

4. Legal Issues

Knowledge of the legal constraints that govern the use of water in the Northeast Region is needed to understand the available water supply in the region. This section addresses the federal, state, and local legal issues and administrative policies that affect the regional use of water. Information on the physical water supply is included in Section 5.

The planning region has specific legal issues that distinguish it from other water planning regions, including the federal Endangered Species Act (ESA), state regulated appropriation of water, and shared groundwater resources with Texas. These and other issues are discussed in detail in Sections 4.1 through 4.9.

4.1 State Issues

Throughout the State of New Mexico, water use is governed by a number of generalized state laws. New Mexico water laws affecting the planning region are found in the New Mexico Constitution, New Mexico Statutes Annotated (NMSA), and the case law interpreting and applying the existing law. Additional legal constraints include State Engineer regulations and guidelines governing groundwater and surface water as well as State Engineer policy for administering various groundwater basins throughout the state. A general overview of New Mexico water law is provided in Appendix C; state legal issues of particular relevance to the planning region are discussed in Sections 4.1.1 through 4.1.4.

4.1.1 Appropriation of Water

Article XVI of the New Mexico Constitution establishes the basic principles underlying New Mexico water law, including prior appropriation and beneficial use: until appropriated, all water belongs to the State of New Mexico. Thus, the State has the sole authority to grant or recognize rights to use that water.

Two tenets based on the Constitution (N.M. Constit. Art. XVI Sec. 2) are that (1) water rights "are subject to appropriation for beneficial use, in accordance with the laws of the state" and (2) "priority of appropriation shall give the better right."



- The concept underlying the principle of prior appropriation is that the first person to use water for a beneficial purpose has a prior right to use that water against subsequent appropriators. "First in time, first in right" is the phrase often used to describe prior appropriation. Water rights acquired through this system of prior appropriation are a type of property right and may be sold or leased. In all cases, however, the essential basis of water right ownership is "beneficial use."
- The principle of beneficial use is that a water right arises out of a use that is productive or beneficial, such as agricultural, municipal, industrial, and domestic uses, among others. "Beneficial use shall be the basis, the measure and the limit of a water right" (N.M. Constit. Art. XVI, Sec. 3). This provision has also been incorporated into case law, which is the law developed by New Mexico courts. As recognized in *State ex rel. Reynolds v. Mendenhall*, beneficial use is the "measure and limit of the right to the use of waters" (68 N.M. 467, 473 (1961)).

4.1.2 Stock Ponds

Whether stock ponds should be regulated was a frequently debated issue until 2004, when the New Mexico legislature changed the long-standing rule that had allowed individuals to impound water for livestock purposes without approval from the State Engineer (Appendix C). Due to concern about the number of unregulated stock ponds, the legislature amended the water code to give the State Engineer jurisdiction over stock ponds, and the State Engineer now requires a permit for new surface water impoundments of any kind, including livestock water impoundments (NMSA §72-9-3; 19.26.2.14 NMAC).

To address the issue of ponds that were built for aesthetic and recreational purposes but called stock ponds in order to avoid regulation by the State Engineer, the new regulations specifically state that water for livestock does not include "the impoundment of surface or groundwater in any amount for fishing, fish propagation, recreation, or aesthetic purposes" (19.26.2.14 NMAC). In order to build and fill this type of pond, owners must have a valid water right recognized by the State Engineer (19.26.15 NMAC). Given that the Dry Cimarron is fully adjudicated and the State Engineer considers the Canadian to be fully appropriated (and hydrologically connected to



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groundwater), it is unlikely that an application for a fishing or recreational pond would be successful on either of these systems unless an existing water right is transferred.

For a livestock pond located on or fed by a perennial stream, an applicant must comply with the surface water appropriation regulations (NMSA §72-9-3 (A)(B); 19.26.2.14 (D) NMAC). The State Engineer will grant a permit for stock ponds located in a perennial stream system only when unappropriated water is available, and given that the Dry Cimarron and Canadian Rivers are considered by the State Engineer to be fully appropriated, the granting of such a permit is highly unlikely. An alternative to applying for a new water right would be to purchase existing water rights and transfer them to the new location and purpose of use.

Applications for stock and recreational ponds from groundwater basins isolated from stream systems will be evaluated for impairment, conservation, and public welfare factors (NMSA §72-12-3). Again, a landowner wishing to construct any type of surface impoundment could seek instead to purchase an existing water right and transfer it to a new place of use, for a new purpose of use.

4.1.3 Domestic Well Regulations

Domestic wells are regulated by statute: "A person, firm or corporation desiring to use public underground waters . . . for irrigation of not to exceed one acre of noncommercial trees, lawn or garden or for household or other domestic use shall make application to the state engineer for a well on a form to be prescribed by the state engineer. Upon the filing of each application describing the use applied for, the state engineer shall issue a permit to the applicant to use the underground waters applied for . . ." (NMSA §§72-12-1.1, 72-12-1). Historically, this statute has been interpreted as mandating the automatic issuance of a domestic well permit when applied for (in other words, the State Engineer has no discretion to deny such a permit) and allowing domestic well users to divert up to 3 acre-feet per year (ac-ft/yr) from domestic wells for household use, including outdoor watering of up to 1 acre of landscaping.

On August 15 2006, in response to the current demand on existing water supplies due to population growth and drought conditions and based on input from an 8-month public review process, the State Engineer adopted new regulations governing domestic wells (NM OSE,



2006a). Significantly, these regulations apply only to new domestic wells, not to livestock wells and temporary wells. Furthermore, existing domestic wells are not affected by these regulations and can still divert up to 3 ac-ft/yr, unless otherwise limited by municipal ordinance or by a court adjudicating water rights (NMSA §§72-12-1, 72-12-1.1, 72-12-1.2,).

The new regulations contain the following key provisions:

- Domestic use of water for one household is limited to 1 ac-ft/yr (19.27.5.9(D)(1) NMAC).
- Domestic use of water from one well used for more than one household is limited to 1 ac-ft/yr per household, with a maximum diversion of 3 ac-ft/yr from the well (19.27.5.9(D)(2) NMAC).
- Domestic use of water for drinking and sanitary uses that are incidental to the operation
 of governmental, commercial, or nonprofit facilities is allowed only if an alternative water
 supply is not reasonably accessible or available. Should no other water supply be
 available, the commercial incidental use is limited to 1 ac-ft/yr (19.27.5.9(D)(3) NMAC).
- Further limitations to the amount diverted may be imposed, by the courts, by municipal or county ordinances, or by the State Engineer (19.27.5.9 NMAC).
- Diversions from domestic wells in domestic well management areas generally cannot exceed 0.25 ac-ft/yr, and the State Engineer can impose even smaller limits or require that a consumptive use water right be transferred to the domestic well before diversions begin (19.27.5.14(C) NMAC). The 0.25-ac-ft/yr limitation may be increased in the case of multiple household use or if a larger consumptive use water right is transferred to the domestic well (19.27.5.14(C)(2), (D), and (E) NMAC).
- The State Engineer may reject domestic permit applications if the proposed well is located in an area with court-imposed restrictions on water use or drilling or in an area where well drilling has been prohibited by a government entity due to water quality concerns (19.27.5.13 (A) NMAC).



- Meters are required for domestic wells within domestic well management areas (19.27.5.13(C)(1) NMAC). The State Engineer will require meters for domestic well applications if:
 - Meter use is court-imposed.
 - The well is used by multiple households.
 - The well is used for drinking and sanitary domestic use incidental to the operations of a governmental, commercial, or nonprofit facility.
 - The well supplements another domestic well.
 - The well is a multi-use well, and only a portion is used for domestic purposes.
- Meters may be required for domestic wells permitted for one household (19.27.5.13(C)(2) NMAC).
- The filing fee for a domestic well permit is increased from \$5 to \$125 (19.27.5.8 NMAC).

The intent of the regulations is to impose particularly stringent restrictions in areas deemed "domestic well management areas." Such areas are defined in the regulations as a "bounded area overlying a stream-connected aquifer, specifically described by section, township and range, or by other land survey descriptions, that requires special water resource protection as determined by the state engineer" (19.27.5.7(F) NMAC). Prior to establishing such a management area, however, the proposed regulations mandate that the State Engineer follow certain procedures and make certain hydrologic findings (19.27.5.14 NMAC):

- As hydrologic conditions require, the State Engineer may declare all or part of a streamconnected aquifer as a domestic well management area to prevent impairment to valid, existing surface water rights (19.27.5.14 NMAC).
- The State Engineer must develop guidelines for each declared domestic well management area, based on the hydrologic conditions of the domestic well management area and the existing water rights located therein. The guidelines must set forth the maximum diversion amounts and other additional restrictions, including any requirement for the transfer of a consumptive use water right, that will be conditioned on new 72-12-1.1 domestic well permits issued within the management area (19.27.5.14(A) NMAC).



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 The public affected by the proposed guidelines must be notified and a public meeting held before any guidelines can be imposed by the State Engineer (19.27.5.14(B) NMAC), ensuring that domestic well management areas will be formed with public input.

If a domestic well owner wishes to divert more than 1 ac-ft/yr (or 0.25 ac-ft/yr in a domestic well management area) from a domestic well, the regulations allow for the transfer of a consumptive use water right, up to a maximum diversion of 3 ac-ft/yr, to the well (19.27.5.10 NMAC). Because the regulations do not require that the public be notified of such a transfer (19.27.5.9 (D)(4); 19.27.5.10 (C) NMAC), it would be expedited. If the consumptive use water right sought to be transferred is from an acequia or community ditch, any required approvals from the acequia or community ditch must be obtained before transfer (19.27.5.10 (A) NMAC).

Finally, the regulations contain enforcement provisions, and the holder of a domestic well permit is subject to possible fines and remedial action, including permit cancellation, for failure to comply with the terms (e.g., the diversion amount) of the permit (19.27.5.15 NMAC).

