A SUMMARY OF EXISTING WATER RIGHTS LAWS

WHO OWNS THE WATER?

UPDATED AUGUST 2016





Acknowledgements

Research for the original report was completed by Michael Galano, Esq., Holland & Knight, and Amy Edwards, Esq., Partner, Holland & Knight. Research for the 2005 update of this report was completed by Jesse J. Richardson, Jr., Esq., Policy and Research Advisor, Water Systems Council, and Associate Professor, Virginia Tech, and Elisabeth Chaves, Esq., Policy and Research Advisor, Water Systems Council, and Associate Professor, Virginia Tech. Research for the 2009 update was completed by Jesse J. Richardson, Jr., Esq., Policy and Research Advisor, Water Systems Council, and Associate Professor, Virginia Tech. Research Advisor, Water Systems Council, and Associate Professor, Virginia Tech. Research for this 2016 update was completed by Jesse Richardson, Jr., Esq., Lead Land Use Attorney at the Land Use and Sustainable Development Law Clinic and Associate Professor of Law at the West Virginia University College of Law.

Any questions or comments on this report should be directed to Margaret Martens, Executive Director, Water Systems Council, at 202-625-4387.

Disclaimer: This publication is not intended to constitute, nor does it constitute, legal advice. Your particular facts and situation and the particular nuances of each state's laws determine application of the law in your case. Water Systems Council intends that this document be used for reference and educational purposes only. If you have a particular issue involving groundwater rights, you should consult with an attorney licensed to practice law in your state and knowledgeable about this area of law.

All rights reserved. Reprinting of any part of this text is allowed only with permission from the Water Systems Council.

Copyright 2016 - Water Systems Council

Table of Contents

Executive Summary	1
Policy Recommendations	2
Summary of Existing Water Rights Laws	3
Does the State Own the Water?	7
Water Rights and Takings	11
The States	16

Executive Summary

State statutes and case law pertaining to groundwater rights have continuously evolved over the last century. Water rights begin in written court opinions, or common law. At the present time, states generally follow one of five common law "rules" for groundwater rights: the Absolute Dominion rule (a.k.a. Absolute Ownership rule or English rule) (11 states), the Reasonable Use rule (a.k.a American rule or Rule of Reasonableness) (17 states), the Correlative Rights doctrine (five states), the Restatement (Second) of Torts rule (a.k.a. Beneficial Purpose doctrine) (two states) and the Prior Appropriation doctrine (a.k.a. First in Time, First in Right seniority system) (13 states). Note that a separate set of rules applies to surface water rights. This report does not address surface water rights.

However, states increasingly supplement or alter common law rules with state permitting statutes. Some refer to this form of regulation as "regulated riparianism."

At the federal level, the U.S. Supreme Court has recognized some form of private property rights in water, but these rights are not absolute. While the United States Congress often regulates pollution and drinking water quality, it has not specifically addressed groundwater protection. However, in the wake of the recent drought and water shortages, Congress has introduced bills that would impact groundwater rights.

State groundwater law is constantly evolving to respond to scientific, geopolitical and environmental developments. As a result, the future of groundwater law is increasingly difficult to predict. Complicating matters further is that, in some states, recent statutory changes to the law are in some cases inconsistent with older groundwater case law decisions. In addition, aquifers do not respect state boundaries, so conflicting laws in bordering states present additional complications. Population growth, drought, increasing demand and other factors may lead to a reexamination of groundwater ownership rights in the coming years. The current trend has been away from the Absolute Ownership doctrine, towards a Reasonable Use or Correlative Rights approach, and towards state statutes regulating groundwater withdrawal.

However, Individual rights should be considered when determining "reasonableness." Recent widespread droughts have increased the tension between private property rights in groundwater and the public's right in water. Although the property right may be regulated, like the right to use land is regulated, too much regulation results in a taking of private property for public purposes without just compensation. Another trend in the years since the prior edition of this booklet is the increasing recognition of a "regulatory taking" of groundwater rights- situations where government regulation of groundwater unlawfully infringes on groundwater rights. Policy makers should be admonished to remember the limits of their authority to regulate the right to use water. States do not "own" the water.

Policy Recommendations

1. Groundwater law—whether federal or state—should take into account the greater impact on groundwater resources of demands of large volume users compared to usage by household or smaller capacity wells. Any restrictions on groundwater usage should recognize these differences.

2. States that continue to adhere to the English rule should be encouraged to adopt a Reasonable Use or Correlative Rights approach to groundwater management. These approaches balance the individual rights of landowners with those of other users of the same aquifer. At the same time, these doctrines promote the most efficient use of a vital natural resource.

3. States, through their legislatures or their courts, should make a definitive, modern pronouncement regarding which doctrine(s) is currently being followed in their state. Such a pronouncement would provide clarity and predictability in those states whose sole pronouncement on the issue of groundwater rights is common law judicial decisions from the late 19th or early 20th centuries. 4. State pronouncements of water rights should incorporate respect for the private property rights inherent in the right to use the water.

5. Restrictions on individual well owners should be implemented only as a last resort and supported by proof of "imminent" depletion or contamination of the groundwater source.

6. States that share common underground water sources should develop a regionalized approach to water ownership issues to ensure equity.

A Summary of Existing Water Rights Laws

Introduction

In 2003, Water Systems Council published the first edition of *Who Owns the Water*? Updated reports were published in October 2005 and again in October 2009. Since 2009 there have been a number of significant developments with respect to groundwater rights across the country. This update includes these new developments.

A section on Water Rights and Takings, added in 2009, addresses the court cases addressing the issue of when government regulation "goes too far" and infringes on private property rights. A number of significant cases have been decided since 2009 and have been added to the discussion in this section.

This increase in the conflict between private property rights in groundwater and public rights in groundwater represents the clearest trend in the almost 7 years since the publication of the last edition. Water rights continue to be the subject of increasing disagreements and litigation. As population and drought conspire to place increasing demands on a scarce resource, disputes about water rights are likely to escalate even more in the future.

Another significant development involves the Texas Supreme Court's increasing application of concepts borrowed from oil and gas law to groundwater. The Texas Supreme Court has also authored some significant takings cases involving groundwater in the past several years.

This update provides a summary of groundwater rights in the United States. These publications are intended for educational purposes only and do not constitute legal advice. If you have a water rights issue, the particular facts of your situation will be important to any resolution. You should consult an attorney to ascertain your rights and responsibilities.

Water rights are determined primarily at the state level. Originally, these rights were set out in common law, or court cases. Common law continues to provide the basis for water rights in the United States.

The origins of groundwater law in the United States can be traced to 19th century English and American courts when most decisions were based on the law of property. To a much greater extent than other bodies of law such as torts, contracts, criminal law, etc., the development of groundwater law has been profoundly affected by scientific advances and our own understanding of hydrology.

State legislatures may pass laws to modify or restrict common law water rights, so long as the state laws adhere to state and federal constitutional limitations. Most of the restrictions on groundwater use enacted by legislatures since 1931 were physical in nature and have been borrowed from the law of oil and gas. As a result, many of the regulations concerning groundwater involve well spacing and the amount of water that can be withdrawn. However, groundwater rights remain mostly the domain of state courts. An exception involves the recent passage of groundbreaking groundwater legislation in California.

This report summarizes the common law and statutory rules for groundwater rights in each of the fifty states. In some states, the common law rule remains unclear. In those cases, the author uses his judgment to ascertain the most likely result.

Groundwater Law Classifications

As the law of groundwater has evolved, state courts have generally followed one of five common law "rules" in this area: the Absolute Dominion rule, the Reasonable Use rule, the Correlative Rights doctrine, the Restatement (Second) of Torts rule and Prior Appropriation. Use caution, however, in analyzing how these doctrines impact groundwater rights in a particular state. First, in many states it is difficult to determine what doctrine the highest state court has adopted. Courts generally do not deal with many water cases and lack expertise in that area. Thus, many court opinions are unclear. Secondly, many states have passed state statutes modifying or supplementing the common law.

Note that Florida has abolished common law water rights. South Carolina, on the other hand, has no meaningful common law with respect to groundwater rights. Finally, Nebraska uses a mix of two common law rules.

Absolute Dominion Rule

The Absolute Dominion rule (also referred to as the Absolute Ownership rule or the English rule) was initially applied in 28 states. However, in the early 1900s, many courts began to replace this rule with other doctrines (Note: *Ground Water: Louisiana's Quasi-Fictional and Truly Fugacious Mineral*, 44 La. L. Rev. 1123, 1132 (1984)).

"Under this doctrine, a landowner may intercept the groundwater which would otherwise have been available to a neighboring water user and may even monopolize the yield of an aquifer without incurring liability" (Teresa N. Lukas, When the Well Runs Dry: *A Proposal for Change in the Common Law of Ground Water Rights in Massachusetts*, 10 B.C. Envtl. Aff. L. Rev. 445, 469 (1982)). The English rule was established by the Court of Exchequer in *Acton v. Blundell*, in 1843 (*Acton v. Blundell*, 12 W & M 324,152 Eng. Rep. 1223 (1843)). Most states have rejected the rule, often on grounds that it immunized a landowner who removed the percolating water for purely malicious reasons (see e.g., *Huber v. Merkel*, 117 Wis. 355, 94 N.W. 354 (Wis. 1903). States that retain the rule generally have an exception that prohibits malicious pumping of groundwater. This rule gives an incentive to maximize groundwater removal and so has also been called the "law of the biggest pump."

Eleven states have either formally adopted or have indicated a preference for the Absolute Dominion rule. These include: Connecticut, Georgia, Indiana, Louisiana, Maine, Minnesota, Massachusetts, Mississippi, Rhode Island, Texas and Vermont. Note that Vermont purports to abolish the Absolute Dominion rule by statute and replace it with the Correlative Rights doctrine.

Reasonable Use Rule

The Reasonable Use rule (also referred to as the American rule) is a modification of the Absolute Ownership doctrine. The Reasonable Use rule is followed in many eastern states. This doctrine limits a landowner's use to beneficial uses having a reasonable relationship to the use of his overlying land (Ground Water: Louisiana's Quasi-Fictional and Truly Fugacious Mineral, 44 La. L. Rev. 1123, 1133 (1984)). Off-site uses, referred to as "lift" are deemed unreasonable. The rule has been described as "essentially the rule of absolute ownership with exceptions for wasteful and off-site use" (Id., at 32). So long as the use of the water is reasonable, the landowner can withdraw all of the water, to the detriment of others, without liability.

Seventeen state courts have either formally adopted or have indicated a preference for the Reasonable Use rule. These include: Alabama, Arizona, Arkansas, Delaware, Illinois, Kentucky, Maryland, Michigan, Missouri, New Hampshire, New Jersey, New York, North Carolina, Oklahoma, Pennsylvania, Virginia and West Virginia.

Wyoming has adopted the Reasonable Use rule in conjunction with the Prior Appropriation doctrine. Florida has abolished common law groundwater rights, but uses a Reasonable Use rule in allocating permits. Nebraska has adopted a Reasonable Use rule in conjunction with the Correlative Rights doctrine.

Correlative Rights Doctrine

The Correlative Rights doctrine is based on the Reasonable Use rule. Courts often confuse and combine the two rules. Arkansas, New Jersey and Tennessee law proves difficult to determine due to this confusion. Correlative Rights differs from the Reasonable Use rule in that it does not prohibit off-site uses and uses a proportionality rule. Therefore, under the Correlative Rights doctrine, a landowner must limit use of groundwater so as to not interfere with the use of the water by others overlying the aquifer.

The leading Correlative Rights case involved a dispute between agricultural users and a city water supplier in the California case of Katz v. Walkinshaw, 74 P. 766 (Cal. 1903). The Katz decision provided the two prongs of the Correlative Rights doctrine. First, a water transporter "can protect its right against wasteful or malicious pumping by local users and against interference by other transporters" (Teresa N. Lukas, When the Well Runs Dry: A Proposal for Change in the Common Law of Ground Water Rights in Massachusetts, 10 B.C. Envtl. Aff. L. Rev. 445, 469 (1982)). Second, disputes between local users during times of insufficient supply would be settled by a court by allowing each "a fair and just proportion" of the available water (Katz v. Walkinshaw, 74 P. 766 (Cal. 1903)).

As opposed to the Reasonable Use and Absolute Dominion rules, the Correlative Rights doctrine does not envision an absolute right of access to groundwater or an unlimited right to pump (Note: Ground Water: Louisiana's QuasiFictional and Truly Fugacious Mineral, 44 La. L. Rev. 1123, 1135 (1984)). Rather, this doctrine maintains that the authority to allocate water is held by the courts (Id.). As a result, owners of overlying land and non-owners or transporters have co-equal or Correlative Rights in the reasonable, beneficial use of groundwater, generally proportional to their ownership of land overlying the aquifer (Id.). A major feature of the Correlative Rights doctrine, however, is the concept that adjoining lands can be served by a single aquifer (*Id*.). Therefore, the judicial power to allocate water protects both the public's interest and the interests of private users (Id.).

Courts in five states have either formally adopted or have indicated preference for the Correlative Rights rule. These include: California, Hawaii, Iowa, Oklahoma and Tennessee. Vermont appears to have adopted the rule by statute. Nebraska uses a combination of the Reasonable Use rule and the Correlative Rights doctrine.

The Restatement of Torts Rule

The Restatement of Torts rule (also referred to as the Beneficial Purpose doctrine) has been characterized as a combination of the English and American rules (Juliane Matthews, A Modern Approach to Groundwater Allocation Disputes: Cline v. American Aggregates Corporation, 7 J. Energy L. & Pol'y 361 (1986)). This rule was adopted by the American Law Institute (ALI) in the Restatement (Second) of Torts § 858. The rule merges the English concept of nonliability with the American standard of Reasonable Use. "The result merges prior groundwater law into a standard intended to more equitably meet growing demands on water resources" (Id.).

The Restatement (Second) of Torts § 858 provides: Liability for Use of Groundwater

(1) A proprietor of land or his grantee who withdraws groundwater from the land and uses it for a beneficial purpose is not subject to liability for interference with the use of water by another, unless

(a) the withdrawal of groundwater unreasonably causes harm to a proprietor of neighboring land through lowering the water table or reducing artesian pressure,

(b) the withdrawal of groundwater exceeds the proprietor's reasonable share of the annual supply or total store of groundwater, or

(c) the withdrawal of the groundwater has a direct and substantial effect upon a watercourse or lake and unreasonably causes harm to a person entitled to the use of its water.

(2) The determination of liability under clauses (a), (b) and (c) of Subsection (1) is governed by the principles stated in §§ 850 to 857.

Two states, Ohio and Wisconsin, have either formally adopted or have indicated a preference for the Restatement of Torts doctrine.

Prior Appropriation Doctrine

The Prior Appropriation doctrine is utilized in several western states (Juliane Matthews, *A Modern Approach to Groundwater Allocation Disputes: Cline v. American Aggregates Corporation*, 7 J. Energy L. & Pol'y 361 (1986)). Pursuant to this rule, the first landowner to beneficially use or to divert water from a water source is granted priority of right. The quantity of groundwater a senior appropriator may withdraw may be limited based on reasonableness and beneficial purposes (*Id.*). Many states have replaced or supplemented the Prior Appropriation doctrine with a permit system (*Id.*).

Thirteen states have either formally adopted or have indicated a preference for the Prior Appropriation rule. These include: Alaska, Colorado, Idaho, Kansas, Montana, Nevada, New Mexico, North Dakota, Oregon, South Dakota, Utah, Washington and Wyoming.

Does the State Own the Water?

Introduction

The short answer to this question is "NO!" Several states claim, through pronouncements in state laws or state constitutions, that the state "owns" the water. This claim does not reflect the law on this point. Does this mean that landowners or holders of water rights "own" the water? Not exactly.

As the following section details, the law of each state defines who has the right to use groundwater. In Prior Appropriation states, the holder of the water right owns this right. In other states, the right generally goes with ownership of land, but can be severed and conveyed separately.

Just as with ownership of land, the state government (and sometimes the local government) can impose reasonable regulations on the use of water. However, if these regulations go "too far," the regulations enact a taking of private property for public use without just compensation, and the owner must be compensated. Other legal rights also protect holders of water rights.

How far is "too far" is a very complex question and is beyond the scope of this report. If the federal, state or local government has put regulations upon your use of water that you feel are unfair, you should consult an attorney in your state. See Water Rights and Takings for more information.

States base their claim of ownership of water on two legal grounds: (1) the Public Trust Doctrine; and (2) the Waters of the State concept. This section briefly explains why neither doctrine applies.

The Public Trust Doctrine

The Public Trust doctrine is a common law doctrine that says that the state holds certain natural resources in trust for the

public. Property held under this doctrine is legally "owned" by the state, but must be managed for the benefit of the public.

The United States Supreme Court set out the scope of the Public Trust doctrine in Illinois Central Railroad v. Illinois, 146 U.S. 387 (1892). The issue was whether the state of Illinois could sell the waterfront area of Chicago to the Illinois Central Railroad. The Court found that the state had title to the land underneath the navigable waters of Lake Michigan and held the title in trust for the public's use. Thus, the state could not convey this land to a private entity, destroying the public's right to navigate and fish. Trust property can be conveyed to private individuals if the effect is to improve the public's ability to exercise these rights. The conveyance by Illinois did not, and so was unlawful and reversed by the Court.

The Public Trust doctrine centers on land beneath tidal and navigable waters. The focus is on navigation, commerce, fishing and recreation. Only one state supreme court, California's, has held that the trust to non-navigable waters. In National Audubon Society v. Superior Court, 33 Cal.3d 419, cert. denied, 464 U.S. 977 (1983), the California Supreme Court held that the Los Angeles Department of Water and Power must consider the Public Trust doctrine when withdrawing water from non-navigable tributaries of Mono Lake to provide public water supply. These withdrawals were lowering the water level in Mono Lake. In essence, the court found that Prior Appropriation rights and the public trust must be balanced.

Some states mistakenly rely on the Public Trust doctrine to assert that they "own" the water. However, the doctrine does not grant ownership of the actual water. Only one court has applied the Public Trust doctrine to groundwater. *In the Matter of Water Use Applications*, 94 Haw. 97, 9 P.3d 409 (2000), the Hawaii Supreme Court held that a doctrine similar to the Public Trust doctrine applies to groundwater. See the description of Hawaii water rights for a more detailed discussion of this case.

applies to groundwater. See the description of Hawaii water rights for a more detailed discussion of this case.

Effective in 2008, Vermont became the 8th state to assert public trust ownership in groundwater pursuant to state statute (10 V.S.A. § 1390). The other seven states are Connecticut (Conn. Gen. Stat. § 22a-15 (1995)); Delaware (Del. Code Ann. tit. 7, § 6001 (2001)); Massachusetts (Mass. Gen. Laws ch. 21L, § 1 (2004)); Nevada (NRS 533.025); New Hampshire (N.H. Rev. Stat. Ann. § 485-C:1 (2004)); New Jersey (N.J.S.A. 58:11A-2(b) (1977)); and, South Dakota (S.D.C.L. §§ 46-1-2). See Oday Salim and Noah Hall, "50 State Survey of Groundwater and the Public Trust Doctrine," Great Lakes Environmental Law Center, unpublished paper (2008) (on file with author).

Waters of the State

Some states misinterpret the definition of "waters of the state" as meaning that the state owns the water. This extension of the law is also incorrect.

The Waters of the State terminology comes from "waters of the United States" in the federal Clean Water Act. Section 404(a) of the Clean Water Act (33 U.S.C. section 1344) prohibits discharge of dredge or fill material into the "navigable waters." 33 U.S.C. section 1362(7) defines "navigable waters" as "waters of the United States." The regulations under this provision further define "waters of the United States," which include navigable waters, interstate waters and certain wetlands.

This complex maze of definitions seeks to delineate the scope of the federal government's authority to regulate discharge of dredge and fill material. An even more complex set of court decisions tries to interpret which "waters" are "waters of the United States." This legal mess results from the fact that the federal government holds very limited regulatory authority.

