

- “In *United States v. New Mexico*, 438 U.S. 696, 700 (1978), 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’ (Overview, p.37).

Endangered Species Act

The Endangered Species Act (ESA) was designed to protect threatened and endangered species and their habitat. The ESA works by controlling what the government, corporations, and individuals can do when their actions would further imperil an at-risk species. Both the Overview and the Legal Issues reports cover ESA concerns. For the Middle Rio Grand region, the Southwestern willow flycatcher and the Rio Grande silvery minnow can affect water planning. “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” (Overview, p.38).

National Environmental Policy Act

The National Environmental Policy Act (NEPA) requires government agencies to look before they leap, or to analyze the impact their actions will have on the environment before taking those actions. However, NEPA itself does not limit agency actions. Both reference reports cover NEPA.

- “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.’ 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” (Overview, p.39).

Other Federal Laws

Several other federal laws can affect water planning and these are covered in Section 5.5.

5.4.2 Treaties

The Overview report briefly discusses two of the United States’ treaty obligations that affect water planning in the region. Below are excerpts from the Overview report on these treaties:

- “When the United States entered into the Treaty of Guadalupe-Hidalgo, the nation accepted the obligation to recognize and respect the aboriginal rights of tribes in areas acquired from Mexico” (Overview, p.33).
- In the Treaty with Mexico on Distribution of Waters of the Rio Grande Irrigation (1906), “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 [except in case of extraordinary drought.](#)” (Overview, p.45).

5.4.3 Compacts

New Mexico has entered into water compacts, or binding agreements, with neighboring states. These compacts control the ways in which New Mexico can use water from the Rio Grande and other rivers. Specifically, the compacts detail the amount of river water that New Mexico is entitled to and the amount that New Mexico must pass along to other states. The Overview report provides a detailed discussion of compacts.

Interstate Compacts, Generally

- “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

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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” (Overview, p.44).

The Rio Grande Compact

The Rio Grande Compact, an agreement among New Mexico, Colorado and Texas, dictates water distribution from the Rio Grande. Following is historical background and information about the Compact extracted from the Overview report.

- “Between 1870 and 1890, Coloradoans 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 to the river. These depletions in Colorado resulted in severe water shortages downstream in Texas and New Mexico (and Mexico)...” (Overview, p.45).
- “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” (Overview, p.46).
- “The Rio Grande Compact of 1929 was essentially a compact to agree to a compact...Based on the [subsequent] negotiations of the statutory signatory states through their apportioned 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” (Overview, p.46).
- “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...The Commission, by unanimous action, can order the release of water held in storage by reason of accrued debit by Colorado and New Mexico” (Overview, p.46).
- “The Rio Grande Compact of 1938 allows upstream storage of water in New Mexico, although with restrictions” (Overview, p.48).
- “...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’... Article VI of the Compact further requires New Mexico to retain water in storage at all times to the extent of its accrued debit” (Overview, p.48).
- “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 [than] 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” (Overview, p.50).

Colorado and Upper Colorado River basin Compacts

The Colorado and Upper Colorado River Basin compacts govern the consumptive use of the Colorado River. The San Juan-Chama Project was authorized under the Upper Colorado River Basin Compact in

1963. The San Juan-Chama Project was also authorized with the Navajo Indian Irrigation project. The use of the San Juan-Chama Project water is therefore governed by these compacts and not the Rio Grande Compact. Under Article III of the Upper Colorado River Basin Compact, only those states that are a party to the compact can utilize the Colorado River water.

Compact Challenges

- “While compacts are generally the favored mechanism for resolving disputes between states over interstate streams, they certainly do not end the interstate controversy over water. ...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” (Overview, p,50).

5.4.4 Federal Water Projects

The western US has been able to grow largely due to numerous federal water projects. In the Middle Rio Grande Region the San Juan-Chama Project is one of the most important federally sponsored projects.

- “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”....(Overview p 41).
- “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” (Overview, p.41).
- “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” (Overview, p.41).
- “...San Juan-Chama water is exempt from Rio Grande Compact water delivery accounting...” (Overview, p.41).