The regulations are in effect, but have been challenged in a court proceeding as being an illegal restriction on the use of domestic water (*Board of County Commissioners, et al. v. John D'Antonio, Jr., New Mexico State Engineer, No. D-101-CV-200602087*).

4.1.4 Active Water Resource Management

In December 2004 the OSE adopted Active Water Resource Management (AWRM) regulations (19.25.13.1 to 13.49 NMAC), which establish a general framework for water rights administration in New Mexico. The AWRM regulations create a policy framework within which the State Engineer will establish water master districts, appoint water masters for those districts, and develop district-specific water rights administration regulations (19.25.13.6 NMAC). The State Engineer will work locally with the district water master and obtain input from local water rights holders to develop a system for priority administration that addresses district-specific issues and is consistent with the general AWRM regulations (NM OSE, 2004c). The State Engineer has established seven priority basins for AWRM (NM OSE, 2004b), none of which are located in the Northeast Region.



The AWRM regulations have been the subject of much commentary and have even resulted in ongoing litigation challenging the validity of the regulations (*Middle Rio Grande Conservancy District, et al. v. John D'Antonio, Jr., New Mexico State Engineer, No. D-0725-CV-200500003*).

4.2 Conservancy and Irrigation Districts

New Mexico water law allows for the creation of special districts for the organization and management of water resources at the local level (NMSA Chapter 73). Irrigation, conservancy districts, water users associations, and water and sanitation districts, among others, are each governed by a separate statutory section that defines the powers, duties, and purposes of these districts. The only such district in the Northeast Region is the Arch Hurley Conservancy District in Quay County, organized under the original Conservancy Act in 1937.

The Conservancy Act allows landowners to organize conservancy districts for broad purposes, from flood control and developing irrigation systems to making "other improvements for public health, safety and convenience and welfare" (NMSA §73-14-3). Landowners develop a petition that is filed in the District Court that has jurisdiction over the area where the proposed conservancy district is located (NMSA §73-14-5(A)). The Court will then schedule a hearing to determine whether the district should be formed and whether to proceed to the election process (NMSA §73-14-7(A)). If the formation of the district is not protested and meets all statutory requirements, then the District Court will issue an order approving district formation (NMSA §73-14-9(A)). With the order in place, an election is held on the question of whether the conservancy district should be formed (NMSA §73-14-9(A)). If the election is successful, the District Court will declare that the conservancy district is organized (NMSA §73-14-13).

Conservancy districts have very broad purposes and powers. General powers include ". . . the power to perform all acts necessary and proper for carrying out the purposes for which the district was created and for exercising the powers with which it is vested" (NMSA §73-14-15(B)). Specifically defined powers include the power to sue and be sued, to contract, to incur debts, to levy taxes, to exercise the right of eminent domain, to condemn property, and to issue bonds (NMSA §73-14-15(B)).



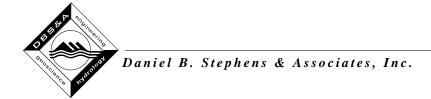
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Districts have broad control over the distribution of water within district boundaries and in particular are not subject to forfeiture of water for non-use (NMAC 73-14-47).

4.3 Land Patents

Many landowners in the Northeast Region obtained their land from the federal government through a patent authorized by the Homestead Act of 1862 or the Desert Lands Act of 1877. Both pieces of legislation set up programs allowing individuals to obtain ownership of land by meeting certain criteria. Participants in the regional water planning process have raised the question of whether the federal government conveyed water rights along with the title to the land obtained by such patents. The United States Supreme Court addressed this question in California Oregon Power Co. v. Beaver Portland Cement Co. (295 U.S. 142 (1935), holding that the Desert Lands Act severed all waters on the "public domain" from the land. Consequently, the patent issued under this act for "lands in a desert-land state or territory, under any of the land laws of the United States, carried with it, of its own force, no common law right to the water flowing through or bordering upon the lands conveyed" (295 U.S. 142 (1935), p. 158). The Supreme Court also held that state procedures were the sole method for acquiring water rights on all public lands in desert states (295 U.S. 142 (1935), p. 162-3). Many individuals with land patents in New Mexico hold valid water rights under State law by appropriating water for beneficial use prior to the State Engineer establishing jurisdiction over the surface waters and groundwaters of the State.

The Supreme Court of New Mexico treated a related issue in the case *Bliss v Dority*, where claimants questioned the right of the State Engineer to administer groundwater. In that case, owners of land patented to them from the United States were diverting water without a valid permit. In addition to finding that the State Engineer had jurisdiction over groundwater, the court stated clearly that land patents conveyed no water rights (*State ex rel. Bliss v. Dority*, 55 N.M. 12, 21 (1950)).



4.4 Texas Groundwater/Border Issues

The Ogallala aquifer straddles the New Mexico-Texas state line, and use of groundwater in Texas is thus a concern in eastern New Mexico. Groundwater is managed on the state level, and while New Mexico manages groundwater based on the prior appropriation doctrine (Appendix C), which protects senior water rights, Texas manages groundwater using the rule of capture, which allows land owners to capture groundwater available under their property without regard to impacts to other users. This issue has several components:

- Whether use of water in Texas is depleting Ogallala aquifer resources in the Northeast Region
- Whether the State of Texas will appropriate and export water out of the Ogallala aquifer in New Mexico for use in Texas
- How the Northeast Region will be impacted by the fact that plans are underway to develop and export Ogallala water in Texas to other water-short regions in that state

As discussed in Sections 5.6 and 7, research indicates that pumping in New Mexico and Texas has reduced the saturated thickness of the aquifer in the border area and thus the cross-sectional area of the aquifer flowing across the border. Consequently, although pumping in Texas and eastern New Mexico has increased the *rate* at which groundwater flows to Texas, the reduction in saturated thickness has actually decreased the *amount* of water that now flows into Texas

With respect to groundwater appropriations in New Mexico for use in Texas, the State Engineer has several tools that allow it to protect water in the region. Out-of-basin or out-of-state transfers are evaluated for their impact to the existing water rights in the exporting basin as well as for whether the transfer would be contrary to conservation and public welfare (NMSA §72-12B-1). Due to the fact that the Ogallala aquifer may not be able to meet existing water rights in the near future, as well as impacts due to ongoing drought conditions, it is unlikely that the State Engineer would approve a transfer application. The region can also work with the



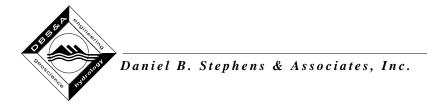
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State Engineer to develop administrative criteria that could further define impairment, public welfare, and conservation in the groundwater basins where water transfers might be contemplated by water users in Texas.

Finally, the impact on the region of appropriations and transfers of water from the Ogallala Formation in Texas for use in other Texas counties is unlikely to affect New Mexico unless the move-from location is located very near the border. State Engineer studies show that "groundwater development within five miles of the state line has a measurable effect on groundwater conditions in both states" (Chudnoff, 1998). Groundwater development by Clovis, Portales, and Texico occurs within 5 miles of the Texas border, and impacts due to pumping on both sides of the state line are expected to affect pumping by these communities. Clearly, movement of Ogallala water out of the panhandle to other areas of Texas is an ongoing activity.

The Texas regional water plans identify the Ogallala aquifer as a resource for meeting future water demand (LERWPG, 2001), and individual water companies are positioning themselves to acquire and export the water (Water Strategist, 2005). However, two groundwater management districts, the North Plains Groundwater Conservation District and the High Plains Underground Water Conservation District No. 1, located in the counties across the border from the Northeast Region, require permits before water can be exported (NPGCD, 2006; HPUWCD, 2004). Both Districts have the 50/50 rule, which means that 50 percent of the saturated thickness in 1998 must be available in 50 years. This translates into a limitation of annual withdrawals to no more than 1.25 percent of the current saturated thickness of the aquifer. The Districts will recalculate the remaining saturated thickness every five years, which will further protect the aquifer.

Ogallala aquifer water is being acquired for export within Texas in Roberts, Gray, and Hemphill Counties, which are not adjacent to New Mexico counties, but under the jurisdiction of the Panhandle Groundwater Conservation District, which also has a permit requirement and the 50/50 rule (PGCD, 2004). While it is possible that large exports of water from these areas could possibly further increase the rate at which groundwater flows from New Mexico to Texas, the actual amount of water moving out of New Mexico is unlikely to increase for the reasons discussed above.



4.5 Federal Issues Affecting Water Use and Supply

Within the Northeast Region, specific federal issues may affect water use and supply. Federal law affecting the availability and apportionment of water in the planning region is discussed in Sections 4.5.1 through 4.5.2. Federal law related to water quality is discussed in Section 4.6.

4.5.1 The Endangered Species Act

The ESA (16 U.S.C. §§1531-1544), first enacted in 1973, can play a prominent role in determining the allocation of water, especially of stream and river flows. An example of this role is the decision in *Rio Grande Silvery Minnow v. Keys* (333 F.3d 1109 (10th Cir. 2003)), in which the Court held that the USBR may reduce deliveries of available water under its contracts with irrigation districts and cities to make more water available to the silvery minnow to comply with the ESA.

The protections of the ESA are triggered by listing a species as "threatened" or "endangered" (16 U.S. C. §1531(a)(1)). The goal of the ESA is to protect threatened and endangered species and the habitat on which they depend (16 U.S. C. §1531(b)), with the ultimate goal being to "recover" species so that they no longer need protection under the ESA.

The ESA provides several mechanisms for accomplishing these goals:

- The ESA makes it unlawful for anyone to "take" a listed species unless an "incidental take" permit or statement is first obtained from the Interior Department (16 U.S.C. §§1538, 1539). "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" (16 U.S.C. §1532(19)).
- Federal agencies must use their authority to conserve listed species and must ensure 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 (16 U.S.C. §1536 (2000)).



• Federal agencies are required to consult with the U.S. 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. In addition, 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 also triggered and the potential impacts of the undertaking on threatened and endangered species are analyzed by the USFWS (16 U.S.C. §1536(a)(2) (2000)).

