

9-1-2006

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UNIVERSITY OF DENVER
WATER LAW REVIEW

VOLUME 10

ISSUE 1

FALL 2006

**PUBLIC WATER—PRIVATE WATER: ANTI-SPECULATION, WATER REALLOCATION, AND
*HIGH PLAINS A&M, LLC V. SOUTHEASTERN
COLORADO WATER CONSERVANCY DISTRICT***

LAWRENCE J. MACDONNELL[†]

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I. INTRODUCTION

The Colorado Supreme Court recently decided that the state’s “anti-speculation” doctrine applies to changes of water rights.¹ The effect of the decision is to enlarge public control over decisions respecting reallocation of water and to discourage non-governmental entities from participating in the reallocation process. In this “era of

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1. *High Plains A & M, LLC v. Se. Colo. Water Conservancy Dist.*, 120 P.3d 710, 714 (Colo. 2005). For articles written by opposing counsel in the case, see Scott A. Clark & Alix L. Joseph, *Changes of Water Rights and the Anti-Speculation Doctrine: The Continuing Importance of Actual Beneficial Use*, 9 U. DENV. WATER L. REV. 553 (2006), and Harvey W. Curtis et al., *The Anti-Speculation Doctrine Extended to Change of Water Rights Cases: A New Dilemma for Water Rights Owners*, 9 U. DENV. WATER L. REV. 577 (2006).

reallocation,” the court’s reasoning emphasizes the public nature of water and the role of government in overseeing private uses of water.²

The anti-speculation doctrine first emerged in Colorado in the context of a private water development company’s plans to obtain rights to divert and store water on the western side of the Continental Divide for sale to users in the heavily populated Front Range.³ In *Colorado River Water Conservation District v. Vidler Tunnel Water Co.*, the Colorado Supreme Court ruled that an appropriator of water not itself the user must have a definite commitment for actual use of water to obtain a water right.⁴

In the recent Colorado Supreme Court decision in *High Plains A&M, LLC v. Southeastern Colorado Water Conservancy District*, the court extended this requirement from the initial appropriation of water to changes of use of existing water rights.⁵ Now, before a non-governmental purchaser of water rights can go through a change of use proceeding to determine how much water the purchaser may transfer to a new use, the purchaser must have final contracts with specified users and be able to identify both a point of diversion and place of use.⁶ Speculation remains a concern, the Colorado Supreme Court ruled, despite the fact the water rights in question had been in existence for more than 100 years.⁷

High Plains highlights two competing models for water reallocation in the prior appropriation West, here broadly characterized as public

2. For a good explanation of the “era of reallocation,” see NAT’L RESEARCH COUNCIL, *WATER TRANSFERS IN THE WEST: EFFICIENCY, EQUITY, AND THE ENVIRONMENT* 16 (1992).

3. *Colo. River Water Conservation Dist. v. Vidler Tunnel Water Co.*, 594 P.2d 566, 567-68 (Colo. 1979) (en banc).

4. The court held:

[T]he evidence presented regarding future needs and uses of water by the municipalities contacted by Vidler falls short of what is necessary to indicate an intent to appropriate. Vidler has no firm contractual commitment from any municipality to use any of the water. . . . The mere negotiations with other municipalities clearly do not rise to the level of definite commitment for use required to prove the intent here required.

Id. at 568.

5. *High Plains*, 120 P.3d at 720.

6. *Id.* at 720-21. Colorado law distinguishes between governmental and non-governmental appropriators in numerous respects. Of importance here is the statutory provision precluding appropriation of water by a non-governmental entity as speculative if it does not have a legally vested interest in the lands or facilities it intends the proposed appropriation to serve. COLO. REV. STAT. § 37-92-103(3)(a)(I) (2006). See *infra* text accompanying note 54. Note the chicken and egg dilemma presented under the *High Plains* decision: the non-governmental applicant for a change must have final contracts for use of the water before it knows if it can obtain the change of use that enables it to deliver the water and provides confirmation of the transferable quantity of water available for contract.

7. *High Plains*, 120 P.3d at 714-15. The primary water rights for the Fort Lyons Canal originated in the 1880s.

versus private.⁸ It unreservedly embraces the public-as-supervisor model, finding support for this approach in what the decision describes as the “agrarian, populist” roots of Colorado water law.⁹ This comment evaluates the legal and policy basis of the *High Plains* decision. It begins with a consideration of the resource itself and its legal status under prior appropriation law. It focuses on the portion of water consumptively used under a valid appropriation and suggests that such consumptive use effectively privatizes the water. It then turns to a discussion of the *High Plains* decision and its extension of the anti-speculation doctrine to matters of water reallocation. It questions the purpose of following this doctrine as applied to reallocation of historically beneficially-consumed water. Finally, it proposes an alternative reallocation approach based on treating consumed water as private and explores the implications of following such an approach.

II. PUBLIC WATER AND APPROPRIATED, CONSUMED WATER

Water is a classic common resource. It is widely but irregularly distributed. It is renewable, but with considerable variation in amounts and timing during the year and from year-to-year. It is not fixed in place like land but in constant motion in the hydrologic cycle. Water performs innumerable functions as it passes through the cycle beyond those directly benefiting humans, and many human uses can share the benefits of the same molecules of water. These fundamental characteristics of the resource and the broad distribution of its functions and benefits argue against water’s private ownership.

Water in its various forms, moving without confinement in the hydrologic cycle, is unowned.¹⁰ Under the doctrine of prior appropria-

8. More accurately, one might describe this as “public as supervisor” versus “public as guardian”, since the state’s role is not as the initial decision-maker but as the overseer of water suppliers’ and water users’ proposed actions. Despite the overarching public nature of water, the appropriator’s actions initiate water appropriation for human use, subject to a state agency’s verification and approval. Similarly, water reallocation derives from the decision of the owner of the water right to sell or otherwise transfer the right to another party, subject to a state agency’s review. The distinction here is between a reallocation process with substantial public review and supervision that at least implicitly includes an evaluation of whether the proposed new use is “good,” and a process that operates with minimal public involvement only as necessary to safeguard other water rights and legislatively-specified interests.

9. *High Plains*, 120 P.3d at 719, n.3. The note refers to the historical analysis provided in David B. Schorr, *Appropriation as Agrarianism: Distributive Justice in the Creation of Property Rights*, 32 *ECOLOGYL.Q.* 3 (2005).

10. Ownership connotes human control or possession. Law has struggled with characterizing those things of value but without specified ownership because, in general, such things are outside the scope of the legal system. Modern protection of the natural environment proceeds by placing limitations on human actions involving disposal of pollution into the unowned environment or otherwise unacceptably impairing some valued dimension of the natural environment, not by the more traditional tech-

tion, when that water is in a stream or aquifer and susceptible of capture for direct human use, it is public property and openly available for non-exclusive uses such as navigation or recreation.¹¹ Humans also make certain exclusive private or individual uses of water. Such uses require physical control of water in a manner necessary to enable the use.¹²

In Colorado and other prior appropriation states, the act of appropriation of water (control or possession of water combined with its actual beneficial use) establishes the legal right to make such uses.¹³ The user maintains the right through continued use.¹⁴ Extensive scrutiny of proposed new uses reflects water's status as a public, and widely shared, resource. Since any use of water potentially excludes other uses, western states supervise private control of water resources to ensure that

nique of declaring ownership and providing protection for that ownership. However, traditional riparian law (natural flow) contained essentially property-law-based limitations on impairment of water quality affecting the usability of the water. A. DAN TARLOCK, *LAW OF WATER RIGHTS AND RESOURCES* § 3:65, at 3-112 to -114 (Thomson/West 1988 & Supp. 2006). Prior appropriation law has, at times, suggested the water right, as a property right, enjoys protection of water quality as necessary to enable continued use of water. *Id.* at § 5:92, at 5-165.