Other projects have included Cochiti and Jemez Dams and Elephant Butte Reservoir. Congress authorized Cochiti Dam in 1960 for flood and sediment control. The U.S. Army Corps of Engineers operates it. Cochiti’s operating rules provide that the dam be managed to bypass the maximum possible rate of flow that can be carried in the channel through the middle valley without causing flooding. Water is retained in the reservoir when flow exceeds the capacity of the downstream channel. Cochiti Dam is one of the largest earth-fill dams in the United States, with a capacity of 580,000 acre-feet.

The purpose of the Jemez Canyon Dam is flood and sediment control. The U.S. Army Corps of Engineers operates the dam. The Jemez Canyon Dam frequently stores spring and early summer runoff. The dam is operated to release stored water as quickly as possible without causing flooding. It has a capacity of about 103,000 acre-feet of water.

Elephant Butte Dam is the main component of the Rio Grande Project of the U.S. Bureau of Reclamation. The dam was completed in 1916. It has a capacity of over 2 million acre-feet. The current drought in the upper Rio Grande Basin has severely affected the water supply of the Rio Grande Project at Elephant Butte and Caballo Reservoirs. The March 1, 2003 storage level at Elephant Butte Reservoir was 405,075 acre-feet, only 20% of capacity, and the lake level was 75 feet below Elephant Butte Dam’s spillway crest. Elephant Butte Reservoir has not been this low since May 1979. Caballo Reservoir’s storage level in March 2003 was at 52,207 acre-feet, only 23% of capacity.

In six of the last seven years (1996-2002), Rio Grande spring runoff from snowmelt has resulted in below normal runoff volumes into Elephant Butte Reservoir. The runoff from 2002 was the eighth lowest on record in 107 years of flow data, dating back to 1895. Consequently, the storage level at Elephant Butte Reservoir has dropped dramatically. **Over 75 percent of the storage amount in Elephant Butte Reservoir belongs to the states of Colorado and New Mexico as Rio Grande Compact credit waters; therefore, there is very little storage water to allocate to irrigators of the Rio Grande Project. The present allotments are only 15 percent of a full supply for irrigation for Elephant Butte Irrigation District, El Paso County Water**

~~Improvement District No. 1, and Mexico (under the 1906 Treaty). Reclamation has not started with an allotment this low to irrigators of the Rio Grande Project since 1978.~~

5.5 Water Quality Standards

The Overview and Legal Issues reports address the issue of water quality standards extensively. The excerpts below are taken from the two reports.

5.5.1 Federal Standards

- “...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” (Overview, p.51).

The Clean Water Act

The Clean Water Act (CWA) empowers the federal, state, and tribal governments to set water quality standards and regulate water pollution.

- “The Act’s objective is to ‘restore and maintain the chemical, physical and biological integrity’ of the waters in the United States. The CWA has several ways to reach this goal. First, it allows water quality standards for specific segments of surface waters. 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. ...The TMDL process can be best described as determining and planning a watershed or basin-wide budget for pollutant influx to a watercourse” (Overview, p.51).
- “By enacting the CWA, Congress gave the U.S. Environmental Protection Agency (EPA) broad authority to deal with water pollution” (Overview, p.52).
- “The CWA allows the EPA to delegate many permitting, administrative, and enforcement aspects to state and tribal governments. For example, states and tribes have the power to adopt water quality standards for surface waters within their jurisdictions” (Overview, p.53).
- “Under the CWA, states are required to adopt water quality standards that protect certain designated uses for each river, stream segment, and lake” (Overview, p.53).
- “A State has an affirmative duty to revise standards in consideration of the use of the water and the water quality criteria applicable to those designated uses. The standards must also consider the value for public water supplies” (Legal Issues, p.29).
- “New Mexico has adopted water quality standards, which were last revised in October, 2002. The specific standards applicable to particular designated uses are set out in the Administrative Code. The Middle Rio Grande segments are currently designated for irrigation, limited warmwater fishery, livestock watering, wildlife, and secondary contact. The standards set out for those uses include pH, fecal coliform bacteria, Total Dissolved Solids (TDS), sulfates, and chlorides. The general standards for irrigation include a selenium limit, and those for livestock watering add radium, tritium and gross alpha criteria. General requirements for limited warmwater fisheries include limits for dissolved oxygen and ammonia” (Legal Issues, p.29-30).
- “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” (Overview, p.54).