Four species in the region fall under the protections of the ESA. Two of the species, the Arkansas River shiner and the bald eagle, are federally listed as threatened, and the other two, the black-footed ferret and the least tern, are listed as endangered.

The Arkansas River Basin population of the Arkansas River shiner was listed as threatened in 1998 (63 Fed. Reg. 64772 (1998)). Threats to the shiner include habitat loss from construction of water impoundments, reduction of streamflows caused by surface water diversions or groundwater withdrawals, water quality degradation, and possible inadvertent collection by the commercial bait fish industry.

Although the USFWS has issued a final rule designating critical habitat for the Arkansas River shiner, no area within New Mexico has been included in this designation (70 Fed. Reg. 59808, 59823 (2005)). This exclusion is based on the USFWS's determination that, although the stretch of the Canadian River between Ute Reservoir in New Mexico and Lake Meredith in Texas is habitat for the shiner, the habitat is being properly managed by the Canadian River Municipal Water Authority (CRMWA) which, in cooperation with federal, state, and private partners, completed a special management plan for the shiner in this area (70 Fed. Reg. 59808, 59823 (2005)). With this management plan in place, the USFWS concluded that exclusion from a critical habitat designation was appropriate.

Although the bald eagle (32 CFR 4001 (1967)), the black-footed ferret (35 Fed. Reg. 8491 (1970)), and the least tern (50 Fed. Reg. 21784) are all protected under the ESA, critical habitat has not been designated for any of these species. However, any federal actions taken within the region (for example, the building of new dams) must assess the impact of such actions on



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these species and ensure that the action does not jeopardize the continued existence of the species.

4.5.2 Federal Enclaves and Reserved Water Rights

Federal enclaves within the planning region consist of land managed by the Department of Defense (Cannon Air Force Base [AFB]), the USBR, the National Park Service, the Forest Service, the Bureau of Land Management (BLM), and the USFWS (Appendix A, Figures A-3a and A-3b). Cannon AFB and Forest Service lands are the largest federal enclaves in the region.

When reserving land for federal purposes, the federal government may reserve water rights, either groundwater or surface water (*In re the General Adjudication of All Rights to Use Water in the Gila River System and Source, Maricopa County W-1 through W-4 (Consolidated), Ariz.* Sup. Ct., Maricopa Co. (Sept. 30, 1988), aff'd 989 P.2d 739 (1999)) sufficient to accomplish the primary purposes of the reserved land. The reservation of waters may be explicit or implied, and the amount reserved will reflect the nature of the federal enclave (*U.S. v. District Court in and for the County of Eagle*, 401 U.S. 520, 522-523 (1971)). These rights, called "federal reserved" water rights, must be considered when allocating water use within a region. Any federal reserved water rights that exist in the region will be determined during the adjudication process (Section 4.5.2; Appendix C).

The "reservation" doctrine, as it applies to federal enclaves, was first recognized by the United States Supreme Court in *Winters v. United States* (207 U.S. 564 (1908)). The issue in this case was whether the United States, at the time of the creation of the Fort Belknap Indian reservation in Montana, had implicitly reserved, for Indians living on those lands, a water right for future use. The Court upheld the power of the federal government to reserve the waters and exempt them from appropriation under state laws.

In Arizona v. California (373 U.S. 546 (1963)), a case involving water rights on the Gila River, the Court extended the reservation doctrine to non-Indian federal enclaves. Although it did not specifically discuss whether a specific amount of water was reserved, it did state that the United



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States "intended to reserve water for the future requirements of . . . the Gila National Forest" (*Arizona v. California*, 373 U.S. 601 (1963)).

Likewise, in *Mimbres Valley Irrigation Co. v. Salopek* (90 N.M. 410 (1977)), the United States claimed a reserved right of water in the Gila National Forest for minimum instream flow and recreational purposes. The Court held, upon analysis of the Organic Act of 1897 (16 U.S.C. §475, [the statute setting forth the purposes for which forests were withdrawn]), that the United States had not reserved water rights in the Gila National Forest for its claimed purposes of instream flow and recreational use (*Id*,90 N.M. 413 (1977)). Instead, the Court concluded "... that the original purposes for which the Gila National Forest was created were to insure favorable conditions of water flow and to furnish a continuous supply of timber. Recreational purposes and minimum instream flow were not contemplated" (90 N.M. at 413 (1977)).

Any federal reserved rights within the planning region may only include the minimum quantities of water necessary to meet the primary purpose for which the reservation was established (*Cappaert v. United States*, 426 U.S. 141 (1976)). Such water rights will be quantified during the adjudication of water rights in the region; the priority date of such rights will be the date the reservation was formed (*United States v. Alpine Land & Reservoir Co.*, 697 F.2d 851, 859 (9th Cir. 1983)) and may therefore be senior to other users. A significant feature of federal reserved water rights is that, unlike state appropriative rights, such rights cannot be lost through nonuse or by the fact that the rights have not yet been put to beneficial use (*U.S. v. District Court in and for the County of Eagle*, 401 U.S. 520,523 (1971)).

Depending on the purposes of the reservation, federal reserved water rights can have a variety of uses. Common federal reserved rights include domestic, irrigation, timber management, and recreational rights. The types of water use that can be reserved are illustrated by the types of federal reserved water rights that can occur on BLM lands: public water holes and springs, mineral hot springs, stock driveways, public oil shale withdrawals, wild and scenic rivers, national monuments and conservation areas, and wilderness areas. Probably the most common of these uses is for public water holes and springs: an executive order (Public Water Reserves No. 107) states that "...legal subdivision(s) of public land surveys which is vacant,



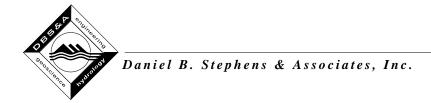
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unappropriated, unreserved public land and contains a spring or water hole, and all land within one quarter of a mile of every spring or water be reserved for public use." The intent was not to reserve the entire yield of each public spring or water hole; rather, reserved water was limited to domestic human consumption and stock watering. All water from these sources in excess of the minimum amount necessary for these limited public watering purposes is available for appropriation under state water law.

One of the largest federal enclaves in the Northeast Region is Cannon AFB. Arguably, depending on the language of its authorization, Cannon AFB may be in a position to claim a federal reserved water right, although such right may be difficult to quantify, as water use at military installations may fluctuate depending on the military mission, military training and exercises, and extent of recreational facilities. To address this concern, a new type of water right, akin to a federal reserved right, has been recognized by the State of Nevada in the Las Vegas Artesian Basin Adjudication specifically for the Nellis Air Force Base (NAFB) (Cianci et al., 2000). This right is called a "National Defense Water Right" (NDWR).

The NDWR appears to share features of both state appropriative rights and federal reserved rights. It incorporates existing state law permits, requires the Air Force to comply with state water law so long as it is not inconsistent with federal law, and allows NAFB to use 5,000 ac-ft/yr of groundwater. The right cannot be forfeited for non-usage. The NDWR applies to wells on both land acquired after the reservation and on public domain lands. Even though NAFB does not plan to use extensive groundwater in the future and will rely instead on surface water and reclaimed effluent, the NDWR provides NAFB with a future, stable water supply that could be used if needed to address national emergencies or other contingencies (Cianci et al., 2000).

Although this type of right has not been recognized in New Mexico, the possibility exists that Cannon AFB could claim this type of right, along with a traditional reserved water right, during a future adjudication process.



4.6 Impacts of Water Quality Laws on Water Use in the Region

Although water quality within all planning regions in the state is governed by both federal and state laws and regulations, most water quality laws have their genesis in federal law. An understanding of the federal water statutes and how they interrelate with state law is critical to understanding the regulation of water quality in the area. In addition, water quality can have a specific impact on the quantity of water within a planning region, as minimum instream flows may be necessary to meet water quality standards.

4.6.1 The Clean Water Act

Clearly, the most significant federal law is the Clean Water Act (CWA) (33 U.S.C. §§1251 through 1387 (2002)). The CWA is a 1977 amendment to the Federal Water Pollution Control Act of 1972, which sets the basic structure for regulating discharges of pollutants to navigable waters of the United States. "Navigable waters" has been very broadly defined to include every creek, stream, river, or body of water that may in any way affect interstate commerce, including arroyos or ditches (*Friends of Santa Fe County v. LAC Minerals, Inc.*, 892 F. Supp. 1333 (D.C.N.M. 1995)). A very recent and complex United States Supreme Court case, *Rapanos v. United States* (126 S.Ct. 2208 (2006)) addressed the broad definition of navigable waters in the context of wetlands development. The *Rapanos* Court split three ways:

- Four of the nine justices argued that the term *navigable waters* should be restricted to relatively permanent, standing, or continuously flowing bodies of water forming geographic features, such as streams, oceans, rivers, and lakes, or wetlands immediately adjacent to such water. These justices would exclude from navigable waters ordinarily dry channels through which water occasionally or intermittently flows.
- Four other justices argued for retaining an expansive reading of the CWA and for having the term "navigable waters" include wetlands that are adjacent to navigable waters or to tributaries of navigable waters.



One lone justice (Justice Kennedy) wrote the opinion that will guide the lower courts. He
argued that a water or wetland constitutes navigable waters under the CWA if it
possesses a "significant nexus" to waters that are navigable in fact or that could
reasonably be so made. In order to have this nexus, a waterbody must significantly
affect the integrity of navigable waters.

The likely result of *Rapanos* is that if a wetland (or an intermittent or ephemeral stream) has a significant nexus (most likely, a hydrological connection) to navigable waters, then such body of water will be protected by the CWA. This result occurred in the first post-Rapanos appellate decision. In *Northern California River Watch v. City of Healdsburg* (457 F. 3d 1023 (9th Cir. 2006)), the Court followed Justice Kennedy's concurring opinion and rejected Healdsburg's argument that wetlands adjacent to navigable waters are automatically subject to CWA protection (457 F. 3d 1030 (9th Cir. 2006)). But the Court concluded that the requisite nexus to navigable waters existed, based on a hydrological link and ecological connection between the wetlands and the Russian River, thus affording the wetlands CWA protections (457 F. 3d 1030-1031 (9th Cir. 2006)). Since the *Rapanos* decision was highly divided, the issue of what waterbodies are "navigable" will most likely continue to be subject to litigation or further legislative action.