In April of 2014, the United States Army Corps of Engineers and the United States Environmental Protection Agency introduced a revised rule that, depending upon the reader, "clarified" or "expanded" the definition of "waters of the United States". Despite much controversy and a plethora of public comments that alternatively praised or condemned the new rule, the USACE finalized the rule in May 2015.

Several lawsuits were initiated immediately after approval of the final rule. Plaintiffs included states, environmental groups, landowners and others. Therefore, a variety of groups that generally are not aligned find themselves all opposing the present rule, but for different reasons.

On February 22, 2016, the United States Court of Appeals for the Sixth Circuit resolved the dispute over which court holds jurisdiction over this matter (at least for now). The court ruled that the United States Court of Appeals holds jurisdiction rather than the United States District Court, supporting the position of the United States Department of the Interior and the United States Environmental Protection Agency. A final decision on the meaning of "waters of the United States" is unlikely in the next few years.

In contrast to the narrow authority held by the federal government, states hold broad authority to regulate environmental issues such as water pollution. To fill in the gaps of federal authority, many states have passed state clean water acts. These acts generally parallel the federal act but include a much broader list of waters under Waters of the State. Waters of the State intends to delineate those "waters" that the state may regulate. These waters generally include groundwater, unlike at the federal level.

The federal government does not claim to own "waters of the United States," including the millions of acres of wetlands falling under that definition. However, some states, confused by the regulatory language, use the definition of Waters of the State to claim ownership of water, including groundwater. However, these interpretations are incorrect.

Great Lakes-St. Lawrence River Basin Water Resources Compact

The Agreement

The Great Lakes-St. Lawrence River Basin Water Resources Compact (hereinafter "The Great Lakes Compact" or "the Compact") is an agreement among eight Great Lakes states (Illinois, Indiana, Michigan, Minnesota, New York, Ohio, Pennsylvania and Wisconsin) and the provinces of Ontario and Québec, with respect to environmental and economic issues affecting the region. During 2007 and 2008, each of the eight Great Lakes State legislatures ratified the Compact. Legislative approval was completed by the U.S. Senate on August 1, 2008, and by the U.S. House of Representatives on September 23, 2008. President Bush signed the joint resolution on October 3, 2008.

The Compact provides a comprehensive management framework for achieving sustainable water use and resource protection. The eight Great Lakes States reached a similar, good faith agreement with Ontario and Québec in 2005, which the Provinces are using to amend their existing water programs for greater regional consistency.

Under the Compact, each member state regulates new or increased withdrawals and diversions in accordance with the Compact. All new or increased diversions are prohibited except as in accordance with the Compact. The default threshold for diversion regulation is 100,000 gallons per day or greater, averaged over a 90-day period. Any new or increased consumptive use of five million gallons per day or greater averaged over a 90-day period will require Council approval. Communities that straddle the Basin boundary will be permitted to use Basin water provided the water is returned to the Basin, "minus an allowance for consumptive use." Intra-Basin transfers of more than 100,000 gallons per day averaged over a 90-day period will require unanimous Council approval. Bulk water removal in any container larger than 5.7 gallons will be treated as a diversion. Each member state may, at their discretion, regulate containers smaller than 5.7 gallons in size. Exceptions to Article 4 withdrawal and diversion limitations will be made for humanitarian, firefighting and emergency response purposes. The Compact bans most diversions outside of the Basin.

The Great Lakes Compact and the Public Trust Doctrine

A great deal of concern has been expressed over the impact of certain provisions of the Great Lakes Compact on surface water and groundwater rights. The concern over groundwater is greater, due to the apparent attempt to expand the public trust doctrine to groundwater.

The concern with respect to water rights focuses on Lines 187–188 of the Great Lakes Compact, which state:

Waters of the Basin are precious public natural resources shared and held in trust by the States (*emphasis added*).

This sentence appears to attempt to exert the Public Trust doctrine over "Waters of the Basin." "Waters of the Basin" are defined as "the Great Lakes and all streams, rivers, lakes, connecting channels and other bodies of water, *including tributary groundwater*, within the Basin" (Lines 178– 180). The Public Trust doctrine, at its core, is the proposition that lands that underlie navigable waters are property of the state, held in trust for the public (see *Illinois Central Railroad v. Illinois*, 146 U.S. 387 (1892)). Only one state supreme court has held that the Public Trust doctrine applies to groundwater—Hawaii (*In re Water Use Permit Applications*, 94 Hawai'i 97, 9 P.3d 409 (2000)). The result in that case hinged on the history of the Kingdom of Hawaii, so is inapplicable in the rest of the country.

Commentators have recognized the impact of the Compact in this regard. "With little fanfare, the Charter and the Compact both recognized that the Public Trust doctrine applies to groundwater as well as surface water" (Scanlan, Sinykin and Krohelski, "Realizing The Promise of the Great Lakes Compact: A Policy Analysis for State Implementation," 8 Vermont Journal of Environmental Law 39, 49 (2006-2007)). "If water is a public trust held by the government for the public benefit, then private ownership of water for primarily a private purpose is precluded and water will need to be managed within the Basin in a way that upholds the public interest and protects the water commons" (Id.).

Given the declaration of the public trust over groundwater in the Basin, concerns about private water rights are understandable. However, the Compact seems to contradict this language in Section 8.1.1 and Section 8.1.4.

> Section 8.1.1. Nothing in this Compact shall be construed as affecting or intending to affect or in anyway interfere with the law of the respective Parties relating to common law Water rights.

Section 8.1.4. "An approval by a Party of the Council under this Compact does not give any property rights...; neither does it authorize any injury to private

property or invasion of property rights..."

This confusion with respect to the effect of the Compact on these rights prompted a State Senator in Ohio to propose legislation that would have Ohio adopt the Compact, but striking the language that attempts to impose a public trust on the water. In the end, a compromise was struck whereby the legislature approved the Compact, but a constitutional amendment was placed on the ballot for the November 2008 election in Ohio. (Senate Joint Resolution No. 8). The proposed amendment (Ohio Issue 3) passed overwhelming, with nearly 72% of the vote. The amendment formalizes the groundwater rights of Ohio residents and states that water cannot be held in trust by a state.

Conclusion

Only time will tell what the impact of the Great Lakes Compact will be on groundwater rights. However, the Compact represents the continuation of a trend where local and state governments attempt to control and restrict the use of groundwater resources. The overwhelming approval of Ohio Issue 3 may temper the zeal of state legislatures, but thus far that has not been the case.

Water Rights and Takings

Introduction

The Fifth Amendment to the United States Constitution states that government shall not take private property for public use without just compensation (Amendment V, United States Constitution). Sometimes a regulation or law so restricts the use of property that the courts will rule that it is a "regulatory taking" (or "taking"). Several recent cases address the takings issue with respect to water rights. This section discusses cases involving surface water as well as groundwater, since the principles are similar.

Takings law provides that one may prove a taking in three different ways. If the governmental action involves a physical invasion or deprives the owner of all economically viable uses of the property, a taking has occurred. We call these two types of takings "categorical takings" because if you prove one of these two conditions, you need not conduct any further analysis. Most takings claims involve the third test, a much more difficult test to meet. Under this test, called the Penn Central balancing test, the court balances the economic impact of the taking on the landowner, the landowner's reasonable investment backed expectations and the character of the governmental activity. This balancing test comes from the United States Supreme Court case of Penn Central Transportation Co. v. New York City, 438 U.S. 104 (1978).

Any takings case is difficult for landowners or water rights holders to win, and takings litigation is extremely costly. However, if given a choice, the plaintiffs would prefer to pursue a case as a physical invasion or loss of all economically viable uses case.

Water Permitting Cases

Two cases address the takings issue in connection with water permitting. *Franco-American Charolaise, Ltd. v. Oklahoma Water*

Resources Board, 855 P.2d 568 (Oklahoma, 1990) involved an appeal from an order of the Oklahoma Water Resources Board which granted a city's amended application to appropriate stream water. The appropriation would have consumed all unused water in the stream.

The Oklahoma Supreme Court held that the Oklahoma riparian owner enjoys a vested common-law right to the reasonable use of the stream. "This right is a valuable part of the property owner's "bundle of sticks" and may not be taken for public use without compensation" (Id., at 571). The court further held that, inasmuch as 60 O.S. 1981 § 60 (the permitting provision at issue), as amended in 1963, limited the riparian owner to domestic use and declared that all other water in the stream becomes public water subject to appropriation without any provision for compensating the riparian owner, the statute violated the takings clause of the Oklahoma Constitution, Art. 2 § 24, Okl. Const.

In Omernik v. State, 64 Wis. 2d 6, 218 N.W.2d 734 (1974), Ray Omernik was charged with several counts of violating a state water permitting statute by the unlawful diversion of other than surplus water from a stream for agricultural irrigation purposes. Omernik had not sought a permit for the diversions. By a judgment of the County Court for Portage County, defendant was convicted on all counts. The Wisconsin Supreme Court held that statute applied to navigable and nonnavigable streams, the permit requirement was not limited to stream-to-stream diversions and the statute did not constitute the taking of property without just compensation. have addressed this issue in the past several years.

Other Cases

In addition to the situations involving state permitting programs, other governmental actions limiting the right of a water rights holder to use water may rise to a level of a taking of private property for public use without just compensation. After decades of little or no activity, several written opinions have addressed this issue in the past several years.

Many state and local governments have taken an increased interest in regulating water use, particularly during droughts. Even in emergency situations, however, a regulatory taking may occur. "Private rights, under such extreme and imperious circumstances, must give way for the time to the public good, but the government must make full restitution for the sacrifice" (*United States v. Russell* (United States Supreme Court, 1871)).

In *Estate of Hage v. United States*, 82 Fed. Cl. 202 (2008), the court found that the Forest Service's construction of fences on federal land around water and streams in which the Hages had a vested water right constituted a physical taking. The fences were constructed in conjunction with the introduction of elk into Table Mountain, Nevada.

McNamara v. City of Rittman, 838 N.E.2d 640, 107 Ohio St.3d 243, 2005 Ohio 6433 (2005), represents a very significant ruling that gives groundwater rights constitutional protection. Landowners filed an action alleging that city's drilling of wells on nearby land, which caused water shortages and poor quality water, violated their due process rights and constituted a taking. The United States District Court for the Northern District of Ohio granted city's motion for summary judgment. (Summary judgement is granted by a court where there are no factual issues in genuine dispute. Since the facts are settled, no need for a jury exists. The judge can rule on the legal issues and resolve the case.)

Landowners appealed. A companion case involved a similar appeal.

The United States Court of Appeals for the Sixth Circuit had not decided the issue of groundwater rights in Ohio before. Water rights are a state law issue, and the final say on state law issues lies with the state supreme court. Federal courts may, when faced with difficult state law issues ask for assistance from the state supreme court by asking "certified questions".

The Sixth Circuit Court of Appeals posed an identical certified question in both cases to the Ohio Supreme Court: "Does an Ohio homeowner have a property interest in so much of the groundwater located beneath the landowner's property as is necessary to the use and enjoyment of the owner's home?" The Ohio Supreme Court agreed to answer the certified question in both cases (102 Ohio St.3d 1420, 2004 Ohio 2003, 807 N.E.2d 365 (2004)). The Ohio Supreme Court held that landowners have a property interest in the groundwater underlying their land, and governmental interference with that right can constitute an unconstitutional taking. The court cited "diverse jurisdictions" that "have held that landowners' rights to groundwater are protected from interference by the government" (McNamara at 646. 107 Ohio St.3d at 248-249).

In *Klamath Irrigation District v. United States*, 67 Fed. Cl. 504, 61 ERC 1385 (2005), users of irrigation water from the Klamath Basin reclamation project brought suit against the United States seeking just compensation under the Fifth Amendment, as well as damages for breach of contract, owing to temporary reductions in 2001 by the Bureau of Reclamation in the amount of project water available for irrigation. Parties filed cross-motions for partial summary judgment. The Court of Federal Claims held that, pursuant to Oregon law, the United States in 1905 obtained property rights to unappropriated water of the Klamath Basin and associated tributaries. Significantly, the court found that the contracts between the United States and water districts for supply of irrigation water from the Klamath Basin reclamation project gave rise to property rights within meaning of Fifth Amendment Takings Clause. However, the proper remedy for their alleged infringement lay in breach of contract claim, not a taking claim.

Tulare Lake Basin Water Storage District v. United States, 49 Fed. Cl. 313, 52 ERC 1658, 31 Envtl. L. Rep. 20, 648 (2001), came to a conclusion different than in the Klamath case. In Tulare, California water users brought suit claiming that their contractually conferred right to the use of water was taken from them when the government imposed water use restrictions under the Endangered Species Act (ESA). Both sides filed motions for summary judgement as to liability. The government argued that the rule applied in the Klamath Irrigation District case, that frustration of a contract expectancy does not constitute a taking, should be applied in this case as well. The Federal Claims court disagreed, finding that the rule does not apply where the right to use water was taken when the government imposed water use restrictions under the ESA. The restrictions effected a physical, rather than regulatory, taking of property in the case of water users who had contract rights entitling them to the use of a specified quantity of water. The plaintiffs' motion for summary judgment was granted and the defendant's motion denied.

Crookson Cattle Co. v. Minnesota Department of Natural Resources, 300 N.W.2d 769 (Minn. 1980) involved a challenge by a cattle company and its sole owner against a Department of Natural Resources Commissioner's order which granted a city a permit to pump water from a site 12 miles from city. The cattle company applied for a permit to pump the same water, but was denied. The cattle company claimed a taking, but the court found that the claim was premature and that the Commissioner's order was not an unconstitutional taking without compensation. In addition, the order did not violate Water Appropriation Law or provisions within Environmental Policy Law. Finally, the order was supported by substantial evidence and was not arbitrary or capricious.

The court compared regulation of water use to zoning. "Like zoning legislation, legislation which limits or regulates the right to use underlying water is permissible... Where regulation operates to arbitrate between competing public and private land uses, however, as does the water priority statute in this case, such legislation is upheld even where the value of the property declines significantly as a result" (*Crookson Cattle Co. v. Minnesota Department of Natural Resources*, 300 N.W.2d 769, 774 (Minn. 1980)).

Casitas

The United States Court of Appeals for the Federal Circuit recently decided an extremely important takings case involving water (*Casitas Municipal Water District v. United States*, 708 F.3d 1340 (2013)). Although the case involves surface water, the principles could apply to groundwater as well. The case bounced between the Federal Claims Court (the trial court) and the Court of Appeals (the appellate court) for several years before a final resolution was reached in 2013.

Pursuant to the Endangered Species Act, the United States ordered Casitas to install a fish ladder and divert some of its surface water to the ladder to protect an endangered species of fish. Casitas filed suit, claiming that the diversion was a taking of its water rights without just compensation.

Casitas conceded that it could not prove a deprivation of all economically viable uses, nor could it prove a regulatory taking under the Penn Central balancing test (Penn Central Transportation Co. v. New York City, 438 U.S. 104 (1978)). The trial court ruled that the required installation of the fish ladder and the required diversion of water did not amount to a physical taking (Casitas Mun. Water Dist. v. United States, 76 Fed.Cl. 100 (2007)). On appeal, the Court of Appeals for the Federal Circuit reversed, finding that the action amounted to a physical taking, and sent the case back to the Federal Claims Court for reconsideration (Casitas Mun. Water Dist. v. United States, 543 F.3d 1276 (Fed.Cir.2008), reh'g and reh'g en banc denied, 556 F.3d 1329 (Fed.Cir.2009)).

Upon reconsideration, the Federal Claims Court found that the lawsuit was not yet "ripe" (meaning that Casitas had filed the lawsuit too early) because Casitas had not had to turn away any customers (*Casitas Mun. Water Dist. v. United States*, 102 Fed.Cl. 443 (2011). The nature of water rights in California played a key role in the case. A water right in California (as in many states) means that the rights holding has the right to beneficial use of the water. The court reasoned that since customers had not been turned away, Casitas had not yet been denied beneficial use of the water.

The case was again appealed to the United States District Court of the Federal Circuit (by both parties). The government, along with some environmental groups filing friend-of-court briefs, urged the court to find that the public trust doctrine meant that no regulatory taking could occur. The Court of Appeals rejected this argument and affirmed the decision of the Federal Claims Court, leaving all parties unsatisfied (*Casitas Municipal Water District v. United States*, 708 F.3d 1340 (2013)).

The United States decided not to appeal the Casitas case, although the Obama administration, at the urging of environmental groups, seriously considered an appeal at several stages. The holding remains law in the Federal Circuit. However, uncertainty remains as to whether the ruling will stand the test of time. Inevitably, water rights and takings will conflict in other courts. Those rulings may or may not agree with the ruling in *Casitas*. Eventually, a case will need to make its way to the United States Supreme Court to resolve the issue.

Texas Cases

A pair of recent Texas cases show that regulatory takings of water rights may occur more often than previously assumed. Although the cases are binding only in Texas, the rulings may influence courts in other states, and garnered national attention.

First, the Supreme Court of Texas, in *Edwards Aquifer Authority v. Day*, 369 S.W.3d 814 (Sup. Ct. Texas 2012), found that land ownership includes an interest in "groundwater in place" that cannot be taken for public use without just compensation under the Texas Constitution. The court compared groundwater to oil and gas, and found no reason not to treat groundwater as similar to oil and gas. The court then returned the case to the trial court to gather sufficient facts to determine whether a regulatory taking had occurred.

About a year and a half after Day was decided, the Texas Court of Appeals was presented with a case where the trial court had found a regulatory taking, applying the *Penn Central* balancing test. In this case, a pecan grower had applied for permits to withdraw groundwater to irrigate his pecan trees. The Edwards Aquifer Authority denied one permit outright and granted a permit allowing withdrawal of a portion of the water requested by the pecan grower. The pecan grower filed a lawsuit, claiming a regulatory taking. The trial court found that a regulatory taking had occurred, and awarded damages. On appeal, the Court of Appeals of Texas affirmed the finding of a regulatory taking (Edwards Aquifer Authority v. Bragg, 421 S.W.3d 118 (Tex. Ct. App. 2013). In addition, the court ruled that when a regulatory taking has been found in this situation, damages are calculated by subtracting the value of the real estate before the permit denial from the value of the property after the permit denial. On April 29, 2016, the Supreme Court of Texas decided not to hear the appeal in the Bragg case, so the decision will stand.

Conclusions

After decades of very few regulatory takings cases that address the issue in the context of water rights, a flurry of cases has been decided the past ten years. Despite these decisions, much uncertainty exists as to the analysis of takings in the water rights context. The trends seem to indicate that courts are more likely to reign in governments that attempt to limit private water rights. In any case, challenges to government regulation remain extremely difficult and costly.

The States

Alabama

In several decisions, the Alabama Supreme Court has held that the state follows the rule of Reasonable Use for groundwater. In Martin v. City of Linden, a landowner attempted to enjoin the defendant city from drilling a well on land adjacent to the landowner's farm (Martin v. City of Linden, 667 So. 2d 732 (Ala. 1995)). The specific question was whether the city could drill a permanent well on a one-acre tract of land it owned outside its municipal limits, and pump water by pipeline at an estimated rate of 500,000 gallons per day to the city, located 15 miles away. The court held that the landowner would suffer irreparable injury and therefore the city's action was unreasonable. The Reasonable Use rule was formally adopted by Alabama in Adams v. Lang as controlling disputes over underground water (Adams v. Lang, 553 So. 2d 89 (Ala. 1989)). In addition, the Alabama Supreme Court has applied nuisance law in a situation where withdrawals of groundwater caused subsidence to adjoining properties (Henderson v. Wade Sand & Gravel Co., 388 So.2d 900 (Ala. 1980)).

No statutory provisions regulate groundwater withdrawals in Alabama. However, certain water users must register and report their use (Ala. Code §§ 9-10B-1 to 9-10B-30). These groups include public water systems; persons who divert, withdraw or consume more than 100,000 gallons of water on any day from waters of the state; and persons who have the capacity to use 100,000 gallons of water on any day for purposes of irrigation (Ala. Code § 9-10B-20). Additionally, the Alabama Water Resources Commission has the authority to declare "capacity stress areas" (Ala. Code § 9-10B-21). If such an area is designated, then the Commission may restrict uses in those locations (Id.).

