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[NOTE: “Acequias del Norte” DVD post production script.

Edited by José A. Rivera with permission from producers.]

**“Acequias del Norte”
Agua es Vida Series-Volume 7**

“Water is Life for Today and for Future Generations”

Executive Producer

Charlie Nylander, Program Manager
Water Research Technical Assistance Office (WRTAO)
Los Alamos National Laboratory
LA-UR-05-9378

Produced by:

National Educational Technology Solutions, LLC
Connie Callan, Producer
Bart Callan, Director
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Collaborators:

Acequia Madre del Prado del Río Lucero
Acequia Madre del Río Lucero y Arroyo Seco
Acequia Porvenir
La Acequia de los Molinos
La Acequia Madre de la Loma de Ranchitos de Abajo
Los Alamos National Laboratory/Water Research Technical
Assistance Office (WRTAO)
New Mexico Acequia Association
Park View Ditch of Los Ojos
Taos Soil and Water Conservation District
Taos Valley Acequia Association
University of New Mexico

Featured Interviews: Paula García, Albert Martínez, Palemón A. Martínez, Atilano
Augustín Montoya, Charlie Nylander, José Rivera, Manuel Trujillo, Stephen Trujillo,
Peter Vigil

Narrator: Nelson Martínez

DVD Cover Information

Acequias del Norte: The purpose of this video is to acquaint viewers with the rich history of the acequia culture in New Mexico, and provide current perspectives from New Mexicans deeply involved in the practice and perpetuation of the acequia culture. This video explores the historic roots of the acequia culture, and explains the functions and terminology of this 400 year old irrigation practice and culture in New Mexico. This film begins with the activities associated with the Spring Ditch Cleaning, and introduces the viewer to the role that the acequias serve in managing scarce water supplies, maintaining a culture that creates true “communities”, and the current issues facing the acequia culture.

Topics discussed include: Acequia culture current and historic; roles of a *mayordomo*; acequia terminology; responsibilities and rules that are based on proportionality (sharing); acequias as a model of sharing and community government; economic/tourism benefits; acequia government and code-of-conduct; value systems concerning water and land; current issues facing acequias today; challenges relative to water banking; beneficial use of water; water adjudication; buying and selling water rights (transfer); storage reservoirs and watershed; acequia maintenance; the rebuilding of local food systems and farming folklore.

<p>INTRODUCTION</p> <p>NARRATOR: Nelson Martínez</p>	<p>“In the late 16th century, Spanish explorers and colonizers migrated to the northern Río Grande region from central Mexico. Here they would establish frontier villages and towns on the northern outpost of “<i>Nueva España</i>,” or, “New Spain.” Land grants were issued to scores of migrant pioneers and, as the colonies grew, so did the demand for water. In order to cultivate the valley bottomlands on these expansive land grants, the colonists were forced to engineer major diversions along the Río Grande---the Río del Norte--the Río Chama, and the Río Pecos; as well as on the more minor tributaries and streams from present-day San Luis, Colorado, through New Mexico, and downstream to El Paso, Texas.”</p> <p>“The construction of such an intricate system is a stunning example of early innovation and design. To create irrigation systems, they made use of gravity flow and diverted water in ditches upstream from their fields, traversing around trees, large boulders, hills and other physical obstacles. Arroyos and other low elevations were either filled in or bridged using hand made flumes or <i>canoas</i>.”</p> <p>“Constructing the community acequia was an absolute necessity. Along with building a local church, this marked the first stages of occupation.”</p>
<p>Spring Cleaning Tradition/Annual “<i>Limpia</i>”</p>	
<p>Charlie Nylander, Manager, Water Research Technical Assistance Office</p>	<p>So as an important part of the story of talking about water resources use and management in New Mexico, we have to know a little about the Acequia Culture.</p>