The CWA's objective is to "restore and maintain the chemical, physical and biological integrity" of the waters of the United States (33 U.S.C. §1251(a) (2002)). The CWA meets this goal in several ways: (1) it allows water quality standards for specific segments of surface waters (33 U.S.C. §1313 (2002)), (2) it makes it unlawful for a person to discharge any pollutant into waters without a permit (33 U.S.C. §§1311, 1342 (2002)), and (3) it allows for the designation of total maximum daily loads (TMDLs) for pollutants threatening the water quality of stream segments (33 U.S.C. §1313(d) (2002)). TMDLs are identified for those waters where an analysis shows that discharges may result in a violation of water quality standards (33 U.S.C. §1313(d)(1)(C) (2002)). The TMDL process can be best described as determining and planning a watershed or basin-wide budget for pollutant influx to a watercourse.

By enacting the CWA, Congress gave the U.S. Environmental Protection Agency (EPA) broad authority to address water pollution. With this authority, the EPA has developed a variety of



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regulations and programs to reduce pollutants entering surface waters. For example, applicable water quality standards, discharge permit requirements, and TMDLs are all defined by regulation.

The CWA also calls for effluent limitations, which are, simply speaking, restrictions on discharges into surface waters from the "end of the pipe" or point source. Point source discharges are regulated through the issuance of National Pollutant Discharge Elimination System (NPDES) permits (33 U.S.C. §1342 (2002)). These permits limit the discharge of a variety of pollutants and control the characteristics (e.g., temperature) of the discharge. NPDES permits also regulate stormwater discharges entering surface water (33 U.S.C. §342(p) (2002)). Although the EPA can delegate the administration of the NPDES program to individual states (33 U.S.C. §1251(b) (2002)), such administration has not yet been delegated to New Mexico.

The CWA allows the EPA to delegate many permitting, administrative, and enforcement aspects to state and tribal governments (33 U.S.C. §§1251(g), 1377 (2002)). For example, states and tribes have the power to adopt water quality standards for surface waters within their jurisdictions; indeed, states are required to adopt water quality standards that protect certain designated uses (such as recreation, wildlife habitat, domestic water supply, irrigation and livestock water, or in the case of Indian tribes, culturally significant or sacred uses) for each river, stream segment, and lake in the state (33 U.S.C. §1313 (2002)). The water quality standards must protect the designated use for the surface water at issue by setting maximum acceptable levels for various contaminants. A water contaminant is any substance that alters the physical, chemical, biological, or radiological qualities of the water (NMSA §74-6-2 (A) (1967)); it becomes a pollutant when it exceeds the water quality standard for the applicable surface waterbody. Standards must be reviewed every three years and, as appropriate, be modified or replaced (33 U.S.C. §1313(c)(1) (2002)); this process is known as the "Triennial Review." New Mexico's surface water quality standards are defined in 20.6.4 NMAC.

Groundwater pollution is not specifically addressed by the CWA, and pollution such as mining, agricultural, and construction runoff (referred to as "nonpoint sources") is addressed mainly through voluntary management efforts, called "best management practices," and not through regulation (40 CFR §130.2 (2002)). Nonetheless, a recent court decision found that the EPA



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and states have the power to list and issue TMDLs for waters polluted only by nonpoint sources (*Pronsolino v. Marcus*, 91 F. Supp 2d. 1337, 1356 (N.D. Ca. 2000, affirmed by *Pronsolino v. Nastri*, 291 F.3d 1123 (9th Cir. 2002)).

4.6.2 Safe Drinking Water Act and the Arsenic Rule

The Safe Drinking Water Act (SDWA) (42 U.S.C. §300f *et seq.* (2002)) protects the quality of drinking water in the United States. This law focuses on all waters actually or potentially designated for drinking use, whether from aboveground or underground sources. The SDWA 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 that adopt, in part, federal drinking water standards (20.7.10 NMAC).

Due to concerns with arsenic in drinking water, the EPA has enacted what is commonly called the Arsenic Rule (*Arsenic and Clarifications to Compliance and New Source Monitoring Rule*, 66 FR 6976 (January 22, 2001)). Arsenic, which is odorless and tasteless, enters drinking water supplies from natural deposits in the earth or from agricultural and industrial practices. It has been linked to different cancers and can cause a number of non-cancer conditions, including skin damage and problems with the circulatory system. The purpose of the Arsenic Rule is to improve public health by reducing the exposure to arsenic in drinking water.

Pursuant to the Arsenic Rule, EPA has set the arsenic standard for water systems to 10 parts per billion (ppb), a significant decrease from the previous standard of 50 ppb (40 CFR 141.62(b)). The new standard became effective January 23, 2006, five years after the rule was enacted, in order to give public water systems adequate time to comply with the standard (40 CFR 141.6(j)). All 54,000 community water systems (defined as systems that serve 15 locations or 25 residents year round [40 CFR 141.2]) in the United States must comply with the standard. The revised standard also applies to approximately 20,000 non-community water systems that serve at least 25 of the same people at least six months a year, such as schools and churches (40 CFR 141.2). (In this water plan, both types of affected water systems are collectively referred to as "public water systems.") In New Mexico, the Arsenic Rule is



enforced by the NMED and is reflected in the New Mexico Drinking Water Regulations (NMDWR) (20.7.1 NMAC).

Meeting the standard could have significant economic impact on smaller public water systems. According to NMED, 90 of the 806 affected public water systems in New Mexico have arsenic levels that exceed the new standard. To avoid violating the NMDWR, the public water systems that could not meet the standard by the January 2006 effective date must have applied for and received an extension of time to achieve compliance through either a variance or exemption issued by NMED (40 CFR Part 142):

- An exemption allows a public water system additional time (most likely, three years) to comply with the standard. An exemption will only be granted if (1) compelling circumstances, such as financial hardship, are demonstrated and (2) delaying compliance will not pose an unreasonable risk to health.
- A variance allows a public water system to comply with the Arsenic Rule through an alternate drinking water standard. Variances are granted to systems that have installed technology to address the arsenic issue but, due to source water quality, cannot comply with the standard and do not have access to an alternative water source. Systems granted variances will have various compliance time frames. A system will only be granted a variance if the alternate standard does not pose an unreasonable risk to health.

Relevant deadlines relating to the Arsenic Rule include:

- January 23, 2006: New standard became effective (40 CFR 141.6(j)).
- December 31, 2006: Surface water systems must complete initial monitoring or have a state-approved waiver (40 CFR 141.23(c)(1)).
- December 31, 2007: Groundwater systems must complete initial monitoring or have a state-approved waiver (40 CFR 141.23(c)(1)).



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The new standard does not apply to private domestic wells. Owners of such wells may contact NMED for further information on arsenic testing.

4.6.3 Groundwater Standards and Regulations

As noted in Section 4.3.1, the CWA focuses primarily on surface water pollution. Groundwater pollution not caused by hazardous waste is addressed directly by the State and Tribes, pursuant to the New Mexico Water Quality Act and its regulations (NMSA §74-6-1 *et seq*; 20.6.2 NMAC). In New Mexico, groundwater pollution originates from a number of sources, including septic tank systems and cesspools, spills and leaks of hazardous materials, solid waste disposal sites, overuse of fertilizers and pesticides, dairies, and mines. Except for hazardous and liquid waste, which is regulated separately, these sources are required to have discharge plans under the Water Quality Act and its implementing regulations (NMSA §74-6-1 *et seq.*; 20.6.2 NMAC). The release of hazardous wastes is regulated pursuant to 20.4.1 NMAC, and liquid waste disposal is regulated pursuant to 20.7.3 NMAC.

Improperly installed or maintained domestic septic systems are a potentially significant source of groundwater pollution in New Mexico. NMED, which is charged with writing regulations for liquid waste disposal, has recently revised New Mexico liquid waste disposal regulations (20.7.3 NMAC). These revised regulations became effective September 1, 2005. The major features of the revised regulations include provisions for minimum lot sizes on which a septic system can be placed (0.5 to 0.75 acre, depending on depth to groundwater and proximity to wells), drainfield sizing, treatment standards, and permitting of systems that are currently operating without a permit.

4.6.4 Gray Water Use

To conserve existing water supplies, gray water can be a source for outdoor watering. Gray water is defined in New Mexico as "... untreated household wastewater that has not come in contact with toilet waste...." It includes wastewater from bathtubs, showers, washbasins, clothes washing machines, and laundry tubs, but does not include wastewater from kitchen



sinks or dishwashers or laundry water from the washing of material soiled with human excreta, such as diapers (NMSA §74-6-2(A)).

A permit is not required to apply less than 250 gallons per day (gpd) of private residential gray water for the resident's household gardening, composting, or landscape irrigation (except for the irrigation of food plants, excluding trees) if a number of conditions are met. In particular:

- Gray water cannot be used in areas where less than 5 feet separate the point of discharge and the groundwater table.
- Gray water cannot be discharged closer than 100 feet to a watercourse or private domestic well, or closer than 200 feet to a public water supply.
- Gray water cannot be sprayed; instead, it must be applied to minimize contact with people or pets (drip irrigation, shallow piping systems, mulch trenches).

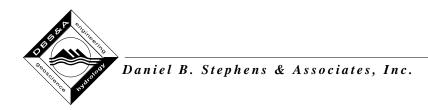
4.7 Water Rights Administration and Relevant Lawsuits in the Region

This section discusses the administration of water rights within the defined surface water and groundwater basins, as well as a number of relevant lawsuits. The basins in the planning region are described below.

