

**Overview of
Water Law
Applicable to
The Middle Rio Grande Water
Planning Region**

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I. INTRODUCTION.

The Middle Rio Grande Planning Region (sometimes referred to as “the Region”) is partly defined by shared water resources and partly by shared political and economic interests. The Region largely consists of the area within the boundaries of Sandoval, Bernalillo, and Valencia counties.¹ All or portions of 12 Native American Tribal Lands lie within the boundaries of the Region. These lands consist of the Pueblos of Cochiti, Isleta, Jemez, Laguna, Sandia, San Felipe, Santa Ana, Santa Clara, Santo Domingo, and Zia, and small portions of the Jicarilla and Navajo Reservations. The Middle Rio Grande Water Planning Region has the largest population of any planning region in New Mexico. See Figure 1. Approximately 700,000 people live within the Region. For planning purposes, the Region is divided into three subregions. The subregions are identified as the Rio Jemez subregion, the Rio Puerco subregion, and the Rio Grande Valley subregion. See Figure 2.

The Rio Jemez subregion lies entirely within Sandoval County and includes the watershed area of the Jemez River within Sandoval County down to its confluence with the Rio Grande. The Rio Jemez subregion, with an area of approximately 1,017 square miles, occupies approximately 18% of the total Region.

The Rio Puerco subregion extends from Sandoval County through Bernalillo County and into Valencia County. It occupies that portion of the Rio Puerco watershed within those three counties, and has an area of approximately 2,119 square miles. The Rio Puerco subregion occupies approximately 39% of the total Region.

The Rio Grande Valley subregion occupies the easternmost portion of the Region in Sandoval, Bernalillo and Valencia counties. It also includes a portion of Torrance County on the western slope of the Manzano Mountains. The Rio Grande Valley subregion has an area of approximately 2,359 square miles, or 43% of the total Region.

The Middle Rio Grande Water Planning Region is adjacent to five other water-planning regions. The Rio Arriba planning region lies to the north, Jemez y Sangre to the northeast, Estancia Basin to the southeast, Socorro/Sierra to the south, Northwest New Mexico to the west, and the San Juan water planning region is situated to the northwest. Two of the neighboring water-planning regions, Jemez y Sangre and Socorro/Sierra, include reaches of the Rio Grande. Two of the adjacent planning regions, Northwest New Mexico and Socorro/Sierra, also include portions of the Rio Puerco watershed. A small portion of the Rio Jemez watershed lies within the Rio Arriba water-planning region.

¹ All of Valencia County lies within the Region, and most of Bernalillo and Sandoval counties. The easternmost portion of Bernalillo County drains into the Estancia Basin and is included within the Estancia Basin Planning Region. A small portion of northern Sandoval County is situated west of the continental divide and drains to the San Juan River and ultimately to the Colorado River Basin. This northern portion of Sandoval County is part of the San Juan Water Planning Region. A small portion of Torrance county on the western slope of the Manzano Mountains is also included in the Region.

Within the Middle Rio Grande Water Planning Region, a variety of federal, state, county, and tribal laws and regulations govern the use of water. An overview of each of these areas of law is necessary in understanding the water planning efforts of the Middle Rio Grande Council of Governments and the Middle Rio Grande Water Assembly.²

II. NEW MEXICO WATER LAW.³

A. Prior Appropriation and Beneficial Use.

New Mexico's Constitution recognizes beneficial uses as the basis, the measure, and the limit of the right to use water.⁴ Beneficial use means application of water to a lawful purpose that is useful to the appropriator and at the same time is a use consistent with the general public interest.

The State of New Mexico, like most Western states, uses the doctrine of prior appropriation to allocate water use. This doctrine has these essential principles: (1) the first user (appropriator) in time has the right to take and use water; and (2) that right continues against subsequent users as long as the appropriator puts the water to beneficial use.⁵

The prior appropriation doctrine is tailored to fit the geography and climate of the Western United States, where water is a precious resource in scarce supply. The basic principle behind the prior appropriation doctrine is that, if a water user decides, for a variety of reasons, to stop using water, others should be able to put it to use.

An example of how this system operates may be helpful. The day a person diverts water from a stream or from the ground becomes the "priority date" of the right.⁶ More priority dates are assigned as more people use the water source. In New Mexico, water supply is often "feast or famine" and it is typical that in most years more rights to use water exist than is available. When there is insufficient water in a stream to meet the demand, the person with the oldest water right can

² Water planning in the Region is being accomplished through a partnership formed in 1998 between these two entities.

³ This discussion only discusses the principles that apply to the allocation of water and focuses on water quantity. However, the right to use water cannot be separated from water quality issues because quality concerns will determine the quantity of water available for particular uses. Water quality laws are addressed in Section VIII of this paper.

⁴ N.M. Const. art. XVI, § 3.

⁵ N.M. Const. art. XVI, § 2; NMSA 1978, § 72-12-1 (1907).

⁶ The date of first beneficial use is the priority date for the right to use water where the State Engineer has no jurisdiction. Once the State Engineer has jurisdiction over a stream or basin, the priority date is the date the water user applies with the State Engineer to allow such use. The State Engineer's jurisdiction will be described below.

use up to his or her full amount irrespective of geographical location. The first user's right only limits other users to the extent that the first user can actually put water to use. For practical purposes, a senior water right is a "right of first refusal" to put water to use. The fact that the first user may not be able to use their full right all the time does not destroy the right. In New Mexico, there will be times, as to some water sources, where even the senior right cannot be fully met. Once the senior right is met, the next most senior right in time may be used to its full amount, and so on. Thus, persons with the newest rights potentially get no water.

New Mexico codified and refined the prior appropriation doctrine in the New Mexico water code. The territorial legislature enacted the part of the code that governs the use of surface water in 1907.⁷ The code's purpose is the "conservation, protection, and development of public waters of the state and their application to beneficial use."⁸ The 1907 water code expressly recognized existing surface water rights, allowing for the filing of declarations with the State Engineer stating the beneficial use of rights prior to 1907.⁹ In 1931, the Legislature extended the State water code to underground waters, declaring water in underground streams, channels, artesian basins, lakes, and reservoirs having reasonably ascertainable boundaries to be public waters subject to appropriation for beneficial use.¹⁰ The State Engineer has authority over groundwater uses after the Engineer declares a source to have "reasonably ascertainable" boundaries.¹¹ This is done one basin at a time, so the date of the beginning of State Engineer authority is different for each basin.

Most areas of the State have declared underground water basins. In the remaining undeclared areas, however, the State Engineer has no jurisdiction over groundwater use. The underground basin within the Region was declared in 1956, or by extension thereafter. The New Mexico Supreme Court in State v. Mendenhall¹² held that a person who commences drilling a well prior to declaration of an underground basin and diligently develops the water right subsequent to declaration acquires a water right with a priority date relating back to the date of commencement of drilling. Finally, the State Engineer is required to approve wells for domestic and livestock use.¹³

The Water Code grants the State Engineer expansive authority over both surface and groundwater, but it does not give the Engineer the power to adjudicate water rights because only a

⁷ NMSA 1978, § 72-1-1 (1907).

⁸ State ex. rel. Red River Valley Co. v. District Court, 39 N.M. 523, 530, 51 P.2d 239, 243 (1935).

⁹ NMSA 1978, § 72-1-3 (1959).

¹⁰ NMSA 1978, § 72-12-1 (1931).

¹¹ NMSA 1978, § 72-12-12 (1949).

¹² 68 N.M. 467, 475, 362 P.2d 998, 1004 (1961).

¹³ NMSA 1978, § 72-12-1(A) (1931).

court has that authority. However, water rights acquired prior to the State Engineer gaining authority, while governed by the law of prior appropriation, are free of the State Engineer's control. If they are transferred, they then become subject to the State Engineer's jurisdiction.

Because water is an essential but scarce resource in New Mexico, the State has a compelling interest in regulating water use. No individual owns the water.¹⁴ However, one may acquire a real property right¹⁵ to use the water consistent with the procedures under State law,¹⁶ up to the amount which can be put to a beneficial use.¹⁷

New Mexico statutes regulating water use do not define "beneficial use." The term has been construed to include irrigation and recreational fishing,¹⁸ as well as other traditional western uses such as stock watering.¹⁹ In 1998, the New Mexico Attorney General issued an opinion that use of water for instream flows is a beneficial use.²⁰

If an appropriator stops using water beneficially for a long period of time, the right to use the water can be lost through forfeiture or abandonment. By statute, a water right is forfeited if the owner of the right fails to apply water to beneficial use for a period of four years and continues the nonuse for one year after notice of proposed forfeiture is given by the State Engineer.²¹ In addition to forfeiture, water rights can also be lost through abandonment when both the intent to abandon as well as a failure to use the water occur. Intent to abandon can be extremely difficult to prove.²² An underlying principle of the American legal system is that the courts traditionally do not favor forfeiture or abandonment of water rights. If a court can find a reason to excuse nonuse, the court will not say the right has been forfeited or abandoned.

¹⁴ NMSA 1978, § 72-1-1 (1907); Sporhase v. Nebraska, 458 U.S. 941, 950 (1982).

¹⁵ N.M. Const. art. XVI, § 2.

¹⁶ United States v. Ballard, 184 F.Supp.1, 32 (D.N.M. 1960).

¹⁷ N.M. Const. art. XVI, § 2.

¹⁸ State ex rel. State Game Comm'n v. Red River Valley Co., 51 N.M. 207, 220, 182 P.2d 421, 429 (1945).

¹⁹ First State Bank v. McNew, 33 N.M. 414, 422-3, 269 P. 56, 59-60 (1928). See also Albuquerque Land & Irrigation Co. v. Gutierrez, 10 N.M. 177, 231, 61 P. 357, 357 (1900) (holding that a corporation could appropriate water for a third party).

²⁰ 1998 Op. Att'y Gen. No. 98-01.

²¹ NMSA 1978, §§ 72-5-28 (1907) and 72-12-8 (1931). These statutes do not allow forfeiture when a reasonable cause has brought about the nonuse. Prior to 1965, there was no requirement of notice from the State Engineer and of the additional one-year waiting period.

²² State ex rel. Reynolds v. South Springs Co., 80 N.M. 144, 148, 452 P.2d 478, 482 (1969).

With adoption of the surface water code in 1907 and the groundwater code in 1931 the State took an active role in water use. Persons wanting to use water could not act without a permit to make a new appropriation or to change an existing appropriation. Only the State Engineer was given authority to issue permits.²³ The permit process requires the applicant to prove that a new use will not harm other users. This was a significant change from the pre-1907 law. Prior to 1907, the person challenging a newer use had to prove they would be harmed in order to succeed in the challenge.

B. Administration of Water Rights.

With the adoption of the New Mexico Water Code,²⁴ the Office of the Territorial (now State) Engineer was created.²⁵ The State Engineer is charged with “the supervision of waters of the State and of the measurement, appropriation, distribution thereof²⁶ . . . [a]ccording to the licenses issued by him and the adjudications of the courts.”²⁷ He can “adopt regulations and codes to implement and enforce any provision of any law administered by him . . . to aid him in the accomplishment of his duties”²⁸ The State Engineer must approve all new appropriations of water as well as changes in the point of diversion and/or changes in the place and/or purpose of use of an existing water right, commonly referred to as a “transfer.”²⁹ The State Engineer can impose conditions on licenses and permits issued.³⁰ The State Engineer has the power to appoint water masters, to apportion water consistent with priorities, and to install headgates and meters for measuring the quantity of water being used.³¹

²³ NMSA 1978, §§ 72-5-1 (1907) through 72-5-39 (1965); NMSA 1978, §§ 72-12-1 (1931) through 72-12-28 (1967).

²⁴ Codified at Chapter 72 NMSA 1978, (2000 Cum. Supp.).

²⁵ NMSA 1978, § 72-2-1 (1907).

²⁶ *Id.*

²⁷ NMSA 1978, § 72-2-9 (1907).

²⁸ NMSA 1978, § 72-2-8(A) (1953). State Engineer regulations may be for the purpose of “prescribing procedures and interpreting and exemplifying the statutes to which they relate.” NMSA 1978, § 72-2-8(B)(1) (1953).

²⁹ NMSA 1978, §§ 72-2-9 (1907), 72-5-1 (1907) through 72-5-39 (1965), 72-12-7 (1931).

³⁰ Roswell v. Berry, 80 N.M. 110, 112, 452 P.2d 179, 181 (1969).

³¹ NMSA 1978, §§ 72-3-2 (1907), 72-5-20 (1907), 72-12-3 (1931), 72-12-7 (1931).

The State Engineer also has statutory enforcement powers.³² The State Engineer has power to issue compliance orders for violations of the Water Code, State Engineer rules and regulations, permit or license conditions, and court orders entered in water adjudications.³³ The compliance order must state the nature of the violation and require compliance within a specified time period.³⁴ The State Engineer may impose penalties for overdiversion or illegal diversion of water in an amount up to double the amount of the unauthorized diversion.³⁵ While the penalty is discretionary, the State Engineer must consider the seriousness of the violation, any good faith efforts to comply with applicable requirements and other relevant factors.³⁶ Persons named in the compliance order have the opportunity to informally contest the alleged violation with the State Engineer, in addition to the right to a public hearing.³⁷ If a final compliance order is issued and a person fails to comply, the State Engineer may file a civil action to enforce the order.³⁸

The State Engineer manages water resources to maintain an equilibrium between ground and surface water in stream-related aquifers. New Mexico recognizes the hydrologic relationship between water in the ground and water flowing on the surface in stream beds.³⁹ Because virtually all surface waters of the State are appropriated, stream-connected groundwater appropriations or transfers are only approved with a condition requiring retirement of surface water rights, or other stream augmentation such as return flows, to offset any depletions of surface flow caused by groundwater pumping.⁴⁰

C. Conjunctive Management of Water.

In the Middle Rio Grande valley, the conjunctive management of surface and ground water will be of great importance. For more than 40 years, the State Engineer has administered the Middle Rio Grande Basin to maintain an equilibrium between ground and surface water. In determining appropriation and beneficial use, New Mexico recognizes the hydrologic relationship between water

³² NMSA 1978, § 72-2-18 (2001).

³³ *Id.* at ¶ A.

³⁴ *Id.*

³⁵ NMSA 1978, § 72-2-18(C) (2001).

³⁶ *Id.*

³⁷ NMSA 1978, § 72-2-18(D) (2001).

³⁸ NMSA 1978, § 72-2-18(G) (2001).

³⁹ Albuquerque v. Reynolds, 71 N.M. 428, 434-5, 379 P.2d 73, 79-80 (1962).

⁴⁰ *Id.* at 440, 379 P.2d at 85. In 1994 the Attorney General issued an opinion that the State Engineer's practice was unlawful to the extent that the specific rights to be retired need not be identified in the application because it effectively prevented public notice and comment. 1994 Op. Att'y. Gen. No. 94-07.

in the ground and water flowing on the surface in stream beds.⁴¹ Because virtually all surface waters of the State are fully appropriated, stream-connected groundwater appropriations or transfers will be conditioned to require retirement of surface water rights to offset any depletions caused by groundwater pumping.⁴²

City of Albuquerque v. Reynolds⁴³ is the seminal New Mexico case involving conjunctive management of ground and surface water. The Reynolds case was the first to recognize the hydrologic relationship between groundwater and water flowing on the surface in stream beds.⁴⁴ Reynolds addressed the issues of surface water depletion and impairment of surface water rights by groundwater appropriators pumping from stream-related underground water basins. The case established an additional appropriation requirement – namely, applicants wishing to appropriate groundwater in a stream-related aquifer must offset surface water impacts caused by the appropriation. An offset is achieved by acquiring water through a water right or other contractual obligation in the affected water source and releasing that water to replenish the depletions in the source due to pumping.⁴⁵

In Reynolds, the city of Albuquerque filed with the State Engineer four applications to appropriate water from the Rio Grande Underground Water Basin.⁴⁶ The State Engineer denied the applications on the grounds that the underground waters sought to be appropriated constitute part of the base flow of the Rio Grande, that river water is fully appropriated, that the granting of the applications would impair existing rights, and that the city refused to comply with State Engineer-imposed requirements to offset, or retire existing surface water rights as a condition precedent to the diversion and use of underground waters.⁴⁷ Regarding the interrelatedness of the aquifer and the Rio Grande in light of the permit denial, the State Engineer concluded:

⁴¹ Clark, *Ground Water Law: Problem Areas*, 8 NAT. RESOURCES J. 377 (1975).

⁴² City of Albuquerque v. Reynolds, 71 N.M. 428, 379 P.2d 73 (1963).