The Safe Drinking Water Act

- “The Safe Drinking Water Act (SDWA) protects the quality of drinking water in the United States. The law focuses on all waters actually or potentially designed for drinking use, whether

5.6 Relevant Lawsuits

5.6.1 Existing Court Decrees/Precedents Cited

The Overview and Legal Issues reports contain information on court cases that affect water planning in the Region. The two most important cases are presented below.

New Mexico v. Aamodt

- “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” (Overview, p.33).

Silvery Minnow

- “In 1994, the FWS [US Fish and Wildlife Service] ‘listed’ the Rio Grande silvery minnow (Minnow) as an endangered species under the ESA. In 1996, thousands of Minnows were killed when the river dried south of San Acacia Diversion Dam. According to the United States Bureau of Reclamation (Bureau) by 1999 over 95 percent of the remaining wild Minnow population was concentrated in the 60-mile reach between San Acacia Diversion Dam and Elephant Butte reservoir” (Legal Issues, p.15).
 - “Since 1999, several lawsuits have been filed regarding the requirements of federal agencies under the ESA to protect the Minnow” (Legal Issues, p.15).
 - The most recent court decision ordered the US Bureau of Reclamation to “meet specified [water] flow requirements” to keep the Minnow alive. However, the issue must ultimately be resolved by the 10th Circuit Court of Appeals, or perhaps the United States Supreme Court (Legal Issues, p.18). [As of spring 2004, more recent court decisions and congressional action changed the status of San Juan Chama project water making it unavailable for ESA requirements.](#)
 - “The Supreme Court has emphasized that the language of the ESA ‘admits of no exception’ to the requirement to give the endangered species the highest priority. See TVA v. Hill, 437 U.S. 153, 173 (1978). The ESA requires federal agencies ‘to afford first priority to the declared national policy of saving endangered species’ and ‘to halt and reverse the trend towards species extinction, whatever the cost.’ id at 184,185 (emphasis added). In enacting the ESA, Congress required the federal courts to give greater protection to endangered species over human interests. Also, Congress did not allow federal courts to apply the ESA differently in different regions of the nation. Congress’ mandate, expressed in the ESA, to protect endangered species applies equally in wet and in desert regions of the United States” (Rio Grande Silvery Minnow v. Keys, 2002; See also Endangered Species Act).
- ~~□ If the Court allows the Rio Grande to dry this year as proposed by the FWS and Bureau, the federal agencies will have violated the ESA, and the Court will have failed in its Congressionally-mandated duty to afford injunctive relief to prevent further harm to the species (See TVA v. Hill).~~
- More extensive listing of lawsuits (Pueblo quality standards, recent minnow case, predicted Texas, etc.) appears in the referenced reports.

San Juan-Chama Project

The City of Albuquerque now plans to divert its San Juan-Chama Project water, treat it, and distribute it to city homes and businesses. The city’s application to the State Engineer for a permit to divert the water has been protested by a coalition of activists, including the Assessment Payers Association of the Middle Rio Grande Conservancy District, Amigos Bravos, the New Mexico Public Interest Research Group, Rio Grande Restoration, the Sierra Club, and the Socorro Soil and Water Conservation District.