<p>José Rivera, Professor of Community and Regional Planning, University of New Mexico</p>	<p>“Acequia” is a Spanish term that literally means “the ditch.” Its origins and roots really are from the Arabic languages that have the same word. In New Mexico, “acequia” has also evolved to become the word that is used to describe the irrigators themselves when they form an acequia association. So often we hear “acequia is more than a ditch.” And what that means is, it certainly refers to the physical ditch, but also to the community of irrigators... and it really reflects this idea of people relating to each other in terms of an obligation or this collective enterprise.</p>
<p>Cleaning Crew Members... “Everyone’s job for spring cleaning”</p>	<p>#1: You got to come and do your part for the acres you water.... #2: It’s usually two days. One day they come and clean all the <i>jaras</i>, all the brush, and the next day, they clean the ditch.</p>
<p>Cleaning Crew Members</p>	<p>Tomorrow they might let the water go out, and start irrigating probably, tomorrow.... Yea, probably tomorrow, I’d say.</p>
<p>Cleaning Crew Member</p>	<p>So all we got to do is clean it up nice; so the water can run fast.</p>
<p>Atilano Augustín Montoya, <i>Mayordomo</i> Taos County (Acequia Madre del Prado del Río Lucero)... “Spring cleaning and terms”</p>	<p>The <i>mayordomo</i> organizes all the <i>parciantes</i> to get together on a decided date, and they meet and clean the <i>acequia madre</i>, which is the main ditch, and then they clean the <i>venas</i> which are the laterals off of the <i>acequia madre</i> that deliver the water to the different <i>parciantes</i>’ lands. We have about eight miles of ditch that we clean.</p> <p>We use a method that is called a “<i>tarea</i>” and a “<i>vuelta</i>.” The <i>mayordomo</i>, or the ditch boss in charge of cleaning that year, measures a space, be it 20 feet, 30 feet, whatever, and then he spaces the workers at that distance apart. And then each worker</p>

	cleans that section in front of him, the “ <i>tarea</i> .” The guy in charge walks up and down seeing that it’s getting done. Once it’s done, he calls out the word, “¡ <i>vuelta!</i> ” And everybody moves up.
Cleaning Crew Members	#1: ¡ <i>Vuelta!</i> ¡ <i>Vuelta!</i> #2: <i>Limpiando acequia</i> , annual ditch cleaning.
José Rivera... “Spring cleaning tradition”	I describe this annual <i>limpia</i> and the acequia really as a social equalizer because you’ll see on that day, everybody is a <i>peón</i> basically a ditch digger and cleaner. And there’s only one boss on that day, and that boss is the <i>mayordomo</i> who is in charge of supervising the cleaning of the ditch. You will see lawyers, you will see teachers, you’ll see bus drivers, and you’ll see other kinds of occupations. This illustrates very nicely the commitment that people have. This early spring time is a time of renewal and a belonging and connecting to the birth place, to their community life.
<i>Mayordomo Job</i>	
Atilano Agustín Montoya	Every acequia system has its own governing body. And it consists of commissioners and a <i>mayordomo</i> . The commissioners are elected by the <i>parciantes</i> . The <i>mayordomo</i> is either elected or appointed by the commission.
Manuel Trujillo, <i>parciante</i> , Acequia Porvenir in Northern New Mexico... “ <i>Mayordomo</i> ”	He was usually the most sought out, or esteemed elder in the community for his fairness, sometimes even settling social disputes such as divorces and other stuff. So it was a prestigious position based on confidence, cooperation, and responsibility.

Palemón A. Martínez, Commissioner, Acequia Madre del Río Lucero y Arroyo Seco... “ <i>Mayordomo</i> ”	He has to be a hydrologist too. He has to understand water; how much water it takes, and how much of that water he can divide to how many individuals, and then has the function of delivering the water to the different acequias in our system.
Albert Martínez, <i>Mayordomo</i> , Chimayo... “ <i>Mayordomo</i> ”	Like now, we’ll have water day and night. So they call me and I schedule them that day; who’s going to irrigate and what time. And when I <i>emplazo la agua</i> , I have to put hourly -- I start from up here and go down and they have so many hours. That’s when it’s hard, when you have to <i>emplazar la agua</i> [distribute the water].
Cleaning Crew Members	#1: When there’s a lot of water everybody gets along real good; when there’s not, there can be some conflicts. #2: Yea, right. #3: Then they give you the time, by the acreage. #1: For every acre you get an hour to water; so if you have 3 acres, you have 3 hours to water.
<p>Terms (officers’ responsibilities, enforcement)</p> <p>Narrator: Nelson Martínez “Acequia associations have historically developed their own regulations and methods of enforcing them, as well as a unique terminology that has been passed down for generations. What are some of these terms and enforcement techniques?”</p>	
José Rivera	Here in New Mexico, a more simple term was adopted, which are called <i>reglas</i> or ditch rules. And even the word <i>regla</i> came from an initial process of—in Spanish would be called <i>arreglos</i> , basically

