



ANNUAL REPORT FISCAL YEAR 2021



VSWCD April 30-May3, 2021 Science Fiesta / Earth Day Celebration

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VSWCD ANNUAL REPORT

July 1, 2020 – June 30, 2021

DISTRICT BOARD OF SUPERVISORS:

- Abel Camarena, Chair (Seat 1)
- Teresa Smith de Cherif, Vice-Chair (Seat 4)
- P. Joseph Moya, Treasurer (Seat 3)
- Richard Bonine Jr., Supervisor, appointed (Seat 7)
- Sue Small, Supervisor, appointed (Seat 6)
- Gail Goodman, Supervisor (Seat 5)
- Duana Draszkiewicz, Supervisor (Seat 2)

Valencia Soil & Water Conservation Service Staff:

- ◆ *Andrew Hautzinger, District Director*
- ◆ *Amanda Carrasco, Business Manager*
- ◆ *Johnny Chavez, Field Crew Leader*
- ◆ *Lindsey Hamilton-Diaz, Conservation Manager*
- ◆ *Allison Martin, Education Manager*

U.S.D.A. NRCS SERVICE Los Lunas Field Office:

- *Martin Meairs: Team 2 District Conservationist*
- *Fawnna Lee: Rangeland Management Specialist*
- *April Luna: Soil Conservationist*
- *Gabriela Coughlin: ABQ Soil Conservationist*

NEW MEXICO DEPARTMENT OF AGRICULTURE:

- *Katie Mechamier, Program Specialist*
- *Jim Wanstall, Noxious Weed Coordinator*
- *Patricia Depner, Prog. Coord. NMDA-Ag. Programs and Resources*

NEW MEXICO STATE UNIVERSITY COUNTY EXTENSION SERVICE

- *Lynda Garvin, County Extension Agent*
- *Jon Boren, NMSU Associate Dean & Director, Cooperative Extension Service*

VSWCD FY21 Annual Report: Table of Contents

- I) Vision and Mission
- II) District Overview,
- III) Operations & Budgeting
- IV) Board Leadership
- V) Board Committee Highlights
- VI) Whitfield Conservation Area Complex: Whitfield Main, Rio Abajo Unit, Stacy Unit
- VII) Education Program Report Out
- VIII) Financial Assistance FY21 Program Activities
- IX) HIGHLIGHT: Ronnie Moya Financial Assistance Program Applicant
- X) E a s t Valencia Urban Gardens Program
- XI) District Special Projects, Programs & Partnerships
 - o Dan Goodman Awardees
 - o BEMP
 - o Soil Health Champions/NMDA Healthy Soil Grant Sponsorships FY20-21
 - o USDA-NRCS Los Lunas Team 2
 - o NMACD
 - o EENM
 - o Central NM Audubon
 - o Ciudad Soil & Water Conservation District
 - o Coronado SWCD
 - o Youth Development Incorporated
 - o Valencia Community Action Network
 - o Isleta Reach Stewardship Alliance
 - o Middle Rio Grande Conservancy District
 - o Greater Rio Grande Watershed Alliance
 - o H2 Academic Solutions
 - o Environmental Education New Mexico
 - o Sandia Mountain Natural History Center
 - o Friends of Whitfield 501©3

APPENDICES:

APPENDIX A – FY21 BEMP Final Report to VSWCD – BEMP Study

APPENDIX B --VSWCD FY21 Action Plan

APPENDIX C –VSWCD Soil & Water Conservation Column + Education

I) VSWCD's

Vision Statement

To provide resource conservation for a quality environment demonstrated thru active leadership, cooperation, and partnership.

Mission Statement

To provide education, technical assistance, and recognition to current and future stewards of the land in natural resources conservation

II) VSWCD FY21 OVERVIEW: July 1st, 2020 – June 30th, 2021

There were many organizational changes at the District throughout fiscal year 2021. These changes started with the resignation from her District Manager duties by long-time District employee Madeline Miller. After over 15 years of admirable and substantive service to VSWCD, Madeline tendered her resignation effective August 30th, 2020. On the next day, August 31st, Andrew Hautzinger reported to duty as the District's first District Director, which necessitated Andrew resigning from the VSWCD Board of Supervisors, where Andrew had volunteered for the prior 12-years (occupying Seat 2).

As part of the reorganization that led up to these changes, the Board agreed to establish a part-time Business Manager position, which was advertised and filled by Amanda Carrasco, on November 30th, 2021. Meanwhile, the District's Conservation Program Manager, Lindsey Diaz, tendered her resignation letter to the District in May of 2021—she will be sorely missed! It was decided by the VSWCD Board to promote Johnny Chavez in a career conditional appointment into the CPM slot vacated by Lindsey, provided he can fulfill the 4-year baccalaureate degree requirement of the CPM position description.

Further, the Board instructed the Director to not directly pursue filling behind the position Johnny Chavez had held previous (the Lead Field Worker). Relatedly, earlier in FY21 (month of March), the Director ask for and received approval to terminate the employment of the Ruben Amador, who had filled the slot of Assistant Field Worker.

So, VSWCD's FY21 started under the leadership of Madeline Miller, with a Board-approved staff of six. Come the end of FY21 (effective July 1, 2021), we saw the staff reduced to four employees (i.e., Andrew Hautzinger--District Director, Amanda Carrasco--Business Manager, Allison Martin—Education Manager and Johnny Chavez—Conservation Program Manager). While this smaller staff will be challenged to manage work tasks effectively, this resulting reduction in salary costs show a SWCD that now has more revenue than expenses (which had not been the case for the recent fiscal cycles), and an expected \$30,000 savings buffer.

III) VSWCD---OPERATIONS AND BUDGETING: FY21

During fiscal year 2021, the District met the quarterly and annual reporting and budgeting requirements of the NM State Department of Finance and Administration, and the annual financial

reporting to the Office of the State Auditor. For FY21, the District is prepared to report at the Tier 6 level of the Audit Rule.

- Throughout FY21, operations and all VSWCD activities have been impacted by the COVID-19 pandemic. The Board has provided guidance to management and the staff regarding the criticality of compliance with all the health and safety guidelines put forward by health officials to minimize the impact of the COVID-19 pandemic in New Mexico. Through all of FY21, the Whitfield Wildlife Conservation Area grounds are open to the public on Thursday, Friday and Saturday (8 am -to 4:30 PM). The office and visitor center are used on a limited basis with some staff working from home while some remaining on site to staff the District center of operations and the WWCA Monday-Saturday.
- Also, in FY21, all Board meeting were conducted remotely, with some limited instances of a few board attendees at the Whitfield Office but most participation being offsite.
- The Open Meetings Act Resolution for calendar year 2021 was passed at the 12/19/2020 Regular Meeting of the Board. The Board passed that meetings would be held the 3rd Saturday of the month starting at 9 am. The Board held 12 regular and 2 special meetings during the year.
- The District submitted their annual resolution as required to the Soil & Water Conservation Commission for their intent to collect the ¼ mill levy for the 2020 and 2021 tax collections and these were approved by the Soil & Water Conservation Commission on 6/23/2021.
- Starting cash balance July 1st, 2020, of FY21 for the District was \$289,801. Additionally, revenues for the 2021 budget included the full NMDA Points award for the year of \$15,691 and collection of the quarter mill levy of \$355,300 and \$34,500 legislative capital outlay for the Whitfield maintenance building project completed the previous year. Total operational expenditures (coming from annual income, capital outlays and use of savings) for the year were \$508,264 coming in under the approved anticipated expenditures of \$582,284 (primarily because the Building Phase 2 project did not start).
- The 2021 general operational budget provided for District programs and services including the landowner conservation reimbursement programs; maintenance of the Whitfield Wildlife Conservation Complex, the District office and visitor center; environmental educational program delivery and outreach; the 35th annual Dan Goodman Environmental Improvement Award; funding for the Bosque Ecosystem Monitoring Program; the Rio Abajo Conservation Area restoration funding; and the East Valencia Urban Community Gardens Program.
- The FY19 Tier 6 Agreed Upon Procedures (AUP) audit as required by the State Auditor's Office for accountability was completed M a r c h 4 , 2021 with a permitted extension. The AUP was conducted by Assurance Accounting and approved by the State Auditor's Office. There were 4 findings. The District management response to the findings were reviewed with the auditor Mr. Mangu at the March 20, 2021 VSWCD Board Meeting....?
- The District paid minimum dues of \$500 to the New Mexico Association of Conservation Districts and also continued their membership with the National Association of Conservation Districts at the minimum level of \$775.
- The District granted \$15,000 for sponsorship of Bosque Ecosystem Monitoring Program monitoring programs (BEMP) in the District Area in FY2021 in support of the youth stewardship opportunities and staff of the BEMP. The Program additionally provides annual updating of reporting and analysis of the data for District at a regular Board meeting. The data is useful for adaptive management in planning for conservation of habitat, resources, water quantity and quality, and watershed health within the District. BEMP has been providing rigorous non-proprietary data for a variety of agencies addressing land management concerns within the Middle Rio Grande corridor including most significantly the U.S. Army Corps of Engineers.

- The District pursued capital outlay funding in FY21 for phase 2 of the building program for the Whitfield Visitor Center and District administration. The change in construction costs due to the pandemic required revision of total costs of the project estimated to be between 600K -700K. No appropriations were received for the project during the 2021 legislative session, although Rep. Gail Armstrong tried to secure funding. The Board and District Director furthered planning and budgeting for pursuit of a loan along with the two past State appropriations totaling \$175K for completion of the project after pursuing State funding since 2009 upon completion of Phase 1, the education center.
- In FY21 the District contracted John Kirkpatrick Architects to develop final engineering drawings for the administrative office building. These drawings were 100% completed in June of 2021, with full invoicing (\$29,000 of capital outlay funds) done by July of 2021. A bid process was begun in the month of August, but was suspended per alarmingly high construction costs (materials), and per the District having received no bidding interest.
- Communication: The District promoted all activities and provided public information primarily through the VSWCD website at www.valenciaswcd.org and Facebook pages for the District, the East Valencia Urban Gardens Program and the District Education Programming. During the year the District also set up a YouTube account for public access to the Board meetings when they went virtual in April, and for posting educational videos, and other information for virtual outreach during social distancing requirements of COVID-19. Also, t h e t h r e e quarterly newsletters published in FY21 for the District activities and programs, were distributed electronically to fellow Districts, and posted on the VSWCD website and hard copies made available through an outdoor rack for the public following office temporary closure in March thru the remainder of the year.
- IT evolution: Largely powered by the knowledge and ingenuity of Johnny Chavez, FY21 saw a year of big change for VSWCD in the technology arena. We are now running our own system, no longer relying upon a IT consulting firm, saving hundreds of dollars a year. We have also largely migrated to a cloud based file storage system, again led by Johnny's knowledge. We have also been able to greatly improve the office's video conferencing and general internet capacity.

IV) Board leadership updates through the Year:

- New board member Duana Draskiewicz was appointed by the VSWCD Board of Supervisors to Seat 2, at their February 16, 2021 Regular monthly meeting. She comes to this volunteer endeavor per her life-long commitment to natural resources in their infinite variety, and from a long career in the medical and mental wellness industries, tied to her strong interest in sustainability, community services and the development of equitable places, and equitable educational opportunities. She is a near life-long gardener, as has happily lived in Los Lunas with her husband Bob for over 40 years.
- Board Officers for fiscal year 2021 were: Abel Camarena continued as Chair, as did Teresa Smith de Cherif for Vice-Chair. Board Supervisor Joseph Moya agreed to serve again (having taken a turn some 15 years ago) as Board Treasurer. Also continuing to serve were Richard Bonine, appointed Seat 7 representing Laguna Pueblo and Sue Small, El Cerro Mission resident appointed to fill Seat 6.

V) Board Committee Activities in FY2021

Board members continued through Committees to address District programming: The Mil Levy Committee, Land Use Plan Committee, Financial Assistance Committee, Whitfield Committee, Education Committee, East Valencia Urban Gardens Program Committee and Personnel Committee were active during the year:

Whitfield Committee: Abel Camarena, Andrew Hautzinger, and Teresa Smith de Cherif served on the Whitfield Committee, which now includes the Rio Abajo and Stacy units, until Andrew was replaced by Sue Smart at end of August, 2021. Committee support included early implementation of the Whitfield Comprehensive Management Plan – updated to include the Rio Abajo and Stacy units and approved by the Board June of 2020. This was tied to revising standard operations in face of the 2021 drought, with staff developing in-house plans for ways to curtail water use as need be, and options to better measure and manage the District's pre-1907 water rights, of which much of the conservation area fully requires for survival. This committee also engaged in reorganization planning for the future, capital outlay planning for the 2nd building, and temporary measures for COVID-19 planning. Various proposals were reviewed throughout the year, with a stellar mapping product developed that GPS'd all the medium and larger invasive trees on site. This work was done by Johnny Chavez, and fulfilled a key requirement of NRCS.