- The Canadian River Basin is the major surface water body within the Northeast Region.
 Also located in the planning region is the Dry Cimarron River Basin, a smaller system in northern Union County.
- All or part of eight groundwater basins are located in the planning region. The five principal groundwater basins are the Clayton, Tucumcari, Curry County, Portales, and Causey Lingo. The planning region also includes small portions of the Canadian River, Roswell, and Fort Sumner Basins (Figure 4-1).

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4.7.1 Canadian River Compact

The Canadian River Compact, ratified in 1951, allows New Mexico the "free and unrestricted use of all waters originating in the drainage basin of the Canadian River above Conchas Dam" (Article IV(a)). Below Conchas Dam, New Mexico has the "free and unrestricted use of water originating below the dam," but the amount of water that may be stored or impounded is limited to 200,000 acre-feet of conservation storage (Article IV(b)). Any water flowing out of Conchas Dam is considered water originating below the dam and is subject to the 200,000-acre-foot storage limitation. New Mexico stores its Canadian River allocation in Ute Reservoir (*Oklahoma v. New Mexico*, 501 U.S. 221 (1991)). The Compact does not require New Mexico to deliver specific amounts of water to Texas.

4.7.2 Adjudication Lawsuits in the Region

New Mexico law requires the adjudication of all water use in order to define each user's water right and to gain information needed to maintain a balance between water supply and demand (NMSA §72-4-15). Adjudications result in a judicial determination and definition of water rights within each stream system or underground basin so that the State Engineer may effectively administer water rights and meet New Mexico's interstate stream obligations as set forth in various compacts. Adjudication of New Mexico water rights began before the enactment of the Water Code in 1907, and the process is still ongoing. Because of the complexity and difficulty of sorting out the thousands of water right claims across the state, most water rights claims have not been adjudicated. The OSE estimates that about 20 percent of the state has been adjudicated and that adjudications are in progress for more than 50 percent of the state (NM OSE, 2006b).

Adjudication is a complex process that usually takes many years to complete. The process begins with a hydrographic survey of a stream system, during which the elements and ownership of each water right in the survey area are determined (NMSA §72-4-13). The adjudication itself is a lawsuit that determines the extent and ownership of each water right in a specific river drainage basin or groundwater basin. Because the final court decree removes controversies concerning title to and validity of the water right, there are advantages to having



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an adjudicated water right, rather than a declared, permitted, or licensed use. In the Northeast Region, the Dry Cimarron surface water rights and the Fort Sumner and Roswell Basin groundwater rights (excluding domestic groundwater use) have been adjudicated.

The adjudication of the Dry Cimarron and its tributaries was completed in 1933 when the final decree was issued (No. 5902, February 16, 1933). The purpose of the decree was "... to determine the rights of the respective claimants to divert, impound and beneficially use the waters to the Dry Cimarron River and its tributaries" (1933 Decree, p. 1). The decree sets forth a duty of water equal to 1.5 acre-feet per acre of land (1933 Decree, pp. 2-3). The decree adjudicates 7,433 acres of land (11,150.21 acre-feet) in Union County. It also recognizes that water on the Dry Cimarron is subject to the prior appropriation doctrine: the "... rights to the use of water herein decreed are relative so that the owner of any right to the use of water hereunder has only the right to divert the same at such times as said waters are not being used by the owner of an older right, if such diversion would deprive the older right of any part of such superior rights" (1933 Decree, p. 3).

The decree discusses 69 separate water rights and includes special provisions describing the agreement among the parties regarding the management of diversions along the ditches where the rights are taken (McCuistion, Juehn, Wiggins, Rutledge, Gripe, and Behimer ditches). The decree allows for livestock watering and domestic use from the stream system ". . . without any provision therefore in the specific portions of this decree . . ." (1933 Decree, p. 3). In other words, livestock and domestic use are allowed, but are not specifically set forth in the decree.

Only small portions of the Fort Sumner and Roswell Basin are located in the Northeast Region. Both of these basins were adjudicated as part of the Pecos River Adjudication. The state adjudication of the Pecos River stream system began in 1956 with the filing of *State of New Mexico ex rel. State Engineer v. Lewis* in the state court in Chaves County (Fifth Judicial District Court, Nos. 20294 and 22600, Consolidated). The Lewis case was originally initiated to adjudicate groundwater rights in the Roswell Basin, but in 1976, it was expanded to the entire Pecos River stream system, including the Upper Pecos stream system, a small part of which occurs in the Northeast Region.



4.7.3 Administration of Surface Water in the Region

The New Mexico State Engineer has jurisdiction over all surface water in the Northeast Region (NMSA §72-2-1). The administrative policies for the two stream systems in the planning region are outlined in Sections 4.7.3.1 and 4.7.3.2.

4.7.3.1 Administration of the Canadian River and Its Tributaries

The State Engineer declared the Canadian River Basin in 1973 (19.27.25 NMAC), but has not developed administrative criteria for this basin, and the water rights in Northeast Region have not been adjudicated. The Canadian River flows through and is hydraulically connected to two groundwater basins: the Canadian River Basin and the Tucumcari Basin. Appropriation of groundwater in these basins is discussed in Sections 4.7.4.2 and 4.7.4.3.

4.7.3.2 Dry Cimarron Decree

As discussed in Section 4.7.2, the Dry Cimarron and its tributaries were adjudicated in 1933 when the State District Court issued final decree No. 5902 finalizing the adjudication of the Dry Cimarron. Priority dates on the stream system range from 1864 to 1924. The Dry Cimarron does not have a water master that actively manages diversions in accordance with these priority dates. In times of drought, senior water right holders can take their full allotment in order of priority or water right holders can elect to share shortages by reducing the amount they divert in order to allow junior users a portion of their water rights.

4.7.4 Administration of Groundwater

The New Mexico State Engineer also has jurisdiction over all groundwater in the Northeast Region (NMSA §72-2-1). The Santa Fe OSE administers groundwater from the Canadian River, Clayton, and Tucumcari basins, while the Roswell OSE administers groundwater from the Causey Lingo, Curry County, Fort Sumner, Portales, and Roswell Basins. Applications to appropriate groundwater in any of these basins are evaluated to determine whether water is available for appropriation and whether granting an application would be in keeping with conservation and the protection of public welfare. Additionally, new appropriations may not impair existing senior water right holders (NMSA §72-12-3).



The State Engineer is currently preparing administrative guidelines to govern groundwater administration of all the groundwater basins in the Ogallala aquifer, and until these regulations are final, groundwater applications will be evaluated using the statutory criteria listed above. The region should carefully review the draft guidelines when they become available and make recommendations to the State Engineer regarding public welfare in the region and other regional issues to ensure that State Engineer policies are consistent with the region's goals.

4.7.4.1 Clayton Basin

The Clayton Basin encompasses 4,007 square miles in Union County. The State Engineer declared the basin on September 23, 2005 (19.27.63.2 and 8 NMAC). As a newly declared basin, a comprehensive inventory of water rights has yet to be developed. Water rights holders are filing declarations, but the OSE has not yet processed many of the significant number of water rights files submitted. In the 2006 legislative session the OSE requested, but was denied, funding to establish a district office in northeast New Mexico.

The State Engineer has developed no specific administrative guidelines for administering the basin. Water rights applications are evaluated to determine whether application approval will impair existing water rights, be detrimental to the public welfare, or contrary to the conservation of water (NMSA §72-12-3).

4.7.4.2 Canadian River Groundwater Basin

The State Engineer declared the Canadian River Basin in 1973 and extended the basin further into San Miguel County in 2005 (19.27.63.2 and 9, 19.27.25.8 NMAC). Applications to appropriate groundwater are evaluated to determine whether water is available for appropriation and whether granting an application would be in keeping with conservation and the protection of public welfare. Additionally, new appropriations may not impair existing senior water right holders (NMSA §72-12-3).

In addition to the standard criteria, the State Engineer administers the Canadian River and groundwater basin conjunctively, which means that the State Engineer takes into account the interconnection of surface water and groundwater (NM OSE, 2006d). Consequently, applications to appropriate groundwater are not likely to be granted because the water in the



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basin is stream-connected; that is, groundwater pumping may affect (decrease) streamflow. While groundwater pumping close to the river will immediately impact streamflow, pumping far from the river may not affect the river for many years; however, the State Engineer recognizes both short- and long-term hydrologic impacts and manages the basin accordingly. To keep the river system intact, the State Engineer requires offsets; that is, surface water rights must be purchased and retired to offset the effects of any proposed groundwater pumping (NM OSE, 2006d). If an applicant shows that a proposed groundwater diversion would have no impact to the river at any time, then the State Engineer should approve the application, assuming that the other criteria for approval (no impairment, not contrary to conservation, and not detrimental to the public welfare) are met (NMSA §72-12-3).

4.7.4.3 Tucumcari Basin

The Tucumcari Basin comprises approximately 4,150 square miles in Curry, Union, and Harding Counties. The State Engineer originally declared 177 miles of the basin in 1982 and significantly expanded it in 1998 (19.27.56.6 and 8 NMAC). The extension covered a previously undeclared area within the surface drainage of the Canadian River below Conchas Lake, including Ute Creek. The water rights in the Tucumcari Basin have not been adjudicated.

The State Engineer has no unique administrative criteria for the Tucumcari Basin. Water rights applications are evaluated to determine whether application approval will impair existing water rights, be detrimental to the public welfare, or contrary to the conservation of water (NMSA §72-12-3).

4.7.4.4 Curry County Basin

The State Engineer originally declared the Curry County Basin on August 31, 1989 (19.27.29.8 NMAC) and extended the basin in 2005 by adding an additional 262 miles (19.27.68.2 and 8 NMAC). The basin is unadjudicated and the State Engineer has not developed any unique administrative criteria for managing water rights in this basin. Water rights applications are evaluated to determine whether application approval will impair existing water rights, be detrimental to the public welfare, or contrary to the conservation of water (NMSA §72-12-3).



