Preface from Dr. Nick Ashcroft, Symposium Chair

The Range Improvement Task Force has an annual advisory board meeting. At the December 2015 meeting, numerous producers from around New Mexico indicated they wanted more information about New Mexico livestock water rights. Subsequent to that meeting and after talking with water stakeholders across the state, it became clear there were more questions than answers when it came to New Mexico livestock water rights. To best respond to the advisory board, the Range Improvement Task Force decided to organize the first-ever New Mexico livestock water symposium. The goal was to provide an educational forum for stakeholders to learn and ask questions from New Mexico’s water experts. To further this educational opportunity, each speaker was asked to submit an abstract summarizing their presentation. These proceedings are the compilation of those abstracts.

Editors’ Note

Abstracts published in these proceedings were submitted by invited speakers. Editing was done to ensure a consistent format. Speakers are responsible for the content and accuracy of their individual abstracts.

1Respectively, Extension Forest and Fire Specialist, Range Improvement Task Force (RITF); Chair of Symposium Steering Committee and Extension Range Management Specialist, RITF; and Natural Resource Policy Analyst, Lineberry Policy Center for Natural Resource Management; Extension Livestock Specialist, RITF; Extension Brush Specialist, RITF; and Extension Wildlife Specialist and RITF Coordinator, New Mexico State University.
1) A BRIEF HISTORY OF WATER LAW IN NEW MEXICO
Christopher J. Vigil, Staff Attorney, Water Rights Adjudications, New Mexico Administrative Office of the Courts, Santa Fe, NM

New Mexico has its current set of water laws, district water courts, and judges due to a long history of human conflict over water. Multiple approaches to manage water use and, more broadly, natural resource use equitably have been tried over hundreds of years in the United States. These approaches included non-organized systems with physical fighting sometimes determining water control; market-driven systems, including prior allocation (first come, first served); and hybrid systems with courts and legislation influencing water use in combination with scientific findings and market-driven ideology. Today, a hybrid system is used. While the old water law doctrine of prior appropriation is still held in theory, starting in the first decade of the 20th century, every western state adopted similar water codes. These codes mandate that a university-trained engineer, often called the State Engineer, administer the distribution of water. This system still holds today.

2) PRE-1907, PRE-BASIN, AND STATE ENGINEER-PERMITTED WATER RIGHTS
Seth R. Fullerton, Attorney, Stein & Brockmann, P.A., Santa Fe, NM (now with Katz, Herdman, MacGillivary, and Fullerton PC)

Ground and surface water rights in New Mexico are administered by the Office of the State Engineer. A water right is a property right in New Mexico, and inherent therein is the right to transfer the water right; that is, to change the place of use, purpose of use, or point of diversion so long as the change does not impair existing water rights. There are five broad policy objectives that are served by New Mexico water law: 1) promote orderly development and optimal utilization of diminishing surface and groundwater resources, 2) allow transfer of existing water rights to address evolving needs and priorities, 3) protect existing surface and groundwater rights, 4) deny water rights applications that are contrary to the conservation of water within the state or detrimental to the public welfare of the state, and 5) assist in interstate stream compact compliance.

Doctrine of Prior Appropriation
In order to use water resources in the state of New Mexico, an appropriator must comply with the doctrine of prior appropriation that was established in the New Mexico Constitution and further codified in state law. The most basic elements of the doctrine of prior appro-
appropriation are 1) first in time, first in right; 2) water must be placed to beneficial use or an appropriator can lose the right through forfeiture or abandonment; and 3) water cannot be wasted.

All water in New Mexico is owned by the state, and the appropriator obtains an usufructuary right, or a right to use the resource, as long as the appropriator complies with the law and any other applicable rules and regulations in the use of the water right. Prior to 1907 for surface water and 1931 for groundwater, common law applied to the creation and use of a water right. As such, anyone or entity who initiated an appropriation by diverting water from a stream or by drilling a well, and placed the water to beneficial use, obtained a vested or perfected water right.

**Surface Water**

In 1907, the New Mexico Territorial Legislature passed a surface water code that gave the Territorial Engineer jurisdiction over all of the surface waters in the state. These surface water rights are now referred to as “pre-1907 water rights.” Today, essentially all of the surface water in New Mexico is fully appropriated.