	translated as arrangements, agreements in essence.
Cleaning Crew Member	You either got to pay or come clean.... So times are hard. So as you can tell, people are coming to clean.
José Rivera	Irrigators who violate the ditch rule will be imposed with a fine. In Spanish, that would be called a <i>multa</i> . If a <i>multa</i> is not paid or if rules are not followed, especially any labor contributions or financial payments that are owed to the ditch system, the irrigator will be called a <i>delincente</i> or will have to pay a <i>delinquencia</i> .
Atilano Augustín Montoya... “Terms”	<p>We have some terminology that is used among the acequias. A <i>comisionado</i>, of course, is a commissioner; <i>parciante</i> is a landowner who is a member of that certain acequia association. We have a unit of measure called a <i>surco</i>; we have a <i>presa</i>, which is called a headgate. The smaller headgates are called <i>compuertas</i>. We have another term; it’s also called a <i>tapanco</i>, which is a dike along the irrigation ditch to divert water. We have <i>linderos</i>, which are ditches dug along a person’s property to be able to guide the water to where he wants it or to keep it from going to the other person’s property, where it might sometimes cause some damage.</p> <p>The <i>acequia madre</i> is the “mother ditch” from which the laterals come out of. The <i>acequia madre</i> normally comes from the <i>Río</i>, which is the main source of water.</p>
Rules/Proportionality	
José Rivera	<i>Arreglos</i> as a concept demonstrates a lot about the sharing and the collective decision making of acequia water users or <i>parciantes</i> , as also they’re called here in

	<p>New Mexico, because these were early agreements of people that had to contribute the labor to build the <i>presa</i> or diversion dam and the <i>Acequia Madre</i>, the canal. So this required a set of agreements as to not only how much labor each irrigator would provide but also how to take turns in terms of use of the water once the ditch system itself was built.</p> <p>Proportionality.... What that means is that larger landowners who had more to irrigate would, therefore, use more water as a benefit to them, but if they used more water because they owned more land, then they also had to contribute more, especially in terms of labor.</p>
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What Are Acequias? Why Are They Important?

NARRATOR: Nelson Martínez

“It’s often said that ‘Acequias’ are more than just ditches. The word ‘acequias’ refers not only to the physical irrigation canals, but the communities who have built, operated, and maintained them for hundreds of years.”

<p>José Rivera</p>	<p>When I talk to school children, for example, I often ask, “Do you know where the birthplace of your community is?” Often a hand will go up and someone will say, “Well, the local church,” the San Ysidro Church or their other local church. And I say, “Well that was an early construction for the community. Religion was a very important part of the culture; however, in most cases, the first construction really was the diversion dam, and that is where we can look to the place where the community was born.”</p>
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Model of Sharing Water (government)	
Paula García, Executive Director, New Mexico Acequia Association... “International model of governance”	One of the reasons that acequias have gotten so much attention nationally and internationally is that we’re a model of water governance. And most regions of the world are starting to face challenges with regard to water scarcity.
Paula García	The <i>repartimiento</i> is an ancient tradition that’s part of the acequia culture. How do <i>parciantes</i> share water with each other within the same acequia? How do acequias that are neighboring each other on the same stream system, how do those acequias share water with each other? And then how do neighboring villages share water between each other? And if you think about how important it is to share scarce water and you realize that there’s a tradition and a whole custom that’s designed to address that question, then you see how significant acequias are in the global picture.
Manuel Trujillo	We share shortages, not abundances. And that is one of the main—the backbone of the acequia is sharing.
José Rivera	This concept of <i>arreglos</i> , especially in terms of water sharing, I think, is very important in terms of contemporary times because here we have a set of changes in terms of urbanization, development, industry, growth, population increase, and heavy demands for the limited supply of water that we have in our river systems.
Paula García...“Model to copy worldwide”	Other places and other institutions are looking to the acequia as a model and saying, “Look, these desert people have figured out how to share water. They have centuries old systems for sharing scarce water. What can we learn from that?”