⁴³ *Id.*

⁴⁴ Clark, *Ground Water Law: Problem Areas*, 8 NAT. RESOURCES J. 377 (1975).

⁴⁵ *Mesilla Valley Administrative Area Guidelines for Review of Water Right Applications, the New Mexico Office of the State Engineer*, Santa Fe, New Mexico (January 5, 1999) at C(1).

⁴⁶ City of Albuquerque v. Reynolds, 71 N.M. 428, 430, 379 P.2d 73 (1962).

⁴⁷ *Id.* at 431.

The scientific considerations...show clearly that accretions from the underground reservoir constitute a major source of the fully appropriated surface water of the Rio Grande. These considerations also show that over a 75-year period, about one-half of the [underground] water proposed to be taken [by the city] would be extracted from surface flows and about one-half would be taken from underground storage. Much of the water in storage in the Rio Grande Underground Reservoir is unappropriated and may be taken for beneficial use under an application properly formed to insure against the impairment of existing rights...[The city's application] makes it clear that the applicants do not intend that any rights to the use of surface water are to be pledged or retired in connection with those applications; therefore, approval of the applications in their present form would result in the impairment of valid existing rights to the use of the waters of the Rio Grande.⁴⁸

On appeal to the New Mexico Supreme Court, the Court found in favor of the State Engineer.⁴⁹ Among several issues before the Court was whether the jurisdiction of the State Engineer includes the ability to condition the withdrawal of groundwater.⁵⁰ Both parties stipulated to the interrelationship of underground and surface waters in the Rio Grande Underground Water Basin to the extent that such underground waters contribute substantially to the stream flow.⁵¹

The Court upheld the State Engineer permit condition that existing rights to the consumptive use of surface water would be retired to the extent necessary to offset the effects of the appropriation on the Rio Grande.⁵² The Court found statutory authority for the State Engineer's jurisdiction to enforce such permit requirements under the non-impairment clause in Section 72-12-3 [then Section 75-11-3]:⁵³ "The State Engineer shall, if he finds that there are in such underground reservoir unappropriated waters, or that the proposed appropriation would not impair existing water rights from such source, grant the said application and issue a permit to the applicant to appropriate all or a part of the waters applied for subject to the rights of all prior appropriators from said source."⁵⁴ The Court reasoned that "with the Rio Grande stream system being fully appropriated, it would indeed be anomalous for the legislature to enact laws designed to permit water, which would

⁴⁸ *Id.* at 435.

⁴⁹ *Id.* at 439.

⁵⁰ *Id.* at 435-436.

⁵¹ *Id.*

⁵² *Id.* at 435.

⁵³ § 75-11-3 NMSA was amended in 1959 as § 72-12-3 NMSA 1978.

⁵⁴ *Reynolds*, 71 N.M. at 433.

otherwise reach the stream in substantial quantities, to be withdrawn by pumps and thereby attempt to deprive the prior appropriators of their vested rights.”⁵⁵

While the statutory “offset requirement” for permits to appropriate groundwater in a stream-related aquifer falls under the broader non-impairment clause in Section 72-12-3, the administrative corollary is contained in various State Engineer guidelines for stream-related groundwater basins. These guidelines are basin-specific and administered by the State Engineer in addition to the state-wide State Engineer Rules and Regulations Governing Drilling of Wells and Appropriation and Use of Groundwater in New Mexico.

The Middle Rio Grande Administrative Area Guidelines contain an offset requirement. The Middle Rio Grande aquifer is hydrologically connected to the Rio Grande surface water system.⁵⁶ Since groundwater diversions from aquifers hydrologically connected to the Rio Grande affect the fully appropriated surface flow, the State Engineer conjunctively manages the water resources within the Rio Grande Basin to protect existing water rights and to ensure New Mexico’s compliance with the Rio Grande Compact.⁵⁷

The Middle Rio Grande Guidelines require that groundwater permittees obtain valid surface water rights in an amount sufficient to offset the effects of their groundwater diversions on the surface flow of the Rio Grande stream system.⁵⁸ This requirement protects the surface flows of the Rio Grande from being depleted or reduced by groundwater diversions.⁵⁹

The Middle Rio Grande Guidelines require that the appropriator obtain valid consumptive use surface water rights to offset the greater of either: a) total well diversions less any flow returned directly to the Rio Grande on a yearly basis; or b) the net surface water depletion associated with past and present use including consideration of residual effects of past diversion, on a time schedule approved by the State Engineer.⁶⁰ Valid consumptive use surface water rights “retired” by the appropriator for the purpose of offsetting future depletions may be leased for other purposes as provided by Section 72-6-3 NMSA 1978 until necessary to offset the surface water depletions caused by the permitted groundwater diversion.⁶¹

⁵⁵ *Id.* at 437.

⁵⁶ *Middle Rio Grande Administrative Area Guidelines for Review of Water Right Applications*, New Mexico Office of the State Engineer, September 13, 2000, at Introduction.

⁵⁷ *Id.*

⁵⁸ *Id.*

⁵⁹ *Id.*

⁶⁰ *Id.* at No. 5.

⁶¹ *Id.* at No. 6.

D. Appropriation and Transfer of Water Rights and State Permitted Uses.

Water rights and permits to use water can be acquired in several ways: (1) by appropriating the right through a permit or (2) purchasing a right or permit from another. Once a water right or permit is acquired, the owner can transfer the right or permit, through sale or lease; or change or supplement the point of diversion; or type of use.

1. Appropriation.

Since almost all surface waters in the State (and all of the major rivers, such as the Rio Grande and Pecos) are fully appropriated, surface waters today can only be acquired through transfer, as discussed below. Prior to the declaration of the Rio Grande Basin in 1956, no permit is needed to appropriate groundwater.⁶² To appropriate groundwater from a declared basin (if water is available for appropriation), one must apply for a permit from the State Engineer.⁶³ After filing an application, the applicant publishes a notice of intent to appropriate in a newspaper of general circulation where the right is located.⁶⁴ Standing to file protests is conferred upon persons or entities objecting that the granting of the application will impair the objector's water right. Standing is also conferred upon those persons or entities objecting to the application on the grounds that granting the application will be contrary to the conservation of water or detrimental to the public welfare of the State, if such objectors show they will be substantially and specifically affected by the granting of the application.⁶⁵ The State of New Mexico and political subdivision of the State are exempt from the specific standing requirements.⁶⁶ When there is a protest, the State Engineer may hold a formal hearing on the issues set out in the protest and decide the case.⁶⁷ A permit will be granted only if the State Engineer finds there is unappropriated water in the basin, that the proposed appropriation would not impair existing water rights, is not contrary to conservation of water within the State, and is not detrimental to the public welfare of the State.⁶⁸ The State Engineer can require retirement of

⁶² State ex rel. Reynolds v. Mendenhall, 68 N.M. 467, 470, 362 P.2d 998, 1000 (1961).

⁶³ NMSA 1978, § 72-12-3 (1931).

⁶⁴ *Id.* at ¶ D.

⁶⁵ *Id.*

⁶⁶ *Id.*

⁶⁷ NMSA 1978, § 72-12-3(F) (1931).

⁶⁸ In Young & Norton v. Hinderlider, 15 N.M. 666, 110 P. 1045 (1910), the Territorial Supreme Court upheld the authority of the Territorial Engineer to deny a permit because the proposed water use was contrary to the public welfare. The court refused to hold that public welfare included only health and safety. The court considered the following factors to be dispositive:

- (1) That the State's waters should be used to secure the greatest possible benefit for the public;
- (2) Whether the proposed project was for speculative purposes;

surface water rights or permits. Like surface water, if the basin is fully appropriated, the only way to acquire a groundwater right or permit is through a transfer.

In 2000, the State Engineer adopted the Middle Rio Grande guidelines, which only allow appropriation of groundwater if equivalent surface water rights are acquired.

New Mexico allows the State Engineer to issue permits allowing use of up to three acre-feet per year for “watering livestock; for irrigation not to exceed one acre of noncommercial trees, lawn or garden; [and in] household or other domestic use...”⁶⁹ An application must be made for such use, but by statute, if water is available, the State Engineer has limited discretion to deny the permit.⁷⁰ Local municipalities have some control over domestic well permitting. By statute, the State Engineer can issue permits “provided that permits for domestic use within municipalities shall be conditioned to require the permittee to comply with all applicable municipal ordinances enacted pursuant to Chapter 3, Article 53 NMSA 1978[.]”⁷¹ A domestic well applicant may receive a domestic well permit from the State Engineer without acquiring commensurate groundwater rights or retiring offsetting surface water rights.

Whether domestic wells may be “transferred” is unclear. Certainly, a perfected pre-basin or *Mendenhall* domestic well right can be transferred. There also are examples of the State Engineer allowing perfected domestic well permits to be transferred and consolidated into a mutual domestic water system.

2. Transfer.

The right to transfer a water right or permit (i.e., to change its point of diversion and/or place and/or purpose of use) is generally the same whether the water is ground or surface. To transfer a water right, an applicant must show that the transfer (1) will not impair other water rights; (2) is not contrary to the conservation of water, and (3) is not detrimental to public welfare.⁷²

Persons seeking to transfer a water right must file a formal application with the State Engineer. After filing an application, the applicant must publish a notice of intent to transfer the

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- (3) Whether the cost of a project was so excessive that participants could not afford to pay for it;
 - (4) Whether the project was efficient; and,
 - (5) Whether the project would benefit the residents of the area.

⁶⁹ NMSA 1978, § 72-12-1 (1931).

⁷⁰ *Id.*

⁷¹ NMSA 1978, § 72-12-1(A) (1931).

⁷² NMSA 1978, §§ 72-5-23 (1907), 72-12-7 (1931).

right in a newspaper of general circulation where the right is located.⁷³ As discussed above, standing to protest a transfer application is conferred if particular criteria are met. Where no protest is filed and the State Engineer finds, after a technical and legal review, the transfer compatible with State law, the transfer application will be approved. Where there is a protest, the State Engineer will hold a formal hearing on the issues set out in the protest and decide the case.⁷⁴ A party can appeal the State Engineer's decision to the district court.⁷⁵

Where a water right has been adjudicated, the protestant bears the burden of disproving the right's use and amount. This is the case because an existing adjudication decree is accepted as *prima facie* evidence of the size and validity of the right. A water right priority date remains the same even though it is transferred.

Transfers are based on the amount of water consumptively used. Accordingly, water can be transferred from basin to basin, subject to interstate compacts and federal law.⁷⁶ In such an instance, the amount that can be transferred is limited to the prior consumptive use. Simply put, an out-of-basin transfer cannot make the basin hydrologically worse than it was.⁷⁷

New Mexico's water right leasing statute allows temporary transfers,⁷⁸ but those transfers, like permanent transfers, require legal notification and a State Engineer permit.⁷⁹ Where a reallocation of water is within irrigation or conservancy districts, is on lands served by the district, and is within the scope of an already existing State Engineer permit, an additional permit is not required, as discussed below.

3. Supplemental and Replacement Wells.

An owner of a water right may supplement or replace a well, under certain conditions.

a. Replacement well over one hundred feet from original well.

If an emergency situation exists in which the delay caused by publication and hearing would result in a crop loss or other serious economic loss, a water right owner may drill and use a

⁷³ NMSA 1978, §§ 72-5-23 (1907), 72-12-7(A) (1931).

⁷⁴ NMSA 1978, §§ 72-5-5(A) (1965), 72-12-3(A) (1931).

⁷⁵ N.M. Const. art. XVI, § 5; NMSA 1978, §§ 72-7-1 through 3 (1907).

⁷⁶ NMSA 1978, § 72-5-23 (1907).

⁷⁷ *Id.*

⁷⁸ NMSA 1978, § 72-6-3 (1967).

⁷⁹ *Id.*

replacement well over one hundred feet from the original well upon making application, but prior to publication and hearing if: (1) the well is drilled into the same underground basin, (2) the amount of appropriation remains the same, and (3) the State Engineer makes a preliminary assessment that the replacement well will not impair existing water rights.⁸⁰

In the cases where no emergency exists, or the State Engineer's preliminary investigation shows that the drilling and use of a replacement well may impair existing rights, a permit will not be issued until after publication and hearing.⁸¹ In this instance, the same factors considered in a transfer (impairment, conservation of water, and public welfare) will be examined.⁸²

b. Replacement well within one hundred feet of original well.

An owner of a water right or permit may drill and use a replacement well before applying to the State Engineer and publication and hearing if: (1) the well is drilled in the same underground basin, (2) the amount of appropriation remains the same, (3) an emergency exists in which the delay caused by application, publication, and hearing would result in crop loss or other serious economic loss, and (4) the State Engineer is notified prior to drilling.⁸³ The water right owner must then apply for a permit within 30 days after drilling begins. If other water right owners claim to be injured by the drilling of such a well, they cannot stop the drilling or the use of the well, but can only challenge it through a lawsuit for damages, or by protesting the granting of a permit.⁸⁴

c. Supplemental well.

The statutory provision for drilling a supplemental well is similar to that for drilling a replacement well over one hundred feet from the original well. If an emergency situation exists in which the delay caused by publication and hearing would result in a crop loss or other serious economic loss, a water right owner may drill and use a supplemental well upon making application, but prior to publication and hearing if: (1) the well is drilled into the same underground basin, (2) the amount of appropriation remains the same, and (3) the State Engineer makes a preliminary assessment that the supplemental well will not impair existing water rights.⁸⁵

⁸⁰ NMSA 1978, § 72-12-23 (1959).

⁸¹ *Id.*

⁸² *Id.*

⁸³ NMSA 1978, § 72-12-22 (1959).

⁸⁴ *Id.*

⁸⁵ NMSA 1978, § 72-12-24 (1959).

In cases where no emergency exists, or the State Engineer's preliminary investigation shows that the drilling and use of a supplemental well may impair existing rights, a permit will not be issued until after publication and hearing.⁸⁶ In this instance, the same factors considered in a transfer (impairment, conservation of water, and public welfare) will be examined.⁸⁷

4. Change of Ownership.

A water right can be conveyed to a new owner. Although the sale of a water right requires a written document, such as a special warranty deed, the new owner must also file a change of ownership form with the State Engineer, along with a copy of the written document. The change of ownership and the written document must also be recorded with the clerk of the county where the water right is located.⁸⁸ The Office of the State Engineer (OSE) has specific "change of ownership" forms to be used to notify the OSE. This does not take the place of a conveyance document, such as a deed, effecting the change of ownership.

E. Other Public Entities Regulating Water Rights.

The State Engineer is not alone in administering water. Over the years, the legislature has spawned numerous other entities with overlapping jurisdictions. For example, the Interstate Stream Commission is given the authority to investigate, develop and conserve both the intrastate and interstate waters of New Mexico.⁸⁹ At the local level numerous entities such as conservancy and irrigation districts, acéquias, and other types of water supply entities are granted authority over the management and administration of waters within their respective jurisdictions. Some have been in existence for centuries; others are more modern creations.

1. Acéquias and Community Ditch Associations.

Acéquias, or community ditches, are ditch systems which are managed by a community and used for irrigation purposes. The first acéquias were used in the Southwest by Pueblo Indians, and early Spanish settlers adopted this water distribution method.⁹⁰ In New Mexico, settlements were formed along the banks of perennial rivers, or in the mountain valleys where water from springs and creeks was reasonably certain to be available for irrigation at the needed times.⁹¹ Acéquias were

⁸⁶ *Id.*

⁸⁷ *Id.*

⁸⁸ NMSA 1978, § 72-1-2.1 (1991).

⁸⁹ NMSA 1978, § 72-14-3 (1935).

⁹⁰ David H. Getches, *Water Law* 419 (3rd ed. 1997).

⁹¹ Snow v. Abalos, 18 N.M. 681, 692, 140 P. 1044, 1045 (1914).

established by individuals or community members to convey water. A main canal was constructed with lateral ditches to distribute the water and serve their individual lands.⁹² The water rights were owned by the individuals, but the ditch was collectively owned by the individuals on the ditch as tenants-in-common.⁹³ When a landholder under a community acequia conveyed his land, his right to the use of water as a member of the community passed with his land.⁹⁴

In New Mexico, acéquias continue to operate statewide; but acequia management is now governed by statute.⁹⁵ All New Mexicans have the right to construct and use either private or common acéquias.⁹⁶ With a community ditch or acequia, the acequia members are not entitled to compensation for the ditch or ditches crossing their respective properties.⁹⁷ After construction, the ditches belong to the acequia members, and no other person can use the ditch without a majority consent from the owners and payment of a share of ditch construction costs proportionate to the amount of water to be used.⁹⁸ Ownership of the ditch is separate from the right to use water that the ditch conveys.⁹⁹

Officials elected by the community manage the ditch or ditches with respect to construction, operation, maintenance, and water allocation, and the ditch members provide the necessary labor to construct and maintain the ditch.¹⁰⁰ Acéquias have three elected commissioners and one mayordomo, or superintendent.¹⁰¹ Each must own an interest in the ditch or a water right.¹⁰² The officers have the authority to manage the affairs of the acequia, including contracting and making

⁹² *Id.*

⁹³ *Id.* at 694-5, 140 P. at 1048-9 (1914).