**Groundwater**

Shortly after the surface water code, the New Mexico Territorial Legislature saw the need to enact a groundwater code because of increased groundwater use in parts of the state. Accordingly, in 1931, New Mexico passed a groundwater code that was declaratory of existing law, meaning that it adopted the doctrine of prior appropriation that applied as the common law prior to the enactment of the groundwater code. Rather than give the State Engineer jurisdiction over all the groundwater in the state, the code stated groundwater would only be under the State Engineer’s jurisdiction after they issued an order declaring an underground water basin “having reasonably ascertainable boundaries.” This resulted in a patchwork of groundwater basins across the state with different declaration dates.

There are 108 separate groundwater basins or extensions of basins in New Mexico, with declaration dates ranging from August 21, 1931, to September 23, 2005, the date the State Engineer declared the last remaining undeclared groundwater basins in the state. The earliest declared groundwater basins in New Mexico were in populated areas, along interstate streams, and in closed basins with limited, finite groundwater supplies.

Today, a “pre-basin right” simply means that a well was initiated and put to beneficial use prior to the groundwater declaration (i.e., 1931), and the water right continues to exist. If a groundwater right was initiated prior to the declaration but not fully placed to beneficial use after 1931, the appropriator is allowed to place the water to beneficial use, so long as the appropriator does so with reasonable diligence and the beneficial use is consistent with the intended use when the groundwater appropriation was initiated. This type of right is often referred to as a pre-basin inchoate right. (See State v. Mendenhall, 68 N.M. 467, 362 P.2d 73 (1962), has been widely cited throughout the western United States as precedent for the conjunctive administration of groundwater and hydrologically connected surface water. However, pre-basin water rights have grandfathered hydrologic effects on ground and surface water in their respective stream systems.

Once a groundwater basin has been declared, a new water right can only be obtained by filing an application with the State Engineer. An application for a new appropriation of groundwater is filed pursuant to NMSA 1978 § 72-12-3. Applications for new appropriations of groundwater are subject to public notice by publication for three consecutive weeks in the legal notices section of a local newspaper to provide an opportunity for protest. If there are no protests, the State Engineer will evaluate an application for a new appropriation of groundwater pursuant to the specified statutory criteria. (See NMSA 1978 § 72-12-3[E].) There must be unappropriated water available for appropriation, and granting the application must not impair existing water rights, be contrary to the conservation of water within the state, or be detrimental to the public welfare of the state (ibid.). The applicant bears the burden of proof. If there are protests, the protested application is subject to an administrative hearing.

**Loss of Water Rights**

Pre-1907 and pre-basin water rights can be lost through non-use by two means. First, water rights can be lost through abandonment, which is common law doctrine. Second, water rights can be lost through forfeiture, which is defined by statute. For post-basin water rights, permit non-compliance can result in loss of a water right.
Forfeiture is a statutory-based procedure for the loss of a water right. Before 1965, if a water right was not used for four consecutive years, it was automatically lost. After 1965, the State Engineer was required to give a one-year notice.

Abandonment is a common law-based loss of a water right that establishes whether or not a water right owner had intent to abandon a water right. There have been many legal cases on forfeiture and abandonment. Abandonment cases tend to be unique from one case to the next. The state does not have a standard for what abandonment is, but sixteen years of non-use is a general number that has come from the State Engineer’s office.

The final mechanism to lose a water right is failure to comply with the permit. More recently, the State Engineer has been actively pursuing permits that are not used or out of compliance. Through this process, the State Engineer’s office has determined that there are more paper water rights than there is actual wet water. The State Engineer is working to address these out-of-compliance permits, and, for example, in the Estancia Basin, permits have been canceled because applicants who received a license failed to comply with certain conditions of approval.

**Trends at the State Engineer’s Office**

There is currently a process in place in the State Engineer’s office to analyze filed declarations prior to formal acceptance for filing. This is relatively new to the state of New Mexico and is significant for anyone who files a declaration because it could potentially have a permanent impact on one’s water use.

