Spear T Ranch, Inc. v. Knaub and the Pitfalls of Litigious Water Management*

I. INTRODUCTION

Arkansas has not balanced its water-use budget in many eastern counties since at least the late 1920s.[1] The extensive ground water stores in the Mississippi River Valley alluvial aquifer ("Alluvial Aquifer")[2] have driven the massive withdrawals required by the state's lucrative and important agriculture industry,[3] but the imminence of a possible aquifer

* The author would like to thank from the University of Arkansas School of Law: Susan A. Schneider, Professor of Law and Director of the Graduate Program in Agricultural Law, Philip Norvell, Professor of Law, and Michael Scott Hall, J.D. 2006, for their gracious help and keen insight into numerous prior drafts. Dr. John B. Czarnecki of the United States Geological Survey kindly directed me to a wealth of research papers.

1. John B. Czarnecki et al., *Conjunctive-Use Optimization Model of the Mississippi River Valley Alluvial Aquifer of Northeastern Arkansas*, U.S. GEOLOGICAL SURVEY WATER-RESOURCES INVESTIGATIONS REPORT 03-4230, 2 (2003).

2. The Alluvial Aquifer "is a water-bearing assemblage of gravels and sands that underlies about 32,000 [square miles] of Missouri, Kentucky, Tennessee, Mississippi, Louisiana, and Arkansas. In Arkansas, the alluvial aquifer occurs in an area generally 50 to 125 [square miles] wide and about 250 [miles] long adjacent to the Mississippi River." *Id.*

The term "aquifer" refers to "a water-bearing or aquiferous stratum" underground. 1 THE OXFORD ENGLISH DICTIONARY 596 (2d ed. 1989). It is said that "there are only two methods of [water] storage: in surface reservoirs and in the aquifers from which we pump a part of our supplies." *Id.* Aquifers generally have a water-tight bottom layer that keeps the water from percolating downward to where it becomes uneconomical to reach it. Prather v. Eisenmann, 261 N.W.2d 766, 768 (Neb. 1978). If there is also such a top-layer, the pressure produced by its weight is referred to as "artesian pressure." *Id.* A well that is dug through one of those layers acts as an "escape valve through which water will flow without external force so long as sufficient artesian pressure exists." *Id.* at 768-69. Modern ground water users often use mechanical pumps to speed the flow of water. The Alluvial Aquifer, located beneath eastern Arkansas and several neighboring states, is the largest aquifer in the state in terms of the volume of water pumped from it. ARKANSAS SOIL AND WATER CONSERVATION COMMISSION, ARKANSAS GROUND WATER PROTECTION AND MANAGEMENT REPORT FOR 2004 fig.38 (2005).

3. Water pumped from the Alluvial Aquifer in Arkansas is primarily used for irrigation. *Id.* at 70. The majority of the decline in the Alluvial Aquifer is attributed to irrigation for rice-farming in eastern Arkansas, which "requires large quantities of water to maintain the 4- to 6-inch depth of water on rice fields for the May to August growing season." ROBERT A. RENKEN, U.S. GEOLOGICAL SURVEY, HYDROLOGIC ATLAS 730-F (1998), http://capp.water.usgs.gov/gwa/pub/ch_f/F-text.ascii. Arkansas is the nation's

failure has cast its shadow over the state.[4] In response, the United States Army Corps of Engineers and the State of Arkansas have developed a plan known as the Grand Prairie Area Demonstration Project that will spend approximately $270,512,000 to build a system that will pump surface water from the White River and deliver it to individual farmers.[5] Among the criticisms of the project is that it will divert river water that is already being put to other uses like wildlife habitat and acorn production,[6] as well as human recreation. If recent drought conditions continue, there is great potential for litigious clashes between the myriad users of both ground and surface water in the state.[7]

In *Spear T Ranch, Inc. v. Knaub*,[8] a conflict between ground and surface water users in Nebraska came before that state's supreme court. The court's decision illustrates that

"fourth largest user of ground water." David Freiwald, *Ground-Water Models of the Alluvial and Sparta Aquifers: Management Tools for a Sustainable Resource*, U.S. GEOLOGICAL SURVEY FACT SHEET 2005-3008, 1 (2005).

4. *See* Nancy Cole, *Shrinking Aquifer Looms as Big Problem for Farms*, ARK. DEMOCRAT-GAZETTE, at ___ (Sept. 24, 2006); Douglas Jehl, *Arkansas Rice Farmers Run Dry, and U.S. Remedy Sets Off Debate*, N.Y. TIMES, Nov. 11, 2002, at A1. Rice and other crop farmers began digging wells to pump water from the Alluvial Aquifer in 1915, at which time the aquifer "lost its ability to fully recharge." United States Army Corps of Engineers, Grand Prairie Area Demonstration Project, http://www.mvm.usace.army.mil/grandprairie/area/aquifers/default.asp (last visited May 14, 2007). The sustainable yield of the Alluvial Aquifer is estimated at 2,700 million gallons per day. ARKANSAS SOIL AND WATER CONSERVATION COMMISSION, *supra* note 2, at fig.35. The actual use of water from the Alluvial Aquifer has risen from 4,760 million gallons per day in 1997 (43% of which was beyond the sustainable yield), to 6,690 million gallons per day in 2002 (60% of which was beyond the sustainable yield). *Id.* The U.S. Army Corps of Engineers estimates that the Alluvial Aquifer will consist of "less than 20 feet of water-bearing sand" under the majority of the Grand Prairie by the year 2015. United States Army Corps Of Engineers, Grand Prairie Area Demonstration Project, http://www.mvm.usace.army.mil/grandprairie/area/aquifers/default.asp (last visited May 14, 2007) (citing its source as the United States Geological Survey).

5. United States Department of Agriculture Natural Resource Conservation Service, Grand Prairie—Arkansas NRCS, http://www.ar.nrcs.usda.gov/programs/grand_prairie.html (last visited May 14, 2007); *see also* Jehl, *supra* note 4, at A1 (estimating that the plan will spend approximately $300,000 of federal tax-payers' funds per farmer).

6. *See* The White River, Arkansas Wildlife Federation, http://www.arkansaswildlifefederation.org/whiteriver.html (last visited May 14, 2007).

7. *See* G. Alan Perkins, *Arkansas Water Rights: Review and Considerations for Reform*, 25 U. ARK. LITTLE ROCK L. REV. 123, 125 (2002) (citing J.W. Looney, *Modification of Arkansas Water Law: Issues and Alternatives*, 38 ARK. L. REV. 221, 235-38 (1984)).

8. 691 N.W.2d 116 (Neb. 2005).

contrariety between the competing interests can demand one group to be favored over another. In fact, the actual result of *Spear T Ranch* may be an overall increase in water usage in Nebraska. Gleaning lessons from *Spear T Ranch*, this note argues that because the constellation of varied actors asserting water rights cannot practically be heard in a lawsuit between two parties, litigation is a poor vehicle to develop an equitable and sustainable water resource management system.

First, this note presents the background of the controversy in *Spear T Ranch*. Then it discusses the basic water management doctrines in America and traces the historical roots of Nebraska's system in particular, before examining the *Spear T Ranch* court's reasoning. Finally, this note suggests new approaches that the legislature can take to encourage multifunctionality in certain water-demanding areas in such a way that makes it easier and economically attractive for individual farmers to voluntarily modify their current practices. A proactive approach, this note contends, is better than the litigious scenario illustrated in *Spear T Ranch*.

II. THE CONFLICT BEHIND *SPEAR T RANCH, INC. V. KNAUB*

Nebraska employs a dual water resource management system that applies one rule to surface water,[9] and another rule to ground water.[10] This water law system has traditionally ignored the fact that the two resources "are inextricably linked."[11] In fact, no allocation system has yet been devised by the Nebraska state legislature to resolve this precise conflict.[12] In *Spear T Ranch, Inc. v. Knaub*, the long-approaching clash between surface water and ground water users of a hydrologically connected, shared water system finally came before the Nebraska Supreme Court.[13]

9. Surface water is managed by a system of prior appropriation. *See infra* text accompanying notes 61-70.

10. Ground water is managed according to the Nebraska Rule: a blend of the American Rule and Correlative Rights. *See infra* text accompanying notes 135-141.

11. Spear T Ranch, Inc. v. Knaub, 691 N.W.2d 116, 125 (Neb. 2005).

12. *Id.* at 126.

13. 691 N.W.2d at 126 (noting the arrival of the previously predicted "collision" between "[g]round and stream diverters in Nebraska"). A factually similar case had previously been decided at the trial level. *See infra* notes 114-117 and accompanying text.

Spear T Ranch, Inc. ("Spear T"), in the Pumpkin Creek Basin of western Nebraska, owned property over which Pumpkin Creek flowed.[14] As the owner of two surface water appropriation permits acquired in the 1950s, Spear T used surface water from Pumpkin Creek for its livestock and to irrigate crops.[15] At the end of the 1990s, other property owners in the Basin (the "Irrigators") drilled irrigation wells and began to pump ground water for their own use.[16] When the flow of Pumpkin Creek was reduced, Spear T filed suit in Nebraska state court and alleged that the ground water pumped from irrigation wells in the Basin was hydrologically connected to Pumpkin Creek and, therefore, was the cause of the lowered flow.[17] As a result of continued ground water pumping in the Basin, Spear T alleged that it had been "deprived of its surface water appropriations" and could no longer irrigate crops or water its livestock.[18]

Spear T brought suit against the Irrigators in the Basin seeking an injunction against further ground water pumping and damages for either the value of the surface water appropriations or, alternatively, "special damages for the value of the water rights."[19] Spear T's complaint was founded on theories that the Irrigators converted Spear T's surface water appropriations to their own use, trespassed on Spear T's property rights,[20] and violated the Nebraska "statutory rule of prior appropriation of surface water rights."[21] The trial court dismissed Spear T's complaint with prejudice for lack of subject matter jurisdiction, failure to state a claim, and failure to join necessary parties.[22] No explanation of the trial court's reasoning was given.[23]

14. *Spear T Ranch*, 691 N.W.2d at 124.

15. *Id*. Water appropriation permits A-6811, dated November 16, 1954, and A-9051, dated December 21, 1956, allowed for the diversion of 2.57 and 1.6 cubic feet of water per second, respectively. Spear T Ranch, Inc. v. Nebraska Dep't of Natural Res., 699 N.W.2d 379, 381 (Neb. 2005).

16. *Spear T Ranch*, 691 N.W.2d at 124.

17. *Id.*

18. *Id.*

19. *Id.*

20. *Id.*

21. *Spear T Ranch*, 691 N.W.2d at 126. For a description of Nebraska's statutory system of prior appropriation of surface waters, see *infra* text accompanying notes 66-75.

22. *Spear T Ranch*, 691 N.W.2d at 124, 138-40.

23. *See id.* at 139.

