

# Noticias de las Acequias

New Mexico *Acequia* Association • Fall 2021



Peones (workers) have gathered for generations to sacar their acequias in the spring to remove silt and debris so that water can flow. Even as snowpack and runoff are more uncertain, this spring ritual continues every year.

## Acequias Brace Themselves for a Future of Water Scarcity

by Paula Garcia, NMAA Executive Director

The year 2021 started with a dismal outlook for Spring runoff. A light year of snowpack promised little in the way of snowmelt and acequias braced for a very dry irrigation year. In May, the US Drought Monitor showed that 99.37% of New Mexico was in severe drought to exceptional drought. With tempered expectations, acequia leaders prepared for a difficult irrigation season. In some communities, the low runoff prompted acequias to initiate water sharing agreements between acequias. Many individual farmers and ranchers adjusted their operations to account for a season with limited irrigation.

Almost as an answer to many prayers, monsoon rains started in the early summer. These monsoon rains are credited with protecting us from a potentially catastrophic wildfire season and the worst impacts of drought. In the short term, the monsoon rains enabled many acequia parciales to have a hay crop, grow their gardens, sustain their orchards, and breathe a sigh of relief to make it through another growing season.

During this time, NMAA was able to convene some important discussions about the future of acequias that will be impacted by ongoing drought, uncertain precipitation, and extreme weather events, all of which are related to climate change. One gathering focused on 'Acequias and Megadrought', and included dialogue between different acequia leaders regarding both historic and current practices of water sharing in their communities.

Drought affects the supply of wet water that is available in any given year or over a period of time. Because acequias depend on surface water, they are uniquely vulnerable to changes in snowmelt and runoff. Centuries of variable water supplies from year to year have resulted in a certain degree of resilience to drought because acequias have engaged in customs and traditions of water sharing, also known as the repartimiento. A recent study by NMSU notes that the "acequia footprint" illustrates acequia resiliency to highly variable water supplies because individual parciales and the acequia collective will irrigate more land during times of high water flow and less land when there is less water. In other words, the extent of land that is irrigated expands or contracts based on the supply of wet water in any given year.

In several communities, acequias are tenacious about sharing scarce water, creating rotations and shorter cycles with ever smaller allocations of water until the water dries completely. The question we face about climate change is the extent to which acequias maintain viability through water sharing, and at what point should communities expect and plan for dry rivers with no water. In a survey in 2020 of about 20 leaders who are instrumental in water sharing agreements, some described their traditions in detail and noted that they managed to get through the year with shared sacrifices. A few had more dire reports, including testimonials that "there was no water to share."

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*Farmer Trainer &  
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**Jaimie Park**

*Policy Coordinator & Staff Attorney*

**David F. Garcia, Ph.D.**

*Acequia Education &  
Outreach Coordinator*



**Welcome New NMAA Team Members!**

**We are thrilled to introduce two  
new members of our team!**

**Jaimie Park –**

**Policy Coordinator and Staff Attorney**

Jaimie started with the NMAA team right as the 2021 New Mexico legislative session was taking off. She came to NMAA with a background in environmental justice law, with a focus on water quantity and quality matters. She came to New Mexico in 2014 to serve as a public defender in San Juan County, and then worked as an environmental justice attorney with the New Mexico Environmental Law Center. At NMELC, Jaimie worked with community organizations in the fight against the proposed Santolina development, in holding the Los Alamos National Laboratory accountable, in protecting public participation in the environmental permitting process, in promoting governmental transparency, and in stopping new mines from opening and old mines from reopening. Jaimie has also been successful in preventing water mining of the San Agustin aquifer. After nearly five years with NMELC, Jaimie served as in-house counsel for the Pueblo of Isleta, focusing on water, environmental, and natural resource matters, during one of the most challenging water management years and a global pandemic. Jaimie is now very excited to serve New Mexico's acequias through policy and legal work.



**David F. García, Ph.D. –**

**Acequia Education and Outreach Coordinator**

David F. García, Ph.D. is a cultural anthropologist and a musician who reflects on the public spaces and cultural movements related to land based knowledge in the US southwest/northern Mexican borderlands. Born in the Española Valley, he and his family have been parcientes on the Acequia de los Salazares for more than 6 generations, where they grow various crops in their hoop house and apple orchard. He is proud that his first job at age 15 was as a peón de la acequia. He sees music and the arts as a vehicle to participate and promote community engagement in the NM acequia movement as well as immigrant rights activism. He says, "I see my work as a "promotor de la cultura" promoting knowledge and dialogue about our shared cultures, languages, histories and lifeways."



The New Mexico Acequia Association is a statewide, non-profit organization founded in 1990.

**MISSION**

Our mission is to protect water and our acequias, grow healthy food for our families and communities, and to honor our cultural heritage.

**VISION STATEMENT**

In our vision, acequias flow with clean water, people work together to grow food, and communities celebrate cultural and spiritual traditions. People honor acequias as part of our heritage and express *querencia* through a strong connection to land and community. Knowledge and experience about growing food, sharing water, and saving seed are passed on from generation to generation.

Guided by our core values, the New Mexico Acequia Association grows a movement of people of all ages and walks of life to defend and protect our precious water by resisting its commodification and contamination. Through involvement in NMAA, families and youth are inspired to cultivate the land, care for our acequias, and heal past injustices. Communities have an abundance of healthy, locally-grown food because we recognize agriculture as a respected and dignified livelihood and way of life.



## Acequias Brace Themselves *continued from page 1*

At the gathering on Megadrought and Acequias, there were two panels that were featured. One was the Mayordomo panel which featured local mayordomos and commissioners and their testimonials about the specific methods of water sharing in their communities. The following three narratives summarize their local acequia customs.

### **Don Bustos, Commissioner, Acequia del Llano in Santa Cruz**

Don shared the importance of the Mayordomo having an intimate knowledge of the acequia, which he established by growing up along the Llano. He described their method of sharing the water by dividing the ditch into three sections, and irrigating only one section per day (depending on how water is released from the Santa Cruz dam). He emphasized the value of regular communication and Commission meetings, walking the acequia, and checking headgates and resolving maintenance issues. On this ditch, everyone has to call the Mayordomo to get water. His acequia first prioritizes water for gardens, pastures, orchards, and then lawns and landscaping in times of shortage. "We are telling people 'just use what you need', and urging the importance of everyone getting some water."

Don reflected that our limited water supply is "the new normal" and considered how his ancestors had found a way to ensure every irrigator had water to survive. He listed a number of challenges they face in the management of the water, including newcomers who have a legalistic view of the system and do not understand that their paper water right does not translate to a full wet water irrigation; encroachment from the City of Española; and developments in the foothills above the acequia that do not have a drainage system and contaminate the ditch with run off. Finally, Don emphasized the importance of regional water sharing among acequias that was facilitated by the Santa Cruz Irrigation District during the Spring, and their ability to work together in a peaceful way during times of hardship.

### **Phil and Sylvia Villareal, Mayordomo and Commissioner, Acequia de los Chupaderos in Chupadero**

"My responsibility is to make sure that the water is circulated in the valley - we handle it upon demand," remarked Phil Villareal, Mayordomo on Acequia de los Chupaderos. Phil described that the determination of how much water parcientes get is based on what is available in the river and the demands from the other parcientes. He noted that not all of the parcientes are actively engaged in the acequia, though they encourage everyone to irrigate. Their Acequia is impacted by the Aamodt adjudication and they have to submit reports every Spring, "showing who is using it and [we]

have to account for every drop that goes through our metering system...it is getting very legalistic."

Sylvia Villareal, Phil's wife and an acequia commissioner, noted that an additional challenge they face are newcomers who do not understand the practice of water sharing and being fair to all in the community, and are creating gardens that are larger than can be supported by the meager water supply. Remarking on the demands, Phil said, "it is hard to keep everyone happy." A victory for this team has been working to revitalize the acequias in their area, including breaking ground to create infrastructure repairs for which they have received state funding. They noted that the impetus to do the work was the Aamodt adjudication process and the need for better irrigation efficiency. They concluded by acknowledging that this has been a hard year, including being separated from one another [by covid], but that many lessons have been learned.

### **Harold Trujillo, Commissioner, Acequia de la Isla in Ledoux**

Harold explained that there are two acequias sharing water from Morphy lake on a 40/60 basis. The two Presidents of the Acequias maintain control of the outlet gate and they have to be very careful how much they open the headgate, as "we have a very tight schedule". If the headgate is opened too wide they will rapidly drain the lake, and thus not be able to make it through the irrigation season. He summarized that the challenge for Mayordomos is when everyone wants to irrigate and there is a shortage of water. The two Acequias have always been a joint operation and have managed the water successfully. Issues have arisen when parcientes pressure their Mayordomo for more water, which is why the headgate is controlled by the commission Presidents while the Mayordomo focuses on allocating the available water.