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### 3) HOW AND WHY YOU NEED TO FILE ON YOUR WATER RIGHTS

**Suzanne Smith, Torres Research and Consulting, Socorro, NM**

Whether on private, state, or federal land, individuals who have filed on their water have certain rights to access and use. As such, it is imperative that individuals take proper steps to document those rights, particularly as they relate to land ownership sales or leasing transitions. Here are the general steps individuals can take to start the documentation and water right filing process.

**STEP 1: Obtain the original land patent number.**

b) Select the appropriate state.
c) If New Mexico, select New Mexico Principle Meridian (PM) (under land description).
d) Fill out additional information as appropriate (although not necessary).
e) Click “Search Patents” button.
f) The original land patent will then be available to print. It should state the original ownership of land, water, and mineral rights. Note: These documents can also be obtained by visiting the nearest Bureau of Land Management office.

**STEP 2: Obtain the full patent file.**

a) Full patent information can be acquired through the National Archives.
i. Visit www.archives.gov/research/order and set up an account.
ii. Cost of a full report is $50.00.

**STEP 3: Additional information that should be included in a water right claim.**

a) Define and establish beneficial use.
b) Define and locate human-made water diversions (e.g., cisterns, dams), livestock and domestic wells, and stock ponds.
i. Livestock and domestic wells have a vested right when diversion occurred.
ii. Livestock stock tanks have a vested right if constructed prior to 2004.

For State Trust Lands in New Mexico, in order to declare a water right, there must be documentation of water improvements existing prior to 1955. These improvements must be shown to be located within the designated State Trust Lands and approved by the state land commissioner at the time. The lease number must be included with the documentation.

For more information on claiming a water right with the Office of the State Engineer, visit www.ose.state.nm.us. Consultants also offer assistance when beginning the process of establishing a water right claim.

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### 4) VALUE OF LIVESTOCK WATER RIGHTS IN NEW MEXICO

**Colin McVaugh, ARA, Vice President, Appraisal Manager, Farm Credit of New Mexico, Las Cruces, NM**

- Water in New Mexico can be held by any entity except the State Engineer. Water rights can be held
  - solely, jointly, or collectively; or
  - in the name of a corporation, organization, or government agency.

- Water rights in New Mexico can be transferred from one entity to another at any time, but a “change of ownership” must be filed and approved by the State Engineer. The change of ownership should then be recorded at the county clerk’s office.
Do livestock water rights have value? If so, how much are they worth?
- Livestock water rights in New Mexico do not necessarily have a value on the open market. However, the value of the water right is inherent in the value of the land. A livestock operation that has sufficient livestock water infrastructure may be more marketable and bring a higher price on the open market when offered for sale.

- Important questions to ask about your livestock operation:
  - Do I have sufficient livestock water available?
    - How much do I need?
      - Two–three miles apart?
    - How is my water developed?
      - Wells, pipelines, storage tanks?
  - Improved livestock water placement and spacing may increase returns by
    - improving range condition,
    - improving cattle performance,
    - increasing ease of management, and
    - improving ranch marketability.

5) NEW MEXICO OFFICE OF THE STATE ENGINEER
Tom Blain, State Engineer, guest lunch speaker (no abstract)

6) NEW MEXICO “LIVESTOCK WATER ALLOCATION”: A CASE STUDY FOR UNDERESTIMATION
Dr. Marcy Ward, Extension Livestock Specialist, Range Improvement Task Force, New Mexico State University, Las Cruces, NM

“Livestock water allocation” is terminology used by the New Mexico Office of the State Engineer to mean the amount of water a domestic animal is estimated to consume per head per day, and then extrapolated into the number of animals at a location and multiplied by 365 days. Estimates are based on data compiled from the Environmental Protection Agency, the United States Geological Survey, the National Agricultural Statistics Service, and the Natural Resources Conservation Service. This compilation of data is summarized and published by the Office of the State Engineer approximately every five years. Published estimates of animal consumption can significantly impact livestock producers and others relying on calculated water allocations. Water allocation estimates provided in the 2010 Office of the State Engineer report (i.e., water use by category section) have proven to be inconsistent with other available research data as they relate to livestock water consumption. Below is a summary and review of the livestock water allocation estimation.