⁹⁴ *Id.* at 692, 140 P. at 1045.

⁹⁵ NMSA 1978, §§ 73-2-1 (1874) through 73-2-68 (1993), NMSA 1978, §§ 73-2A-1 through 73-2A-3 (1988), NMSA 1978, §§ 73-3-1 through 11 (1903).

⁹⁶ NMSA 1978, § 73-2-1 (1874).

⁹⁷ NMSA 1978, § 72-2-3 (1851-1852).

⁹⁸ NMSA 1978, § 72-2-7 (1882).

⁹⁹ Holmberg v. Bradford, 56 N.M. 401, 403, 244 P.2d 785, 787 (1952).

¹⁰⁰ Snow v. Abalos, 18 N.M. 681, 691-4, 140 P. 1044, 1047-9 (1914).

¹⁰¹ NMSA 1978, § 73-2-12 (1895).

¹⁰² *Id.*

assessments to provide payment of expenses related to the acequia, distributing water, supervising ditch maintenance and operation, and collecting fines.¹⁰³

Acéquias are corporations with the power to sue and be sued.¹⁰⁴ Moreover, acéquias are considered political subdivisions of the State.¹⁰⁵ This status is significant because it allows acéquias to condemn land.¹⁰⁶ It also enables acéquias to receive loans from the Interstate Stream Commission for ditch improvements,¹⁰⁷ and exempts them from payment of taxes on irrigation works.¹⁰⁸ Within the Region, there are no longer acéquias in the Rio Grande Valley, because all the then-operating acéquias diverting off the Rio Grande joined to form the Middle Rio Grande Conservancy District. Today, there remain a few acéquias on tributaries, most notably on the Rio Jemez.

2. Domestic Water Supply Entities.

a. Cooperative and Mutual Domestic Water Associations.

Water for domestic uses was first described as “dipping” rights. People in the community had the right to take water from ditches or ponds for domestic uses. Today, these uses are often met through cooperative associations. Cooperatives may be formed to acquire and distribute any type of goods or services, including water.¹⁰⁹ Water cooperatives are also known as mutual domestic water associations and are organized as non-profit organizations.¹¹⁰

Five or more individuals, or two or more associations, may incorporate to form a cooperative.¹¹¹ The “dipping” rights provided the first water rights of many of these associations. Cooperatives may be financed in a variety of ways. Usually a cooperative sells shares to its members. Cooperatives may also borrow money, mortgage cooperative assets, or enter into agreements of mutual federation and aid with other cooperatives.¹¹²

¹⁰³ NMSA 1978, § 73-2-21 (1895).

¹⁰⁴ NMSA 1978, § 73-2-1 (1895).

¹⁰⁵ NMSA 1978, § 73-2-28 (1965)

¹⁰⁶ 1969 Op. Att’y. Gen. No. 69-96.

¹⁰⁷ 1964 Op. Att’y. Gen. No. 64-95.

¹⁰⁸ *Id.*

¹⁰⁹ NMSA 1978, § 53-4-3 (1939).

¹¹⁰ NMSA 1978, § 53-4-1(A) (1939).

¹¹¹ NMSA 1978, § 53-4-2 (1939).

¹¹² NMSA 1978, § 53-4-4 (1939).

Water cooperatives are private utilities because they do not hold themselves out to serve the public. Cooperatives are not required to obtain a certificate of necessity and convenience prior to acquiring or developing a water supply system.¹¹³ However, cooperatives must file an annual report with the public regulation commission that discusses the cooperative's financial condition.¹¹⁴ Failure to do so may result in revocation of an association's corporate status.¹¹⁵

In many parts of New Mexico, the growth of residential communities and land development are placing greater and greater demands on the natural and institutional resources of rural regions. As development expands beyond traditional community environs into new areas populated by diverse consumers, new institutions may be necessary to cope with the added demands, particularly with regard to the supply and delivery of water in adequate amounts and of drinking quality. Under New Mexico law, apart from cooperative associations, eight types of water entities may be formed to provide water for domestic and industrial consumers. These are investor owned utilities; municipal utilities; municipal improvement districts; county-owned utilities; county improvement districts; intercommunity water districts; water and sanitation districts; and sanitary projects. Each is briefly discussed below.

b. Investor Owned Utilities.

Investor owned utilities¹¹⁶ are formed by statute when "any five persons" who wish to form a company to construct and maintain reservoirs, canals, ditches, and pipelines to supply water for irrigation, mining, manufacturing, domestic, and other uses (including cities and towns), file articles of incorporation with the New Mexico Public Regulation Commission.¹¹⁷ The powers of such corporation include the power to construct conveyance channels, divert surplus water, furnish water for payment, and condemn land.¹¹⁸ The statute governing investor owned utilities will be repealed on July 1, 2003.¹¹⁹

¹¹³ See generally NMSA 1978, Ch. 53 art. 4 (1939).

¹¹⁴ NMSA 1978, § 53-4-34 (1939).

¹¹⁵ NMSA 1978, § 53-4-35 (1939).

¹¹⁶ NMSA 1978, §§ 62-2-1 through 62-2-22 (1887) (to be repealed July 1, 2003), NMSA 1978, § 53-11-1 (1967), NMSA 1978, § 53-18-12 (1967).

¹¹⁷ NMSA 1978, § 62-2-1 (1887).

¹¹⁸ NMSA 1978, §§ 62-2-5(C)(D)(E)(F) (1887).

¹¹⁹ NMSA 1978, § 62-2-1 (1887).

c. Municipal Utilities.

Municipalities have the power to acquire water facilities, and use and supply water.¹²⁰ They also have the power to acquire, contract for, or condemn water rights and rights of way or other necessary ownership for the acquisition of water facilities.¹²¹ Municipalities also have the power to acquire or condemn for use as a municipal utility privately owned water facilities.¹²² Municipalities may collect assessments to cover the costs of such utilities.¹²³

d. Municipal Improvement Districts.

Improvement districts are created when a governing body deems that such a district is necessary for the public safety, health or welfare.¹²⁴ An improvement district may be created to construct, acquire, repair or maintain a storm sewer project, a sanitary project, or a water project; a flood control or storm drainage project; or a water utility project.¹²⁵

e. County-Owned Utilities.

Any class B county with a population between 98,000 and 100,000 and a certain net taxable value for rate setting purposes can purchase, own, operate and sell sewer and water utilities at reasonable rates based on the cost of service.¹²⁶

f. County Improvement Districts.

County improvement districts¹²⁷ can be created if the board of county commissioners determines that the creation of an improvement district is necessary for the public safety, health or welfare.¹²⁸ Such districts may be created to construct, acquire, repair or maintain a water utility,

¹²⁰ NMSA § 3-27-1 (1965).

¹²¹ *Id.* at ¶ A.

¹²² NMSA 1978, § 3-27-2 (1965).

¹²³ NMSA 1978, § 3-18-25 (1965).

¹²⁴ NMSA 1978, § 3-33-1 (1965).

¹²⁵ NMSA 1978, § 3-33-3 (B)(C)(D) (1965).

¹²⁶ NMSA 1978, § 4-36-8 (1993).

¹²⁷ NMSA 1978, § 4-55A-1 (1980).

¹²⁸ NMSA 1978, § 4-55A-3(A) (1980).

storm sewer project, sanitary sewer project, water project, flood control, or storm drainage project.¹²⁹

g. Intercommunity Water Districts.

Any combination of two or more municipalities and the board of county commissioners of the county in which the municipalities are located have the power to appoint three or more commissioners to organize an association to acquire a water supply system.¹³⁰

h. Water and Sanitation Districts.

Upon petition by a certain percentage of taxpaying electors, a district court may establish a water and sanitation district¹³¹ for the purpose of purchasing, acquiring, establishing or constructing waterworks to supply water for domestic, commercial and industrial purposes to persons both within and outside the boundaries of the district.¹³² A district can also be formed to purchase, acquire, establish, or construct sewers.¹³³

i. Sanitary Projects.

Sanitary domestic water facilities and sewage works can be provided to rural, unincorporated communities through the Sanitary Projects Act (Act).¹³⁴ The purpose of the Act is to improve the public health of New Mexicans through a program which will provide for the installation of sanitary domestic water facilities, sewage works, or both, thus eliminating hazardous practices and conditions.¹³⁵ Such projects are funded by the State.¹³⁶ The projects are administered by a board of directors elected by an association comprised of community members.¹³⁷

New Mexico's Utility Operators Certification Act requires the Public Regulation Commission to certify operators of any public water supply system, which are those systems having at least 15

¹²⁹ NMSA 1978, §§ 4-55A-4(B)(C)(D) (1980).

¹³⁰ NMSA 1978, § 3-28-1 (1969).

¹³¹ NMSA 1978, § 73-21-6 (1943).

¹³² NMSA 1978, § 73-21-3(A) (1943).

¹³³ NMSA 1978, § 73-21-3(B) (1943).

¹³⁴ NMSA 1978, Ch. 3 art. 29 (1965).

¹³⁵ NMSA 1978, § 3-29-3 (1965).

¹³⁶ NMSA 1978, § 3-29-4 (1965).

¹³⁷ NMSA 1978, § 3-29-11, 12 (1965).

service connections or provide regular service to an average of at least 25 individuals at least 60 days a year.¹³⁸

3. Organizations of the Twentieth Century.

Irrigation districts and conservancy districts are the product of federal reclamation law. Forces converged at the end of the nineteenth century to support the creation of a federal role in the development of western water. First, the public land laws of the nineteenth century did not work; land and water monopoly scandals abounded.¹³⁹ Second, there was a decade of drought that began in 1886.¹⁴⁰ The third factor was the political philosophies and common sense of John Wesley Powell.

Powell was...a political philosopher who proposed a whole new system of government for the arid region based upon the needs generated by the nature of the area rather than upon the standard preconceptions of distant legislators.¹⁴¹

To Powell, Western water control was a “national” issue that required a federal presence. Although it is the primary role of the federal government today, the role of financier and builder of water delivery systems was not popular until the 1890s. With Theodore Roosevelt’s election, there was presidential support for a program of federal dam and reservoir building.¹⁴² The June 17, 1902, Reclamation Act was the result.¹⁴³

The Reclamation Act promised water storage and distribution systems of a massive size to be delivered to farmers at federally subsidized, interest free rates. In order to take advantage of this

¹³⁸ NMSA 1978, § 61-33-2 (I) (1) (1992).

¹³⁹ Clark, *Water and Water Rights*, Vol. 4, pp. 453-54 (1991 edition, 1996 replacement volume).

¹⁴⁰ *Id.*

¹⁴¹ *Id.*, citing to J. Powell, *Report on the Lands of the Arid Region* (Govt. Print. Office 1879) and 11 U.S. Geol. Survey Ann. Rep. Pt. 2, 203-89 (1889-90). Kelley, the author of this section of Clark’s treatise, states: “The antimonopoly provisions that have figured so centrally in reclamation law were a direct outgrowth of Powell’s proposals. He saw that:

when the area to which it is possible to take the water of any given stream is much greater than the stream is competent to serve, if the land titles and water rights are severed, the owner of any tract of land is at the mercy of the owner of the water right. . . If the water rights fall into the hands of irrigating companies and the lands into the hands of individual farms, the farmers then will be dependent upon the stock companies, and eventually the monopoly of water rights will be an intolerable burden to the people.”

¹⁴² Act of June 17, 1902, ch. 1093, 32 Stat. 390 (codified at 43 U.S.C. §§372, *et seq.*).

¹⁴³ Act of June 17, 1902, ch. 1093, 32 Stat. 390 (codified at 43 U.S.C. §§372, *et seq.*).

federal program, local organizations had to be established. Irrigation districts were created with the sole purpose of delivering irrigation water to their members. Over time, some irrigation districts have evolved to also provide hydroelectric power generation, operation of recreational facilities, drainage, flood control, sanitation and municipal and industrial water supply.¹⁴⁴ All of the seventeen contiguous Western states have irrigation district laws, although some are called water conservation, water improvement, or reclamation districts.¹⁴⁵

a. Irrigation Districts.

The New Mexico territorial government provided a new statutory system for creating the local organizations. In New Mexico, a majority of resident freeholders¹⁴⁶ owning, or having title to, more than one-half of the lands in any district in the State may propose the organization of an irrigation district to irrigate said lands pursuant to the Irrigation Act.¹⁴⁷ A petition for the formation of a district is presented to the board of county commissioners, rather than to a court, and residents of the proposed district vote on the proposal.¹⁴⁸

An irrigation district is governed by an elected board of directors.¹⁴⁹ In addition to the allocation of water among users within a district's service areas, the duties of the board consist of managing and conducting the affairs and business of the district, imposing assessments on owners within the district, forming contracts, hiring employees, reporting to the State Engineer on available annual water supply per acre of land, constructing or acquiring irrigation works and creating necessary rules and regulations.¹⁵⁰ The board also may lease or rent district water to persons outside the district,¹⁵¹ and acquire water rights by an legal means.¹⁵² Moreover, a board may sell bonds to

¹⁴⁴ David H. Getches, *Water Law* 434 (3rd ed. 1997); see also section on "Conservancy Districts."

¹⁴⁵ George A. Gould and Douglas L. Grant, *Cases and Materials on Water Law* 406 (5th ed. 1995). Texas was added as the seventeenth state in 1906 so it could benefit from the Elephant Butte Dam project.

¹⁴⁶ "Resident freeholder" is any citizen of the United States owning land within the district or the evidence of title to said land, or who is an entryman under the public land laws of the United States or a purchaser under contract for purchase of state lands, and shall also include corporations, associations and copartnerships owning land within the district. NMSA 1978, § 73-9-3 (1919).

¹⁴⁷ NMSA 1978, § 73-9-1 (1919). With some exceptions, ditches, canals and reservoirs and lands irrigated therefrom constructed before March 18, 1909, are exempt from the requirements of this Act. *Id.*

¹⁴⁸ NMSA 1978, §§ 73-9-3 through 6 (1919).

¹⁴⁹ NMSA 1978, § 73-9-5 (1919).

¹⁵⁰ NMSA 1978, § 73-9-14 (1919).

¹⁵¹ *Id.*

¹⁵² 1964 Op. Att'y. Gen. 64-1.

finance the operation of the district;¹⁵³ however, a district is not a State agency.¹⁵⁴ Irrigation district landowners, rather than the districts, own the water rights they exercise.¹⁵⁵ The users' rights are essentially contractual.¹⁵⁶ Users must pay taxes on all tracts of land within the district.¹⁵⁷

b. Conservancy Districts.

The Conservancy Act applies to conservancy districts that are organized for the purpose of flood protection, river control, drainage, water storage for supplementing irrigation needs, construction and maintenance of irrigation systems, and other improvements for public health, safety, convenience, and welfare.¹⁵⁸ The Conservancy Act is particularly important to the Region because its largest water user is the Middle Rio Grande Conservancy District, discussed below.

Under the Conservancy Act, the water and property rights of a conservancy district are to be used to promote the welfare of the district and its inhabitants; to promote the safest, most economical, and most reasonable use of water; to protect the water rights of the lands and landowners within the district; to encourage agriculture and industry; and to pay for improvements.¹⁵⁹

Under the Conservancy Act, conservancy courts have jurisdiction to establish conservancy districts.¹⁶⁰ A petition for the formation of a conservancy district must be signed and filed by the owners of more than one-third of all the real property in the proposed district.¹⁶¹ A public hearing is held and, if the district formation is neither publically protested nor judicially rejected, the court will order the county commissioners in the county of the proposed district to conduct a citizen

¹⁵³ NMSA 1978, § 73-9-18 (1919).

¹⁵⁴ Hooker v. Hatch, 66 N.M. 184, 187, 344 P.2d 699, 701 (1959).

¹⁵⁵ New Mexico ex rel. State Engineer and Pecos Valley Artesian Conservancy Dist. v. Lewis, Chaves County Cause Nos. 20294 & 22600, Decision and Orders Re: United States' Motion for Reconsideration and Clarification of Court's Decisions and Orders Re: Threshold Legal Issue No. 3 or for Entry of Judgment Pursuant to Rule 54(c), at 7 (March 19, 1998).