11. "The water of every natural stream, not heretofore appropriated, within the state of Colorado, is hereby declared to be the property of the public, and the same is dedicated to the use of the people of the state, subject to appropriation as hereinafter provided." COLO. CONST. art. XVI, § 5. Roman law declared running water and the oceans to be common property, available generally for use. JAMES HADLEY, *INTRODUCTION TO ROMAN LAW* 157-58 (D. Appleton & Co. 1878). As with wildlife, individuals' capture of water rendered the common resource private. Dean Lueck, *The Rule of First Possession and the Design of the Law*, 38 J.L. & ECON. 393, 393-94 (1995). Once no longer in possession, however, such things "recovered [their] natural liberty," in the words of the Institutes of Justinian. CORPUS JURIS CIVILIS, INSTITUTIONES: THE INSTITUTES OF JUSTINIAN 37 (J.B. Moyle trans., Oxford Univ. Press 5th ed. 1913) (1883). In *Geer v. Connecticut*, the United States Supreme Court fell back on the theory of ownership, here state ownership of wildlife, to rationalize state law limitations on removing captured or killed wildlife from the state as against a negative Commerce Clause claim. *Geer v. Connecticut*, 161 U.S. 519, 534-35 (1896). Western states adopted the notion of public or state ownership of water as the basis for establishing rules respecting its use. More contemporary scholarship has demonstrated the potential efficacy of other kinds of rule-making regimes for common resources. See generally ELINOR OSTROM, *GOVERNING THE COMMONS: THE EVOLUTION OF INSTITUTIONS FOR COLLECTIVE ACTION* (1990).

12. The Colorado Supreme Court described the importance of physical control of water to establishing the appropriation necessary to a legally-protected water right in *City of Thornton v. City of Fort Collins*, 830 P.2d 915, 929-31 (Colo. 1992) (en banc).

13. COLO. REV. STAT. §§ 37-92-103(3) (a), -305(9) (b) (2006).

14. Nonuse coupled with intent to abandon results in loss of the water right. *CF&I Steel Corp. v. Purgatoire River Water Conservancy Dist.*, 515 P.2d 456, 457-58 (Colo. 1973) (en banc). A water right is a possessory right; failure to exercise the possession constitutes an assumption of abandonment. *Knapp v. Colo. River Water Conservation Dist.*, 279 P.2d 420, 425 (Colo. 1955) (en banc).

the use will produce actual benefits.¹⁵ Once the user has allocated water to a particular use, however, and thus removed it from the common pool, control of the water shifts from the state to the user under the terms of state law. The user has met the minimum standards of beneficial use required to take a public resource for a private use.¹⁶ The right to divert and use water under a vested water right continues indefinitely, so long as the user maintains its use.¹⁷ Because consumed water does not return to the common pool, the general public no longer has any direct interest in this water requiring protection, except that the user might abandon the use and return the previously-consumed water to the common pool.¹⁸ Water in the possession of an appropriator thus becomes “personal property.”¹⁹

15. See generally ELWOOD MEAD, *IRRIGATION INSTITUTIONS* (1903). Mead brought the sensibility of a scientific manager to the problem of water. He was generally appalled by the lack of good records respecting water use and the often wildly excessive claims to water that court decrees established. He believed active public supervision was essential to promote more efficient and effective use of water, a belief he was successful in institutionalizing in Wyoming and that other western states eventually followed. ROBERT G. DUNBAR, *FORGING NEW RIGHTS IN WESTERN WATERS* 99-132 (1983).

To Mead, the efficient use of water in economic development was an exercise in both scientific management and social planning. Intensive irrigation would reshape arid lands and revolutionize rural life. In Mead's vision of a more perfect America, the agrarian ideal required an infusion of ideas and attitudes consistent with what American historians have branded the American Progressive movement. Although American progressivism accommodated a wide range of individuals and agendas, its complex amalgam contained several elements that Elwood Mead championed. Expert management, technology, and orderly, business-like arrangements would transform the rural yeoman farmer into an agrarian factory manager able to produce larger quantities of food for the cities. Equally important to Mead was the social revolution that his methods would foster: more efficient farm management produced better crops and better citizens.

Robert E. Rook, *An American in Palestine: Elwood Mead and Zionist Water Resource Planning, 1923-1936*, 22 *ARAB STUDIES QUARTERLY* 71, 73 (2000).

16. A decree is a court's determination that the appropriator has fully met state law requirements. In Colorado, the decree does not create the water right but merely confirms its existence. *Ready Mixed Concrete Co. v. Farmers Reservoir and Irrigation Co.*, 115 P.3d 638, 642 (Colo. 2005) (en banc).

17. Thus a water right, although a property right, is not a fee simple absolute; it is defeasible because the right-holder may lose the right by abandonment. *Knapp*, 279 P.2d at 425.

18. If a user abandons water that the user has historically diverted and used, the water simply becomes available to other appropriators according to their priorities.

19. “However, when an appropriator has actually diverted water from the stream under his priority, the water he has taken is no longer a right, but a possession; it is not an interest in real estate, but personal property.” *Brighton Ditch Co. v. City of Englewood*, 237 P.2d 116, 120 (Colo. 1951) (en banc). “Water in possession is personal property; the right to divert water from a stream is an interest in real estate.” *West End Irrigation Co. v. Garvey*, 184 P.2d 476, 479 (Colo. 1947). But see *Bijou Irrigation Dist. v. Empire Club*, 804 P.2d 175, 184 (Colo. 1991) (en banc) (“Although we have stated that

Typically, a user takes far more water from a source for use than it consumes in the use.²⁰ For example, it is common for irrigation of crops, a major use of water in arid and semi-arid regions, to consume roughly half the water withdrawn from a stream or aquifer, with the remainder returning to the source.²¹ Domestic uses typically consume much less than this.²² Water returning to the source is then available for others' use. What is the legal status of that portion of water consumed during use? In most respects, consumptively-used water meets all the usual standards for private ownership.²³ It is completely under the control of the possessor. It is a definable and measurable quantity. Its use is exclusive. Appropriators can prevent others from interfering with its use. The user controls all benefits of its use. The user enjoys the right of use, but no one can compel the user to continue the use. Prior appropriation states even allow the user to sell, lease, or otherwise transfer the use of this portion of water to another or to put this water to a different use.²⁴

Yet prior appropriation law is clear that the act of appropriation does not result in acquiring ownership of the water.²⁵ Rather, appropriation establishes a legally protected right of use, which courts treat

water once diverted becomes the personal property of the appropriator, this somewhat overstates the scope of right.") (citation omitted).