Education Committee: Andrew Hautzinger and Gail Goodman served on the Education Committee, with Joseph Chairing the committee upon Andrew's departure from the board in September of 2020. This committee provided key support to the Education Manager in many respects, including implementation of Outdoor Equity Grant awarded in FY20 through the NM State Tourism Department. By July 1, 2021, this grant-driven project was well underway, with visits to 2 local wildlife refuges conducted. The project called for multiple event over four months, concluding in late August of 2021 with a restoration planting at WWCA. Gail Goodman's support of the Equity Grant was especially noteworthy.

East Valencia Urban Gardens Program Committee: Supervisors Teresa Smith de Cherif and Sue Small served on the East Valencia Urban Gardens Program to work with the Program Coordinator/District Director and other staff in bringing recommendations to the Board about the future of the program after the fifth year of singular District leadership. The Board review of the future of the program in June 2020 guided the Program Coordinator to work with Committee Supervisors in pursuing partnerships and collaborations with other agencies to share the fiscal and administrative responsibilities of the program. A grant from NM CYFD was awarded to the program in June Of 2021, but administrative snafus have disallowed the grant to be processed. As of July 1, 2021, EVUGP does not have an alternative funding stream. Meanwhile, this committee has been key in supporting the staff's efforts to in turn support the gardens, the garden managers and the garden interns. This has entailed working closely with YDI, who agreed to be fiscal agent to the CYFD grant (once it gets processed). This committee has also worked with and met with the Valencia Community Action Network (VCAN), who have a vested interest in the se community gardens to be successful.

The Financial Assistance Committee was active in FY21, administering over \$40,000 in awarded conservation projects while making concurrent improvements in the program itself for the coming year. This committee is Chaired by Sue Small with Joseph Moya.

The Personnel Committee including Abel Camarena, and Teresa Smith de Cherif throughout the year was addressing staff reorganization needs, changing staff roles and job descriptions. The committee brought recommendations to the full Board that proposed reorganization in the new year that would allow the District to achieve their goal of annual revenues equaling annual expenditures. This was the key committee during a time of transition and fundamental organizational changes.

Land Use Plan: Richard Bonine began chairing this committee in late FY21, and will convene an early FY22 meeting to chart a course to take the rough draft product currently in hand towards final form. The LUP Committee currently consists of Richard (Chair), Gail Goodman, Duana Draszkiewicz and Hautzinger.

Dan Goodman Award Committee (Ad Hoc) for review of Dan Goodman Award applicants, in the 35th closely with Education Manager Martin on this project. Three applicants were reviewed with a recommendation to the full Board in July of 2021 (with Supervisors Small, Smith de Cherif and Draszkiewicz on the ad hoc committee).

VI) Whitfield Conservation Area Complex: Staff continued to work on a myriad of tasks associated with the Whitfield Complex. Of special note, from April 30th to May 3rd Whitfield hosted a historic event. The 2021 Earth Day / Science Fiesta/City Nature Challenge brought more visitors to Whitfield than ever before—daily record of 250 folk on Saturday May 1st! 500 visitors coming over the four days, showing we were all ready to get outside (masks were required inside only, but most wore them most the time). Everyone attending reports having had an amazing time celebrating the earth, our communities, and our partners—we had nine partner booths set up! Each day we had several organizations with hands on activities promoting the health of our planet and the importance of the work they do within the community. We had activities ranging from live animals to train demonstrations talking about the changing land, culture and people in this area. We also had two volunteer led hikes around the conservation area where people had a chance to learn and interact with the resources, and participate in the City Nature Challenge 2021 using the iNaturalist app. This was the first year that the challenge had been extended into Valencia County and Sandoval County. Whitfield had the most sightings in Valencia County! Big thanks to so many, but first and foremost to the Friends of Whitfield, who made it all happen, and to Valencia Community Action Network, who staffed a booth the entire time 😊. Everyone pulled together on this project, which was spearheaded by Allison Martin with lots of help from Friends and staff, especially Johnny.

Meanwhile, at Whitfield Main, the work in FY21 was varied, often involving water-infrastructure upkeep and time spent irrigating. This year was exceptional given the very droughty start to the year, somewhat relieved by wetter than typical monsoon rains come mid-summer. We estimate we made $\frac{1}{2}$ the normal irrigations as normal in the 2021 irrigation season (up to and beyond July 1). Whitfield Main boundary work is a never ending task, and Johnny pecks away as he is able. This involves clearing trees from fencelines, fixing fencelines, allow perimeter mowing whenever possible. Beyond keeping the main walking trail relatively mowed, we also need to knock back seasonal weeds like kochia quite frequently at all three properties, but especially at WWCA and around the horse stables at RACA.

Hard to overstate the need to develop a fire prevention plan for RACA, as the consensus is that the unique and stately grove of mature cottonwood gallery forest is imperiled from excessive forest floor fire fuels and highly pervasive non-native tree invasion, especially Russian olive and salt-cedar. It is our expectation that a large townhall event will be held by the District in the coming months to get community input on the RACA property, a logical next step in getting a management road map developed.

Important to note in August of 2020 at Whitfield Main, the Maintenance Building Project paid for with State legislative funds of \$34,500 was completed to include some interior build for office, storage and bathroom, and a water harvesting system for potable use in the building which the District intends to share information about with the public.

Additional funding for capital outlay was pursued during the legislative session of 2021; no additional funds were forthcoming. The Board has a standing motion from December 2019 to pursue a loan for the balance of the cost to ensure the project could move forward as soon as possible and strategic.

Other Whitfield Complex notes include:

Habitat Council

- Council of 20+- to advise and support WCAC, Valle de Oro, Candelaria Farms – monthly meetings and tours
- Hosted a tour for the Council at Whitfield Main Unit

NRCS Wetland Reserve Unit

- Updated outdated reporting by co-leading tour of the Main Unit
- Completed documentation to complete a CUA with NRCS for Moist Soils Unit
- These actions have led to availability of funding for projects in the Main Unit, proposing a plan to remove non-native trees/shrubs and plant a greater diversity of native trees to enrich the existing habitat.

Moist Soils Units

- Partnering with others (e.g., Rio Grande Returns) to remove hundreds of cottonwoods (no roots though) to clear the moist soils units. Completed CUA paperwork with NRCS to manage the site.

Crop Field

- Staff restarted management by getting on site a no-till seeded with cover crops in fall of 2020 with cover crop mixture (triticale and Winter Peas). Dry spring and early summer reduced waterings.

RACA

- Began to develop an outreach plan for future restoration of RACA

5-year Management Plan

- Identified framework for a 5-year management plan
- Created irrigation plan
- Began invasive species management plan

Grants/Fundraising

- Completed NMDA Grant ~\$12,000
- Completed Permaculture Grant ~ \$18,000
- Continue to manage NACD grant award - \$50,000 award to EVUGP
- Co-led applying for Conoco-Spirit grant in Aug 2020 - rejected
- Applied for USDA Urban Ag innovations grant in Sept 2020 – rejected
- Applied for CYFD Next Generation Grant (YDI fiscal agent) – awarded \$30,000 to EVUGP
- Applied for USDA Community Food Grant (YDI fiscal agent) – waiting to hear back
- Completed paperwork and meetings to seek funding with NRCS – creating proposal to be funded for next 3 years of work for WCAC management

VII) Education Program Activities for 2021

Allison Martin, Education Manager was given an opportunity to apply and was selected to be one of the first fellows of the Exploring Equitable Education Outdoors Program lead by Director Eileen Everett of the Environmental Educators of New Mexico Association in 2020. The program funded through a grant developed by Director Everett. The intent is to create a multi-year collective strategy for systemic change in providing equitable, daily access to the outdoors and environmental learning for every preK-12th grade student in school and their local communities in New Mexico. The Exploring Equitable Education Outdoors Fellows in 2020 have started the program working with a transformational leadership model and engaging in an emergent process to grow their own leadership while exploring systems thinking and gaining skills in advocacy and messaging. Allison's educational outreach with the District provides the real world opportunity for growing a community of support for this effort. By year end, Allison and Fellows of the program collectively developed policies centered on environmental education which they are planning to take to the 2021 Legislative session. Other activities include facilitation of webinars that support equity in the outdoors throughout 2020 and establishing partnerships and collaborations in creating greater access to the outdoors in the communities where people live which supports District outreach about conservation of our natural resources.

Accomplishments in the Education Program for 2021

1) Nature Based Resource Grant Opportunity: Giving students and teachers the resources they need to learn outside

Funding provided to: School of Dreams Academy, H.T. Jaramillo Elementary School, Katherine Gallegos Elementary School, La Merced Elementary School

Total Funds Used: \$2,644,14

Who does this project serve? Schools, Staff, and Students

2) Earth Day Science Fiesta, Nature Challenge, Friends Silent Auction (April 30th-May 3rd)

Organizations Involved: Rocket Punch Farms, Petroglyph National Monument, H2 Academic Solutions, Valencia Community Action Network, Friends of Smokey Bear, Ciudad Soil and Water Conservation District, B.E.M.P., Cub Scout Pack 116, Troop 116 and Troop 438, School of Dreams Academy, Central New Mexico Audubon Society, New Mexico Herpetological Society

Number of attendees' total: 500

Number of City Nature Challenge Hikers: 52 total (Most sightings in Valencia County!)

Friends Silent Auction: \$4,000 roughly made in funds including donations

Who does this project serve? Community

3) Education Program Opportunities through Virtual and On-Site Lessons/Activities for grades K-8th

Schools Reached: Central Elementary School, Ann Parish Elementary School, Peralta Elementary School, Gil Sanchez Elementary School, H.T. Jaramillo Elementary School, La Merced Elementary School, Desert View Elementary School, Los Lunas Elementary School, Sundance Elementary School, School of Dreams Academy

How many students reached: 482 (That I have documented)

Education Video Views on YouTube

Kindergarten: 71 views

First Grade: 50 views

Second Grade: 17 views

Third Grade: 13 views

Fourth Grade: Part 1: Rio Bravo 180 views

Part 2: Rio Nuevo 155 views

Part 3: Forest Health 78 views

Sixth Grade: 13 views

Home School Groups Eco Ed Series (6-12th) Partnership with El Ninos of New Mexico

Number of students: 6 programs, 13 students total

Ecology Program (4-5th grade) with Sandia Mountain Natural History Center

Number of students: 17

On site Visit: El Rancho de Los Ninos: 13 kids

Total students in all categories: 545 (includes Equity Grant youth)

Who does this project serve? Schools, Teachers, Students

4) **Equity Grant: Pathway to Stewardship Project** (June- August 2021)

Number of Youth registered: 20

Who does this project serve? Students and Parents

Who does this project serve? Community, partners

5) **Fellowship Community Gatherings:** Lead Speaker and Fellow

Policies we created: Outdoor classrooms, Outdoor learning coordinators at each school, Outdoor resources at each school

-Gatherings to support the initiatives proposed above:

Every Kid Every Day Every Way: Promoting policies to create outdoor spaces and places in schools and around New Mexico

Number of attendees: 45

Growing Relationships: How to network, grow and sustain relationships with other organizations to create future opportunities in environmental education.

Number of attendees: 42

Total number of people reached in gatherings: 87

Who does this project serve? Organizations, Community

Important Partners this year to help create programs, opportunities, and provide funding: EENM, Sandia Mountain Natural History Center, Nature Ninos of New Mexico, Friends of Whitfield, Central New Mexico Audubon Society

OTHER THINGS LIKELY IN FY22: Teacher workshop (July 2020 last time), Master Naturlist, Managing EE Assistant

VIII) Financial Assistance Program FY21–Awards Year End June 30th 2021

The Valencia SWCD Financial Assistance Program for FY21 came to a close June 30th 2021. Changes to the program in FY21 included providing a list of common land practices related to the priorities of the program for soil health management, water quantity and quality conservation, pollinator habitat restoration; preservation, support of wildlife habitat where possible and protection of soils with vegetative cover and more for preservation of the natural resources of the District. Ranking of practices were re-aligned in high, medium and low priority categories aligned the conservation value of the practice to the rate of reimbursement of assistance to applicants – 75%, 50%, and 25% respectively.

Applications were due for community and agricultural assistance by September 30th, 2021. The original District program budget for the year was \$40K mil levy dollars.

The Financial Assistance Committee of the Board of Supervisors annually review applications. Following is the recommendation put to the full Board for action at their 2-20-2021 regular monthly mtg.

MEMO:

Date: December 19, 2020

To: VSWCD Board of Supervisors

From: FA Committee (Board Members Small and Moya and DD Hautzinger and CMP Diaz)

Re: Financial Assistance Committee's Review of 13 FY21 Standard Conservation Project Applications of FA Program.

This memorandum provides recommendations to the Valencia Soil and Water Conservation District (VSWCD/District) Board of Supervisors from the Board's Financial Assistance Committee for thirteen Fiscal Year 2021 proposals received from qualifying applicants to the VSWCD's Financial Assistance Program's competitive Standard Conservation Project process. This memo also provides the opportunity to provide the Board with a few other details related to the District's financial assistance program.

The VSWCD Financial Assistance Program was established by the District in February 2016 to partner with our community members to support the preservation soil and water resources in a manner that is strategic, innovative and cost-effective, and shows proper due-diligence of public funds. It's our goal to promote innovative conservation practices which can be effectively used across all of the many different landscapes found within the Middle Rio Grande Valley floodplain, uplands and mesas.