5.7 Water Rights Administration Policies Specific to the Region

5.7.1 Ground-Water Basin Criteria

In 1956 the State Engineer declared the Middle Rio Grande an administered basin. New Mexico had, by that time, incurred a debt of nearly 530,000 acre/feet of water to Texas, despite the Bureau of Reclamation's efforts to maximize water delivery to Elephant Butte. By declaring the Middle Rio Grande a declared basin, the State Engineer anticipated preserving the surface flows of the Rio Grande. In 2000, new guidelines for administering water rights in the Middle Rio Grande basin were issued. The Middle Rio Grande Administrative Area Guidelines for Review of Water Rights Applications close the populous areas through Sandoval, Bernalillo, Valencia, and part of Socorro counties to any new groundwater appropriations, with the exception of domestic wells. The guidelines state that in this area all new applications to appropriate ground water will be rejected. The closure helps to insure that surface flows to meet compact obligations are maintained and impairment to existing water rights holders is prevented. Permits for those who applied prior to the issuance of the guidelines will be conditioned upon the valid consumptive use surface water rights held by the applicant. The applicant must be able to demonstrate that they are able to offset the depleting effect that the proposed groundwater pumping will have on the Rio Grande flows.

The Middle Rio Grande Administrative Area Guidelines may be found at <http://www.seo.state.nm.us/doing-business/mrgbasin/crit9-13.pdf>.

The reference documents for this chapter also provide more information.

- “The [State Engineer’s] 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. 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” (Overview, p.9).
- “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. This requirement protects the surface flows of the Rio Grande from being depleted or reduced by groundwater diversions” (Overview, p.9).
- “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” (Overview, p.9).

5.8 Special Districts

5.8.1 The Middle Rio Grande Conservancy District

Established in the 1920s to address flooding, irrigation and drainage issues in the Middle Rio Grande valley, the Middle Rio Grande Conservancy District (MRGCD) possesses several kinds of water rights and a water storage right at ~~Elephant Butte~~EL Vado Reservoir. The MRGCD also operates a Water Bank, which allows those in need of water to borrow or lease extra from those who have too much. The Overview report extensively discusses the MRGCD’s water rights and water bank.

MRGCD Water Rights

- “Formation of the MRGCD brought together 70 acéquias into one unified entity designed to make all lands in the middle valley irrigable” (Overview, p.26).

- “The MRGCD extends from Cochiti Dam south for approximately 150 miles to the Bosque del Apache Wildlife Refuge” (Overview, p.26).

Following are the seven kinds of water rights that MRGCD holds:

- “The first type of water right within the district is the individual pre-1907 diversionary water right. ...These pre-1907 water rights are outside the jurisdiction of the State Engineer and are vested in the individual water holders who reside within the MRGCD” (Overview, p.26).
- “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 (1925) but after 1907” (Overview, p.27).
- “The third type of water right is the MRGCD’s permitted surface water right. ...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” (Overview, p.27).
- “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 on their aboriginal sovereignty, totaling 8,847 acres of Indian land...Pueblo water rights are senior to all other rights within the MRGCD and irrigate approximately 8,847 acres of Indian land” (Overview, p.27).
- “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” (Overview, p.27).
- “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” (Overview, p.27).
- “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” (Overview, p.27).

MRGCD Water Bank

MRGCD established a Water Bank in 1995 to provide “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” (Overview, p. 27). ~~It works on the same principle as a money-based bank. Individuals within the MRGCD who have rights that they are not using can “deposit” them in the bank so that individuals who need water can “borrow” water from the bank. The right holder receives payment for the loan.~~ “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” (Overview, p.29). However, as of spring 2004 the OSE has taken the position that the Conservancy Act does not allow reallocation of use outside of MRGCD boundaries. In addition the OSE has further taken the position that the quantity of rights vested within the MRGCD water bank cannot be quantified until the total beneficial use of MRGCD is established.

5.9 Legal Issues Needing Resolution

One of the main purposes of this chapter is to provide a legal context for the plan and to indicate which water issues need to be resolved. The following issues, addressed by the Overview and Legal Issues reports, are among those requiring attention.

5.9.1 Pueblo Water Rights

- “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 but a wish list” (Overview, p.32).

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- “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. 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” (Overview, p.32). In other words, in a time of declining water supply and increased demand, senior Pueblo water rights could trump rights developed subsequently.

Stock Watering

- Courts have not yet determined how much water Pueblos are entitled to use for stock watering, although Congress has recognized Pueblos’ stock watering rights as a “prior right” Resolution of this issue would facilitate water planning in the Region (Overview, p.34).