20. See, e.g., Daniel S. Young & Duane D. Helton, *Developing a Water Supply in Colorado: The Role of an Engineer*, 3 U. DENV. WATER L. REV. 373, 380 (2000). "Beneficial use' is the use of that amount of water that is reasonable and appropriate under reasonably efficient practices to accomplish without waste the purpose for which the appropriation is lawfully made . . ." COLO. REV. STAT. § 37-92-103(4) (2006). Most uses of water are non-consumptive. For example, many indoor human uses are for washing or carrying away human wastes. Irrigation water uses, while becoming more efficient over time, are still primarily based on open ditch, gravity flow systems that operate on the basis of using at least as much water for physical transport as the plants use for their growth. Evapotranspiration by plants or solar evaporation cause most water consumption.

21. "Farm efficiencies might range from thirty percent for basic flood irrigation systems to seventy-five percent for sprinkler irrigation systems." Young & Helton, *supra* note 20, at 380 (footnote omitted).

22. "The amount of consumptive use for indoor water use is generally estimated as ten percent for septic systems and five percent for water treatment facilities." *Id.* at 381 (footnote omitted).

23. Robert C. Ellickson, *Property in Land*, 102 YALE L.J. 1315, 1362-63 (1993) (listing the Blackstonian bundle of land entitlements, including ownership by a single individual; in perpetuity; with absolute rights to exclude would-be entrants; with absolute privileges to use and abuse the land; with absolute power to transfer the whole (or any part carved out by use, space, or time) by sale, gift, devise, or otherwise).

24. See *Strickler v. City of Colo. Springs*, 26 P. 313, 316 (Colo. 1891).

25. See *Wheeler v. N. Colo. Irrigating Co.*, 17 P. 487, 490 (Colo. 1888). "The right to water does not involve outright ownership of water but rather gives the holder the right to use water for a particular beneficial use with a specific priority relative to other users from the same source." VRANESH'S COLORADO WATER LAW 229 (James N. Corbridge, Jr. & Teresa A. Rice eds., rev. ed. 1999) [hereinafter VRANESH].

as a property right.²⁶ The property interest is the priority right of use, not ownership of water.²⁷ The appropriator's legal interest in the water is usufructuary—a right to enjoy its benefits without actual ownership.²⁸

III. WATER REALLOCATION

Water resources are overcommitted in many locations in Colorado and the West.²⁹ Existing water uses are increasingly switching to new uses as the primary means for meeting changing needs.³⁰ In particular, water historically used to irrigate crops is shifting to municipal and other non-agricultural uses to meet growing urban demands.³¹

The process governing such changes of water use is complex, often contentious, time consuming, and expensive.³² To protect other water

26. See *Strickler*, 26 P. at 316.

27. See *Empire Lodge Homeowners' Ass'n v. Moyer*, 39 P.3d 1139, 1147 (Colo. 2001) (en banc); see also *Nichols v. McIntosh*, 34 P. 278, 280 (Colo. 1893).

28. As the Colorado Supreme Court stated in *Navajo Development Co. v. Sanderson*:

A usufructuary right gives its holder the right to use and enjoy the property of another without impairing its substance. In other words, water may be applied beneficially by the holder of a water right without destroying the resource; the water molecules are not altered by the use of the water. Unused or waste water will be discharged back into the river system or otherwise recycled and therefore available for use by other appropriators. The uncertain nature of the property right in water is evidence that its primary value is in its relative priority and the right to use the resource and not in the continuous tangible possession of the resource.

Navajo Dev. Co. v. Sanderson, 655 P.2d 1374, 1377 (Colo. 1982) (en banc) (citations and footnotes omitted). In a footnote to *Navajo Development*, the court added:

We have characterized the usufructuary interest in water in this way: "[A]fter appropriation, the title to the water, save, perhaps, as to the limited quantity that may be actually flowing in the consumer's ditch or lateral, remains in the general public, while the paramount right to its use, unless forfeited, continues in the appropriator." The concept is analogous to an easement allowing a person to cross another's land: The property interest is not consumed in the use.

Id. at 1377, n.2 (citation omitted).

29. James N. Corbridge, Jr., *Historical Water Use and the Protection of Vested Rights: A Challenge for Colorado Water Law*, 69 U. COLO. L. REV. 503, 510 (1998); see also generally W. WATER POLICY REVIEW ADVISORY COMM'N, WATER IN THE WEST: THE CHALLENGE FOR THE NEXT CENTURY 3-1 (1998) ("The pressures of rapid population growth and changing economies, coupled with degraded aquatic systems and unmet tribal water rights and needs, present western water managers with considerable challenges for achieving sustainable water use.").

30. VRANESH, *supra* note 25, at 223.

31. "Over [fifty] percent of water rights changes in Colorado over the past few decades have involved changes from agricultural to municipal and other non-agricultural uses." *Id.* at 223-24.

32. For a discussion of the "transaction" costs associated with making a change of use, see generally Charles W. Howe et al., *Transaction Costs as Determinants of Water Transfers*, 61 U. COLO. L. REV. 393 (1990); LAWRENCE J. MACDONNELL ET AL., NATURAL RES.

rights from possible harm, Colorado employs a water court review process.³³ An extensive engineering analysis is necessary to document the manner in which the previous appropriators have used the water right.³⁴ The process includes consideration of such factors as: How many acres of lands have been irrigated? What kinds of crops have been grown? How much water has been diverted? What is the estimated consumptive use of the crop?³⁵ How much water has returned to the stream? What has been the pattern of diversions and return flows? Commonly, there is an analysis of the proposed new use as well: When will the water be diverted? How much will return to the stream? What will be the timing of the return flows? What will be the net effect on stream conditions after the transfer?

In addition to matters of potential injury to other water rights, Colorado law now includes provisions addressing other possible adverse effects. Thus, changes of irrigation water rights that would dry up croplands must provide measures for revegetation of the lands and for management of noxious weeds.³⁶ To offset any property tax and bond repayment losses associated with the removal of 1000 acre-feet ("AF") or more of consumptively used water, Colorado law requires the transferor to make "transition mitigation payments" and "bonded indebtedness payments" to the affected county.³⁷

In short, the water reallocation process involves extensive scrutiny to ensure protection of third party interests. Not only does the process protect all other water rights from impairment, but it also protects local landowner interests and direct county revenues. The *High Plains* decision now has added the matters of speculation and continued beneficial use of water to the list of considerations encountered in water reallocation.

IV. HIGH PLAINS

High Plains declares that the "essential" function of a change-of-water-right proceeding is to "confirm that a valid appropriation continues in effect under decree provisions that differ from those contained in the prior decree."³⁸ Traditionally, the "essential" purpose of a change proceeding was to ensure that the change of use of water could

LAW CTR., UNIV. OF COLO., *Transfers of Water Use in Colorado*, in 2 THE WATER TRANSFER PROCESS AS A MANAGEMENT OPTION FOR MEETING CHANGING WATER DEMANDS (1990).

33. COLO. REV. STAT. § 37-92-302(1)(a) (2006).

34. See Young & Helton, *supra* note 20, at 379-80; see also LEONARD RICE & MICHAEL D. WHITE, *ENGINEERING ASPECTS OF WATER LAW* (1987).

35. The most commonly used method for calculating the crop water consumption is the Blaney-Criddle method. See Young & Helton, *supra* note 20, at 379.

36. COLO. REV. STAT. § 37-92-305(4.5)(a) (2006).

37. §§ 37-92-103(10.7), -305(4.5)(b).