¹⁵⁶ *Id.*

¹⁵⁷ NMSA 1978, § 73-9-24 (1919).

¹⁵⁸ NMSA 1978, § 73-14-2 (1927).

¹⁵⁹ NMSA 1978, § 73-14-47 (1927).

¹⁶⁰ NMSA 1978, § 73-14-4 (1927).

¹⁶¹ NMSA 1978, § 73-14-5(A) (1927).

election.¹⁶² Electors consist of all qualified voters and landowners of the proposed district.¹⁶³ Should the proposal pass, the conservancy court declares the district organized and appoints a board of directors comprised of five persons who are district residents and property owners.¹⁶⁴

The board of directors for each conservancy district prepares a conservancy plan for the improvements for which the district was created.¹⁶⁵ The plan is subject to approval by the conservancy court.¹⁶⁶ After approval, the board has the authority to operate works and improvements necessary to implement the plan.¹⁶⁷

Through the Conservancy Act, the Legislature vested extremely broad powers in conservancy districts.¹⁶⁸ While the "applicability" statute appears to focus on flood control and irrigation, the clause allowing improvements for "public health, safety, convenience, and welfare" provides for districts to perform a broad range of activities.¹⁶⁹ "Public welfare" includes acts or things that tend to improve or benefit the general public or the inhabitants of the district.¹⁷⁰ Conservancy districts are political subdivisions of the State and corporate bodies with all the powers of public or municipal corporations.¹⁷¹ Districts have the power to sue and be sued; to incur debts, liabilities, obligations; to exercise the right of eminent domain; to tax; and to issue negotiable bonds.¹⁷²

More importantly, a district's power is not limited to enumerated powers. The Legislature was express in indicating that any enumeration of particular powers is not to be construed as a limit on the general powers of the districts. Districts are vested with the power "to perform all acts necessary and proper for carrying out the purposes for which the district was created and for

¹⁶² NMSA 1978, §§ 73-14-7 (1927), 73-14-8 (1927), 73-14-9 (1965).

¹⁶³ NMSA 1978, § 73-14-12 (1965).

¹⁶⁴ NMSA 1978, § 73-14-17 (1927). However, the board of directors for districts located in four or more counties is determined by popular vote. NMSA 1978, §§ 73-14-18 (1975) through 73-14-31.3 (1999).

¹⁶⁵ NMSA 1978, § 73-14-36 (1927).

¹⁶⁶ *Id.*

¹⁶⁷ NMSA 1978, § 73-14-37 (1927).

¹⁶⁸ Ira G. Clark, *Water in New Mexico, a History of Its Management and Use* 374 (1987).

¹⁶⁹ NMSA 1978, § 73-14-2 (1927).

¹⁷⁰ NMSA 1978, § 73-14-3(P) (1927).

¹⁷¹ NMSA 1978, § 73-14-13 (1965).

¹⁷² *Id.*

exercising the powers with which it is invested.”¹⁷³ This broad power is specifically vested in the districts’ boards of directors, allowing them to perform any acts necessary to carry out their purposes.¹⁷⁴

Finally, the Legislature incorporated express provisions into the Conservancy Act to ensure that it provided dominant authority to conservancy districts for water management. The Legislature directed that the Conservancy Act be liberally construed to effect its purposes of preserving public health, safety, convenience, and welfare.¹⁷⁵ Additionally, the Legislature expressly provided that the Conservancy Act would prevail over conflicting provisions of other acts.¹⁷⁶

Conservancy districts have unusually broad powers over water ownership and management within their boundaries. First, conservancy districts are empowered to own water rights.¹⁷⁷ Persons and public corporations within a district continue to own water rights acquired by them prior to formation of the district;¹⁷⁸ however, rights acquired or developed by a district after its formation belong to the district.¹⁷⁹ This is in contrast to *acéquias*, which cannot own water rights.¹⁸⁰

¹⁷³ *Id.* at ¶ B. See also NMSA 1978, § 73-14-48 (1927).

¹⁷⁴ The statute is explicit in vesting broad powers to conservancy boards:

The board of directors . . . is hereby vested with all powers necessary and requisite for the accomplishment of the purposes for which the district is organized and capable of being delegated by the legislature of the state of New Mexico; and no enumeration of particular powers hereby granted shall be construed to impair any general grant of power herein contained, nor to limit any such grant to power or powers of the same class or classes as those enumerated. NMSA 1978, § 73-14-48 (1927).

¹⁷⁵ NMSA 1978, § 73-17-20 (1927).

¹⁷⁶ NMSA 1978, § 73-17-23(C) (1927).

¹⁷⁷ NMSA 1978, § 73-14-39 (1927) (stating that a board is authorized and empowered to “acquire . . . own, lease, use and sell, to hold encumber, control and maintain any . . . water right”); NMSA 1978, § 73-14-47(F) (1927).

¹⁷⁸ NMSA 1978, § 73-14-43(C) (1927).

¹⁷⁹ NMSA 1978, §§ 73-14-39, 73-14-47(F) (1927). (“Where the district acquires by purchase, condemnation or otherwise, water or water rights, or where it conserves, develops or reclaims water, it shall have the rights which go with the appropriation and beneficial use thereof . . .”).

¹⁸⁰ *Wilson v. Denver*, 1998-NMSC-016, ¶¶ 22-25, 125 N.M. 308, 315-6 (1998); *Snow v. Abalos*, 18 N.M. 681, 695-96, 140 P. 1044, 1048-9 (1914).

Second, a district's rights are not subject to loss by prescription, adverse possession, non-use, or forfeiture.¹⁸¹

Third, conservancy districts have the "specific and unquestioned power" to properly allocate water for the purposes most essential to the welfare and economy of the landowners within the district.¹⁸² Conservancy districts can distribute and allocate water available for irrigation in the manner they deem reasonable and proper.¹⁸³ Districts may alter the distribution and allocation as often as necessary.¹⁸⁴

The powers of conservancy districts with respect to water management supercede the powers of other private and public entities that may operate within the district boundaries. For instance, conservancy districts may regulate the manner in which roads, bridges, fences, and other construction might affect district works. Moreover, "[t]he construction of any works in a manner harmful to the district or to any watercourse therein, and in a manner contrary to that specified by the board, shall be a misdemeanor"¹⁸⁵ Districts can compel compliance by mandamus or other legal proceeding and hold liable any person or public corporation that willfully fails to comply.¹⁸⁶ Conservancy districts also have a dominant right of eminent domain that supercedes that of public and private entities where conservancy matters are concerned. "The district, when necessary for the purposes of this act, shall have a dominant right of eminent domain over the right of eminent domain of private or public corporations."¹⁸⁷

c. The Middle Rio Grande Conservancy District.

(i) Formation of the District.

¹⁸¹ NMSA 1978, § 73-17-21 (1927). *See also* Raton v. Vermejo Conservancy Dist., 101 N.M. 95, 100, 678 P.2d 1170, 1175 (1984) (upholding constitutionality of statute).

¹⁸² NMSA 1978, § 73-14-49 (1951).

¹⁸³ NMSA 1978, § 73-14-50 (1951).

¹⁸⁴ *Id.*

¹⁸⁵ NMSA 1978, § 73-14-43 (B) (1927).

¹⁸⁶ NMSA 1978, § 73-14-43 (1927). Under the Conservancy Act, the term "public corporation" means "counties; towns; villages; cities; community land grants; community ditches or acéquias; water users' associations; school, drainage, irrigation, water, park improvement or conservancy districts; and all governmental agencies clothed with the power of levying or providing for the levy of general or special taxes, or special assessments." NMSA 1978, § 73-14-3 (1927).

¹⁸⁷ NMSA 1978, § 73-14-41 (1927). The Attorney General has expressed doubt that a conservancy district could condemn a state highway; however, in the same Opinion the Attorney General states that the state highway department could not require removal of a conservancy ditch from a state highway right-of-way "without further legislative authority." 1952 Op. Att'y. Gen. 52-5624.

The Middle Rio Grande Conservancy District (MRGCD) is within the planning region. Property owners within the Middle Rio Grande Valley organized the MRGCD in the 1920s to address several water-related problems that were common to the valley. In the 1920s, much of the once-irrigable land within the Middle Rio Grande Valley was saturated and unusable due to aggradation of the river and a corresponding rise in the water table. Irrigation works were in disrepair and needed much work. Moreover, the valley was subjected to periodic flooding, often with devastating effects.

To combat these problems and to improve the economy of the middle valley, property owners sought passage of a State law authorizing formation of conservancy districts. These efforts culminated in passage of the Conservancy Act of 1923, pursuant to which the MRGCD was formed in 1925 to provide flood control, drainage, and irrigation for the Middle Rio Grande Valley.¹⁸⁸ Formation of the MRGCD brought together 70 acéquias into one unified entity designed to make all lands in the middle valley irrigable.

(ii) District Operations and Evolution.

The MRGCD extends from Cochiti Dam south for approximately 150 miles to the Bosque del Apache Wildlife Refuge. The MRGCD encompasses approximately 278,000 acres in four counties of which 128,787 acres are irrigable lands. At present, approximately 65,000 acres are irrigated. Within the District's boundaries are thousands of property owners and many towns and villages, six Indian Pueblos, and much of the City of Albuquerque. The MRGCD currently maintains and manages four diversion dams, 834 miles of canals and ditches, and 404 miles of riverside drains that are capable of delivering water for irrigation and a variety of other purposes.

(iii) Water Rights Within the Conservancy District.

Formation of the MRGCD brought together six Pueblos and 70 acéquias into one entity that not only began serving existing farmers but also reclaimed large amounts of previously unirrigable lands. Because of the varied history and make up of the MRGCD, seven categories of legally recognized water rights are found within its boundaries.

The first type of water right within the District is the individual pre-1907 diversionary water right. Before the creation of the MRGCD and prior to 1907, when the State Engineer was given jurisdiction over water rights, individuals within the middle valley had perfected surface water rights by diverting and putting water to beneficial use. These pre-1907 water rights are outside the jurisdiction of the State Engineer and are vested in the individual water rights holders who reside within the MRGCD. Upon obtaining a State Engineer permit, an individual owner can lease or transfer a pre-1907 water right to a new point of diversion, place or purpose of use.

¹⁸⁸ The original Conservancy Act was enacted in 1923. 1923 N.M. Laws, ch. 140. However, this act was repealed and replaced with the 1927 Conservancy Act, *see Gutierrez v. Middle Rio Grande Conservancy Dist.*, 34 N.M. 346, 282 P. 1 (1929), and still provides the authority to create and operate conservancy districts, 1927 N.M. Laws, ch. 45 § 101 (codified at NMSA 1978, , ch. 73, arts. 14-17.)

Second, a very small number of individuals within the MRGCD may hold permits from the State Engineer for water rights established before the creation of the District, but after 1907. These rights were developed before 1927.

The third type of water right is the MRGCD's permitted surface water right. Shortly after its inception, the MRGCD applied for water permits from the State Engineer to effectuate its goals of delivery, conservation, and reclamation of water along the Middle Rio Grande Valley. In addition to individual vested, pre-1907 surface rights appurtenant to 80,785 acres, the MRGCD has obtained water rights under two permits filed with the State Engineer. These additional water rights under permit Nos. 1690 and 0620 represent 42,482 acres of reclaimed lands developed by the works of the MRGCD. This reclaimed land includes over 11,000 acres of reclaimed land for the six Middle Rio Grande Pueblos located on the main stem of the Rio Grande - - from north to south, Cochiti, Santo Domingo, San Felipe, Santa Ana, Sandia, and Isleta.¹⁸⁹

The fourth type of water right is the Pueblo water right. The six Pueblos within the MRGCD have "prior and paramount rights," which are based in their aboriginal sovereignty, totaling 8,847 acres of Indian land. With the newly reclaimed lands of over 11,000 acres mentioned above, which have a shared priority with the rest of the lands served by the MRGCD (excluding pre-1907 rights) the six Pueblos on the main stem of the Middle Rio Grande have a total of 20,242.05 acres benefitted by the MRGCD works.¹⁹⁰ Pueblo water rights are senior to all other rights within the MRGCD and irrigate approximately 8,847 acres of Indian land.

The fifth type of water right with the MRGCD are pre-1956 and permitted groundwater rights. Individuals and the MRGCD own water rights based on wells drilled prior to 1956, when New Mexico's State Engineer asserted jurisdiction over the underground waters of the Rio Grande Basin. Groundwater rights based on permits from the State Engineer issued after 1956 are also abundant in the MRGCD.

The sixth type of water right in the MRGCD is San Juan-Chama water. In 1963, the MRGCD contracted with the Bureau of Reclamation for 20,900 acre-feet of water per annum from the San Juan-Chama Project ("SJCP"). The United States has approved SJCP water for irrigation and other beneficial purposes. In return for the water rights, the MRGCD agreed to pay a portion of the construction, operation, and maintenance costs of the project.

Finally, the MRGCD has water storage rights of 198,110 acre-feet at El Vado reservoir pursuant to State Engineer Permit No. 1690. Although the storage right is for reservoir space and not a water right per se, it is a valuable water asset held by the MRGCD. The United States Bureau of Reclamation also recognizes storage rights for the six Pueblos prior and paramount water rights.

¹⁸⁹ 25 C.F.R. 172.1 (2002).

¹⁹⁰ 25 C.F.R. 172.1 (2002).

In total, the amount of consumptive use allowed by State Engineer permits within the boundaries of the MRGCD from surface flows of the Rio Grande is approximately 298,339.4 acre-feet. However, the acreage under permits held by the MRGCD may be greater than land actually irrigated today because the permits have not been fully developed.

(iv) District Water Bank.

The MRGCD established a Water Bank on November 13, 1995, when the MRGCD Board adopted Rule 23, the Water Bank Rule. The Water Bank is essentially a water management system and a method by which the MRGCD manages the distribution of water within its boundaries by moving water from areas where it is not being used to areas of need. In this way, the MRGCD can maximize the beneficial use of water.

The formation of the water bank was authorized by the Conservancy Act, which provides a broad grant of authority to engage in flood control and irrigation activities, and allows conservancy districts to make improvements for "public health, safety, convenience, and welfare."¹⁹¹ Included in these broad powers is the authority of conservancy districts for water management and allocation activities. The Conservancy Act allows conservancy districts to provide water that is not needed for irrigation to other users by contract or other agreement for compensation.¹⁹² The Act provides that "persons, public corporations, or others" who wish to use district water may apply to the Board for permission to lease or purchase water.¹⁹³ Thus, the MRGCD's Water Bank is merely an implementation of the powers authorized by the Conservancy Act. The Water Bank provides a methodology to determine how much water is available for leasing, a mechanism through which water can be leased, and an accounting system for these transactions.

Holders of current water rights within the MRGCD who are not using their rights can place the rights in the Water Bank. Deposits in the Water Bank come from vested MRGCD water rights and from individual holders of valid pre-1907 rights. Persons or entities that need water can "borrow" water from the bank. Thus, water use can be maximized by delivering it to where it can continue to be put to beneficial use. The Water Bank serves the further purpose of providing the MRGCD with a mechanism to quantify its water rights and to track the use of water. It also generates revenue, thereby reducing the tax burden on MRGCD constituents.

When the MRGCD accepts the deposit of private rights into the Water Bank, the right-holder must sign a written agreement that temporarily assigns to the MRGCD all rights to the use of the water for the term of the deposit. Terms of deposit shall not exceed five years. This temporary assignment allows the Water Bank to loan the water to third parties. In return, the right-holder will receive the income when the right is loaned out. All Water Bank transactions are recorded on the

¹⁹¹ NMSA 1978, § 73-14-1 (1927).

¹⁹² NMSA 1978, § 73-14-47 (H) (1927).

¹⁹³ NMSA 1978, § 73-14-47 (I) (1927).

bank ledger. The ledger includes the amount of the water right in acre-feet and a property description of the land to which the deposited rights have been appurtenant.

The MRGCD Board of Directors (Board) sets the price for water loans when the loan originates from MRGCD water rights. The rate may depend in part on the intended use of the water. Pre-1907 right holders may set their own rate or rely on the rate set by the Board. The MRGCD may charge borrowers an additional annual administrative fee to cover the costs in administering the loan. This fee may be charged for MRGCD and pre-1907 rights. The MRGCD retains the income that it receives from loaning water rights that belong to the MRGCD. The MRGCD deposits this income into a special Water Bank fund to be used to offset expenses of MRGCD operations. Income from pre-1907 rights is paid directly to the right-holder who deposited the rights.