**"Because acequias depend on surface water, they are uniquely vulnerable to changes in snowmelt and runoff."**

Harold also shared the story of how Morphy lake was built by local families starting in the 1880s, building up the embankments until 1940. "It took the cooperation

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# Our Youth Are Our Light: Updates From NMAA Youth Education Initiatives

by Emily Arasim & Donne Gonzales, NMAA Youth Education Co-Coordinators

Despite the changes and challenges caused by the pandemic, our youth education team has continued to be hard at work connecting youth and families across the state with learning opportunities to deepen their understanding of and passion for acequias!

**Learn more about recent projects below! For more information about any of our youth programs contact: [emily@lasacequias.org](mailto:emily@lasacequias.org) and [donne@lasacequias.org](mailto:donne@lasacequias.org)**

## 'Con Fuerza y Querencia' the 2021 Acequia Culture Youth Leadership Institute

We are so excited to celebrate the graduation of our cohort of 2021 Acequia Culture Youth Leadership Institute students!

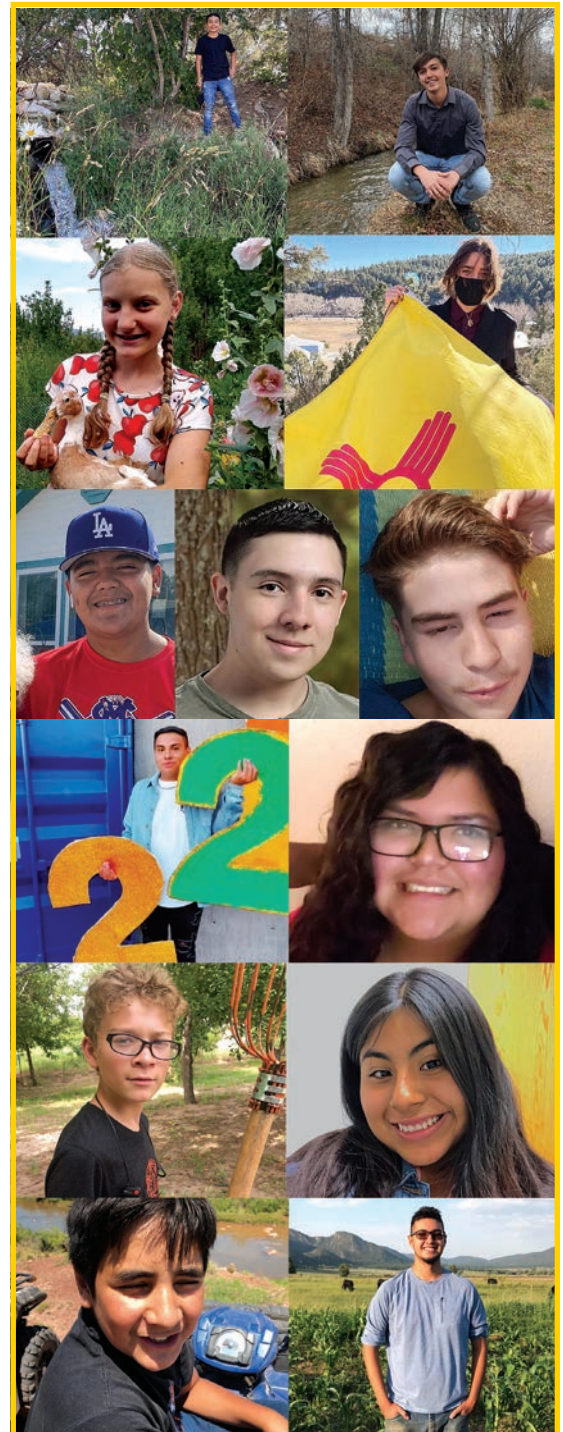
Over the past five months, 16 middle school, high school and college aged youth from across the state have gathered for learning and skill building sessions on topics including the history and importance of acequias; the meaning of querencia; acequia farming, ranching and seeds; language and oral history; the movement to prevent commodification of water; challenges facing acequias and youth solutions for health and justice; acequia music, art and poetry; and traditional skills such as remedios, adobe work, and butchering.

In early September, we held a graduation celebration and heard from youth leaders about the visions they have for their role in their communities, as well as beautiful projects such as maps of their acequias and gardens, family seed story boxes, remedio identification projects, poems, and art pieces!

The future is bright, as we know they are just some of the many young people who have a deep love for their cultures and histories and are dedicated to protecting the health of their communities, and the land and water of New Mexico.

### 2021 Acequia Culture Youth Leadership Institute Graduates:

- ~ Orlando Pino, Des Montes/Valdez
- ~ Diego Salazar, Pilar
- ~ Elaine Mitchell-Gonzales, Placita/Vadito
- ~ Guadalupe Savannah Gallegos, Villanueva
- ~ Michael Lucero II, Dilia
- ~ Cruz Martinez, Cordova
- ~ Ignacio Gonzales, Chamisal
- ~ Joseph Salazar, Valle de Atrisco/Albuquerque
- ~ Keira Marquez, Shiprock
- ~ Matejo Heitzman, La Mesilla
- ~ Maira J. Juarez Martinez, Santa Fe
- ~ Jonathan Gonzales, Anton Chico
- ~ Joaquin Romero, Mora
- ~ Angel Chavez, Valle de Atrisco/Albuquerque
- ~ Veronica Griego, Mora/Guadalupita
- ~ Anya Manzanares, Abiquiu







Sem Sem youth in Taos experiment with different methods for growing potatoes.



Sem Sem youth in Abiquiu work together to build a horno.

### Sembrando Semillas Youth Project

Over summer 2020 and 2021, our Sembrando Semillas inter-generational learning sites in Chamisal, Abiquiu, and Taos have continued to meet in small, covid-safe groups.

At the Chamisal site, youth continued to grow their knowledge in preparing soil and fields, maintaining acequias, caring for and choosing seeds and bulbs for planting, irrigating, weeding, and harvesting diverse fields with their mentors. Youth also learned about care of fruit trees, and participated in the seasonal work of pruning, watering, harvesting, and processing value added goods including jams and dehydrated fruits. Older youth also had the opportunity to gain new skills in caring for chickens, guineas, geese, and turkeys - as well as a herd of 35 sheep, which included daily care, fence, and pasture maintenance, shearing and butchering.

At the Taos site, youth worked together to raise chickens, and learned about proper care and how to address different sicknesses and seasonal challenges facing their animals. Other projects included learning to grow heirloom wheat, experimenting with different methods for growing potatoes, and building skills in food processing and preservation, including pickling and canning to make value added farm goods. Taos youth also focused on honing their digital skills by learning to film, edit and manage data of photos and videos capturing their seasonal work and farm learning.

At the Abiquiu Sem Sem site, youth learned to plant and care for their own patch of potatoes and worked together to design and build a large horno which was used as part of Fall projects in sheep shearing, meat processing and matanza celebration. Abiquiu youth also took part in a multi-day training on how to plant trees, and took a deep dive into learning about the many uses and health benefits of the fruit trees they tended.

We love our Sem Sem youth and can't wait to continue to see them grow next season.

### March 2021 Acequia Career Day

During the online Acequia Career Day event, over 250 youth and community members from across the state gathered to learn about the many different career and livelihood opportunities they can follow to be caretakers for acequias and acequia community and culture.

We began with a panel discussion where youth got to hear about the passions and life-paths of amazing mayordomos and commissioners - poets and musicians - engineers and infrastructure specialists - farmers and ranchers - remedio makers and food business owners - adoberos and leñeros - historians, documentary filmmakers and storytellers - lawyers and policy advocates. Youth were then able to choose which area interested them most and went into small groups to ask questions and learn more. Our NMAA team was deeply inspired by the huge turn-out and positive feedback for this event and is committed to offering more acequia career and mentorship opportunities into the future.