The Nutrient Requirements of Beef Cattle (NASEM, 2016) is a resource that summarizes beef cattle research data in one publication; it is extensively used within the industry. Within the publication, the formula listed for livestock water intake follows Hicks et al. (1988). Principally, the formula is based on animal body weight, dry matter intake, and ambient air temperature. For example, when a 1,000-pound cow consumes 25 pounds of dry forage at 80°F ambient air temperature, daily water intake is estimated to be 19.2 gallons per day. Likewise, when a 700-pound cow (as used by the Office of the State Engineer) consumes 25 pounds of dry forage at 80°F ambient air temperature, daily water intake is estimated to be 12.3 gallons per day (Table 1). Both of these numbers are greater than the standard value (10 gallons per day; Table 2) used by the Office of the State Engineer (as well as other federal agencies, including the Natural Resources Conservation Service and U.S. Forest Service). The livestock water allocation estimate used by the Office of the State Engineer is based on a confined yearling in a feedlot. In addition, level of activity and stage of reproduction (i.e., lactation) are not taken into account.

Given these discrepancies in water consumption, and the fact that 700-pound cows do not accurately represent the average New Mexico beef cow (i.e., 1,000 pounds), water allocations are likely being underestimated by the Office of the State Engineer and federal agencies. For example, when a 1,000-pound cow consumes 25 pounds of forage at a median air temperature of 60°F, the daily water intake would be 14 gallons. Potential consequences of water underestimation include poor animal health (e.g., increased sickness) and reduced milk production.

Unfortunately, research related to water intake, quality, and animal health has not made significant strides over the last 60 years. However, we are working toward developing a quantitative system to measure water intake from individual animals in a grazing environment. Specifically, we are measuring individual water intake from multiple domestic animals over the course of the year. This will result in a robust data set allowing for improved estimates of daily water intake for New Mexico beef cattle.

### Table 1. Published Water-use Estimates

<table>
<thead>
<tr>
<th>Livestock</th>
<th>Average daily gain (lb)</th>
<th>Dry matter intake (lb)</th>
<th>Air temp. (°F)</th>
<th>Gallons per day</th>
<th>Reference</th>
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</thead>
<tbody>
<tr>
<td>800-lb steer</td>
<td>1.2</td>
<td>17.1</td>
<td>80</td>
<td>10.6</td>
<td>Winchester &amp; Morris (1956)</td>
</tr>
<tr>
<td>1,000-lb cow</td>
<td>22.8</td>
<td></td>
<td>80</td>
<td>17.9</td>
<td></td>
</tr>
<tr>
<td>770-lb cow</td>
<td>0.8</td>
<td>19.6</td>
<td>80</td>
<td>15.9</td>
<td>NASEM (2016)</td>
</tr>
<tr>
<td>1,000-lb cow</td>
<td>25.0</td>
<td></td>
<td>80</td>
<td>19.2</td>
<td></td>
</tr>
</tbody>
</table>
7) SPECIAL NATURE OF LIVESTOCK WATER AND CHALLENGES IN TRANSFERRING WATER RIGHTS

Elizabeth Newlin Taylor, Attorney, Taylor and McCaleb, P.A., Corrales, NM

What Is a “Transfer?”
There are two meanings to the word “transfer” in regard to New Mexico water law: change of ownership and change of elements.

Change of Ownership Differs from Change of Elements
The first kind of transfer, which is simpler, is a change in ownership. In other words, transferring the ownership of a water right from one person to another. This would happen when an individual sells a ranch, or when water rights are purchased, and in some other instances. The other kind of transfer is a change in the elements of a water right. This type of transfer usually involves changing the point of diversion, changing the place of use, or changing the purpose of use. A typical example would be taking agricultural rights, usually farm rights, and transferring them to subdivision use. Some of the most current and pressing water issues in New Mexico involve transfers that seek to change one or all of the elements of a water right.

Change of Ownership Form
The New Mexico Office of the State Engineer (hereafter State Engineer’s office) has a form called “change of ownership.” It used to be that the original owner would have to file the paperwork. However, that was not working adequately, so the State Engineer’s office changed the policy to make the new owner responsible for filing. The change of ownership form must include the conveyance document (usually a deed).

Deed Needed to Change Ownership, Not Form
One misconception people have is that the change of ownership form actually changes ownership. It does not. The applicant is simply giving the State Engineer’s office notice that ownership has changed. If a ranch is purchased and the water rights are to be transferred, a deed will be necessary to complete the conveyance.