To date, water loaned from the bank has been used to irrigate lands that do not have their own water rights. In the future water from the bank may be available for non-agricultural uses from new points of diversion and may be available outside the boundaries of the District. Before that occurs, the District and the OSE will have to agree on a process for such reallocation. In addition, the total quantity of rights available to be loaned from the bank will have to be quantified.

F. Water Rights Adjudication.

New Mexico law requires the adjudication of all water use in order to define what each person's water right is and to gain information needed to maintain a balance between water supply and demand.¹⁹⁴ The process for a water rights adjudication begins with a hydrographic survey of a stream system.¹⁹⁵ A water rights adjudication determines the extent and ownership of each water right in a specific geographical area, usually a river drainage basin or groundwater basin. It is similar to a quiet title suit to establish the ownership of land.

Water rights have been adjudicated since before the enactment of the Water Code in 1907,¹⁹⁶ and the process is ongoing. Because of the complexity and difficulty of sorting out the tens of thousands of water right claims across the State, the majority of claims have not been adjudicated. With the exception of the completed Rio Jemez and the pending Rio San Jose adjudications, there are no completed or ongoing adjudications in the planning region, nor has a hydrographic survey been prepared for the Middle Rio Grande.

¹⁹⁴ NMSA 1978, § 72-4-15 (1907); *see also* Snow v. Abalos, 18 N.M. 681, 699, 140 P. 1044, 1050 (1914) (purpose of statute is to determine water right and facilitate distribution of water).

¹⁹⁵ NMSA 1978, § 72-4-13 (1907) provides in part: "The state engineer shall make hydrographic surveys and investigations of each stream system and source of water supply in the state, beginning with those most used for irrigation, and obtaining and recording all available data for the determination, development and adjudication of water supply of the state . . ." NMSA 1978, § 72-4-15 (1907).

¹⁹⁶ 1907 N.M. Laws, Ch. 49; Taos Repartimiento of 1823.

An adjudication is a lawsuit. Due to the complexity of a case involving many parties, the court usually appoints a special master, an expert in property or water law, to supervise the case and decide most procedural issues. Although all adjudications have the same ultimate goal, the procedures are not identical.

Although a water right adjudication is a complex process which usually takes many years to complete, there are definite advantages to having an adjudicated water right, rather than a declared, permitted or licensed use. The final court decree removes controversies concerning title to water rights and the validity of water rights and allows for priority administration.¹⁹⁷

G. Local and Regional Water Planning.

As discussed above, water rights that are not exercised for a period of four years are subject, after notice, to forfeiture by New Mexico statute, and water rights that go unused for an unreasonably long period¹⁹⁸ (perhaps 16 years) are subject to common law abandonment. Since municipalities, counties and other specified public entities require a longer planning horizon to manage water prudently, in 1985 the State adopted the 40-Year Planning Statute.¹⁹⁹ The statute merely codified a prior practice of the State Engineer concerning the amount of time a municipality had to apply its water to beneficial use. The Planning Statute allows public entities to acquire and hold unused water rights in an amount to meet reasonable needs within 40 years, based on predicted needs set out in regional water plans.

The State has recognized the importance of regional water planning,²⁰⁰ such as that being undertaken by the Middle Rio Grande Council of Governments and the Water Assembly. Because water users within the boundaries of a common underground basin or along a water course compete for a finite and shared resource, integrated and comprehensive water planning reduces conflict and allows for reasonable and efficient management and use of water resources. Statutory requirements for regional planning by the Interstate Stream Commission state that such a planning region should contain “sufficient hydrological and political [interest] in common to make water planning feasible.”²⁰¹

H. Water Project Finance Act.

¹⁹⁷ A. Lynn Krogh, *Water Right Adjudications in The Western States: Procedures, Constitutionality, Problems & Solutions*, 30 Land and Water L. Rev. 9 (1995).

¹⁹⁸ United States v. Abousleman, et al., No. 83-CV-1041, Mem. Op. & Order (D.C.D.N.M. Jan. 23, 1998).

¹⁹⁹ NMSA 1978, § 72-1-9 (1985).

²⁰⁰ NMSA 1978, § 72-14-44 (1987).

²⁰¹ NMSA 1978, § 72-14-44(D) (1987).

The Water Project Finance Act (Act) provides funding for “qualifying” water projects for the purpose of promoting water use efficiency, resource conservation and protection, and fair distribution and allocation of scarce resources to all users.²⁰² Qualifying water projects include those storing, conveying or delivering water to users; those involved in the restoration of endangered species habitat; those involved in the restoration and management of watersheds; and flood prevention projects.²⁰³

The Act creates a Water Trust Fund within the state treasury that annually distributes money to the Water Project Fund.²⁰⁴ The Water Project Fund is created in the New Mexico Finance Authority (NMFA) and consists of both Water Trust Fund distributions and all other money allocated to the Fund to achieve the purposes of the Act.²⁰⁵ The legislation authorizes the NMFA to make loans or grants to political subdivisions for qualifying water projects.²⁰⁶

NMFA financing is based on the recommendation of the Water Trust Board (Board). The Board is created under the Act and includes, in part, the governor, the State Engineer, the Chairman of the Interstate Stream Commission, presidents of the boards of directors of several irrigation and conservancy districts, and numerous state and public officials.²⁰⁷ The Board is also responsible for adopting rules governing terms and conditions of grants or loans made from the Water Project Fund, giving priority to projects that have urgent needs, and matching contributions from federal or local funding sources.²⁰⁸

III. PUEBLO WATER RIGHTS.

A. Pueblo Rights Are Independent from State Allocation Law, State Regulation and State Administration.

Within the planning region there are ten Pueblos. The Pueblos of Santa Clara, Cochiti, Santo Domingo, San Felipe, Santa Ana, Sandia and Isleta are located on the main stem of the Rio Grande. The Pueblos of Jemez, Zia, and Santa Ana have lands within the Rio Jemez tributary to the Rio Grande. Therefore, an understanding of Pueblo water rights is critical for undertaking water planning within the region.

²⁰² NMSA 1978, §§ 72-4A-3(D), § 72-4A-2 (B) (2001).

²⁰³ NMSA 1978, § 72-4A-5(B) (2001).

²⁰⁴ NMSA 1978, § 72-4A-8 (2001).

²⁰⁵ NMSA 1978, § 72-4A-9(A) (2001).

²⁰⁶ NMSA 1978, § 72-4A-9(B)(C) (2001).

²⁰⁷ NMSA 1978, § 72-4A-4 (2001).

²⁰⁸ NMSA 1978, § 72-4A-5(A) (2001).

The Pueblo people have made use of the region's water for several centuries. Before the Spanish arrived and before the State of New Mexico existed, the Pueblo people were regulating water use through a formalized system based upon cultural concepts of what was a valid use of a very scarce, but essential, element. The United States recognizes and protects the right of the Pueblos to make their own laws and be governed by them.²⁰⁹

In order for Pueblos to maintain their essential right of self-governance, courts recognize that the Pueblos' water rights must remain independent of the State allocation rules and State administration of those rules.²¹⁰ Ultimately, it is this regulatory power of the Pueblos that must be taken into consideration in regional water planning efforts. A Pueblo's authority to allocate and regulate water is not affected by State law, including the planning process. However, without at least some cooperative efforts among different tribes and non-Indian communities, it is impossible for regional planning to be anything more than a wish list.²¹¹ One of the primary reasons is that the Pueblos are the senior-most users on a river. Eventually all of these senior rights will have to be satisfied. At least one court has ruled that the water supplies that can be tapped to meet federally recognized rights include all water, surface or ground, on tribal lands or outside tribal lands, where the diversion affects resources on tribal lands.²¹² Thus, if groundwater was available in the past to satisfy a tribe's federally protected right and is not reasonably available now because of pumping outside the tribe's lands, those pumpers can be enjoined. Any regional water plan must take this fact into consideration is to reflect the availability of water for the future of the region.

B. Pueblo Aboriginal Rights.

The Pueblos' water rights result from the application of very old principles of international law dating back to at least the fifteenth and sixteenth centuries. Once Columbus reached the Americas and reported back, scholars began a debate on whether indigenous people had any rights based solely on their existence. The resolution was the indigenous people did have certain rights, today referred to as "aboriginal" rights, to be recognized by European sovereigns.

²⁰⁹ Williams v. Lee, 358 U.S. 217, 223 (1959).

²¹⁰ State of New Mexico v. Aamodt, 537 F. 2d 1102 (10th Cir. 1976) ("Aamodt I").

²¹¹ The Official Report of the Study Committee which led to the adoption of the regional water planning system envisioned that tribes and surrounding communities could enter into joint powers agreements to plan for specific types of future uses, such as municipal uses, and thereby avoid sensitive issues concerning the full scope of the Pueblo's or Tribe's federally recognized and protected water right. The Report acknowledged that the State agencies involved in water regulation, the Office of the State Engineer and the Interstate Stream Commission had no authority over the Tribes and Pueblos. *State Appropriation of Unappropriated Groundwater: A Strategy for Insuring New Mexico a Water Future, Second Report*, NMWRRI REPORT, January 1987 at 95-7. This is consistent with the research presented in the First Study. See *State Appropriation of Unappropriated Groundwater: A Strategy for Insuring New Mexico a Water Future, First Report*, NMWRRI REPORT, January 1986 at 132, 141-5.

²¹² New Mexico v. Aamodt, 618 F. Supp. 993, 1010 (D.N.M. 1983) ("Aamodt II").

Pueblos have aboriginal rights to water that arise from the Pueblos' aboriginal existence as autonomous societies and the use of their lands and waters. The Pueblos of New Mexico, unlike many other tribes, reside on lands they have never left. When the United States entered into the Treaty of Guadalupe-Hidalgo,²¹³ the nation accepted the obligation to recognize and respect the aboriginal rights of tribes in areas acquired from Mexico. For tribal settlements, specifically the Pueblos, the Spanish and Mexican governments recognized and protected a prior right to sufficient water to meet their needs. As their needs changed over the years, those prior holdings were recognized, thereby extending federal protection to existing Pueblo rights to land and water. These rights exist based upon the original sovereignty of the Pueblos.

In State ex rel. Reynolds v. Aamodt,²¹⁴ the court held that these rights were not extinguished by any of the acts of Spain or its successor, Mexico. Therefore, when the United States became the sovereign entity after the treaty, it was obligated to recognize and protect these original rights. The court looked at many potentially applicable federal laws to determine whether these federal laws modified the rights of the Pueblos held under Spanish and Mexican law. The court concluded that the only federal statute to alter the definition of the Pueblos' water rights was the 1924 Pueblo Lands Act and the 1933 Act, sometimes referred to as the Pueblo Compensation Act. The Pueblos' rights include at least irrigation uses, in-stream or non-diversionary uses, stock watering, and municipal and domestic uses. Federal law explicitly preserved these rights.²¹⁵ Each of these component rights are briefly discussed below.

1. Historically Irrigated Acreage - Ditch Rights.

a. Quantity.

The *Aamodt* court concluded that as to aboriginal irrigation uses, the Pueblos had a prior right to all water necessary to irrigate their farmlands, but that the expanding nature of this right was cut off by the Pueblo Lands Act of 1924. These aboriginal water rights are measured by the amount of water necessary to irrigate all lands irrigated when the United States took sovereignty, 1846, plus any additional lands put into irrigation up to 1924.²¹⁶

In addition to these rights, Pueblos also have senior water rights for any irrigated lands or water rights associated with the loss of lands pursuant to the Pueblo Lands Act of 1924 and the 1933 Pueblo Compensation Act, where lands or water rights have been reacquired.²¹⁷ In these statutes the

²¹³ Ratified May 30, 1848, proclaimed July 4, 1848, 9 Stat. 922-43.

²¹⁴ Aamodt II, *supra*.

²¹⁵ Section 9, Pueblo Lands Act of May 31, 1933 (48 Stat. 108, 73rd Congress, First Session, Chap. 45).

²¹⁶ Aamodt II, *supra*.

²¹⁷ State ex rel. Reynolds v. Aamodt, U.S.D.C.N.M. No. 6639, Mem. Op. & Order (Feb. 26, 1987).

United States, through the Secretary of the Interior, as trustee for the Pueblos, undertook the duty to acquire rights in land and water to “replace” what was lost through the Pueblo Lands Act (and, therefore, are referred to as “replacement” water rights.)

b. Priority.

As against all non-Pueblo users, these are senior priority rights. Generally, all rights prior to the 1924 cut off are “aboriginal” or “time immemorial” rights.²¹⁸ Also the Aamodt court has found that Spanish law modified the aboriginally based right, because it expressly recognized all Pueblo uses as having a first right, or “right of primacia.”²¹⁹ By virtue of the Treaty of Guadalupe Hidalgo, the United States was obligated to recognize and protect the senior priority.

2. Non-ditch or “Ak-chin” Water Rights.

The Pueblos have made claims for “ak-chin” or aboriginal water use that did not rely on diversions from the rivers to ditch systems for delivery of the water to the land. Through temporary catchments and use of rocks to direct water flow, various aboriginal water uses were supplied, including, but not limited to irrigating small plots at different times. Aboriginal or first priority rights can be claimed for them. In 1997, the Aamodt court determined that even non-diversionary aboriginal use, if capable of being proved, could be the basis for a first priority right.²²⁰ Although most of these uses do not relate to water directly flowing into a river, and under some circumstances would meet the State law definition of “private water” or “developed water”, these uses can give rise to tribal and federal claims within the larger river drainage basin.

3. Stock-watering.

At this time, the Aamodt court has not addressed the exact quantity of water available to the Pueblos for this purpose. Congress recognized a “prior right” for “Pueblo Indians for domestic, stockwater, and irrigation purposes for the lands remaining in Indian ownership.”²²¹

4. Domestic (Municipal) Use.

The Pueblos are governments with all of the responsibilities of providing for municipal uses for Pueblo residents, for making water available for the construction of homes and the operation of

²¹⁸ Aamodt I, *supra*.

²¹⁹ Aamodt II, *supra*, at 999.

²²⁰ State ex rel Reynolds v. Aamodt, U.S.D.C.N.M. No. 6639, Mem. Op. & Order (January 17, 1997).

²²¹ Section 9, Pueblo Lands Act of May 31, 1933 (48 Stat. 108, 73rd Congress, First Session, Chap. 45).

businesses. In Aamodt, the court originally determined that the right, as recognized under Spanish and Mexican law was as follows:

The water rights of the Pueblos, which were recognized and protected by Spain and by Mexico, were defined as a prior and paramount right to a sufficient quantity to meet their present and future needs.

Common uses of water were subject to two overriding servitudes in favor of all individuals to meet domestic and sanitary needs.

The Pueblo[s]...are entitled to a first right or right of *primacia*, to enough water “for their needs,” or irrigation of their lands. All communities and settlements, including Indian Pueblos, are to be favored in the distribution of water “to maintain the community.” Any expansion of water apportionment for any use should be done with as little injury as possible to any party. Availability of excess water should be granted to the Pueblos for their future expansion, based on need.²²²

The court recently issued an opinion that modifies the measure of the Pueblos’ domestic or municipal water rights. The court determined, as a threshold legal issue, that the expansive right under Spanish and Mexican law was cut off by the Pueblo Lands Act of 1924.²²³ The court stated that the right included the Pueblos’ cumulative use, not just the maximum used in any one year, and that all planned uses as the date of the Act survived.²²⁴ The court has not yet ruled on the exact method to be used to quantify these rights. The right in all probability will be defined as a certain number, but must be sufficient to ensure that the Pueblos’ communities can be maintained.

The Aamodt court ruled that the method used to quantify the right by reference to some particular type of use does not limit how the Pueblo may actually use the water.²²⁵ The court has also ruled that “[t]he Pueblo water rights appurtenant to their lands are the surface waters of the stream systems and the groundwater physically interrelated to the surface water as an integral part of the hydrologic cycle. The Pueblos have the prior right to the use of this water.”²²⁶

²²² Aamodt II, *supra* at 999.

²²³ State ex rel. Reynolds v. Aamodt, U.S.D.C.N.M. No. 6639, Mem. Op. & Order, pp. 4-5 (Jan. 31, 2001).

²²⁴ *Id.* at pp. 6-7.

²²⁵ State ex rel. Reynolds v. Aamodt, U.S.D.C.N.M. No. 6639, Mem. Op. & Order (Dec. 1, 1986).