The Alabama legislature created the Permanent Joint Legislative Committee on Water Policy and Management in the spring of 2008. The committee is made up of seven members each from the House and Senate. The committee is to report to the Alabama Legislature at its regular sessions. The group's duties include recommending a water management plan that expands the availability of water to meet Alabama's current and future needs, developing conservation programs and identifying areas where more research is needed.

Alaska

Alaska is one of several western states that apply Prior Appropriation to ground and surface water.

> Alaska Stat. §§ 46.15.030, 46.15.165 and 46.15.166 (Michie 1991 & Supp. 1992) Sec. 46.15.030. Water reserved to the people.

> Wherever occurring in a natural state, the water is reserved to the people for common use and is subject to appropriation and beneficial use and to reservation of instream flows and levels of water, as provided in this chapter.

To obtain water rights in Alaska, landowners must file an application with the Alaska Department of Natural Resources (http://dnr.alaska.gov/mlw/ water/wrfact.htm). See also Alaska Stat. § 46.15.040. Once the application is processed, a permit will be issued to drill a well or divert the water. Once the full amount of water that a landowner can use beneficially has been established, a certificate of appropriation will be issued. The duration of the water right is perpetual as long as the water use and quantity remain the same. The Commissioner has the authority to declare a "critical water management area" upon a finding that a water shortage does or will exist. Water uses in these areas may be restricted (11 AAC §§ 93.500 to .540).

A search of Alaska case law fails to reveal any relevant precedent. One case of some note is Trillingham v. Alaska Housing Authority. In Trillingham, a landowner sued for damages and to enjoin defendant from allegedly polluting and reducing plaintiff's supply of percolating waters. The court held that the mere claim of reduction of water supply does not constitute a cause of action. "Nor does the allegation of diminution of supply suffice to constitute a claim because percolating waters, being a part of the freehold, may, generally speaking, be used by the owner as he sees fit" (Trillingham v. Alaska Hous. Auth., 109 F. Supp. 924 (D. Alaska. Terr. 1 Div. 1953)).

Arizona

In Arizona, the Reasonable Use doctrine applies to groundwater, except for several exceptions created by the 1980 Groundwater Management Act (Ronald Kaiser and Frank Skillern, *Deep Trouble: Options for Managing the Hidden Threat of Aquifer Depletion in Texas*, 32 Tex. Tech. L. Rev. 249 (2001)). See also, *Town of Chino Valley v. State Land Dep't*, 580 P.2d 704, 709 (Ariz. 1978) (discussing application of Reasonable Use rule in Arizona). The 1980 law provided three possible designations for land: nonregulated, non-irrigation expansion and active management areas (*Id.*).

In non-regulated areas, groundwater is considered the property of the landowner (*Id*.). When the Groundwater Code does not apply, Arizona follows the rule of Reasonable Use (*Bristor v. Cheatham*, 255 P. 2d 173 (Ariz. 1953)). Currently, three irrigation non-expansion and five active management areas exist (http://www.azwater.gov/AzDWR/ WaterManagement/AMAs/). Within those areas, the state requires permits for water withdrawals. Exceptions to the permit requirement include withdrawals for nonirrigation use from wells with a maximum pump capacity not exceeding 35 gallons per minute (A.R.S. § 45-454(A) and (B)). Non-irrigation use is defined to include growing crops on 2 acres of land or less (A.R.S. § 45-402(23)(a)). Certain existing water rights within these areas may fall under the protection of the grandfather provisions of the Act (A.R.S. § 45-462).

Two recent cases in Arizona clarify water rights in that state, while a third, the most recent, seems to create uncertainty. First, in *Brady v. Abbott Laboratories*, 433 F.3d 679 (9th Cir. 2005), the Bradys (pecan farmers) filed suit against Abbott Laboratories. Abbott pumped large amounts of groundwater, which lowered the groundwater table on the Brady property by 16 feet. The lowering of the groundwater table killed the pecan trees on the property.

Abbott obtained a de-watering permit from the state in order to dewater, conduct excavation and expand its facilities. Abbott encountered more water than anticipated and pumped more water than allowed under the permit. The court found that Abbott's withdrawal of groundwater was for an improvement of the land, and therefore was a beneficial use under the Reasonable Use rule. The court noted that Abbott did not withdraw water to use on land other than the land from which it was pumped, so lift was not involved. In *Strawberry Water Company v. Paulsen*, 207 P.3d 654, 25, Ariz. App. Div. 1, (2008), an Arizona Appellate Court found that groundwater rights are real property rights subject to constitutional protections, joining the Ohio Supreme Court and others. In this case, a water company brought action against pond owners for conversion and utility tampering after company discovered that pond owners connected a pipe to the water company's line to supply pond. Pond owners filed cross-claim against vendors.

The court noted that groundwater rights must be distinguished from rights to groundwater after it has been pumped. A groundwater right is a right to use, not own, the groundwater. *Town of Chino Valley v. City of Prescott*, 131 Ariz. 78, 82, 638 P.2d 1324, 1328 (1981). See also, *Phelps Dodge Corp. v. Ariz. Dep't of Water Res.*, 211 Ariz. 146, 149 n. 2, ¶ 13, 118 P.3d 1110, 1113 n. 2 (App. 2005). Meanwhile, there is a separate personal property right to the water itself only when it is possessed and controlled.

Finally, *Davis v. Agua Sierra Resources*, L.L.C., 220 Ariz. 108, 203 P.3d 506, 553 Ariz. Adv. Rep. 32 (2009) is a confusing case that creates uncertainty as to water rights, Arizona adheres to the "reasonable use" rule for groundwater, but uses the Prior Appropriation doctrine for surface water. This case involves groundwater rights.

In a 1981 deed, Chino Ranch, Inc. (Chino Ranch) conveyed a parcel of land known as CT Ranch, reserving all mineral rights and "commercial water rights." (*Id.*, 203 P.3d at 507). The grantee, Red Deer Cattle, Inc. (Red Deer), then conveyed the property to Davis. That deed also purported to reserve to the grantor all "commercial water rights and waters incident and appurtenant to and within the real property," but provided that the grantee could use water for "ranch, livestock and domestic and agriculturally related purposes" (*Id.*). Chino Ranch and Red Deer had merged prior to the grant to Davis. Nineteen years later, Davis granted an option to purchase the property to the City of Prescott. The property was appraised at \$23 million, of which \$18–\$21 million was attributable to the water rights (*Id.*). Due to uncertainty about the water rights, Prescott failed to exercise the option.

Davis then filed a complaint against all holders of the purported commercial water rights ("Agua Sierra"). On cross motions for summary judgment, the trial court held that reservation was invalid and granted summary judgment for Davis. The court found that there is no right of ownership of groundwater in Arizona prior to its capture and withdrawal (Id., at 508). Upon appeal by Agua Sierra, the court of appeals vacated the trial court's judgment. The court held that Arizona law allows a grantor to reserve rights to the water beneath the land conveyed (Id.). Davis appealed to the Supreme Court of Arizona.

The Supreme Court of Arizona discussed the reasonable use doctrine and the Arizona Groundwater Management Act (GMA). The CF Ranch is not within an Active Management Area (AMA) under the GMA, so is not subject to the extraction and use limits applicable to AMAs (*Id.*, at 508–509). The GMA expressly allows extraction of water from areas adjacent to AMAs and transport to AMAs (Id., at 509). The court noted that the GMA does not recognize the existence of "commercial water right[s]" in groundwater (Id.). The court held that "Arizona law does not recognize a real property interest in the potential future use of groundwater that has never been captured and applied to reasonable use" (Id., at 510). Relying mainly on the language of the GMA, which requires the consent of the "landowner" for transport of water from outside an AMA to inside the AMA, the court further found that this "potential future use" is not severable (Id., at 511).

The Supreme Court of Arizona did not cite *Strawberry* in the *Agua Sierra* ruling. However, since The Supreme Court of Arizona is the highest court in the state, the ruling likely makes *Strawberry* invalid.

Chapter 2 – Groundwater Code

45-401. Declaration of policy

A. The legislature finds that the people of Arizona are dependent in whole or in part upon groundwater basins for their water supply and that in many basins and sub-basins withdrawal of groundwater is greatly in excess of the safe annual yield and that this is threatening to destroy the economy of certain areas of this state and is threatening to do substantial injury to the general economy and welfare of this state and its citizens. The legislature further finds that it is in the best interest of the general economy and welfare of this state and its citizens that the legislature evoke its police power to prescribe which uses of groundwater are most beneficial and economically effective.

B. It is therefore declared to be the public policy of this state that in the interest of protecting and stabilizing the general economy and welfare of this state and its citizens it is necessary to conserve, protect and allocate the use of groundwater resources of the state and to provide a framework for the comprehensive management and regulation of the withdrawal, transportation, use, conservation and conveyance of rights to use the groundwater in this state.

Arkansas

Some confusion exists over which doctrine governs groundwater withdrawals in Arkansas. Support for both the Reasonable Use rule and the Correlative Rights theory can be found in the common law (see *Lingo v. City of Jacksonville*, 258 Ark. 63, 66 (Ark. 1975); *Jones v. Oz-Ark-Val Poultry Co.*, 228 Ark. 76, 306 S.W.2d 111 (1957)). However, Arkansas appears to have adopted a Reasonable Use regime.

In Lingo v. City of Jacksonville, a city purchased several parcels of land where it constructed five water wells. Water was pumped several miles to the city to supplement its water supply for sale to its customers. Appellants were homeowners, farmers and a manufacturer within the same watershed who depended upon their wells for their water supply. The chancellor's order enjoined the city from pumping more than 650 gallons per minute from any of the five individual water wells, in excess of eight hours during any twentyfour hour period. "As to water rights of riparian owners, this State has adopted the Reasonable Use rule. We see no good reason why the same rule should not apply to a true subterranean stream or to subterranean percolating waters" (Lingo v. City of Jacksonville, 258 Ark. 63, 66 (Ark. 1975). See also, Harris v. Brooks, 225 Ark. 436, 283 S.W. 2d 129 (Ark. 1955); Harrell v. City of Conway, 224 Ark. 100, 271 S.W.2d 924 (Ark. 1954). ("In all our consideration of the reasonable use theory as we have attempted to explain it, we have accepted the view that the benefits accruing to society in general from a maximum utilization of our water resources should not be denied merely because of the difficulties that may arise in its application. In the absence of legislative directives, it appears that this rule or theory is the best that the courts can devise.")

The Arkansas Groundwater Protection and Management Act (Arkansas Code §§ 15-22-901, et seq.) controls groundwater withdrawals from "critical groundwater areas". Within those areas, only wells with a maximum potential flow rate of 50,000 or more gallons per day require permits (Arkansas Code § 15-22-905(3)). "[W]ithdrawals of groundwater from individual household wells used exclusively for domestic use" are exempt from the act (Arkansas Code § 15-22-905(4)). The statute defines "domestic use" as use for "ordinary household purposes including human consumption, washing, the watering of domestic livestock, poultry and animals and the watering of home gardens for consumption by the household" (Arkansas Code § 15-22-903). Existing uses may be protected by the statute's grandfather provision (Arkansas Code § 15-22-910).

California

California follows the doctrine of Correlative Rights when regulating groundwater (*Katz v. Walkinshaw*, 141 Cal. 116, 70 P. 663 (1902), 74 P. 766 (1903)). Within the framework of the doctrine, the state adheres to the following priority: 1) overlying rights—absolute right to withdraw water beneath the land; 2) appropriative rights—taking of any water for other than riparian or overlying use; and 3) prescriptive rights—rights against either overlying or appropriative holders through adverse possession. Percolating groundwater does not fall within the state's permit and license system.

State regulation of groundwater was very limited until the passage of the California Sustainable Groundwater Management Act in 2014, which became effective on January 1, 2015. Due to the absence of statewide regulation prior to this act, some water districts, as well as some local governments, regulate groundwater pursuant to either general or special acts of the legislature.

The California Sustainable Groundwater Management Act (California Water Code, Division 6, Part 2.74, §§ 10720, et seq.) was passed in the wake of one of the most severe droughts in the history of the state. The Act requires the formation of local groundwater sustainability agencies (GSAs) that must assess conditions in their local water basins and adopt locally-based management plans. Under the act, GSAs are given 20 years to implement plans and achieve long-term groundwater sustainability. California Water Code § 10720.5(b) purports to protect existing surface water and groundwater rights, and the Act claims to not impact current drought response measures. However, much uncertainty exists at this time with respect to the impact that the Act may have on water rights in California.

California Water Code

§§ 100, 102 and 113

100. It is hereby declared that because of the conditions prevailing in this State the general welfare requires that the water resources of the State be put to beneficial use to the fullest extent of which they are capable, and that the waste or unreasonable use or unreasonable method of use of water be prevented, and that the conservation of such water is to be exercised with a view to the reasonable and beneficial use thereof in the interest of the people and for the public welfare. The right to water or to the use or flow of water in or from any natural stream or watercourse in this State is and shall be limited to such water as shall be reasonably required for the beneficial use to be served, and such right does not and shall not extend to the waste or unreasonable use or unreasonable method of use or unreasonable method of diversion of water.

102. All water within the State is the property of the people of the State, but the right to the use of water may be acquired by appropriation in the manner provided by law.

113. It is the policy of the state that groundwater resources be managed sustainably for long-term reliability and multiple economic, social, and environmental benefits for current and future beneficial uses. Sustainable groundwater management is best achieved locally through the development, implementation, and updating of plans and programs based on the best available science.

A recent case reexamines the application of the public trust doctrine to groundwater in California. The question presented in Environmental Law Foundation v. State Water Resources Control Board, 2014 WL 8843074 (Cal.Super. (Trial Order) Super. Ct., Sacramento County 2014), is whether the public trust doctrine applies to "groundwater so hydrologically connected to a navigable river that its extraction harms trust uses of the river". The case involves the Scott River. The plaintiffs assert that the river has experienced decreased flows due to groundwater pumping.

The court ruled in favor of the plaintiffs. The matter is now pending and the plaintiffs must show the actual impact of groundwater pumping on the river. However, if the court's ruling is upheld, well permits in California would have to consider the impact of the groundwater withdrawals on navigable waters.

Colorado

Colorado regulates groundwater under a code that is not identical to, but is based on, its surface water regime (Col. Rev. Stat. Ann §§ 37-90-101 to 37-90-142 (West 1990)). Colorado classifies groundwater as (a) tributary, (b) nontributary or (c) nondesignated, nontributary (Colorado Ground Water Management Act, Colo. Rev. Stat. §§ 37-90- 101 *et seq.*; Water Right Determination and Administration Act of 1969, Colo. Rev. Stat. §§ 37-92-101 *et seq.*). The rule of Prior Appropriation governs tributary groundwater in Colorado. Groundwater that is neither hydrologically connected nor minimally connected to any surface stream is considered nontributary and does not fall within the doctrine of Prior Appropriation but is regulated by statute (Park County Sportsmen's Ranch LLP v. Bargas, 986 P.2d 262 (Colo. 1999)). See also, State v. Southwestern Colo. Water Conserv. Dist., 671 P.2d 1294 (Colo. 1983). The right to withdraw nontributary groundwater is based upon overlying land ownership with no diversion requirement and with available quantity determined by a one hundred year aquifer life expectancy (Colo. Rev. Stat. § 37-90-103(10.5)). However, such right is contingent upon being granted a permit or court decree (Bayou Land Co. v. Talley, 924 P.2d 136 (Colo. 1996); Chatfield East Well Co., Ltd. v. Chatfield East Property Owner's Ass'n, 956 P.2d 1260 (Colo. 1998)). Applications for appropriation of designated groundwater are made to the Colorado Ground Water Commission (Colo. Rev. Stat. § 37-90-107(1)). Nondesignated, nontributary groundwater appropriations are allocated on the basis of land ownership.

Title 37 – Water and Irrigation

Article 90 – Underground Water

(1) It is declared that the traditional policy of the state of Colorado, requiring the water resources of this state to be devoted to beneficial use in reasonable amounts through appropriation, is affirmed with respect to the designated groundwaters of this state, as said waters are defined in section 37-90-103(6). While the doctrine of prior appropriation is recognized, such doctrine should be modified to permit the full economic development of designated groundwater resources. Prior appropriations of groundwater should be protected and reasonable

groundwater pumping levels maintained, but not to include the maintenance of historical water levels. All designated groundwaters in this state are therefore declared to be subject to appropriation in the manner defined in this article.

(2) The general assembly finds and declares that the allocation of nontributary groundwater pursuant to statute is based upon the best available evidence at this time. The general assembly recognizes the unique, finite nature of nontributary groundwater resources outside of designated groundwater basins and declares that such nontributary groundwater shall be devoted to beneficial use in amounts based upon conservation of the resource and protection of vested water rights. Economic development of this resource shall allow for the reduction of hydrostatic pressure levels and aquifer water levels consistent with the protection of appropriative rights in the natural stream system. The doctrine of prior appropriation shall not apply to nontributary groundwater. To continue the development of nontributary groundwater resources consonant with conservation shall be the policy of this state. Such water shall be allocated as provided in this article upon the basis of ownership of the overlying land. This policy is a reasonable exercise of the general assembly's plenary power over this resource.

The Colorado Supreme Court decided a very important case in 2009 involving the large amounts of groundwater used in coalbed methane production. In *Vance v. Wolfe,* 205 P.3d 1165 (2009), a group of ranchers filed suit against coalbed methane producers. The ranchers held priority water rights in the same aquifer that the coalbed

methane operators were producing. The ranchers alleged that the coalbed methane operators' use of water interfered with their priority rights.

Coalbed methane natural gas is naturally absorbed on the internal surface of coal while in the ground. Groundwater fills the cleats of the coal and the hydrostatic pressure keeps the methane in place. Coalbed methane is produced in the area by drilling wells 2,000–3,000 feet below the surface and pumping the groundwater. The removal of the water reduces the hydrostatic pressure, bringing the methane gas to the surface. The water that was removed is generally later reinjected with underground injection control wells into formations that lie deeper than the aquifer from which the methane was produced.

The key question in the case involved whether the extraction of the water in coalbed methane production constituted a "beneficial use," which requires a permit and priority water rights. "Beneficial use is defined under Colorado law as "the use of that amount of water that is reasonable and appropriate under reasonably efficient practices to accomplish without waste the purpose for which the appropriate is lawfully made" Colo. Rev. Stat. § 37-92-103(4).

The coalbed methane operators (and the State Engineer) argued that the groundwater was an unwanted byproduct of the process and therefore "beneficial use" did not exist. The court disagreed, holding that the operators "used" the water, by extracting it from the ground, to "accomplish" the "purpose" of releasing methane gas. Therefore, coalbed methane operators must obtain priority water rights and a permit to withdraw the water.

Connecticut

The Connecticut legislature passed a comprehensive permitting process covering groundwater and surface water in 1982 (Conn. Gen. Stat. §§ 22a-366, *et seq*.). Diversions prior to July 1, 1982 and registered prior to July 1, 1983 are grandfathered (Conn. Gen. Stat. § 22a-368). In addition, limited exemptions include withdrawals where the maximum draw fails to exceed 50,000 gallons within a 24hour period (Conn. Gen. Stat. § 22a-377(a) (2)).

The permit regime includes general permits for where the activity would cause minimal environmental effects when conducted separately and would cause only minimal cumulative environmental effects, and will have no adverse effects on certain existing uses (Conn. Gen. Stat. § 22a-378a(a)). Permits may be temporarily suspended or altered in emergencies (Conn. Gen. Stat. § 22a-378(a)).

Commentators debate whether Connecticut retains common law water rights. *City of Waterbury v. Town of Washington*, 260 Conn. 506, 800 A.2d 1102 (2002) contains an extensive analysis but fails to resolve the issue. If common law rights survive, Connecticut applies the Absolute Dominion rule (*Roath v. Driscoll*, 20 Conn. 533 (1850)).

