC, she has consistently built and expanded relationships and opportunities to enhance our service to small farmers and healthy soil management. We're grateful and happy to have her as a core part of our RCD team. NRCS produced a video to celebrate Laura's resource stewardship and community service.

Staff Welcomes New Ag Water Management Specialist Asyha Peterson

In 2021, we bade a sad farewell to Natalie Solares and welcomed Aysha Peterson as our new Agriculture Technical Specialist. Aysha is a PhD candidate at UC Santa Cruz, where her research focuses on regional farm management practices affecting nitrate losses to groundwater. She has worked on farms in Massachusetts, Pennsylvania, New Mexico, California, and Yucatán (Mexico), and is committed to supporting agricultural practices that build soil health, protect water resources, and promote sustainable farming communities.

Soil Scientist Laura Murphy was awarded "2021 Outstanding RCD Conservation Planner of the Year" by NRCS in honor of her work providing technical assistance to the Spanish-speaking agricultural community.

RCDMC Bids Farewell to Board Vice President Rebecca King

RCDMC relucantly bade farewell to our Board Vice President in fall 2021. Rebecca served on the RCDMC Board since 2010. She resigned to focus on her company Garden Variety Cheese, to devote more time to running her 40-acre sheep, pig and poultry operation in North Monterey County, and to coordinate the Dairy Sheep Association of North America's Production Improvement Program. She will continue to participate with RCDMC as an Advisor and with outreach events. We thank her for her service on our board and wish her luck on her next ventures.

Rebecca King of Garden Variety Cheese and Monkeyflower Ranch has stepped down as Board Vice President to focus on production and direct engagement with the small dairy community.

Summary of Financial Statements (July 2020 to June 2021)

Despite two years of pandemic, RCDMC's funding and service to the community have been steadily growing. Since 2019, an entirely new Fire Fuels Mitigation and Forest Health program has flourished, bringing greatly-needed state and federal funding (>$5.3M) to address our forested and otherwise fire-prone landscapes and communities' needs. The Salinas River Program has continued apace and is looking at a future to provide more comprehensive river management in partnership with the local Groundwater Sustainability Agency as a highly-valued program due both to its solid reputation and value for habitat, water conservation, and flood protection. Our bilingual `Ag Team' is well-supported with state grants and increasingly diverse partnerships to better assist farmers' soil and water management efforts, and is branching out to provide new services for pollinator & monarch habitat, soil health management, and, most recently, urban agriculture. We run a tight financial ship without tax roll funding, so you'll note the small gap between our income and expense below. Local, private contributions are an important buffer to enable us to continue to build natural resource values within our community. Any such donations are tax-deductible and can be targeted to support specific programs or purposes. Donate

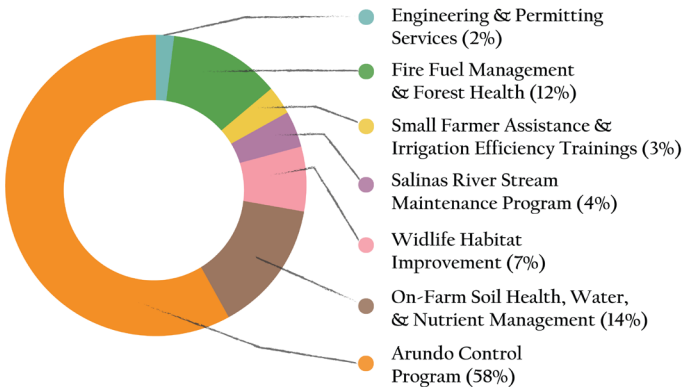
Expenses (per 2020-2021 audited reports)

Personnel	$ 819,412
Contract Services	$ 1,792,895
Office Expenses	$ 44,818
Project Permits	$ 19,543
Equipment & Field Supplies	$ 119,496
Vehicle & Travel	$ 14,767
Workshops, Meetings & Events	$ 654
Liability Insurance	$ 14,092
Total	**$ 2,825,677**

Income Sources (per 2020-2021 audited reports)

State grants	$2,130,237
Federal grants	$ 425,050
Local and Private Contracts	$ 194,290
Donations, Fundraising & Interest	$ 36,490
Total	**$ 2,786,067**

RCDMC Programs by Relative Budget



Special Thanks to Our 2021 Sponsors and Donors

Salinas River T-shirt Fundraiser ($21,300)

A&A Organic, American AgCredit, American Takii, Blanco Farms, Braga Fresh, Brett George Company, Christensen & Giannini, Crown Packing, D'Arrigo Bros, Devii Rao, Emily Zefferman, Errea Land and Cattle, Fontes Farms, General Farm Investment, Henry Hibino Farms, King City Industrial Supply, LA Hearne, Margaret Duflock, MCCIA, Merrill Farms, Monterey Pacific, Noland Hamerly Etienne & Hoss, Norm Groot, RC Farms, Rincon Farms, Sunberry Growers, Susanne McBride, Thomas Bunn Family LLC, TJ Plew-Hearne