On appeal, the Nebraska Supreme Court first addressed the trial court's dismissal for failure to state a claim and rejected each of Spear T's arguments, but did not affirm.[24] The court held that a surface water appropriation in Nebraska is not a property interest, but rather merely a "right to use the water."[25] Spear T's conversion claim was denied on grounds that the Irrigators could not have wrongfully exercised dominion and control over Spear T's property.[26] Spear T's second claim was that the state statutory system of prior appropriation of surface waters gave it priority over later-in-time ground water users in the Basin.[27] The court addressed this claim by noting that surface and ground waters in Nebraska are allocated by separate systems.[28]

The court rejected the statutory claim for three reasons.[29] First, while the court recognized that Pumpkin Creek and the ground water pumped from the Basin were hydrologically connected, it designated Spear T's characterization of the ground water as an underground stream that flowed into Pumpkin Creek to be a legal fiction with which the court did not agree.[30] Second, the court found no legal authority to extend the state's prior appropriation system to ground waters.[31] Third, the court expressed fears that it would "shut down" all Nebraska ground water wells if it were to legally recognize Spear T's state-issued appropriation permits as superior in priority to the ground water Irrigators' rights.[32]

On review of the common-law rules applied throughout the United States to conflicts among water users, the Nebraska

24. *Id.* at 125-33, 139.

25. *Id*. at 127. The reasoning on this point is unclear because the court (relatively) long ago noted that as "announced by this court on many occasions," an "appropriator of public water, who has complied with existing statutory requirements, obtains a vested property right." Enterprise Irrigation Dist. v. Willis, 284 N.W. 326, 329 (Neb. 1939).

26. *Spear T Ranch*, 691 N.W.2d at 126-27.

27. *Id.* at 126 (describing Spear T's claim as an argument that "the water is all one 'stream' and, as such, Spear T's prior appropriation takes priority over other users of the water, including those who withdraw the water from under its lands").

28. *Id.* at 125-26; *see also infra* text accompanying notes 61-70, 135-141.

29. *Spear T Ranch*, 691 N.W.2d at 126.

30. *Id.* The court further stated that "[w]e take as true that the water is hydrologically connected, but water rarely runs in a true underground stream. Adherence to such a view ignores reality." *Id.* (citations omitted).

31. *Id.*

32. *Id.*

Supreme Court found none that would provide Spear T with a remedy in Nebraska.[33] Having rejected all of Spear T's claims, however, the court was reluctant to leave it without the possibility of a remedy.[34] Instead, the court expressly adopted section 858 of the Restatement (Second) of Torts, the Restatement rule in Nebraska as a new common-law tort cause of action.[35] Specifically, the court held:

> "A proprietor of land or his [or her] grantee who withdraws ground water from the land and uses it for a beneficial purpose is not subject to liability for interference with the use of water of another, unless . . . the withdrawal of the ground water 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."[36]

Then, even though Spear T did not allege that the Irrigators had unreasonably caused it harm, the court granted leave to amend the complaint accordingly.[37]

The court then addressed the issue of subject matter jurisdiction on two theories. First, the court held that the state's recent amendments to the Nebraska Ground Water Management and Protection Act[38] ("GWMPA") had not preempted Spear T's right to bring a common law action.[39] Finding that the state legislature had simply provided Spear T with a mechanism to "commence administrative rulemaking," but not an administrative adjudication, the court held that the GWMPA was not intended to replace the common law claims available to Spear T.[40] Second, the court held that the action was not one

33. *Spear T Ranch*, 691 N.W.2d at 131. "We have never been confronted with whether a surface water appropriator may bring a common-law claim against the user of hydrologically connected ground water." *Id.* at 131. "Having reviewed the common-law rules, we now consider whether we will recognize a common-law claim for interference with surface water user by the user of hydrologically connected ground water." *Id.*

34. *Id.* at 132-33. Initially, the court rejected "a rule that would bar a surface water appropriator from recovering in all situations." *Id.* at 131.

35. *Spear T Ranch*, 691 N.W.2d at 132.

36. *Id*. at 132 (quoting RESTATEMENT (SECOND) OF TORTS § 858(1)(c) (1979)) (alteration in original).

37. *Spear T Ranch*, 691 N.W.2d at 133.

38. NEB. REV. STAT. §§ 46-701 to -753 (2004). The Nebraska Ground Water Management and Protection Act was most recently amended by the state legislature in 2004. L.B. 962, 98th Leg., 2d. Sess. (Neb. 2004).

39. *Spear T Ranch*, 691 N.W.2d at 133.

40. *Id.* at 135-36.

more properly resolved by local natural resources districts, and that issues of uniformity made the judicial system a better venue.[41] Finding error in the summary dismissal of Spear T's action, the judgment of the district court was reversed and the case was remanded,[42] But not before addressing Spear T's claims.

The Nebraska Supreme Court dismissed, in turn, each of Spear T's claims against the Irrigators and instead adopted the Restatement rule as a new common law cause of action and remanded to the trial court with leave to allow Spear T to amend its claim.[43] For this note's author, the logical next question is whether the Restatement rule rewards individual forbearance and prudent management, or does it encourage the development of new water resources? In practice, the court's decision may actually force an overall increase in water usage; it thus illustrates the potential short-comings of a "water allocation by litigation" system. The Nebraska Supreme Court, forced to balance the interests and choose between surface and ground water users, cited economic factors as it left one innocent rancher without water unless he too begins to pump ground water[44] with fewer usage limits.

III. A BRIEF OVERVIEW OF THE GENERAL DOCTRINES OF WATER MANAGEMENT

There are numerous doctrines and rules of water management followed by various jurisdictions around the world. These doctrines generally grant an usufructuary[45] water right[46]

41. *Id.* at 137-38.

42. *Id.* at 139. In addressing the trial court's ruling that Spear T had failed to join all necessary parties, the court held that Spear T need not join every ground water user in the Basin because they were not parties necessary to establish jurisdiction. *Id.* at 138.

43. *Spear T Ranch*, 691 N.W.2d at 132-33, 139.

44. *See* Joseph A. Kishiyama, *The Prophecy of Poor Dick: The Nebraska Supreme Court Recognizes a Surface Water Appropriator's Claim Against a Hydrologically Connected Ground Water User in* Spear T Ranch, Inc. v. Knaub, 85 NEB. L. REV. 284, 285 (2006). "[Rex] Nielsen, owner of the Spear T Ranch, sustained his livestock with water diverted from Pumpkin Creek for more than fifty years. Today he relies on something else—a backhoe. Pumpkin Creek has run dry, and he has resorted to digging pits to find water for his cattle." *Id.*

45. The term "usufruct" refers to the "[u]se, enjoyment, or profitable possession (*of* something)." 19 THE OXFORD ENGLISH DICTIONARY 361 (2d ed. 1989).

as either an incident of land ownership or obtained through a statutory appropriation. Those doctrines that adhere to the former principle may operate differently depending on whether the land is adjacent to a surface water source or above a ground water source. Any of the doctrines and rules of water management may be applied by a jurisdiction to any body of water, but this note will address them in terms of whether they are most commonly applied to surface or ground waters.

A. Surface Water Management Doctrines

There are two general doctrines of water management applied to surface waters: riparianism and prior appropriation. The riparian[47] doctrine exists in two basic forms: (1) natural flow theory; and (2) reasonable use. The foundation of either form of riparianism is that a landowner has a bundle of rights including the rights to use, drink, and access the water,[48] derived from the fact that the landowner's property is directly adjacent to a body of water.[49] Appropriative rights, on the other hand, are granted by the state and do not depend on proximity to water.[50]

1. Riparianism

The earliest form of riparianism is sometimes referred to as "pure" riparianism or the "natural flow theory." This note will use the term "natural flow theory" to refer to this doctrine. Pure riparianism dictates that a riparian landowner has a right to the natural flow of the stream, and a duty to avoid any diversion of the water that would cause a material reduction in the flow to

46. In general, natural bodies of water are considered public property, and an individual may only obtain a right to use the water. WILLIAM GOLDFARB, WATER LAW 11 (2d ed. 1988).

47. The term "riparian" is used to describe something as being "of . . . or . . . on a riverbank," or to define a person who owns such land. BLACK'S LAW DICTIONARY 1352 (8th ed. 2004). The term is not always limited to streams and rivers, however, and may sometimes refer to property adjacent to any other body of water, such as a lake or pond. *Id.*

48. 1 WATERS AND WATER RIGHTS § 6.01(a) (Robert E. Beck ed., 2001).

49. *Id.*

50. For a discussion of the prior appropriation rule, see *infra* text accompanying notes 66-75.

another downstream user.[51] Thus, the natural flow theory prohibits a riparian landowner from diverting water in such a way as to either interfere with the natural flow of the stream, or reduce the quantity of water to a downstream riparian and cause him material harm.[52] The policy is to protect the reasonable expectation of the first-in-time party that the water will continue to flow as it did when he first arrived.[53] Although language that suggests the natural flow theory still exists in some eastern jurisdictions, these are now almost entirely associated with a rule of reasonable use.[54]

Reasonable use is the second form of riparianism and is not to be confused with the semantically similar American rule of reasonable use applied to ground water management;[55] The two are entirely different beasts. This note will distinguish the two doctrines by using the term "reasonable use" to refer to this second form of riparianism, and the term "American rule" to refer to its ground water congener. The reasonable use doctrine allows a riparian landowner "to make a reasonable use of the water as it flows across or stands upon [his] land."[56] The exercise of reasonable use rights is independent of priority in time.[57] Thus, the rule is simply pure riparianism modified by a rule of reasonable use.[58] A downstream riparian still has a right to the natural flow of a stream, but that right is subject to the rights of any upstream riparian landowners to make a reasonable use of the water.[59] While pure riparianism in its most fundamental form requires the flow of a stream to remain unchanged, the reasonable use theory allows a riparian landowner to use as much water as he wishes so long as it does

51. A. DAN TARLOCK, LAW OF WATER RIGHTS AND RESOURCES § 3:55, at 3-94 (2005); Farrell v. Richards, 30 N.J. Eq. 511, 516 (N.J. Ch. 1879) (enjoining an upstream riparian from diverting surface water for irrigation where it caused a reduction in the flow of the water to a downstream riparian "to such an extent as to cause very serious injury").

52. *Farrell*, 30 N.J. Eq. at 515.

53. *Id.*

54. *Id.* § 3.56, at 3-95.

55. For a discussion of the American rule, see *infra* text accompanying notes 81-86.

56. 1 WATERS AND WATER RIGHTS, *supra* note 50, § 7.01, at 7-2.

57. Jeffrey J. Kahn & Robert A. Longenbaugh, *The Colorado Experience in Resolving Surface-Ground Water Conflicts*, *in* PROCEEDINGS OF THE NATIONAL SYMPOSIUM ON WATER RESOURCES LAW, 76, 77 (1986).

58. *See* Pyle v. Gilbert, 265 S.E.2d 584, 587 (Ga. 1980).