38. *High Plains A&M, LLC v. Se. Colo. Water Conservancy Dist.*, 120 P.3d 710, 719 (Colo. 2005).

be made without injury to other water rights and other statutorily-protected interests.³⁹

Certainly, only a valid existing water right serves as the legal basis for using water, and only a valid right qualifies for a change of use. Thus, for example, a court may consider the matter of abandonment of all or a portion of the right in a change proceeding.⁴⁰ Moreover, irrespective of the decree, a court will scrutinize an appropriation in a change proceeding to determine actual historical use of water.⁴¹ The

39. See COLO. REV. STAT. § 37-92-305(3) (a change *shall* be approved if it will not cause injury). The Colorado Supreme Court has held that: “If a holder of a decreed water right can put the water to better use by obtaining an amendment to the decree, such conduct should be encouraged if the proposed change will cause no injury to other users or owners of water rights.” *In re Application for Water Rights for Aurora and Colorado Springs*, 799 P.2d 33, 37 (Colo. 1990) (en banc). The court first suggested a broadened view of its role in *Santa Fe Trail Ranches Property Owners Ass’n v. Simpson*:

Contrary to Santa Fe Ranches’ contention that a change of use proceeding focuses only on injury to other water rights, the continuous stream of Colorado water law demonstrates that change of use involves two primary questions: (1) What historic beneficial use has occurred pursuant to the appropriation that is proposed for change? and (2) What conditions must be imposed on the change to prevent injury to other water rights?

Santa Fe Trail Ranches Prop. Owners Ass’n v. Simpson, 990 P.2d 46, 53 (Colo. 1999) (en banc). The court further stated: “[T]he fundamental purpose of a change proceeding is to ensure that the true right—that which has ripened by beneficial use over time—is the one that will prevail in its changed form.” *Id.* at 55. In *Farmers Reservoir & Irrigation Co. v. Consolidated Mutual Water Co.*, the court stated:

Essential functions of change of water right proceedings are to: (1) identify the original appropriation’s historic beneficial use; (2) fix the historic beneficial consumptive use attributable to the appropriation by employing a suitable parcel-by-parcel or ditch-wide methodology; (3) determine the amount of beneficial consumptive use attributable to the applicant’s ownership interest; and (4) affix protective conditions for preventing injury to water rights in operation of the judgment and decree.

Farmers Reservoir & Irrigation Co. v. Consol. Mut. Water Co., 33 P.3d 799, 807 (Colo. 2001) (en banc).

40. *Santa Fe Trail Ranches*, 990 P.2d at 57 (“Inquiry into total or partial abandonment is also germane to a change of water right proceeding.”); see also *City & County of Denver v. Snake River Water Dist.*, 788 P.2d 772 (Colo. 1990) (en banc). Originally Colorado courts resisted consideration of abandonment in change proceedings. See Lawrence J. MacDonnell, *Changing Uses of Water in Colorado: Law and Policy*, 31 ARIZ. L. REV. 783, 788 (1989) [hereinafter MacDonnell, *Changing Uses*]; see also VRANESH, *supra* note 25, at 252 n.157.

41. The no-injury rule traces back to *Kidd v. Laird*, 15 Cal. 161, 167 (1860), and Colorado adopted the rule in *Strickler v. City of Colorado Springs*, 26 P. 313, 316 (Colo. 1891). Likely this rule is simply a reflection of general nuisance principles that one is entitled to the quiet enjoyment of one’s property as against the injurious effects of others in the use of their property, commonly expressed as “*sic utere tuo ut alienum non laedus*.” See STEPHEN C. McCAFFREY, *THE LAW OF INTERNATIONAL WATERCOURSES: NON-NAVIGATIONAL USES* 135 (2001).

There are really two questions in a change case: (1) What is the vested property interest you are seeking to change the use of? and (2) Can you accomplish the proposed

extent of this demonstrated use limits the transferable interest.⁴² What is new in *High Plains* is the view that the water court must confirm the “validity” of the appropriation with the changed terms included in the new decree.⁴³ In particular, such validity requires demonstration of “a legally vested interest in the land to be served by the change of use and a specific plan and intent to use the water for specific purposes.”⁴⁴ Citing to a statutory provision for temporary transfers of water, the court concluded the General Assembly intended that the change proponent must identify the location of use for both temporary and permanent transfers in a change proceeding.⁴⁵ The *High Plains* decision asserted

change without harm to the property of others? The focus on defining the property interest inquires into the extent of the established right by historic beneficial use. Thus, one cannot change a water right (or a portion thereof) that the user has abandoned or never actually used. For example, in *Green v. Chaffee Ditch Co.*, 371 P.2d 775 (Colo. 1962) (en banc), the Colorado Supreme Court limited a change of use to only the portion of the decreed right actually diverted and used. The more difficult issue is the historically established extent of that use. The court and numerous parties to water rights litigation have expended much effort over the years in change cases to define the extent of use, including that portion consumed in the use. The importance of determining consumption is that courts generally regard consumed portions as transferable to another use without questions of injury.

42. The Colorado Supreme Court has held that, “a change of water right application reopens the prior decree for determination of the true measure of the appropriate water right’s consumptive use draw on the river system.” *Ready Mixed Concrete Co. v. Farmers Reservoir & Irrigation Co.*, 115 P.3d 638, 646 (Colo. 2005) (en banc); see also *Weibert v. Rothe Bros.*, 618 P.2d 1367, 1371-72 (Colo. 1980) (en banc); *City of Westminster v. Church*, 445 P.2d 52, 56 (Colo. 1968) (en banc). Earlier decreed changes of water rights that did not include analysis of historic use will not serve as a bar to the subsequent consideration of historic use under the original water right. *Orr v. Arapahoe Water & Sanitation Dist.*, 753 P.2d 1217, 1225-26 (Colo. 1988). See generally *Corbridge*, *supra* note 29.

43. This decision has an important subtext that likely affected its outcome. Private investors purchased 115 farms irrigated with water from the 150-mile-long Fort Lyon Canal in the Lower Arkansas Valley of Colorado together with their water right shares. The investors also held options to purchase additional shares in the canal company, giving it ownership or control of about thirty percent of the company’s total shares. *High Plains*, 120 P.3d at 714-15. This region of Colorado has long been the target for such purchases of agricultural water rights for transfers to growing cities located along Colorado’s Front Range. See LAWRENCE J. MACDONNELL, *FROM RECLAMATION TO SUSTAINABILITY: WATER, AGRICULTURE, AND THE ENVIRONMENT IN THE AMERICAN WEST* 51-74 (1999) [hereinafter MACDONNELL, *FROM RECLAMATION TO SUSTAINABILITY*]. Impacts on the local economy resulting from the loss of irrigated agriculture and its associated businesses have galvanized both local and state-level opposition to water transfers. See *id.* at 77-79.

44. *High Plains*, 120 P.3d at 720.