General Statutes of Connecticut

Title 22a

Environmental Protection

Chapter 4461 Water Resources

Sec. 22a-367. Definitions. As used in sections 22a-365 to 22a-378, inclusive

(9) "Waters" means all tidal waters, harbors, estuaries, rivers, brooks, watercourses, waterways, wells, springs, lakes, ponds, marshes, drainage systems and all other surface or underground streams, bodies or accumulations of water, natural or artificial, public or private, which are contained within, flow through or border upon this state or any portion thereof.

Delaware

Delaware applies a Reasonable Use rule for groundwater. In *MacArtor v. Graylan Crest III Swim Club*, Inc., a swim club was sued to prevent it from using a deep well to the detriment of plaintiff's shallow well. The Court of Chancery held that under the circumstances, defendant swimming club would be enjoined from use of its deep well to fill its swimming pool, unless certain conditions were met.

In *MacArtor*, the court recognized the difficulty of allocating groundwater. "This case raises in capsule form very important problems of allocation of rights in percolating water. It is not susceptible of an easy solution, because the controlling test is objective reasonableness" (MacArtor v. Graylan Crest III Swim Club, Inc., 187 A.2d 417 (Del. Ch. 1963)). The court went on to provide its description of "reasonableness." "The doctrine of 'reasonable user' commends itself here. This rule permits the court to consider and evaluate the various factors on both sides and arrive at an 'accommodation' of the conflicting rights, if that is feasible. It also permits the court to consider the intentions of the offending party and his actions subsequent to the discovery of the consequences of his use of the water" (*Id.*, at 419).

However, any withdrawal of groundwater or surface water requires a permit (7 Del. Code Ann. § 6003(a)(3)). Very limited exemptions apply certain uses of surface water, mostly involving limited rights to damming (Del. Code Ann. § 6029). Agricultural irrigation wells may automatically receive permits if certain detailed conditions are met (Del. Code Ann. § 6010(h); Del. Admin. Code § 7303(5.6)(1)).

Florida

Florida uses a unique system of groundwater rights. The state legislature adopted a comprehensive water use and management statute in 1972 (Water Resources Act of 1972, Chapter 373 of the Florida Statutes). The statutes set out a twotier administrative structure. Five independently functioning water management districts carry out the day-today functions under the system. At the state level, the Department of Environmental Regulation (DER) administers the Act. DER delegates regulation of water wells (Fla. Stat. ch. 373, Part III) and consumptive use permitting (Fla. Stat. ch. 373, Part II). Only domestic consumption of water by individuals is exempted from the permit requirements.

The Florida Supreme Court ruled that the Act terminated common-law rights in groundwater and surface water (Village of Tequesta v. Jupiter Inlet Corp., 371 So.2d 663 (Fla.), cert. denied, 444 U.S. 965 (1979)). Although the Tequesta case found that no water right exists without a permit, subsequent cases have pulled back from that conclusion somewhat. For example, in Shick v. Florida Department of Agriculture, 504 So.2d 1318 (Fla. 1987), landowners brought an inverse condemnation action against the Department for negligently contaminating landowners' groundwater in privately owned wells. The court distinguished Tequesta, noting that the landowners were deprived of the use of *existing* water in their well and pipes. Therefore, the court found that the landowners had a property right in that *existing* water.

In 2016, increasing concerns about reliance on the Floridian Aquifer for water supply in Central Florida, the state legislature adopted Fla. Stat. § 373.0465. This provision creates the Central Florida Water Initiative, a collaborative process among state agencies, water management districts in central Florida, regional public water supply utilities, and others. The initiative seeks to form a framework to address the long-term water supply needs of Central Florida while preventing harm to water resources (in particular, the Floridian aquifer). Subsection (d) of the statute provides that: "Developing water sources as an alternative to continued reliance on the Floridan Aquifer will benefit existing and future water users and natural systems within and beyond the boundaries of the Central Florida Water Initiative."

Florida Statutes

Title XXVIII – Natural Resources; Conservation, Reclamation, and Use

Part II – Permitting Of Consumptive Uses of Water

373.223 Conditions for a permit.

(1) To obtain a permit pursuant to the provisions of this chapter, the applicant must establish that the proposed use of water:

(a) Is a reasonable-beneficial use as defined in s. 373.019;

(b) Will not interfere with any presently existing legal use of water; and (c) Is consistent with the public interest.

373.019 Definitions.

When appearing in this chapter or in any rule, regulation, or order adopted pursuant thereto, the following words shall, unless the context clearly indicates otherwise, mean:

(16) "Reasonable-beneficial use" means the use of water in such quantity as is necessary for economic and efficient utilization for a purpose and in a manner which is both reasonable and consistent with the public interest

Georgia

Georgia uses the common law Absolute Dominion rule for groundwater. So long as the withdrawer is not motivated by malice, the landowner may withdraw as much water as he pleases (*St. Amand v. Lehman*, 120 Ga. 253 (1904)). The Groundwater Use Act of 1972 (O.C.G.A. sections 12-5-90 to 12-5-107) modifies this rule to some degree by requiring a permit to "withdraw, obtain or utilize" more than 100,000 gallons of groundwater per day "for any purpose" (O.C.G.A. section 12-5-96(c)(4)).

Code of Georgia

Title 12. Conservation and Natural Resources

Chapter 5. Water Resources

Article 3. Wells and Drinking Water

Part 2. Ground-Water Use Generally

12-5-91 Declaration of policy.

The general welfare and public interest require that the water resources of the state be put to beneficial use to the fullest extent to which they are capable, subject to reasonable regulation in order to conserve these resources and to provide and maintain conditions which are conducive to the development and use of water resources.

Georgia adopted a State Water Plan in early 2008. The plan divides the state into ten regional water planning councils by political boundaries adopted from the Councils of Government. The plan does not directly affect water rights, but may prove important in the future. The first phase of the plan requires an assessment of state water resources.

Hawaii

Hawaii Constitution Art. 11, § 7

The State has an obligation to protect, control and regulate the use of Hawaii's water resources for the benefit of its people. The legislature shall provide for a water resources agency which, as provided by law, shall set overall water conservation, quality and use policies; define beneficial and reasonable uses; protect ground and surface water resources, watersheds and natural stream environments; establish criteria for water use priorities while assuring appurtenant rights and existing correlative and riparian uses and establish procedures for regulating all uses of Hawaii's water resources.

Hawaii has applied the Correlative Rights approach to groundwater in previous cases. *In the Matter of Water Use Permit Applications,* 94 Haw. 97, 9 P3d 409 (2000) involved a contested hearing related to a ditch system for collecting fresh surface water and dike-impounded groundwater. In its decision, the Supreme Court of Hawaii stated that "[T]his state continues to recognize the 'correlative rights rule.'" The court went on to caution that "groundwater rights have never been defined with exactness and the precise scope of those rights have always remained subject to development."

Groundwater withdrawals are further restricted in water management areas (Haw. Rev. Stat. Ann. § 174C-44). All new uses within a water management district must obtain a permit prior to initiation of the use, and existing uses must have obtained a permit by July 1, 1987 or within one year of the designation of the area., whichever is later (Haw. Rev. Stat. Ann. § 174C-44). "Domestic consumption for individual users" is exempted from the permit requirement (Haw. Rev. Stat. Ann. § 174C-48(a)).

In the Matter of Water Use Applications, 94 Haw. 97, 9 P.3d 409 (2000), the Hawaii Supreme Court held that a doctrine similar to the Public Trust doctrine applies to groundwater. This ruling makes Hawaii the first and thus far only state to so hold. However, the unique history and legal origins of the Kingdom of Hawaii, relied on heavily by the court, make it unlikely that other courts will follow suit. In addition, the court favorably cited the California Court's ruling in National Audubon Society v. Superior Court, 33 Cal.3d 419, cert. denied, 464 U.S. 977 (1983) in deviating from the mainstream understanding of the public trust doctrine. The Hawaii Supreme Court reaffirmed the application of the public trust to groundwater in two recent cases: In re Wai Ola O Molokai and Molokai Ranch, 103 Haw. 401, 83 P.3d 664 (2004); In re Waiahole (II), 105 Haw. 1, 93 P.3d 643 (2004).

Idaho

Idaho has declared groundwater to be property of the state and subject to Prior Appropriation rules (Idaho Code sections 42-103 and 42-229; Idaho Code § 42-226 (Michie 1996)). Subject to beneficial use in reasonable amounts, landowners seeking to make withdrawals must receive a permit (Idaho Code § 42-217 (Michie 1996)). Conflicts are determined based on the doctrine of "first in time is first in right" (Idaho Code § 42-106 (Michie 1996)). One exception to this rule exists: a "beneficial use" right to groundwater may still be established for domestic purposes. These beneficial use rights are exempt from permit requirements (https:// www.idwr.idaho.gov/files/water-rights/ water-rights-brochure.pdf) (2015).

Title 42

Irrigation and Drainage – Water Rights and Reclamation

Chapter 1 Appropriation of Water – General Provisions 42-106. Priority. As between appropriators, the first in time is first in right.

Chapter 2

Appropriations of Water – Permits, Certificates, and Licenses – Survey

42-226. Groundwaters Are Public Waters. The traditional policy of the state of Idaho, requiring the water resources of this state to be devoted to beneficial use in reasonable amounts through appropriation, is affirmed with respect to the groundwater resources of this state as said term is hereinafter defined and, while the doctrine of "first in time is first in right" is recognized, a reasonable exercise of this right shall not block full economic development of underground water resources. Prior appropriators of underground water shall be protected in the maintenance of reasonable groundwater pumping levels as may be established by the director of the department of water resources as herein provided. In determining a reasonable groundwater pumping level or levels, the director of the department of water resources shall consider and protect the thermal and/or artesian pressure values for low temperature geothermal resources and for geothermal resources to the extent that he determines such protection is in the public interest. All groundwaters in this state are declared to be the property of the state, whose duty it shall be to supervise their appropriation and allotment to those diverting the same for beneficial use.

This act shall not affect the rights to the use of groundwater in this state acquired before its enactment. Any application for a water permit that seeks to transfer groundwater outside the immediate groundwater basin as defined by the director of the department of water resources for the purpose of irrigating five thousand (5,000) or more acres on a continuing basis or for a total volume in excess of ten thousand (10,000) acre feet per year, the application must first be approved by the director of the department of water resources and then by the Idaho legislature. Each shall give due consideration to the local economic and ecological impact of the project or development so proposed.

Illinois

Illinois is a party to the Great Lakes Compact. See the section describing the impact of the Great Lakes Compact on water rights.

The Illinois Water Use Act modified Illinois law by rejecting the Absolute Dominion doctrine for groundwater and replacing it with Reasonable Use doctrine based upon the riparian doctrine followed with regard to surface water (Water Use Act of 1983, 525 Ill. Comp. Stat. Ann. 45/3(c); Bridgeman v. Sanitary Dist., 164 Ill. App.3d 287, 517 N.E. 2d 309 (1987)). The Act does not require a permit for withdrawals. However, during water emergencies, local soil and water conservation districts may recommend restrictions on withdrawal to the Illinois Department of Agriculture in order to preserve an adequate water supply (525 Ill. Comp. Stat. Ann. 45/5.1).

Illinois Compiled Statutes

Chapter 525. Conservation Act

45. Water Use Act of 1983

45/3. Purpose

§ 3. Purpose. The general purpose and intent of this Act is to establish a means of reviewing potential water conflicts before damage to any person is incurred and to establish a rule for mitigating water shortage conflicts by:

> (a) Providing authority for County Soil and Water Conservation Districts to receive notice of incoming substantial users of water.

(b) Authorizing Soil and Water Conservation Districts to recommend restrictions on withdrawals of groundwater in emergencies.

(c) Establishing a "reasonable use" rule for groundwater withdrawals.

Indiana

Indiana is a party to the Great Lakes Compact. See the section describing the impact of the Great Lakes Compact on water rights.

Indiana uses the common law Absolute Dominion rule to regulate groundwater, but has supplemented it with some administrative regulation. For example, the state has the power to restrict the use of high capacity wells that interfere with lower capacity wells or that cause environmental damage to public lakes (Ind. Code Ann. § 14-25-4-12 (Michie 1998)).

In 1983, in *Wiggins v. Brazil Coal & Clay Corp.*, 452 N.E.2d 958 (Ind. 1983), the Indiana Court of Appeals adopted the Restatement of Torts rule (i.e., Beneficial Purpose doctrine). However, on appeal, the Indiana Supreme Court vacated the decision and relied on the English rule (i.e., Absolute Dominion rule). In *Wiggins*, property owners brought action against a mining corporation alleging that mining activities caused a loss of water in a lake on their property. The court noted that, while the legislature enacted restraints on the use of groundwater, the court did not view them as having altered the common law property status of groundwater.

A 2011 decision by the Indiana Supreme Court calls *Wiggins* into question. Town of Avon v. West Central Conservancy District, 957 N.E.2d 598 (2011), involves an ordinance passed by the Town of Avon that prohibits the withdrawal of water "from a watercourse" for "retail, wholesale, or other mass distribution" unless done by or on behalf of Avon. The ordinance defines watercourse as including "groundwater, aquifers, and/or any other body of water whether above or below ground". Landowners filed suit, claiming that the ordinance exceeded the authority of the town and violated their groundwater rights.

Whether the aquifer was a "watercourse" played a key role in the decision. State law allows a local government to "regulate the taking of water, or causing or permitting water to escape, from a watercourse" (Indiana Code § 36-9-10). The court found that a groundwater aquifer is a "watercourse" and that Avon could regulate withdrawals. The court distinguished Wiggins, saying that the water in that case "percolated in the ground "below the surface of the earth, in hidden recesses, without a known channel or course"". However, there was no indication in Avon that the aquifer there was not percolating groundwater. Local governments in Indiana, therefore, may have broad powers to regulate groundwater withdrawals.

Title 14. Natural and Cultural Resources

Article 25

Chapter 3. Water Rights; Groundwater

IC 14-25-3-3

Sec. 3. It is a public policy of the state in the interest of the economy, health, and welfare of Indiana and the citizens of Indiana to conserve and protect the groundwater resources of Indiana and for that purpose to provide reasonable regulations for the most beneficial use and disposition of groundwater resources.

In 2006, Indiana established a Water Shortage Task Force. The duties of the Task Force include preparation of a biennial report on the status of current surface water and groundwater withdrawals in the state (see *Indiana Code* § 14-25-14-1, *et seq*.).

Iowa

In Barclay v. Abraham, 96 N.W. 1080 (Iowa 1903), the Iowa Supreme Court held that the Correlative Rights doctrine applies to groundwater. In Barclay, the defendant installed a three-inch in diameter well on his farm near a creek to which he dug a ditch and allowed the water to flow unrestrained through the creek to the land below. This resulted in stopping the flow of water to plaintiff's wells at his house. At a final hearing, an injunction was made permanent. The court stated that "there is no doubt but defendant had the right to make such beneficial use of the water in the improvement of his land as he might choose. But it does not follow that he had the right to draw from this reservoir within the earth wherein nature had stored water in large quantities for beneficial purposes merely to waste or carry out a design to injure those having equal access to the same supply."

Iowa uses an integrated system which coordinates groundwater withdrawal with surface water needs (Linda A. Malone, *The Necessary Interrelationship between Land Use and Preservation of Groundwater Resources*, 9 UCLA J. Envtl. L. & Pol'y 1 (1990)). The Iowa Water Law was enacted by the legislature in 1957. Any person who withdraws or diverts more than 25,000 gallons of water during a period of 24 hours or less from any source of groundwater or surface water must have a Water Use Permit (*Id.*). A structured priority allocation system will only be implemented during severe droughts or in local areas due to shortage (*Id.*).

Iowa Code

Title XI. Natural Resources

Subtitle 1. Control of Environment

Chapter 455B. Jurisdiction of Department of Natural Resources Division III. Water Quality

Part 4. Water Allocation and Use; Flood Plain Control

455B.269. Taking water prohibited

1. A person shall not take water from a natural watercourse, underground basin or watercourse, drainage ditch, or settling basin within this state for any purpose other than a nonregulated use except in compliance with the sections of this part which relate to the withdrawal, diversion, or storage of water. However, existing uses may be continued during the period of the pendency of an application for a permit.

2. A person, other than the aquifer storage and recovery permittee, shall not take treated water from a permitted aquifer storage and recovery site within this state.

Kansas

Kansas maintains a Prior Appropriation groundwater permit system for groundwater (Ronald Kaiser and Frank Skillern, *Deep Trouble: Options for Managing the Hidden Threat of Aquifer Depletion in Texas*, 32 Tex. Tech. L. Rev. 249 (2001)). The right to use water is determined by a First in Time, First in Right seniority system (Kan. Stat. Ann. §§ 82a-707 (1997); https:// agriculture.ks.gov/docs/default-source/ dwr-water-appropriation-documents/ kwaa_rules_regs57c3ada8d515.pdf? sfvrsn=8). Groundwater is controlled by the state based on consultation with local groundwater management districts (Kan. State. Ann. §§ 82a-1028(o) (1997)).

Kansas Statute No. 82a-707

Chapter 82a. Waters and Watercourses

Article 7. Appropriation of Water For Beneficial Use

82a-707. Principles governing appropriations; priorities.

(a) Surface or groundwaters of the state may be appropriated as herein provided. Such appropriation shall not constitute ownership of such water, and appropriation rights shall remain subject to the principle of beneficial use.

(b) Where uses of water for different purposes conflict, such uses shall conform to the following order of preference: Domestic, municipal, irrigation, industrial, recreational and water power uses. However, the date of priority of an appropriation right, and not the purpose of use, determines the right to divert and use water at any time when the supply is not sufficient to satisfy all water rights that attach to it. The holder of a water right for an inferior beneficial use of water shall not be deprived of the use of the water either temporarily or permanently as long as such holder is making proper use of it under the terms and conditions of such holder's water right and the laws of this state, other than through condemnation.

(c) As between persons with appropriation rights, the first in time is the first in right. The priority of the appropriation right to use water for any beneficial purpose except domestic purposes shall date from the time of the filing of the application therefor in the office of the chief engineer. The priority of the appropriation right to use water for domestic purposes shall date from the time of the filing of the application therefor in the office of the chief engineer or from the time the user makes actual use of water for domestic purposes, whichever is earlier.

Kentucky

In United Fuel Gas Co. v. Sawyers, 259 S.W.2d 466 (Ky. 1953), Kentucky affirmed its adherence to the American Reasonable Use rule: "In this state, in accordance with modern trends, even in England, we have rejected the severe doctrine of Rylands v. Fletcher at least insofar as it makes one in the use of his own property practically an insurer against injury to his neighbor's property. Kentucky law is in accord with the 'American rule,' that in the absence of negligence there is no liability if there was a legitimate and reasonable use." United Fuel Gas Co. involved an action by a landowner against a gas company for contamination of a water well allegedly caused by a nearby gas well.

Since 1966, anyone wishing to use "public water," defined by statute as basically all water, must apply for a permit to "withdraw, divert, or transfer such water" (Ky. Rev. St. § 151.150(1)). However, water for domestic purposes, agriculture (including irrigation), oil and gas recovery, and steam power plants are exempt uses (Ky. Rev. St. § 15.1.140).

Kentucky Revised Statutes

Title XII. Conservation and State Development

Chapter 151. Geology and Water Resources

151.120 Public Water of Commonwealth, What Constitutes

(1) Water occurring in any stream, lake, groundwater, subterranean water or other body of water in the Commonwealth which may be applied to any useful and beneficial purpose is hereby declared to be a natural resource and public water of the Commonwealth and subject to control or regulation for the public welfare as provided in KRS Chapters 146, 149, 151, 262 and 350.029 and 433.750 to 433.757.

(2) Diffused surface water which flows vagrantly over the surface of the ground shall not be regarded as public water, and the owner of land on which such water falls or flows shall have the right to its use. Water left standing in natural pools in a natural stream when the natural flow of the stream has ceased, shall not be regarded as public water and the owners of land contiguous to that water shall have the rights to its use.