59. *See id.*

not interfere with another riparian landowner's right to also make reasonable use of the water; this holds true even if the flow of the stream is reduced. The practical difficulty with the reasonable use doctrine lies in the determination of what uses are reasonable.[60]

2. Prior Appropriation

Riparianism was not a practical scheme for water management in the American West for two basic reasons. First, riparian rights are an incident of land ownership, and the lands in the West were owned by the federal government,[61] though settlers did eventually gain property rights in those public lands.[62] Second—and the primary difficulty with applying a riparian doctrine in the West today—there is simply not nearly as much riparian land available as there is in the East.[63]

Appropriative water rights are granted by a state and allow the permit holder to make use of a "specific quantity of water for specific beneficial purposes."[64] Because the right is not an incident of land ownership, the water could be used anywhere

60. *See* TARLOCK, *supra* note 53, § 3:60, at 3-101. Three potential approaches to making a determination of the reasonableness of a use are: "(1) abstract standards, (2) categories of uses that are per se reasonable and unreasonable, and (3) an analysis of what uses courts in fact protect." *Id*. In practice, the most useful approach is generally the third. *Id*. The Nebraska Supreme Court has advocated the use of the Restatement (Second) of Torts section 850A in determining the reasonableness of a use of water. *Spear T Ranch*, 691 N.W.2d at 131. Section 850A lists nine factors to consider the reasonableness of a use as it relates to other users, rather than simply asking whether one party's use is reasonable in itself. *See* RESTATEMENT (SECOND) OF TORTS § 850A (1979) (stating that the reasonableness of a use depends on the interests of the user, the interests of another person who holds a water right and is harmed by the use, and the interests of the public).

61. 2 WATERS AND WATER RIGHTS § 11.03, at 11-15 (Robert E. Beck ed., 2001).

62. *Id*. § 11.03(a), at 11-16.

63. Kahn & Longenbaugh, *supra* note 60, at 77.

> This legal system for allocating water resources is independent of land ownership. Indeed, many holders of . . . rights must transport their water great distances from diversion points on a river upon which they do not own any land to their place of use, crossing lands of others along the way.

Id.

64. Stuart L. Somach, *Property Rights in Water: An Essential Element of Economic and Social Development*, *in* PROCEEDINGS OF THE NATIONAL SYMPOSIUM ON WATER RESOURCES LAW, *supra* note 60, at 28, 30. There is often a requirement that the water be put to a beneficial use and a user, thus, does not have an absolute right to use the entire designated amount of water. *See* 2 WATERS AND WATER RIGHTS, *supra* note 64, § 11.03(a), at 11-18.

and is not restricted to riparian lands.[65] The most critical aspect of the prior appropriation doctrine is that it gives a senior user "first in time, first in right" priority over a junior user.[66] In this way, prior appropriation often adds a degree of certainty and facilitates expectations by allowing a junior user to evaluate how much water is likely to be available for his use before he undertakes any venture.[67] The policy behind prior appropriation in Nebraska has been articulated by the Nebraska Supreme Court as a:

> focus on the application of the water to a beneficial use, rather than on the ownership of riparian land, and its use of a first-in-time, first-in-right approach to conflicts between users, as opposed to the riparian system's equality among riparians. The appropriative system permits water use on lands where the riparian system would deny it and protects senior, more established water uses in times of shortage. Adoption of the appropriative system permitted the acquisition of a right to the beneficial use of water based on the seniority of the use, independent of the riparian or nonriparian nature of the land.[68]

The primary problem with a prior appropriation system is that it can have a tendency to stifle development because junior users cannot acquire new rights as easily.[69] Yet on the whole, prior appropriation is seen as having done much to aid the settlement and development of the arid lands of the American West through an "economically beneficial use of water."[70]

65. 2 WATERS AND WATER RIGHTS, *supra* note 64, § 11.03(b), at 11-18.

66. Somach, *supra* note 67, at 30. Due to the differences between surface and ground waters, those states that apply a prior appropriation rule to ground water do not generally protect the temporal priorities of users as strictly as they do among surface water users. *See* GOLDFARB, *supra* note 48, at 45.

67. Somach, *supra* note 67, at 31. In times of shortage, senior users have priority over all the available water. *Id*. Junior users are made clearly aware of how much water is already allocated to senior users and are able to make more informed judgments regarding a potential lack of water to meet their own needs. *Id*.

68. *In re* Application A-16442, 463 N.W.2d 591, 601 (Neb. 1990).

69. GOLDFARB, *supra* note 48, at 40-41. It should be noted that water is by its very nature a limiting resource in arid lands.

70. *Id*.

B. Ground Water Management Doctrines

The most commonly applied doctrines of ground water management include the English rule, the American rule, the correlative rights doctrine, and the Restatement rule. Prior appropriation is also commonly applied in a manner very similar to that of surface waters, but the temporal priority of users is not always enforced as strictly due to the nature of ground water as a more extensive resource.[71] The Nebraska rule is discussed in Part IV(B) of this note.[72]

1. English Rule of Absolute Ownership

The English rule of absolute ownership is essentially self-defining: a landowner is the absolute owner of all waters that lie under his land.[73] Under this view, the water is deemed to simply be part of the soil.[74] The landowner may withdraw as much of the water as he wishes, and use it for any purpose he desires without regard to his impact on any surrounding lands.[75] Essentially an embodiment of the rule of capture,[76] the English

71. *Id.* at 45.

72. *See infra* text accompanying notes 135-142.

73. Spear T Ranch, Inc. v. Knaub, 691 N.W.2d 116, 127 (Neb. 2005).

74. 3 WATERS AND WATER RIGHTS § 20.03, at 20-11 (Robert E. Beck ed., 2003). The Nebraska Supreme Court has described the English rule as one that considers underground, percolating waters to belong "to the owner of the freehold, like rocks, soil, [and] minerals." Olson v. City of Wahoo, 248 N.W. 304, 308 (Neb. 1933). The English rule is sometimes stated as to prohibit a landowner from withdrawing ground water with intent to harm his neighbor out of malice. *See id.*

75. *Spear T Ranch*, 691 N.W.2d at 127.

76. Dylan O. Drummond, *Texas Groundwater Law in the Twenty-First Century: A Compendium of Historical Approaches, Current Problems, and Future Solutions Focusing on the High Plains Aquifer and the Panhandle*, 4 TEX. TECH. J. TEX. ADMIN. L. 173, 197 (2003). The rule of capture is the "principle that wild animals belong to the person who captures them, regardless of whether they were originally on another person's land." BLACK'S LAW DICTIONARY 1358 (8th ed. 2004). It was eloquently described by the Supreme Court of New York in 1805 when one "Pierson, well knowing the fox was so hunted and pursued, did, in the sight of Post, to prevent his catching the same, kill and carry it off" and the court did award ownership of said fox unto Pierson the opportunistic interloper. Pierson v. Post, 3 Cai. 175 (N.Y. Sup. Ct. 1805). This, whilst a contrary opinion did clamor for "the greatest possible encouragement to the destruction of an animal, so cunning and ruthless in his career." *Id.* (Livingston, J., dissenting). It has been argued that the majority's rule actually better effectuates the dissent's policy because it increases certainty and, in turn, encourages investment in better, faster equipment; the rule of capture then does, in fact, result in greater use of the resource and "more dead foxes."

rule is predicated on the belief in the mysterious nature of ground water as "unknowable and unpredictable."[77] Because a landowner cannot envision the consequences of his pumping, the law would impose no sanction.[78] Today, it has been discarded in almost every state[79] because it is inefficient and wasteful.[80]

2. American Rule of Reasonable Use

Confusingly similar to the reasonable use form of riparianism (applied to surface waters),[81] the American rule of reasonable use (applied to ground waters) has the same requirement that the water be used only on the overlying land.[82] The American rule differs from the reasonable use form of riparianism, however, in that there is no comparison of the reasonableness of use between competing users of the same water source.[83] Instead, reasonableness of use is determined in the abstract (that is, "is this an unreasonable use?"), rather than in the comparative (that is, "has this use caused unreasonable harm to another riparian?").[84] Essentially it has been argued, any on-tract use is per se reasonable, while no liability is

See Richard B. Atkinson, Dean, University of Arkansas School of Law, Property I Class Lecture (Aug. 25, 2004).

77. GOLDFARB, *supra* note 48, at 43; 3 WATERS AND WATER RIGHTS, *supra* note 77, § 20.03, at 20-11 ("English and other courts justified the rule on the basis that the location and behavior of groundwater was simply too unknowable to allow any other rule to be enforced.").

78. GOLDFARB, *supra* note 48, at 43.

79. *Id.* Texas is one state that has largely continued to adhere to the English rule even into recent times. *See* Drummond, *supra* note 79, at 197.

80. TARLOCK, *supra* note 53, § 4:6, at 4-7.

81. *See supra* text accompanying notes 55-60.

82. TARLOCK, *supra* note 53, § 4:8, at 4-13.

83. GOLDFARB, *supra* note 48, at 43-44. Under the reasonable use form of riparianism, a riparian may use as much surface water as he wishes until such use "interferes with the reasonable use of another riparian." *Id.* at 43.

84. *Spear T Ranch*, 691 N.W.2d at 128 ("The American rule has at times also been referred to as a rule of 'reasonable use,' although it does not consider a balancing of the parties' interests."); *see also* Adams v. Lang, 553 So. 2d 89, 91-92 (Ala. 1989) (holding that although defendant's use of ground water for a catfish farm was the proximate cause of plaintiff's injury in that it caused their artesian springs to stop flowing, defendant was not liable under the American rule because his catfish farming was a beneficial use of the ground water).

imposed for off-tract use if it causes no harm.[85] As a result, the American rule in practice amounts to little more than a slight modification to the English rule.[86]

3. Correlative Rights

The correlative rights doctrine arose in California where it was applied to ground water.[87] The rule recognizes water rights as an incident of land ownership above a ground water source and distinguishes between on-site users and those who transport the water for use at off-site locations.[88] Landowners above a common ground water resource have coequal rights to the use of that water, but the doctrine operates when there is a shortage.[89] During times of shortfall, priority is given to on-site users over those who transport the water off-site.[90] Those on-site users are then each entitled to a "fair and just proportion" of the water.[91] Any surplus of water—that is, water beyond what a landowner requires for on-site use—may be appropriated for transport out of the water basin according to which transporters were first in time.[92]

4. The Restatement (Second) of Torts Section 858

The Restatement approach to ground water management is founded in the law of nuisance rather than the law of property.[93]

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85. State v. Michels Pipeline Constr., Inc., 217 N.W.2d 339, 349-50 (Wis. 1974). The phrase "reasonable use" as it pertains to the American rule "must be given the contrived meaning of a use reasonably related to enjoyment of the land from which the waters are taken." *Spear T Ranch*, 691 N.W.2d at 128 (citing Maerz v. United States Steel, 323 N.W.2d 524, 527 n.2 (Mich. Ct. App. 1982)).

86. TARLOCK, *supra* note 53, § 4:8, at 4-12. As an incident of ownership of land overlying ground water, a user may pump as much water as he desires so long as such use meets two requirements: it is (1) reasonable; and (2) for beneficial purposes on the overlying land. *See id.* § 4:8, at 4-14. Use on non-overlying land is generally considered unreasonable per se. *Id.*

87. GOLDFARB, *supra* note 48, at 44-45.

88. *See id*. at 45.