45. *Id.* at 724. Temporary transfers assume the original use will resume at some point. In the meantime, the user must take the historically irrigated lands out of production. Thus, it is important to know the location of both the original use and the new use to be able to verify there is no enlarged use. In the case of a permanent transfer, the historical use disappears. The location of the new use is relevant only for purposes of determining potential injury in the case of an upstream transfer and for ordinary purposes of water right administration.

the interest of the titular public owner of the resource, in a change of use, to ensure “that an appropriation of the public’s water resource must be for an actual beneficial use.”⁴⁶ In the court’s view, applicants can meet this requirement through “identification of the structures through which the appropriated water will be diverted and delivered for identified beneficial uses at identified locations.”⁴⁷

High Plains, the corporate purchaser of the water shares, restricted its application to change the use only of the historically consumed portion of the water used for irrigation.⁴⁸ Thus, it made no claim to the use of the associated carriage water.⁴⁹ It requested the ability to use this consumptive-use portion of water for a wide range of purposes in geographic areas along the Colorado Front Range with the highest population and thus, the most likely sources of demand.⁵⁰ To keep its options as open as possible, it named numerous potential points of diversion.⁵¹

The water court rejected High Plains’ application as too indefinite to enable determination of injury to other water rights or to demonstrate continued beneficial use of water, and thus violative of Colorado’s anti-speculation doctrine.⁵² The Colorado Supreme Court focused only on the matter of continued beneficial use and anti-speculation.

A. ANTI-SPECULATION DOCTRINE

The Colorado Supreme Court has expanded the reach of the anti-speculation doctrine in recent years. Following the *Vidler*⁵³ decision, the Colorado General Assembly modified the definition of “appropriation” in the statutory section applying to surface and tributary ground water to state:

[B]ut no appropriation of water, either absolute or conditional, shall be held to occur when the proposed appropriation is based on the speculative sale or transfer of the appropriative rights to persons not parties to the proposed appropriation, as evidenced by either of the following:

46. *Id.* at 716.

47. *Id.* at 716-17.

48. *Id.* at 716. High Plains asked for the right to use this consumptive share to extinction because, by definition, there are no return flow dependencies on water beneficially consumed under a vested water right.

49. Water right holders use a considerable portion of water diverted pursuant to the water right to help transport water to the fields where growing plants take it up directly. This unconsumed portion of the water is often referred to as “carriage” water. *See supra* note 20.

50. *High Plains*, 120 P.3d at 715.

51. *Id.*

52. *Id.* at 714.

53. *Colo. River Water Conservation Dist. v. Vidler Tunnel Water Co.*, 594 P.2d 566 (Colo. 1979) (en banc).

(I) The purported appropriator of record does not have either a legally vested interest or a reasonable expectation of procuring such interest in the lands or facilities to be served by such appropriation, unless such appropriator is a governmental agency or an agent in fact for the persons proposed to be benefited by such appropriation.

(II) The purported appropriator of record does not have a specific plan and intent to divert, store, or otherwise capture, possess, and control a specific quantity of water for specific beneficial uses.⁵⁴

In 1987, the Colorado Supreme Court determined the anti-speculation doctrine applied to applications for ground water in designated basins, appropriations covered in a separate statutory scheme.⁵⁵ In 1999, the court applied the anti-speculation doctrine to applications for reasonable diligence for already-decreed conditional water rights.⁵⁶ In 2003, the Court extended the doctrine to Denver Basin designated ground water.⁵⁷ In general, anti-speculation applies only to appropriators intending to provide water to others for their use.⁵⁸

There are legitimate reasons for wanting to discourage the creation of private rights to the control of public water beyond demonstrated need for its use. Such control could exclude others' uses, including public instream uses. Water right holders could conceivably use this control to monopolize the supply of water in certain areas.⁵⁹ The con-

54. COLO. REV. STAT. § 37-92-103(3)(a) (2006).

55. *Jaeger v. Colo. Ground Water Comm'n*, 746 P.2d 515, 523 (Colo. 1987) (en banc).

56. *Mun. Subdist., N. Colo. Water Conservancy Dist. v. Oxy USA, Inc.*, 990 P.2d 701, 709 (Colo. 1999) (en banc).

57. *Colo. Ground Water Comm'n v. N. Kiowa-Bijou Groundwater Mgmt. Dist.*, 77 P.3d 62, 80 (Colo. 2003) (en banc). However, the court has declined to apply the doctrine to non-tributary ground water. *E. Cherry Creek Valley Water & Sanitation Dist. v. Rangeview Metro. Dist.*, 109 P.3d 154, 157 (Colo. 2005).

58. See generally *supra* text accompanying note 4.

59. The *Vidler* court seemed particularly concerned about this possibility:

Our constitution guarantees a right to appropriate, not a right to speculate. The right to appropriate is for *use*, not merely for profit. As we read our constitution and statutes, they give no one the right to preempt the development potential of water for anticipated future uses of *others* not in privity of contract, or in any agency relationship, with the developer regarding that use. To recognize conditional decrees grounded on no interest beyond a desire to obtain water for sale would—as a practical matter—discourage those who have need for use for the water from developing it. Moreover, such a rule would encourage those with vast monetary resources to monopolize, for personal profit rather than for beneficial use, whatever unappropriated water remains.

Colo. River Water Conservation Dist. v. Vidler Tunnel Water Co., 594 P.2d 566, 568 (Colo. 1979) (en banc). Fear of monopoly was widespread in the American West in the latter part of the 19th century. See RICHARD MOSS ALSTON, *COMMERCIAL IRRIGATION ENTERPRISE, THE FEAR OF WATER MONOPOLY, AND THE GENESIS OF MARKET DISTORTION IN THE NINETEENTH CENTURY AMERICAN WEST* 126-28 (1978). Colorado courts long before

cept of beneficial use emerged early in prior appropriation law specifically for this purpose.⁶⁰

The anti-speculation doctrine goes beyond beneficial use, however, in its opposition to private development of water for profit.⁶¹ In Colorado, such opposition traces back to the generally unhappy experience of early settlers with private land companies that sold both land and the water supply necessary to irrigate the land and of water users with carrier ditch companies that sold them water.⁶² Irrigators needed water, but few could afford to pay the cost of having someone else provide it. The initial solution was the mutual ditch company in which users banded together to share the labor and costs. As water development became more costly, governmental entities with their taxing and bonding powers took over the task of water supply. Federally supported reclamation projects developed supplies in a manner that substantially subsidized the costs of water.⁶³ As a consequence, most water users do not pay anything close to today's cost of water.⁶⁴

Vidler had expressed the view that an appropriator could not claim water for uncertain future uses. *Combs v. Agric. Ditch Co.*, 28 P. 966, 967 (Colo. 1892) (“[N]either [a corporation] nor any stockholder...can thus withhold the water from beneficial use, nor reserve it for the future use of junior appropriators to the prejudice of prior appropriators nor to the exclusion of those who in the meantime may undertake, in good faith, to make a valid appropriation thereof.”). The court made an exception, however, in the case of “great and growing cities.” *City & County of Denver v. Sheriff*, 96 P.2d 836, 841 (Colo. 1939) (stating that appropriation for future use by city not speculation “but the highest prudence on the part of the city to obtain appropriations of water that will satisfy the needs resulting from a normal increase in population within a period of reasonable time.”). For elaboration of the Great and Growing Cities Doctrine, see VRANESH, *supra* note 25, at 317-18.

60. See Schorr, *supra* note 9, at 46-47; see also Janet C. Neuman, *Beneficial Use, Waste, and Forfeiture: The Inefficient Search for Efficiency in Western Water Law*, 28 ENVTL. L. 919, 963-65 (1998).

61. A path breaking book published in 1960 noted the “water is different” mentality, which includes a deep-rooted opposition to treating water like other natural resources, including allowing its private ownership. JACK HIRSHLEIFER ET AL., *WATER SUPPLY: ECONOMICS, TECHNOLOGY, AND POLICY* 4-5, 367-68 (1960).