151.140 Withdrawal of Water From Public Waters, Permit Required; Exceptions

No person, business, industry, city, county, water district, or other political subdivision shall have the right to withdraw, divert, or transfer public water from a stream, lake, groundwater source or other body of water, unless such person, business, industry, city, county, water district or other political subdivision has been granted a permit by the cabinet for such withdrawal, diversion, or transfer of water. Provided, however, no permit shall be required for and nothing herein shall interfere with the use of water for agricultural and domestic purposes including irrigation; and no permit shall be required if the amount of water withdrawn, diverted or transferred is less than the amount established by regulation and no permit shall be required for water used in the production of steam generating plants of companies whose retail rates are regulated by the Kentucky Public Service Commission or for which plants a certificate of environmental compatibility from such commission is required by law, or water injected underground in conjunction with operations for the production of oil or gas.

Louisiana

The Louisiana courts have "effectively adopted the Absolute Dominion rule and specifically rejected the application of the American rule or any of the variations of the Correlative Rights doctrine, even though admitting that the American rule was perhaps the 'more modern and popular rule,' and even though the Louisiana Civil Code might well have been interpreted to reject the absolute ownership doctrine" (James M. Klebba, *Water Rights and Water Policy in Louisiana: Laissez Faire Riparianism, Market Based Approaches, or a New Managerialism?*, 53 La. L. Rev. 1779 (1993)).

In *Adams v. Grigsby*, 152 So.2d 619 (La. App.), *writ refused*, 244 La. 662, 153 So.2d 880 (1963), landowners sued an oil operator to enjoin him from using 2,000 to 2,800 barrels of sub-surface water a day in secondary recovery of oil and gas from a unitized formation. The landowners argued that the oil operator was depleting the subterranean fresh water reservoir that supplied the homes of the landowners. The Court of Appeals held that water is a mineral within the rule that landowners do not own fugitive sub-surface minerals in place and that therefore landowners could not prevail (*Adams v. Grigsby*, 152 So.2d 619 (La. Ct. App. 1963)).

Louisiana passed statutory provisions seeking to promote the efficient use of groundwater in Chapter 13a of Title 38, Utilization of Groundwater Resources (La. Rev. Stat. Ann. § 38:3091-3097). These provisions require all users of groundwater to register and provide usage information. Wells with a capacity of over fifty thousand gallons per day must also be registered. A five parish area surrounding Baton Rouge has been designated a Capital Area Groundwater Conservation District, subject to stricter regulations (La. Rev. St. Ann. Sections 38:3071 to 38:3084). Within these districts, permits are required for the drilling or construction of wells having a capacity in excess of fifty thousand gallons per day (La. Rev. St. Ann. § 38:3076.A.(2)).

Despite judicial pronouncements on the issue, groundwater law in Louisiana remains vague. "The subject of groundwater use rights within the State is an area with a significant amount of legal uncertainty. It is therefore the opinion of this writer [the Louisiana Attorney General] that this unsettled area might be more appropriately addressed by the legislative branch of government" (La. Atty. Gen. Op. No. 83-522 (1983)).

Louisiana's groundwater laws have drawn criticism that they have not developed with the concerns of conservation and regulation of use as guiding principles (Note: *Ground Water: Louisiana's Quasi-Fictional and Truly Fugacious Mineral*, 44 La. L. Rev. 1123, 1132 (1984)). Liability may be based only on negligence or deliberately harmful conduct. Neither the types of competing uses involved nor precedence of use are considered. Furthermore, nothing prevents a landowner or lessee from entirely depleting the water-bearing structure or formation. Louisiana's legal framework as to groundwater has been accurately characterized as "the rule of the biggest pump" (*Id*.).

Maine

In Maddocks v. Giles, 728 A.2d 150 (Me. 1999), the Maine courts reiterated their adherence to the Absolute Dominion rule: "We decline to abandon the absolute dominion rule... we are not convinced that the absolute dominion rule is the wrong rule for Maine." In Maddocks, owners of property adjacent to a gravel pit brought an action alleging that excavation activities caused an underground spring flowing beneath property owners' land to run dry. The court recognized there have been some attempts in Maine to change the doctrine; however, the legislature has yet to act. "We are further constrained in making the requested change because the Legislature has taken action in this area by creating the Water Resources Management Board to do a comprehensive study of water law in Maine. The Board reported to the Legislature and suggested that it adopt reasonable use principles. The Legislature chose to leave the common law as it currently stands."

It should be noted that the Maine Legislature has enacted an exception to the Absolute Dominion rule by creating liability when a person withdraws groundwater in excess of household purposes for a singlefamily home and the withdrawal interferes with the preexisting household use of groundwater (38 Me. Rev. Stat. Ann. tit. 38 § 404(1)-(2) (West 2002)).

Maine Revised Statutes

Title 38: Waters and Navigation

Chapter 3: Protection and Improvement of Waters

Subchapter 1: Environmental Protection Board

Article 1-B: Groundwater Protection Program 1. Definitions. As used in this section, unless the context indicates otherwise, the following terms have the following meanings.

A. "Beneficial domestic use" means any groundwater used for household purposes essential to health and safety, whether provided by individual wells or through public supply systems.

B. "Groundwater" means all the waters found beneath the surface of the earth

> C. "Preexisting use" means any use which was undertaken by a public water supplier, a landowner or lawful land occupant or a predecessor in interest of either of them, at any time during the period of 3 years prior to the commencement of the use which resulted in the interference.

2. Cause of action created. Subject to the limitations of subsection 3 and except as provided by Title 23, section 652, a person is liable for the withdrawal of groundwater, including use of groundwater in heat pump systems, when the withdrawal is in excess of beneficial domestic use for a single-family home and when the withdrawal causes interference with the preexisting beneficial domestic use of groundwater by a landowner or lawful land occupant.

Maryland

Maryland adopted the American rule in *Finley v. Teeter Stone, Inc.*, 248 A.2d 106 (Md. 1968). In *Finley*, farm owners sued a quarrying company for damage to a farm as the result of a sinkhole caused during the pumping of percolating water from a quarry. The Appeals Court found the company's use of the land was not unreasonable, and therefore denied relief.

In addition, Maryland's water use statutes (Md. Code, Environment, §§ 5-501, *et seq*.) require a permit to appropriate surface or groundwater. However, the statutory regime fails to apply to use of water for:

• Domestic purposes other than for heating and cooling;

or

• Agricultural purposes, if the average annual water use is less than 10,000 gallons per day (with some exceptions).

(Md. Code, Environment, § 5-502(b)).

In 2007, Maryland added another exception to the water use statutes under *Maryland Code, Environment*, § 5-502(b). No permit is needed for the use of groundwater at an average annual water use of 5,000 gallons of water per day or less, so long as the use is not for a public water system (defined in the code), or will not occur within a water management strategy area. In addition, these users must file a notice of exemption with the state at least thirty days before the use begins (Md. Code, Environment, § 5-502(b)(4).

A person using less than an annual average of 10,000 gallons of water per day for agricultural purposes may apply for a permit to appropriate or use waters of the State, but apparently is not required to do so (Md. Code, Environment, § 5-502(c)(2)). Agricultural uses existing prior to July 1, 1988, receive grandfathered rights and the state must issue a permit upon application (Md. Code, Environment, § 5-502(c)(1)).

Maryland law establishes priority use in water supply emergencies (Md. Code, Environment, § 5-502(d)). In that circumstance, the following priorities apply, in this order:

(1) Domestic and municipal uses for sanitation, drinking water and public health and safety;

(2) Agricultural uses, including the processing of agricultural products; and

(3) All other uses.

The statute also requires review of most permits every 3 years, and the "correction" of the permit if the water "is not used or is not needed" (Md. Code, Environment, § 5-511).

Recent administrative interpretations have caused uncertainty as to the groundwater rights of landowners in Maryland. Despite the court rulings that establish Maryland as an American rule state, the Maryland Department of the Environment (MDE) has begun to use its own interpretation of the Reasonable Use doctrine, mixed with parts of other, completely different, groundwater rights regimes, to determine individual water rights. The interpretation presently puts public water suppliers and nonresidential users of groundwater in a difficult situation. Continued adherence to the rule could infringe on private water rights in a wide range of circumstances.

Specifically, in granting withdrawal permits, which are required for almost all uses except agricultural uses under 10,000 gallons per day and domestic water wells, the MDE calculates recharge rates for the land area. The formula uses a very conservative estimate of recharge based on the 100-year drought. In most parts of Maryland, the formula yields an estimate of slightly over 300 gallons of water per day per acre. The applicant must "own or have control" over sufficient land area such that the recharge at least equals the amount proposed to be withdrawn. For land uses that consume large amounts of water, expansive amounts of land would have to be owned or controlled.

Massachusetts

In Massachusetts, percolating groundwater is considered part of the land itself (Davis v. Spaulding, 157 Mass. 431, 32 N.E. 650 (1892)). Massachusetts appears to use the Absolute Dominion rule (Greenleaf v. Francis, 35 Mass. (18 Pick.) 117 (1836)). In pumping, reasonable precautions must be undertaken to prevent subsidence of adjoining property (Gamer v. Town of Milton, 346 Mass. 617, 195 N.E.2d 65 (1964)). Gamer involved a suit against a town and against the excavating contractor hired by the town to excavate in the area of the town pond. The court stated "[I]t, is, of course, settled in this Commonwealth that a landowner has absolute ownership in the subsurface percolating water in his land. He may use it as he sees fit, even if this results in a loss of water in his neighbor's land."

However, the Water Management Act (Mass. Gen. L. ch. 21G), adopted in 1985, governs all withdrawals of surface and groundwater exceeding 100,000 gallons a day, other than non-consumptive uses (Mass. Gen. L. 21G § 4). The Act differentiates between "new" and "existing" withdrawals over 100,000 gallons a day. Existing withdrawals are defined as the average withdrawal during the fiveyear period between January 1, 1981 and January 1, 1986 (Mass. Gen. L. 21G § 2). These withdrawals may continue for ten years, if registered with the state by January 1, 1988 (Mass. Gen. L. 21G § 5). The withdrawal must then be reregistered every ten years (Id.). Nonconsumptive withdrawals are exempt from registration (Mass. Regs. Code tit. 310, § 36.05).

New withdrawals include all other withdrawals exceeding 100,000 gallons a

day (Mass. Gen. L. 21G § 2). Persons wishing to engage in new withdrawals must obtain a permit under more rigorous provisions of the act (Mass. Gen. L. 21G § 7). These provisions also exclude nonconsumptive uses (Mass. Regs. Code tit. 310, § 36.38).

Michigan

Michigan is a party to the Great Lakes Compact. See the section describing the impact of the Great Lakes Compact on water rights.

Groundwater withdrawals in Michigan historically have been governed by the rule of Reasonable Use (Schenk v. City of Ann Arbor, 196 Mich. 75, 163 N.W. 109 (1917)). In Maerz v. United States Steel Corp., 116 Mich. App. 710, 713-714, 323 N.W.2d 524 (1982), the Court of Appeals interpreted Schenk as adopting the Restatement of Torts rule for groundwater withdrawals. However, a year later, the Court of Appeals held that the Reasonable Use rule applies, citing Schenk (United States Aviex Co. v. Travelers Ins. Co., 125 Mich. App. 579, 336 N.W.2d 838 (1983)). Additionally, the Michigan legislature enacted the Reasonable Use rule into statutory law (MCL § 600.2941). Whether Michigan follows the rule of Reasonable Use or the Restatement rule remains unclear, but the Reasonable Use rule appears to be the better interpretation. Michigan Citizens for Water Conservation v. Nestle Waters North America Inc, 479 Mich. 280, 709 N.W.2d 174 (2007), involved the often contentious issue of a company bottling water for retail sale. Nestle used a spring for the source of the water. The citizens group objected, based mainly upon the alleged impact of the pumping on surface water. The group also argued that groundwater fell under the Public Trust doctrine.

The Michigan Court of Appeals found that where surface water and groundwater uses conflict, a reasonable use balancing test should be applied. Applying this test to the case at hand, the court found that if Nestle pumped at its maximum rate of 400 gallons per minute the affected surface water would lose 24% of its base flow. The court reasoned that this reduction is unreasonable. The case was remanded to the trial court to determine what pumping rate would allow both groundwater and surface water users a reasonable use of the waters.

The case was then appealed to the Supreme Court of Michigan. That court, in lieu of granting leave to appeal, held that organization and owners lacked standing with respect to lake and wetlands where they owned no land (*Michigan Citizens for Water Conservation v. Nestle Waters North America Inc*, 479 Mich. 280, 737 N.W.2d 447 (2007)). The Court of Appeals ruling still stands in Michigan.

Minnesota

Minnesota is a party to the Great Lakes Compact. See the section describing the impact of the Great Lakes Compact on water rights.

Little jurisprudence regarding groundwater withdrawals exists in Minnesota. It appears that the rule of Absolute Dominion still governs groundwater in the state. The Minnesota Supreme Court used the semantics of Correlative Rights in application to artesian wells (Erickson v. Crookston Waterworks, Power & Light Co., 111 N.W. 391 (Minn. 1907), affirmed, Erickson v. Crookston Waterworks, Power & Light Co., 117 N.W. 435 (Minn. 1908)). However, as applied, the doctrine bears less resemblance to the traditional theory of Correlative Rights as practiced in California and more resemblance to the rule of Reasonable Use. Additionally, the decision's impact may be limited to artesian basins and was based

almost entirely on the Minnesota permitting statute.

In 1973, the Minnesota legislature enacted a permit system for large groundwater withdrawals (The Minnesota Water Appropriation Law, Minn. Stat. § 105.41). Under the system, withdrawals exceeding 10,000 gallons per day or 1 million gallons per year require a permit. If a conflict arises among competing users, then the Commissioner of Natural Resources may resolve the conflict using statutorily defined priorities (Minn. R. § 6115.0740).

Minnesota Statutes 2002

Chapter 103A Water Policy and Information

103A.204 Groundwater policy.

(a) The responsibility for the protection of groundwater in Minnesota is vested in a multiagency approach to management. The following is a list of agencies and the groundwater protection areas for which the agencies are primarily responsible; the list is not intended to restrict the areas of responsibility to only those specified:

(4) board of water and soil resources: reporting on groundwater education and outreach with local government officials, local water planning and management, and local cost share programs;

103A.211 Water Law policy.

The Water Law of this state is contained in many statutes that must be considered as a whole to systematically administer water policy for the public welfare. Water law that seems contradictory as applied to a specific proceeding creates a need for a forum where the public interest conflicts involved can be presented and, by consideration of the whole body of water law, the controlling policy can be determined and apparent inconsistencies resolved.

103G.271 Appropriation and use of waters.

Subdivision 1. Permit required.

(a) Except as provided in paragraph (b), the state, a person, partnership, or association, private or public corporation, county, municipality, or other political subdivision of the state may not appropriate or use waters of the state without a water use permit from the commissioner.

(b) This section does not apply to use for a water supply by less than 25 persons for domestic purposes.

(c) The commissioner may issue a state general permit for appropriation of water to a governmental subdivision or to the general public for classes of activities that have minimal impact upon waters of the state. The general permit may authorize more than one project and the appropriation or use of more than one source of water. Water use permit processing fees and reports required under subdivision 6 and section 103G.281, subdivision 3, are required for each project or water source that is included under a general permit, except that no fee is required for uses totaling less than 15,000,000 gallons annually.

Mississippi

One commentator has warned against "pigeonholing" Mississippi into one doctrine of groundwater management (James M. Klebba, *Water Rights and Water* *Policy in Louisiana*, 53 La. L. Rev. 1779 (1993)). "Mississippi has been categorized as an absolute ownership state on the basis of one leading case decided in 1902 (*Bd. of Supervisors v. Miss. Lumber Co.*, 31 So. 905 (Miss. 1902)). That case, while using the language of the Absolute Ownership doctrine and apparently explicitly adopting that rule, indicates that if faced with an appropriate case, Mississippi would instead apply the 'reasonable use' rule" (*Id.*, citing, *Bd. of Supervisors v. Miss. Lumber Co.*, 31 So. 905 (Miss. 1902)).

The 1985 Water Resources Act established a permit system for surface and groundwater withdrawals (1985 Omnibus Water Resources Act, Miss. Code Ann. tit. 51, ch. 3). The Act also established a priority for potable water uses. Exempt from the permit requirement are domestic purposes, defined as "the use of water for ordinary household purposes, the watering of farm livestock, poultry and domestic animals, and the irrigation of home gardens and lawns" (Miss. Code Ann. § 51-3-3). Also, uses existing prior to April 1, 1985, if filed within three years of that date, were protected as grandfathered rights (Miss. Code Ann. § 51-3-5(4)).

Mississippi Code of 1972 (current as of 2002)

Title 51

Waters, Water Resources, Water Districts, Drainage, and Flood Control

§ 51-3-1. Declaration of policy on conservation of water resources.

It is hereby declared that the general welfare of the people of the State of Mississippi requires that the water resources of the state be put to beneficial use to the fullest extent of which they are capable, that the waste or unreasonable use, or unreasonable method of use, of water be prevented, that the conservation of such water be exercised with the view to the reasonable and beneficial use thereof in the interest of the people, and that the public and private funds for the promotion and expansion of the beneficial use of water resources shall be invested to the end that the best interests and welfare of the people are served.

It is the policy of the Legislature that conjunctive use of groundwater and surface water shall be encouraged for the reasonable and beneficial use of all water resources of the state. The policies, regulations and public laws of the State of Mississippi shall be interpreted and administered so that, to the fullest extent possible, the ground and surface water resources within the state shall be integrated in their use, storage, allocation and management.

All water, whether occurring on the surface of the ground or underneath the surface of the ground, is hereby declared to be among the basic resources of this state to therefore belong to the people of this state and is subject to regulation in accordance with the provisions of this chapter. The control and development and use of water for all beneficial purposes shall be in the state, which, in the exercise of its police powers, shall take such measures to effectively and efficiently manage, protect and utilize the water resources of Mississippi.

Missouri

Missouri follows a modified version of the Reasonable Use rule called "comparative reasonable use" to govern groundwater (*Higday v. Nickolaus*, 469 S.W.2d 859 (*Mo. App.* 1971)). See also, *City of Blue Springs v. Central Dev. Ass'n*, 831 S.W.2d 655 (Mo. App. 1992). Comparative Reasonable Use is "determined on a case-by-case basis considering *inter alia* the persons involved, their relative positions, the nature of their uses, the climatic conditions, and other relevant factors" (Beck, 460, citing, *Higday*). Although a pure common-law state, Missouri requires uses exceeding 100,000 gallons per day to be registered with the Department of Natural Resources.

In *Higday*, landowners sought a judicial declaration that a city, as an adjoining landowner, was without right to extract percolating waters from under plaintiffs' land for sale away from the premises. The court stated "[U]nder the rule of reasonable use as we have stated it, the fundamental measure of the overlying owner's right to use the groundwater is whether it is for purposes incident to the beneficial enjoyment of the land from which it was taken. Thus, a private owner may not withdraw groundwater for purposes of sale if the adjoining landowner is thereby deprived of water necessary for the beneficial enjoyment of his land."

Montana

Montana has always followed the rule of Prior Appropriation regulating groundwater withdrawals (Mont. Code Ann. § 85-2-401(1)). However, prior appropriators cannot prevent changes by later appropriators in the condition of the water occurrence as long as they can still reasonably exercise their water rights (Mont. Code Ann. § 85-2-401(1)). All water users must obtain a permit from the Department of Natural Resources prior to withdrawing any water (Mont. Code Ann. § 85-2-302). Prior to the Clarks Fork Coalition v. Tubbs case, discussed below, an exception to this requirement included wells or developed springs with maximum appropriations of 35 gallons per minute or less, not to exceed 10 acre-feet per year. While not requiring a permit, these uses must be registered. Certain areas designated as groundwater control areas, in addition to disregarding the above

exception, can impose restrictions on groundwater withdrawals, including closing the area to further appropriation (Mont. Code Ann. § 85-2-506(7)(a)). Additionally, control areas may accord preferences to certain water uses without regard to priority dates. Rights acquired prior to 1973 are preserved. The state engineer may also set out provisions for well spacing requirements, well construction constraints, and prior department approval before well drilling in groundwater control areas (except for oil and gas conservation wells) (Mont. Code Ann. § 85-2-506(7)(e)).

85-2-101. Declaration of policy and purpose.