89. *Spear T Ranch*, 691 N.W.2d at 128.

90. GOLDFARB, *supra* note 48, at 45.

91. *Id.* Even among on-site users, there is no priority given to first-in-time users. TARLOCK, *supra* note 53, § 4:14, at 4-21.

92. 3 WATERS AND WATER RIGHTS , *supra* note 77, § 21.03, at 21-10 (citing Katz v. Walkinshaw, 74 P. 766, 772 (Cal. 1903)); GOLDFARB, *supra* note 48, at 45 (noting that "as between transporters out of the basin, first in time is first in right").

93. *Spear T Ranch*, 691 N.W.2d at 129.

The Restatement (Second) of Torts section 858 confers a right on a ground water user, as an incident of his land ownership, to pump water from below his land and use it for a beneficial purpose.[94] Under this approach, there is no priority given to any user based on whether the water is to be used on-site or transported elsewhere.[95] The Restatement rule imposes liability on a ground water user if he unreasonably interferes with another's use of the water in one of three ways: by (1) interfering with a neighbor's well; (2) monopolizing the water; or (3) causing a diversion of surface water.[96] Reasonableness is determined according to the same standards as those used under the riparian rule of reasonable use,[97] that is, a comparative test rather than an abstract test.[98]

IV. THE DEVELOPMENT OF NEBRASKA'S DICHOTOMOUS SYSTEM OF GROUND AND SURFACE WATER MANAGEMENT

Throughout the course of Nebraska's history, agriculture has played, and continues to play, a leading role in the development of the state despite its relative lack of abundant rainfall.[99] Nebraska is a western state that lies in an arid to semi-arid zone where "large portions are so deficient in quantity or frequency of precipitation that crop production is impractical without irrigation."[100] Average annual rainfall in Nebraska

94. RESTATEMENT (SECOND) OF TORTS § 858(1).

95. Teresa N. Lukas, Comment, *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, 494 (1982).

96. *Id*. Presumably, Spear T's claims on remand will focus on the latter two scenarios.

97. GOLDFARB, *supra* note 48, at 43.

98. *See supra* note 84 and accompanying text. The Restatement rule essentially applies riparian reasonable use to ground water, but dispenses with the requirement that the water be used on the land adjoining the water. GOLDFARB, *supra* note 48, at 44.

99. NEBRASKA NATURAL RESOURCES COMMISSION, ESTIMATED WATER USE IN NEBRASKA: 1995, at 8 (1998) ("According to the 1992 Census of Agriculture, the amount of land in farms was 44,393,129 acres, which was 89.8 percent of the total area in Nebraska."). Today, Nebraska ranks second in the nation, behind only Texas, in farm income generated through cattle and calves. UNITED STATES CENSUS BUREAU, STATISTICAL ABSTRACT OF THE UNITED STATES: 2006, at Table 809 (2006).

100. RICHARD S. HARNSBERGER & NORMAN W. THORSON, NEBRASKA WATER LAW AND ADMINISTRATION 60 n.8 (1984) (noting that North Dakota, and the sixteen states to its west and south, are considered arid to semi-arid).

gradually decreases from a high of about thirty-five inches in the southeast to a low of about eighteen inches in the western areas.[101]

In the early days of statehood, the "Campbell method of dry-land agriculture" was the primary means of farming in Nebraska.[102] Rather than rely on irrigation, farmers conserved the available rainwater in the soil and adapted cultivation practices that regulated the evaporation of available water and its movement through the soil.[103] Agriculture's dependence on irrigation was minimal at the time, largely because residents feared that potential settlers would stay away if they thought irrigation was necessary for successful agriculture.[104]

Ground water development is neither a cheap nor an easy proposition; it requires a heavy investment of capital and equipment. Starting in the 1920s, ground water development began to increase at a rapid pace due to a variety of economic incentives and technological innovations.[105] One major factor was an increase in research funds from both the federal and state governments; this helped to dispel the secretive aura of ground water as a mysterious and unknown resource.[106] As ground water development gained steam, a system to manage the resource was largely hammered out by the judiciary and lagged far behind the state's approach to surface waters.[107]

As water rights in Nebraska stand today, the state employs two separate systems to regulate water usage. Surface water usage is regulated pursuant to a statutory system of prior

101. *Id.* at 63 n.21; 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 Passage of L.B. 108*, 30 CREIGHTON L. REV. 67, 67 (1996).

102. Richard S. Harnsberger et al., *Groundwater: From Windmills to Comprehensive Public Management*, 52 NEB. L. REV. 179, 186-87 & n.20 (1973) (citing H. CAMPBELL, 1902 SOIL CULTURE MANUAL (1902)).

103. *Id*.

104. HARNSBERGER & THORSON, *supra* note 102, at 63.

105. Harnsberger et al., *supra* note 104, at 188-90. Technological improvements that heralded a new era in Nebraska's use of ground water include "[r]ural electrification, farm mechanization, the turbine pump and other improvements in water well technologies." Leroy W. Orton, *Legal Recognition of Rights to Ground Water Stored Incidentally Beneath a Surface Irrigation Project—Nebraska's Legal Experiment*, *in* PROCEEDINGS OF THE NATIONAL SYMPOSIUM ON WATER RESOURCES LAW, *supra* note 60, at 84, 85 (1986).

106. *See* HARNSBERGER & THORSON, *supra* note 102, at 14; Harnsberger et al., *supra* note 104, at 191.

107. *See* Mossman, *supra* note 103, at 72.

appropriation,[108] and ground water usage is managed under both the Nebraska rule[109] and the Nebraska Ground Water Management and Protection Act (GWMPA).[110] Surface water management in Nebraska was quickly established by the state legislature as the system that even today remains largely as it was one hundred years ago.[111] As the Nebraska Supreme Court described the dichotomy:

> Nebraska water law ignores the hydrological fact that ground water and surface water are inextricably linked. Instead of an integrated system, we have two separate systems, one allocating stream flows and the other allocating groundwater.[112]

The inevitable collision between these two systems that was anticipated by commentators at least thirty years ago[113] occurred in *Spear T Ranch*. This was not the first time the issue had arisen in Nebraska, however. A case involving nearly identical facts was decided by a state district court in 1981.[114] In that case, the trial judge found that pumping from ground water irrigation wells had caused injury to the plaintiffs in the late winter and early spring months by causing springs to disappear and a creek to run completely dry, which reduced the

108. For a description of Nebraska's surface water management system, see *infra* Part IV(A).

109. The Nebraska rule is a blend of the American rule and correlative rights. *See infra* text accompanying notes 135-141.

110. Spear T Ranch, Inc. v. Knaub, 691 N.W.2d 116, 125 (Neb. 2005). GWMPA allows, but does not require, local natural resources districts to create integrated surface and ground water management plans if they so choose. *See infra* text accompanying notes 158-169.

111. HARNSBERGER & THORSON, *supra* note 102, at 69, 73.

112. *Spear T Ranch*, 691 N.W.2d at 125.

113. HARNSBERGER & THORSON, *supra* note 102, at 16 (describing the collision course between surface and ground water users in southwestern Nebraska "because the streams and the aquifers there are hydrologically connected"); Harnsberger et al., *supra* note 104, at 182 ("Ground and stream diverters in Nebraska are on a collision course which may occur sooner than most people think."); *see also* Orton, *supra* note 110, at 84 (noting that the competition between the two resources began later in Nebraska than in other western states because of its early reluctance to place an emphasis on ground water for irrigation).

114. Johnson v. Edwards, No. 2465, slip op. at 2-3 (Sioux County Dist. Ct. Neb. June 24, 1981) (ruling on a complaint filed by agricultural surface water users against agricultural ground water users who shared a common aquifer).

productivity of a pasture.[115] The case is significant in that the district court applied, in addition to Nebraska statutory and case law, the predecessor to the current Restatement rule.[116] As a remedy, the court granted damages to compensate for the diminution of the fair market value of plaintiffs' property, the expenses of drilling a new well to replace the now-unreliable domestic well, but the court there held that "[i]njunctive relief is not appropriate in this case."[117]

The state of Nebraska, like Arkansas, has long been expert at the "conjunctive use" of its ground and surface water resources. The difficult job is to develop a forward-looking, integrated plan to sustainably and equitably manage these two hydrologically connected water resources.[118] The history of water management in Nebraska is illustrative.

A. Nebraska's Surface Water Management System

Originally, surface water law in Nebraska was governed by the English common law as a result of the territorial legislature's original adoption of that body of law in 1866.[119] The old rule as stated by the Nebraska Supreme Court in 1895 was:

> [E]very riparian proprietor, as an incident to his estate, is entitled to the natural flow of the water of running streams through his lands, undiminished in quantity and unimpaired in quality, although all have the right to the reasonable use thereof for the ordinary purposes of life and any unlawful diversion thereof is an actionable wrong.[120]

Riparianism, however, is better suited to areas with abundant rainfall and surface water resources that provide for a greater amount of land adjacent to a surface water source.[121] The purpose of a riparian doctrine is to protect all "existing and

115. *Id.* at 2-3. The decline in the water table, as a result of defendants' ground water pumping, also caused a plaintiff's house well to become "unreliable . . . and insufficient for domestic purposes." *Id.*

116. *Id.* at 3-4.

117. *Id.* at 3.

118. *See* Mossman, *supra* note 103, at 69 & n.8.

119. *Id.*

120. Clark v. Cambridge & Arapahoe Irrigation & Improvement Co., 64 N.W. 239, 241 (Neb. 1895) (citations omitted). This is the reasonable use rule of riparianism. *See supra* text accompanying notes 55-60.

121. *See* HARNSBERGER & THORSON, *supra* note 102, at 60-61.

potential users who have access to the watercourse."[122] In England—from whom America adopted riparianism—the primary use of surface water is not for irrigation, but for watering livestock, powering mills, or domestic use.[123] Such use in England had little appreciable effect on the flow volume, and the streams were seen as a "natural right" of riparian landowners.[124]

In the American West, riparianism has largely given way to the doctrine of prior appropriation[125] that gives priority of use among those who use the water for the same purposes.[126] Water that has not yet been appropriated by any user is not to be denied to anyone who makes beneficial use of it, unless the public interest demands otherwise.[127] But even today, riparianism still exists in Nebraska.[128] In fact, riparian rights are still superior to those of appropriators in certain situations.[129] Such riparian rights are rare in Nebraska today, however, and generally exist only when two elements are met: (1) the land must have been riparian prior to the state codification of prior appropriation by enactment of "Aker's Law"[130] in 1895; and (2) the riparian rights must not have been lost through severance of the land.[131]

Primarily, today's system of surface water management is founded in the Nebraska State Constitution. It provides:

> The right to divert unappropriated waters of every natural stream for beneficial use shall never be denied except when such denial is demanded by the public interest. Priority of appropriation shall give the better right as between those using the water for the same purpose, but when the waters of any natural stream are not sufficient for the use of all those desiring to use the same, those using the water for

122. *Id*. at 19-20.

123. *Id*. at 20. Domestic use in this sense refers to such household uses as drinking water.