²²⁶ Aamodt II, *supra* at 1010

C. The Pueblos' Federally Reserved Water Rights.

The Pueblos can also have federal reserved water rights where lands outside Pueblo grants have been reserved for them by the United States. These rights are known as “*Winters* reserved rights” and reserve sufficient water for the present and future needs of the Pueblo, based on the “practically irrigable acreage” of the lands reserved for the Pueblo, or some other appropriate measure depending on the purposes of the creation of the reservation.²²⁷ Several courts have held that *Winters* rights are not the same as other federally reserved rights, because of the many purposes served by federally created Indian reservations. Where no specific purpose is identified, there is always the implicit purpose of setting aside a tribal homeland. In these instances, the “practically irrigable acreage” standard is used.

The priority date for a “*Winters*” water right is the date the reservation was created or, where the land is set aside primarily for a tribe’s use, that date is used. The *Aamodt* court recognized the existence of a federally reserved right to capture intermittent flows, but did not decide the transferability of such a right.²²⁸ At least one federal court has interpreted “*Winters*” to also apply to either federal or tribal reservations of rights, thereby allowing an aboriginal priority date for some “*Winters*” rights.²²⁹

D. State Law Based Rights.

The Pueblos may have State law based rights where they privately acquire lands with appurtenant pre-existing State law water rights.²³⁰ This only applies, however, where the lands would not qualify as “replacement lands.” In those instances, the senior priority reasserts itself once the Pueblo reacquires the land.

²²⁷ *Winters v. United States*, 207 U.S. 564, 574-8 (1908); *Arizona v. California*, 376 U.S. 340, 343-7 (1963). In the instance of the San Ildefonso Eastern Reservation, the *Aamodt* Court concluded that the purpose for the Congressional reservation was to provide grazing lands for the Pueblo. The Pueblo’s water rights for the Eastern Reservation were quantified based upon grazing, not irrigable acreage. For Nambe Pueblo, where there was no clear intent, the *Aamodt* court applied the “practicably irrigable acreage” standard. *State ex rel. Reynolds v. Aamodt*, U.S.D.C.N.M. No. 6639, Mem. Op. & Order (Jan. 17, 1997).

²²⁸ *State ex rel. Reynolds v. Aamodt*, 618 F. Supp. 993 (D.N.M. 1985)

²²⁹ See *United States v. Adair*, 723 F.2d 1394, 1398, 1412 (9th Cir. 1983). These aboriginal priority “*Winters*” rights have been limited to non-transferable rights (tribes cannot change the type of use of the water) and to only that amount of water necessary to meet the intended uses at this time, not the amount that might have been used for these purposes in the past.

²³⁰ The issue of whether these are state law rights or some form of federally recognized right is not resolved. Cases from the New Mexico Courts addressing the status of land acquired by an Indian Tribe, even prior to the Secretary of Interior placing it into trust, suggest that federal protections exist from the time the Tribe acquires the land. *Jicarilla Apache Tribe v. Board of County Comm’rs*, 118 N.M. 550, 554, 883 P.2d 136, 140 (1994).

IV. RIGHTS UNDER FEDERAL LAW.

A. Reserved Water Rights for Other Federal Purposes.

The doctrine of federal reserved water rights developed over the course of the twentieth century. Simply stated, federal reserved rights are created when the United States sets aside land for specific purposes (thereby withdrawing the land from the general public domain) and there is implied, if not expressed, a concomitant intent to reserve that amount of water required to fulfill the purpose for which the land was set aside. Federal reserved water rights are not created by or limited by State law.

On federal lands (*e.g.*, Forest Service, Park Service), water rights are reserved by the United States for use on those lands. The priority date of federal reserved water rights is the date the United States reserved the land for the particular use. In some cases, the United States may have State law rights under the prior appropriation system, if, for instance, the United States acquires lands with existing water rights.

In United States v. New Mexico,²³¹ the Court stated that federal reserved claims must be “carefully examined” for their “primary purposes” and that reserved water rights should not be implied unless “without the water the purposes of the reservation would be entirely defeated.” In that case, involving federal claims in the Gila National Forest, the Court found that the primary purposes of the national forest did not include fish, wildlife, recreation or aesthetic purposes, but only timber production and watershed protection.

B. The Endangered Species Act.

The Endangered Species Act (ESA)²³² can play a prominent role in determining the allocation of water, especially of stream and river flows. The ESA was enacted in 1973 and, with limited exceptions, has remained in its current form since then.

The protections of the ESA are triggered by listing of a species as “threatened” or “endangered.” The goal of the Act is to protect threatened and endangered species and the habitat on which they depend.²³³ The Act's ultimate goal is to “recover” species so they no longer need protection under the Act.

The ESA provides several mechanisms for accomplishing these goals. The Act makes it unlawful for anyone to “take” a listed species unless an “incidental take” permit or statement is first

²³¹ 438 U.S. 696, 700 (1978).

²³² 16 U.S. C. §§ 1531-1544 (2000 and 2002 Cum. Supp.).

²³³ 16 U.S. C. § 1531(b) (2000).

obtained from the Interior Department.²³⁴ “Take” is defined as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or to attempt to engage in any such conduct.”²³⁵ In addition, federal agencies must use their authority to conserve listed species and must make sure that their actions do not jeopardize the continued existence of listed species or destroy or harm habitat that has been designated as “critical” for such species.²³⁶ Federal agencies are also required to consult with the United States Fish and Wildlife Service (USFWS) to determine whether federal actions or federally sponsored actions will affect or jeopardize threatened or endangered species or critical habitats. Whenever a private or public entity undertakes an action that is “authorized, funded, or carried out,” wholly or in part, by a federal agency, the consultation requirement is triggered and the potential impacts of the undertaking on threatened and endangered species are analyzed by the USFWS.²³⁷

Of the threatened and endangered species found in the Rio Grande Basin, the protection and recovery of the Southwestern willow flycatcher and the Rio Grande silvery minnow are most likely to affect water planning within the Region. In particular, any actions that are likely to reduce water flows in the Rio Grande or harm habitat used by the willow flycatcher will be subject to strict review and possible limitation. The implications of listing the silvery minnow will be analyzed in a separate document outlining specific legal issues in the region.

²³⁴ 16 U.S.C. §§ 1538, 1539 (2000).

²³⁵ 16 U.S.C. § 1532(19) (2000).

²³⁶ 16 U.S.C. § 1536 (2000).

²³⁷ 16 U.S.C. § (2000). A recent federal case examined the issues of a Fifth Amendment taking (not to be confused with a “take” under the Act) in the context of the ESA. In Tulare Lake Basin Storage District, et al. v. United States of America, 49 Fed. Cl. 313, 315, Fed Cl. 2001 (April 30, 2001) the plaintiffs were California water users within water districts contracting with two major water projects for the right to withdraw and use prescribed quantities of water.

Based on a series of biological opinions, two fish species were determined to be at risk under the ESA: the delta smelt and the winter-run chinook salmon. *Id.* As a result, water out-flows were restricted, injuring the plaintiffs. *Id.* at 316.

The plaintiffs brought suit claiming that their contractually-conferred right to the use of water was taken from them as the result of the water use restrictions under the ESA. *Id.* at 313. The United States Court of Federal Claims held that the restrictions effected a physical, rather than a regulatory, Fifth Amendment taking of property that required compensation in the case of water users who had contract rights entitling them to the use of a specified quantity of water. *Id.* In finding a compensable physical taking, the court explained:

In the context of water rights, a mere restriction on use - the hallmark of a regulatory action - completely eviscerates the right itself since plaintiffs’ sole entitlement is to the use of the water [citation omitted]. Unlike other species of property where use restrictions may limit some, but not all of the incidents of ownership, the denial of a right to the use of water accomplishes a complete extinction of all value . . . To the extent, then, that the federal government, by preventing plaintiffs from using the water to which they would otherwise have been entitled, have rendered the usufructuary right to that water valueless, they have thus effected a physical taking. *Id.* at 319.

C. The National Environmental Policy Act.

The National Environmental Policy Act (NEPA) is another significant federal act dealing with the environmental impact of water use. NEPA dictates the steps that must be taken to analyze environmental impacts of actions; it does not place limits on what actions may be taken. NEPA requires that an analysis of environmental impacts be prepared for all “major federal actions significantly affecting the quality of the human environment.”²³⁸ “Major federal actions” subject to a NEPA analysis include “projects and programs entirely or partly financed, assisted, conducted, regulated, or approved by federal agencies.”²³⁹ One example of a “major federal action” in the planning region is the planned diversion project of San Juan/Chama water proposed by the City of Albuquerque.

A NEPA analysis can take anywhere from a few months to a few years to complete, depending on the complexity of the project being analyzed. Based on the effects of a proposed action, one of three levels of review will occur: a categorical exclusion (CE), an environmental assessment (EA), or an environmental impact statement (EIS). Generally, federal agency regulations define which categories of actions are eligible for CEs because they typically do not have significant environmental effects, either individually or cumulatively.²⁴⁰ Where a major federal action is proposed but it is not known whether the action significantly affects the environment, and thus whether the requirement to prepare an EIS is triggered, the agency must prepare an EA. The EA contains a brief description of the project, alternatives to the project and impacts of the project, and concludes with either a finding of no significant impact or the decision to prepare a full EIS.

The NEPA analysis is generally prepared by the federal agency with the greatest involvement in the project. In addition to a “lead agency,” which prepares the environmental analysis, there are often cooperating agencies which have a lesser involvement in the project. State or local agencies can be joint lead agencies with a federal agency. Outside entities, including a project applicant, may submit relevant information, but it is the agency’s responsibility to review and verify all information from outside sources.

Preparation of an EIS allows for public involvement beginning very early in the process. As soon as the decision is made to prepare an EIS, the lead agency must publish a Notice of Intent in the Federal Register.²⁴¹ After that, the “scoping process” begins, a public process in which the scope of issues to be addressed in the EIS is determined.²⁴² In the scoping process, the lead agency must

²³⁸ 42 U.S.C. § 4332 (2000).

²³⁹ 40 C.F.R. § 1508.18(a) (2002).

²⁴⁰ 40 C.F.R. § 1508.4 (2002).

²⁴¹ 40 C.F.R. § 1501.7 (2002).

²⁴² *Id.*

invite the participation of “affected Federal, State, and local agencies, any affected Indian Tribe, the proponent of the action, and other interested persons.”²⁴³

The EIS must analyze the environmental impacts of the proposal, and compare those to the impacts of all reasonable alternatives to the proposal. After a draft EIS is completed, it is circulated to the public²⁴⁴ and a time period is set for the submission of written comments.²⁴⁵ Often during this period, or earlier during the scoping process, public meetings are scheduled and publicized in local newspapers to allow members of the public to comment on the proposal and its environmental impacts. The agency must provide written responses to all written comments in the final EIS, and should revise the EIS where appropriate.²⁴⁶

After a final EIS is completed, the agency issues a “Record of Decision” which addresses the alternatives and impacts analyzed in the EIS and presents the agency’s decision on the project. The ROD must state whether all practicable means to avoid or minimize environmental harm have been adopted and, if not, explain the reasons for their exclusion.²⁴⁷ Furthermore, the mitigation measures established in the EIS “shall be implemented by the lead agency or other appropriate consenting agency.”²⁴⁸

After an EIS is complete but before a decision is made on a proposal, an infrequent but important procedure may be invoked: an agency that finds the project might cause unsatisfactory environmental effects may refer the matter to the White House Council on Environmental Quality (CEQ), if efforts to resolve concerns with the lead agency have been unsuccessful.²⁴⁹ CEQ then reviews the matter and decides whether to let it stand, to attempt to mediate a resolution, or to refer it to the President for action.²⁵⁰ Over the years, only a handful of referrals to CEQ have been made under these provisions.

Many federal agencies have administrative appeal procedures whereby if someone wants to challenge a project or an EIS, that person must file an administrative appeal to a higher level in the

²⁴³ 40 C.F.R. § 1501.7(a)(1) (2002).

²⁴⁴ 40 C.F.R. § 1502.19 (2002).

²⁴⁵ 40 C.F.R. § 1503.1 (2002); *see also* 40 C.F.R. 1506.10 (2002).

²⁴⁶ 40 C.F.R. § 1503.4 (2002).

²⁴⁷ 40 C.F.R. § 1505.2(a) (2002).

²⁴⁸ 40 C.F.R. § 1505.3 (2002).

²⁴⁹ 40 C.F.R. § 1504.1 (2002).

²⁵⁰ 40 C.F.R. § 1504.3 (2002).

agency. Once those administrative appeals have been exhausted, then interested persons have the option of challenging the legal adequacy of the EIS in court. Such challenges do not usually succeed.

D. Other Federal Laws.

There are many other federal laws that affect the exercise of water rights. Foremost among these is the Clean Water Act, which, by placing limits on water pollution, can place limits on how people exercise their water rights. Other federal laws affecting water use and water quality include the Resource Conservation and Recovery Act (RCRA),²⁵¹ and the Comprehensive Environmental Response, Compensation, and Liability Act (Superfund).²⁵² (See Section VIII.)

V. SAN JUAN-CHAMA PROJECT.

The San Juan-Chama Project is a federal water project built in the 1960s to transport approximately 110,000 acre-feet of water annually from the San Juan River system to the Rio Grande via the Chama River.²⁵³ The Project includes a number of tunnels under the Continental Divide, as well as Heron Reservoir, where San Juan-Chama water is stored after it has been transported through the tunnels from the San Juan tributaries. The purpose of the Project was to make use of water to which New Mexico is entitled under the Colorado River compacts in the Rio Grande Basin, where water has been in such short supply.

The Bureau of Reclamation has entered into contracts with various entities to provide San Juan-Chama Project water. The City of Albuquerque is by far the largest San Juan-Chama contractor, with a permanent contract for 48,200 acre-feet of water annually. The MRGCD has the second biggest contract for nearly 21,000 acre-feet annually. For purposes of State water administration, use of San Juan-Chama Project water requires an OSE permit through the same permitting processes as for native river flows. However, San Juan-Chama water is exempt from Rio Grande Compact water delivery accounting, as discussed below.

Except for the MRGCD, to date, none of these entities has constructed any systems to divert their San Juan-Chama water. The water has been either: (1) stored in reservoirs; (2) used to offset pumping depletion to the river; or (3) leased to other entities, such as the MRGCD for irrigation or the federal government (to provide river flows to support the endangered Rio Grande silvery minnow).²⁵⁴

²⁵¹ 42 U.S.C. § 6901 et seq. (2002).

²⁵² 42 U.S.C. § 9601 et seq. (2002).

²⁵³ Act of June 13, 1962, P.L. 87-483 (76 Stat. 96).

²⁵⁴ This use is consistent with the original intent of Congress in approving this transbasin diversion from the Upper Colorado Basin. For example, the Nambe Dam holds surface flows of the Nambe river back from the mainstem for storage. The San Juan-Chama rights offset the effects of this water storage on the mainstem.

Both Albuquerque and Santa Fe have plans to construct river diversion and treatment systems so that they can use their San Juan-Chama water directly as part of their public water supply. Espanola is also considering a river diversion for its San Juan-Chama water. Extensive federal and State review and permitting will be required for these projects, and the question of how to retain river flows to support the international treaty surface flow delivery obligations or habitat for endangered species will figure significantly in these reviews.

VI. CITY AND COUNTY REGULATION OF WATER USE.

The availability of an adequate water supply is increasingly a limiting factor on population growth and development expansion. The provision of an adequate water supply poses physical constraints on growth but it may also impose even further constraints as a regulatory mechanism that may be used to manage growth. Both counties and cities have the authority to adopt ordinances conserving and regulating the use of water within their jurisdictions.

For example, subdivision and other land use approvals are increasingly being conditioned upon an adequate showing of water supply. In 1995, the New Mexico legislature amended the State Subdivision Act to require that county subdivision ordinances obligate a subdivider seeking approval of a preliminary plat to show that the subdivider can furnish water of sufficient quantity and quality to meet the needs of the subdivision.²⁵⁵ As part of the approval process, both the State Engineer Office and the New Mexico Environment Department must review the subdivider's documentation demonstrating satisfaction of these requirements.²⁵⁶ Likewise, municipalities are charged by State law with the power to adopt city ordinances governing land platting, planning and zoning.²⁵⁷ Specifically, municipal subdivision regulations may govern the extent and manner that water will be provided to the subdivision as a condition of plat approval.²⁵⁸

County and municipal regulations may also be important in the regulation of domestic wells. As discussed above, under the New Mexico Water Code, an applicant may receive a domestic well permit from the State Engineer without acquiring commensurate groundwater rights or retiring offsetting surface water rights.²⁵⁹ Because obtaining a domestic water right permit is essentially a ministerial process, it is viewed by many both as a loophole in the regulation of groundwater withdrawals and as an obstacle to the use of water supply as a growth management tool.