### Online Class Presentations

While we have not been able to present in-person in classrooms during the pandemic, we have still been able to meet with hundreds of youths via online class presentations. The positive light of this change has been the chance to connect more easily with youth in the far southern and eastern areas of the state. **Teachers, school, and youth group administrators are encouraged to reach out to us to schedule an online acequia education presentation anytime! We look forward to resuming in person presentations when we can do so safely. Youth activity print-outs to use at home or at school are available on our website:**

[www.lasacequias.org/presentations-curriculum](http://www.lasacequias.org/presentations-curriculum)





# Resilient Local Seeds Offer Hope In Times Of Change

by Emily Arasim, NMAA Youth Education Coordinator  
& Program Assistant

As we come to the close of another exceptionally dry season, acequeros across the state continue to ask each other and the land itself for guidance on how to deal with the concerning conditions we are experiencing.

As an acequia community, we are coming to terms with the truth that what we are seeing is not just another drought cycle and is not just more of New Mexico's always unpredictable weather. In fact, we are watching the climate crisis unfold before our eyes, and we are experiencing stresses that are unprecedented in our lifetimes, and also in the larger historic record.

Global climate change is bringing more extreme and unpredictable conditions, including higher temperatures, fiercer winds, and rain and snowfall in patterns that are very different from what we, and previous generations, have relied on. These changes are happening more quickly than they would in a natural cycle and are being caused by the wasteful and destructive practices of the mainstream global economy. Too many people have forgotten our responsibility to care for the land and live in a humble way, and we are starting to see the results of this disconnection.

Despite all this pressure, we have many reasons for hope. Across the state, acequia leadership and parcientes are taking many practical and innovative steps to deal with these hard times, including preparing the community for repartimiento water sharing, repairing and improving acequia infrastructure, and thinking deeply about ways to restore the health of the soil so that it can better hold the precious water. Many of us are also expressing our gratitude and trust in our beautiful local, traditional seeds to get us through the years and decades to come.

Our local seeds are one of the most important tools we have to help us deal with climate change and water stress. Over years, decades and centuries, seeds learn and adapt to their climate, which means that our New Mexico seeds that have been saved over generations, have become accustomed to our high desert conditions, cycles of drought and unreliable moisture.

They are strong and determined, just like the people of the land. They know the soil, wind and sun here, something that seeds grown in other regions and bought at the store or on-line catalogues simply cannot claim.

In particular, the al temporal, or dryland farming seeds that older generations relied upon are becoming even more important, and even more in need of our diligent care and protection.

While our local seeds already have this deep strength within them, we also have to dedicate ourselves to the task of helping them keep on learning and adapting. We must be faithful caregivers who plant them every year and never give up.

The seeds need to experience the hard times we felt this season, so that the ones we save can get just a little stronger in preparation for future seasons, which may have conditions even harsher than what we are experiencing now. Ultimately, a small, wrinkly handful of drought-tolerant, survivor seeds, are much more valuable than pounds of seeds that only sprout when they are heavily irrigated.

We also know that these important seeds help restore the strength of our hearts during hard times. When we close our eyes and hold a smooth bean or a heart-shaped kernel of corn in our hands, we feel the protection of those that have come before us, and we feel like we have some power to help make a good life for our children and grandchildren. So long as we keep caring for the seeds, they will care for us. We need each other now more than ever. 💧



Beautiful and strong local seeds. Photo credit: Emily Arasim.

# Water, Equity and Cannabis Production: Implications for Acequias



Hemp plants in a New Mexico field

by Paula Garcia, NMAA Executive Director & Jaimie Park,  
NMAA Policy Coordinator

Following the 2021 statewide legalization of recreational cannabis in New Mexico, it is important that acequias be prepared for potential cannabis production in their communities. While the future remains uncertain, we should consider two potential scenarios:

**SCENARIO #1:** First, imagine New Mexico in ten years after recreational cannabis legalization, where our policymakers and communities have been successful in fostering a socially just, equitable cannabis economy in which small-scale growers and small businesses are thriving. Because of robust water protections and social equity mandates in the law, New Mexico grows a cannabis industry that provides economic opportunities for land-based local producers and small businesses, as well as a healthy product for both medicinal and recreational use. New Mexico had the foresight to make it possible for small-scale businesses to get established with access to capital.

Imagine driving through rural New Mexico and seeing small-scale cannabis operations alongside fields of locally grown food. Farmers work cooperatively to produce, process, and market their product and have developed high-quality, small-scale cannabis crops that earn them a good livelihood. Because of the profitability of cannabis, more farmers stay on the land and also grow food for their local communities. The population of rural communities has stabilized after decades of outmigration. Rural farmers have a fair shot at making an income from cannabis.

**SCENARIO #2:** Second, imagine New Mexico in ten years after recreational cannabis legalization without water protections and social equity mandates. In their rush to gain tax revenue from the cannabis industry, policymakers hastily enacted legislation and rules that prioritized a quick start up for the industry despite concerns of rural communities, acequias, and social justice advocates. The corporations who were already established had the advantage of scale and successfully advocated for large-scale production. Because a variety of these producers, both small and large, opposed water protections, the new cannabis economy resulted in a raid on New Mexico's water with promulgation of new rules that undermined over a century of water laws that protected existing water rights.

Out of desperation for water, cannabis producers of all sizes got variances to drill wells, obtain water leases through unlawful means, and otherwise undermine New Mexico's water laws. Lack of start-up capital for local producers and small businesses benefited out-of-state corporations moving into New Mexico, who gained substantial advantages over New Mexico residents. After ten years, New Mexico has an oligopoly of out-of-state corporations who have seized control of the cannabis market, along with vast areas of farmland and water rights. Cannabis is legal, but it is corporate-grown. Acequia communities have been overrun by outside corporations to grow cannabis and outmigration of land-based families has accelerated, replaced by low-wage workers residing in urban areas commuting to rural New Mexico, tending to corporate cannabis.

**MORE BACKGROUND ON RECENT CANNABIS POLICY MAKING:** The Regulation and Licensing Department ("RLD") and the Cannabis Control Division ("CCD") completed two hearings in summer 2021 on cannabis producer regulations to implement the Cannabis Regulation Act ("CRA"), with final adoption at the end of August 2021.

Earlier this year, New Mexico was at a crossroads in how to proceed with cannabis legalization. Policymakers had good intentions to make legal cannabis available for medicinal and recreational uses, as well as to decriminalize cannabis possession and to expunge records of those convicted in the past. However, it took extraordinary effort by acequias, land grants, and social equity advocates to get some important language in the CRA regarding water and social equity. These were important gains, but the CRA could have been much stronger. Specifically, stronger social equity provisions would have ensured that New Mexico residents who are small-scale producers or small-business owners would have had access to vital start-up capital and technical assistance.

The Cannabis Producer Regulations went into effect at the end of August. NMAA proposed several friendly amendments to the draft regulations with the following objectives in mind: (1) prevent illegal uses of water, (2) hold license applicants and licensees accountable for the amount of water used in production operations, and (3) ensure that small growers have the opportunity to benefit from the cannabis economy.

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Palas and signs to “Protect Acequias” on display at the NM State Capitol.

Though NMAA is pleased that several of our proposed friendly amendments were incorporated into the final rules, we remain vigilant regarding the application of these rules, particularly with regard to a new variance rule allowing cannabis producer license applicants and licensees to request non-compliance with an RLD/CCD regulation. NMAA’s advocacy, along with the support of numerous parcientes who provided public comments, was able to secure parameters for when a variance may be granted. Variances may not be granted if they would be contrary to requirements of the CRA (such as the requirement that cannabis producer license applicants submit proof that they have access to a legally valid source of water), or if they would have a negative environmental impact (such as im-

pairment of a water right or degradation of water quality), or would be detrimental to public health and safety (this would also include impairment to a water right or degradation of water quality).

Further action is still needed to ensure that this new industry is as equitable as possible for acequia communities. Additional legislation is needed to address social equity, including revisiting the language in previous drafts of the CRA that included both a Community Reinvestment Fund and Social Equity Fund, which would require that some of the tax revenue from cannabis be used to improve the quality of life and equity of New Mexicans, as well as to provide start-up capital to micro-producers and businesses.

Finally, the concerns about water rights extend beyond cannabis laws and rulemaking. The Office of the State Engineer (“OSE”) has a practice of granting “preliminary approval” on water leases, which is unlawful. The NMAA and other entities have repeatedly expressed grave concern about this practice. The demands of cannabis producers who need water now is adding urgency to this fire. As long as the OSE is granting unlawful preliminary approvals of water leasing applications - allowing the immediate use of water before a public hearing or final decision is issued - it is opening the door for illegal water uses for cannabis production.