124. *Id*.

125. *See In re* Application A-16642, 463 N.W.2d 591, 601 (Neb. 1990).

126. *See* NEB. REV. STAT. § 46-204 (2004).

127. NEB. REV. STAT. § 46-204.

128. *In re Application A-16642*, 463 N.W.2d at 603.

129. Wasserburger v. Coffee, 141 N.W.2d 738, 747 (Neb. 1966).

130. "'Aker's Law' . . . codified the doctrine of prior appropriation for the use of surface water [in Nebraska]." Mossman, *supra* note 103, at 69 & n.13.

131. HARNSBERGER & THORSON, *supra* note 1002, at 40. Today, riparian rights primarily exist only as "part of the smallest tract held in one chain of title leading from the owner of April 4, 1895 to the present owner. *Id*.

> domestic purposes shall have preference over those claiming it for any other purpose, and those using the water for agricultural purposes shall have the preference over those using the same for manufacturing purposes. Provided, no inferior right to the use of the waters of this state shall be acquired by a superior right without just compensation therefore to the inferior user.[132]

To obtain a surface water appropriation permit, a party must apply to the Nebraska Department of Water Resources.[133] Once an application for a permit is adjudicated and granted, the party receives a vested property right that the state may only interfere with by the exercise of its police power, and then only "within reasonable limits."[134]

B. Nebraska's Common Law Ground Water Management System

From the beginning, ground water management in Nebraska was a judicial creation.[135] In *Olson v. City of Wahoo*, a case involving a ground water dispute, the Nebraska Supreme Court rejected the application of the English rule of absolute ownership,[136] and instead adopted a rule that melds the American rule of reasonable use[137] with the correlative rights doctrine.[138] The Nebraska rule, as espoused in *Olson*, provides:

> [T]he owner of land is entitled to appropriate [ground] waters found under his land, but he cannot extract and

132. NEB. CONST. art. XV, § 6. The same language, with omission of the last sentence, appears in section 46-204 of the Nebraska Code. NEB. REV. STAT. § 46-204; *see also Spear T Ranch*, 691 N.W.2d at 125 (explaining that prior appropriation allocates stream flows according to users' priority in time).

133. Mossman, *supra* note 103, at 71.

134. Enterprise Irrigation Dist. v. Willis, 284 N.W. 326, 329-31 (Neb. 1939) (enjoining the defendant chief of the bureau of irrigation, water power, and drainage to leave open the headgates to plaintiff irrigation district's canal because the district had acquired an appropriation permit prior to the state's enactment of volume and rate restrictions that, if applied retroactively, would be more than regulation and amount to a "deprivation of a vested right").

135. Mossman, *supra* note 103, at 71-77.

136. For discussion of the English rule, see *supra* text accompanying notes 73-85.

137. For discussion of the American rule, see *supra* text accompanying notes 81-86.

138. 248 N.W. 304, 308 (Neb. 1933) (stating what this note refers to as "the Nebraska Rule" to be "supported by the better reasoning"); Mossman, *supra* note 103, at 72. See *supra* text accompanying notes 87-92, for discussion of the correlative rights doctrine.

> 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 if the natural underground supply is insufficient for all owners, each is entitled to a reasonable proportion of the whole . . . .[139]

In Nebraska, then, ground water users would appear to be subject to a rule of reasonable use in which reasonableness is determined both in the abstract (as under the American rule) and in relation to other users (as under the reasonable use form of riparianism).[140] In times of shortage, Nebraska follows the correlative rights doctrine to equitably apportion the available water among all users who own land over the common ground water resource.[141] The Nebraska rule, as stated in *Olson*, suggests that an otherwise reasonable purpose on the user's land may not be reasonable if it injures another user.[142]

The Nebraska rule was applied in *Prather v. Eisenmann* when the Nebraska Supreme Court was confronted with a dispute between local parties who put the ground water to different uses.[143] Prather (the plaintiff) was a well owner who used it for domestic purposes.[144] Eisenmann (one of the defendants and the appellant) arrived in 1976, constructed an irrigation well for agricultural purposes, and began to pump in July of that year.[145] When Eisenmann's pumping caused a reduction in the artesian pressure[146] on which Prather's well relied, Prather sued seeking damages and an injunction against further pumping.[147] The underlying ground water was sufficient in quantity to meet the needs of all users, but would require Prather to dig a deeper well to reach it.[148]

139. *Olson*, 248 N.W. at 308.

140. *See supra* note 84 and accompanying text.

141. *Olson*, 248 N.W. at 308.

142. *See id.*; *supra* text accompanying note 139. *But see infra* text accompanying notes 150-152.

143. 261 N.W.2d 766, 767, 768 (Neb. 1978).

144. *Id*. at 767.

145. *Id*. at 768.

146. See *supra* note 2 and accompanying text for a brief description of aquifers and artesian pressure.

147. *Eisenmann*, 261 N.W.2d at 767.

148. *Id*. at 771.

The court in *Eisenmann* argued that the Nebraska rule (absent times of shortage) was the "reasonable use doctrine" and reasonableness should be evaluated only on the use to which the water is put on the user's land, not as to whether such use is reasonable when compared to others.[149] Confusingly, the court noted that if the conflict had arisen between domestic users (rather than between a domestic user and an agricultural user), then it would not have been able to grant the plaintiff relief.[150] The Nebraska Supreme Court so noted despite the trial court's finding that Eisenmann had caused unreasonable harm to Prather, because water was still available to Prather by digging deeper wells.[151] Thus, *Olson*'s language suggesting that a court should apply an abstract standard to evaluate reasonableness of use among local parties who use ground water for the same purpose[152] in practice amounts to nothing more than a call to residents to righteously avoid harm to their neighbors. Among such common purpose ground water users, then, any one person may use as much as he can put to a use that is reasonable in the abstract and for a beneficial purpose, even if it causes an unreasonable harm to his neighbor.

In *Eisenmann*, Prather was granted relief because Nebraska statutory law dictates that domestic uses be given priority over agricultural uses, which are in turn given priority over industrial and mechanical uses.[153] Prather was found to have a property right in the use of the ground water for domestic purposes.[154] Because Eisenmann's use was for agricultural irrigation, his water rights were junior to those of Prather and he was liable for

149. *Id*. at 769-70. This is the American rule of reasonable use. *See supra* text accompanying notes 81-86. This contrasts from the Restatement rule that calls for a comparative evaluation of reasonableness of use. *See supra* text accompanying notes 96-98. It has been argued that the Nebraska Supreme Court's holding in *Spear T Ranch* creates "a confusing piecemeal of water law regimes [in that] ground water users are now subject to two doctrines: (1) correlative rights *vis-à-vis* ground water users, and (2) [Reasonable Use] riparianism *vis-à-vis* surface water users." Donald Blankenau et al., Spear T Ranch v. Knaub*: The Reincarnation of Riparianism in Nebraska Water Law*, 38 CREIGHTON L. REV. 1203, 1203 (2005).

150. *Eisenmann*, 261 N.W.2d at 771.

151. *Id*.

152. *See supra* text accompanying notes 139-140.

153. *Eisenmann*, 261 N.W.2d at 771. See NEB. REV. STAT. § 46-613 (2004) for the current statute that maintains the same preference order.

154. *Eisenmann*, 261 N.W.2d at 771.

damages.[155] The damages awarded to Prather were the costs necessary to restore him to his position before Eisenmann's pumping: the expense of drilling deeper wells to reach the lowered water table.[156] In addition, the court granted prospective relief by issuing two injunctions against Eisenmann (1) temporarily to cease further pumping until the deeper wells had been dug; and (2) permanently to stop digging any deeper wells.[157]

C. Nebraska's Administrative Ground Water Management System

In addition to the available common law remedies,[158] GWMPA now codifies the Nebraska rule for the management of ground water.[159] Allocation of the water in times of shortage remains the primary impediment to the correlative rights doctrine, and numerous courts have approached the subject in various ways.[160] The goal of the Nebraska Legislature in implementing GWMPA was to "extend ground water reservoir life to the greatest extent *practicable* consistent with beneficial use of the ground water and best management practices."[161] GWMPA provides for management by local natural resources districts"".[162] Each of the districts establishes the needs and

155. *Id*.

156. *Id*. at 767, 771-72.

157. *Id*. at 767.

158. *Spear T Ranch*, 691 N.W.2d at 134 (stating that the Nebraska Legislature has not preempted common law actions).

159. The relevant section provides, in part:

> Every landowner shall be entitled to a reasonable and beneficial use of the ground water 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 ground water supply is insufficient for all users.

NEB. REV. STAT. § 46-702 (2004).

160. *Spear T Ranch*, 691 N.W.2d at 129 (explaining that some courts regard the Correlative Rights rule as "essentially the same as the Restatement [rule]," while other courts apportion the water only in times of shortage).

161. NEB. REV. STAT. § 46-702 (emphasis added).

162. *Spear T Ranch*, 691 N.W.2d at 134. Nebraska's system of natural resources districts is composed of twenty three local districts set up along "river basin boundaries." NRD Guide, http://www.nrdnet.org/nrd_guide.html (last visited May 15, 2007). The purpose of the districts is to "develop and execute . . . plans, facilities, works, and programs

supplies of ground water in its area, lays out "any proposals for conservation and or supply augmentation," and develops a management plan to be submitted to the Department of Natural Resources""[163] for approval.[164]

If its plan is approved, the local district has a choice to create a management area within that district for the "integrated management of hydrologically connected ground water and surface water . . . ."[165] But while GWMPA authorizes the local districts to take such action when petitioned by surface or ground water users regarding a dispute, it does not require a district to do so.[166] The local district has other discretionary options as well, such as requesting the parties to consult with both the local district and the state Department to study the issue and hold a hearing on the preparation of a plan.[167] The court in *Spear T Ranch* noted that the Nebraska Legislature, through GWMPA, had not provided surface water users with any administrative adjudication mechanisms.[168] A surface user does have the option to initiate an administrative rulemaking procedure, but the local districts lack authority to resolve any individual disputes between users and cannot grant relief for past injuries.[169] The Nebraska Supreme Court recognized that one potential solution is something akin to an extensive

relating to" such things as water supplies that are used for beneficial purposes, erosion control, soil conservation, and fish and wildlife habitat. NEB. REV. STAT. § 2-3229 (1997).

163. The Nebraska Department of Natural Resources is the state agency with jurisdiction over water rights. NEB. REV. STAT. § 61-206 (2003). It is "dedicated to the sustainable use and proper management of Nebraska's natural resources." DNR Overview, Nebraska Department of Natural Resources, http://www.dnr.ne.gov/docs/dnroverview.html (last visited May 15, 2007). The Nebraska Supreme Court has ruled that the Department no longer has jurisdiction over ground water because GWMPA exclusively delegated that authority to the local districts where it declares them the "preferred regulators" of ground water, although there is no legal requirement that the districts take action. *See* Spear T Ranch, Inc. v. Nebraska Dep't. of Natural Res., 699 N.W.2d 379, 384-85 (Neb. 2005) (citing *In re* Complaint of Cent. Neb. Pub. Power and Irrigation Dist., 699 N.W.2d 372 (Neb. 2005); *Spear T Ranch*, 691 N.W.2d 116); *see also In re Central Nebraska*, 699 N.W.2d at 378 ("The Department regulates surface water appropriators and ground water users are statutorily regulated by the natural resources districts through the Nebraska Ground Water Management and Protection Act." (citation omitted)).