Domestic (Municipal) Use

- The United States Federal Court for the District of New Mexico recently determined “that the expansive (domestic use) right under Spanish and Mexican law was cut off by the Pueblo Lands Act of 1924. 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. 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” (Overview, p.35). This unknown must be factored into the water plan.

Rio Grande Compact

- “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 Indian tribes.’ 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” (Overview, p.51).

5.9.2 San Juan-Chama Project

- “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. Española 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 into these reviews” and into regional water planning (Overview, p.42).

5.9.3 Development and the Domestic Water Loophole

- “The availability of an adequate water supply is increasingly a limiting factor on 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” (Overview, p.42).
- “Because obtaining a domestic water right permit is essentially a ministerial process, it is view by many as both a loophole in the regulation of groundwater withdrawals and as an obstacle to the use of water supply as a growth management tool” (Overview, p.42). A water plan must deal with this loophole.

5.9.4 Adjudication and Domestic Well Permits

Adjudication is the judicial determination of existing rights to place the water of a particular hydrologic unit to a beneficial use. This requires the joining of all water users who divert water from the same hydrologic unit. In order to initiate an adjudication, state law mandates that the State Engineer perform hydrographic surveys and investigations of each stream system and source of water, beginning with those used primarily for irrigation (See NMSA § 72-4-13). Upon completion of the survey the State Engineer institutes an adjudication to obtain a judicial determination and definition of water rights within each stream system and underground basin as required by law (See NMSA § 72-4-15). The legal bases of each water right within a basin must be identified and surveyed, described in a written offer, and conveyed to the water rights owner who may accept or reject the offer. If rejected, it may then be litigated between the state and the claimant through evidentiary hearings before the adjudication judge. After individual water rights claims have been adjudicated between the state and the individual claimants, a defendant may challenge the water rights of others during the *inter se* phase of the adjudication. After challenges are heard, the Court issues a final decree that defines the rights of each and every claimant on the stream system.

Adjudications are currently underway in both federal and state court in New Mexico. State Attorneys General, through the State Engineer, have the responsibility for conducting adjudications on behalf of the state of New Mexico. The entire Pecos stream system is currently being adjudicated. The Pecos adjudication was filed in 1956. Adjudications of several tributaries to the Upper Rio Grande were started between 1966 and 1983 and involve the rights of 13 New Mexico Indian Pueblos and the Jicarilla Apache Tribe, the federal government, municipalities, community ditches and thousands of individual defendants.

The adjudication of the lower Rio Grande began in 1985 and involves an irrigation district, a major federal reclamation project, municipal and county water rights, a state university, the city of El Paso and thousands of individual groundwater claimants within Dona Ana County. The San Juan Adjudication is also in progress and involves the rights of the Navajo Nation and the Jicarilla Apache.

Outside of a declared basin, an appropriator of ground water is free under all circumstances to drill a well and acquire a water right without the permission of the State Engineer. The holder of an existing water right can sue a new ground water user, but as in the case of a pre-1907 surface water right, the burden is on the injured existing water right holder to prove the harm. Inside a declared basin, a potential new ground water appropriator has to apply for a permit from the Office of the State Engineer before drilling a well. He must give notice to others, prove that the new well will not be detrimental to existing wells, and that there is unappropriated water.

There is a small exception to the application process for a well inside a declared basin under NMSA § 72-12-24. This statute allows the owner of a water right to first apply and then to drill a supplemental well that draws its water from the same underground stream, channel, artesian basin, reservoir, or lake as the well being supplemented. The supplemental well must not increase the appropriation of water, it must be drilled in an emergency, and the state engineer must not find impairment on other users by the well.