NMAA will continue to work diligently to monitor developments, share updates with acequia leadership, and push back whenever is needed to defend the health and wealth of our beloved people, lands, and water. ♠

### Acequias Brace Themselves *continued from page 3*

of the community for all those years - it was a long term commitment.” The Acequias also lease Morphy Lake water to Fish and Wildlife, which gives them an annual revenue. He reminded us of the value of foresight, collaboration, and the hard work of the ancestors who came before us.

The Mayordomo panel illustrated that water sharing involves not only the Mayordomo but also the Commissioners in terms of defining the method of sharing and priorities for irrigation. In all cases, water sharing was deeply steeped in history and long-standing customs that have endured in their respective acequias.

While history is a guide for local acequias, new challenges include ongoing drought conditions, newcomers who are not accustomed to living with water scarcity, and new institutional requirements related to water administration by the state, as in the case of Aamodt. It is clear that acequia Mayordomos and Commissioners have important roles that are rooted in ancient customs, but they also need to be prepared to deal with mod-

**“In several communities, acequias are tenacious about sharing scarce water, creating rotations and shorter cycles with ever smaller allocations of water...”**

ern and unprecedented challenges. Acequias face many uncertainties, including not knowing from year to year whether there will be adequate water to irrigate their pastures or gardens. This is a story that continues to unfold and we will continue to learn as our communities work to adapt and survive. ♠



# Honoring the 2021 Los Sembradores Farm Apprentices!

by *Donne Gonzales, NMAA Farmer Trainer & Youth Education Coordinator*

Please join us in celebrating our 2021 cohort of Los Sembradores Farm Apprentices. The group began their work together in mid-February and will complete their nine months of learning in November.

Currently, the Sembradores are reflecting on their experience and continuing to work as the days begin to get colder and fall flowers bloom. Weeding, aerating, and loving the plants has been a daily activity in the garden. The Sembradores have harvested turnips, carrots with character, lettuce, kale, chard, and so much more. The first cucumbers came in two months ago, and the abundance of zucchinis is finally coming to an end. Apprentices harvested the garlic patch in July, and the little spice babies amazed everyone with their color, size, and shape. The team has talked a lot about insects and has also started to work more closely with honeybees this season.

We look forward to our final months with the apprentices, and to all the amazing work they will continue to do in the years ahead to nurture their land, use their acequias, and feed their communities.

## Marcos Aragon, Las Vegas



"I am Marcos Aragon from a ranching family in Las Vegas. I moved around the state to attend NM State and NM Tech, where I majored in mechanical engineering and dabbled in welding. It has been an honor to get to work with NMAA this year. Being a part of the Sembradores has

really helped motivate and educate me on everything from where to get material, to how to harvest. I always wanted to start a garden, and the program allowed me to this year. After learning how to amend soil from different zoom conferences, and information provided by Donne, I was able to create fertile soil from the dry, cracked, clay I had. I now have a pollinator garden for flowers and herbs, and a hoop house where I have grown lettuce, tomatoes, cucumbers, melons, and hot peppers. These places are now my favorite places to relax. My family and neighbors also end up benefiting from my gardens in the form of my extra vegetables and flowers. Being able to eat homegrown vegetables and gift others with them is an amazing feeling. I am grateful I was able to participate this year because this would not have been possible without the Sembradores program. I am very appreciative of all the help and guidance Donne and the other Sembradores have provided and look forward to the rest of the season with them."

## Amanda López, Peñasco



"My name is Amanda López, I grew up in the beautiful Peñasco valley. Growing up in northern NM I was exposed to farming and the traditions that are practiced along with farming. I remember, as a child, helping my family clean the acequia and helping my grandparents plant,

water, harvest, and sell at the Farmers Market. As a child, I enjoyed my time spent with my grandparents but never realized just how important the information and knowledge they were sharing with me was, and just how much it would mean to me one day.

During my time in the Sembradores program I have learned about cover crops, soil health and different watering methods. Some of the information that I have gathered are all the little details that I missed as a child when I would help my grandparents, and some of the information is brand new. Donne has been an amazing teacher and her kind heart makes her very approachable and an amazing friend to have. She is very knowledgeable about resources and if she doesn't know the answer she knows where to find it and can point you in the right direction. My garden this year has been small and consisted of squash, tomatoes, bell peppers, chile, a berry patch, and an herb garden. Next year I plan to expand.

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*Amanda López, Peñasco* continued

My time with Sembradores has made me realize a passion of mine that I plan to continue expanding on for years to come. It has been such an amazing experience that has made me feel connected to the past and my ancestors in such a life changing way. I look forward to all the knowledge and information that I will continue to pick up for the remainder of my time with the Sembradores program and in my future as a farmer."

## Angel Fresquez, Chamisal



"My name is Angel Fresquez. I'm 35 years old and a resident of Chamisal. The NMAA Sembradores Program is revitalizing my intellectual/ academic skills, which is expanding my situational awareness of the plants around me. The Sembradores Program is an excellent addition to my security

science studies which is all about the protection and the preservation of life.

I've been learning about crafting remedios and I'm making gumweed, mullein leaf and garlic tinctures. I appreciate the opportunity to share what I know while also absorbing as much as possible. Having to learn through trial and error in the garden plot that I have started as a part of the program is the most powerful way for me to learn. The healing power of plants is what I enjoy learning about and want to be able to share. I am also interested in farm and business planning, and how to plan for the unexpected, have contingencies and address unintended consequences. Farming is definitely a test of patience. After multiple failures due to circumstance and my own mistakes, I have grown peas, avas, flax, basil, catnip, and several other plants that I wrote off, but the rains brought out. Some of the challenges I have encountered so far are prairie dogs, squirrels, birds, and hail. Let's see what happens and how it goes, hopefully good."

## Alex Rose Gutierrez Jaramillo, Española

"My name is Alex Rose Gutierrez Jaramillo. I am very honored to share time with Land in Chamisal, with Donne, and with the other Sembradores. We have learned that the pumpkins like to grow on mounds to vine out. We have learned about different bugs and how they provide support to plants. Re-defining paths of water from the acequia teaches us how to observe water's flow on Land. I have deep gratitude for learning remedios and using resources respectfully, and for nurturing a space of freedom to be ourselves which allows for connection and conversations. We share different knowledge, and through this, blossoms grow in each other and expand awareness of life. The process of preparing, planting, and working together has gotten us in a rhythm, a pattern that provides support in one's life as a farmer."



**FOR MORE INFORMATION ABOUT THE SEMBRADORES FARMER TRAINING, VISIT:**

**[LASACEQUIAS.ORG/LOS-SEMBRADORES-FARMER-TRAINING](https://lasacequias.org/los-sembradores-farmer-training)**

**WE WILL REVIEW APPLICATIONS FOR OUR 2022 COHORT BEGINNING IN DECEMBER/JANUARY.**



# Other Acequia and Water News

## Deadline for Comments on First Phase of 50-year Water Plan

The New Mexico Interstate Stream Commission (ISC) launched its new 50 Year Water Plan website and hosted several webinars in August and early September to discuss the many impacts climate change is having on our state. The new website provides webinar recordings, opportunities for public participation, key data, and recommendations. NMAA is one of many stakeholders in this planning effort. The goal of the Plan is to prepare for New Mexico's water future, centering water planning around three pillars: stewardship, equity, and sustainability. The Plan's scientific report, known as the "Leap Ahead Analysis", was released on September 15th and the public may submit comments through October 15th. NMAA encourages the acequia community to engage in this planning effort and learn more about how climate change is impacting our most precious resource. To view past webinars, read the report, or to submit a comment, visit the ISC planning website: <https://www.ose.state.nm.us/Planning/50YWP/>

## "El Agua Es Vida" Acequia Tour Highlights Drought Impacts on Acequias

On August 30th, Representative Teresa Leger Fernandez spent a day listening to local acequia leaders about the impacts of drought and climate change on water supplies, and about infrastructure needs such as climate-resilient infrastructure and water storage. The full day was named the "Agua es Vida" tour and included site visits to acequias with officials from the Rio Chama Acequia Association (RCAA), as well as to Don Bustos' farm in Santa Cruz. Accompanied by Senator Leo Jaramillo, Rep. Leger Fernandez listened to presentations near Abiquiu including an explanation by Darel Madrid, President of RCAA, about plans to acquire water and storage to make it through the irrigation season. RCAA leaders also



Congresswoman Teresa Leger Fernández looks out on the Rio Chama River and Abeyta-Trujillo Acequia diversion with RCAA President Darel Madrid and Vice President, Tim Seaman. Photo credit: Senator Leo Jaramillo

showed examples of damaged infrastructure from the pulse releases from reservoirs to deliver water downstream to Albuquerque. The second leg of the tour was a visit to Santa Cruz Farm and Greenhouses where Don Bustos and officers from the Rio Quemado, Rio en Medio, Rio Frijoles, Rio Santa Cruz Acequia Association explained the importance of water sharing and the need to maintain their reservoir for water storage. Don led a tour of his farm which included demonstrations of traditional and modern irrigation techniques as well as greenhouses which allow for year-round production of fresh produce. Young farmers, including Joseluis Ortiz and Donne Gonzales, spoke of the importance of training new farmers and the important role that Don has played in being a teacher for a new generation of acequia farmers in northern New Mexico. Along the way, David Garcia, NMAA Education and Outreach Coordinator, made the visits festive with music honoring our acequia traditions.