Qualifying applications are those coming from community members who paid into the District's ¼ mil levy and who provided their application between July 1, 2020 and September 30, 2020. In FY21 the District's Financial Assistance Program was redesigned, now consisting of two primary funding components: 1) \$30,000 for reimbursing Standard Conservation Projects ("SCP", the primary subject of this memo), and 2) \$10,000 for Stand-Alone Practices, which are pre-approved / first come first serve simple practices that are reimbursed at 75% level to support use of: high-efficiency toilets, rain-barrels, water-harvesting tanks, Bio-compost kit, hoop houses, and small-scale native plantings encourage native biodiversity.

The committee thinks it is important for the Board (and the public) to appreciate the full scope of the District's efforts to provide financial support to community members in furtherance of conservation goals. As noted above, the District now offers multiple vehicles to support citizen-powered conservation within the District, ranging from reimbursement programs to diverse technical support services provided to the community. Beyond the Standard Conservation Project and Stand-Alone Conservation Practice described above, we also offer free soil samples to any individual within the District (we have processed over 20 soil tests this year).

The District staff places high priority on providing these programs to the community. It is estimated that the District Director spends approximately 10% of his time on directly-related activities, while the Conservation Program Manager estimates she spends no less than 25% of her time in support of work related to financial assistance related activities, including being the District lead on all things soils. In addition, the District's has worked with a technical service provider (a retired NRCS conservationist) on a contractual basis, which has greatly improved the professionalism of our program. To date, we have expended about \$4,000 for this contractual technical support.

In addition, the District is an active supporter of the encouraging recent focus in New Mexico on Healthy Soils, and can hardly overstate how cool it is to have EIGHT Healthy Soil Champions living in our District (out of a state total of 47). As a product of the 2018 NM Healthy Soils Act, NMDA established a Healthy Soils Grant program, which in FY21 VSWCD was a designated "eligible entity" (i.e., serving as a technical collaborator and local point of contact).

We ended working closely with four property owners in the District to develop applications for the NMDA HSG funding opportunity. Because the goals of the NMDA HSG program and the VSWCD FA SCP programs were fairly well aligned, each of the four FY21 NMDA applicants put in applications both

for the HSG grant and for consideration in our Standard Conservation Program. This was largely done as a backup, in case NMDA did not fund any of the four applications coming from Valencia in 2021. Ends up, last week NMDA announced the NMDA HSG award recipients, and 3 of 4 of our local applicants were fully funded(!). Statewide, NMDA awarded 50% of all applicants, so we were pleased to see our local conservationists get awarded at a 75% rate. This translates to over \$13,735 dollars coming into our community this year to support conservation of the soil resource (amongst many other project benefits), while also reducing the FY21 FA SCP applications competing for our limited funds from 13 down to 10 (essentially allowing funding of an addition set of lower ranked proposals).

This FY21 good news followed similar news last year, through VSWCD's successful NMDA Healthy Soils Grant that Lindsey Diaz described to the Board in November 2020 – The District was directly awarded \$12,430 to support and promote effective composting and bioreactor work. Funds went to the community by way of services (soil testing, drip irrigation, cover crop seeds, stipends for participating). Of course, all of this work entailed many hours of District staff and Board support, so it is gratifying to see these recent dividends.

As noted, beyond providing background information directly above, this memo relates to the 13 standard conservation projects (SCP) received in FY21. These SCP applications were evaluated by the Financial Assistance Committee and the District staff through applicant interviews and site inspections, with a detailed Site Conservation Plan typically developed by the District for each proposal. All the site plans were ranked according to a ranking system newly developed by the committee and based on the USDA-NRCS scoring system for conservation projects.

This system entails a prioritization process that provides three different levels of reimbursement to the applicant, based on the conservation practice(s) importance, innovation and positive impact (high=75% reimbursement level, medium=50% and low=25%).

For FY21, out of the 13 applications, it is the recommendation of the Financial Assistance Committee that the Board support funding 8 of the projects (accounting for the 3 projects funded by NMDA), for a total of **\$29,980**. Meanwhile, we recommend holding off until next year to fund one other proposal (R&P Sanchez), as the applicant works to secure needed water permits, and inform the lowest ranking applicant that her project exceeds available funds. This information is provided in **Table 1: VSWCD Financial Assistance Committee Recommend Funding Levels for FY2021 Standard Conservation Project Applications.**

Table 1: VSWCD Financial Assistance Comm. Recommend Funding Levels for FY21 Standard Conservation Project Applications

Project Description and Conservation Benefits: (in ranked order, highest to lowest)	Recommended Reimbursable Amounts
Eva and Ryan Wood: 1.9 acres of native upland habitat to be fenced, planted with native upland range species and pollinators with a thorough rain harvest and storage setup from their roofs to supplement irrigation, and bioreactor setup. Livestock will be rotated using electric moveable fencing. VSWCD Score=90 (this project was one of the four NMDA HSG proposals—it was not funded by NMDA)	\$3,332
Stephanie Russo Baca: 1.39 acres converting sorghum field to laser-leveled no-till drilled pasture for rotational grazing irrigated by concrete-lined ditch, install 2 pollinators garden, water catchment w/ drip irrigation system, 2 bat houses, 4 bird houses, and mulch. VSWCD Score = 86	\$1,970
R&P Sanchez: 3.36 acres of land to be cleared, ripped, disced, laser land leveled, with new irrigation works, 2 years of cover crops and 3 Bat Houses: resulting in <u>benefits</u> to water conservation (slight) by est. native plants & small runoff berms; soil quality per less erosion, est. native plants & seeded areas, wildlife habitat for bats is much improved by installing three bat houses and the cover crops. VSWCD Score=60. ON HOLD (as of 19DEC20 still in need of MRGCD permit & new headgate)	(\$ 8,567) On Hold

1st Baptist Church: 5-acres bare weedy ground to be replaced with ability to deliver water to allow est. of cover crop, trees, shrubs, community gardens, pollinators, efficient irrigation, protection of pre-1907 water right. Project scaled back to meet critical 1 st step—delivery of water on site: resulting in <u>benefits</u> to water conservation, soil quality/erosion, open space, wildlife habitat, community involvement, demonstration area. VSWCD Score = 40	\$ 6,321
Arlene Montgomery: 900 square feet of a ~1 acre site, rainwater harvesting and drip irrigation catchment system using solar for pump to irrigate a medicinal pollinator garden, using recycled tires and cedar boards for the raised beds. VSWCD Score: 37	\$ 1,401
Kevin McCormack: 1.2 acres, clearing fire danger area consisting of elm trees and replanting with native pollinators shrubs and trees creating a wildlife area. VSWCD Score: 37	\$ 851
Ray Feldbusch: 4.9-acres of land for installation of a Drip Irrigation System, Smart-pot planting technique to support chile and other plants. <u>Benefits:</u> Water conservation is realized by establishing the Drip Irrigation System. Soil quality is slightly improved by preventing erosion, while the ag sector is aided by producing and selling traditional Chile crops. VSWCD Score =36	\$ 5,734
River's Edge Tiny Homes: 3 acres clearing 4 large invasive elm trees, planting 6 native trees with habitat benefits and a pollinator garden area, reusing railroad tires and mulch for pollinator beds. Potential for future habitat enhancement collaborations. VSWCD Score =35	\$ 1,996
Steve and Eileen Torrez: 6.7 acres older pasture to be ripped, disked and re-leveled and water distribution improvements through installation of PVS piping with all appurtenances. <i>Partially funded for irrigation improvements.</i> VSWCD Score=31	\$ 8,375
Marge Lewis: 4.5 acre irrigated pasture-land slated to be traditionally rip/disced and re-leveled in preparation for establishment of refreshed crop of pasture grasses, with expected benefits being improved efficient in pasture irrigation, and soil quality through less erosion. Not recommended for funding; exceeds available funds. VSWCD Score = 26	(\$2,152)
Total for Standard Conservation Project Applications Recommended for FY21 funding (8):	\$ 29,980

NMDA Healthy Soil Grant 2021 Awardees:

A. Vogel / Rocket Punch Farm: Compost for ½ acre of 1-acre farm on cleared land returning to production with mix of native and market-based plantings using no-till practices by heavy mulching. Soil health champion, the agricultural and local Growers Markets sectors are enhanced with the production of naturally grown (organic) vegetable crops and available for educational opportunities.	\$ 3,215
Blue Fly Farms: 1 acre organic-certified lavender farm harvested for value-added products locally sold. ¾ of the site tilled and disked to remove invasive weeds, re-planted with lavender, inter-cropped with native grass permanent cover, rotationally grazed by alpaca sheep.	\$ 5,145
Eli Sanchez: 0.6 acre land reclamation site, located in central Belen, designed to develop soils to support native pollinators, vegetables, trees and eventually mushrooms. First time young farmer working to achieve sustainable farm with community-focus, drawing upon being a Soil Health Champ.	\$ 5,375

NMDA HSP 2021 Awardees Subtotal: \$ 13,735

IX Financial Assistant Applicant Highlights from the Year:

RONNIE MOYA'S VSWCD SUCCESS STORY: Continuation of his Farming Adventure

The Financial Assistance Program of the Valencia Soil and Water Conservation District has realized many successes and assisted many small acreage producers in Valencia County, from 2017 to the present. Plans have been finalized to continue these successes thru 2022!

One of these beneficiaries is Mr. Ronald (Ronnie) Moya, who farms organically produced vegetables in the Adelino area. He started out simply with the technical and financial assistance of the VSWCD Program. The technical assistance came in the form of a detailed Site Conservation Plan developed with Ronnie and the VSWCD staff, which Ronnie then worked off of to refine his farming approach.

In 2018, after getting an approved *Standard Conservation Project* application from VSWCD's Financial Assistance Program, Ronnie began laying down plastic mulch and installed an extensive Drip Irrigation System, drawing water from a shallow irrigation well powered by a small Solar Array, while injecting an organic liquid fertilizer to the plants using his drip system. Last year, he took advantage of one of the Johnson Su Bio-Reactor kits offered by the District to produce a highly beneficial Mycorrhizal Fungi (aka "Plant Tea") that he spreads onto each of the vegetable rows. This assists the soil to hold in more water and natural organic nutrients for the plant roots to absorb. This beneficial Soil Health conservation practice has greatly increased soil organic matter content and carbon, as well as increased the size and weight of his bell peppers, melons, and tomatoes. This farming technique is profitable now more than ever. He also uses a pelletized compost called 'Crumble' (pelletized chicken manure and other natural materials) on his non-vegetable fields.



Ronnie brings his organic produce to market through various Farmers / Growers Markets, and to La Montanita Coop and other wholesale outlets. Currently he has tomatoes, poblano chiles, jalapenos, garlic, bell peppers, melons, pinto beans. Oats in his rotational field will be harvested and then planted similar to a German 'R' Millet to be disced under as a green manure crop. After last year's harvest, where Ronnie produced bell peppers weighing an astonishing one-pound, he expects to start harvesting bell peppers the first week of August this year and tomatoes starting the last week. This year, his soil test results showed an amazing increase from 1% organic content (in 2018) to 7% organic content! While Ronnie's farming adventures continue, he is excited to share his successes with the community to encourage others who are looking to improve their land, to take that leap.

The VSWCD's conservation assistance programs are proving their worth by showing the hardware side of the need and desire for change, as well as the innovative and creative side of the equation.



Ronnie's Oats Cover Crop



Garlic-Ready to Pick!



Tomato Breath Cloth Plant Cover



Vertical Pinto Beans



Ronnie's Beneficial Mycorrhizal Fungi (key ingredient in the magic "Plant Tea")

X) East Valencia Urban Gardens Program – 6th Year.

El Cerro Mission Garden Expansion

- Expanded the garden to approximately 3 times its previous size, funded by NACD and Permaculture grants.
- Designed expansion to include permaculture principles with small fruit orchard, native wind break, desert food forest, Kids Area, additional private garden beds, etc.
- Coordinate expansion – Buy supplies and coordinate labor to complete efforts
- Completed fence construction built by Valencia County Public works.
- Completed 10 raised garden beds - interns
- Completing water delivery to new area - interns
- Completed native tree wind block, fruit orchard and starting food forest - interns that worked through the winter.
- Planted 50+ perennial trees/shrubs/cacti, for habitat or wind or are edible

Meadow Lake Garden Expansion

- Created a food forest with deep swales/OM sponges to catch and absorb water run off.
- Planted 30+ native and edible trees/shrubs/cacti around the outside of the garden for habitat, food and wind protection.

Internship Program

- Coordinate, mentor 15 youth in 2020
- Coordinate and train Garden Managers (GM) to lead 13 youth 2021
- Organized 1 market day to sell food

Donation Program

- Coordinated program to grow 2,500+ lbs of produce that was primarily donated to 30+ families in East Valencia County
- Created a donation program with 4 separate East Valencia partners to distribute to

Permaculture Video

- In lieu of an in-person workshop due to Covid restrictions, created a 4-part series (~2 hrs) on the Basics of Permaculture, taught by Michael Reed, well-known permaculture and local specialist. Available on VSWCD YouTube channel, which has so far reach 258 views since publishing in February, 2021.