<p>Economic/Tourism Values</p> <p>Narrator: Nelson Martínez</p> <p>“The acequias are not only a model for water sharing in arid environments, but they also create cultural, economic, ecological, and aesthetic benefits.”</p>	
<p>José Rivera... “Clean water”</p>	<p>Acequia villages in these mountain valley areas are the first users of water. Part of their technology involves the use of gravity flow type of irrigation, which means that they do not use fossil fuels; they do not use pumping for example, and in terms of actual practice in agriculture, they do not use insecticides or pesticides in their fields. This is really organic farming, something that has been practiced down for generations now.</p> <p>They do it for their own benefit in terms of irrigating their fields, crops, and orchards, but at the same time, by keeping the water unpolluted and returning <i>agua sobrantes</i>, which are the surplus waters to the river so that the river is kept flowing.</p> <p>So it’s sustainable in that it is the use of surface water only, not groundwater, and it does not deplete the aquifer.</p> <p>At the same time, another ecological value or benefit to the community itself, but also to the general public, is that by extending the riparian area and creating a wider green belt through the valley of that particular community, this then allows for plant life and trees such as cottonwoods; and wildlife also then has a habitat through this acequia watercourse that we see in our river valleys.</p>

José Rivera	The “ <i>paisaje del agua</i> ,” the “ <i>paisaje de las acequias</i> ,” which means the countryside or the landscape of the community, these are now very much appreciated. People who come into the area, they go to places like Truchas, like Chamizal, like Taos, and other communities where acequia culture thrives. This is part of the amenities in our state that we call the “Land of Enchantment.”
Atilano Agustín Montoya	<i>Tenemos unas creencias en la cultura aquí en el norte de Nuevo México y en la gente hispana. Que para el día de San Juan, debe uno de ir para el río y mojarase la mollera. Y luego brincar al agua y hacer la ranita.</i> <i>Aquí en el norte de Nuevo México también y en otros lugares tienen el día cuando de San Ysidro que sacan el Santo San Ysidro y lo pasean por las huertas y por las vegas para que Dios los vendiga con buen año y mucha agua.</i>
Paula García	In our tradition there are values that you can’t really put a dollar figure on. I don’t think there’s a way that you can possibly quantify the value of the network of community relationships that are part of the acequia.
Charlie Nylander... “Many disciplines”	You have a rich, more than 400-year-old culture that’s developed this process of working collaboratively to maintain the ditch structure, to maintain the distribution

	of water, and to do it with as much as harmony as possible, even in the driest of years. So there's a whole cultural aspect of that that people really ought to appreciate.
José Rivera	The acequia culture really has an international culture behind it from across three continents: Europe, Northern Africa, and the Middle East, and of course here in the Southwest or the Americas.
Paula García	By the time you get to New Mexico, the acequia system has been part of so many different cultures and civilizations that you can't really attribute it to any one group or any one race or any one culture.
Ecological Values	
Manuel Trujillo... "Can't sever water from land"	We all come from families that have values and certain beliefs and ethos. I was raised with one: <i>que la tierra</i> , the land, the earth, in this case the earth, <i>es tu madre</i> , is your mother. <i>Y el agua, el agua, es su vida y su sangre</i> . The earth is your mother, and the water is its lifeblood.
Palemón A. Martínez, "Ecological benefits"	You look at the acequia, you look at the vegetation, the trees, they're full of birds. When I irrigate, that's one of the things I enjoy. If I'm up early in the morning, I hear birds all over, all around me, all over the place.
Paula García	You can't put a dollar value on people's feeling of attachment to place, the feeling that your homeland... that this is the place of your ancestors. There are even relative newcomers that want to be farming and being attached to the land.