164. *Spear T Ranch*, 691 N.W.2d at 134.

165. *Id*. at 134-35.

166. *See id.* at 135.

167. *Id.*

168. *Id.*

169. *Spear T Ranch*, 691 N.W.2d at 135-36.

regulatory system.[170] Currently, however, neither Nebraska nor Arkansas have one. Instead, a surface water user in Spear T's position in either state is fortunate in that, at least now, he has the Restatement rule as a legal theory by which to seek relief.

V. ANALYSIS

The Restatement rule gives the surface water user in Nebraska a new common law cause of action against a nearby ground water user whose withdrawals unreasonably interfere with surface waters.[171] It may serve well to balance the equities and resolve conflicts among individual users, but it does little to encourage prudent use of shared waters. The problem in Nebraska is compounded by the state's disjunctive system that appropriates surface waters among individual users,[172] but places few limits on ground water use[173] other than the Restatement rule.[174] While no disputes have yet been addressed by the Nebraska Supreme Court under the Restatement rule, the court's clear preference for continued ground water development over surface water users is cause for concern. Since the most practical means of determining whether a use is reasonable is to study what uses the courts actually protect,[175] an analysis of the Nebraska Supreme Court's reasoning in *Spear T Ranch v. Knaub*[176] is both timely and necessary.

An alternative to judicial resource management is, of course, legislative action. But regulation and strict control of ground and surface water usage is not the only answer and, indeed, quite possibly can create more economic, political, and social problems than it cures. In Part V(B), this note proposes ways the Arkansas General Assembly can pursue

170. *See id*. at 136 ("Ideally, the Legislature would develop a comprehensive administrative appropriation system, including procedures and remedies, to adjudicate direct conflicts between ground water and surface water users in Nebraska.").

171. *See id.* at 132.

172. *See supra* text accompanying notes 125-134.

173. *See supra* text accompanying notes 135-142.

174. *See supra* text accompanying notes 33-37.

175. *See supra* note 60 and accompanying text.

176. 691 N.W.2d 116 (Neb. 2005).

multifunctionality through knowledge creation, that is, teaching water users how "to do new things or do things in new ways."[177]

A. Analysis of the *Spear T Ranch* Decision

In handing down its decision in *Spear T Ranch*, the Nebraska Supreme Court did not choose to limit, as a matter of law, ground water usage where an aquifer is hydrologically connected to a surface stream on which the state had already granted diversion permits.[178] Instead, the court adopted the Restatement rule that reinforces the riparian reasonable use doctrine as a new common law cause of action and de facto mechanism to regulate ground water usage.[179] This rule is now available where ground water use directly reduces the stream flow available to the owner of a surface water diversion permit for a set volume.[180] Before reaching its conclusion, the court first analyzed Spear T's claims that: the ground water users' depletion of water from Pumpkin Creek deprived Spear T of its state-granted surface water appropriation permits and thus constituted a conversion and trespass; and that Nebraska's surface water prior appropriation system should be extended to the state's ground waters.[181]

1. Tort Liability Under Conversion or Trespass is Rejected as a Cause of Action

In evaluating Spear T's claim that Knaub's ground water use was a conversion of Spear T's surface water appropriation rights, the Nebraska Supreme Court was forced to distinguish between the right to possess and the right to use.[182] In Nebraska, the tort of conversion is defined as "any distinct act of dominion wrongfully asserted over another's property in denial of or inconsistent with that person's rights."[183] In prior cases,

177. *See* Steven A. Wolf & Eeva Primmer, *Between Incentives and Action: A Pilot Study of Biodiversity Conservation Competencies for Multifunctional Forest Management in Finland*, 19 SOC'Y & NAT. RESOURCES 845, 846-47 (2006).

178. *Spear T Ranch*, 691 N.W.2d at 125.

179. *See id.* at 126, 129, 132 (citing RESTATEMENT (SECOND) OF TORTS § 858 (1979)).

180. *Id.* at 129.

181. *See id*. at 126-27.

182. *See id.* at 127.

183. *Spear T Ranch*, 691 N.W.2d at 126-27.

the court has recognized that a sufficient property right for a claim of conversion exists if the plaintiff has a property right that entitles him to immediate possession.[184] An example is where a person intentionally uses, or otherwise acts to control, some item owned by another in a way that is contrary to that other person's ownership of the item.[185] That person must then pay for the item unless it is given back.[186]

The court in *Spear T Ranch* faced the question of whether Spear T's surface water appropriation permits[187] constituted a right to immediate *possession* of that volume of water or simply a right to *use* that volume of water if it happened to flow in Pumpkin Creek.[188] The court made a clear determination on the issue in stating that a "right to appropriate surface water . . . is not an ownership of property. Instead, . . . the appropriation is a right to use the water."[189] The dichotomy of Nebraska's water management system was evidenced when the court emphasized its reasoning that Spear T could not gain a right to possess the *ground water* pumped by the defendants until it perfected physical possession of the *surface water* that it was permitted to use.[190] Without a possessive property interest in the ground water, there could be no interference to support an action for conversion.[191] By using somewhat circular logic, the court indicated that the ground water users would be liable for conversion if they physically stole water that Spear T had already diverted.[192] But if there is no water to divert because Pumpkin Creek was drained from below, then no action for conversion may lie.[193] As a further result, the defendant's appropriation of ground water, which Spear T claimed was a source of Pumpkin Creek's flow, did not amount to a physical invasion of Spear T's property that would support an action for

184. *E.g.*, Terra W. Corp. v. Berry & Co., 295 N.W.2d 693, 696 (Neb. 1980).

185. DAN B. DOBBS, THE LAW OF TORTS § 61, at 125-26 (2000).

186. *See id*.

187. *See supra* note 15 and accompanying text.

188. *See Spear T Ranch*, 691 N.W.2d at 127.

189. *Id*. *But see supra* note 25 and accompanying text.

190. *See Spear T Ranch*, 691 N.W.2d at 127 ("Similarly, an action in conversion is unavailable, since the plaintiff has no private property interest in groundwater, at least not prior to capture.").

191. *See id*.

192. *See id.*

193. *See id.*

trespass.[194] Because the court held that Spear T's allegations did not state a claim upon which relief could be granted,[195] it is clear that neither conversion nor trespass could lie in Nebraska even if the ground water did flow in a true underground stream that simply broke onto the surface where it then became Pumpkin Creek.

Spear T Ranch illustrates the difficulty in applying a tort theory more typically brought in actions relating to chattels[196] to a fugacious natural resource with a "fugitive character" more akin to wild animals.[197] A surface-water-using plaintiff's primary challenge may be to prove that water pumped by a ground-water-using defendant is, in fact, on its way to becoming surface water.[198] Although the court explicitly stated "that the water is hydrologically connected,"[199] it rejected the argument that the ground water has a direct effect on the surface water in Pumpkin Creek.[200] Had the court accepted conversion as an appropriate legal theory in disputes between ground and surface water users, the effect would have been the same as extending the state's system of surface water prior appropriation to ground water. It would create a burden in Nebraska that the court feared would "unreasonably deprive many ground water users."[201]

194. *Id*.

195. *Spear T Ranch*, 691 N.W.2d at 127 ("Because Spear T does not have a property interest in its surface water appropriation and only has a right to use, it cannot state a claim for conversion or trespass.").

196. DOBBS, *supra* note 187, § 61, at 125-26.

197. *See generally* JESSE DUKEMINIER & JAMES E. KRIER, PROPERTY 37-38 (5th ed. 2002). Resources such as oil and gas "'have the power and tendency to escape without the volition of the owner. . . . Possession of the land . . . is not necessarily possession of the gas.'" *Id.* at 38 (quoting Westmoreland & Cambria Natural Gas Co. v. DeWitt, 18 A. 724, 725 (Pa. 1889)).

198. *See* Blankenau et al., *supra* note 151, at 1208. It seems that Spear T's claim would fail in Nebraska even if this burden were met.

199. *Spear T Ranch*, 691 N.W.2d at 126.

200. *Id.* (characterizing Spear T's argument that the water was an "underground stream" to be "a legal fiction" with which the court did not agree).

201. *Id.* (explaining the court's fears if prior appropriation were applied to ground waters).

2. The Nebraska Supreme Court Declines to Apply Prior Appropriation to Ground Water

In denying the Plaintiff's claim that its surface water appropriation permits gave it a priority over ground water users of a hydrologically connected water system, the Nebraska Supreme Court relied on a series of fine distinctions.[202] Scientists and commentators have long noted that a hair is sometimes split between two types of ground water: underground water that flows in a stream, and underground water that percolates, rather than flows, through the ground.[203] Courts in most states presume that underground water is percolating and place the burden to prove otherwise on the claimant.[204] The Nebraska Supreme Court itself recognized this distinction in *Olson v. City of Wahoo*.[205] When that decision was handed down in 1933, the "question of the rights in percolating waters [was] comparatively modern."[206]

In *Spear T Ranch*, the plaintiff surface water user argued that the same legislatively created system of prior appropriation that applied to surface waters should be applied to ground waters as well.[207] The court rejected this argument for three reasons. First, the court declared that it did not agree with the "legal fiction" that the ground water at issue was an underground stream.[208] Had the court accepted that characterization—or accepted that the distinction is irrelevant in the real world—it would have been difficult to explain why it should not apply to ground water the same law it applies to surface water use: prior appropriation.[209] The court further stated that "adherence to [plaintiff's] view ignores reality,"[210] because it is "true that the

202. *See id.*

203. HARNSBERGER & THORSON, *supra* note 102, at 13; Harnsberger et al., *supra* note 104, at 249 (explaining that underground water that flows in a true stream is generally governed by the law applied to surface waters).

204. HARNSBERGER & THORSON, *supra* note 102, at 13.

205. 248 N.W. 304, 307 (Neb. 1933) ("There is a distinction made between underground waters flowing in known and well-defined channels, . . . and also underground waters, the channels of which are undefined and unknown, and it is held that the principles of law governing the former are not applicable to the latter.").

206. *Id.*

207. *Spear T Ranch*, 691 N.W.2d at 126.

208. *Id.*

209. *See* Harnsberger et al., *supra* note 104, at 248.