## USDA Responds to Rancher Concerns about NAP

On March 25, 2021, Senator Ben Ray Lujan announced that USDA Secretary Vilsack has given direction to the New Mexico FSA office to clarify that acequia producers in certain counties would be eligible for the Non-Insured Crop Disaster Assistance Program ("NAP") program to obtain coverage related to drought losses for irrigated forage. In 2020, then FSA Executive Director, Michael White, issued a memo interpreting FSA rules such that drought was not an eligible cause of loss on irrigated forage. However, after several ranchers raised concerns, NMAA pointed out in a letter to FSA that the memo was not consistent with the NAP Handbook, which clearly states that drought can be an eligible cause of loss if there is an adequate supply of water at the beginning of the season and if the crop is a perennial.

Based on the dispute, several ranchers asked Senator Lujan to advocate to Secretary Vilsack for intervention. Vilsack's decision earlier in 2021 is a temporary policy to allow acequia irrigators growing forage to sign up for NAP. A long-term solution to NAP eligibility has not yet been reached, as Vilsack's decision only applied to the 2021 season. While the new FSA director has yet to be announced, there may be some potential that new leadership can work collaboratively to address the needs of ranchers who are affected by drought.

## Update on Comexico/Tererro Mine

In 2019, mining corporation Comexico submitted an application to the Mining and Minerals Division (MMD) for an exploratory mining permit and also submitted an application to the US Forest Services for a permit to drill in an area near the old Tererro mine in the Upper Pecos watershed, an area that has substantial contamination from past mining operations. The timeline on these permits is uncertain and NMAA does not have any specific updates on dates of hearings or public comment. When those become available, NMAA, along with other advocates, will disseminate action alerts. In the meantime, NMAA continues to participate in the Stop Tererro Mine Coalition along with several community-based organizations and conservation groups.

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# NMSU Publishes New Research on NM Acequias

by Emily Arasim, NMAA Youth Education Coordinator & Program Assistant

The New Mexico State University (NMSU) College of Agricultural, Consumer and Environmental Sciences recently published a new study which was over a decade in the making - "Acequias of the Southwestern United States: Elements of Resilience in a Coupled Natural and Human System".

This report includes data and research that affirms acequia traditional knowledge. Specifically, the research suggests that acequias play a critical role in the health of the land and watersheds, and that social and community relationships are what make acequias resilient. Information was drawn from case studies in El Rito in the Rio Chama watershed; Alcalde, along the Rio Grande; and the Rio Hondo north of Taos. It includes sections by Sylvia Rodríguez and José Rivera, amongst many other esteemed acequia scholars. Some of the key points in the research included the following:

## **Acequias connect communities to each other and to the local hydrology:**

- The practice of mutualismo or ayuda mutual (mutual aid, working together for the common good and survival) between neighbors is what has kept acequias flowing for hundreds of years. It is also what has given communities the strength to protect each other from harms including displacement and loss of land. Confianza (trust) and respeto (respect) are central to this system working.
- The ditch weaves the fields together physically, while the acequia association weaves the neighborhood together socially. Increased dependence on the global economy and wage-jobs outside of our communities has, in some cases, led to decreased connection amongst parciantes within acequia and stream systems.
- The ability of acequias to make their own, autonomous local decisions is key to us being able to adapt and overcome all types of stresses and changes.
- Passing on knowledge about acequia governance, customs and the environment in the Spanish language is very important to the future of our acequias. Much of this knowledge can not be easily translated to English.

## **Acequias can contribute to aquifer recharge and may support river flows:**

- Unlined earthen ditches are, in most cases, best at supporting healthy environments. Natural seepage helps nurture vegetation and a diversity of plant, animal, bird and insect life.
- Acequias make a significant impact on replenishing groundwater tables during the irrigation season - not just for the irrigated area, but also for surrounding drylands.

- Common water conservation strategies such as ditch lining and drip irrigation, were found to be "fixes that backfire", because the restriction of water seepage resulted in less replenishment of the groundwater aquifer. This made communities less resilient as communities depend on this groundwater, especially when ditches go dry.
- During the three-year period of the study, over half of the water diverted into the Acequia de Alcalde returned to the river as surface water, and another third made its way into the shallow aquifer after first seeping into the soil of the acequia and fields. The study concluded, "Aquifer recharge and late season groundwater return flow are important hydrologic functions that result from acequia agriculture". They did note that in other, dryer areas, less water is likely to make it into the river or groundwater.
- Due to human changes to rivers - such as channeling, controlling and construction of flood-control levees - streams no longer meander and flood their valleys in the way they once did. The movement of acequias helps to restore something similar to that natural meandering flow of rivers. A loss of acequias and acequia irrigation would likely damage river water quality and quantity.

## **Acequia agriculture faces social and economic challenges:**

- In a survey of 95 acequia ranchers, it was found that the majority depended on off-farm employment or retirement as the main source of family income. Less than 10% of survey respondents said they grow crops other than hay, and only 5% said they would want to switch to growing other crops. The ability to grow or purchase enough hay to feed livestock through the winter months was the most common challenge ranchers reported.
- When parciantes were surveyed about acequias vulnerability to climate change and severe drought, and asked to rate the success of different strategies to deal with it - working to improve soil to reduce evaporation was the most popular idea. Other popular responses were trying alternative irrigation technology; using cold frames to start plants earlier; and planting more native or heirloom crops.
- Increasing the value and price of local food in local markets was found to be one of the key ways to help acequia farmers make better incomes, and therefore be able to stay in their communities.

In January 2021, NMAA partnered with NMSU to host an online event celebrating this research, and hearing from our community about future research topics that would benefit their acequias.

**The full report can be downloaded on the NMSU website. Questions and future research ideas may be sent to: [afernald@nmsu.edu](mailto:afernald@nmsu.edu)**



# Acequia Legislative Advocacy Update



Acequia community members in action at Acequia Day at the NM State Legislature, January 2020.

by Jaimie Park, NMAA Policy Coordinator & Paula Garcia, NMAA Executive Director

The NMAA has given several presentations to legislative committees in recent months covering topics related to drought, water sharing, climate change, infrastructure, cannabis, and water transfers/leases. Presentations included background information, overviews of policy priorities of acequias, and policy recommendations. A brief overview of recent presentations are provided below. To view any of these presentations, visit the NMAA website at [www.lasacequias.org](http://www.lasacequias.org).

Over coming months, we will continue to engage with legislative committees and prepare for advocacy in the 2022 Legislative Session. We send our deep appreciation to all of the acequia leaders who continually show up to share testimonies and lend their voices to these important statewide efforts.

## Supporting Acequia Resiliency in Megadrought - Gallup, July 13, 2021

Paula Garcia, NMAA Executive Director, was invited to give a presentation to the Water and Natural Resources Legislative Committee (WNRC) on the impacts of drought and climate change on acequias in New Mexico. Paula shared acequia testimonials about reduced snowpack, earlier spring runoff, low stream flows, and dry river beds, as well as first hand accounts of flood damage from extreme weather events. These testimonials were aligned with climate change predictions that were presented by climatologist Dr. David Gutzler, who presented before Paula at the same meeting of the WNRC.

The NMAA provided the following recommendations:

- Support and affirm acequia water sharing practices

through capacity building, leadership development, and technical assistance for acequias and regional associations, along with providing more resources for OSE staffing;

- Strengthen acequia infrastructure by developing the Acequia and Community Ditch Infrastructure Fund ("ACDIF") into a robust program with staff and reliable funding, protecting ACDIF funding, and institutional support for climate-adapted designs that are more resilient to flooding;
- Strengthen disaster response and assistance to acequias by conducting and completing an acequia infrastructure inventory and mapping for both state and federal hazard mitigation plans, develop capacity for acequia leaders to serve as liaisons with state and federal disaster agencies, and provide more resources for state agencies to respond to disasters that do not receive a federal emergency declaration;
- Support water conflict resolution through provision of resources for conflict management mediation services; and
- Strengthen acequia conservation practices by connecting landowners to USDA Farm Bill programs for soil and water conservation practices, leveraging federal funds with state funding (i.e. the Agriculture and Natural Resources Trust Fund), and building upon the recent work with the state Healthy Soils Program to support drought resiliency through soil health practices.