62. See ALSTON, *supra* note 59, at 107-25. See MACDONNELL, *FROM RECLAMATION TO SUSTAINABILITY*, *supra* note 43, at 51-74, for a discussion of examples of failed private investment in land and water in the Arkansas Valley of Colorado. See ALSTON *supra* note 59, at 101-03, for a discussion of impacts to the Grand Valley.

63. See generally RICHARD W. WAHL, *MARKETS FOR FEDERAL WATER: SUBSIDIES, PROPERTY RIGHTS, AND THE BUREAU OF RECLAMATION* (1989). In a 1996 report, the United States General Accounting Office (“GAO”) found that:

[The United States Bureau of Reclamation (“Bureau”)] has determined that \$16.9 billion..of the \$21.8 billion investment in water projects is reimbursable to the federal government. Of these reimbursable costs, the largest portion - \$7.1 billion - has been allocated to irrigators. However, ..the irrigators are scheduled to repay only \$3.4 billion. On the basis of a determination that the irrigators are unable to pay the full amount of \$7.1 billion, \$3.4 billion of their obligation has been shifted to the projects’ other beneficiaries for repayment, primarily through power revenues. In addition, irrigators

Embedded in this history is an implicit belief that water is a quasi-public good, that it should be freely available for use (that is, there should be no charge for diverting water from a stream or withdrawing water from an aquifer), that it should be either collectively or governmentally provided, and that the costs of its provision should be kept low through governmental support of various kinds.⁶⁵

Most of these concerns go to the initial allocation of water, however, and do not readily apply in the case of rights to water historically consumed in an existing beneficial use. This is water that appropriators have completely removed from the source. The appropriation has already excluded others from downstream use, and upstream juniors from consumption and the consumption of associated carriage water.⁶⁶ Upstream seniors have not claimed this portion of water. Whether the beneficial user was public or private makes no difference; nor does the particular purpose of use, so long as it was beneficial. In most cases, the water right under which the water has been consumed is purchased from the historical user. By its willingness to spend money buying the right (plus the money to go through water court, find a user, and get water to the user), the purchaser has demonstrated its intention to continue beneficial use of the water, presumably to be able to recoup its investment.⁶⁷ While the purchaser may not know the water's ultimate users and uses, there is little doubt about the continued beneficial use of the water.

The state has a legitimate role in ensuring that individual use of public water meets basic beneficial use standards, and in protecting

have been relieved of \$373.1 million of their repayment obligation through charge-offs.

U.S. GEN. ACCOUNTING OFFICE, GAO/RCED-96-109, BUREAU OF RECLAMATION: INFORMATION ON ALLOCATION AND REPAYMENT OF COSTS OF CONSTRUCTING WATER PROJECTS 4-5 (1996).

64. Charles W. Howe, *The Functions, Impacts and Effectiveness of Water Pricing: Evidence from the United States and Canada*, 21 WATER RES. DEV. 43, 48 (2005).

65. HIRSHLEIFER ET AL., *supra* note 61, at 367. A true public good is something that any and all can use without diminishment of its value; no one can exclude users from using it, like air. Charles W. Howe, *Protecting Public Values in a Water Market Setting: Improving Water Markets to Increase Economic Efficiency and Equity*, 3 U. DENV. WATER L. REV. 357, 363 (2000). As discussed above, water flowing in a stream approximates the idea of a public good. Once an appropriator controls water for a particular use, however, it loses its public good character.

66. This is the effect of the priority system in which a senior right may divert its full right ahead of all junior users. A water right typically includes water required for both consumptive and non-consumptive beneficial purposes. Thus, a senior right can "call" for the full extent of its rights, not just its consumptive-use portion. All upstream juniors are obligated to allow this amount of water to pass their points of diversion if necessary to satisfy the downstream senior.

67. A purchaser is concerned with continuing the existing use until the purchaser can establish a new use, both to maintain the full extent of the water right and to earn income to help offset costs. Presumably, the purchaser expects the new use will generate enough benefits to justify the investment.

established uses from infringement by new uses. Once an appropriation dedicates water to individual use, the state retains an interest in that portion of the water returning to the sources upon which other users rely. *High Plains* asserts a continuing state interest in assessing whether a proposed new use of historically beneficially-consumed water is beneficial and not speculative, an assessment that requires foreknowledge of actual use, including point of diversion and place of use.⁶⁸

Information respecting point of diversion and place of use is relevant for consideration of matters of injury.⁶⁹ Diversions physically remove water from the stream at the point of diversion, a matter of considerable interest to downstream water users—especially those whose points of diversion are between the point of diversion and the point where return flows enter the stream. Purpose of use and place of use are important for evaluating beneficial use of a new appropriation.

In short, while there may be a continuing state interest in protecting other water rights from injury caused by a change of use, the state interest in evaluating a proposed change of use to prevent speculation is less clear—particularly when the quantity of water proposed for change is limited to that amount historically beneficially consumed.

V. PRIVATIZING CONSUMED WATER

What would it mean to treat water historically beneficially consumptively used as private? In some respects, little would change. To meet the no injury requirement in a transfer proceeding, the transferable quantity of water under a water right is commonly limited to that quantity of water the transferor can divert in the new use without increasing net depletion of water from the source.⁷⁰ While legally the

68. So, what is the speculative concern? Perhaps it is the dislike of private investors making a profit from the sale of water, especially when that water comes from an already stressed local economy. The effect, however, will not be to stop the transfer of agricultural water to urban uses but simply to limit the ultimate purchasers of agricultural water to cities. Private investors will continue to work as brokers, as they do now, using options to put together packages of water rights that they can “sell” to cities.

69. In its initial application, *High Plains* requested numerous alternate points of diversion. Thereafter, however, it committed to keeping the original point of diversion at the Fort Lyon headgate. Its intention was to construct a pipeline that would carry the historically consumed portion of water back to the presumed metropolitan market. Using this approach eliminated any possibility of injury that might result from a change of point of diversion.

70. “Safeguarding junior appropriators’ right to immutable stream conditions in the face of a change from agricultural to municipal use requires that there be parity in the consumptive use of the right before and after the change—and that this parity endures.” *Farmers Reservoir & Irrigation Co. v. City of Golden*, 44 P.3d 241, 246-47 (Colo. 2002) (en banc); see also *Danielson v. Kerbs Agric., Inc.*, 646 P.2d 363, 373 (Colo. 1982) (en banc) (“It is a fundamental principle that the consumptive use of water may not be increased to the injury of other appropriators.”); *City of Westminster*

transferor is transferring the water right, not the water itself, in practice the water right is now a specified volumetric quantity of water.⁷¹ The priority, important in establishing the pattern of diversion and use under the original right, now is relevant only for potential administrative purposes.⁷² Presumably the rate of diversion would remain the same. If the point of diversion stays the same or moves downstream, there will be no injury issues to consider.⁷³ It is only if the proposed new use for the consumed water is located upstream that concern about potential injury to other water rights arises, and then only in very limited situations.⁷⁴

Treating consumed water as privatized would potentially facilitate its conversion to new uses. There would no longer be a need for public review of the proposed new use to consider concerns about speculation or whether the use is "beneficial." So long as the diverter removes

v. Church, 445 P.2d 52, 59 (Colo. 1968) ("Defendant City of Westminster could not enlarge upon its predecessors' use of the water rights by changing periodic direct flow for irrigation to a continuous flow for storage. Such a change would necessarily increase the ultimate consumption from the stream to the detriment of other appropriators."); *Farmers Highline Canal & Reservoir Co. v. City of Golden*, 272 P.2d 629, 635 (Colo. 1954) (en banc) (holding that a change in water right from agricultural to municipal use must not increase consumptive use of the water transferred and that satisfying this condition requires balancing agricultural consumptive use before the transfer with the anticipated municipal consumptive use after the transfer); MacDonnell, *Changing Uses*, *supra* note 40, at 791 ("[T]he Colorado courts have emphasized an injury analysis that has been described as 'an exercise in balancing depletions.' Essentially, this approach seeks to keep the stream intact by ensuring that the depletion of the stream by new use does not exceed the depletion of the stream caused by the original use.").