4.7.4.5 Fort Sumner

The State Engineer originally declared the Fort Sumner Basin in 1964 (19.27.31 NMAC). Two expansions, in 1970 and in 1993, extended the basin to its current size of 4,924 square miles (19.27.31.8 NMAC; *In the Matter of the State Engineer Special Order No. 148-A*). The 1970 expansion included the approximately 809 square miles of the basin that are located within the planning region (Roosevelt and Quay Counties).

The State Engineer has no unique administrative criteria for the Fort Sumner Basin. Water rights applications are evaluated to determine whether application approval will impair existing water rights, be detrimental to the public welfare, or contrary to the conservation of water (NMSA §72-12-3).

4.7.4.6 Portales

The State Engineer declared the Portales Basin in 1950 and extended it in 1955. The basin encompasses 626 miles and is located in Roosevelt and Curry Counties (19.27.47.8 NMAC). The Portales Basin has been administered using a block system originally established to cover a 40-year planning period from 1956 to 1996. The State Engineer determines whether the proposed diversion will impair existing water rights, be detrimental to the public welfare, or contrary to the conservation of water (NMSA §72-12-3).

4.7.4.7 Causey Lingo

The State Engineer declared the Causey Lingo Basin on September 23, 2005 (19.27.67.6 and 8 NMAC). The 1,503-square mile basin covers a large portion of Roosevelt County and a small part of Chaves County. The water rights in this basin have not been inventoried or adjudicated, and the State Engineer has no unique administrative criteria for the Causey Lingo Basin. Water rights applications are evaluated to determine whether application approval will impair existing water rights, be detrimental to the public welfare, or contrary to the conservation of water (NMSA §72-12-3).

4.7.4.8 Roswell Basin

The State Engineer declared the main section of the Roswell Underground Water Basin (Roswell Basin) in 1931, with subsequent declaration orders extending the basin to



10,779 square miles (19.27.50 NMAC). Only a very small portion (49 square miles) of the Roswell Basin is within the planning region, in Roosevelt County. That portion of the basin was declared by the State Engineer on February 8, 1993 (*In the Matter of the State Engineer Special Order No. 147*).

The State Engineer adopted the Roswell Basin Guidelines for Review of Water Right Applications in February 2005 (NM OSE, 2005 [hereinafter referred to as Roswell Basin Guidelines]). The stated purpose of these guidelines is "to assure the orderly conjunctive management of the surface and underground water resources within the Roswell Basin, while meeting statutory obligations regarding non-impairment to existing water rights, availability of water for transfer, conservation of water within the state, and public welfare of the state" (Roswell Basin Guidelines, §I).

Due to the interconnection of the Roswell Basin and the Pecos River, the State Engineer manages the Roswell Basin conjunctively. Because the Pecos River is fully appropriated (Roswell Basin Guidelines, §I), all applications within the Roswell Basin to appropriate surface water will be denied (Roswell Basin Guidelines, §III(B)). The Roswell Basin Guidelines also prohibit applications for new groundwater appropriations in areas closed to such appropriations; however, the portion of the Roswell Basin within Roosevelt County has not been closed to new groundwater appropriations (Roswell Basin Guidelines, Figure 1; §III(C)).

All applications for new appropriations of groundwater will be reviewed on a case-by-case basis, and an application will be approved if it complies with the statutory criteria for new appropriations (i.e., no impairment to senior users, not contrary to conservation, and not detrimental to the public welfare [NMSA §72-12-3]; Roswell Basin Guidelines §III(C)). Further, the granting of a new groundwater appropriation will be conditioned to require that any new impacts to the Pecos River resulting from granting of the application be fully offset (Roswell Basin Guidelines §III(C)).

The Roswell Basin Guidelines also provide specific criteria for other types of applications relevant to the planning region (e.g., applications for temporary transfers, replacement wells, and supplemental wells, among others). Although such applications will be reviewed on a case-



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by-case basis, certain specific criteria may apply. For example, the maximum amount of water that may be granted for an application to supplement an existing water right will be taken as the quantity of water that has been adjudicated, subsequently permitted, or historically applied to beneficial use, whichever is less (Roswell Basin Guidelines, §III(H)).

All wells permitted within the Roswell Basin after the adoption of the Roswell Basin Guidelines will require meters, although this requirement will typically be waived on wells permitted pursuant to NMSA §72-12-1 that are used solely for domestic use serving one household or used solely for livestock purposes (Roswell Basin Guidelines, §II(H)).

4.8 Eastern New Mexico Rural Water System

The Eastern New Mexico Rural Water Authority (ENMRWA) was formed in November 2001, with Ute Water Commission (UWC) members from Curry and Roosevelt Counties, for the purposes of planning, financing, and operating the Eastern New Mexico Rural Water System (ENMRWS). The UWC members in Quay County were added to the ENMRWA in May 2003. The ENMRWA's work is based on a long history of planning for the use of Ute Reservoir water going back to 1964, the completion date of the first major feasibility study addressing ways in which to furnish water from the newly constructed Ute Reservoir to communities in eastern New Mexico. From 1965 to 1998, a series of studies were conducted by the USBR, the ISC, and the Eastern Plains Council of Governments (EPCOG) on water supply feasibility, conceptual design of infrastructure components, environmental impact, wind resources, and watershed yield.

The ENMRWA's mission is to plan, develop, finance, construct, and operate a long-term renewable surface water supply and water treatment facility. The major features of the ENMRWS, as currently planned by the ENMRWA, are a regional treatment plant located in Curry County, approximately 87.5 miles of main transmission pipeline, and approximately 94.8 miles of lateral pipelines. Water would be centrally treated in the system and delivered in bulk to its members through the pipeline.

Although still members of the UWC, all Quay County members (Tucumcari, Logan, San Jon, and Quay County) have opted out of the ENMRWS. Those entities plan to use water they have



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reserved from Ute Reservoir through means other than a pipeline. For example, in 2001, Tucumcari, Logan, and Quay County entered into a Joint Powers Agreement with the ISC for the purpose of developing a master plan for development in and around Ute Reservoir. It is anticipated that some or all of these entities will lease portions of their Ute Reservoir reservations to provide water to developments around the Reservoir.

As discussed in Section 8.7.3, the major impediment to the completion of the ENMRWS is funding. Other impediments to the project include compliance with significant federal laws, including the National Environmental Policy Act (NEPA) and the ESA (Section 4.3.1). Although a preliminary study by the ISC found no anticipated significant environmental impacts from the project, a full environmental impact study is being prepared.

The ENMRWS will, if fully implemented, provide a stable water supply for several communities within the region by providing a transport mechanism for using surface water stored in the Ute Reservoir. Sections 4.8.1 and 4.8.2 provide a brief legal history of the Ute Dam and Reservoir, the UWC, and the ENMRWS.

4.8.1 History of Ute Reservoir

In 1949, the Texas congressional delegation proposed that Congress authorize a Canadian River reclamation project, called the Sanford Project, for the purpose of providing water to cities in the Texas Panhandle. Legislation to authorize the Sanford Project was introduced in Congress, along with a bill authorizing New Mexico, Oklahoma, and Texas to negotiate a compact to equitably apportion the waters of the Canadian River. The interstate compact bill was passed, and the Canadian River Compact Commission (Commission), consisting of one commissioner from each state and one federal representative, was created. The Canadian River Compact (Compact) was signed by the Commission on December 6, 1950. Although Congress enacted legislation authorizing the Sanford Project on December 29, 1950, the bill specifically prohibited the construction of the project until Congress consented to the Compact, which it did on May 17, 1952 (Oklahoma v. New Mexico, 501 U.S. 221, 226 (1991)).



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Article I of the Compact allows for the construction of works for the conservation of the waters of the Canadian River (NMSA §72-15-2). Article IV of the Compact allows New Mexico to have the "free and unrestricted use" of all waters originating in the drainage basin of the Canadian River below Conchas Dam "... provided that the amount of conservation storage in New Mexico available for impounding these waters ... shall be limited to an aggregate of 200,000 acre-feet ..." (NMSA §72-15-2). "Conservation storage" is defined in the Compact as "that portion of the capacity of reservoirs available for the storage of water for subsequent release for domestic, municipal, irrigation and industrial uses ..." and specifically excludes the portion of reservoir capacity allocated solely to flood control, power production, and sediment control (NMSA §72-15-2).

Based on the authorization provided through the Compact, New Mexico constructed the Ute Dam and Reservoir, which is owned and operated by the ISC. Construction of Ute Dam was completed in 1963, with an initial storage capacity of 109,600 acre-feet. The Reservoir spillway was raised in the 1980s, increasing the storage capacity to 272,800 acre-feet.

Due to a dispute over various provisions of the Compact, including the storage limitations provided in the Compact, Oklahoma and Texas sued New Mexico in the United States Supreme Court. In *Oklahoma v. New Mexico*, *supra*, the Supreme Court limited the amount of water New Mexico could store in Ute Reservoir to 200,000 acre-feet: "New Mexico is entitled to 200,000 acre-feet of conservation storage below Conchas Dam, which the Compact anticipated would take care of any future developments in the area below Conchas Dam. As we construe the Compact, if New Mexico has at any time stored more than that amount, it was not entitled to do so. Any water stored in excess of that amount should have been allowed to flow through the Ute Dam, to be put to use by downstream States, rather than impounded in New Mexico" (*Oklahoma v. New Mexico*, *supra*, 227-8).

4.8.2 Ute Water Commission

The UWC was formed in 1987 to contract with the ISC to purchase, acquire, and distribute water from Ute Reservoir. The UWC consists of representatives from Quay, Curry, and Roosevelt Counties, the communities of Logan, Tucumcari, Clovis, Portales, San Jon, Grady,



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Melrose, Texico, and Elida, and cooperating member Cannon AFB. Based on a 1994 ISC study estimating the firm annual yield of the Reservoir to be 24,000 ac-ft/yr in all but extreme drought years, ISC and UWC agreed to allow UWC members to purchase a total of 24,000 ac-ft/yr of Ute Reservoir water. The agreement is effective from March 1, 1997 to January 1, 2046, but can be extended to 2086. Initially, it allowed for the reservation and purchase of water through December 2006 and a 40-year purchase period through 2046; however, in 2006 the NM ISC extended the purchase deadline until December 2008, with the provision that the ENMRWA continue to actively develop the ENMRWS project. Payments of \$1.50 per acre-foot per year are made annually to the ISC. Currently, no water is being leased through the ISC/UWC agreement.