Recordation Stamp from County
The State Engineer’s office reviews and approves the change of ownership form. They usually approve these forms unless there is a technical problem, in which case they usually send it back for corrections. Once the State Engineer’s office has approved the form, the new owner must submit the form (along with a filing fee) to the county clerk where the water rights are located. After the form is processed, the owner should receive the change of ownership form with a recordation stamp from the county.

Transfer of Water Right Elements
A water right has many elements. It has a place of use, a purpose of use, and a point of diversion. If any of these are to be changed, the applicant must go through the statutory transfer process. The relevant statutes are NMSA 1978 §§ 72-5-23 and 72-5-24 for surface water and §§ 72-12-3 and 72-12-7 for groundwater.

Overview of Transfer Process
One element that creates challenges is getting prior approval from an acequia or community ditch (where applicable). In fact, there can be confusion or even disagreement about who qualifies as an official acequia or community ditch. The acequia or the community ditch has to meet certain criteria to be able to review an application and veto it. Mainly, they must have bylaws that say that they have that authority. This dis-

<table>
<thead>
<tr>
<th>Species</th>
<th>Drinking water (GHD)</th>
<th>Miscellaneous water (GHD)</th>
<th>Total (GHD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-dairy cattle*</td>
<td>9</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>Chickens</td>
<td>0.06</td>
<td>0.02</td>
<td>0.08</td>
</tr>
<tr>
<td>Swine</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Horses/mules</td>
<td>12</td>
<td>1</td>
<td>13</td>
</tr>
<tr>
<td>Dairy cattle</td>
<td>38</td>
<td>27</td>
<td>65</td>
</tr>
</tbody>
</table>

GHD = gallons per head per day.
*Sweeten et al. (1990)

References
cussion and conversation occurs with the State Engineer’s office. Approval must be secured before filing the application with the State Engineer’s office.

After filing, the applicant must publish the application. Publication means the applicant must pay for a legal advertisement to be published once a week for three weeks in a newspaper in the area affected by the transfer. The State Engineer’s office will tell the applicant which newspaper(s) to contact. Publication opens the protest period. Applicants must litigate if there is a protest. After protests (if there are any), the Water Rights Division of the State Engineer’s office will analyze the application to see whether it meets criteria for approval. If the application does not get approved, the applicant has two options: the applicant can appeal if they had a hearing, or aggrieve it if no hearing was held. “Aggrieve” is the technical term meaning the applicant will appeal a decision that did not go through the hearing process.

**Potential Protesters**

In some cases, it behooves the applicant to open dialog and make acquaintances with potential protesters. Sometimes arrangements or understandings can be worked out prior to filing. Of course, this is not always possible.

**Protest Period**

After the last publication (i.e., the third publication), the public has 10 days to protest an application. A protest can be faxed to the State Engineer’s office as long as it is also mailed to the office the same day.

**Standing of Protesters**

In certain cases, protesters can be dismissed following a motion to the hearing officer.

**Mediation Is Often Successful and Valuable**

The State Engineer’s office provides mediation service at no charge when requested. Mediation brings the affected parties together to see if there is middle ground. Based on personal communication with a past mediator, about 75% of mediated cases end with successful negotiation. This happens before a hearing.

**Attorney Mandatory for Trusts**

If the applicant or the protester is a corporation or a trust, under the rules of the State Engineer’s office, the applicant must have a lawyer.

**Which Water Rights Can Be Transferred?**

This is an important question for ranchers if they want to transfer water rights to a different point of diversion, place of use, or purpose of use. The short answer is yes, they can be transferred if they are pre-basin rights. These rights have property value and can be transferred. However, if they are permitted rights (that is, they were permitted under NMSA 1978, § 72-12-1), then the answer is probably not.