## Water, Equity, and Cannabis Production: Implications for Acequias - Taos, August 12, 2021

In this presentation to the WNRC, Paula was part of a panel that included Martha Graham from the New Mexico Rural Water Association, John Romero from the Office of the State Engineer, and Linda Trujillo, Superintendent of the Regulation and Licensing Department. The presentations by Martha and

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Paula focused on the challenges that are facing rural communities as a result of the demand for water from cannabis production. Martha noted that several rural community water systems are facing a variety of requests to use domestic water for commercial cannabis. Paula discussed the potential impacts to acequias, including the potential of water transfers out of acequias or transfers of surface water to groundwater. Paula went on to explain the rationale for advocating for language in the Cannabis Regulation Act to require valid water rights and compliance with water provider rules prior to receiving a license. One of the key issues that surfaced was that the OSE does not have the capacity to enforce illegal water uses, a situation that will be exacerbated by cannabis production.

### **Irrigation Works Construction Fund - Taos, August 12, 2021**

Also in testimony before the WNRC, Paula was part of a panel that also included staff from the Interstate Stream Commission to discuss the Irrigation Works Construction Fund ("IWCF"). NMAA's IWCF presentation focused on this trust fund's insolvent status and what actions are needed to restore the fund. The IWCF is a trust fund the legislature created in 1953, with the purpose of funding costs of investigations, construction, and other expenses directly chargeable to an infrastructure project. In 2019, NMAA was able to secure a statutory amendment to the IWCF, codifying an annual allocation of \$2.5 million into the Acequia and Community Ditch Infrastructure Fund ("ACDIF"). The ACDIF is an exciting endeavor to establish a one-stop shop for acequia infrastructure projects, providing funding for design and engineering as well as construction.

Unfortunately, the IWCF is nearly depleted, requiring immediate legislative action to replenish that fund and to secure ACDIF funding. NMAA has recommended to the Legislative Finance Committee they restore solvency to the IWCF with two specific actions: 1) use General Fund monies to replace \$12 million in trust fund monies for the OSE-ISC agency budget starting in FY23 and 2) appropriate a one-time infusion of \$100 million of state or federal funding into the IWCF to restore the balance to previous levels that existed before the fund was tapped to pay for agency expenses.

### **Supporting Acequia Infrastructure in New Mexico - Mora, July 19, 2021**

For the first meeting of the Rural Economic Opportunities Task Force (REOTF), Executive Director Paula Garcia was part of a panel with Ralph Vigil, NM Acequia Commission, and Jonathan Martinez, Acequia Program Manager for the Interstate Stream Commission (ISC) to draw attention to acequia infrastructure as one of the most pressing policy issues for acequias. Paula's role on the panel was to raise awareness regarding the importance of acequias to New Mexico, what acequia infrastructure is, the pressing infrastructure needs and challenges, current funding programs for acequia infrastructure, and specific policy solutions needed.

Acequia infrastructure challenges involve the following: 1) the number of acequias requesting funding and assistance exceeds the current capacity of funding programs (i.e. ISC, RCPP, Capital Outlay); 2) acequias vary greatly in capacity and project readiness, with most needing assistance with governance, pre-planning and project management to prevent unfinished projects and delaying in spending Capital Outlay; and 3) there is a bottleneck for engineering design, limiting the number of acequias ready to receive construction funding. Specific policy solutions include 1) protecting funding for ACDIF by restoring solvency to the IWCF (see previous section for more details), 2) creating an Acequia Bureau at the ISC to ensure adequate staffing levels and provision of project support, technical assistance, and professional engineering services; 3) and continuing to fund the Acequia and Community Ditch Education Program at DFA, which funds NMAA's Acequia Governance Project and Infrastructure Planning Work.

### **Acequia Land Grant Education (ALGE) Project - Anton Chico, September 23, 2021**

Paula presented on a panel before the Land Grant Committee with Adrian Sandoval of the Center for the Education and Study of Diverse Populations (CESDP) at New Mexico Highlands University and Dr. Jacobo Baca, Research Historian with the UNM Land Grant Studies Program to give an update on the progress related to two legislative memorials from 2019. HM 31 (Miguel Garcia) and SM 31 (Peter Campos) requested that acequia and land grant leaders work together to develop recommendations for youth curriculum development. Some seed money was appropriated to CESDP to facilitate a series of meetings with community leaders and educators to develop recommendations. The panel shared a white paper that summarized the project background and results of the community meetings. The next steps are to work with the NM Public Education Department on teacher training and educational materials.

### **Water Transfers and Water Leases: Impacts on Acequias - Anton Chico, September 23, 2021**

Paula and David Benavides, Attorney with New Mexico Legal Aid, presented to the Land Grant Committee on water transfers and water leases. David's presentation covered the tenets of NM water law including the basic requirement that existing water rights be protected any time there is a new appropriation or that an existing water right is transferred. He went on to explain that a recent OSE practice turns this long-standing legal principle on its head by granting preliminary approvals on water lease applications. He explained that this practice is unlawful and that a recent district court decision explicitly explains all the reasons that the OSE is not authorized to grant preliminary approvals. Paula provided some further background and shared a case studies that illustrate how water transfers in general affect acequias, and how preliminary approval could be extremely detrimental to acequias and rural communities who use protests as a tool to raise concerns about the impacts of water transfers/leases on their water rights. 💧



# Upper Hondo Flood Damage and Lessons For Acequias

by David F. Garcia, NMAA Education & Outreach Coordinator

While New Mexico experienced severe drought in 2021, another challenge faced by many acequias was flooding from extreme rainfall. During Memorial Day weekend in May, numerous acequia communities in the Upper Hondo experienced devastating flooding which prompted Governor Luján Grisham to issue two state emergency declarations for Lincoln and Chaves counties. According to locals, it was perhaps the worst flood disaster to impact this area since the floods brought by Hurricane Dolly in 1968.

The NMAA team was invited by Jackie Powell of the Upper Hondo Water Users Association to accompany site visits by the Federal Emergency Management Agency (FEMA), the New Mexico Department of Homeland Security and Emergency Management (DHSEM), and a representative of Senator Ben Ray Luján's office to assess damage. Powell emphasized the need for acequias to better understand the emergency assistance bureaucracy at both the local and federal levels.



Jackie Powell, leads an emergency response team to view flood damage to numerous acequias.

At a meeting, Gregory Suko, Recovery Officer for DHSEM, introduced the FEMA and DHSEM teams, and explained their role in coordinating emergency response. These two teams directly worked with Jackie Powell, who made individual contacts with local acequias officers. In addition, Powell also invited an engineering consultant to help with accessing local costs estimates of the damage.

We headed out from the office in a caravan following Powell. It is important to note the importance of Powell's position as a liaison between the acequias and the state agencies. Without her vast local knowledge of the watershed, it would have been very difficult to know where the flood damage is located, "you wouldn't be able to see the damage from the road and they [agency officials] would not know where to go."



Flood damage to the Antonio Sanchez Ditch, which included a damaged section of pipeline which conveyed water to numerous landowners.

## The group visited the following acequias:

- **Antonio Sanchez Ditch:** David Montez, an acequia parciente and property owner, retold how flood waters from the nearby canyons brought down trees, large stones, and even moved vehicles through his yard. Mayordomo, Richard Ford, led us on a walk to identify acequia infrastructure areas that had sustained the most damage. The acequia, which is enclosed in pipe, was damaged when flood waters broke the pipeline, which interrupted the flow. Quick estimates for repair of the breach were in the hundreds of thousands of dollars because of the need to repair a significant length of the pipeline.
- **L. Gallegos Ditch:** Mayordomo George Mendoza led the group to view heavily silted areas. He stated that sand had filled in their diversion gate and had damaged their diversion dam preventing the water levels from rising high enough to fill the presa. An important point made here by one of the FEMA representatives was that the federal government could only remediate a site to pre-existing flood conditions.
- **Upper Chosas Ditch:** Mayordomo Richard Montoya led the teams to view damage to the main headgate, which collapsed during the flooding. The diversion was buried under silt and debris and it was difficult to imagine how it looked before the flooding. It was also mentioned that 600 feet of the main acequia pipe would need to be repaired or replaced because it was filled with silt. Estimates of the damage were in the hundreds of thousands of dollars.