4.9 Major Water Rights Holders in the Region

Major water rights and irrigated landholders in the Northeast Region were identified from various sources, including the OSE Water Administration Technical Engineering Resource System (WATERS) database and State Engineer documents. Existing surface and groundwater rights in the planning region are summarized in Section 4.9.1 and 4.9.2.

4.9.1 Groundwater Rights

Table 4-1 lists the major groundwater holders for each declared basin by county, as listed in the WATERS database. This list may not reflect all major groundwater right holders, as the WATERS database is continually being updated and may have omissions or inaccuracies. For example, changes in ownership or location and purpose of use may not yet be in the database, and occasionally, water rights are listed twice under different owners. In newly declared basins, not all declarations have been filed. Finally, the WATERS database has incomplete information on the Clayton Basin water rights and only a limited number of rights listed for the Causey Lingo Basin. Therefore, to verify the status of any water right on this list, it is necessary both to consult the WATERS database and to conduct a review of the OSE's water right files in the appropriate district office.



Table 4-1. Major Groundwater Rights Holders Page 1 of 4

Danie	Country	Ella Nia	11- a	Diversion	0	
Basin	County	File No.	Use ^a	(ac-ft)	Owner	
Clayton	Union	00568	IRR	1,920	Rudolf Jesko	
		00509	IRR	1,680	Ronald M. McKay	
		00074	IRR	1,610	Deana M. Shugart	1
		00344	IRR	1,500	Roy A. Speer	Total 4,500 ac-ft
		00342	IRR	1,500	Roy A. Speer	
		00340	IRR	1,500	Roy A. Speer	
		00540	IRR	1,440	Rudolf Jesko	
		00390	IRR	1,160	Keith T. Blair	
		00546	IRR	1,125	Robert N. Speer	
		00610	IRR	1,120	Wilbur D. Gibson	
	Harding				No records in database	
	Quay				No records in database	
Canadian River	Harding				No water rights over 3 acre-	feet
	Quay				No water rights over 3 acre-	feet
Tucumcari	Harding	00550	IRR	135	Warner Fluhman	Total 540 ac-ft
		00549	IRR	135	Warner Fluhman	
		00548	IRR	135	Warner Fluhman	10(a) 540 ac-10
		00547	IRR	135	Warner Fluhman	
		00578	IND	1,963	Johnathan H. Adee	Total 6,474 ac-ft
		00521	IND	1,610	Johnathan H. Adee	
		00586	IND	1,610	Johnathan H. Adee	
		00584	IND	1,291	Johnathan H. Adee	
		00559	IND	807	J. Casper Heimann	
		00502	IND	807	J. Casper Heimann	Total 2,380 ac-ft
		00501	IND	766	J. Casper Heimann	
		001329	MUN	119	Village of Logan	
		00583	IND	1,001	Bobby D. Adee	Total 1 020 as ft
		00580	IND	937	Bobby D. Adee	Total 1,938 ac-ft
	Union	00267	IRR	1,291	Harold Bryan	Total 1 201 as #
		00265	IRR	0	Harold Bryan	Total 1,291 ac-ft
		00563	IND	839	J. Casper Heimann	
		00562	IND	645	J. Casper Heimann	Total 1,484 ac-ft
		00312	IRR	614	Pauline Robertson	
		00543	IRR	0	W. R. Forester	
	Quay	00026	MUN	436	City of Tucumcari	
		00020	MUN	402	City of Tucumcari	

Source: WATERS database

^a IRR = Irrigation IND = Industrial

MUN = Municipal POL = Pollution control

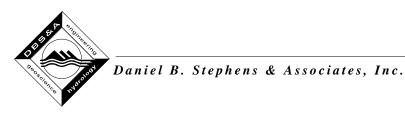


Table 4-1. Major Groundwater Rights Holders Page 2 of 4

Basin	County	File No.	Use ^a	Diversion (ac-ft)	Owner	
Tucumcari	Quay	00021	MUN	300	City of Tucumcari	
(cont.)	(cont.)	00024	MUN	300	City of Tucumcari	
		00025	MUN	300	City of Tucumcari	
		00032	MUN	300	City of Tucumcari	
		00019	MUN	291	City of Tucumcari	
		00018	MUN	291	City of Tucumcari	
		00030	MUN	194	City of Tucumcari	City of Tucumcari
		00033	MUN	194	City of Tucumcari	total = 4,300 ac-ft
		00017	MUN	160	City of Tucumcari	
		00028	MUN	155	City of Tucumcari	
		00016	MUN	155	City of Tucumcari	
		00023	MUN	155	City of Tucumcari	
		00027	MUN	155	City of Tucumcari	
		00029	MUN	145	City of Tucumcari	
		00034	MUN	145	City of Tucumcari	
		00035	MUN	125	City of Tucumcari	
		00031	MUN	97	City of Tucumcari	
		00287	POL	66	U.S. Bur. of Reclamation	
		00284	POL	9	U.S. Bur. of Reclamation	Tatal 00 as #
		00279	POL	7	U.S. Bur. of Reclamation	Total 82 ac-ft
		00280	POL	0	U.S. Bur. of Reclamation	
		01277	IRR	150	Daniel L. Rubenthaler	
		01274	IRR	150	Daniel L. Rubenthaler	
		01273	IRR	150	Daniel L. Rubenthaler	Total 763 ac-ft
		01272	IRR	150	Daniel L. Rubenthaler	10tai 703 ac-it
		01271	IRR	150	Daniel L. Rubenthaler	
		01275	IRR	13	Daniel L. Rubenthaler	
		01304	IRR	900	John R. Winter	Total 1 400 as ft
		01303	IRR	500	John R. Winter	Total 1,400 ac-ft
		01347	IRR	300	Myra Wilburn	Total 600 ac-ft
		01346	IRR	300	Myra Wilburn	Total 600 ac-it
		01214	MUN	35	Village of San Jon	
		01213	MUN	22	Village of San Jon	
		01217	MUN	17	Village of San Jon	
		01211	MUN	17	Village of San Jon	
		01209	MUN	17	Village of San Jon	

Source: WATERS database

^a IRR = Irrigation IND = Industrial

MUN = Municipal POL = Pollution control



Table 4-1. Major Groundwater Rights Holders Page 3 of 4

Basin	County	File No.	Use ^a	Diversion (ac-ft)	Owner	
Tucumcari	Quay	01212	MUN	16	Village of San Jon	
(cont.)	(cont.)	01215	MUN	9	Village of San Jon	Village of San Jon
		01216	MUN	8	Village of San Jon	total = 141 ac-ft
		01210	MDW	0	Village of San Jon]
		01330	MUN	250	Village of Logan	
		01331	MUN	150	Village of Logan	
		01325	MUN	125	Village of Logan	Village of Logan
		01327	MUN	65	Village of Logan	total = 665 ac-ft
		01328	MUN	46	Village of Logan	
		01326	MUN	29	Village of Logan	
Curry County	Curry	01880	IRR	3,969	Cliff A. Skiles, Jr. DVM	
		01672	IRR	3,360	EA Westphal Trust #1	
		00241	IRR	3,330	H. Wayne Martin, Jr. and Lin	nda
		01022	IRR	3,282	Dick and Sharon R. Ragland	
		00945	IRR	3,210	Bouziden Cattle Company a	and FI
		00095	IRR	3,150	Troy Lovett	
		01676	IRR	2,640	EA Westphal Trust #1	
		00632	IRR	2,587.8	C.F. Smith, Inc.	
		00169	IRR	2,583	C/O Farm Credit Services F	arm
		01337	IRR	2,400	Pipkin Corp. A NM Corp.	
	Quay				No records in the database	
Fort Sumner	Quay	00595	IRR	5,760	Lyons Ranch	
		01032	IRR	2,160	Terry Lewis	
		00835	IRR	1,000	Shoemaker Ranch	
		01009	IRR	720	Maurice Runyan	
		00888	IRR	600	Glen R. Franklin	
		00837	IRR	600	Shoemaker Ranch	
		01038	IRR	480	Terry Lewis	
		01010	IRR	450	Maurice Runyan	
		01097	IRR	374	Fourell Inc.	
		00989	IRR	350	Gene Robberson	
	Roosevelt	00620	IRR	1,920	S. P. Jackson	
		00622	IRR	1,565.1	NM Commissioner of	
					Public Land	Total 3,090.9 ac-ft
		00621	IRR	1,525.8		
		01182	IRR	1,440	Jane Richardson	