(1) Pursuant to Article IX of the Montana constitution, the legislature declares that any use of water is a public use and that the waters within the state are the property of the state for the use of its people and are subject to appropriation for beneficial uses as provided in this chapter.

(2) A purpose of this chapter is to implement Article IX, section 3(4), of the Montana constitution, which requires that the legislature provide for the administration, control, and regulation of water rights and establish a system of centralized records of all water rights. The legislature declares that this system of centralized records recognizing and establishing all water rights is essential for the documentation, protection, preservation, and future beneficial use and development of Montana's water for the state and its citizens and for the continued development and completion of the comprehensive state water plan.

(3) It is the policy of this state and a purpose of this chapter to encourage the wise use of the state's water resources by making them available for appropriation consistent with this chapter and to provide for the wise utilization, development, and conservation of the waters of the state for the maximum benefit of its people with the least possible degradation of the natural aquatic ecosystems. In pursuit of this policy, the state encourages the development of facilities that store and conserve waters for beneficial use, for the maximization of the use of those waters in Montana, for the stabilization of stream-flows, and for groundwater recharge.

(4) Pursuant to Article IX, section 3(1), of the Montana constitution, it is further the policy of this state and a purpose of this chapter to recognize and confirm all existing rights to the use of any waters for any useful or beneficial purpose.

In McGowan v. United States, landowners sued for damages resulting from a loss of appropriated water rights in springs that dried up after construction of an irrigation project by the Bureau of Reclamation (McGowan v. United States, 206 F. Supp. 439 (D. Mont. 1962)). The court held that, since there was no physical invasion of plaintiff's lands and the source of water for springs was percolating waters, the drying up of the springs was "damnum absque injuria" [Latin "damage without wrongful act"]. As the court stated, the "result of it is that the proprietor of the soil, where such water is found, has the right to control and use it as he pleases for the purpose of improving his own land, though his use or control may incidentally injure an adjoining proprietor."

In a case that has stretched on for several years, *Clark Fork Coalition v. Tubbs* was argued before the Montana Supreme Court on May 18, 2016. The Montana Water Well Drillers Association (MWWDA) is a party in the case, and the only party representing the interests of water wells. The state did not appeal the case, leaving the MWWDA to fight the battle alone.

The case involves an environmental group challenging the validity of the exempt well regulations in Montana, and has wound its way through the state legislature, the state administrative agency and the courts. After the Governor vetoed a compromise bill, the court battle took center stage.

In essence, the lawsuit challenges the exempt well regulations in the state, particularly the regulation that allows developers to use individual exempt wells in residential subdivisions. The environmental group argues that exempt wells in those situations should be aggregated to limit the number of exempt wells in rural subdivisions. The lower court shocked everyone by not only striking down the regulation, but by reinstating the 1987 rule on exempt wells, and ordering rulemaking. The 1987 Rule reads as follows:

An appropriation of water from the same source aquifer by two or more groundwater developments, the purpose of which, in the department's judgement, could have been accomplished by a single appropriation. Groundwater developments need not be physically connected nor have a common distribution system to be considered a "combined appropriation." They can be separate developed springs or wells to separate parts of a project or development. Such wells and springs need not be developed simultaneously. They can be developed gradually or in increments. The amount of water appropriated from the entire project or development from these groundwater developments in the same source aquifer is the "combined appropriation."

Nebraska

In Olson v. City of Wahoo, 248 N.W. 304 (Neb. 1933), the Nebraska Supreme Court rejected the English rule of ownership and adopted the American rule. In embracing the American rule, the court also expressed a preference for what became a modified doctrine of Correlative Rights based upon users sharing alike in times of shortage (Stephen D. Mossman, "Whiskey Is for Drinkin' But Water Is for Fightin' About: A First-Hand Account of Nebraska's Integrated Management of Ground and Surface Water Debate and the Passage of L.B. 108." 30 Creighton L. Rev. 67 (1996)). As stated by the court, "[t]he American rule is that the owner of land is entitled to appropriate subterranean waters found under his land, but he cannot extract and appropriate them in excess of a reasonable and beneficial use upon the land which he owns, especially if such use is injurious to others who have substantial rights to the waters, and the natural underground supply is insufficient for all owners, each is entitled to a reasonable proportion of the whole..." (Olson, 248 N.W. at 308).

Later Nebraska cases have expanded upon Olson. In Prather v. Eisenmann, 200 Neb. 1 (Neb. 1978), the court stated that the Nebraska rule, while a combination of the American rule and the Correlative Rights rule from California case law, must be read in light of the Nebraska statute governing preference for use of groundwater. In Sorensen v. Lower Niobrara Natural Resources Dist., 221 Neb. 180, 188-89, 376 N.W.2d 539, 546 (Neb. 1985), the court held that the common law rule of permitting landowners to use groundwater removed from under the owner's land is qualified by the Nebraska rule of Reasonable Use and Correlative Rights.

The Nebraska Supreme Court also decided a case involving hydrologically connected groundwater and surface water in 2005. In Spear T Ranch, Inc. v. Knaub, 691 N.W.2d 116, 269 Neb. 177 (2005), the owner of surface water rights filed suit against well owners, alleging that the well owners' pumping dewatered a creek, preventing the surface water rights holder from exercising those rights. The court refused to apply the prior appropriation system to hydrologically connected groundwater, instead adopting the Restatement (Second) of Torts rule to decide surface water/groundwater conflicts. This decision puts well owners in a precarious position and creates uncertainty about potential liability for previously lawful uses of groundwater.

Nebraska enacted the Groundwater Management and Protection Act in 1975 (Neb. Rev. Stat. Ann. §§ 46-701, et seq. (Michie 2002)). The law requires that all wells (except domestic wells) be registered with the state; that well spacing rules be followed; and groundwater control areas be established by regions with aquifer overdrafting and mining (Ronald Kaiser and Frank Skillern, "Deep Trouble: Options for Managing the Hidden Threat of Aquifer Depletion in Texas," 32 Tex. Tech. L. Rev. 249 (2001)). Local Natural Resource Districts also have authority to limit access to aquifers in certain areas of the state. The act was recently amended to apply a different rule to hydrologically connected groundwater and surface water.

Groundwater rights are also subject to a preference statute that prefers domestic users to all other users, and agricultural users to those using groundwater for industrial or manufacturing purposes (Neb. Rev. Stat. § 46-613). Groundwater management areas so designated under the Nebraska Groundwater Management and Protection Act may impose restrictions on groundwater withdrawals including water limits, the requirement of metering and moratoria on new well construction (Neb. Rev. Stat. Ann §46-702.

Neb. Rev. Stat. Ann. 46-702.

Declaration of intent and purpose; legislative findings

The Legislature finds that ownership of water is held by the state for the benefit of its citizens, that groundwater is one of the most valuable natural resources in the state, and that an adequate supply of ground water is essential to the general welfare of the citizens of this state and to the present and future development of agriculture in the state. The Legislature recognizes its duty to define broad policy goals concerning the utilization and management of groundwater and to ensure local implementation of those goals. The Legislature also finds that natural resources districts have the legal authority to regulate certain activities and, except as otherwise specifically provided by statute, as local entities are the preferred regulators of activities which may contribute to groundwater depletion.

Every landowner shall be entitled to a reasonable and beneficial use of the groundwater underlying his or her land subject to the provisions of Chapter 46, article 6, and the Nebraska Ground Water Management and Protection Act and the correlative rights of other landowners when the groundwater supply is insufficient to meet the reasonable needs of all users. The Legislature determines that the goal shall be to extend groundwater reservoir life to the greatest extent practicable consistent with reasonable and beneficial use of the groundwater and best management practices.

The Legislature further recognizes and declares that the management, protection, and conservation of groundwater and the reasonable and beneficial use thereof are essential to the economic prosperity and future wellbeing of the state and that the public interest demands procedures for the implementation of management practices to conserve and protect groundwater supplies and to prevent the contamination or inefficient or improper use thereof. The Legislature recognizes the need to provide for orderly management systems in areas where management of groundwater is necessary to achieve locally and regionally determined groundwater management objectives and where available data, evidence, or other information indicates that present or potential groundwater conditions, including subirrigation conditions, require the designation of areas with special regulation of development and use.

The Legislature finds that given the impact of extended drought on areas of the state, the economic prosperity and future well-being of the state is advanced by providing economic assistance in the form of providing bonding authority for certain natural resources districts as defined in section 2-3226.01 and in the creation of the Water Resources Cash Fund to alleviate the adverse economic impact of regulatory decisions necessary for management, protection, and conservation of limited water resources. The Legislature specifically finds that, consistent with the public ownership of water held by the state for the benefit of its citizens, any action by the Legislature, or through authority conferred by it to any agency or political subdivision, to provide economic assistance does not establish any precedent that the Legislature in sections 2-3226.01 and 61-218 or in the future must or should purchase water or provide compensation for any economic

impact resulting from regulation necessary pursuant to the terms of Laws 2007, LB 701.

Nevada

Nevada has been a long adherent to the doctrine of Prior Appropriation (see Lobdell v. Simpson, 2 Nev. 274 (1866)). Statutory law passed in 1905 began the state adjudication of water withdrawals (Nev. Rev. Stat. §§ 533.090 to .320). In 1939, the Nevada legislature enacted a groundwater law (Nev. Rev. Stat. ch. 534). Landowners can only obtain rights to groundwater by permit from a state engineer (Nev. Rev. Stat. § 534.050). Single-family homes with an average use of 1,800 gallons per day or less are exempted from the permit requirement (Nev. Rev. Stat. § 534.180). Rights acquired prior to the adoption of the statute are fully protected in perpetuity (Nev. Rev. Stat. § 533.085).

Nev. Rev. Stat. § 534.020

Underground waters belong to public and are subject to appropriation for beneficial use; declaration of legislative intent.

1. All underground waters within the boundaries of the state belong to the public, and, subject to all existing rights to the use thereof, are subject to appropriation for beneficial use only under the laws of this state relating to the appropriation and use of water and not otherwise.

2. It is the intention of the legislature, by this chapter, to prevent the waste of underground waters and pollution and contamination thereof and provide for the administration of the provisions thereof by the state engineer, who is hereby empowered to make such rules and regulations within the terms of this chapter as may be necessary for the proper execution of the provisions of this chapter.

New Hampshire

New Hampshire follows the rule of Reasonable Use when regulating groundwater (see Bassett v. Salisbury Mfg. Co., 43 N.H. 569 (1862); Jones v. Proprietors of Portsmouth Aqueduct, 62 N.H. 448 (1883)). The New Hampshire Supreme Court has recognized that the public has an ownership interest in groundwater (Coakley v. Maine Bonding & Cas. Co., 136 N.H. 402, 618 A.2d 777 (1992) (dicta)). The state legislature has considered enacting regulations to balance competing private and public interests. A law passed in 1990 established the Public Water Rights Advisory Committee to evaluate the need for statutory controls over water use and allocation (1990 N.H. Laws ch. 148).

The Groundwater Protection Act (New Hampshire Statutes § 485-C, *et seq*.) regulates large water withdrawals. Large water withdrawals are defined as withdrawals of 57,600 gallons or more in any one-day period (N.H. Rev. Stat. Ann. §§ 485-C:13 and 485-C:21).

New Jersey

New Jersey's common law rule for percolating groundwater remains unclear. Early cases applied the American rule (Meeker v. East Orange, 77 N.J.L. 623, 638 (E. & A. 1909)). However, some authorities interpret Meeker as adopting the Correlative Rights rule (Woodsum v. Pemberton Twp., 172 N.J. Super. 489, 502, 504, 412 A.2d 1064 (Law Div. 1980), aff 'd on other grounds, 177 N.J. Super. 639, 427 A.2d 615 (App. Div. 1981), citing Hanks, Eva M. and John L. Hanks, The Law of Water in New Jersey: Groundwater, 24 Rutgers L. Rev. 621, 649 (1970)). Correlative Rights protect all users, including transporters. When reviewing all cases, it appears as if New Jersey uses the Reasonable Use rule.

New Jersey requires "water diversion" permits for withdrawals of more than 100,000 gallons of surface water or groundwater (N.J. Stat. Ann. §§ 58:1A-1, *et seq*). Exemptions include diversions for agricultural or horticultural uses (N.J. Stat. Ann. § 58:1A-7.2). Special rules apply to diversions for agricultural and horticultural purposes (N.J. Admin. Code 7:20-1.1, *et seq*.).

New Mexico

The doctrine of Prior Appropriation governs groundwater withdrawals in New Mexico (N.M. Const. art. XVI, § 2; N.M. Stat. Ann. § 72-12-4). Permits first must be obtained from the State Engineer who is responsible for administering water rights in the state (N.M. Stat. Ann. § 72-2-1). Exempted from the permit requirement are artificial water (private water) (see Reynolds v. City of Roswell, 99 N.M. 84, 654 P.2d 537 (1982) and water from undeclared basins (N.M. Stat. Ann. §§ 72-12-4, -12-20)). Also exempted are ponds under 10 acre-feet where the dam is having no more than 10feet high (State ex rel. State Engineer v. Lewis, 121, 323, 910 P.2d 957 (N.M. App. 1995), cert. denied (1996)). Lastly, vested rights with priority dates prior to 1907 do not require a permit. However, they must have been for a continuous use and not a one-time diversion (State of New Mexico ex rel. Martinez v. McDermett, 120 N.M. 327,901 P. 2d 745 (N.M. App. 1995)).

Chapter 72

Water Law

Article 12 Underground Waters

§ 72-12-1. Underground waters declared to be public; applications for use to state engineer; hearings

The water of underground streams, channels, artesian basins, reservoirs or lakes, having reasonably ascertainable boundaries, are declared to be public waters and to belong to the public and to be subject to appropriation for beneficial use. By reason of the varying amounts and time such water is used and the relatively small amounts of water consumed in the watering of livestock; in irrigation of not to exceed one acre of noncommercial trees, lawn or garden; in household or other domestic use; and in prospecting, mining or construction of public works, highways and roads or drilling operations designed to discover or develop the natural resources of the state, application for any such use shall be governed by the provisions of Sections 72-12-1.1 through 72-12-1.3 NMSA 1978.

§ 72-12-1.1. Underground waters; domestic use; permit

A person, firm or corporation desiring to use public underground waters described in this section 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; provided that permits for domestic water use within municipalities shall be conditioned to require the permittee to comply with all applicable municipal ordinances enacted pursuant to Chapter 3, Article 53 NMSA 1978.

§ 72-12-1.2. Underground public waters; livestock well permits

A person, firm or corporation desiring to use public underground waters for watering livestock shall make an application to the state engineer on a form prescribed by the state engineer for a livestock well permit. Upon filing of the application, the state engineer shall issue a livestock well permit for the use of water for watering livestock to the applicant, provided that as part of an application for livestock watering use on state or federal land, the applicant submits proof that the applicant:

> A. is legally entitled to place livestock on the state or federal land where the water is to be used; and

> B. has been granted access to the drilling site and has permission to occupy the portion of the state or federal land as is necessary to drill and operate the well.

Two important court cases were recently decided in New Mexico. In *Walker v. United States*, 142 N.M. 45, 162 P.3d 882 (2007), the New Mexico Supreme Court held that water rights and rights to land were separate and distinct. The only time that an owner or purchaser of land may assume that water rights go with the land is where the water is used for irrigation.

In *Bounds v. State ex rel. D'Antonio*, 306 P.3d 457 (N.M. 2013), the Supreme Court of New Mexico ruled on a long-standing dispute over exempt wells in the state. The trial court had struck down a state law exempting domestic water wells from some of the regulations applying to other groundwater withdrawals in *Bounds v. New Mexico*, CV-2006-166, County of Grant, Sixth Judicial Circuit (New Mexico, July 10, 2008).

Bounds is a farmer who owns irrigation water rights for 157.63 acres with an 1869 priority in the Mimbres Basin. Farm Bureau also intervened in the case, "representing 14,000 farm and ranch families having an interest in the case." The Mimbres Basin has been closed since 1972 and the entire basin has been adjudicated. Bounds filed this declaratory action to declare the exemption for domestic well applications in *New Mexico Code* § 72-12-1.1 unconstitutional. *New Mexico Code* § 72-12-1.1 states that the Office of the State Engineer "shall" issue domestic well permits and that domestic well applications are exempt from the notice and hearing requirements applicable to all other groundwater applications. *New Mexico Constitution* Art. XVI, §2 states:

> The unappropriated water of every natural stream, perennial or torrential, within the state of New Mexico, is hereby declared to belong to the public and to be subject to appropriation for beneficial use, in accordance with the laws of the state. Priority of appropriation shall give the better right.

The trial court found that *New Mexico Code* § 72-12-1.1 lacks any due process requirements to protect senior water rights from out of priority review of domestic well applications and that Bounds need not suffer any impairment to attack the constitutionality of the statute— "When the water is gone it will be too late." *Bounds*, page 2.

Finding that the 1910 Constitutional Convention considered water rights, including domestic use, but failed to adopt a hierarchy of appropriation by use, the court found that *New Mexico Code* § 72-12-1.1 is unconstitutional. The lack of protection for senior appropriators amounts to a lack of due process according to the court.

On appeal, the Court of Appeals of New Mexico reversed (*Bounds v. State*, 149 N.M. 484, 252 P.3d 708 (2010)). That court found that the domestic well statute did not violate the priority principle, nor did it

constitute an impermissible exception to the priority doctrine. Notably, the Court of Appeals opined that prior appropriation is "but a broad principle" that gives the legislature broad discretion in determining how to implement the doctrine.

That decision was appealed to the Supreme Court of New Mexico. The Supreme Court of New Mexico affirmed the decision of the Court of Appeals, but was careful to emphasize that prior appropriation is an important principle. The court also stressed the fact that the state legislature had broad discretion in determining the legal parameters of exempt wells. Finally, the court acknowledged that "exempt well" is a misnomer. In fact, exempt wells are heavily regulated.

New York

New York is a party to the Great Lakes Compact. See the section describing the impact of the Great Lakes Compact on water rights.

New York case law adopts the Reasonable Use rule (Forbell v. City of New York, 164 N.Y. 522 (1900)). New case in 2014. In Forbell, the court affirmed an injunction ceasing operation of Brooklyn's pumping station and wells. Brooklyn's actions lowered the water table, injuring an adjacent farmer. New York statutes comprehensively regulate use of groundwater and surface water (N.Y. Envtl. Conserv. §§ 15-0101, et seq.). N.Y. Envtl. Conserv. § 15-0701 appears to codify the Correlative Rights rule by prohibiting use of groundwater that harms others. However, the issue remains uncertain. Certain water uses do require a permit, including: 1) water for potable purposes (public supplies); 2) agricultural irrigation; 3) certain multi-purpose and similar public projects; 4) supply of water for use into any other state; 5) withdrawals of 100,000 gallons or more per day; and 6) transportation of water by vessel (N.Y.

Envtl. Conserv. Law §§ 15-1501 to 15-1529). However, whether this permit requirement extends to groundwater is unclear. The inclusion of a definition for "water well" in N.Y. Envrtl. Conserv. Law § 15-1502 implies that groundwater is subject to the permitting requirement.

Groundwater withdrawals may be restricted where aquifers are polluted, or in danger of pollution, or subject to depletion (6 N.Y.C.R.R. §§ 601, 602). In those areas, the New York Department of Conservation has imposed numerous moratoria on the construction of new wells (Beck, vol. 6, p. 540-41).

A recent case suggests that the state claims ownership of groundwater under the public trust doctrine. In a contamination case where the homeowners' groundwater was contaminated, the state appellate court states, "groundwater does not belong to the owners of real property, but is a natural resource entrusted to the state by and for its citizens" (Ivory v. Int'l Bus. Machines Corp., 116 A.D.3d 121, 130, 983 N.Y.S.2d 110, 117, leave to appeal denied, 23 N.Y.3d 903, 11 N.E. 3d 204 (2014)). The court cited Navigation Law § 170 for this proposition. That provision, part of the law addressing oil spill prevention, control and compensation, states in part:

The legislature finds and declares that New York's lands and waters constitute a unique and delicately balanced resource; that the protection and preservation of these lands and waters promotes the health, safety and welfare of the people of this state; that the tourists and recreation industry dependent on clean waters and beaches is vital to the economy of this state; that the state is the trustee, for the benefit of its citizens, of all natural resources within its jurisdiction; and that the storage and transfer of petroleum between vessels, between facilities and vessels, and between facilities, whether onshore or offshore, is a hazardous undertaking and imposes risks of damage to persons and property within this state...