Powell continued to lead site visits for an additional two days visiting several other acequias, and expressed concern regarding the need for acequias not only in her watershed, but regionally, to be prepared for such disasters. With the short-term and long-term effects of drought and wildfires, acequias are susceptible to flooding damage to their infrastructure by any storm system that may come.

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(l-r) Mayordomo Richard Ford of Antonio Sanchez ditch addresses the group. Richard Montoya, Mayordomo of Upper Chosas ditch, led a tour of their main headgate, which was destroyed in the flooding. David Montes, parciante on the Antonio Sanchez Ditch, led a tour of his orchard which had heirloom apples and other fruit. The orchard was severely damaged by silt and debris from catastrophic flooding.



**Powell outlined some lessons learned to share with fellow acequias including:**

- **Disaster Handbook:** One of the most important take-aways from this experience was the importance of a quick response and knowing how to navigate state and federal agencies. FEMA and DHSEM have resources available for rebuilding infrastructure, but there are important constraints and rules to understand. For example, a Governor's Emergency Declaration will release \$750,000 of emergency aid to a county. A federal declaration is needed to make available resources from FEMA which can be significantly higher, depending on the extent of damage. There are also different programs that serve different purposes including the NRCS Emergency Watershed Program and various FSA Disaster Programs, both of which are separate and distinct from FEMA or DHSEM funding. It is vital that acequias and their parciantes understand the programs and are informed of their deadlines. More information on these programs is provided at the end of the article.
- **Local Liaisons:** Jackie Powell illustrated the importance of having local acequia leaders who can communicate with FEMA and DHSEM. Counties and towns have emergency managers to coordinate with agencies, and acequias need a similar person who can be a liaison and assist with doing damage assessments. It is also helpful for acequias to have a liaison who can coordinate with their local county emergency manager to effectively respond to disasters.
- **Local Mapping and Documentation:** Because emergency funding can be used only to restore the pre-existing condition of infrastructure, it is vital that acequias have good documentation of their infrastructure including GPS points, photos, and descriptions. Absent this documentation, it is difficult for agency officials to estimate the cost of replacement of acequia infrastructure. In some cases, acequia irrigation works were completely washed out or covered with silt and their original condition was difficult to visualize.

**The following are some useful resources for local communities in the event of a disaster:**

- **The New Mexico Department of Homeland Security and Emergency Management (DHSEM)** - Local emergency managers should immediately contact DHSEM when an emergency or disaster exceeds county resources. The Response and Recovery Team is responsible for overseeing and coordinating state-level all-hazards emergency response and recovery preparedness, response, recovery and homeland security activities within NM. Their 24-hour hotline is 505-476-9600. A Governor's emergency declaration can make available \$750,000 per county for disaster response resources.
- **The Federal Emergency Management Agency (FEMA)** - The US President can make an emergency declaration or can declare a major disaster within 30 days of the occurrence if it is determined the impact of the damage is of such severity that it is beyond the combined capabilities of state and local governments to respond. An emergency or a major disaster declaration provides a wide range of federal assistance programs for individuals and public infrastructure, including funds for both emergency and permanent works. This is in addition to the state funds made available through a Governor's declaration.
- **The NRCS Emergency Watershed Protection (EWP) Program** - is a federal emergency recovery program that helps local communities recover after a natural disaster strikes. It offers technical and financial assistance to help local communities relieve imminent threats to life and property caused by floods, fires, windstorms and other natural disasters that impair a watershed. State or federal declarations are not

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## Upper Hondo Flood Damage and Lessons For Acequias *continued from page 16*

necessary. EWP is a cost share program - 75% of the cost is covered by NRCS and the 25% is the local share. In the summer flooding in the Upper Hondo, Lincoln County and the local SWCD covered the 25% local cost share. This program was used to remove debris from the river where additional flooding placed property or life at risk. Some of this work was done within days of the flood.

• **NRCS Environmental Quality Incentives Program (EQIP) Emergency** - While not designed to be an emergency response program, EQIP can play a vital role in assisting producers recover from natural disasters like floods, hurricanes, wildfires, and drought. It provides financial assistance to repair and prevent the excessive soil erosion caused or impacted by natural disasters. These practices include activities like stream bank restoration, grassed waterways and buffers. NRCS-funded conservation practices protect your land from erosion, support disaster recovery and repair, and can help mitigate loss from future natural disasters. Socially disadvantaged and limited resource farmers, Tribes, veterans and young/beginning farmers are eligible for an increased payment rate and may receive ad-

vance payment of up to 50% to purchase materials and services needed to implement conservation practices included in their EQIP contract.

• **The FSA Emergency Conservation Program (ECP)** - helps farmers and ranchers to repair damage to farmlands caused by natural disasters and to help put in place methods for water conservation during severe drought. The funding for ECP is determined by Congress. Up to 75% of the cost to implement emergency conservation practices can be provided, however the final amount is determined by the committee reviewing the application. Qualified limited resource/socially disadvantaged and beginning farmers/ranchers may earn up to 90% cost-share. The FSA County Committee is able to approve applications up to \$125,000 - while \$125,001 to \$250,000 requires state committee approval. Amounts over \$250,000 require the approval of the national FSA office. Federal or state emergency declarations are not always required. In the case of the Upper Hondo flooding, some landowners were planning to submit requests for funding assistance to replace fencing that had been destroyed by floodwaters. ♦

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## Tools to Adapt to Drought Conditions: Soil Health and Irrigation Practices Through NRCS

by Serafina Lombardi, NMAA Director of Programs

The refrain of many in our acequia communities is “Sembramos con fe”, we plant with faith. Many of us pray to San Isidro for rain and trust the wisdom of the land and ancestors that if we continue planting, there will be a harvest. At the same time, we watch the skies, follow the long range weather forecasts, read the patterns, and make practical adjustments in our plans and methodologies to accommodate the increasingly unpredictable seasonal cycles and extreme weather events.

Efforts to sustain our local food production require a combination of remembering traditional practices as well as implementing new technologies, and it is this confluence of our faith, perseverance, adaptiveness, and wisdom that has enabled our acequia communities to thrive through economic, cultural and environmental changes, siglo tras siglo (century after century).

NMAA is committed to supporting acequia agriculturalists in finding their way through these difficult times, and the many challenges such as intense winds, late frosts, water shortages, flooding events, high temps and the threat of wildfires. One of the ways we can do this is by helping you access Natural Resource Conservation Service (NRCS) programs including “Conservation Incentives” that help producers implement soil and water conservation methods on their farms! NRCS offers technical assistance, as well as access to funding to help off-set



Acequia-fed water cisterns feed drip irrigation.

the cost of implementing many conservation practices, including those below which focus on soil health and irrigation.

### Soil Health:

“Resilience is to bounce back from whatever calamity might be” shared Virgil Trujillo at our NMAA Soil Health Plática in February 2021, during which he focused on sharing strategies he uses in his ranching in Abiquiu and as the past Superintendent of Ranch Lands at Ghost Ranch. He shared how healthy soil enables us to be resilient in these times of so many disasters, including recounting his own experience of six fires on their allotment. He emphasized two principles gained from his

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## Tools to Adapt to Drought Conditions: *continued from page 17*

Holistic Resource Management Training - (1) The priority is caring for the land and the good outcomes will follow, and (2) listen, share and be open minded in the spirit of learning.

These principles can guide us to finding the practices that are right for us. During the February event we also heard from Taos farmer, Miguel Santistevan who shared some of the practices he implements including compost, worms, homemade biochar, cover cropping, and supporting biodiversity. He urged everyone, "The only wrong way to do it [build soil health] is to not do it!"

We also heard from Gabriella Coughlin, NRCS soil scientist/conservationist and soil health specialist based out of Albuquerque, where she delivers technical and financial assistance to diverse groups of private, public, and tribal landowners along the Middle Rio Grande Valley. She highlighted the work of NRCS to focus on soil health from a "village approach" and share techniques that are specific for the land you work.

At our April 2021 "USDA Lunch Break" event we also heard from David Griego, District Conservationist for NRCS, who shared the Soil Health Principles:

- Keep the soil covered as much as possible.
- Disturb the soil as little as possible.
- Keep plants growing throughout the year to feed the soil.
- Diversify as much as possible using crop rotation and cover crops.
- Consider integrating animals.