Volunteer in the Garden – *we did not have volunteers in 2020 due to Covid restriction*

- We have approximately 30 volunteer hours so far for 2021
- GMs have 1 day a week designated at the garden for volunteers, this is an area we'd like to improve upon.

Classes/workshops/events

- *All of these regular programs were canceled due to Covid.*
- Normal year – 6-week Seed to Supper series in Spring, Spring kick-off event in gardens, 2-3 hands-on workshops at the gardens, Harvest festival/community harvest dinner.

Covid programs

- Distribution of 300+ packets of veggies seeds through Little Libraries

- Creation of curriculum to take home and start a small home garden or container garden and distributed to schools throughout the State.

District Supervision

- Two part-time Garden Keepers and up to 15 youth interns (supervision transferred to Garden Keepers in April 2021)

Funding to Date from Outside Grants and Partnership Commitments Towards EVUGP Program
(Excludes Donations):

Item	Implementation Year	Summary of Projects	Grant Amount
Conservation Fund	2017 – 2018	10 Youth Intern Stipends, 2 Garden Keeper positions, supplies	\$17,500
Permaculture Grant	2019	2 Garden Keeper positions, 5 Intern stipends, supplies for fruit trees, hoop house and hoop house supplies	\$18,059
Youth Development Inc.	2019	10 Youth Internship stipends	\$3,600
NMDA Healthy Soils	2020	Bioreactor study and soil champion training, primary for soil test, reimbursement to participants for time	\$12,430
NACD Grant	2020	EVUGP Coordinator Salary, 2 Garden Keeper positions, materials for garden expansion fencing, plants and supplies and a EVUGP computer	\$50,000
Youth Development Inc.	2020	12 Youth Internship stipends	\$6,240
Youth Development Inc.	2020	2 Youth Leader stipends	\$1,920
NMCYFD Next Generation Grant	2021	(pending) \$33,000 grant to YDI for FY22 Garden funding.	---
USDA-NIFA GRANT13357518	2022-2025	(pending) Nat'l Institute of Food and Agriculture proposal (4 years \$344k total with \$163k match)	---
Total Funds			\$109,749

XI) District Special Projects, Programs & Partnerships

- **Dan Goodman Awardees:** The 35th Annual Dan Goodman Award for Soil & Water and Environmental Improvement was available in FY21 for local youth in grades 9-12. We were able to recognize three youth within our communities who showed land stewardship recognition within their work with the community. Our District was able to provide not only recognition of their accomplishments, but monetary funding for a total of \$1000 to be distributed among the three individuals: Jace and Tyler Martinez and Tekota Lumpkin, all who reside in Valencia County. This yearly award is something we are proud of and something we hope to continue to offer our youth to only recognize their efforts but gain awareness of their leadership in conservation efforts into the future.
- **BEMP MOA 2020, and 2021-2022 Proposed Work:** The District maintained their working Memorandum of Agreement with the Bosque Ecosystem Monitoring Program (BEMP) for activities and deliverables. For the Board for planning with adaptive management of riparian areas in the District (the Bosque) and environmental education opportunities for District youth. The year included a grant of \$15,000 to BEMP.

- **Soil Health Champions:** There continues to be a concerted effort in New Mexico especially thru the Healthy Soils Working Group to identify soil health champions and encourage them to participate in the NACD program to help develop a network of champions who can share their experiences in soil health management across New Mexico. Over the past year the local cadre of Valencia County based Soil Health Champion has grown to 19, one of the highest concentrations of champs on the state. Andrew helped organize a June 19, 2021 Valencia Soil Health Champs dinner, after the City of Los Ranchos Healthy Soils Workshop. As a result, local farmers and Soil Champs Amelia Vogel and Kirsten Couevas agreed to be co-coordinators of the efforts to develop a Seed Group in the Valenica area to focus on regenerative farming and other soil-health focused activities. The goal is to have monthly events, with a meal being provided to all participants.
- **Isleta Reach Stewardship Alliance (IRSA)** – Throughout FY21, Paul Tashjian¹ with Audubon New Mexico has been heading up a stakeholder-driven coordination effort within the Isleta Reach area of the Middle Rio Grande, funded through the US Bureau of Reclamation WaterSMART program. This effort involves forming a restoration group for the Isleta Reach of the Rio Grande from the South Boundary of Isleta Pueblo to San Acacia NM. During the last year, the group has been meeting about every 3 months with Tashjian facilitating development of a conceptual restoration plan for the reach, including both riverine and farmland habitat. The group developed and distributed a survey to residents in the reach about the Rio Grande. As of July 1, 2021, Tashjian and his partner, Todd Caplan (Geosystems Analysis, Inc) are making final edits to a strong product to ISC based on a uniquely solid appreciation of the hydrologic and other physical considerations associated with often biologically based restoration objectives seen (but infrequently achieved) on the MRG. VSWCD has a dozen reasons and entry points to be supportive of the work IRSAs is leading.
- **The Greater Rio Grande Watershed Alliance (GRGWA)** – The Regional Conservation Priorities Program funding and Water Trust Board funding available to the District as a member District of the group was available during the year for planning riparian restoration projects in the District. However, there were no active projects during the year. The D. Director attend quarterly meetings and is working with Johnny Chavez to coordinate with NM Forestry, MRGCD and Valencia Cnty contacts to prioritize & plan for projects GRGWA could support within the District.
- **MRGCD** – The Middle Rio Grande Conservancy District and the SWCD community continue to be closely linked. In FY21, MRGCD was immensely helpful to the District through making repeated repairs to the La Costancia Ditch. They are looking to work with soil and water conservation districts, and have several ongoing initiatives with Valenca, Ciudad and Coronado SWCDs. and Andrew worked with Casey Ish on a grant with NRCS.
- **Youth Development Inc.** has continued to be a vital partner of the District, working on common priorities based on aligned organizational missons. YDI has played a leadership role in providing administrative and fiscal support for youth interns and garden keepers for the East Valencia community gardens of the Meadow Lake and El Cerro Mission communities of the District. The Memorandum of Agreement between YDI Inc. and the District was updated in FY20, and a new grant from NM CYFD Next Gen would provide funds for the two community gardens in FY22.
- **Friends of Whitfield 501©3** – a support not for profit for the Whitfield Conservation Area Complex comprised primarily of District community members. COVID-19 restrictions slowed Friends activities significantly for the year. Their support was primarily in funding of the educational programming through Whitfield (See Education Manager's Report). During the month of April 2021, the Friends hosted a wonderfully successful Silent Auction, generating over \$4,000 in proceeds from items donated by dozen local businesses

*****END OF 2020-2021 ANNUAL REPORT—Main Body*****

APPENDICES: [APPENDIX A – FY21 BEMP Final Report to VSWCD – BEMP Study](#)

[APPENDIX B --VSWCD FY21 Action Plan](#)

[APPENDIX C –VSWCD Soil & Water Conservation Column + Education](#)

APPENDIX A –FY21 BEMP Final Report to VSWCD – BEMP Study

Valencia Soil and Water Conservation District Final Report prepared by the Bosque Ecosystem Monitoring Program

July 29, 2021

(2019 VSWCD note included for informational purposes) The BEMP sites in Valencia County were established at Valencia SWCD's request in 2003 and 2004, originally as a cooperator for the bosque restoration projects of the District funded through the U.S. Forest Service Collaborative Forest Restoration Program. The additional sites to date are the Bosque Farms, Los Lunas, Belen, and Crawford Sites. The MOA is in place for furthering the District mission and provides 10 monthly monitoring visits per year at 8 BEMP sites through BEMP's active partnership with public and charter school students for collection of the data. Partner schools to date have included Jaramillo Elementary School, Bosque Farms Elementary, Los Lunas High School, Infinity High School of Belen, School of Dreams Academy of Los Lunas, and Rio Grande Elementary of Belen.

BEMP has 32 monitoring sites along 300 miles of the Rio Grande, including 8 sites in Valencia County. BEMP monitors abiotic factors including depth to groundwater; water level in the ditches; precipitation; temperature; and water quality of the river, ditches, and groundwater. BEMP monitors biotic factors including litter fall of native and exotic trees; vegetation cover (including species richness, abundance, and diversity); cottonwood monitoring (size and sex); woody debris/fuel load; surface - active arthropods; and tamarisk leaf beetle presence, abundance, and impact. BEMP tracks the impacts of restoration projects (mechanical clearing, wood chipping, mastication, and bank-lowering), flooding, and fire on the biotic and abiotic variables mentioned above. The data collected, compiled into reports, and presented through various meetings including directly to the Board of Supervisors annually provide reliable data for District management decisions in the restoration of the Middle Rio Grande corridor as well as opportunity for science education of Valencia County youth. The Report to VSWCD was presented to the Board at their April 2019 meeting and is posted on the BEMP website at www.bemp.org.

I.

1.1 PROJECT DELIVERABLES

1.1.1 Field work, data analyses, and public speaking/presentations by Valencia County students.

From July 1, 2020 through June 30, 2021, BEMP staff continued to collect data and monitor sites. Data collections included the monthly monitoring of depth to groundwater, water level in the nearby ditch or drain, precipitation, and litterfall (leaves, reproductive parts, and wood) of the dominant tree species. Surface-active arthropods were monitored at specified sites three times along with vegetation cover in late summer. Tamarisk leaf beetle monitoring was conducted at specific sites in the summer months. Due to COVID-19 restrictions, student involvement was minimal. In late summer of 2020, BEMP reached out to teachers with a survey to gauge their interest and willingness to continue participating with BEMP on some level while following the remote learning mandate from the state. The majority of teachers stated a desire to continue to be involved with BEMP *following* the easing of COVID safety restrictions, but they did not want to commit to remote learning activities, especially as schools were starting and they were still figuring out how to operate under the remote learning model themselves. As safety restrictions eased at the end of the school year (in late

March/early April), field trips and classroom visits were not supported by the state, so most schools were not able to participate in BEMP field activities last year. In lieu of in-person lessons, BEMP provided education activity booklets to teachers for use in classrooms to maintain outdoor, hands-on science activities. These activities take advantage of available outdoor spaces, so students can participate through Open Space, parks, backyards, or even by making observations out windows. Although teachers received these booklets, we do not have numbers on use or participation. These booklets were sent to teachers from Belen High School, Del Rio Academy, Rio Grande Elementary, School of Dreams Academy, and The International School. Allison Martin, Education Manager at the Whitfield Wildlife Conservation Area, also helped distribute the education booklets. BEMP provided opportunities for schools to watch live or recorded field monitoring sessions. BEMP posted weekly, bilingual STEAM activities online and posted outdoor challenges. BEMP's social media had over 29,000 "reaches" between February and July, 2021. During those same six months, there were 2027 downloads of BEMP educational activities. BEMP requests, but does not require, teacher/classroom information for educational resource downloads. This allows us to track end users (e.g., school, grade, number of students), but many do not fill out the information, so most of the online support cannot be tracked. From those that do fill out the information, we know that we have schools not previously involved with BEMP (e.g., Valencia Elementary School) using BEMP educational activities for their classes.

Outreach Numbers for Valencia County 2020-21 School Year Participation in BEMP

<u>school/association</u>	<u>students</u>	<u>adults</u>	<u>activity</u>
The International School at Mesa del Sol	34	1	Online Monthly Monitoring and class activities
UNM students, Master Naturalist volunteers	0	38	Monthly Monitoring
Master Naturalists & volunteers	4	5	Monthly Monitoring
Whitfield Science Fiesta Nature Challenge (2 day)	333	38	
Total # participants	371	82	
<hr/>			
<u>social media activity</u>	<u>students</u>	<u>adults</u>	<u>views/reaches</u>
Rio Grande Phenology Trail Social Media Event	18	25	
100,000th BEMPer			44
Virtual Crawford Symposium			235
BEMP Signs of Mammals			30
BEMP Raindrop Journey			35
BEMP Backyard Monitoring			28
BEMP Seed Dispersal			39
BEMP Arthropod Pitfall Trapping			47
BEMP Educational Activity Downloads (Jan-July 2021)			2027
BEMP Social Media (Jan-July 2021)			29,078
Total # participants	18	25	29536
			2027

1.1.2 Valencia County student participation at events.

This year, there were students from The International School at Mesa del Sol (TIS) who presented at the Spanish Luquillo-Sevilleta Virtual Symposium. TIS has students from Bernalillo and Valencia Counties. During the Luquillo-Sevilleta Virtual Symposium, students from New Mexico and Puerto Rico present to each other the research they

have done in riparian systems. The Symposium is conducted in Spanish.

Each semester, there are students in the UNM course who participated in BEMP as K-12 students. Last semester, we had a UNM intern who had been in BEMP as a 2nd grader at Rio Grande Elementary with Molly Madden. Molly, although retired from the formal education system, has continued to volunteer with BEMP and is now on the BEMP Board of Directors. We were able to reconnect her with her former student in conducting BEMP site monitoring. The UNM student, Ben, stated that it was “serendipitous to work with her during [his] last semester of undergrad.” Ben was recently hired as a BEMP ecologist and he will be helping us reconnect with Rio Grande Elementary students and sharing his BEMP experiences.