²⁵⁵ NMSA 1978, § 47-6-11 (F) (1973).

²⁵⁶ *Id.*

²⁵⁷ NMSA 1978, §§ 3-19-1 through 12 (1965); NMSA 1978, §§ 3-20-1 (1979) through 3-20-16 (1966).

²⁵⁸ NMSA 1978, § 3-19-6 (B)(5)(b) (1965).

²⁵⁹ NMSA 1978, § 72-12-1 (1931).

Municipalities have the power to restrict the drilling of new domestic water wells. Municipal water providers have the authority to deny new domestic well permit applications where the applicant's property line is within 300 feet of the provider's existing water distribution lines and the property is located within the exterior boundaries of the municipality.²⁶⁰

A municipality may not deny a new domestic well permit if the total cost to the applicant of extending the municipal water lines, meter and hook-up exceeds the cost of drilling a new well.²⁶¹ A municipality declining to authorize a new domestic well must provide domestic water service within 90 days at regular rates.²⁶² Existing wells are not affected by this law.

In order to exercise this authority, a municipality must adopt a well regulation ordinance and file it with the State Engineer's office. An applicant in a municipality with a new well ordinance must obtain a permit to drill from the municipality subsequent to State Engineer approval.²⁶³ A municipality must notify the State Engineer of its denial of drilling permits and an applicant may appeal a denial to the district court.²⁶⁴ The State Engineer has the power to grant a permit for a domestic well within municipal boundaries provided it conform to all applicable municipal ordinances.²⁶⁵

Furthermore, municipalities and counties may regulate water use by assuming responsibility for supplying water to their residents. By owning and operating a water utility, a county or municipality may regulate water use, including imposition of conservation measures. Municipalities may exercise their powers of eminent domain to establish or expand water utilities. A municipality "within and without the municipal boundary" may condemn various water supplies, water rights, rights-of-way "or other necessary ownership for the acquisition of water facilities."²⁶⁶ Counties, like municipalities, may own utilities. County authority arises from statutory law providing that all "counties are granted the same powers that are granted municipalities...[including those powers] necessary and proper to provide for the safety, preserve the health, promote the prosperity and improve the morals, order, comfort and convenience of any county or its inhabitants."²⁶⁷ Certain class B Counties are specifically authorized by statute to purchase, own, operate and sell water and

²⁶⁰ NMSA 1978, § 3-53-1.1(A) (2001).

²⁶¹ NMSA 1978, § 3-53-1.1(B) (2001).

²⁶² NMSA 1978, § 3-53-1.1(C) (2001).

²⁶³ NMSA 1978, § 3-53-1.1(E) (2001).

²⁶⁴ NMSA 1978, § 3-53-1.1(G) (2001).

²⁶⁵ NMSA 1978, § 72-12-1(A) (1931), NMSA 1978, § 3-53-1.1 (1965).

²⁶⁶ NMSA 1978, § 3-27-2(A)(1) (1965).

²⁶⁷ NMSA 1978, § 4-37-1 (1975).

sewer utilities.²⁶⁸ Furthermore, counties are specifically empowered to condemn water rights.²⁶⁹ Class H Counties also have the power to condemn property for water facilities because they are included in the definition of municipality in the water code.²⁷⁰

VII. INTERSTATE COMPACTS.

A. Introduction.

Streams, rivers, and groundwater ignore political boundaries. Where a river runs through several states, those states often form a compact to determine each state's share. The United States Congress must approve these compacts. New Mexico is a party to several compacts, including the Rio Grande and the Colorado River compacts. In the planning region, the Rio Grande Compact clearly is most significant. The Upper Colorado River and the Colorado River compacts are relevant in that they control the San Juan-Chama Project. The compacts obligate upstream states to deliver specified amounts of water to downstream states. No matter how vested a water right might be, if using it violates a compact, it cannot be used. Compacts can place significant constraints on the water supply available for use.

B. The Rio Grande Compact.

The Rio Grande and its tributaries are vital sources of surface water throughout the planning region. The administration of the Rio Grande is governed by the Rio Grande Compact. As such, an understanding of the compact is critical to making future water planning decisions.

The Rio Grande is an interstate and international river, flowing 1,800 miles from its headwaters in the mountains of southern Colorado to the Gulf of Mexico. Along the way it flows through central New Mexico and then marks the 1,250 mile boundary between Texas and the Republic of Mexico. All three states, as well as the Republic of Mexico, are heavily dependent on the Rio Grande's waters for municipal and domestic uses irrigated agriculture, and industry.

The Rio Grande is managed in geographically distinct sections. Of concern to New Mexico is the section referred to on an interstate basis as the "Upper Rio Grande Basin." This basin includes the San Luis Valley in Colorado, the Middle Rio Grande Valley in New Mexico, and the stretch of river from Elephant Butte Dam in New Mexico to Fort Quitman, Texas. However, New Mexicans generally refer to the stretch of river between the Colorado/New Mexico state line and Elephant Butte Reservoir as the "Middle Rio Grande," and the river below Elephant Butte Dam to Fort Quitman as the "Lower Rio Grande." The Middle Rio Grande is within the Region.

²⁶⁸ NMSA 1978, § 4-36-8 (1993).

²⁶⁹ NMSA 1978, §§ 72-4-2 through 12 (1959).

²⁷⁰ NMSA 1978, §§ 3-27-2(A), 3-1-2(G) (1965).

1. History of Water Use and Allocation.

The early settlers in Texas and New Mexico had sufficient water in most years to sustain their accustomed water usage. However, water availability changed dramatically in the late 19th century with the rapid settlement of Colorado. Settlers began arriving in the San Luis Valley of Colorado in the 1850s. When the Denver and Rio Grande Railroad reached the valley in the 1870s, the population increased, as did the need for irrigation water. Between 1870 and 1890, Coloradans constructed 1,200 miles of canals and increased their irrigated acreage from 50,000 acres to 300,000 acres. By 1896, the irrigated lands in the San Luis Valley in Colorado were using all available natural flows of the river. These depletions in Colorado resulted in severe water shortages downstream in Texas and New Mexico (and Mexico), notwithstanding that many of the downstream water users appropriated water more than a century before the arrival of the Coloradans.²⁷¹

Several initiatives were taken to resolve the Rio Grande water shortages. First, in 1896, the Secretary of the Interior implemented an embargo preventing further depletions in Colorado and New Mexico. The Secretary implemented the embargo by suspending applications for rights-of-way across public lands for diversions. This embargo remained in effect until 1925.²⁷²

Second, the United States entered into the Treaty of 1906 with Mexico, in which the United States promised to deliver 60,000 acre-feet of water annually from the Rio Grande to Mexico at the head of the Mexican Canal near El Paso.²⁷³

Third, the United States implemented the Rio Grande Project, which involved the construction of Elephant Butte Reservoir. The purpose of the project was to fulfill delivery of treaty water to Mexico and to provide water for irrigation in the “Lower Rio Grande” between Elephant Butte Dam and Fort Quitman, Texas. The dam was completed in 1916.²⁷⁴

These actions did not resolve the water shortage, however. Colorado needed to construct water storage projects just to maintain its existing development but was unable to do so because of

²⁷¹ The *Rio Grande Joint Investigation in the Upper Rio Grande Basin in Colorado, New Mexico, and Texas* 66-7 (hereinafter *Rio Grande Joint Investigation*). Prior to the late 1880s, the river at El Paso went dry once every ten years. Between 1888 and 1896, the river went dry every year but two. *Id.* at 73 (quoting the Follett Report of 1896). See also Raymond A. Hill, *Development of the Rio Grande Compact of 1938*, 14 Nat. Resource J. 163 at 163-6 (1974) (quoting the *Rio Grande Joint Investigation*); William A. Paddock, *The Rio Grande Convention of 1906: A Brief History of an International and Interstate Apportionment of the Rio Grande*, 77 Denv. U.L. Rev. 287 (1999) (page references not available); Albert E. Utton, *Coping with Drought on an International River Under Stress: The Case of the Rio Grande/Rio Bravo*, 39 Nat. Resources J. 27, 27 (1999).

²⁷² *Rio Grande Joint Investigation* 73; Hill, *id.* at 166.

²⁷³ *Treaty with Mexico on Distribution of Waters of the Rio Grande Irrigation*, May 21, 1906, 34 Stat. 2953, T.S. No. 455; *Rio Grande Joint Investigation* 73; See also, Hill, *id.* at 166.

²⁷⁴ Hill, *id.*, at 166, Paul Elliott, *Texas' Interstate Water Compacts*, 17 St. Mary's L.J. 1241, 1246-48 (1986).

the embargo. Texas and New Mexico were still not getting sufficient water. Moreover, New Mexico's Middle Rio Grande Valley was in need of a major drainage and irrigation project due to aggradation of the river channel and concurrent water logging, or seeping, of the irrigated farmland. To resolve these problems, New Mexico, Colorado, and Texas formed a commission in 1923 to study the water supply and to draft a compact for the equitable apportionment of water between the three states. This initiative resulted in the Rio Grande Compact of 1929 and the subsequent Rio Grande Compact of 1938, which remains in effect today.²⁷⁵

The Rio Grande Compact of 1929 was essentially a compact to agree to a compact. The 1929 Compact required each signatory state to appoint a commissioner for the purpose of formulating a compact that would equitably apportion the waters of the Rio Grande. The 1929 Compact also required the signatory states to maintain the *status quo* as of the signing of the Compact. The commissioners under the 1929 Compact arranged for the National Resources Committee to conduct an investigation to gather basic data on water resources of the Rio Grande to assist the Commission "in reaching a satisfactory basis for the equitable apportionment of the waters of the Rio Grande Basin in the United States above Fort Quitman, as contemplated by such Rio Grande Compact." The Committee completed its report and provided it to the President of the United States on December 23, 1937.²⁷⁶

Based on the negotiations of the signatory states through their appointed commissioners and the report of the Natural Resources Committee, the signatory states reached agreement on each state's delivery obligations and a methodology to accomplish deliveries. The states formalized this agreement in the Rio Grande Compact of 1938.

The Rio Grande Compact of 1938 was signed in Santa Fe, New Mexico on March 18, 1938, by commissioners appointed by the governors of Colorado, New Mexico, and Texas. The signatory states ratified the Compact by legislative action in 1939, and the United States Congress ratified the Compact on May 1, 1939.

The Rio Grande Compact provides for a Commission to administer the Compact. The Colorado State Engineer and the New Mexico State Engineer serve as Commissioners for their respective states. The governor of Texas appoints the Texas Commissioner. The President of the United States appoints a representative to act as the non-voting chairman of the Commission.²⁷⁷

The powers and duties of the Commission include the collection, correlation and presentation of factual data and administration of records having a bearing on administration of the Compact. By unanimous action, the Commission makes recommendations to the signatory states concerning

²⁷⁵ *Id.*

²⁷⁶ Hill, *id.* at 167-70 (quoting Resolution of the Rio Grande Compact Commission, December 2-3, 1935, Santa Fe, New Mexico).

²⁷⁷ Rio Grande Compact of 1938 art. XII.

matters connected with administration of the Compact. The Commission reports annually to the governors of the signatory states. By unanimous action, the Commission may adopt rules and regulations consistent with the Compact to govern their proceedings.²⁷⁸ The Commission ensures that a stream gaging station is maintained and operated for collecting data to administer the Compact.²⁷⁹ The Commission, by unanimous action, can order the release of water held in storage by reason of accrued debit by Colorado or New Mexico.²⁸⁰ Every five years, the Commission may consider making changes to non-substantive provisions of the Compact; however, the provisions do not become effective until and unless the Commission makes the changes by unanimous vote and the changes are ratified by the state legislatures and consented to by Congress.²⁸¹

The Rio Grande Compact utilizes an inflow-outflow model to determine the water delivery obligations of Colorado and New Mexico. The Rio Grande Joint Investigation compiled data over a number of years to determine water inflow and outflow at various points in the Rio Grande system and to establish relationships between inflows and outflows. The Investigation established the relationship between inflows in the San Luis Valley in Colorado and outflows at the Colorado/New Mexico state line. The Investigation also established the relationship between inflows in the Middle Rio Grande Valley and outflows into Elephant Butte Reservoir. These correlations were used to establish water delivery schedules for Colorado to New Mexico and New Mexico to Elephant Butte Dam, and these schedules were expressly incorporated in the Compact.²⁸²

Pursuant to the 1938 Compact delivery schedules, measurements at gages in the Rio Grande and its tributaries in Colorado determine Colorado's delivery obligation to New Mexico. Delivery is measured at the Lobatos gaging station near the Colorado/New Mexico state line.²⁸³ Similarly, inflow measurements at the Otowi gage in New Mexico determine New Mexico's delivery obligation to Elephant Butte Reservoir for subsequent deliveries to Mexico, southern New Mexico, and Texas.²⁸⁴

²⁷⁸ *Id.*

²⁷⁹ *Id.* at art. II.

²⁸⁰ Rio Grande Compact of 1938 art. VI.

²⁸¹ Rio Grande Compact of 1938 art. XIII.

²⁸² Hill, *supra* at 174; Rio Grande Compact of 1938 arts. III, IV; *Rio Grande Joint Investigation* at 127-92.

²⁸³ Rio Grande Compact of 1938 arts. II, III.

²⁸⁴ Rio Grande Compact of 1938 art. IV. New Mexico's delivery into Elephant Butte Reservoir was originally measured at the San Marcial gaging station located above the Reservoir. *Id.* Due to problems with the gages at San Marcial, the Commission abandoned that gage and established a gage below Elephant Butte Dam to measure delivery. The amount of water delivered by New Mexico into Elephant Butte Reservoir is calculated by the recorded flow at the downstream gage plus or minus the net gain or loss in Elephant Butte Reservoir for that year. NMSA 1978, § 72-15-23 (1939).

The Compact provides a flexible delivery schedule based on the average annual flows of the river over a period of years. This was necessary because the flows in the Rio Grande fluctuate greatly from year to year. Colorado and New Mexico can accrue credits for years in which their deliveries exceed scheduled deliveries. Conversely, they may accrue debits for years in which they under-deliver. The Compact provides a complex mechanism of storage and release by Colorado and New Mexico to ensure that the signatory states receive their share of over time.²⁸⁵

Significantly, Article XVI of the Compact states: “Nothing in this compact shall be construed as affecting the obligations of the United States of America . . . to the Indian tribes, or as impairing the rights of Indian tribes.”²⁸⁶ Because Pueblos are located within the Region, interpretation of this article is important in the water planning process

2. Upstream Storage Under the Compact.

The Rio Grande Compact of 1938 allows upstream storage of water in New Mexico, although with restrictions. The parties to the Compact recognized that upstream storage of water was desirable to the extent that such storage did not adversely impact water users in New Mexico and Texas below Elephant Butte Reservoir.²⁸⁷ For this reason, Article VI includes a provision allowing New Mexico to store water in reservoirs constructed after 1929 even though such storage may increase New Mexico’s delivery debit to Texas. More specifically, Article VI of the Compact provides that New Mexico’s “accrued debit shall not exceed 200,000 acre-feet at any time except as such debit may be caused by holdover storage of water in reservoirs constructed after 1929 in the drainage basin of the Rio Grande between Lobatos and San Marcial.”

The significance of the year 1929 was the construction of El Vado Dam and Reservoir, which was constructed on the Rio Chama after execution of the Rio Grande Compact of 1929, and before the execution of the Rio Grande Compact of 1938.²⁸⁸ The significance of the area between Lobatos and San Marcial is that it encompasses the entire Rio Grande Basin in New Mexico located above Elephant Butte Reservoir.

Article VI of the Compact further requires New Mexico to retain water in storage at all times to the extent of its accrued debit. The drafters undoubtedly included this provision to ensure that New Mexico would have the water available for release should the Compact Commission or Texas call for its release pursuant to Compact provisions discussed below.

²⁸⁵ Rio Grande Compact of 1938 arts. VI, VII; Hill, *supra* at 186-197.

²⁸⁶ Rio Grande Compact of 1938 art. XVI.

²⁸⁷ Hill, *supra* at 188.

²⁸⁸ *Id.*

Article VII places a final restriction on upstream storage in New Mexico. New Mexico may not increase the amount of water in storage in post-1929 reservoirs when there is less than 400,000 acre-feet of usable water in project storage. Article VII also includes provisos, however, to protect the upstream states from over-releases at Elephant Butte Reservoir in prior years that might cause the minimum stage condition of less than 400,000 acre-feet. In the event that the average release of usable water from Elephant Butte since the last actual spill is more than 790,000 acre-feet, then the time at which the minimum stage is reached is adjusted to compensate for the difference between the total actual release and releases at such average rate. As an additional protection, New Mexico may relinquish accrued credits at any time and then store water in the amount of the relinquishment.