5.9.5 Water Quality Standards

- “In light of the City of Albuquerque’s proposal to install a direct diversion in the river for its water supply, these designated uses will have to be reevaluated and potentially revised based upon a new use for domestic water supply. Such a review and/or revision also requires that the State adopt criteria for all toxic pollutants that might interfere with the designated uses. If the river segment is elevated to a drinking water designation, then further screening and monitoring for excessive pollution loads will be required. The domestic water supply standards add an evaluation for carcinogenic materials, a nitrate constituent, and lowered standards for two forms of radium, strontium and tritium. It would be anticipated that the New Mexico Environment Department would be required to take action under its Assessment Protocol to determine if the Middle Rio Grande segment water meets the heightened standards required of a domestic water supply” (Legal Issues, p.30).

5.9.6 Ownership of saved water

- In the legal feasibility fact sheets, the contractor identified in at least four alternatives (Watershed Plans, Bosque Management, Agricultural Metering and Agricultural Conveyance) where there is an issue of who owns the saved/salvaged water. With regard to watershed restoration and bosque management, under current state law the increased flows would be added to the general “public waters” and managed by the state (Daniel B Stephens and Associates undated).
- With regard to savings from agricultural metering and conveyance, the legal analysis states, “It is impossible at this time to determine the ownership of any saved water resulting from more efficient use of water within the MRGCD under this alternative. Once MRGCD’s license is issued, any water saved may ultimately be available to water users within the MRGCD, if such saved water falls within MRGCD’s licensed right to divert, use, and store water. ...If any saved water does not fall within the parameters of MRGCD’s license, under the current state of the law, any saved water would return to the system as “public water” (Daniel B Stephens and Associates undated).

5.9.7 Potential ~~New~~ Reallocations of Water Sources

In an area with scarce water resources, continued development presents a challenge. If the region is going to continue developing and growing, where are we going to get all of the water that we need? The Overview and Legal Issues reports discuss several potential new-reallocations of water-sources, some of which have been mentioned previously in this summary.

Pueblo Water Rights

- “The six Pueblos which reside on the main stem of the Rio Grande within the boundaries of the Middle Rio Grande Conservancy District (MRGCD), as well as the MRGCD, are entities which in the future, after their rights are developed and quantified, could potentially supply water to other users within the Region” (Legal Issues, p.1).
- “The leading case determining the nature and extent of Pueblo Indian Water Rights...allow[s] the Pueblos to determine the purpose and place of use, without following state procedures, at least on Pueblo lands” (Legal Issues, p.2).
- “The senior priority for the six Pueblos water rights make them particularly attractive for developers that need maximum reliability for their water supply” (Legal Issues, p.2).

Regional Water Bank

- “In the West, water banking is increasingly used for allocation of scarce water resources. Texas, Arizona, and Idaho, among others, all have state water banking statutes and operational water banks” (Legal Issues, p.3).
- “Currently, there is no specific water banking law that allows for the creation of a regional water bank. In the 2002 Legislative session, the Legislature enacted water banking legislation for the Lower Pecos River and may consider extending the authorization for water banking to the rest of the state during the 2003 legislative session” (Legal Issues, p.3).

MRGCD Water Bank

- “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 MRGCD. Before that occurs, the MRGCD and the State Engineer 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” (Legal Issues, p.7).

Type of Ordinance	Major provisions	Reference
	<p>Watershed administrator reviews subdivision applications for impacts to water quality, watershed buffer areas, and the effect on erosion and sedimentation. This ordinance would also require the creation of a watershed review board.</p>	<p>odelord500.pdf http://h2o.ehnr.state.nc.us/wswp/factform.html</p>
<p>Wetland Preservation Ordinance</p>	<p>Preserve wetlands, and protect the wetlands of the (Township/Municipality) from sedimentation, destruction, and misuse. The protection, preservation, replacement, proper maintenance, restoration, and use in accordance with the character, adaptability, and stability of the (Township/Municipality)'s wetlands, in order to prevent their pollution or contamination; minimize their disturbance and disturbance to the natural habitat therein; and prevent damage from erosion, siltation, and flooding.</p>	<p>Model Wetland Ordinance http://www.crowc.org/projects/scwetlands/modelwetlandord.html A Model Wetlands Ordinance for Indiana Communities http://home.switchboard.com/indianawetlands</p>

Chapter 5 References

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