<p>Policy Issues and Challenges</p> <p>Narrator: Nelson Martínez “‘What are some of the challenges and issues facing the acequia culture today?’”</p>	
José Rivera... “Buying and selling water rights”	Water users, such as acequias irrigators have the right to use the water as long as they put it to beneficial use. But there are many other possible beneficial uses of water in our water laws.
Paula García	In New Mexico and all over the Southwest, water is treated under the legal system like a commodity. It’s a property right, something that can be bought and sold and transferred. And that very notion is something that runs counter to the acequia tradition.
Manuel Trujillo	You have to determine ownership. But that’s where you have the conflict, the commons versus private ownership; and we tend to look at water as a community resource versus somebody owning it.
Paula García	Historically, we’ve been operating by oral tradition, customs, that are unique to each village, and unique to each watershed.... What we’re starting to experience is an increasing demand to move water out of agriculture to other uses.
Manuel Trujillo... “transfer of water rights”	The water and the land are symbiotic. They go together. You can’t sever one from the other. Once you start doing this, you start unraveling the social fabric that holds a community together.

Paula García	A transfer in essence is a piecemeal dismantling of a community system. The most immediate effect is that you lose a member of the community. Over the long term, as more water rights are transferred off an acequia, there is the possibility that it won't function as efficiently. We don't know where that breaking point is going to be, but eventually there is the possibility that that acequia could cease to function and could cease to exist
<p>Water Banking</p> <p>Narrator: Nelson Martínez “There is a new concept being discussed regarding the management of water. It's called water banking.”</p>	
Paula García... “Water Banking”	<p>Water banking is a term that has many definitions....According to one definition, water banking is a way to facilitate water markets, to facilitate the movement of water from one use to another.</p> <p>Water banking is a way to protect water rights from loss for non-use. An acequia can create a water bank, and water rights that are not being used for whatever reason temporarily, they can bank the water and it'll prevent the loss of that water right for non-use.</p>
<p>Storage/Reservoirs/Watershed</p>	
Atilano Augustín Montoya... “Reservoir requirements”	<p>If we have a very warm spring, sometimes we have an early runoff and come mid July we have no more water or the water is actually very scarce.....</p> <p>Our water depends on the winter. The rougher the winter, the better the summer.</p>

<p>Stephen Trujillo, Commissioner, Acequia Madre de la Loma de Ranchitos de Abajo... “The watershed serves as the only acequia reservoir for most acequias”</p>	<p>Watershed management and acequias are practically unknown as far as saying that we have reservoirs in Taos County. Our watershed is actually the mountains and the snow pack and all. There are no reservoirs available to us other than Mother Nature doing her thing. Hopefully the snow pack during the winter, complemented by the monsoon seasons, come late June to July... it’s dependent strictly on Mother Nature and the natural flow of the surface water rights.</p>
<p>Manuel Trujillo... “Reservoirs”</p>	<p>If acequias are going to survive, we have to have storage. And that is a win/win situation because we don’t always need all the water, but if we do have that water and it’s impounded, we use it when we need it in dry years. And when we don’t, we still have it in areas that it does not evaporate as readily as it does in Elephant Butte or any of these other reservoirs.</p>
<p>Peter Vigil, District Manager, Taos Soil and Water Conservation... “Lined or unlined ditches”</p>	<p>In order to make the system more efficient, sometimes ditches are lined. It is a good idea to line a ditch if you want to conserve water; however, the ditches provide seepage into the ground for the riparian areas, and that helps wildlife and also recharges the water table.</p>
<p>Palemón A. Martínez</p>	<p>I think lining versus no lining, there are different opinions. I think each acequia has to assess their own situation.</p>
<p>Rituals of Planting Seeds and Cooking Traditional Crops</p>	
<p>Paula García</p>	<p>Historically, all of our villages, not just in New Mexico, but I mean all of human civilization has an agrarian past. And in New Mexico that agrarian past isn’t that long ago. And in only a generation or two,</p>