North Carolina

In a 1924 decision, *Rouse v. City of Kinston*, 188 N.C. 1, 123 S.E. 482 (N.C. 1924), the Supreme Court of North Carolina adopted the American rule. In *Rouse*, a landowner sued the city for damages caused by wells constructed by the city to obtain water for sale. The court applied the American rule. "We think the American rule, adopted in most of the states where this question has arisen, the 'reasonable' use of percolating water, the correct rule."

In 1967, the North Carolina legislature passed the Water Use Act, which regulates surface and groundwater together (N.C. Stat. § 143.215.11, *et seq.*). The statute requires that, before groundwater use can be regulated, a capacity use district must be designated. The state presently recognizes only one capacity use district. This district encompasses 15 counties in the central coastal plain. Persons withdrawing more than 10,000 gallons a day must register (N.C. Stat. § 143.215.15(a)). At present, the registration serves as a data collection system only. Certain interbasin transfers of groundwater may be regulated, however.

§ 143-215.12. Declaration of purpose.

It is hereby declared that the general welfare and public interest require that the water resources of the State be put to beneficial use to the fullest extent to which they are capable, subject to reasonable regulation in order to conserve these resources and to provide and maintain conditions which are conducive to the development and use of water resources.

North Dakota

North Dakota follows the doctrine of Prior Appropriation for beneficial use regarding groundwater withdrawals (N.D. Century Code 61-01-01). When a landowner's withdrawal harms other landowners overlying the common supply who have applied the water to beneficial use, the court may award compensation for "the cost of making such repairs, alterations, or construction that will ensure the delivery to the surface owner prior to the diminishment" (N.D. Cent. Code § 61-04-32. See also, Volkmann v. City of Crosby, 120 N.W.2d 18 (N.D. 1963); Undlin v. City of Surrey, 262 N.W.2d 742 (N.D. 1978)). The right to appropriate water is limited to the quantity which can be beneficially used (N.D. Cent. Code § 61-04-01.2). A conditional water permit must be obtained from the State Engineer prior to making any appropriations. Permits are not required for domestic, livestock, fish, wildlife, and recreation uses of less than 12.5 acre-feet (N.D. Cent. Code § 61-04-02).

North Dakota Century Code

61-01-01 Waters of the state – Public waters.

All waters within the limits of the state from the following sources of water supply belong to the public and are subject to appropriation for beneficial use and the right to the use of these waters for such use must be acquired pursuant to chapter 61-04:

1. Waters on the surface of the earth excluding diffused surface waters but including surface waters whether flowing in well defined channels or flowing through lakes, ponds, or marshes which constitute integral parts of a stream system, or waters in lakes;

2. Waters under the surface of the earth whether such waters flow in

defined subterranean channels or are diffused percolating underground water;

3. All residual waters resulting from beneficial use, and all waters artificially drained; and

4. All waters, excluding privately owned waters, in areas determined by the state engineer to be noncontributing drainage areas. A noncontributing drainage area is any area that does not contribute natural flowing surface water to a natural stream or watercourse at average frequency more often than once in three years over the latest thirty-year period.

Ohio

Ohio is a party to the Great Lakes Compact. See the section describing the impact of the Great Lakes Compact on water rights.

In 1984 in *Cline v. American Aggregates Corp.*, 15 Ohio St. 3d 384 (Ohio 1984), the Ohio Supreme Court employed the Restatement (Second) of Torts approach to groundwater law (Juliane Matthews, *A Modern Approach to Groundwater Allocation Disputes: Cline v. Am. Aggregates Corp.*,7 J. Energy L. & Pol'y 361 (1986)). In *Cline*, the Ohio Court departed from the English rule and accepted the beneficial purpose standard of the Restatement (Second) of Torts.

In 1990, Ohio statutorily enacted the Restatement rule concerning determination of the reasonableness of a use of water (http://ohiodnr.com/water/planing/ watsupas/ water_rights/tabid/4065/ Default.aspx (last visited June 27, 2009)). "Section 1521.17 ORC states that such a determination depends on a consideration of the interests of the person making the use, of any person harmed by the use, and of society as a whole. It then lists nine factors to be considered, which are the same as those contained in the Restatement of Torts" (*Id.*). Groundwater withdrawals exceeding 100,000 gallons per day must register with the Ohio Department of Natural Resources, with certain exceptions, mainly applying to public water suppliers. No one has ever applied for a permit under this provision.

In *McNamara v. City of Rittman*, 107 Ohio St. 243, 838 N.E.2d 640 (2005), decided on December 21, 2005, Ohio's highest court considered a question from the United States Court of Appeals for the Sixth Circuit.

The case had been filed and litigated in the United States District Court for the Southern District of Ohio. That court granted judgment to the city over a landowner who alleged that the city's pumping of groundwater interfered with landowner's use of water beneath their property.

Since the case depended upon state law, the federal appellate court certified a question to the Ohio Supreme Court, asking, "Does an Ohio homeowner have a property interest in so much of the groundwater located beneath the landowner's property as is necessary to the use and enjoyment of the owner's home?" The Ohio Supreme Court answered in the affirmative, holding that "Ohio landowners have a property interest in the groundwater lying beneath their land and that governmental interference with that right can constitute a taking." Note that whether a "property interest" exists or not is a technical, legal question. The right must be a "property interest" to receive constitutional protection. This case is significant as one of the first, if not the first, state supreme court to confirm that groundwater rights are subject to the protection of the United States Constitution.

A recent federal court opinion states that the property right enunciated in *McNamara* exists only when the property owner uses the water, making it different from the "ownership in place" rule in Texas. "We agree with [the defendant] that plaintiffs groundwater have no claim under McNamara. An Ohio landowner has a property right in groundwater only to the extent he actually uses that water; he has no property interest in that water simply because it resides beneath his land." (Baker v. Chevron U.S.A. Inc., 533 F. App'x 509, 521 (6th Cir. 2013)). Baker involved a group of homeowners claiming that the groundwater beneath their property had been contaminated.

Oklahoma

Oklahoma traditionally followed the rule of Reasonable Use to regulate groundwater in the state (Canada v. City of Shawnee, 179 Okla. 53, 64 P.2d 694, 696-99 (1937); Bowles v. City of Enid, 245 P.2d 730 (Okla. 1952)). The 1972 Groundwater Law altered this standard. Instead, overlying landowners may be granted permits to withdraw a proportionate share of the maximum annual yield "equal to the percentage of land overlying the fresh groundwater basin or subbasin which the applicant owns or leases and which is dedicated to the application" (Okla. Stat. tit. 82, § 1020.9(B)). Now, "the use or non-use by one landowner neither decreases nor increases the proportionate share of another" (Oklahoma Water Resources Bd. v. Texas County Irrig. & Water Resources Ass'n, 711 P.2d 38, 41-42 (Okla. 1984)). Landowners must obtain a permit from the Oklahoma Water Resources Board before making groundwater withdrawals for other than domestic purposes (Okla. Stat. tit. 82, § 1 020.11.A.). Exempt from this requirement are domestic uses (Okla. Stat. tit. 82 §§ 1020.1, 1020.3). Domestic uses are defined to include household purposes, farm and domestic animals up to the grazing capacity of the land, irrigation of not more than three acres for the growing of gardens, orchards, and lawns, and "such other purposes specified by Board rules, for which de minimis amounts are used" (Okla. Stat. tit. 82, § 105.1(2)). The Oklahoma Water Resources

Board has specified as "other purposes" "the use of water by non-household entities for drinking water purposes, restroom use, and the watering of lawns provided that the amount used does not exceed three acre-feet per year" (OWRB Rule, tit. 785, § 20-1-2).

The Oklahoma Water Resources Board oversees groundwater permitting. "State groundwater is considered private property that belongs to the overlying surface owner, although it is subject to reasonable regulation by the OWRB... As with stream water, before actual use of the water for any purpose other than domestic, persons intending to use groundwater must submit a permit application to the OWRB" (http:// www.owrb.ok.gov/ supply/watuse/ gwwateruse.php) (last visited June 27, 2009).

Thus, Oklahoma appears to use the Correlative Rights doctrine with respect to all uses except domestic uses. Domestic uses are subject to a type of Reasonable Use rule.

Oklahoma Statutes

Title 82. Waters and Water Rights

Chapter 11

Policy.

Section 1020.2 – Declaration of

Section 1020.2 It is hereby declared to be the public policy of this state, in the interest of the agricultural stability, domestic, municipal, industrial and other beneficial uses, general economy, health and welfare of the state and its citizens, to utilize the groundwater resources of the state, and for that purpose to provide reasonable regulations for the allocation for reasonable use based on hydrologic surveys of fresh groundwater basins or subbasins to determine a restriction on the production, based upon the acres overlying the groundwater basin or

subbasin. The provisions of this act shall not apply to the taking, using or disposal of salt water associated with the exploration, production or recovery of oil and gas or to the taking, using or disposal of water trapped in producing mines.

Oklahoma Statutes

Title 82. Waters and Water Rights

Chapter 11 Section 1020.14 – Prior Use of Groundwater.

Nothing in this act shall be construed to deprive any person of any right to the use of groundwater in such quantities and amounts as were used or were entitled to be used prior to the enactment hereof. Any person having the right to place groundwater to beneficial use prior to the effective date of this act shall have the right to bring his use under the provisions of this act. Determinations of prior rights to the use of groundwater made by the Board pursuant to Board rules and regulations are hereby validated.

Oregon

Prior Appropriation governs groundwater use in Oregon. Under a statutory system, a permit is required before making any withdrawals (Or. Rev. Stat. §§ 537.505 to . 796). Exceptions to the permit requirement include stock watering, domestic uses up to 15,000 gallons per day, lawn watering up to half an acre, and small industrial or commercial uses up to 5,000 gallons per day (Or. Rev. Stat. § 537.545). Exempt uses are also limited to the amount necessary for beneficial use. The Water Resources Department may regulate exempted uses by using priority dates if necessary. In times of shortage, domestic purposes have first preference and agricultural purposes second preference over all other uses (Or. Rev. Stat. § 540.140). Pre-statute (prior to 1909) rights may be protected (see Or. Rev.

Stat. § 537.605). Groundwater is further regulated within groundwater management areas. After the declaration of such an area, new users must apply for a permit even for normally exempted uses (Or. Rev. Stat. § 537.545). No relevant case law was discovered.

Groundwater

537.525 Policy.

The Legislative Assembly recognizes, declares and finds that the right to reasonable control of all water within this state from all sources of water supply belongs to the public, and that in order to insure the preservation of the public welfare, safety and health it is necessary that:

> (1) Provision be made for the final determination of relative rights to appropriate groundwater everywhere within this state and of other matters with regard thereto through a system of registration, permits and adjudication.

(2) Rights to appropriate groundwater and priority thereof be acknowledged and protected, except when, under certain conditions, the public welfare, safety and health require otherwise.

(3) Beneficial use without waste, within the capacity of available sources, be the basis, measure and extent of the right to appropriate groundwater.

(4) All claims to rights to appropriate groundwater be made a matter of public record.

The Oregon Water Commission oversees the Water Resources Department. "In

Oregon, the appropriation doctrine has been law since 1909 when passage of the first unified water code introduced state control over the right to use water" (http:// www.oregon.gov/OWRD/PUBS/ aquabook.shtml) (last visited June 27, 2009). Some uses of water are "exempt" and do not require water rights (Id.). For example, single or group domestic purposes for no more than 15,000 gallons per day are exempt (*Id.*).

Pennsylvania

Pennsylvania is a party to the Great Lakes Compact. See the section describing the impact of the Great Lakes Compact on water rights.

In 1940, in Rothrauff v. Sinking Spring Water Co., 339 Pa. 129, 14 A.2d 87 (Pa. 1940), the Supreme Court of Pennsylvania rejected the English rule and adopted the Rule of Reasonableness: "While there is some difference of opinion as to what should be regarded as reasonable use of such waters, the modern decisions are fairly harmonious in holding that a property may not concentrate such waters and convey them off his land if the springs or wells of another are impaired... In the absence of precedent in our own State we adopt this view as the proper interpretation of the law." The Pennsylvania legislature has not attempted to modify this rule by statute.

Rhode Island

The Absolute Ownership doctrine is still utilized in Rhode Island (Linda A. Malone, *The Necessary Interrelationship between Land Use and Preservation of Groundwater Resources*, 9 UCLA J. Envtl. L. & Pol'y 1 (1990)). However, "[O]ne commentator has suggested that it is 'doubtful' that Rhode Island will continue to allow absolute ownership and noted that the Vermont legislature in 1985 adopted the correlative rights rule in place of absolute ownership" (*Id.*).

Gen.Laws 1956, § 46-13.1-2

§ 46-13.1-2. Legislative findings

The general assembly hereby recognizes and declares that:

(1) Water is vital to life and comprises an invaluable natural resource which is not to be abused by any segment of the state's population or its economy. It is the policy of this state to restore, enhance, and maintain the chemical, physical, and biological integrity of its waters, to protect public health, to safeguard fish and aquatic life and scenic and ecological values, and to enhance the domestic, municipal, recreational, industrial, and other uses of water;

(2) The groundwaters of this state are a critical renewable resource which must be protected to insure the availability of safe and potable drinking water for present and future needs;

(3) It is a paramount policy of the state to protect the purity of present and future drinking water supplies by protecting aquifers, recharge areas, and watersheds;

(4) It is the policy of the state to restore and maintain the quality of groundwater to a quality consistent with its use for drinking supplies and other designated beneficial uses without treatment as feasible. All groundwaters of the state shall be restored to the extent practicable to a quality consistent with this policy;

(5) It is the policy of the state not to permit the introduction of pollutants into the groundwaters of the state in concentrations which are known to be toxic, carcinogenic, mutagenic, or teratogenic. To the maximum extent practical, efforts shall be made to require the removal of those pollutants from discharges where such discharges are shown to have already occurred;

(6) Existing and potential sources of groundwater shall be maintained and protected. Where existing quality is inadequate to support certain uses, the quality shall be upgraded, if feasible to protect the present and potential uses of the resource;

(7) The groundwaters of the state are to be protected for use as agricultural, industrial, and potable water supplies, and other reasonable uses, and as a supplement to surface waters for recreation, wildlife, fish and other aquatic life, agriculture, industry, and potable water supply;

(8) Discharges to groundwater which subsequently discharge into surface waters and which would cause a contravention of surface water quality or standards shall not be permitted.

(9) No degradation of the state's groundwaters shall be permitted unless the state chooses to allow lower water quality as a result of the essential, desirable, and justifiable economic, commercial, industrial, or social development.

South Carolina

South Carolina applies the Riparian doctrine to surface waters. The rule is very similar to the Reasonable Use rule for groundwater. However, there is no meaningful common law authority for groundwater (J. Marshall Lawson, *Transboundary Groundwater Pollution: The Impact of Evolving Groundwater Use Laws on Salt Water Intrusion of the Floridian Aquifer along the South Carolina-Georgia Border*, 1 S.C. Envtl. L.J. 85, 93 (2000)).

South Carolina has also adopted a permitting system for groundwater withdrawals in excess of 100,000 GPD for wells within "capacity use" areas (S.C. Code Ann. § 49-5-60(a) (Law Co-op. 2002)). South Carolina has now designated four capacity use areas encompassing fifteen counties (http://www.scdhec.gov/ environment/WaterQuality/ GroundUseReporting/Overview/). The statute exempts withdrawals for nonconsumptive uses and withdrawals at a "single family residence or household for noncommercial use" (S.C. Stat. § 49-5-10, *et seq*.). No exception exists for agricultural withdrawals.

Chapter 5. Groundwater Use and Reporting Act

Section 49510. Short title.

This chapter may be cited as the Groundwater Use and Reporting Act.

SECTION 49520. Legislative declaration of policy.

The General Assembly declares that the general welfare and public interest require that the groundwater resources of the State be put to beneficial use to the fullest extent to which they are capable, subject to reasonable regulation, in order to conserve and protect these resources, prevent waste, and to provide and maintain conditions which are conducive to the development and use of water resources.

South Dakota

South Dakota subjects percolating waters to the same Prior Appropriation regime as surface waters and underground streams. The state requires a permit before anyone may make a groundwater withdrawal (see 1955 Water Law, S.D. Codified Laws Ann. § 46). Domestic wells do not require a permit (*Id.*). The law provides for the recognition of groundwater rights based upon the actual use of water prior to 1955 when the state's water law was enacted. South Dakota's Water Management Board must present water uses in excess of 10,000 acre-feet to the legislature for approval (S.D. Codified Laws Ann. § 46-5-20.1). "Domestic use is the highest use of water and takes precedence over all appropriative uses" (http:// denr.sd.gov/des/wr/wateruse.aspx).

Title 46

Water Rights

Chapter 1 – Definitions and General Provisions

46-1-1. Use of water of state— Paramount interest of people—of the state have a paramount interest in the use of all the water of the state and that the state shall determine what water of the state, surface and underground, can be converted to public use or controlled for public protection.

46-1-3. Water as property of people —Appropriation of right to use. It is hereby declared that all water within the state is the property of the people of the state, but the right to the use of water may be acquired by appropriation as provided by law.

Chapter 6 – Groundwater and Wells

46-6-3. Appropriation of groundwater authorized. Subject to vested rights and prior appropriations, groundwaters of the state may be appropriated pursuant to the procedures contained in chapter 46-2A.

Tennessee

Tennessee courts presume that all groundwater is percolating groundwater (*Nashville, C. & St. L. Ry. v. Rickert,* Tenn. App. 446, 89 S.W.2d 889 (1935), *cert. denied* (Tenn. Sup. Ct. 1936)). One must present existence of an underground stream by surface markings (*Tennessee Electric Power Co. v. Van Dodson,* 4 Tenn. App. 54, 58 (1931)). The state allocates the right to use groundwater based on the Correlative Rights rule (*Nashville, C. & St. L. Ry. v. Rickert,* Tenn. App. 446, 89 S.W.2d 889 (1935), *cert. denied* (Tenn. Sup. Ct. 1936)). (The court stated it was applying the Reasonable Use rule. However, the rule applied more closely resembles the Correlative Rights rule.)

In Nashville C. & St. L. Ry. v. Rickert, a railroad company sued a landowner to prevent him from pumping water on his property in such quantities as to interfere with the railroad's supply. In 1935, while affirming the lower court's finding in favor of the railroad, the appeals judge quoted from the lower court decision. "[T]he modern rule and the better rule is that the rights of each owner being similar, and their enjoyment dependent on the action of other landowners, their right must be correlative and subject to the maxim that one must so use his own as not to injure another, so that each landowner is restricted to a reasonable exercise of his own rights and a reasonable use of his own property, in view of the similar rights of others."

Texas

Texas still applies the English rule of Absolute Dominion in its traditional form (Houston & T.C. Ry. V. East, 98 Tex. 146, 81 S.W. 279 (1904); City of Sherman v. Public Util. Comm'n, 643 S.W.2d 681 (Tex. 1983); Fain v. Great Spring Waters of America, Inc. (Ozarka), 975 S.W.2d 327 (Tex. No. 98-0247, May 6, 1999) (upholding rule of capture and leaving regulation of groundwater to legislature). Groundwater regulation in Texas is limited to elected water conservation districts and the Edwards Aquifer. Water districts hold the power to regulate wells pumping more than 10,000 gallons per day. In the Edwards Aquifer, a cap of 450,000 acre-feet/year has been established with a priority for existing users. If excess water is available, then permits are made available for new users.

However, if the cap is exceeded, then the Edwards Aquifer Authority may proportionally reduce existing users' withdrawals to no less than 2 acre-feet for each acre of land actually irrigated during the historical period. The Act exempts any wells producing 25,000 gallons per day or less from the permit requirements and the cap limitation (Edwards Aquifer Act, Act of May 30, 1993, 73rd Leg., R.S., ch. 626, 1993 Tex. Gen. Laws 2350, as amended by, Act of May 28, 1995, 74th Leg., R.S., ch. 361, 1995 Tex. Gen. Laws 3280).