1.1.3 Delivery of the BEMP Annual Report

The Bosque Ecosystem Monitoring Program (BEMP) mailed out the BEMP 2020 Annual Report on April 30, 2021. This provides a comprehensive overview of the work done during the period up through December 31, 2020. The key sections of that report for VSWCD include:

Pgs. 4 & 7-8 – Delays due to COVID-19 restrictions; Field and data analysis reform due to COVID-19

Pg. 5 – Importance of long-term data and community outreach and citizen science

Pgs. 12-51 – Data (groundwater, precipitation, litterfall, vegetation cover, arthropods, temperature, tamarisk leaf beetle) and analyses from BEMP sites

Pg. 55 – Student research projects for the Virtual Symposiums

Pgs. 62-67 – Rio Grande wetlands as potential bioremediators

1.1.4 BEMP data and educational resources are provided on an open access datarepository (GitHub): <https://github.com/BEMPscience>. BEMP data are available on the bemp_data link and educational activities (in English and Spanish) are available on the bemp_education link. BEMP data and education activities are also available on BEMP’s website, www.bemp.org. As mentioned earlier, there were over 2000 downloads of BEMP educational resources between January and June 2021, and hundreds of downloads of BEMP data this last year.

II. 2

2.1 ADDITIONAL GROUNDWATER ANALYSES

2.1.1 Groundwater trends at Valencia BEMP sites as compared to river flow; these show different perspectives from the graphs in the BEMP Annual Report.

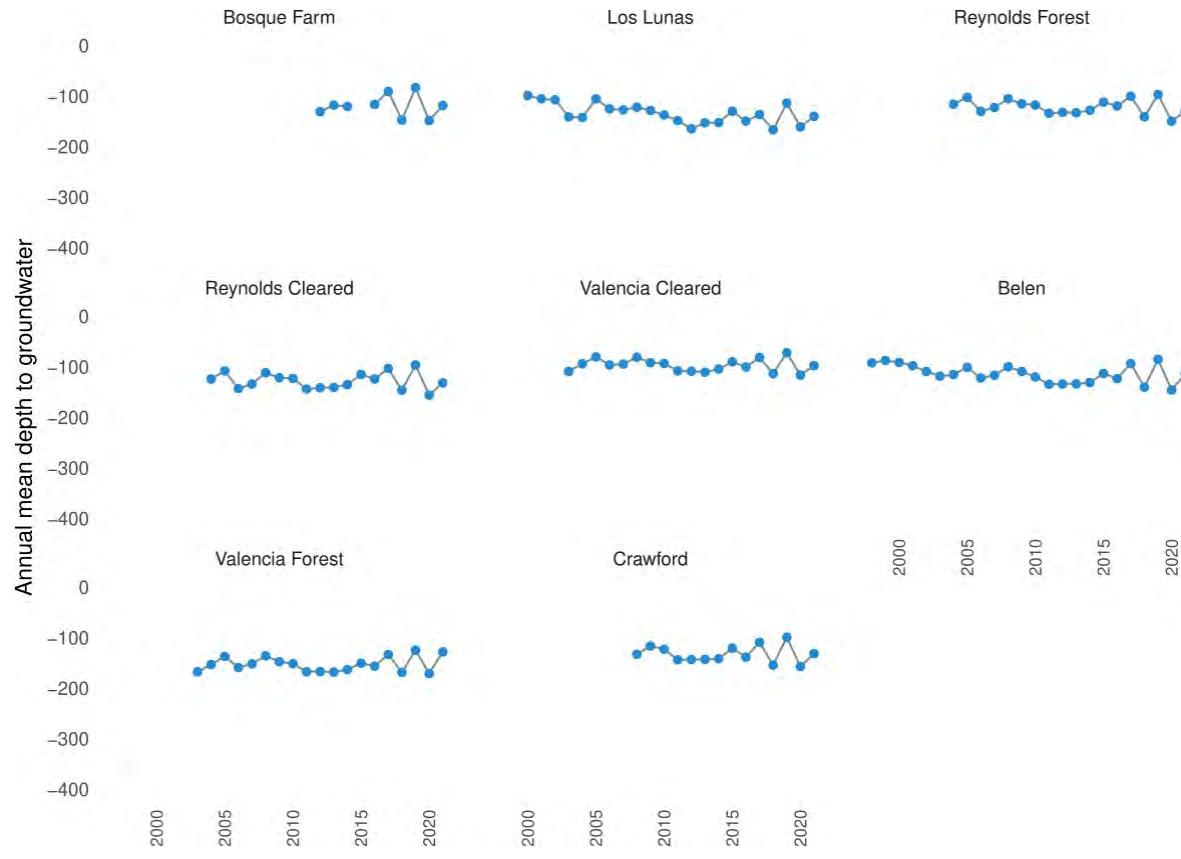


Figure 1. Mean annual depth to groundwater at Valencia County BEMP sites.

The annual mean depth to groundwater is relatively stable or slightly declining at Valencia County sites (Figure 1). The impacts of the high river flow in 2017 and 2019, interspersed with the low river flow in 2018, can be seen in the high variation at the end of each graph (Figure 1). Much of the stability in these graphs is due to the y-axis scale, which is set to 400 cm to accommodate the deeper groundwater levels of Albuquerque and Lemitar sites.

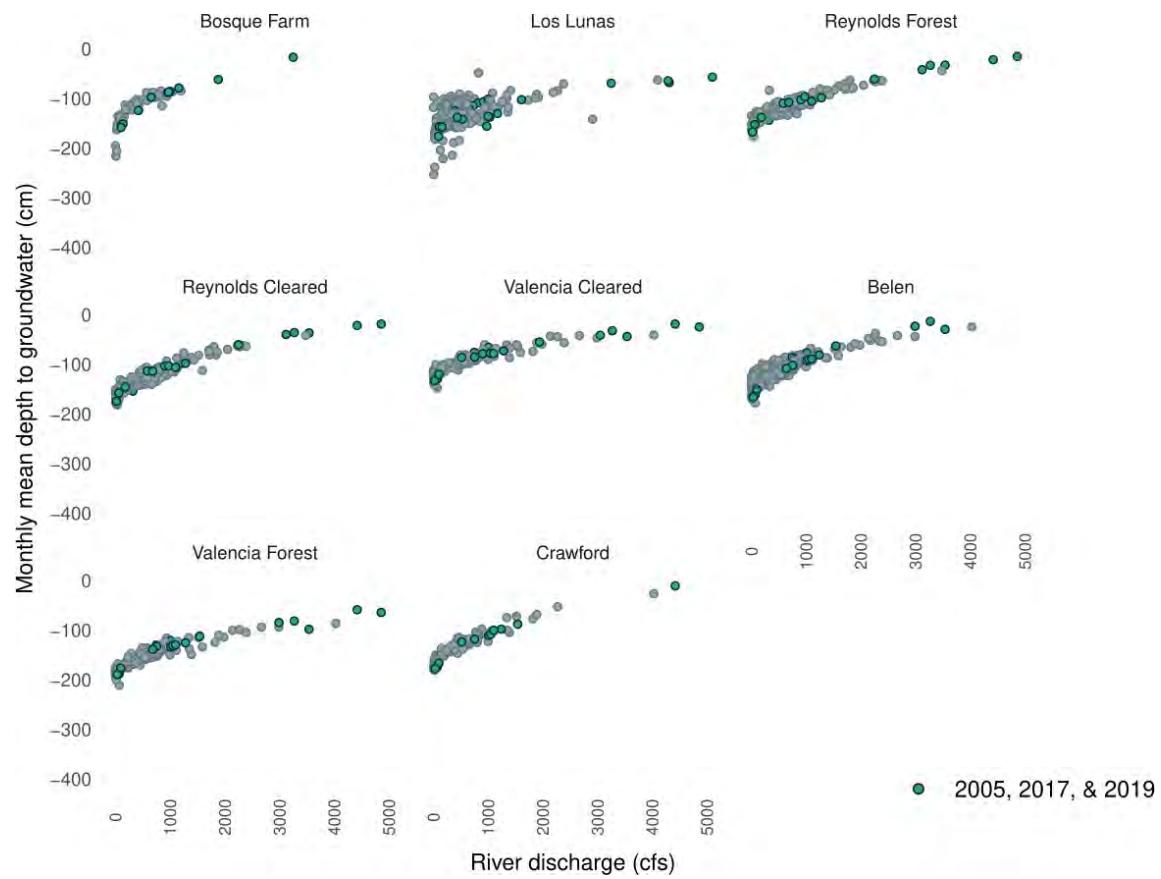


Figure 2. Monthly depth to groundwater (cm; mean of the 5 wells at each site) vs. riverflow (cfs) across all years of BEMP data. Teal circles are the high river flow years (approaching or above 5000 cfs at the Bosque Farms USGS river gage) of 2005, 2017, and 2019.

Depth to groundwater remains tightly correlated to changes in river flow (Figure 2). Higher variability in groundwater depth occurs at lower river flows, where more data exist across more years.

III. 3

3.1 SUMMARY

3.1.1 BEMP staff have continued to collect data that are requested and used by various agencies, while including volunteers and students as allowed by state-mandated restrictions. Valencia County BEMP sites typically have high native vegetation cover and restoration project success. Much of this is due to the high groundwater levels at these sites. Fuel load will be an important parameter to monitor and manage as trees die due to age, drought stress, herbivory (tamarisk leaf beetle damage in conjunction with other stressors), and clearing events. Groundwater levels and variability will be important factors to assess in future restoration projects.

3.1.2 BEMP education and outreach have been greatly impacted by COVID-19 restrictions, reducing in-person outreach and our ability to get students outside but increasing our online presence and resource accessibility. BEMP continues to support teachers and outdoor science education. During the pandemic, BEMP has increased our efforts to be equitable and inclusive. BEMP continues to improve existing curriculum and increase science activities and data collection that have meaning beyond the classroom.

APPENDIX B --VSWCD FY21 Action Plan (as required by NMDA for SWCD points)

ACTION PLAN 2021
OPERATIONS, SPECIAL PROJECTS, & PROGRAMS

District Program and Action Items:		Authorit y /Board action	Who:	Expec ted Compl etion Date:	Completed (yes/no) - Notes
Operations					
1	Meet all budget, financial reporting requirements, deadlines. (quarterly and year end reporting, midyear budget review, annual audit)	NM SWCC & NM DFA State Auditor's Office	D. Mgr. then Business Manager, staff, Board review and approval	7/1, 7/15, 7/31 st , 9/1, 10/30, 1/31/21 4/30/21 , 7/1/21, and grant proposal deadline s	Yes AUP2020 submitted late - approved
2	Meet all NM SWCC reporting requirements, deadlines	NM SWCC/SWC D Act	D. Mgr., District Director, Business Manager	Same as above, also SWCC updates when NM SWCC meets (quarterly)	Yes.
3	Outreach for Programs, projects: Website, FB, News-Bulletin	Board/Annual Budget	District Staff	Done	Two Outreach Meetings, monthly article in paper. Over 500 attended 2021 Earth Day Science Fiesta.