	we experienced a dramatic restructuring of the economy to where it was difficult to make a living from the land, and it still is. We're having to create programs to encourage new farmers. We have to reestablish and revitalize and reclaim our food and farming traditions in the acequias. That's part of survival, because acequias need farmers. Acequias need irrigators.
Manuel Trujillo	Whenever I plant a seed, there are four things that I say: <i>para mí, para nos, y para los animalitos de Dios</i> . It's for me, for us, and for God's creatures; the fourth one is in case any of the three fail. And so that's the tradition that you grow up with.
Manuel Trujillo... "Farming/crops/traditional cooking from crops"	Nothing is possible without water. If the acequia was not there, you wouldn't see what you see in the background, the corn, the beans, the squash, the diversity of vegetables that I grown. And it's hard work, but it's very fulfilling work. I know what I'm eating. And I'm dependent on the acequia water.
<p>Education/Legacy</p> <p>NARRATOR: Nelson Martínez "Acequia culture..., a living legacy. In order for this legacy to survive, it's important to understand and gain an appreciation for the values and benefits it brings to the State of New Mexico. Equally important are values and traditions carried on by communities and our future generations."</p>	
Manuel Trujillo... "Acequias are at risk"	I believe that the acequias are at risk. It's hard work. Most people do think that we're already are extinct. You know, they tend to romanticize us and not recognize us that we are very much alive and viable and thriving.

<p>Paula García... “Legacy”</p>	<p>You can be someone of any kind of profession and still be an acequia farmer or acequia rancher. You can be any number of things and still gear your career around the acequia culture and the acequia knowledge base that’s already part of our community.</p> <p>And so, as a young person, you can be part of this ancient legacy that’s carried on as unbroken chain for many, many generations and pass it on to the next generation. And it’s a big responsibility, but it’s our responsibility; and it’s our legacy, and it’s our inheritance.</p>
<p>Manuel Trujillo... “Education”</p>	<p>We believe an informed public is a free public. So the more information, the better the decisions will be made. And as the demands on water from all -- from the endangered species to compacts and others become more important, we need to have good decision makers and well-informed decision makers, and we need to educate them.</p>
<p>Atilano Augustín Montoya</p>	<p><i>Lo que quiciera decirle a la juventud, es que no pierdan interés en lo que sus parientes hicieron, lo que hicieron por ellos y lo que les dejaron; que tengan interés en las acequias, las aguas, y que ayuden a preservar esta cultura.</i></p>
<p>What if the Acequia is Gone?</p> <p>NARRATOR: Nelson Martínez “The future of acequias will impact both the physical and cultural landscape of New Mexico.”</p>	

Atilano Augustín Montoya	If the acequia culture went away, I would venture to say that many pieces of land throughout the valley would dry up. We would no longer have the greenbelt like we have it today. Wells would be drilled more and more and more, sucking water out of the aquifer, perhaps have an economic impact on all of the northern community, even throughout the state.
Stephen Trujillo... “ <i>Dichos</i> /Spanish sayings”	As my father used to say is, “ <i>La agua es la sangre de la tierra,</i> ” which is basically saying, “Water to the earth is as blood is to the body,”
Paula García	Let’s protect the acequias. If you can’t create it, don’t destroy it. Don’t let it be destroyed piecemeal. Don’t let it be dismantled one water right at a time just because we don’t understand it fully and don’t appreciate fully all of the sociocultural aspects that are part of the acequia and even the ecological and biological components of the acequia that have great value.
José Rivera	“ <i>Sin agua, la tierra no vale nada,</i> ” which translates as, “Without water, land is of no value.
Atilano Augustín Montoya	Just like blood flowing in my hand, brings life to this hand, water brings life to the land.
Manuel Trujillo... “ <i>La tierra</i> ”	If I was to sell you a piece of property and it had water, it would be land. If I was to sell you a piece of property, and it didn’t have any water, it would be dirt. That’s the difference. To us it is sacred; there’s a spiritual connection, and that’s where we come from.... That’s what we believe, and when it’s all over, that’s what we become.... “ <i>la tierra.</i> ”