71. Presumably, the decree would describe the volume in time increments such as some number of acre-feet of water per month during the period of its historic use, while the rate of diversion at the headgate would stay the same as under the original decree.

72. If the original use would have been out of priority under prevailing stream conditions, the changed use cannot divert water. Thus, there would need to be a condition imposed in a change of use prohibiting diversion of water until the Division Engineer is notified of the point of diversion.

73. Generally, moving just the consumptive use portion of a water right upstream is not a problem because, historically, this amount of water (plus associated carriage water) was available at the downstream point of diversion. Under Colorado's hydrology, virtually all water originates as precipitation in the mountains and flows downstream. So long as diverters do not move water above points at which large tributaries provide a significant portion of the stream flows, there is likely to be sufficient water in the source to enable the diversion and consumption of water higher in the system. Diversion of non-consumptive use water could potentially be a problem for another diverter located downstream of the new point of diversion and upstream of the point of return flows but would not affect other downstream users.

74. Potential impacts on exchanges are likely to be of concern on over-appropriated rivers such as the Arkansas and the South Platte. To satisfy the no injury requirement, the change applicant will have to demonstrate the ability to divert the consumptive use amounts at any of the proposed points of diversion for the new use without harm to existing rights including exchanges.

the water from the source at its historic point of diversion (or downstream), injury review would be unnecessary. Assuming the owner of the water is interested in its sale, transaction costs would be less of an impediment.⁷⁵

A. THE ISSUES

There is no free lunch, however. A public process would still be necessary to determine the consumptive use portion of water historically diverted and applied to a beneficial use. While the proponent could potentially streamline such a process through use of generic crop consumptive use estimates, use of comparable analyses previously completed in the same area, or other means, objections from other water right owners could still force detailed evaluations of place-specific actual use.⁷⁶ Once a transferable consumptive use unit of water is established, however, there would be no need for future reviews in subsequent transfers.⁷⁷

Presumably, it will still be necessary for a party proposing to move consumptive use units of water upstream from the original place of use to present evidence of no injury to other water rights.⁷⁸ In virtually all cases, it should be straightforward to meet this standard because of the consumptive-use nature of the water.

In many places, existing users already consume more than enough water to readily meet future consumptive use needs. The legislature should consider the possibility of a cap on total consumptive uses from any given source of water.⁷⁹ Such a cap would further encourage transfers of water and would help maintain existing instream flow levels. It would encourage efficient use of that portion of water already diverted and consumed in human uses.

75. See Howe et al., *supra* note 32, at 396-401.

76. For example, the Colorado State Engineer developed consumptive use factors for water proposed for deposit in the Arkansas River Pilot Water Bank. Prospective depositors are to use these factors to calculate the transferable quantity of water, subject to rebuttal with specific historic consumptive use analyses. Colo. Div. of Water Res., Colo. Dep't of Natural Res., Rules Governing the Arkansas River Water Bank Pilot Program, Rule 8 (2002), available at http://water.state.co.us/pubs/rule_reg/arkpilotrules052302.pdf.

77. Colorado has already completed consumptive use analyses for many irrigation ditches in the Colorado Front Range. The Colorado Supreme Court has expressed its willingness to allow such analyses from previous cases for use in subsequent cases involving change of use of water from other lands under the same ditch. *Farmers High Line Canal & Reservoir Co. v. City of Golden*, 975 P.2d 189, 203 (Colo. 1999) (en banc). For such systems, it should be possible to convert diversion right shares into consumptive use shares based on existing information.

78. See *supra* note 73.

79. The concept is to move towards "no net depletion" of water to meet new demands, a policy that could be achieved with relatively free transferability of consumptive use water within a given water source.

Philosophically, there is the matter of consumptive-use water rights becoming more like a commodity and the possibility of their sale for profit.⁸⁰ Economists have, for many years, pointed out some of the consequences of the “water is different” viewpoint.⁸¹ For example, the artificially low prices most users pay for water encourages its overdevelopment and inefficient use. Governmental support for water development often tends to be based on political, more than economic, considerations.⁸² Third party effects play a much more prominent role respecting uses of water than for other natural resources. In fact, water used for economic purposes is no different in character from the standpoint of the user than any other factor necessary to accomplish those purposes. The water resource must be “developed” to be economically usable—that is, it must be stored, diverted, transported, perhaps treated, delivered, and then applied to a use. All of these actions, requiring the expenditure of human effort and money, transform a portion of the public good of water in the hydrologic cycle into an economic good for individual human benefit. Because of the nature of most water uses, some amount of this water returns to the original source to be available for use by others. But that portion consumed in use is removed from this status. Only the use of this portion is here proposed to be regarded as a commodity, with its use decided primarily through private decision-making. The remainder would continue to be treated as a public resource while not in the possession of an appropriator.

Irrigated agriculture accounts for approximately ninety percent of all water consumption in Colorado.⁸³ On the one hand, a move to regard the use of water beneficially consumed in irrigation as private

80. Whether or not one regards the origin of the appropriation doctrine as reflective of principles of “distributive justice” in a frontier society as suggested by Schorr, *supra* note 9, at 5, we live in a far different world today. Indeed, the impulse of individual action which drove the development of appropriation rules has been substantially modified by an overlay of state and federal laws that place a considerable degree of governmental control of modern water use. The author submits that the extension of public supervision required under *High Plains* is in many respects more contrary to the spirit of individual initiative reflected in the original appropriation approach than would be the less restrictive reallocation approach proposed here. In any case, the real question is what makes sense today. Given the enormous importance of water reallocation in the modern West, the author suggests a more market-like approach will better serve this need than one with burdensome and questionable public regulation—particularly if it is limited to the transfer of the consumptive use portion of existing water rights.

81. See HIRSHLEIFER ET AL., *supra* note 61, at 4-5.

82. See NAT'L WATER COMM'N, WATER POLICIES FOR THE FUTURE: FINAL REPORT TO THE PRESIDENT AND TO THE CONGRESS OF THE UNITED STATES 128 (1973); see also generally TERRY L. ANDERSON, WATER CRISIS: ENDING THE POLICY DROUGHT (1983); HIRSHLEIFER ET AL., *supra* note 61, at 82-86.