4	Implement staff changes	Board reorganization Action ~May 2020 to reorganize following departure of Whitfield Program Manager and District Manager	District Manager, Personnel Committee, District Director	August 31, 2020	E. Valencia Program Coordinator position ended June – employee transitioned to Conservation Program Manager for conservation programming across the District District Director hired and started August 31 st , 2020, Business Manager hired Dec 1 st 2020
5	Develop employee plans aligned with action plan for the year and evaluations to meet District goals	District Manager initiated	District Mgr., District Director, Personnel Committee	September 1 st 2020	Ongoing, done for FY22 by 9-1-21.
6	Conversion of Employee Handbook to VSWCD Policy Handbook to include employee, Supervisor, accounting and operational policies, procedures in one handbook for the District; initial draft to be established 1 st quarter of year – living document to be added to/revised/reviewed as needed.	Board: Personnel Committee recommended	District Manager and then Business Manager if needed to finish	Ongoing	Expected full-scale revisions to be done by 12/31/21.
7	Committee level operations: Reorganization of Committees	Board	District Director/Board		Yes (Duana Draskiewicz filled interim basis Seat 2 in Feb. 2021). In FY21 several committees changed some

					members (Whitfield, Land Use, and FA)
8	Pursue capital outlay for Whitfield Building Phase 2 construction	Board	District Director, Board approval		Done (not successful). Rep. Gail Armstrong tried but not enough funds.
9	<p>Training Focus to pursue if possible:</p> <ul style="list-style-type: none"> a) Grants management improvement/training for management staff. b) GIS training – open source and ArcGIS and applications for use of geo-data and geospatial communications with public online / other app development – community engagement for future planning. c) First Aid training – for all staff d) Chief Procurement Officer certification for Business Manager e) Employee training for data management: entering data into database, use of data for planning, community engagement through training program, develop at least one community interaction application for data already thru database; possibly start with areas of major flood events west side upland areas of District, soil testing data f) Explore use of drone mapping and 		<p>District Manager, staff – Personnel Committee oversight as appropriate. Business Manager received her CPO in April 2021.</p> <p>Educator Martin joined EENM Fellows and was later asked to join the EENM Executive Board.</p> <p>Lead Field Tech. continued pursuit of BS in Wildlife Conservation, and is taking several GIS and Soil classes in 2021.</p>	Done	<p>IT: VSWCD now doing its own IT, no longer using consultants. Migration to MS Teams during year with more remote staff arrangements</p>

	remote sensing applications for Whitfield Complex and broader applications (erosion mitigation projects).				
10	Isleta Pueblo partial de-annexation certification by Secretary of State Office -completion	NMSWCC , SWCD Act procedure, SOS procedure	District Director, Business Manager	District Manager – ongoing – as soon as possible .	Not received
11	Laguna Pueblo: <ul style="list-style-type: none"> • Rangeland focus – Richard Bonine leads initiatives for Laguna Pueblo needs • Develop and strengthen relationship for Local Work Group engagement with Laguna Pueblo 	USDA-NRCS	Supervisor Bonine and staff pursued RPCC grants for addressing Rio Puerco erosion. Bonine continued efforts to work with Watershed Group as well. LWG promoted these concerns	Ongoing	Progress expected in Fall of 2021; Local Work Group Meeting to be forged to identify ways to promote Laguna concerns.
12	Local Work Group development: <p>Develop new District led framework to strengthen local work group participation – more meetings, review of conservation needs, District outreach effort – tied to land use plan, mapping capacity; identifying priorities for LWG- protocol and procedures for VSWCD program;</p>	Board assigned Land Use Plan Committee to develop more meaningful meeting for USDA Local Work Group annual meeting (October 2020).	District Director, Board; VSWCD coordinates with NRCS Los Lunas Field Office		Valencia SWCD Co-hosted the FY21 LWG, with Ciudad and Coronado SWCD's. FY 22 given to LUP Comm. To promote more expansive agenda / LWG agenda.

	<p>determine if VSWCD only or regional District approach and meet with other Districts, Pueblos as needed.</p>				
13	<p>Whitfield Building Phase 2 Construction: Capital Outlay appropriation and pursuit of NM Finance Authority Loan which requires selection of building contractor first.</p>	<p>Board Resolution 5-2020, SWCD Act compliance , NMFA Public Project Revolving Fund</p>	<p>District Director, Business Manager, Architect for construction drawings, ITB participation, Whitfield Committee, Board action</p>	<p>July 2021: Final drawings. Bid closes August 29.</p>	<p>Ongoing effort; might need to pause b/c high material costs.</p>
14	<p>Land Use Plan – 1st Draft to Board – following initial adoption will proceed with updates as needed; 2nd phase mapping / database additions assessed / complete</p>		<p>Land Use Plan Committee: Chair R. Bonine, MM, TH, A Hautzinger, Sue Small, L. Diaz, A. Martin, Board action /approval</p>	<p>Meet 1 or 2x per month for Dec.2021 Board mtg, recommendations for additions , 2020 action planning review / changes</p>	<p>Still work in progress. New LUP Committee formed (Chair Bonine, Goodman, Draskiewicz and Hautzinger).</p>

15	Pursue grants that support capacity building for District programs and projects	Board action to meet programming needs	DM, District Director, Staff, Board	Ongoing	Applied for multiple grants. Awarded an Outdoor Equity Grant (EE). We got a thumbs down from USDA and wait for four year USDA grant we applied for. Partnered with MRGCD on a NRCS RCPP grant.
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District Program and Action Items:		Authority / Board Action	Who:	Expected Completion Date:	Completed (yes/no) - Notes
Education Outreach					
1	School Programs: a) Programs b) Teacher support		AM, volunteers, LD, JC	School programs: Sept– Dec and March –May, Nat. Hist. Collab at Whitfield Jan- Feb, Other programs all year, Teacher Summit July 2019, plan 2020 summit	A) 2021 Covid Outreach Plan: Videos built for schools with age-specific content. B) Nature Resource Grant supplied EE resources to LL and Belen schools (field notebooks, binos)
2	Community Events: Friends of Whitfield online auction fundraiser		Education Manager, Ed Comm., Friends of Whitfield	April-May 2021	Most successful ever attendance, over 500 visitors to Earth Day Science Fiesta
2	Special Project: Whitfield planting funded thru new NM Outdoor Education Grant		Education Manager, Committee	All year	Ed. Mgr. pursued grant, obtained award; pandemic set planting late in year

					will be done by 12/31/21
	Publish Educational Outreach: Quarterly Newsletter Website Education FB Page		Ed Manager with support from staff for content		Done all year long
3	Whitfield Master Naturalist program:		Education Manager		Paused for the pandemic
4	Community Science- Whitfield GW monitoring program development		District Director, staff		Continued throughout the year
5	Whitfield Outdoor Classroom programming; virtual classroom environmental education		Ed. Mgr., Ed Committee	Entire year	Whitfield visits on hold most of 2021 due to pandemic. Many many remote events held.
6	Dan Goodman Award: Outreach Review of applicants		Education Manager, Board	TBD by EM – typ. Outreach Feb, March, Apps due April 2020, Comm. review, Board action May or June 2021	Selection postponed; done July 17, 2021
7	East Valencia Urban Gardens - Youth Intern Program, school programs: <ul style="list-style-type: none"> • Ongoing seasonal program for community gardens • School on site programming development • Permaculture videos 		Conservation Program Manager, District staff, EVUGP Committee, Board action as needed	Two grants finished in FY21 (NACD EVUGP grant and Permaculture)	New grant awarded to YDI for EVUGP's next year (pending...being processed by CYFD).

8	NM Envirothon – teams from District for State competition and/or Board Supervisors/Staff may participate for event, donate to the NME organization for program		Education Manager lead	October start outreach,	With pandemic ongoing, unable to participate in this event in FY21.
9	<p>Soil Health projects and programming</p> <ul style="list-style-type: none"> a) Review and revise soil testing program scope and effectiveness for improving soil health and promoting land steward best practices b) Sponsor NMDA Healthy Soils applications for FY21 c) NM Healthy Soils Grant Compost Study completion in FY21; produced handbook following trials of different applications in District 		<p>District Director, Conservation Program Manager, staff</p>	<p>Pushing Soil Health Champions (19 in VSWCD)</p>	<p>Large push to show leadership in Healthy Spoils, building communities (e.g., supported 2 workshops).</p> <p>VSWCD worked to get 3 NMDA-HSG awardees. Finished Johnson-Su Bioreactor grant with informational flyer and ongoing VSWCD service offer to supply citizens with composting kits.</p>

District Program and Action Items:	Authority / Board Action	Who:	Expected Completion Date:	Completed (yes/no) - Notes
	Financial Assistance Program			
1				

	Implement reviewed, revised Financial Assistance Program for FY21	Financial Assistance Committee FY20 development	District Manager to District Director, FA committee, TSP provider Cliff Sanchez	Deadline for special projects December 31st, 2nd application for standalone practices ongoing	Yes. Nine Standard Conservation Projects awarded; five Stand alone and over two dozen soil tests sent to lab.
4	Technical Support				

District Program and Action Items:		Authority /Board Action:	Who:	Expected Completion Date:	Completed (yes/no) - Notes
Special Projects					
Whitfield Complex Programs					
1	a) Whitfield Complex –plantings for permanent pasture transition for wildlife crop area Add pollinator plantings, other landscape demo sites,			Fall, Spring	Yes: Cover plants drill-seeded into five acre food plot, as demonstration area.
2	Open space conservation areas maintenance, habitat restoration, enhancements for wildlife, public access: a) Whitfield Main Unit Complete Maintenance Building capital outlay/District cost share project b) Special use areas c) Develop demo sites - committee guidance on what they would like to see. d) RACA Plan/Vision – 2021 Plan – meet with Committee to address i. Re-purpose RACA 3.1 miles interior fence through donations to others, or within conservation areas; possibly use some at Stacy Unit ii. Rio Abajo Horse Farm conversion to open space iii. Layout planning – beyond next steps – requires Committee input Whitfield Stacy Unit Fence Replacement				Ongoing fire-reduction efforts

East Valencia Urban Gardens Program				
3	<p>East Valencia Urban Gardens Program:</p> <ul style="list-style-type: none"> a) Seasonal community gardens coordination with youth interns program b) Review original five year plan and current outcomes of program – evaluation and possible changes at EVUPG Committee level – meet at least quarterly. c) Pursue partners and collaboration for continuation of gardens starting FY22 Develop multi-partner support for community led gardens; seek funding for continued programming 	Conservation Manager, EVUGP Committee	Ongoing, active program.	Yes. Entering new phase: YDI partner leading financing and admin. Work, while VSWCD supervising garden managers and providing tech. support. Working with community based organization for next steps.
Water Quality Program				
4	SWCC Water Quality Study – FY20 Project extension - complete report; review for next phase of study. collaboration with BEMP	Board action FY19 for FY20 grant – extended into FY21	District Manager, District Director, Board	August for BEMP final report, September for presentation by BEMP to Board
Bosque Restoration Program				
5	Greater Rio Grande Watershed Alliance Projects; funding source for financial assistance program for tree thinning/fire fuel mitigation and wildfire prevention		District Director, Financial Assistance Committee	
END OF ACTION PLAN (FY21 Draft Report by VSWCD)				

APPENDIX -C: Valencia SWCD Outreach

"Soil & Water Conservation Guest Column" (running every fourth Thursday in the Valencia County News Bulletin, starting 1/28/2021)

"Who We Are at VSWCD" (ran January 28, 2021), by VSWCD District Director Andrew Hautzinger
Today's my first monthly column on the activities of the Valencia Soil and Water Conservation District (VSWCD/District) and related natural-resource concerns. I joined the VSWCD staff as director in August of 2020 and am glad to have this opportunity to reach out to the people the District serves.

Where we came from: There are 3,000 soil & water conservation districts (SWCDs) across the nation, and your District is one of the 47 SWCDs in New Mexico, all of which are considered independent government subdivisions of the State.

Like all of the nation's SWCDs, the Valencia District's origins harken back to the 1930s and the national trauma of the Dust Bowl years. In 1937, President Franklin Delano Roosevelt sent this message to the Nation's governors: *"The dust storms and floods of the last few years have underscored the importance of programs to control soil erosion. I need not emphasize to you the seriousness of the problem and the desirability of our taking effective action, as a Nation and in the several States, to conserve the soil as our basic asset. The Nation that destroys its soil destroys itself."*

Our District was established in 1947 to conserve and develop the natural resources of the state, provide for flood control, preserve wildlife, and to support agriculture and community education.

Who we are: Our District comprises over 1 million acres; we serve all of Valencia County, and a portion of Socorro and Bernalillo counties; and includes the Laguna and Isleta Pueblos. Our staff of five is guided by an elected, volunteer Board whose seven members serve staggered four-year terms of service. Our programs rely upon a ¼ mil levy passed in 2013 for over 90% of our funding. Our mil levy is the lowest among the SWCDs in NM. We support local farmers and ranchers to improve their own management of soil and water resources and we partner with local teachers and schools in support of the state's Next Generation Science Standards.

The District provides partial reimbursements to taxpayers working on a variety of conservation projects, including installing rain-harvesting systems, establishing pollinator gardens, and providing free soil tests to anyone in the District. We hold technical workshops on topics like no-till direct seeding, organic farming, irrigation efficiency, and other practices that promote healthy soils and water conservation. The District owns three properties, including the 97-acre Whitfield Wildlife Conservation Area, which has grown to be a cherished community asset, offering our citizens and local students a unique outside space where visitors of all ages can learn about environmental science and enjoy being immersed in the natural world. Arguably the county's premier wildlife viewing location, Whitfield's walking trails brings visitors -- and their spending-- into the county.

During the pandemic, it's been great to see so many cool things happening in the District. We typically would provide our students from the Los Lunas & Belen school districts with 5,000-6,000 student visits (pre-pandemic) to Whitfield each school year, with the Friends of Whitfield organization hosting a series of fund-raising events to pay for the school buses that bring students to the conservation area. During the pandemic, students have been unable to physically visit the area. In response, VSWCD has created virtual nature lessons on YouTube that allow students to do activities in their backyards and in natural spaces around where they live, while also incorporating at least one of the State's standards for each grade level. These videos have supported the home-learning needs of over 450 local students in 2020!

Another local effort led by the District is the East Valencia Urban Gardens Program, a collaboration between many organizations, including Valencia County and Youth Development Inc. (YDI). Each year, the Gardens provide opportunities for hundreds of community members to learn to grow affordable food in our arid climate and will begin to support school gardens in 2021. Centered around two rapidly expanding community gardens at El Cerro Mission and Meadow Lake Community Centers, we also mentor 15 youth farming interns each that donated over 2,500 lbs. of fresh produce to East Mesa families in 2020.