**Administrative Criteria for Some Basins**

Another consideration regarding the transfer of point of diversion, use, or purpose would be administrative criteria for a particular basin. Administrative criteria are typically a set of rules that the State Engineer’s office has published for use in guiding staff on how to handle applications. They are not formal regulations because they did not go through the rule-making procedure. Some basins in New Mexico now have administrative criteria (for example, Estancia and Middle Rio Grande Basins). These criteria may or may not affect the ability to transfer a water right. Administrative criteria can be found in the state’s administrative code or from any of the State Engineer’s district offices.
Applicant Must Have a Hydrologist if Case Goes to Hearing

In addition, if an application is protested and is headed to hearing, a hydrologist must be present at the hearing. The applicant has the burden to prove “no impairment.”

Timelines for Applications

“So, how long does this take?” The answer, of course, in lawyer talk, is “It depends.” If the application is not protested, it can take a matter of months (e.g., 5–6 months). If the application is protested, then expect at least a year before a permit is issued. Typically, a hearing is scheduled for about a year after the protest period has ended—but this is a rough estimate. The hearing could take a couple of days. Typically, the decision from the State Engineer’s office could take a few weeks to a few months.

How Impairment Is Determined

The Water Rights Division in the State Engineer’s office conducts an analysis to determine whether impairment would result from approving the application to transfer water rights. Computer modeling is often used. The model can be simple or complex, depending on the situation. An additional criterion to determine is “Not contrary to conservation.” It means the applicant has to show water conservation practices. For example, a subdivision would say we are going to require low-flow fixtures, and a rancher would say we are going to use best management practices to conserve water. The next criterion is public welfare. This definition is somewhat vague, but generally is defined as “beneficial use” and compatible with local zoning codes. Further, it has been asked if regional water plans define public welfare. It appears to be an open question.

Appeal Options

If there was no hearing, and the applicant disagrees with the decision, an appeal can be filed (called an aggrieve). Protesters can appeal, too.

Application Tips

Use Application to Make a Strong Case

The application has blanks in it where the applicant can write why the application should be approved. Be persuasive. Attach supporting material as appropriate to strengthen the argument.

Confirm Well Locations Are Right

It is critical to make sure the published well locations are correct. Any error can be fatal to the application or, at the least, require starting over in the publication process.

Proofread Publication

Thoroughly proofread the notice before publication.

Check the legal advertisement against the notice. Any mistakes in the newspaper’s publication are the responsibility of the applicant. Also, check the notice from the State Engineer’s office against the application to make sure there are no errors.

8) LIVESTOCK WATER RIGHTS AND FEDERAL LAND STATUS

Reed Easterwood, Attorney, Domenici Law Firm, P.C., Santa Fe, NM

“How are livestock water rights impacted and protected if, for example, an allotment on federal land with windmills and tanks is subsequently declared critical habitat or roadless by a federal agency?” (Question posed by symposium organizers.)

Livestock water rights are “possessory rights” controlled by state law (U.S. v. New Mexico, 438 U.S. 696 [1978], United States Supreme Court case). The federal government must go through the Office of the State Engineer to obtain a livestock water right versus a federal “reserved right,” or compensate an allottee for purchase of the livestock water right.

The federal government can reasonably regulate stock rights on federal land, which are viewed legally as “implied licenses” (Diamond Bar Cattle Co. v. U.S., No. 96-437-HB [D. N.M.], affirmed 168 F.3d 1209 [10th Cir. 1999]):

• water rights do not include a right to graze federal lands in New Mexico, and
• the federal government can prohibit allottees from unauthorized grazing and find allottees in trespass if they do not submit to the federal permitting processes.

However, the federal government, under case law as well as relevant statutes such as the National Forest Management Act and Federal Land Management Policy Act, cannot impair existing stock rights put to beneficial use. If access or maintenance of stock water rights changes as a result of government regulation, the following approaches can avoid impairment.

1. Improvements that allow livestock access to water.
   a. Use of water or cattle lanes where critical habitat designated.
   i. https://www.fws.gov/southwest/es/newmexico/NMMJM.cfm
   b. State Engineer allows point of diversion change.
   i. Alternative point of diversion permit preferred.

2. Office of the State Engineer declaration of ownership of water right of surface waters perfected prior to March 19, 1907, (form) and declaration of stock tank/dam.
a. Declaration of stock field check/form for measurements and chain of title supports declaration of livestock tank or water dam.
b. Pursuant to *Arizona v. California* settlement, declarations accepted by former State Engineer regarding Gila and San Francisco basins.
c. Approximately 600 declarations regarding 1,100 stock tanks accepted by previous State Engineer.
d. Order issued by State Engineer granting “in situ” licenses for private stock tanks.