### **If you are interested in implementing more soil health practices, some of the projects that NRCS programs can help with include:**

- Soil Health Management Plans
- Cover crops
- Conservation tillage (reducing tillage, strip till and no till methods)
- Windbreaks
- Pest management
- Nutrient Management
- Organic Certification
- Composting facilities
- Cross fencing (rotational grazing) and more!

### **Irrigation Improvements:**

As you are probably observing, water is becoming more scarce due to the varied impacts of climate change. In addition to sharing fairly what water we do have, we can also maximize our ability to deliver water where we want it with the irrigation practices offered by NRCS, or by making your own modifications. We honor that efficiency is not our only goal, and that some seepage creates vital habitat, beautiful scenery and shade, and that we want to all be empowered with choices about how to manage the water we have access to!



Pollinator habitat.

### **If you are interested in exploring different irrigation practices, some of the projects that the NRCS programs can help with include:**

- Gated piping • Alfalfa valves • Micro sprinklers • Drip irrigation • Cisterns • Piping of laterals • Land leveling • Pond sealing and more!

There are a myriad of practices to fit the needs of different operations and people in our acequia communities - and we have success stories to prove it!

Steven Jaramillo of San Pedro worked with the Hernandez NRCS Office to install water cisterns field by the acequia to feed a drip irrigation system in his High Tunnel (also NRCS funded). David Fresquez of Monte Vista Farms in La Mesilla also worked with the Hernandez NRCS Office implementing a variety of practices including cover crops (keep a living root) and pollinator habitat (maximizing diversity) on his farm, where he also has an NRCS funded High tunnel. The Garcia family in Mora received support from EQIP to install a gated pipe irrigation system for over 20 acres of farmland. Thank you to these producers for sharing their stories to inspire the rest of us to try as well!

**To get started - contact Toribio, Chavela or Serafina of the NMAA team for one-on-one assistance ([serafina@lasacequias.org](mailto:serafina@lasacequias.org) / 505-995-9644) or directly contact your local NRCS Office (505-471-0410)**

### **If you decide to move forward in applying for a NRCS program, next steps will include:**

1. Establish a Farm record with the Farm Service Agency  
\*\* To find your local FSA Office, visit the USDA website or call (505) 761-4462. \*\* The NMAA Team is here to help you complete the forms
2. Contact your local NRCS office to set up a site visit where they will come walk your land with you and see what NRCS practices are a good fit.
3. Complete a NRCS EQIP application with NMAA Team assistance.
4. Your project will get ranked and if accepted, you will sign a contract for specific practices.
5. Once NRCS inspect the implementation of your conservation practices you will receive a cost share reimbursement! 💧



### San Miguel County Approves Mining Ordinance

NMAA recently supported the San Miguel County Mineral Resource Exploration, Extracting and Processing Ordinance (“County Mining Ordinance”), adopted on September 15th. The County Mining Ordinance authorizes the county to exercise its regulatory authority over environmental impacts from the mining industry within county boundaries. This ordinance is similar to the Santa Fe County mining ordinance adopted in 2019 and applies to all future mining activities. The ordinance ensures that future mining operations comply with regulatory requirements, enables the San Miguel County Board of Commissioners to meaningfully exercise its regulatory authority, and holds mining operators accountable for impacts to cultural and natural resources. The Pecos River Watershed provides critical water resources to numerous downstream acequias, therefore clean water is essential for the health and wellbeing of these acequia communities. NMAA commends the San Miguel County Board of Commissioners for taking this necessary and prudent action to help protect the health, safety and welfare of county residents.

### State Decennial Redistricting Underway

New Mexico is currently in the process of “redistricting”, which is the redrawing of the geographical boundaries that correspond to certain elected offices to account for changes in population. For example, all US House Representatives represent specific geographical areas of a state. This is the same for state legislators and many local elected officials. As populations change across districts, they must be redrawn to provide for an equal population across all districts (one person, one vote). Our legislature passed the Redistricting Act during the recent legislative session, which created the Citizen Redistricting Committee, an independent, non-partisan body tasked to develop and propose updated district maps for New Mexico’s Congressional delegation, the New Mexico Senate, the New

Mexico House of Representatives, and the Public Education Commission.

The mission of this committee is to propose district lines that are drawn fairly through a transparent, open, and participatory process and “to develop district maps that allow New Mexican voters to choose their elected representatives, not the other way around.” NMAA submitted its proposed redistricting maps on September 1st, along with written comments. Of primary importance to NMAA is the preservation of acequia communities of interest, preservation of existing district cores, as well as the prevention of acequia voting strength/representation dilution. The committee released its draft redistricting maps on September 15th for another round of public comment, and NMAA will submit supplemental comments.

### Pecos Locals and Jemez Pueblo Urge Protection of Pecos Watershed

At a legislative committee hearing in Taos, Ralph Vigil, Chairman of the NM Acequia Commission and owner of Molino de la Isla Farm and Kurt Mora, second Lieutenant Governor of Jemez Pueblo gave a presentation to the Water and Natural Resources Committee about the significance of the Upper Pecos watershed to the health and well-being of downstream communities. They also pointed out that the Pecos area contains sacred sites and is the ancestral homeland of families from Jemez Pueblo with ancestors who were displaced from Pecos Pueblo centuries ago. They noted that the watershed is threatened by potential mining operations which would be catastrophic for the communities who rely on clean water for a vital recreational and agricultural economy in the communities along the Pecos River. They urged protection of the Pecos River and noted several ongoing efforts to defend the area by various organizations working on water quality and land protection. 💧

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## Acequia Funding Announced: Application Deadline October 25, 2021

NMAA is excited to announce a new funding source for acequia infrastructure, the Acequia and Community Ditch Infrastructure Fund (ACDIF)! This fund is the result of legislation that passed in the 2019 legislative session (sponsored by the late Senator Carlos Cisneros) that directs \$2.5 million dollars of funding each year to the Interstate Stream Commission for acequia projects.

The ISC has announced that they are now accepting applications from acequias for the fund. This new program builds upon years providing funding for acequia projects through the ISC with some key improvements:

- **Planning and engineering design:** Unlike the previous ISC programs, funding from the ACDIF can be used to cover 100% of the cost of engineering design (up to \$50,000). ISC staff may also assist with the planning phase of a project.
- **Construction:** The ACDIF will cover up to \$250,000 of the cost of an acequia project. Other state, federal, and local sources can be used as cost share including Army Corps of Engineers, Natural Resource Conservation Service, Capital Outlay, and local funds from Soil and Water Conservation Districts.

The new ACDIF program is designed to provide more support to acequias from start to finish by ensuring that acequias have an engineering design (and a cost estimate) prior to requesting funding for construction. **Applications for either engineering design or construction are due to the ISC by October 25, 2021.** To be eligible, acequias are required to be compliant with audits and financial reporting, to secure any necessary easements, as well as other criteria that support project readiness. **For assistance in completing the application and required attachments, contact Serafina - [serafina@lasacequias.org](mailto:serafina@lasacequias.org). To get an application, contact Jonathan - [jonathan.martinez@ose.state.nm](mailto:jonathan.martinez@ose.state.nm)**

# Noticias de las Acequias • Fall 2021

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## **Acequia and Community Ditch Infrastructure Fund - Application Deadline, October 25, 2021 -**

The newly established ACDIF program at the Interstate Stream Commission is accepting applications for this fiscal year. Applications can either be for engineering design or construction. For assistance in completing the application and required attachments, contact Serafina - [serafina@lasacequias.org](mailto:serafina@lasacequias.org). To get an application, contact Jonathan - [jonathan.martinez@ose.state.nm](mailto:jonathan.martinez@ose.state.nm).

**Get Involved in the 50-Year Water Plan!** - The Leap Ahead Analysis was developed by a group of scientists who comprise the Climate Change Advisory Committee for the ISC. The report provides data and projections for climate change in New Mexico and will serve as the basis for the 50-Year water planning effort. A final plan is expected to be completed by March 2022.

### **Upcoming deadlines include:**

**October 15, 2021** - Comment deadline on the Leap Ahead Analysis

**October 31, 2021** - Deadline to complete a Resiliency Survey

To read the Leap Ahead Analysis, visit: [www.ose.state.nm.us/Planning/50YWP/](http://www.ose.state.nm.us/Planning/50YWP/)

To take action for the above deadlines, visit: <https://nmose.isc.commentinput.com/>

**Congreso de las Acequias - Saturday, December 5, 2021** - Like last year, due to public health concerns with large, indoor gatherings, NMAA will hold our annual Congreso de las Acequias online. You can join using Zoom or your phone. Information on the program and registration will be announced soon!