I am honored to have this column as a way to reach the many communities that make up our District. I'll close by offering a still-relevant 1934 quote from a giant in our nation's conservation legacy, Hugh Hammond Bennett, known as the Father of Soil Conservation: *From every conceivable angle—economic, social, cultural, public health, national defense—conservation of natural resources is an objective on which all should agree.*

"The Best Assets at VSWCD Are Our Partners" (ran 2-25-2021) by VSWCD D. Director A. Hautzinger
It is a timely truism that none of us can go it alone; we all need friends, family and partners to make the most out of the opportunities life puts before us. This is certainly the case for me, both personally and professionally. On the personal front, I sing the praises of my neighbors, who helped me shovel rare snow from my driveway this morning, or my local grocer who knows me by name and what cut of beef I like. Times beyond count I have been shown kindness and comradery from people known and unknown, constantly reaffirming my faith in the community and my place within it. Professionally, I have found this to be equally true. For the Valencia Soil and Water Conservation District (VSWCD), partnering is the most vital ingredient for project success. Our Mission reads: *Providing resource conservation for a quality environment demonstrated through active leadership, cooperation, and partnership.* By design, partnership is a key component of our mission, as the VSWCD is a small local government body, and lacks sufficient resources on its own to address the many community priorities related to natural-resource management. Time and time again we see projects empowered by partnership contributions successfully get over the finish line, be it through partner-provided funding or through a wise nugget of advice from a partner's lived experience. Long ago our district recognized that our ability to further community priorities is best achieved when we play the role of cooperator and bridge builder, actively looking to leverage resources (both financial and intellectual) from diverse quarters within our local, state and national communities. As I reflect on the many partners the district has had the honor of working with, the first on the list is an easy one: the public. Within our district, VSWCD has worked with dozens of citizens in recent years on a wide variety of projects, from farm field leveling, to establishing fresh vegetable and pollinator gardens, to designing and installing water catchment systems. We have seen brilliant ideas from local citizens who are trying new organic cropping techniques with insect-resistant plant varieties that use less water, and from others who are out of necessity trying to affordably grow fresh vegetables in their own back yards to feed their families. Individual members of the public have made all the difference for our organization. Taking one farmer's--or one conservationist's--project at a time, working it start to finish: who knows what can be achieved!

Beyond our most critical partnerships with individuals from our local community, I am also mindful of the many organizations we collaborate with for mission achievement. As I noted in last month's introductory column, our district's beginnings harken back to the Dust Bowl years. From those dust-filled days to the present, the USDAS's Natural Resource Conservation Service (NRCS) has been the soil and water conservation districts' (SWCDs) most important federal partner, supporting a wide range of private-land management activities that improve production and resilience of range and farm lands. The NRCS's Martin Meairs serves as Los Lunas District Office's District Conservationist, and is a critical partner who really helps align local citizen needs with matching federal funding opportunities. Closer to home, the NM Department of Agriculture (NMDA) is our key state agency partner, providing substantive technical and administrative support of the state's 47 SWCDs: Katie Mechobier is our NMDA liaison and we are so thankful for her vital coordination efforts. Similarly, we partner with Lynda Garvin, who represents the NMSU Valencia County Cooperative Extension Service, utilizing their incredibly diverse offerings in science education, land management and soil health practices.

On the topic of key partner groups, nearest and dearest has to be our district's closest partner organization, namely the Friends of Whitfield (friendsofwhitfield.org), a group of dedicated volunteers that have long supported the Whitfield Wildlife Conservation Area by promoting our habitat restoration, education and conservation endeavors. This group (truly our district's BFF) was established in 2009, and its members have volunteered hours beyond count, helping deliver services to the community including teaching during school tours, being ambassadors at Whitfield's Visitor Education Center and helping on environmental monitoring (bio-surveys, depth to water well measurements and the like).

In closing I celebrate the core human need to work together to do great things, one shovelful of dirt at a time.

"It is the long history of humankind (and animal kind, too) that those who learned to collaborate and improvise most effectively have prevailed." Charles Darwin.

"Springing Into the Great Outdoors" (ran March 25, 2021), by VSWCD Hautzinger and EE Mngr. Allison Martin

[The Scene: Andrew and District Educator Allison Martin, visiting on a windy March day alongside the Whitfield Pond]

Andrew: Hey Allison, is your family like mine, where everyone can't wait to get outside and start enjoying the spring weather?

Allison: Gosh Andrew, that's right we sure are. My boys, Joshua and Sam, and I can't wait to get outside! In fact, the timing is perfect, because Whitfield is hosting some really cool Earth Day events in the next month.

Andrew: Really? Tell me more.

Allison: Well, for starters the Whitfield Wildlife Conservation Area has reopened and is now open 8 am to 4:30 pm, Thursdays, Fridays and Saturdays. We took a great family walk last week; I was so proud of the boys finishing their Conservation Junior Ranger booklets!

Andrew: Geez, so fun! My grandkids are coming down this weekend to have a scavenger hunt, with the eldest Lilli hoping to find the rare Whitfield pine cone. What else can we look forward to now that spring has sprung?

Allison: I'm super excited because the WORLDWIDE City Nature Challenge has expanded to Valencia County! Come April 30th through May 3rd people from the world over will be helping to document our planet's biodiversity through a science competition to make the most nature sightings---Birds!---Animals!--Bugs!--Plants! Whitfield is one of the many places you can go to make your sightings---look for more details on our District website!

Andrew: Wow, what a great way to celebrate spring and Earth Day! What else is happening?

Allison: Well, as you know, April 22nd is Earth Day 2021, and Whitfield is bringing back the Earth Day Science Fiesta!

Andrew: What great news, especially after we had to cancel this always fun event last year. What's the When-Where-What for this year's event?

Allison: During the weekend of May 1st and May 2nd, we will have several local organizations at Whitfield with fun, interactive activities to celebrate our planet from 9:00 am-3:00 pm.

Andrew: That's fabulous! I remember seeing kids having a blast building solar-powered cars at the 2019 Science Fiesta—so fun! Isn't our plan to set up outside Whitfield's office and celebrate Earth Day with live animals, birds, reptiles, insects and several community-led activities?

Allison: Yes, that's the plan—we're hoping for lots of visitors for these outdoor events. Isn't the Friends of Whitfield doing something for Earth Day too?

Andrew: Of course we can always count on our Friends group to step up! This year, they are preparing a Silent Auction for the whole month of April! The Silent Auction will support the Friends of Whitfield's mission of supporting our work on habitat restoration, education and conservation at the conservation area.

Allison: That's right, I remember the Friends telling me they've been getting amazing donations from local artists and businesses. Aren't those beautiful hand-painted Aldo Leopold garden benches part of the auction?

Andrew: Yes, each of the seven exquisite benches are being auctioned as is LOTS of other stuff donated from the community. Generous local businesses have contributed water barrels, garden art and sculptures, hand tools, gift certificates and more! The deadline to bid is 5:00 pm on May 3rd (again, details at www.valenciaswcd.org)

Allison: What a great way to raise funds and see the support our community has for Whitfield and the District. I am so grateful for our local folk.

Andrew: I totally agree. Come April 1st people can see all the items available for this first ever Friends of Whitfield Silent Auction at this website:

- <https://www.charityauctionstoday.com/auctions/friends-of-whitfield-online-auction-21519>

Allison: What a great time of year, especially this year of all years. Getting outside after the long winter, ready for this next chapter of renewal and rebirth.

Andrew: Indeed. Makes me mindful of one of my favorite Sitting Bull quotes: "Behold, my friends, the spring is come; the earth has gladly received the embraces of the sun, and we shall soon see the results of their love!"

**For our Whitfield visitors, per NMDOH guidelines, everyone (two years and older) visiting the conservation area is required to wear a face covering. Face coverings and hand sanitizer bottles will be available for your use. All individuals are asked when possible, to remain a six-foot distance from non-household members during the activities. Thank you for your support to keep everyone healthy and safe! Please come visit---spring has sprung!

Celebrating Earth Day at Home & Abroad (ran April 22, 2021), by VSWCD Hautzinger

If you learned from Lynda Garvin's article in the Bulletin last week that "April Means Earth Day," did you know that this special celebration started 51 years ago, on April 22, 1970? Today, Earth Day reminds us of our duty to recognize the fragility of our natural world. Earth Day also invites us to celebrate the beauty of our

world, while asking us to imagine a healthy planet, to contribute meaningfully to solutions, and to make all of our days Earth Day. The theme of this year's Earth Day is Restore our Earth. Across the globe scientists, nonprofits, businesses, governments, and individuals are examining natural system processes and emerging green technologies to restore the world's ecosystems and forests, conserve and rebuild soils, improve farming practices, restore wildlife populations, and reduce the burden of plastic from our oceans, lakes, and waterways.

Around the world from us, in East Africa, students at the Blessed Valley Schools in Kampala, Uganda and local residents comb the beaches of Lake Victoria, fishing out plastic that is artfully repurposed into chairs to be sold in the marketplace. Some 2700 miles north of Uganda, in Vamvakou, Greece, virtual Earth Day workshops are devising next-generation rapid decomposition materials to replace today's plastics and are attracting volunteers to collect plastic and other trash from beaches.

Closer to home, your Valencia Soil and Water Conservation District is hosting or partnering with local initiatives that invite YOU to make a positive impact on our Earth!

1. Earth Day & Science Fiesta Days at the Whitfield Wildlife Conservation Area, April 30—May 3: Join us for our first socially distanced outdoor event! Many organizations will have booths and attractions, including Smokey the Bear and live animals. On each of these four days, there will be fun and interactive activities to celebrate our Earth.
2. City—Nature Challenge: This is worldwide event that now includes Valencia County! Folks interested in this nature challenge can make their own sightings at Whitfield or participate in a guided hike at Whitfield from Friday, April 30th through Monday, May 3rd.
3. Silent Auction by the Friends of Whitfield: Help support our partner, the Friends of Whitfield, a local nonprofit organization whose programs sustain the Whitfield Wildlife Conservation Area. If you are interested in obtaining a gorgeous and unique Aldo Leopold bench or if you need supplies to start your own garden, bid on these and other items during this online silent auction. Hundreds of items donated by local businesses will be up for bid through May 3rd, all found here: : <https://www.charityauctionstoday.com/auctions/friends-of-whitfield-online-auction-21519>

There has never been a better time to reduce “COVID Cabin Fever,” by getting outside, where you can celebrate the Earth with us, enjoy some sun (while restoring your Vitamin D levels), and support local conservation efforts.

On a related topic, our District is now accepting applications for the Dan Goodman Soil & Water Conservation and Environmental Improvement Award. This is an annual award for \$1,000 to one or more deserving high school students residing within the Valencia Soil and Water Conservation District who have demonstrated a high regard for conservation and the environment. The objective in giving these awards is to stimulate activities, teaching, and learning, and to reward those who have been active in conservation. Any enrolled high school student resident in our District may apply for this competitive award. Strong applicants document all their past projects, services, or activities related to soil and water conservation, agriculture, or the environment. I'll close with a nod to my sister, Sarah Hautzinger, who will be the guest speaker at the Colorado Springs Unitarian Universalist Church's Earth Day celebration. Sarah is honored to add her voice to this celebration of Mother Earth, and plans to share this quote from author Wendell Berry:

“When despair for the world grows in me and I wake in the night at the least sound in fear of what my life and my children's lives may be, I go and lie down where the wood drake rests in his beauty on the water, and the great heron feeds. I come into the peace of wild things who do not tax their lives with forethought of grief. I come into the presence of still water. And I feel above me the day-blind stars waiting with their light. For a time, I rest in the grace of the world, and am free.”



"Belen Couple Learning to Farm" (ran May 27, 2021), by VSWCD District Director *Andrew Hautzinger
For this month's Soil and Water column, we're turning the spotlight to one of our conservation partners:
Amelia Vogel and Jason Schilberg of Rocket Punch Farm in Belen, NM.

Amelia completed her master gardener training at the University of the District of Columbia and has extensive experience working with urban farms and community gardens in Washington, DC. Before moving to Belen in November 2019, Amelia wanted to connect with the local farming and gardening community. She found the East Valencia Urban Gardens Program over the internet and she reached out to the District's Lindsey Díaz, offering to volunteer. A few short weeks later in early December 2019, Amelia and Lindsey met at the El Cerro Garden and worked together to build a small green house.

Meanwhile, Jason is an artist and a former graphic designer, whose work has appeared in The Wall Street Journal, Politico, and billboards in NYC's Times Square. He brings creativity and playfulness to Rocket Punch Farm; the farm's name is a nod to his love of Japanese comics and animation featuring giant robots, such as Mazinger. His great-grandfather, John Littke, lived his life in overalls and worked as a farmer until the day he died. Like Grampa Littke, Jason is proving to be a darn good farmer and handyman.

After that first meeting at the El Cerro Community Garden, Amelia became interested in VSWCD's Financial Assistance Programs. Amelia and Jason applied for one of the District's 2020 Standard Conservation Projects, working closely with our technical advisor Cliff Sanchez to develop a conservation plan. As a result of this, Rocket Punch Farm was awarded funds that reimbursed a portion of the costs of a drip irrigation system and for native pollinator plants.