210. *Spear T Ranch*, 691 N.W.2d at 126.

water is hydrologically connected, but water rarely runs in a true underground stream."[211] It seems that the Nebraska Supreme Court somehow adopted this modern, enlightened view that there should be no legally significant difference between the two "types" of ground water[212] while still maintaining that ground water use will rarely have any direct impact on surface waters.[213]

The court's second reason to reject the application of prior appropriation to ground water use is that "no statutory or case law authority" exists for the court to do so.[214] Other states have implemented appropriation systems for ground water users, but those jobs were handled by the legislatures.[215] In Nebraska, the court notes, there is not yet a legislatively-created system to regulate this kind of direct conflict between surface and ground water users of a shared water resource.[216] An extension of a pure prior appropriation framework may not be the best answer to resolve conflicts between surface and ground water users,[217] but the Nebraska Supreme Court's rhetoric shows a great and unexplained preference for ground water users that places their interests above those of first-in-time surface water users. The court's reluctance to grant Spear T any relief beyond that which would result in its increased use of ground water—the adoption of the Restatement rule[218] and expressed hesitancy to restore Pumpkin Creek by enjoining ground water use[219]—is perhaps best illustrated in its final argument.

211. *Id.* (citing HARNSBERGER & THORSON, *supra* note 102, at 13-14).

212. HARNSBERGER & THORSON, *supra* note 102, at 13-14. Evidence that ground water does flow in a true underground stream may include "surface vegetation along its course, test borings, sounds of the water, geologic data, or *interconnections with surface streams*." GOLDFARB, *supra* note 48, at 19 (emphasis added).

213. *See Spear T Ranch*, 691 N.W.2d at 126.

214. *Id.*

215. *Id*.

216. *See id*. at 134; *supra* text accompanying note 170.

217. *See* George A. Gould, *Water Law in 1986: Selected Issues*, *in* PROCEEDINGS OF THE NATIONAL SYMPOSIUM ON WATER RESOURCES LAW, *supra* note 60, at 2, 17 (1986). "[I]f groundwater pumping is regulated to protect senior surface water users, much of the total resource may remain unused. On the other hand, if pumping is allowed so that the resources is [sic] fully utilized, senior surface water users may find the stream dry." *Id.* at 17-18.

218. *See infra* notes 234-260 and accompanying text.

219. *See infra* note 257 and accompanying text.

The court's final reason to decline the opportunity to apply prior appropriation to ground water use is that it would allow the "first-in-time surface water appropriators the right to use whatever water they want to the exclusion of later-in-time ground water users."[220] The court's fear that extending prior appropriation, as Spear T requested, would have the effect of "shutting down all wells" in areas where surface and ground waters are hydrologically connected,[221] is valid and well-taken. The court was placed in a difficult position in which it was forced to balance the state's interests in ground water use and in surface water use. Adoption of the Restatement rule to create a common law cause of action for plaintiff surface water users is commendable. The court noted that ground water use "may have significant, negative consequences for surface water appropriators."[222] But the court also expounded on the hardships that Spear T's complaint may have on the defendant ground water users.[223]

The court's rhetoric should be worrisome for surface water users in Nebraska, especially one such as Spear T whose individual burden was arguably the greatest when its source of surface water went dry. The court's first error was to argue that the holders of surface water diversion permits are allowed to simply "use whatever water they want"[224]—this is simply not the law.[225] The second flaw, and perhaps the most telling, lies in the court's clear refusal to acknowledge the extent of the hardship that the present system places on surface water users. The court supports its fears by quoting a respected article and arguing that the ultimate result of extending prior appropriation

220. *Spear T Ranch*, 691 N.W.2d at 126.

221. *Id*.

222. *Id.* at 132.

223. *See, e.g.*, *id.* at 126, 132 (arguing that prior appropriation would "unreasonably deprive many ground water users" and that "an injunction against pumping might only serve to deprive everyone in a water basin").

224. *Id.* at 126; *see supra* text accompanying note 220.

225. Any unappropriated water in a stream—anything above and beyond the volume allocated to Spear T Ranch in its appropriation permits—is still subject to appropriation by any other user. NEB. REV. STAT. § 46-202(1) (2004). Thus, if any other user is granted an appropriation permit by the state of Nebraska, then Spear T Ranch would divert only up to its allotted volume (so much as it could put to a beneficial use) and the junior user would divert its allotted volume (so much as it could put up to a beneficial use), and so forth. *See supra* notes 61-70 and accompanying text.

to all waters in Nebraska would be to shut down ground water wells.[226] The logic is irrefutable. Any use of ground water can be expected to have some effect on surface water, and those with surface water appropriation permits already have a temporal priority. Ground water users would be later-in-time and pumping would be allowed only to the extent that any unappropriated surface water was available.

The Nebraska Supreme Court did not, however, recognize the flip-side to its argument when it misquoted Professor Harnsberger's article.[227] The full text reads as follows: "if the doctrine of prior appropriation *and* the modified version of *reasonable use* were carried to *their* logical conclusion, all Nebraska wells would be shut down *and all Nebraska streams would dry up*."[228] Not only will ground water users be deprived if the court completely defers to surface water users, but surface waters users will *also* be deprived if the court defers to ground water users. There is no way around this paradox when the two resources are managed according to separate doctrines. But what is most disconcerting is that this misquote has taken on the power of legal precedent from the highest court in Nebraska. It has been cited in briefs by ground water users to the court in a later proceeding of the *Spear T Ranch* case[229] and by the court itself on still another case.[230] In the latter case, the court again ruled in favor of ground water users and against a surface water appropriation permit holder.[231]

Professor Harnsberger further predicted that when the inevitable surface and ground water use conflict came about and

226. *Spear T Ranch*, 691 N.W.2d at 126 (quoting Harnsberger et al., *supra* note 104, at 247, 250).

227. *Id.*

228. Harnsberger et al., *supra* note 104, at 248 (emphasis added). The "modified version of reasonable use" to which the author refers is the Restatement rule. *Id.* at 209 (citing the RESTATEMENT (SECOND) OF TORTS § 858A (Tentative Draft No. 17, 1971)).

229. Joint Brief of Defendants-Appellees in Response to Appellant, Central Nebraska Public Power and Irrigation District's, Request to Intervene at 32, *Spear T Ranch*, 691 N.W.2d 116 (No. S-05-00759).

230. *In re* Complaint of Cent. Neb. Pub. Power & Irrig. Dist., 699 N.W.2d 372, 377 (Neb. 2005).

231. *Id.* at 374, 379 (affirming decision of the director of the Department of Natural Resources to dismiss the plaintiff irrigation district's complaint that ground water users had diverted surface waters without appropriation permits because it held that the Department had no authority to regulate ground water users for the benefit of surface water users and, thus, lacked jurisdiction to hear the claim).

one rule must be favored over another, then "some accommodation must be made" because of the enormous investment in the development of both surface and ground water resources in Nebraska.[232] The court's accommodation in *Spear T Ranch* is the adoption of the Restatement Rule.[233]

3. The Adoption of a New Common Law Remedy: The Restatement Rule

In light of the fact that Spear T had suffered an actual harm and alleged that the defendant ground water users were the cause of that harm, the Nebraska Supreme Court declined to simply leave it out to dry.[234] The Restatement rule, as interpreted by the Nebraska Supreme Court, is a framework that draws on principles of both correlative rights and reasonable use doctrines.[235] In this way, the Restatement rule seeks an equitable resolution of a conflict between competing users.[236] Comment *b* to section 858 illustrates the policy behind the rule as "'permitting more or less unrestricted development of the [aquifer] by those who have access to it.'"[237] Such a policy is dependent on an aquifer that is "'very large and contain[s] vast quantities of water, [so that] it is usually impossible for a single water use to capture the entire supply and leave no water for

232. *Id.*

233. *Spear T Ranch*, 691 N.W.2d at 131-32; *see* RESTATEMENT (SECOND) OF TORTS § 858.

234. "Although Spear T cannot state a claim under the statutory surface water appropriation rules or for the tort of conversion, this does not end our analysis." *Spear T Ranch*, 691 N.W.2d at 127.

235. *Id.* at 129. The Restatement rule is founded in the riparian doctrine of reasonable use, and "differs from the American rule because it balances the equities and hardships between competing users." *Id.* at 130. The American rule would give a surface water user recovery only when the use of ground water by a nearby landowner "was not . . . for a beneficial purpose on the ground water user's land." *Id.* at 128. The correlative rights doctrine refers to the apportionment of a common, shared water resource according to landowners' reasonable needs. *Id.* Section 858(1)(c), as between a ground and surface water users of a hydrologically connected water body, grants recovery only where the ground water user's withdrawal "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." *Spear T Ranch*, 691 N.W.2d at 129 (citing RESTATEMENT (SECOND) OF TORTS § 858(1)(c)).

236. *Id.* at 130.

237. *Id.* (quoting RESTATEMENT (SECOND) OF TORTS § 858, cmt. b).

others.'"[238] That policy, especially in areas of intensive ground water usage, is clearly impracticable.

In making a determination of whether a ground water users' withdrawal is reasonable, the court adopted a flexible test "determined on a case-by-case basis."[239] Additionally, the court asserted that adoption of section 858 "is the modern trend."[240] In support of this contention the court referenced three states that have adopted the Restatement rule:[241] Wisconsin in 1974,[242] Michigan in 1982,[243] and Ohio in 1984.[244] Each of these cases, however, "involved disputes among ground water users."[245] The rule that each of these three states replaced was the English rule of absolute ownership; it was not as "equitable in the resolution of ground water conflicts" as the Restatement rule.[246]

The court in *Spear T Ranch* inadvertently divined the inherent paradox that lies at the core of the continuing difficulty of managing both surface and ground water resources in areas where one is abundant and the other is scarce, yet the two remain inextricably intertwined. The court's reasoning that a later-in-time ground water user should, to some extent, be able to usurp the rights of a surface water appropriation permit holder does have some basis in economic theory. When a surface water user's water supply disappears, he will naturally seek to dig a

238. *Id*. (quoting RESTATEMENT (SECOND) OF TORTS § 858, cmt. b).

239. *Id*. at 131. The court delineated a non-exhaustive list of factors to consider such as:

> "(a) The purpose of the use, . . . (c) the economic value of the use, . . . (e) the extent and amount of harm it causes, (f) the practicality of avoiding the harm by adjusting the use or method of use by one proprietor or the other, (g) the practicality of adjusting the quantity of water used by each proprietor, (h) the protection of existing values of water uses, land, investments and enterprises, and (i) the justice of requiring the user causing harm to bear the loss."

Spear T Ranch, 691 N.W.2d at 131 (quoting RESTATEMENT (SECOND) OF TORTS § 850A).

240. *Id*. at 132.

241. *Id*.

242. State v. Michels Pipeline Constr., Inc., 217 N.W.2d 339, 350 n.43 (Wis. 1974) (referring to RESTATEMENT (SECOND) OF TORTS, § 858A (Tentative Draft No. 17, 1971)).

243. Maerz v. United States Steel Corp., 323 N.W.2d 524, 530 (Mich. Ct. App. 1982).

244. Cline v. American Aggregates Corp., 474 N.E.2d 324, 327 (Ohio 1984).

245. *See* Blankenau et al., *supra* note 151, at 1211.