83. SUSAN S. HUTSON ET AL., U.S. GEOLOGICAL SURVEY, CIRCULAR 1268, Estimated Use of Water in the United States in 2000, at 7 tbl.2 (2004).

would tend to enhance the value of irrigation water rights. On the other hand, this approach might further facilitate the shift of water from agriculture to non-agricultural uses—a trend opposed by many in the agricultural sector and in rural communities.⁸⁴ Asserting public control over changed uses of water and increasing the requirements to meet before courts allow changed uses, as the court did in the *High Plains* decision, is one way to attempt to discourage agricultural to urban water transfers. Aside from its questionable legal basis, such an approach also represents questionable policy since its effect is simply to increase the transaction costs associated with transfers, not to help direct resources into productive purposes.⁸⁵

B. POTENTIAL BENEFITS

Perhaps the greatest water-related challenge facing Colorado and other water-limited states is how to meet new demands for consumptive uses of water while maintaining and protecting important non-consumptive uses such as fisheries, recreation, and water quality. Competing uses already withdraw substantial quantities of water from streams and aquifers to provide for existing consumptive uses. In many places it may be possible to meet new demands through a combination of increased efficiency and transfer of existing consumptive

84. Irrigated agriculture is an important part of the economy and society in many parts of Colorado and the American West. See NAT'L RESEARCH COUNCIL, *A NEW ERA FOR IRRIGATION* 8 (1996). In some areas, however, irrigated agriculture is struggling to survive in the face of growing competition from a world market for agricultural products and increasing costs. In certain of these areas, irrigation has been possible primarily because of the availability of good supplies of low cost water. Without question, there are other uses today capable of paying much more for the use of this water. As these users are given the opportunity to bid for the use of this water, irrigators are faced with the choice of continuing with farming or selling their water rights. For many family-farm irrigators, this is a painful choice. They see the limitations of irrigated agriculture as a source of livelihood, but agriculture is the only life they know and the only life they can imagine living. See MACDONNELL, *FROM RECLAMATION TO SUSTAINABILITY*, *supra* note 43, at 73. The challenge facing the non-corporate irrigated agriculture community is to see their water rights as an economic asset which they can invest in different options. There are choices in addition to either status quo or selling off and going out of business. For example, one can lease a portion of one's water rights and fallow lands temporarily, with revenues used to enhance farm productivity. Rather than fighting water transfers, agriculture could see water as the enormously valuable resource it is and use it more flexibly to strengthen its competitiveness.

85. High Plains must first have contracts in hand with actual users before it can return to water court to determine the amount of water it may deliver. Likely, this will mean either selling its water rights directly to cities not burdened by this requirement or going through several change of use proceedings until it has found actual users for all of its shares. The rate of movement of water out of irrigation to urban use is not likely to be significantly different, but the cost to High Plains of having to go through more than one change of use proceedings will obviously be greater. The public benefit of such increased costs is unclear.

uses. Conceptually, the objective would be to stay within the net depletions of water currently existing in a watershed or basin. Thus, new users would ameliorate new depletions through retirement of existing depletions to the degree practicable. In overdeveloped water sources such as the Arkansas River and the South Platte, unless diverters import additional water from other river basins, Colorado is effectively already operating in this manner.

Giving more explicit definition to the transferability of historically consumed water would simply facilitate a process that is already underway.⁸⁶ Existing water uses can and should change to different uses if the original user no longer wants to continue the use. Users can usually avoid the single biggest concern, potential injury to other water rights, if they limit the change to the consumptive use portion of the original right. Defining existing water rights in terms of consumptive use units would substantially reduce the need for detailed analysis of potential injury. Once established, it would substantially simplify the change of use process.

The commonly-used term "water marketing" misrepresents the existing water transfer process. Rather, such transactions are more in the nature of negotiated sales, often involving a middle person who serves as a kind of broker. The sale of the water right is only the beginning; the real work is to get through the water court process. If water rights were defined in consumptive-use units, something more akin to a market might actually emerge.⁸⁷ The value of having more of a market for consumptive-use units of water is the ability to engage larger numbers of sellers and buyers through which a more accurate price for water would emerge. Existing users could better gauge the so-called "opportunity cost" of continuing their use of water versus leasing or selling that water to others. New users would adjust their demand to a price of water that reflects its full value in that location. With additional increments of water supply readily available, water suppliers would not feel the need to acquire large blocks of water rights in advance of actual need.⁸⁸ Ultimately, there would be a more rational allocation of the resource.

86. Agricultural to urban transfers in Colorado have been occurring at least since the 1890s. *See, e.g.,* Strickler v. City of Colo. Springs, 26 P. 313, 315 (Colo. 1891).

87. A model already exists within the Northern Colorado Water Conservancy District in which units of water provided from the West Slope through the Colorado-Big Thompson Project are freely transferable. Charles W. Howe et al., *Innovations in Water Management: Lessons from the Colorado-Big Thompson Project and Northern Colorado Water Conservancy District*, in SCARCE WATER AND INSTITUTIONAL CHANGE 171-200 (Kenneth D. Frederick, ed., 1986).

88. There are economies of scale for traditional water development that motivate development of large blocks of water in advance of actual use. For example, water storage projects typically have developed a large quantity of water in advance of actual use—in part, because of the substantial time required for such development. From an

VI. CONCLUSION

Privatizing consumptively used water would represent a significant shift in thinking about water. It would, however, more accurately reflect the distinction between shared uses and exclusive uses of water. Shared uses would continue to operate with public supervision. Exclusive uses would be given more latitude to change.

It is time to further refine our thinking about water, to move beyond the simplistic divide between public versus private, and to recognize that water is sometimes public and sometimes private. Such further refinement in our understanding of water would improve our ability to determine when public supervision is appropriate and when private decision-making makes more sense.

In the absence of harm to other water rights and to protected third-party interests, voluntary transactions for water reallocation involving sellers and buyers do not require governmental supervision—particularly not to ensure continued beneficial use. That is a matter for the buyer to decide.⁸⁹

It may be time as well to come to terms with the idea that people can make a profit from the sale of water.⁹⁰ Voluntary transactions only happen when both the buyer and the seller believe they are better off. For the seller, that means either a profit or more income than would be earned by the seller's use. It is worth considering why profit is considered a dirty word in relation to water while it is fundamental to every other form of business transaction.⁹¹

economic perspective, the result is an overinvestment in water development. For an early analysis of this issue see HIRSHLEIFER ET AL., *supra* note 61, at 359-61.

89. For example, why should a purchaser or lessor of a water right not be able to simply cease diversion and out-of-stream use of the water if the objective the purchaser/lessor seeks is to improve stream flows at and below the point of diversion? At present, the Colorado General Assembly permits only the Colorado Water Conservation Board ("CWCB") to do this, but the CWCB has no funds with which to purchase or lease water rights. See COLO. REV. STAT. §§ 37-60-122.2, 37-92-102(3) (2006) (CWCB can only provide grant money to organizations seeking minimum instream flow rights for protection of fish and wildlife).

90. Chuck Howe, *New Realities Stress Colorado's Water Laws*, DENVER POST, Mar. 19, 2006, at 4E.

91. The matter of privatizing previously publicly-provided water services has become a highly controversial, even emotional, issue. For a balanced consideration of this issue see NAT'L RESEARCH COUNCIL, *PRIVATIZATION OF WATER SERVICES IN THE UNITED STATES: AN ASSESSMENT OF ISSUES AND EXPERIENCE* (2002). A more critical perspective appears in KAREN J. BAKKER, *AN UNCOOPERATIVE COMMODITY: PRIVATIZING WATER IN ENGLAND AND WALES* (2003).