Amelia and Jason are real go-getters and they went on to be awarded three grants in 2021...so far! First, they were awarded funds through VSWCD's Stand-Alone Practices, which subsidized the costs of materials to build a specialty hoop house covered in netting (in order to protect leafy greens from hungry pests without the use of pesticides). Secondly, they were awarded funds through the NMDA's Healthy Soil Program, which funded the purchase of Soilutions' organic-use approved premium compost. Exciting to note that in Valencia County a total of three projects were awarded funds through the Healthy Soil Program grant. Thirdly, Amelia and Jason were awarded funds through the NM Farmers' Marketing Association's COVID-19 Local Food Supply Chain Response Fund, which funded the construction of a second hoop house to be used as a greenhouse.

If you would like to support their farming efforts, Amelia and Jason have recently started sales directly from their farm. You can find them at 14 Gonzales Road, Belen on Wednesdays and Thursdays 9am-7pm, Fridays 9am-3pm, and Saturdays 3pm-7pm. They would appreciate it if you would call or text them when you arrive at their farm because they're always working and they won't hear the doorbell ring: (505) 302-5657. Or if you'd like to be added to their email list, send an email to info@rocketpunchfarm. Of course, you can also "like" them on Facebook by searching for Rocket Punch Farm.

Rocket Punch Farm's spring harvests have started with a colorful mixed leaf lettuces and sweet salad turnips with the most tender of greens. Soon, they'll have snow pea shoots, scallions, arugula, mizuna, kale, collard greens, snap beans, and fingerling potatoes. Summer vegetables are on the way: Amelia and Jason just planted 6 varieties of tomatoes and they'll soon be planting purple sweet potatoes, squash, cucumbers, melons, chiles, tomatillos, eggplants, basil, okra, and more. Planning for a four-season harvest, they'll be planting a diversity of leafy greens and root vegetables in the fall.

We're proud that Amelia and Jason have joined our community and that they are working hard to make a meaningful contribution. They freely share their gardening knowledge (and delicious recipes) through their Rocket Punch Farm page on Facebook. If you joined us for our Earth Day Science Fiesta, you may have had Amelia as your guide for one of our Nature Challenge hikes. Amelia and Jason also donated 32 purple sweet potato slips to be planted by our Science Fiesta visitors (who totaled a record of over 500 people visiting WWCA). We at VSWCD are excited to work with Amelia and Jason on future projects to grow our local regenerative agriculture community.

If you would like a free tour of Rocket Punch Farm, all you have to do is call, text, email, or stop by their farm during their business hours.

“Assissting Our Neighbors” (ran July 22, 2021), by VSWCD District Director Andrew Hautzinger

Assisting our Neighbors (ran : As our community is once again in receipt of much prayed for summer rains, some of us are forced to grapple with getting too much of a good thing, as is especially the case with many of our Belen readers who experienced severe flooding. It is times like these where communities come together and assist each other as we are able. I've heard encouraging stories of this happening recently, and seen with my own eyes strangers showing up to help Belen businesses dig out and get back up and running.

Besides this time of year heralding the summer rains, on July 1 the Valencia Soil and Water Conservation District's financial assistance program restarted with the new fiscal year. Please visit our website ([ValenciaSWCD.org/Assistance Programs](http://ValenciaSWCD.org/AssistancePrograms)) and think about applying! We offer several programs designed to provide local property owners financial and technical support for conservation projects on their land. Our Standard Conservation Project is a competitive funding program that provides anywhere from 25% -to-75% of reimbursement for projects that need moderately detailed planning, done in collaboration with the land owner. Our Stand-Alone Practice program is a simple first-come first serve program for individuals interested in making only one improvement, picking from eight pre-approved actions: high efficiency toilets, rain barrels/water harvesting tanks, Johnson-Su composting bioreactor kits, hoop houses, and up to \$100 for native plantings. We also provide up to two free Soil Tests annually per individual and we offer free mulch at Whitfield (as supplies last).

All told, over the last five years, the VSWCD has awarded over \$190,000 to support land-owner conservation projects spread out in benefit to over 255 acres of land within Valencia County. So please pay us a visit us at ValenciaSWCD.org or at our Whitfield offices for more information.

To highlight the power of these assistance programs, let me introduce the readers to our community member Ronnie (“Ron”) Moya. Upon retiring a few years ago from a career in engineering, Ronnie decided to go full time into the family business of farming, provided he could prove his theory: Organic farming can be done in this valley and be done profitably and sustainably, with dramatic reductions in use of water, fertilizers and pesticides. Ronnie went to work on his small farm in the Adelino area, thinking he had everything he needed to get his new farm going. He realized his water system was inefficient and that he didn't know what the soils were underneath his land. Ronnie called up VSWCD and we worked with him to build a site conservation plan offering technical guidance in a few places, while providing partial payment for his shallow solar-powered well and a drip-irrigation system. When Ronnie had us test his soil we all realized his farm had highly variable soils with low 1% organic levels, factors that could combine to limit his farm's production. So what to do?

Ronnie is a meticulous fellow, and had done his research into this farming endeavor, but he knew surprises were coming and so he worked off of the plan he built with us. In the first year he had an efficient water system in place, making only minimal soil amendments to the heavier soils. Working hard, but having more fun than he thought he might, he was pleased with his on average 8-oz bell peppers, which he was able to bring to market successfully (selling to local wholesalers and a few farmer's markets). Come year two, Ronnie applied a natural pot-ash amendment and was surprised to see his bell peppers grow to typically weigh around 12 ounces. This last year Ronnie's field produced an astonishing one-pound (16-oz) big bell pepper on average. Ronnie says his customers were over the moon. His best guess for the growth and size of not just the peppers but also tomatoes and melons, was that he started using a “plant tea” he made using the Johnson-Su compost solution (from an affordable kit we offer at Whitfield). Plus, his year three soil test results showed an amazing increase to 7% organic content, providing him further proof that his farm was headed in the right direction.

While Ronnie's farming experiment continues, he is excited to share his success story in the telling with his neighbors, so please visit ValenciaSWCD.org to read more about his farming adventure.

On an unrelated note: please know we are looking for an Education Assistant to join our team and our thriving education program. If you are, or know, that special person who has the skills and background to make real differences in the lives of our kids, please send an application (on our website) with resume, letter of interest and at least one professional reference letter to: VSWCD (Attention Allison Martin), 2424 Highway 47, Belen, NM, 87002.

“Teaching Amid a Pandemic” (ran August 26, 2021), by VSWCD District Director Andrew Hautzinger

As the summer draws to a close, we would typically be seeing our kids heading off to school, some bemoaning the end of summer, with others fully excited to see friends and teachers again. While we all hoped that this year would mark a return to in-person teaching, we learned last week that both Los Lunas and Belen high schools will start the school year with remote teaching, thanks to complications brought to us by the highly contagious Delta variant of COVID-19.

In the face of these uncertainties, I hope that as the pandemic continues to evolve that we continue to evolve and adapt as well. COVID-19 has presented big challenges in educating our young folk. The primary charge of teachers is to teach, but throughout the pandemic, teachers have served as supportive leaders in our children's lives, helping students focus not only on academics but also on their personal well-being and social

development. We all know those special teachers who played a life-changing role in our lives, or in the lives of loved ones---in these uncertain times, our amazing teachers are beyond golden.

Our District Educator, Allison Martin, in 2020-2021 developed on-line science modules for teachers and students in our local school districts, as the pandemic closed down in-person visits. Local schoolteachers, including Arlene Clevenger, were thankful. "Last year, there was a huge adjustment going from in-school teaching to remote teaching. But I have to say that, overall, I enjoyed the experience. Teaching remotely challenged me to find new ways to do things, which in turn forced me to move out of my comfort zone. Therefore, I grew not only as a teacher but as a person. I learned to be more flexible, kind, and patient."

While the road ahead for our schools is hardly crystal clear, our team at VSWCD continues to prepare with excitement for the coming school year: The Whitfield Education Program will be in all local schools in Valencia County! Our main goal at VSWCD is to support environmental education and stewardship both in the classroom and throughout our daily lives. Our programs provide a framework for daily access by all students to the outdoors and environmental learning throughout Valencia County. Connecting students to the natural world directly aligns with experiential learning that cultivates curiosity in a multidisciplinary framework, supporting students with tools to become environmentally informed and to face the world with confidence and optimism.

We offer education programs for every grade level. Currently, each program includes at least one classroom visit and one Whitfield site visit. The program fits the needs of each teacher's students, and can adapt as needed. On the registration form (<https://forms.office.com/r/tmr719u3Um>), all teachers will find an in-person option as well as a virtual option. All lesson plans and information about each program, including the New Mexico state science standards they address, are available on our website:
<https://www.valenciaswcd.org/education-programs/>

The District's outdoor learning programs are offered throughout the school year at no charge to schools or students! VSWCD funds these opportunities through a ¼ Mil Levy and with grants from the Friends of Whitfield and Facebook's Los Lunas Data Center.

Finally, for me the challenges and anxieties of educating our kids amid the ongoing pandemic strikes especially close. My daughter, Ariel, had just last week started a new career as a School Nurse at a school district north of us. Sadly, last week on day one of school, there was a young student who tested positive for COVID. Teachers were still arranging the seating charts needed for the school district's new contact tracing program, designed to allow isolation of infected and exposed students on a table-by-table basis, without necessitating sending the entire classroom home to quarantine. COVID, however, seems to care little for our best laid plans.

Nevertheless, we persevere, as educating our kids is not optional. Our local schools, and truly schools around the world, are challenged to find the right approach to continue the vital education of our youth, as the health crisis continues to change and evolve. The good news is we are resilient, blessed with the creativity and intelligence to collectively forge a path forward. Further good news comes in the form of infectious precautions and through widely available and effective vaccines, which can give us a real chance at restoring normalcy.

Finally, a bonus Valencia County News Bulletin article to close out the Valencia Soil & Water Conservation District's FY21 Annual Report:

VSWCD education manager makes environmental ed a priority

Story by [Julia M. Dendinger | News-Bulletin Assistant Editor](#) | May 13, 2021

Whether she's working on statewide policy issues or showing rubber animal poop to first graders during a Zoom lesson, **Allison Martin** is all in on environmental education.

As the education program manager for the Valencia Soil and Water Conservation District, Martin has typically spent most of her time visiting students in their classrooms and leading hands-on science lessons at the district's Whitfield Wildlife Conservation Area.

Allison Martin
VSWCD education program manager

Now she and her trunk of environmental teaching tools are taking the virtual route due to COVID-19 restrictions. While in-person lessons are on hold, Martin says there have been some benefits to the pandemic year.

"This whole COVID thing has allowed me to partner with other (environmental) educators, and I feel like we are making progress in supporting the notion that every school be provided with resources to support outdoor learning with an environmental educator," Martin said, who has masters degrees in both elementary education and environmental education, and 10 years experience in EE.

One big change Martin has been a part of is the recently published outdoor learning policy from the New Mexico Public Education Department. The policy is the end result of Environmental Education of New Mexico's fellowship program, which Martin was a member of for the past year. The fellowship group was comprised of more than a dozen people from around New Mexico from all walks of environmental education.

"We've been working to change policy across the state in environmental education and that's what we helped develop this last year," she said. "The result was 'Every Kid, Every Day, Every Way.' We are the only state with a plan and strategy to get every kid outside, which is a big challenge with so many inequities."

The new policy is coupled with a plan to get EE resources at every school, Martin said, such as lending libraries with equipment like binoculars and microscopes.



“We want to connect nature to the central pedagogy of education. The teachers I’ve talked to would love to do that but don’t have time. This will get them equipment and training in how to use it to provide hands-on learning,” she said.

After finishing her fellowship, Martin was asked to join the Environmental Education Leadership Board of New Mexico, a volunteer board charged with creating opportunities for EE by seeking grants and finding funds to create projects that support environmental education.

“Me being a part of this gives Valencia County a bigger voice, part of more statewide efforts. It’s a way to represent us at the table with our concerns here,” she said. “It’s an exciting time for EE in general. I feel like I can make a positive change that is bigger than myself and the district.”

Martin has also been working hard to give local teachers EE resources through a series of videos available on the [district’s YouTube channel](#), which has reached more than 200 students so far this year. “Teachers and their class can watch the video and then have a Zoom meeting with me if they want, but don’t have to,” she said.

There is a three-part series for kindergarten through fourth grade, as well as videos for fifth and sixth graders. The video lesson content can be found on the district website — [valenciaswcd.org](#) — under the education programs tab. To register for a video or learn more about this initiative, email Martin at allisonmartin@valenciaswcd.org.

The district also received a \$6,500 grant from the state outdoor recreation division’s outdoor equity fund which will be used to introduce 20 local at-risk youths to local wildlife preserves.

The district is partnering with H2 Academics to take the participants to Sevilleta National Wildlife Refuge in La Joya, Bosque del Apache in San Antonio, Rio Abajo Conservation Area south of Belen and finally to Whitfield Wildlife Conservation Area, where they will do a restorative planting.

“We were planning to launch this in April, but it was put on hold until we knew more about COVID restrictions,” Martin said. “We were given the funds in December and have a year to use them. We are really excited to get this going. It will be a months long project.”