Source: WATERS database

^a IRR = Irrigation IND = Industrial

MUN = Municipal POL = Pollution control



Table 4-1. Major Groundwater Rights Holders Page 4 of 4

Basin	County	File No.	Use ^a	Diversion (ac-ft)	Owner
Fort Sumner	Roosevelt	00400	IRR	281.4	W. M. Bill Crenshaw
(cont.)	(cont.)	00895	IRR	233.7	Dale Robberson
(cont.)	(661111)	00327	IRR	184.2	F.S. Atchley, LLC
		00071	IRR	0	Jesse O. Rodgers
Portales	Curry	02506	IRR	915.6	Farm Credit of New Mexico, FLCA
		02339	IRR	486.3	Heide Vanderdussen
		02394 C	IRR	480	New Mexico-American Water Company, Inc.
		02433 A	IRR	479.7	Joann M. Idsinga
		02406	IRR	444.9	Attn: Evelyn Citizens Business
		03068	IRR	417.6	New Mexico-American Water Company, Inc.
		03129	IRR	397.2	Robert Vander Dussen
	Roosevelt	Various	MUN	4,063.556	City of Portales
		02801	IRR	3,360	Rubal Ruther
		03123	IRR	3,030	Jeffrey M. Jorde
		03416	IRR	2,880	Jorde Corporation
		02912	IRR	2,550	Delbert E. and Ricky Gene Ledb
		03569 B	IRR	2,538	Blackwater Farms, Inc. A NM
		01381	IRR	2,465.4	A C Farms A NM Gen Prtnrshp
		03088 B	IRR	2,413.8	State of New Mexico Commission
		02151	IRR	2,346.9	Mitchell Dairy, Inc.
		00374	IRR	2,310.6	O. Dale Miller
		02409	IRR	2,250	Douglas D. and Deborah S. Idsi
Causey Lingo	Roosevelt	00014	IRR	2,400	Mack Kizer
		00104	IRR	960	Robert E. Peterson
		00023	IRR	960	Fletcher B. Judah
		00020	IRR	930	M. O. Woodam
		00016	IRR	735	E. R. Gardner
		00021	IRR	600	Paul Henry
		00040	IRR	480	Wayne Evans
		00032	IRR	480	Maurine Farris Kennedy
		00030	IRR	480	E. E. Armstrong
		00029	IRR	480	Martha Ellen Locke
Roswell	Roosevelt				No water rights in database

Source: WATERS database

^a IRR = Irrigation IND = Industrial MUN = Municipal POL = Pollution control



4.9.2 Surface Water Rights

Most of the water used in the region is groundwater, although significant surface water irrigation takes place in Union and Quay Counties (Table 6-1). Water rights in the region have not been adjudicated, except the surface rights on the Dry Cimarron (Tables 4-2a and 4-2b). In 1999 Arch Hurley diverted 108,000 acre-feet to irrigate approximately 32,700 acres. Although water use and water rights are typically not the same in any given year (in large part due to changes in available supply), the usage information provides an overview of the numbers and locations of major surface water rights in the region



Table 4-2a. Union County Adjudicated Water Rights in Dry Cimarron Decree Page 1 of 3

Name of Ditch	Land Acreage	Recorded Water Right (ac-ft/yr)	Owner Name	Priority Date
Emery No. 1 South Ditch	259.05	388.58	James Tod	7/31/1899
Rutledge No. 1 North Ditch	323	484.5	J.M. Rutledge	12/31/1889
Brown and Sumpter No. 1 North Ditch	300.58	450.87	Frances Brown and Daisy F. Sumpter	12/31/1893
J. T. Brown No. 1 North Ditch	185	277.5	Frances Brown	10/31/1872
J. T. Brown No. 2 North Ditch	135	202.5	Frances Brown	10/31/1872
John No. 1 North Ditch	740.97	1,111.45	William M. John, Mary John Goree, Robert Gleason	11/31/1868
John No. 1 South Ditch	75	112.5	William M. John and Mary John Gorre	11/1/1864
Fowler and Skeen No. 1 North Ditch	197.75	295.5	James Tod and T.W. Henritze	8/31/1890
Fowler No. 1 South Ditch	77	115.5	James Tod	6/30/1871
Skeen No. 1 North Ditch	250.4	375.75	T.W. Henritze and James Tod	3/1/1896
C.M. Hughes No. 1 South Ditch	300	450	C.M. and Stella N. Hughes, Cordie Wiggins	6/14/1912
Wiggins No. 1 North Ditch	495.5	743.25	C.M. and Stella N. Hughes, Cordie Wiggins	9/1/1899
Behimer Brothers No. 1 South Ditch	92.2	138.3	Nellie Forrest Gaden	3/15/1911
Behimer Brothers No. 1 North Ditch	145	217.5	Nellie Forrest Gaden	3/15/1919
Gross-Crow-MacKenzie Ditch	298.5	447.75	Mollie E. Gross, H.M. Crow, John MacKenzie	9/30/1901
Baker No. 1 South Ditch	80	120	George W. Baker	12/31/1893
Baker No. 1 North Ditch	100	150	George W. Baker	12/31/1899
Baker No. 2 North Ditch	160	240	George W. Baker	12/31/1892
Baker No. 2 North Ditch 1st Enlarge	160	240	George W. Baker	12/31/1916
David Brothers No. 1 South Ditch	450	675	Sam David	12/31/1895
Anderson No. 1 South Ditch	115	172.5	Otto Stolley	12/31/1895
Kuehn No. 1 North Ditch	300	450	Otto Stolley	12/31/1889
McCuistion No. 1 North Ditch	160	240	O.W. McCuistion ^a	12/31/1890

^{--- =}Not applicable

^a Canceled for forfeiture by court order January 4, 1952 (file 65 & 01169)



Table 4-2a. Union County Adjudicated Water Rights in Dry Cimarron Decree Page 2 of 3

Name of Ditch	Land Acreage	Recorded Water Right (ac-ft/yr)	Owner Name	Priority Date
McCuistion No. 2 North Ditch	200	300	O.W. McCuistion ^a	12/31/1890
Gripe No. 1 North Ditch	118.15	177.23	M.B. Gripe	12/31/1882
Drew No. 1 Ditch & Drew No. 2 South	217	325.5	Mrs. R.B. Drew	12/31/1882
Estes & Egbert No. 1 North Ditch	35	52.5	H.L. Estes	12/31/1882
Roberts No. 1 North Ditch	39	58.5	Laura Roberts	12/31/1880
Roberts No. 2 North Ditch	9	13.5	Laura Roberts	12/31/1880
Roberts No. 3 North Ditch	17	25.5	Laura Roberts	12/31/1880
Wilson No. 1 South Ditch	90.55	135.82	Powell Wilson	12/31/1922
Like No. 1 North Ditch	100	150	Issac Like	1/1/1921
First National Bank of Trinidad Ditch	400	600	First National Bank of Trinidad	5/23/1918
Doherty Ditches Nos. 3N, 4N, 2S, 3S	80	120	Doherty Investment Company	12/31/1890
Harvey No. 1 North Ditch	73	109.5	Dan Harvey	12/31/1919
W. T. & C. Honey No. 1 North Ditch	15.95	23.93	Charles Honey	12/31/1901
W. T. & C. Honey No. 1 N Ditch First E	9.9	14.85	W.T. Honey	12/31/1905
W. T. & C. Honey No. 1 South Ditch	91.85	137.78	Charles Honey and W.T. Honey	12/31/1903
C Honey No. 1 South Ditch	22.6	33.9	Charles Honey	12/31/1902
C. Honey No. 2 south ditch	12	18	Charles Honey	12/31/1901
Milliken No. 1 North ditch	6	9	John J. Milliken	12/31/1920
Milliken No. 1 North Ditch 1st Enlarge	7.26	10.89	John J. Milliken	12/31/1926
Milliken No. 2 North Ditch	68.04	102.06	John J. Milliken	12/31/1913
Milliken No. 4 North Ditch	6	9	John J. Milliken	12/31/1920
Milliken No. 1 South Ditch	6	9	John J. Milliken	12/31/1920
Milliken No. 2 South Ditch	0.69	1.04	John J. Milliken	12/31/1914

^{--- =}Not applicable

^a Canceled for forfeiture by court order January 4, 1952 (file 65 & 01169)



Table 4-2a. Union County Adjudicated Water Rights in Dry Cimarron Decree Page 3 of 3

Name of Ditch	Land Acreage	Recorded Water Right (ac-ft/yr)	Owner Name	Priority Date
Milliken No. 4 South Ditch	34.81	52.21	John J. Milliken	12/31/1881
Morrow No. 5 South Ditch	18	27	John Morrow, Sr.	12/31/1884
Morrow Rts to C. Honey #1 S Ditch	12.9	19.35	John Morrow, Sr.	12/31/1902
Highfill Rts under McCuistion # 1 N Ditch	200	300	Maude Highfill ^a	12/31/1902
Highfill Rights Flathead Canyon Creek	105.5	0	Maude Highfill	b
Blackburn No. 1 North Ditch	127.4	191.1	Frank M. Blackburn	5/24/1902
Blackburn No. 1 N Ditch 1st Enlarge	52.8	78.75	Frank M. Blackburn	12/31/1923
Grand Total Union County	7,576.35	11,204.86		

^{--- =}Not applicable

^a Canceled for forfeiture by court order January 4, 1952 (file 65 & 01169) ^b Canceled March 28, 1939



Table 4-2b. Union County Adjudicated Livestock Water Rights in Dry Cimarron Decree

Name of Ditch	Watering Head of Livestock	Owner Name	Priority Date
J.T. Brown No. 1 North Ditch	200	Frances Brown	10/31/1872
J.T. Brown No. 2 North Ditch	200	Frances Brown	10/31/1872
John No. 1 North Ditch	600	William M. John and Mary John Goree	11/30/1868
Fowler No. 1 South Ditch	50	James Todd	06/30/1871
Skeen No. 1 North Ditch	350	T.W. Henritze	03/01/1896
Skeen No. 1 North Ditch	50	James Todd	03/01/1896
Behimer Brothers No. 1 North Ditch	100	Nellie Forrest Gaden	3/15/1919
Gross-Crow-MacKenzie Ditch	110	Mollie E. Gross	9/30/1901
Rutledge No. 1 North Ditch	400	J.M. Rutledge	12/31/1889
David Brothers No. 1 South Ditch	125	Sam David	12/31/1895
Baker No. 1 South Ditch		George W. Baker	12/31/1893
Baker No. 1 North Ditch	500	George W. Baker	12/31/1899
Baker No. 2 North Ditch		George W. Baker	12/31/1892
McCuistion No. 1 North Ditch	600	O.W. McCuistion	12/31/1891
Anderson No. 1 South Ditch	500	Otto Stolley	12/31/1895
Kuehn No. 1 North Ditch	500	Otto Stolley	12/31/1889
Grand Total Livestock Union County	3,785		