**Summary**

Water right holders are encouraged to be proactive in protecting their rights. Do not assume there are no solutions merely because government entities deem access and certain uses of federal land “prohibited.” Selling water rights as a condition to permit is governmental overreaching and is disfavored by the courts. Further suggestions include:

- declare water rights;
- licenses show use;
- permits for alternative diversion and source if impaired are available under state law;
- Office of the State Engineer will help, but federal agencies probably will not, which forms the basis for a taking, or declaratory/injunctive lawsuit in federal and state courts; and
- make sure water rights remain in your name.

**9) LIVESTOCK WATER RECORDS 101**

**Wayne Canon, District 1 Manager, Office of the State Engineer, Albuquerque, NM**

The Office of the State Engineer administers New Mexico’s water resources, including the measurement, appropriation, and distribution of all surface and groundwater. Declarations of ownership and applications for new water rights are handled by this office. The Office of the State Engineer makes water records available to the public through their official website (http://www.ose.state.nm.us). This website contains application forms, water resource records, maps of water resources and district boundaries, and other resources too numerous to list.

It is important to officially claim existing water rights to maintain use of that water, prevent other applicants from claiming that water, and increase the appraisal value of property. A search of existing water records should be conducted before applying for water rights to see what work, if any, has already been completed and if there are conflicting claims. The appropriate district offices listed on the website can provide further assistance in searching for water resource records and correctly completing the process of applying for water rights. If water rights have not been declared, compile records, where possible, of historical water use and priority, including date of first beneficial use, continuous use, carrying capacity, structural maintenance, gallons of water per day, and animal units. Include livestock and wildlife water use on your application if it can be substantiated with evidence. If raising livestock is your livelihood, focus on these water rights to help ensure your future. A change of ownership application with the Office of the State Engineer is required to transfer ownership of water rights. The type of form used is determined by type of water right, adjudication status, physical location, and date the water rights were first established.

Since May 19, 2004, people in New Mexico have been required to apply for permits to construct impoundments or drill wells for livestock water. Applicants for water rights must have a deed for private land water development, or a lease agreement and agency permission for federal lands. Sometimes agencies request to be co-applicants on water developments on federal lands. To avoid onsite inspections and potential hearings on the proposed water request, livestock ponds are typically less than 10 feet in height and hold less than 10 acre-feet of water. New livestock water wells are limited in use to 3 acre-feet per year.
BIOGRAPIES

Dr. Nick Ashcroft, chair of the symposium steering committee, is the senior natural resource policy analyst with the Linebery Policy Center for Natural Resource Management at New Mexico State University. He received an associate degree in beef production management from Rick’s College, and thereafter worked on ranches and feedlots in Colorado and New Mexico. He later earned B.S. and M.S. degrees in agricultural economics and agricultural business from NMSU. While working as an Extension Research Specialist and later a Range Economic Specialist, Dr. Ashcroft earned a doctorate in range science from NMSU in 2010. Dr. Ashcroft served as the NMSU Extension Range Specialist until 2017 when he moved to the Linebery Policy Center.

Christopher Vigil received a B.A. in history and an M.A. in United States history from the University of New Mexico, where his research focus was on large-scale federal water projects in New Mexico. After a number of years teaching history in private secondary schools, he obtained a J.D. from the UNM School of Law, focusing on water law and federal Indian Law. His selected publications include Winning Hearts and Minds: An Interview with Rahim Al Haj; The Canalization of the Rio Grande: A Brief History, Dennie Chaves and the Politics of Water, 1931–1941; and A Human Rights Crisis in Indian Country. Chris is currently the staff attorney for water rights adjudications for the New Mexico Administrative Office of the Courts.

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Suzanne Smith – No biography provided.

Colin McVaugh – No biography provided.

Tom Blain is the New Mexico State Engineer, confirmed by the New Mexico State Legislature in March 2015.

Dennie Chaves and the Politics of Water, 1931–1941; and A Human Rights Crisis in Indian Country. Chris is currently the staff attorney for water rights adjudications for the New Mexico Administrative Office of the Courts.

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