City of Del Rio v. Clayton Sam Colt Hamilton Trust, 269 S.W.3d 613, 2008 WL 508682 (Tex.App.-San Antonio, 2008) involved the sale of 15 acres from a 3,200-acre ranch to the City of Del Rio. The tract is surrounded south, north and east by the remainder of the ranch, and by a highway on the west. The deed reserved "all water rights associated with said tract." Three years after purchasing the tract, the city developed a well on property for public water supply.

The trust filed suit against city, seeking declaration that it owned the groundwater beneath the 15-acre tract it had conveyed to city, and that city's claim of ownership to those water rights should be rejected. City filed counterclaim, seeking declaration that warranty deed did not leave landowner with any right, title, or interest in any groundwater pumped to the surface by the city. The 83rd Judicial District Court, Val Verde County concluded that trust's water rights reservation was valid and enforceable, and that trust owned groundwater rights beneath tract. City appealed. The Court of Appeals held that the trust was entitled to sever groundwater from surface estate by reservation when it conveyed surface estate to city. The city was not permitted to drill and pump groundwater from beneath tract under rule of capture. The court also found that trust's reservation of all water rights did not violate State Constitution's prohibition against perpetuities.

A pair of recent Texas cases show that regulatory takings of water rights may occur more often than previously assumed. These cases impact the "ownership of groundwater in Texas in important ways". Although the cases are binding only in Texas, the rulings may influence courts in other states, and garnered national attention.

First, the Supreme Court of Texas, in *Edwards Aquifer Authority v. Day*, 369 S.W.3d 814 (Sup. Ct. Texas 2012), found that land ownership includes an interest in "groundwater in place" that cannot be taken for public use without just compensation under the Texas Constitution. The court compared groundwater to oil and gas, and found no reason not to treat groundwater as similar to oil and gas. The court then returned the case to the trial court to gather sufficient facts to determine whether a regulatory taking had occurred.

About a year and a half after *Day* was decided, the Texas Court of Appeals was presented with a case where the trial court had found a regulatory taking, applying the *Penn Central* balancing test. In this case, a pecan grower had applied for permits to withdraw groundwater to irrigate his pecan trees. The Edwards Aquifer Authority denied one permit outright and granted a permit allowing withdrawal of a portion of the water requested by the pecan grower. The pecan grower filed a lawsuit, claiming a regulatory taking.

The trial court found that a regulatory taking had occurred, and awarded damages. On appeal, the Court of Appeals of Texas affirmed the finding of a regulatory taking (*Edwards Aquifer Authority v. Bragg*, 421 S.W.3d 118 (Tex. Ct. App. 2013). In addition, the court ruled that when a regulatory taking has been found in this situation, damages are calculated by subtracting the value of the real estate before the permit denial from the value of the property after the permit denial. On April 29, 2016, the Supreme Court of Texas decided not to hear the appeal in the *Bragg* case, so the decision will stand.

Utah

Utah follows the doctrine of Prior Appropriation, governing groundwater and surface water identically (Utah Code Ann. § 73-3-1; Wrathall v. Johnson, 86 Utah 50, 40 P. 2d 755 (1935); Justesen v. Olsen, 86 Utah 158, 40 P.2d 755 (1935) (applying appropriation and permit systems to artesian basins)). Permits are required for all withdrawals. Groundwater rights established prior to 1935 are preserved as "diligence rights" (1955 Utah Laws ch. 160, § 73-3-17). Domestic use, then agricultural use, has preference in times of scarcity (1955 Utah Laws ch. 160, § 73-3-31). The state engineer has issued water management plans for twelve areas where water is in short supply (Groundwater Law Sourcebook of the Western United States, p. 53). Within these plans, the state engineer may limit appropriations, set maximum annual withdrawals, and close the area to all new appropriations (Id.).

Utah Code – Title 73 – Water and Irrigation

73-1-1. Waters declared property of public. All waters in this state, whether above or under the ground are hereby declared to be the property of the public, subject to all existing rights to the use thereof.

In 2006, the Utah General Assembly adopted a new Groundwater Management Act. The act authorizes the State Engineer to determine the safe yield within each basin. Once the safe yield has been determined, the State Engineer may regulate on priority where withdrawals may exceed safe yield.

Vermont

Vermont traditionally followed the Absolute Dominion rule (White River Chair Co. v. Conn. River Power Co. of N.H., 105 Vt. 24, 162 A. 859 (1932); Drinkwine v. State, 274 A.2d 485 (Vt. 1970)). However, in 1985, Vermont enacted 10 V.S.A. § 1410, abolishing the Absolute Dominion rule and creating a cause of action for persons harmed by the withdrawal of groundwater by another. The provision provides an exception that insulates a withdrawer for agricultural or silvicultural activities so long as the alteration of groundwater quality or character is not negligent, reckless or intentional (10 V.S.A. §1410(d)). This provision has not been applied in a context that has considered groundwater rights.

Vermont Statutes

Title Ten: Conservation and Development

Chapter 37: Water Resources Management

§ 901. Water resources management policy

It is hereby declared to be the policy of the state that the water resources of the state shall be protected, regulated and, where necessary, controlled under authority of the state in the public interest and to promote the general welfare.

§ 902. Definitions

Wherever used or referred to in this chapter, unless a different meaning clearly appears from the context:

...(3) "Waters" means any and all rivers, streams, brooks, creeks, lakes, ponds or stored water, and groundwaters, excluding municipal and farm water supplies... Effective in 2008, Vermont became the latest state to adopt a statute declaring groundwater as part of the public trust (10 V.S.A. § 1390).

Vermont Statutes

Title Ten: Conservation and Development

Part 2. Soil and Water Conservation; Flood Control

Chapter 48. Groundwater Protection

Subchapter 1. Policy; Definitions

§ 1390. Policy

The general assembly hereby finds and declares that:

(1) the state should adhere to the policy for management of groundwater of the state as set forth in section 1410 of this title;

(2) in recognition that the groundwater of Vermont is a precious, finite, and invaluable resource upon which there is an everincreasing demand for present, new, and competing uses; and in further recognition that an adequate supply of groundwater for domestic, farming, dairy processing, and industrial uses is essential to the health, safety, and welfare of the people of Vermont, the withdrawal of groundwater of the state should be regulated in a manner that benefits the people of the state; is compatible with long-range water resource planning, proper management, and use of the water resources of Vermont;

and is consistent with Vermont's policy of managing groundwater as a public resource for the benefit of all Vermonters;

(3) it is the policy of the state that the state shall protect its groundwater resources to maintain high-quality drinking water;

(4) it is the policy of the state that the groundwater resources of the state shall be managed to minimize the risks of groundwater quality deterioration by regulating human activities that present risks to the use of groundwater in the vicinities of such activities while balancing the state's groundwater policy with the need to maintain and promote a healthy and prosperous agricultural community; and

(5) it is the policy of the state that the groundwater resources of the state are held in trust for the public. The state shall manage its groundwater resources in accordance with the policy of this section, the requirements of subchapter 6 of this chapter, and section 1392 of this title for the benefit of citizens who hold and share rights in such waters. The designation of the groundwater resources of the state as a public trust resource shall not be construed to allow a new right of legal action by an individual other than the state of Vermont, except to

remedy injury to a particularized interest related to water quantity protected under this subchapter.

Virginia

In *Clinchfield Coal Corp. v. Compton*, 139 S.E. 308 (Va. 1927), the Virginia Supreme Court did not display a preference for any specific groundwater doctrine. In *Clinchfield*, a landowner sued a coal company for the destruction of a spring on plaintiff's land. "In the instant case, the coal company was making a legitimate use of its land for mining purposes, even under the 'reasonable use' rule, and we are not called upon to decide between the different theories, but if the question shall again come before this court we shall feel free to consider it *de novo*."

In 1994, the Circuit Court of New Kent County examined the issue and held that Virginia is an American rule jurisdiction (Andrews and New Kent County Citizen Association v. Board of Supervisors in New Kent County, No. CH93-77, in the Circuit Court for the County of New Kent, (Aug. 31, 1994)). The case involved a challenge to a proposed well for use as a municipal water supply. The Court ruled that "...as between the English rule and American rule concerning offsite sale of groundwater, the American rule applies in Virginia. Accordingly, the offsite sale of groundwater is unlawful if it damages existing groundwater supplies in New Kent County" (Id., at 2). In this case, the litigants requested that the Court only rule on whether the American Rule/English Rule applied. Additionally, in 1999, the Circuit Court of Frederick County considered the issue (Costello v. Frederick County Sanitation Authority, 49 Va. Cir. 41, WL 231720 (1999)). While not expressly endorsing either doctrine, the judge hinted that Virginia follows the American rule.

In The Historic Green Springs, Inc., et al. v. Virginia Western Land Company, LLC, et al., Case No. 04-6960, Louisa County, Virginia Circuit Court, plaintiffs, landowners within an historic district in Louisa County, sought an injunction to stop the Louisa County Water Authority from operating three wells. The lawsuit alleged that the pumping from these wells would interfere with plaintiffs' groundwater. In addition, the landowners asked the court to clarify groundwater rights in Virginia. Note that some zoning issues, not pertinent to groundwater in general, were also litigated. The plaintiffs maintained that the American rule applies in Virginia.

Judge Timothy Sanner of the Circuit Court of Louisa County, Virginia, made his ruling from the bench on December 20, 2006 (The Historic Green Springs, Inc., et al. v. Virginia Western Land Company, LLC, et al., Case No. 04-6960, Louisa County, Virginia Circuit Court, Transcript of the Proceedings before the Honorable Judge Timothy Sanner, December 20, 2006 (on file with Water Systems Council)). The judge made two very significant rulings. First, as the Ohio Supreme Court decided in McNamara v. City of Rittman, 107 Ohio St. 243, 838 N.E.2d 640 (2006), the judge held that groundwater rights are property rights. As a property right, groundwater rights receive constitutional and other protections. If a landowner can show unlawful interference with this right, the court may order that the offender cease the pumping activity.

Secondly, the judge found that Virginia adheres to the American rule. This ruling augments the other two trial court rulings of the same vein. Although no certainty exists until the Virginia Supreme Court rules, a growing unanimity exists that the American rule will apply.

Legislatively, in 1973, Virginia adopted the Groundwater Management Act which provided for state regulation of the critical groundwater areas. This 1973 law was subsequently replaced by the Virginia Groundwater Management Act of 1992 (Va. Code Ann. § 62.1- 254 to 62.1-270 (Michie 1992)). "Under the Groundwater Management Act of 1992, Virginia manages groundwater through a program regulating the withdrawals in certain areas called groundwater management areas. Those wishing to withdraw 300,000 gallons per month or more must apply for and receive a groundwater withdrawal permit. Currently, there are two groundwater management areas in the state: the Eastern Shore and eastern Virginia" (http:// www.deq.virginia.gov/Portals/0/DEQ/ Water/GroundwaterPermitting/ gwma.pdf). The eastern Virginia groundwater management area was significantly expanded in 2014 (http:// www.deq.virginia.gov/Portals/0/DEQ/ Water/GroundwaterPermitting/Expansion %20fact%20sheet%20GWPP%20Final %2012%2019%2013.pdf). In nongroundwater management areas, common law applies and withdrawal permits are not required.

Code of Virginia

Title 62.1.

Waters of the State, Ports, and Harbors

Chapter 25. Groundwater Management Act of 1992

§ 62.1-254. Findings and purpose.

The General Assembly hereby determines and finds that, pursuant to the Groundwater Act of 1973, the continued, unrestricted usage of groundwater is contributing and will contribute to pollution and shortage of groundwater, thereby jeopardizing the public welfare, safety and health. It is the purpose of this Act to recognize and declare that the right to reasonable control of all groundwater resources within this Commonwealth belongs to the public and that in order to conserve, protect and beneficially utilize the groundwater of this Commonwealth and to ensure the public welfare, safety and health, provision for management and control of groundwater resources is essential. (Italics added)

Washington

Washington regulates groundwater subject to appropriation for beneficial use (RCW § 90.44.040 et seq.). Before 1945, groundwater was allocated under the rule of Reasonable Use (Evans v. City of Seattle, 47 P.2d 984 (Wash. 1935)). After 1945, the exclusive method for obtaining groundwater rights became through a permit system governed by the rule of Prior Appropriation (RCW § 90.44.050). Exempted from the permit requirement are stock water, domestic uses including irrigation of lawns and noncommercial gardens less than one-half acre, and industrial or single or group domestic uses of less than 5,000 gallons per day (*Id*.).

RCW 90.44.040

Public groundwaters subject to appropriation.

Subject to existing rights, all natural groundwaters of the state as defined in RCW 90.44.040, also all artificial groundwaters that have been abandoned or forfeited, are hereby declared to be public groundwaters and to belong to the public and to be subject to appropriation for beneficial use under the terms of this chapter and not otherwise.

RCW 90.44.035

Definitions.

For purposes of this chapter:

(3) "Groundwaters" means all waters that exist beneath the land surface or beneath the bed of any stream, lake or reservoir, or other body of surface water within the boundaries of this state, whatever may be the geological formation or structure in which such water stands or flows, percolates or otherwise moves. There is a recognized distinction between natural groundwater and artificially stored groundwater;

West Virginia

In 1927, West Virginia indicated its support for the American rule in Drummond v. White Oak Fuel Co., 140 S.E. 57 (W.Va. 1927). In Drummond, the plaintiff landowner sued a coal mining company for damages to a well on the surface tract, which plaintiff claimed was drained by reason of the removal of coal. "The rule limiting the right of diversion is called the 'reasonable use' or 'American' rule. It is now supported by the decided weight of authority and was approved by this court in its opinion in Pence v. Carney, 58 W.Va. 296, 52 S.E. 702, 706 (W.Va. 1905). That case does not seriously attempt to define the rule of 'reasonable use,' but says it has been held to apply to any purpose for which a landowner 'might legitimately use and enjoy his land'." No statutory provisions supplement the common law rule in West Virginia.

In *Ooten, et al. v. Massey Coal Services, Inc, et al.,* Civil Action No. 02-C-203 (Circuit Court of Mingo County, West Virginia 2004), the jury returned a verdict ordering a coal mining company to pay approximately 240 people representing 100 households a total of approximately \$1.7 million. The jury found that the mine's operation had interfered with the wells of these households, infringing upon the owners' private water rights. This case is very important in that the jury enforced the homeowners' right to have a well in the wake of a powerful defendant's attempts to ignore those rights.

Wisconsin

Wisconsin is a party to the Great Lakes Compact. See the section describing the impact of the Great Lakes Compact on water rights.

Wisconsin follows the Restatement of Torts rule to govern groundwater appropriations (State v. Michels Pipeline Constr. Inc., 63 Wis. 2d 278, 217 N.W.2d 339 (Wis. 1974)). The state requires permits for certain water uses, including: 1) diversion for stream-level maintenance; 2) agriculture and irrigation; and 3) for a "system or plant" which consumptively withdraws an average of more than 2 mgd gallons per day in any 30day period (Wis. Stat. §§ 30.18, 30.28, 30.292 to 30.298, 281.35). Only withdrawals of 100,000 gallons per day or more are regulated. (Withdrawals from surface or groundwater that average more than 2,000,000 gallons per day over a 30-day period are also regulated (Wis. Stat. § 281.35)). The permitting agency may cancel a permit if the agency finds that it no longer serves the public interest, with review required every five years (Wis. Stat. §§ 30.18(6m), 281.35(6)(a)(9), 281.35(6)(b)). Priority exists for municipalities for well withdrawals in excess of 100,000 gallons per day (Wis. Stat. § 281.34).

Wisconsin Statutes

Environmental Regulation

Chapter 281.01. Water and Sewage

Subchapter I. Definitions

In this chapter, unless the context requires otherwise:

(18) "Waters of the state" includes those portions of Lake Michigan and Lake Superior within the boundaries of this state, and all lakes, bays, rivers, streams, springs, ponds, wells, impounding reservoirs, marshes, watercourses, drainage systems and other surface water or groundwater, natural or artificial, public or private, within this state or its jurisdiction.

Wyoming

Wyoming's groundwater regulation follows the doctrine of Prior Appropriation (and may be subject to regulation and correlation with surface water rights if found to be interconnected) (Wyo. Stat. §§ 41-3-901 to -919). Water rights permits are necessary before making any appropriations. Wyoming provides for the establishment of "control areas," designated by the Board of Control where: 1) the use of groundwater is approaching the recharge rate; 2) groundwater levels are declining or have declined excessively; 3) conflicts between users are occurring or are foreseeable; 4) waste is occurring; or 5) other conditions exist that require regulation to protect the public interest (Wyo. Stat. § 41-3-912(a)). Water appropriation restrictions may be imposed in these areas. Small domestic (lawns and noncommercial gardens less than one acre and less than 25 gal./minute) and stock users (less than 25 gal./minute) may take groundwater from under their land without regard to priorities (Wyo. Stat. § 41-3-907).

Wyoming Statutes

Chapter 3

Water Rights; Administration and Control

Article 1

Generally

41-3-101. Nature of water rights and beneficial use.

A water right is a right to use the water of the state, when such use has been acquired by the beneficial application of water under the laws of the state relating thereto, and in conformity with the rules and regulations dependent thereon. Beneficial use shall be the basis, the measure and limit of the right to use water at all times, not exceeding the statutory limit except as provided by W.S. 41-4-317. In addition to any beneficial use specified by law or rule and regulation promulgated pursuant thereto, the use of water for the purpose of extracting heat therefrom is considered a beneficial use subject to prior rights.

Water being always the property of the state, rights to its use shall attach to the land for irrigation, or to such other purposes or object for which acquired in accordance with the beneficial use made for which the right receives public recognition, under the law and the administration provided thereby. Water rights for the direct use of the natural unstored flow of any stream cannot be detached from the lands, place or purpose for which they are acquired, except as provided in W.S. 41-3-102 and 41-3-103, pertaining to a change to preferred use, and except as provided in W.S. 41-4-514.

V. The Federal Government

With the exception of regulating pollution and water quality, Congress has generally left the allocation of groundwater to the states. The Supreme Court has also shied away from the issue (J.M. Marshall Lawson, Transboundary Groundwater Pollution: The Impact of Evolving Groundwater Use Laws on Salt Water Intrusion of the Floridian Aquifer along the South Carolina-Georgia Border, 1 S.C. Envtl. L.J. 85, 98 (2000)). In United States v. Willow River *Power Co.*, the owner of a dam and hydroelectric plant on a navigable stream, sued the federal government under the Fifth Amendment for compensation for a reduction in the generating capacity of the plant that resulted from an authorized navigation improvement. Although some form of private property rights in water has been found to exist in all states, the Supreme Court has made clear these rights are not absolute: "Rights, property or otherwise, which are absolute against all the world are certainly rare, and water rights are not among them" (Id., citing, United States v. Willow River Power Co., 342 U.S. 499, 510 (1945)).

Conclusions

So, who really "owns" the water? Property owners (or holders of water rights) come closest to "owning" water by owning the right to use water. The states, contrary to some assertions, do not own the water.

Just as the state or local government may regulate land use, federal, state and local governments may reasonably regulate the right to use water. However, if these regulations go too far, a taking has occurred and the owner must be compensated.

Disputes over water rights will undoubtedly increase as demands on the resource increase. Many governments will attempt to overstep their bounds. Property owners and owners of water rights should educate themselves as to their rights and consult legal counsel, if they feel they are being treated unfairly.



Water Systems Council 1101 30th Street N.W., Suite 500 Washington, DC 20007

Phone: 202-625-4387 Fax: 202-625-4363

www.watersystemscouncil.org

This publication was developed in part under Assistance Agreement No. 83580501 awarded by the U.S. Environmental Protection Agency. It has not been formally reviewed by the EPA. The views expressed in this document are solely those of the Rural Community Assistance Partnership. EPA does not endorse any products or commercial services mentioned in this publication.

© 2016 Water Systems Council