246. *Id*.

well himself.[247] The fulcrum on which the theory hinges is its reliance on the fact that it is more expensive to pump ground water than it is to divert surface water.[248] Thus, the fiscal restraints should, theoretically at least, lead to a more conservative use of the water and less waste.[249] There are, however, two important variables missing from that economic formula: (1) the necessity of water; and (2) the disparity between Nebraska's water management systems that strictly appropriate surface waters, but place few limits on ground waters. A small surface water user's individual forbearance has virtually no effect on the level of ground water. The only water conservation that will restore Pumpkin Creek is on the part of the irrigators. When a surface stream runs out of water, the appropriator's need for water is unchanged. He must find a source of water and, because water is a necessity, the fiscal restraints are unlikely to dampen his need to drill a well to access ground water.

Once a source of ground water is available, Nebraska law still places almost no limits on its use. The Nebraska rule[250] is based on the American rule[251] that "does not prohibit exhausting the entire supply even though other overlying owners are injured

247. Harnsberger et al., *supra* note 104, at 247.

> [T]he Director of Water Resources [once] observed that whenever his office closed the headgates of junior appropriators on a stream, the number of new irrigation wells increased sharply. This is commonplace in the West where junior appropriators turn to wells during dry seasons. Also, once streams are fully appropriated, those who are unable to obtain any rights turn to well installation. The usual effect of such activities over time is *to reduce surface flows* because almost all groundwater is tributary to some stream, *i.e.*, hydrologically connected, and the source of the surface flow.

Id. (citations omitted) (emphasis added).

248. *Id.* at 250.

249. *Id.* "The theory is that this promotes utilization of all sources and discourages wasteful practices." *Id*.

250. *See supra* text accompanying notes 135-142. While the Nebraska Rule limits a ground water user to an equitable portion divided among all overlying landowners in times of shortage, that is little incentive to restrict current use. *See* Harnsberger et al., *supra* note 104, at 244. "A weakness of all the water rights doctrines applied to a stock [fixed quantity of supply], if more than one right exists, is that present uses are favored over future uses." *Id*. (alteration in original) (quoting Edgar S. Bagley, *Water Rights Law and Public Policies Relating to Groundwater "Mining" in the Southwestern States*, 4 J.L. & ECON. 144, 153 (1961)).

251. *See supra* note 149 and accompanying text.

or completely deprived of water . . . ."[252] The court's adoption of the Restatement rule does nothing more than adopt the full meaning of the Nebraska rule that was first stated in *Olson*.[253] The remedy likely to be granted to a surface water user plaintiff in Nebraska may include damages for the diminution in property value,[254] the expense of drilling a new or deeper ground water well,[255] or exempting the plaintiff from restrictions on drilling new ground water wells.[256] The court is unlikely to uphold an injunction, however.[257] Thus, a surface water user will most likely dig a ground water well to meet his needs. With few restrictions on ground water use, and every incentive to use water to irrigate more crops and water more livestock, the result is likely to be an overall net increase in water consumption.

Spear T Ranch illustrates the inherent difficulties and inadequacies of judicial attempts to integrate two separate systems of water management. In Nebraska, however, the law had previously been silent in regard to whether a surface water appropriator had any rights against a nearby ground water user.[258] The Restatement rule does now provide a surface water appropriator with some rights against a ground water user, but it is not the answer that is needed. The court clearly recognized the fallacy of denying Spear T a claim in these circumstances,[259] but also recognized that action by the legislature would be

252. *See* Harnsberger et al., *supra* note 104, at 206.

253. *Compare Spear T Ranch*, 691 N.W.2d at 132 (holding in 2005 that a landowner is now liable if ground water withdrawals have "a direct and substantial effect upon a watercourse . . . and unreasonably cause[] harm to a person entitled to the use of its water" (quoting RESTATEMENT (SECOND) OF TORTS § 858(1)(c) (1979))), *with Olson*, 248 N.W. at 308 (stating the Nebraska rule in 1933 that a landowner cannot withdraw ground water beyond what can be put to a "reasonable and beneficial use . . . especially if such use is injurious to others who have substantial rights to the waters").

254. *See supra* text accompanying notes 114-19.

255. *See supra* text accompanying notes 155-156.

256. *Spear T Ranch*, 691 N.W.2d at 132.

257. The Nebraska Supreme Court cautioned against enjoining ground water users because that would only serve to "deprive everyone in a water basin" where "the recharge of a stream that has dried up because of well pumping could take years . . . ." *Id.*

258. *See* Metropolitan Util. Dist. of Omaha v. Merritt Beach Co., 140 N.W.2d 626, 634 (Neb. 1966).

259. *Spear T Ranch*, 691 N.W.2d at 131-32 ("Initially we reject a rule that would bar a surface water appropriator from recovering in all situations. Such a rule would ignore the hydrological fact that a ground water user's actions may have significant, negative consequences for surface water appropriators.").

required to adequately address such conflicts that loom in the future.[260]

In balancing the equities through a system of allocation by litigation, the unique considerations surrounding rights to use such an absolutely necessary and important resource as water may potentially produce unanticipated consequences. For a smaller surface water user to succeed on a claim against a neighboring pumper, in the face of the court's apparent preference for ground water users, it will be necessary that he retain, at a minimum, a lawyer and a hydrologist, and maintain sufficient capital reserves to continue his suit while his livelihood runs dry. While the adoption of the Restatement rule is a far better remedy than continuing the old dichotomy in its purest form, its effect in some situations may be less than ideal. The court's accommodation is not to be underestimated here, but the surface water user whose appropriation permits were granted by the state before ground water use began is still very likely to be left out to dry while ground water development continues. A deprived surface water user will likely become a part of that ground water development by necessity and practicality. The result will be increasing pressure on vital and inescapably necessary water resources in an arid region.

This scenario has played itself out over the course of human history innumerable times. Another relatively recent example came in the late 1940s when the sardine fishery[261] in the Pacific Ocean off the coast of California began to collapse.[262] Fishmeal,[263] at that time, was seen as a necessary additive to poultry feed.[264] Demand for the diminishing stocks did not falter and caused the profitability of chasing the remaining sardine stocks to increase.[265] The harvesters began to roam further and further out, from Peru to Chile to Morocco, in

260. *See supra* text accompanying note 170.

261. The term "fishery" is used here to refer to "the industry of catching fish" in a particular area. *See* 5 THE OXFORD ENGLISH DICTIONARY 967 (2d ed. 1989).

262. ARTHUR F. MCEVOY, THE FISHERMAN'S PROBLEM: ECOLOGY AND LAW IN THE CALIFORNIA FISHERIES, 1850-1980, at 154-55 (1986).

263. Fishmeal is "dried fish ground to a meal." 5 THE OXFORD ENGLISH DICTIONARY 964 (2d ed. 1989).

264. MCEVOY, *supra* note 264, at 154-55.

265. *Id*.

search of new stocks as the old ones disappeared.[266] The result in these newly developed fisheries was the same: "the Peruvian . . . fishery, from foundation to boom to ultimate collapse during the 1970s, reprised in practically every detail that of its California progenitor."[267]

B. The Benefits of Legislative Pursuit of Multifunctionality in Water Resource Management

Water shortages are often not a result of insufficient water, but rather a result of overly burdensome usage demands.[268] While one clear answer is to increase the supply, that necessarily will increase litigation when the water—as the White River is in Arkansas—is already devoted to other significant uses. This litigation increases not only the costs to users and industry, but also to the public that must pay to maintain an efficient judiciary. The alternative, then, is to also limit demand. But while Arkansas unquestionably needs some form of complete and integrated water resource management system,[269] regulation alone is insufficient. Thus, this note proposes that the Arkansas General Assembly encourage multifunctional agriculture in water-demanding areas.

Agricultural irrigation plays a large part in Arkansas's alluvial aquifer over-extraction.[270] An obvious solution is to encourage farmers to switch to less water demanding crops. The problem with that is that other crops may well be less profitable and require an expensive investment in new equipment. Then add to that an often undiscussed cost: the expense of learning

266. *Id*. at 155.

267. *Id*. This pressure on the resource stems from the fisherman's problem:

> Every harvester knows that if he or she leaves a fish in the water someone else will get it, and the profit, instead. This is what economists call "the fisherman's problem": In a competitive economy, no market mechanism ordinarily exists to reward individual forbearance in the use of shared resources.

Id. at 10. This is, of course, a real-world illustration of the classic "tragedy of the commons" theorem. *See* ELINOR OSTROM, GOVERNING THE COMMONS: THE EVOLUTION OF INSTITUTIONS FOR COLLECTIVE ACTION 2-5 (1990).

268. *See* Perkins, *supra* note 7, at 152 (quoting Frank J. Trelease, *A Water Management Law for Arkansas*, 6 U. ARK. LITTLE ROCK L.J. 369, 373 (1983)).

269. *See generally* Perkins, *supra* note 7.

270. *See generally* RENKEN, *supra* note 3.

how to profitably manage a new type of operation. While there is often talk of economic incentives (perhaps tax breaks and subsidies) and a strong legislative push towards water conservation, "actors must be able to do new things or do things in new ways" in order to "respond to incentives and act on intentions . . . ."[271]

Multifunctional agriculture provides diverse "socioeconomic and environmental benefits,"[272] to an area that may otherwise rely exclusively on rice and soybean production. The legislature may, for example, implement labeling systems for Arkansas grown rice of a variety that does not require inundation to grow or for alternative crops grown in lieu of rice. These labels might clearly proclaim the "environmental" benefits of choosing this particular product and thus fetch a premium price from consumers, thereby developing a market for less water-intensive growth. This might then create a greater domestic market for rice that can benefit the entire industry. To effectuate conservation goals of Arkansas and individual farmers, the legislature should ensure that research and management institutions are streamlined, funded, and able to quickly communicate their internal information and agricultural innovations to the public and industries. By linking farmers with the "external expertise," information, and innovations generated at the state's colleges, universities, and agencies, Arkansas can enhance the industry's ability to learn how to do new things or even just the old things in better ways.[273] Agriculture Extension offices, for example, are key links to farmers and should be well-staffed and well-maintained.

VI. CONCLUSION

Spear T Ranch, Inc. v. Knaub illustrates the potential pitfalls of deference to the judiciary's development of a water resource management system. When adverse parties assert conflicting interests over such a necessary and fought-over resource, a court might necessarily favor one party over the other. With water at the center of the divide, the court's result

271. *See* Wolf & Primmer, *supra* note 179, at 847.
272. *See id.* at 846.
273. *See id.* at 849.

may create a public outcry and even more litigation. The result of such an allocation-by-litigation system is likely to be something less than a complete, integrated, equitable, and sustainable management plan because it is so difficult to ensure that all actors are heard.

While Arkansas's legislature must squarely and thoroughly address the problems posed by aquifer depletion, it should also look to the future. Water-demanding industries should be encouraged to pursue new practices, and the incredible wealth of knowledge and innovation developed at Arkansas's colleges, universities, and agencies must be effectively communicated to individual farmers. Armed with new capabilities, this state's already successful farmers can better adapt to changing needs and adopt more water-efficient practices. Then by reducing overall water demand while efficiently tapping available surface water resources equitably balanced against existing uses, Arkansas can begin to contemplate what a truly sustainable water resource management system will look like. The alternative is a water rights furor that will benefit no one.

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