The Compact includes provisions for the Commission or the Texas Commissioner acting alone to call for release of water stored in New Mexico. Article VI authorizes the Commission by unanimous action to call for the release of water from storage in New Mexico or Colorado. The Commission has called for such releases many times in order to mitigate temporary water supply shortages in an upstream state or to augment the supply in Elephant Butte Reservoir for downstream users.²⁸⁹

Similarly, Article VIII of the Compact provides for release of water from upstream storage in New Mexico upon the demand of the Texas Commissioner. During the month of January of each year, the Texas Commissioner may demand that New Mexico release water from storage reservoirs constructed after 1929 up to the amount of New Mexico's accrued debit. In this event, New Mexico must release stored water at the greatest rate practical and to the extent of its debit to bring the quantity of usable water in project storage to 600,000 acre-feet by March 1 and to maintain 600,000 acre-feet in project storage until April 30.²⁹⁰ The purpose of the Texas demand and subsequent release is to accomplish a normal release of 790,000 acre-feet from project storage in that year.²⁹¹

Provisions in the Compact for the San Juan-Chama diversion also affect upstream storage under the Compact, although indirectly. Article X of the Compact, anticipating the San Juan-Chama diversion, provides that the State having the right to use imported water shall be given proper credit in the application of the Compact delivery schedules. This provision allows the holder of a San Juan-Chama water right to avoid a Texas or Commission call on water stored in a post-1929 reservoir by substituting San Juan-Chama water. Article X also provides that water imported in the basin is excluded from the inflow-outflow calculation thereby excluding water imported from the San Juan Basin through the San Juan-Chama Project.

²⁸⁹ *Id.*

²⁹⁰ Texas must make a similar demand on Colorado, and New Mexico and Colorado must release water from storage in proportion to their respective accrued debits.

²⁹¹ This creates an interesting situation wherein the Texas Commissioner through his demand is representing the rights not only of Texans but also of New Mexicans below Elephant Butte Dam as well as the Republic of Mexico which receives 60,000 acre-feet of the project release under the 1906 Treaty.

In its simplest terms, New Mexico may store water in upstream reservoirs to the extent of its accrued debits, provided that storage in Elephant Butte Reservoir is not less 400,000 acre-feet, and provided that New Mexico maintains water in storage to the extent of its accrued debit. Either the Commission at any time by unanimous vote, or the Texas Commissioner in January of each year, may call for a release of stored water to the limits of the accrued debit. New Mexico water users may avoid fulfilling this call from post-1929 reservoirs by substituting San Juan-Chama water.

3. Effectiveness of the Rio Grande Compact.

While compacts are the generally favored mechanism for resolving disputes between states over interstate streams, they certainly do not end the interstate controversy over water. The Rio Grande Compact is a case in point. New Mexico and Colorado under-delivered water for most of the first thirty years of Compact administration. Texas sued New Mexico in 1952 for under-delivery.²⁹² In 1966, Texas and New Mexico sued Colorado for under-delivery.²⁹³

Meeting compact obligations can be challenging because the water supply in western stream systems is extremely difficult to predict or estimate, and such estimates are often inaccurate or subject to changing conditions.²⁹⁴ This has certainly been true in the case of the Rio Grande Compact. For instance, New Mexico's ability to deliver water to Elephant Butte Reservoir under the Rio Grande Compact was severely impaired by floods in 1941 and 1942, which resulted in aggradation of the river channel above the reservoir. Subsequently, the gage at San Marcial had to be abandoned for Compact accounting purposes. Relocating the point of measurement for New Mexico deliveries from San Marcial to below Elephant Butte resulted in the deduction of evaporative losses from Elephant Butte from New Mexico's delivery, thereby increasing New Mexico's delivery obligation. Moreover, millions of dollars have been spent in the Middle Rio Grande Valley for flood control, channel rectification, and other drainage and irrigation works, and this work has taken many years to accomplish.²⁹⁵

Second, the Compact states: "Nothing in this compact shall be construed as affecting the obligations of the United States of America...to the Indian tribes, or as impairing the rights of the

²⁹² Texas v. New Mexico, 343 U.S. 932 (1953). The suit was dismissed for failure to join the United States as an indispensable party. Texas v. New Mexico, 352 U.S. 991 (1957); *See also*, Elliott, *supra* at 1250.

²⁹³ Texas v. Colorado, 389 U.S. 1000 (1967). After a lengthy continuance, this case was dismissed in 1985 at the request of the states after a "spill" at Elephant Butte Dam erased Colorado's accrued debit. Elliott *supra* at 1250.

²⁹⁴ David N. Copas, Jr., *The Southeastern Water Compact, Panacea or Pandora's Box? A Law and Economics Analysis of the Viability of Interest in Water Compacts*, 21 Wm. & Mary Env'tl. L. & Pol'y Rev. 697, 722 (1997).

²⁹⁵ S.E. Reynolds and Philip B. Mutz, *Water Deliveries Under the Rio Grande Compact*, 14 Nat. Resources J. 200, 202-4 (1974).

Indian tribes.”²⁹⁶ Because six Pueblos are located on the main stem of the Rio Grande in the Region, interpretation of this article is important in the water planning process.

VIII. Water Quality Law.

Federal, state, and tribal laws and regulations govern water quality within the Region. Nonetheless, most water quality laws have their genesis in federal law. An understanding of the federal environmental statutes and how they interrelate with State and Pueblo laws is critical to understanding the regulation of water quality in the area.

A. The Clean Water Act.

Several federal laws address water quality issues. Clearly, the most significant federal law is the Clean Water Act (CWA)²⁹⁷ The Act’s objective is to “restore and maintain the chemical, physical and biological integrity” of the waters of the United States.²⁹⁸ The CWA has several ways to reach this goal. First, it allows water quality standards for specific segments of surface waters.²⁹⁹ Second, the CWA makes it unlawful for a person to discharge any pollutant into waters without a permit. Third, it allows for the designation of “Total Maximum Daily Loads” (TMDLs) for pollutants threatening the water quality of stream segments.³⁰⁰ TMDLs are identified for those waters where an analysis shows that discharges may result in a violation of water quality standards.³⁰¹ The TMDL process can be best described as determining and planning a watershed or basin-wide budget for pollutant influx to a watercourse. Groundwater pollution is not specifically addressed by the CWA, and pollution such as mining, agricultural and construction run-off (referred to as “nonpoint sources”) is addressed mainly through voluntary management efforts, called “best management practices,” and not through regulation.³⁰² Nonetheless, a recent court decision found that the EPA and states have the power to list and issue TMDLs for waters polluted only by nonpoint sources of pollution.³⁰³

²⁹⁶ Rio Grande Compact of 1938 art. XVI.

²⁹⁷ 33 U.S.C. §§ 1251 to 1387 (2002). The CWA is a 1977 amendment to the Federal Water Pollution Control Act of 1972, which set the basic structure for regulating discharges of pollutants to navigable waters of the United States.

²⁹⁸ 33 U.S.C. § 1251(a) 2002.

²⁹⁹ 33 U.S.C. § 1313 (2002).

³⁰⁰ 33 U.S.C. § 1313(d) (2002).

³⁰¹ 33 U.S.C. § 1313(d)(1)(C) (2002).

³⁰² 40 C.F.R. § 130.2 (2002).

³⁰³ Pronsolino v. Marcus, 91 F. Supp 2d. 1337, 1356 (N.D. Ca. 2000), *aff’d* by Pronsolino v. Nastri, 291 F.3d 1123 (9th Cir. 2002).

The CWA also calls for effluent limitations. Very simply speaking, an effluent limitation is a restriction on discharges into surface waters from the “end of the pipe,” or point source. These discharges are regulated through the issuance of National Pollutant Discharge Elimination System (NPDES) permits.³⁰⁴ These permits limit the discharge of a variety of pollutants and control the characteristics of the discharge, such as temperature. NPDES permits also regulate storm water discharges entering surface water.³⁰⁵ Although EPA can delegate the administration of the NPDES program to individual states,³⁰⁶ it has not been delegated to New Mexico.

By enacting the CWA, Congress gave the U.S. Environmental Protection Agency (EPA) broad authority to deal with water pollution. EPA has developed a variety of regulations and programs to reduce pollutants entering all surface waters.³⁰⁷ An NPDES permit establishes the amount of pollutants a sewage treatment plant may discharge directly into surface waters. The result has been the production of large quantities of sewage sludge and effluent, which may contain toxic pollutants, disease-causing organisms, metals, and salts that could adversely impact soils, groundwater aquifers, and eventually surface waters.³⁰⁸ In 1987, Congress amended section 405 of the CWA and required that EPA develop a comprehensive program to reduce environmental risks, but also maximize beneficial use of sewage sludge.³⁰⁹ In February 1993, EPA promulgated “Standards for the Use or Disposal of Sewage Sludge,” commonly referred to as the “Sludge Rule.”³¹⁰

The Sludge Rule establishes requirements for use of sewage sludge and recycled effluent for land application, disposal in landfills, and incineration.³¹¹ The standards for each use or disposal method consist of general requirements, and numerical limits on the pollutant concentrations for the various management practices.³¹² It also includes monitoring, record keeping, and reporting

³⁰⁴ 33 U.S.C. § 1342 (2002).

³⁰⁵ 33 U.S.C. § 1342(p) (2002).

³⁰⁶ 33 U.S.C. § 1251(b) (2002).

³⁰⁷ U.S. Environmental Protection Agency, *Land Application of Biosolids: Office of Inspector General Status Report 1* (Mar. 28, 2002).

³⁰⁸ *Id.* at 2.

³⁰⁹ *Id.*; 33 U.S.C. § 1345 (2002).

³¹⁰ 40 C.F.R. Part 503; U.S. EPA, “*Land Application of Biosolids*,” *supra* at 2.

³¹¹ *Id.*

³¹² *Id.* at 3.

requirements.³¹³ Various municipalities and counties have instituted land application bans.³¹⁴ The rule is being applied to regulate reuse programs that place treated effluent on the land for turf irrigation or agricultural uses.³¹⁵

The CWA allows the EPA to delegate many permitting, administrative, and enforcement aspects to state and tribal governments.³¹⁶ For example, states and tribes have the power to adopt water quality standards for surface waters within their jurisdictions. A water quality standard is a measurement of the water itself and does not focus on any single polluter. A water contaminant is any substance that alters the physical, chemical, biological or radiological qualities of the water.³¹⁷ A contaminant becomes a pollutant when it exceeds an acceptable concentration or standard. Under the CWA, states are required to adopt water quality standards that protect certain designated uses for each river, stream segment and lake.³¹⁸ Tribes meeting certain criteria under the CWA have those same powers for waters within tribal lands.³¹⁹ Designated uses include recreation, wildlife habitat, domestic water supply, irrigation and livestock water, or in the case of Indian tribes, culturally significant or sacred uses. The water quality standards must protect the designated use for the surface water at issue. Standards must be reviewed every three years, and as appropriate, be modified or replaced.³²⁰ This process is known as the “Triennial Review.”

New Mexico has adopted its own surface water quality standards.³²¹ In order to understand a water quality standard, it is helpful to look at a particular reach of a river. For example, one segment of the Rio Grande in the planning region is the “main stem of the Rio Grande from Alameda bridge (Corrales bridge) upstream to the Angostura diversion works.”³²² For this reach of the Rio Grande, the designated uses are irrigation, limited warmwater fishery, livestock watering, wildlife habitat, and secondary contact. The standards adopted for this reach include pH within the range of

³¹³ *Id.*

³¹⁴ *Id.*

³¹⁵ See National Academy of Science, “Use of Reclaimed Water and Sludge in Food Crop Production” (1996).

³¹⁶ 33 U.S.C. §§ 1251(g), 1377 (2002).

³¹⁷ NMSA 1978, § 74-6-2 (A) (1967).

³¹⁸ 33 U.S.C. § 1313 (2002).

³¹⁹ 33 U.S.C. § 1377(a) (2002).

³²⁰ 33 U.S.C. § 1313(c)(1) (2002).

³²¹ 20.6.4 NMAC.

³²² 20.6.4.106 NMAC.

6.6 to 9.0, temperature to be less than 32.2 degrees centigrade and fecal coliform not to exceed 200/100mL.

Several Pueblos within the Region have water quality standards for all surface waters within the exterior boundaries of each Pueblo. The Pueblos of Isleta and Sandia have each adopted standards similar in form and substance to the State standards.

B. Other Federal Laws.

1. The Safe Drinking Water Act.

The Safe Drinking Water Act (SDWA)³²³ protects the quality of drinking water in the United States. This law focuses on all waters actually or potentially designed for drinking use, whether from above ground or underground sources. The Act authorizes EPA to establish safe standards and requires all owners or operators of public water systems to comply with the standards. New Mexico has promulgated drinking water regulations which adopt, in part, federal drinking water standards.³²⁴

2. The Resource Conservation and Recovery Act.

The Resource Conservation and Recovery Act (RCRA)³²⁵ establishes a comprehensive “cradle to grave” system (including generation, transport, treatment, storage, and disposal) for regulating hazardous waste, through a manifest system for tracking hazardous waste and permits for hazardous waste treatment, storage or disposal facilities. RCRA also establishes a framework for corrective action for releases of hazardous waste. RCRA contains federal standards with state implementation to control the management of hazardous waste. New Mexico's program has been authorized by EPA.³²⁶

The 1984 amendments to RCRA³²⁷ enabled EPA to address environmental problems that could result from storing petroleum and other hazardous constituents. RCRA allows EPA to approve

³²³ 42 U.S.C. § 300f *et seq.* (2002).

³²⁴ 20.7.10 NMAC.

³²⁵ 42 U.S.C. §§ 6901-6992K (2002). RCRA was enacted in 1976 as an amendment to the Solid Waste Disposal Act and was significantly amended in 1980 and 1984.

³²⁶ 42 U.S.C. § 6926(b) (2002); New Mexico's Hazardous Waste Act is codified at Chapter 74, Article 4 NMSA 1978, .

³²⁷ 42 U.S.C. § 6991(b) (2002).

state underground storage tank (UST) programs to operate in lieu of the federal program.³²⁸ NMED manages New Mexico's UST program.³²⁹

The regulation of hazardous waste is clearly important to maintaining water quality. By regulating the storage and disposal of hazardous waste, the likelihood of hazardous wastes being released to groundwater are minimized. Likewise, regulating the clean-up of hazardous waste releases through corrective action programs³³⁰ helps in maintaining the quality of water in which a hazardous waste has been released.

3. The Comprehensive Environmental Response, Compensation and Liability Act.

The Comprehensive Environmental Response, Compensation and Liability Act (CERCLA),³³¹ commonly known as Superfund, addresses direct responses to releases or threatened releases of hazardous substances that may endanger public health or the environment. CERCLA establishes prohibitions and requirements concerning closed and abandoned hazardous waste sites; provides for the liability of persons responsible for releases of hazardous waste at these sites; and establishes a trust fund to provide for cleanup when no responsible party can be identified.

C. Groundwater Standards and Regulations.

As noted above, the CWA focuses primarily on surface water pollution. Therefore, groundwater pollution not caused by hazardous waste is addressed directly by the State and Tribes, pursuant to the New Mexico Water Quality Act,³³² and its regulations.³³³ In New Mexico, groundwater pollution is caused by a number of sources, including septic tank systems and cesspools, spills and leaks of hazardous materials; solid waste disposal sites; the overuse of fertilizers and pesticides; and mines.

Improperly installed or maintained domestic septic systems can be a source of groundwater pollution in New Mexico. New Mexico's Environmental Improvement Board is charged with

³²⁸ 40 C.F.R. 282.81; statutory provisions relating to New Mexico's UST program are found in NMSA 1978, §§ 74-4-1 (1977) through 74-4-14 (1992) and §§ 74-6-1 (1967) through 74-6-17 (1987).

³²⁹ *Id.*

³³⁰ *See, e.g.,* NMSA 1978, § 74-4-7 (1977).

³³¹ 42 U.S.C. § 9601 et. seq. (2002).

³³² NMSA 1978, § 74-6-1 et. seq. (1967).

³³³ 20 NMAC 6.2.

writing regulations for liquid waste disposal,³³⁴ and has promulgated regulations applicable to domestic septic systems.³³⁵

³³⁴ NMSA 1978, § 74-1-8 (1971).

³³⁵ 20 NMAC 7.3.