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**Anti-Speculation: Ghost-busting, Trust-busting,
or Ensuring Beneficial Use?**

**Sandra Zellmer
University of Nebraska-College of Law
Lincoln, NE**

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Prologue

In the mid-1980s, New York City experienced an unprecedented increase in supernatural activity. According to *Ghostbuster's* Dr. Peter Venkman, a professional paranormal eliminator, it was caused by the disturbance of the spirit of Zuul, a demigod worshiped by the ancient Mesopotamians. Zuul became a minion of the superior god Gozer-the-Destructor and served him as the Gatekeeper of Hell, preparing the New York for Judgment Day.¹

Zuul's malevolent presence on the eastern seaboard raises some interesting parallels to the topic of this paper –the anti-speculation doctrine of water law. Zuul's spirit may have been

¹ *Ghostbusters* (UCA Studios 1984). For excerpts from the movie, see Memorable Quotes for Ghost Busters, <http://www.imdb.com/title/tt0087332/quotes>.

restless because she failed to protect her subjects in Sumeria and other Mesopotamian city states, which collapsed due in part to the failure of agriculture in an arid climate with high levels of evaporation and poorly drained soils.² Is it mere speculation to posit that, if the United States refuses to reform its water law in the face of increasing demand and dwindling supplies, it may someday suffer a similar fate?

I. Introduction

From Texas's über-entrepreneur T. Boone Pickens to Ontario's Nova Company, schemes to profit from large-scale transbasin water transfers have proliferated in the past decade. Reactions range from outrage at the commoditization of this precious resource to support for letting the market and its pricing signals move water to the most efficient use.

On the international front, the World Bank and the International Monetary Fund have encouraged nations, particularly those in the developing world, to conform to a market paradigm by privatizing and thereby maximizing use of their water supplies. Affected communities are often less than enthusiastic. Throughout the world, attempts to privatize water resources have triggered a "morality play of rights versus markets, human need versus corporate greed."³

The controversy is not limited to developing countries. Yet the long-standing prohibition against speculation has served as an impediment to commoditization – and, consequently, water marketing -- in the western United States. The anti-speculation provisions are intended to keep the reviled Robber Barons of yesteryear in their place and prevent them from coming back to haunt us as modern-day "Water Barons." This paper considers whether the anti-speculation restriction in western water law serves a continuing public purpose or, conversely, is an archaic relic of times past.

II. The Bogey Man Cometh

The term Robber Baron, a pejorative moniker used to describe the economic giants of the Gilded and Progressive Eras in American history, is typically applied to a few billionaires who made their money in steel, oil, or railroads.⁴ According to early twentieth century political commentator Matthew Josephson, the Robber Barons' wealth was not of their own creation, but rather reflected illicit gains garnered by their anti-competitive practices and heavy-handed burdens levied upon the workers and craftsmen of America. Likewise, President Theodore Roosevelt decried the "malefactors of great wealth" and advocated an aggressive role for the federal government in trust-busting -- breaking up private concentrations of economic power.⁵

² JERED DIAMOND, COLLAPSE 48 (2005); History of Sumer, http://en.wikipedia.org/wiki/History_of_Sumer.

³ James Salzman, Thirst: A Short History of Drinking Water, 18 Yale J.L.H. 94, 96 (2006).

⁴ J. Bradford DeLong, Robber Barons (1998), available at http://econ161.berkeley.edu/Econ_Articles/carnegie/delong_moscow_paper2.html, citing MATTHEW JOSEPHSON, THE ROBBER BARONS: THE GREAT AMERICAN CAPITALISTS, 1861-1901 (1934).

⁵ *Id.* Not all commentators condemn the so-called Robber Barons, noting that they made America into a super-economy, if not a super-power, and contributed substantial sums to charitable undertakings. See CHARLES R. MORRIS. THE TYCOONS: HOW ANDREW CARNEGIE,

Today's Robber Baron might be better described as a "Water Baron," scheming to sell water from Mono Lake, the Ogallala (High Plains) aquifer, the Great Lakes, and many other waterbodies. Nothing strikes fear into the hearts of westerners quite like the specter of a water monopoly. Indeed, "[t]here is something in the human spirit that responds with great passion and outrage when outsiders—however defined—look beyond their own back yards for a useable source of water."⁶

Yet not all privatization schemes are alike. There are all sorts of variations and degrees of privatization, and this is especially true of natural resources such as air, minerals, fisheries, and of course water. Many blend government regulation and oversight through tradable permits or other devices with an element of private management. Some of these strategies may be suitable for management of water resources and some may already be occurring in some jurisdictions in some way, shape, or form. The type of privatization that raises concerns in the water world is that which involves placing the assets – the resource itself – in the hands of a private company.⁷ Outright privatization of water may concentrate power in monopolistic corporations and impede the ability of residents and local governments to manage their own supplies, as decisionmaking becomes less transparent and opportunities for meaningful participation are truncated or foreclosed.⁸

The scenario depicted by the movie *Chinatown* is the quintessential example of an early 20th century water grab by the rapidly growing city of Los Angeles from rural northern California farmers.⁹ Speculative enterprises are by no means a relic of our nation's past, however. Indeed, much like the increased paranormal activity triggered by the disturbance of Zuul, proposals for large-scale, arguably speculative water transfers seem to be on the rise these days.

Perhaps the most brazen of the modern-day Water Barons is T. Boone Pickens. This free-wheeling entrepreneur, widely known in the oil and gas fields, has of late turned his attention to water, much to the dismay of residents of the counties and states surrounding his west Texas ranch. In the late 1990s, Pickens determined that municipalities could benefit by gaining access to the great quantities of Ogallala Aquifer groundwater underlying his ranch, so he devised a plan

JOHN D. ROCKEFELLER, JAY GOULD, AND J. P. MORGAN INVENTED THE AMERICAN SUPERECONOMY (2005); THOMAS DILORENZO, HOW CAPITALISM SAVED AMERICA: THE UNTOLD HISTORY OF OUR COUNTRY, FROM THE PILGRIMS TO THE PRESENT (2005).

⁶ Christine A. Klein, The Law of the Lakes: From Protectionism to Sustainability, 2006 Mich. St. L. Rev. 1259, 1260 (2006), available at http://msulr.law.msu.edu/back_issues/2006/5/Klein.pdf.

⁷ Robert Glennon, Water Scarcity, Water Marketing, and Privatization, 83 Tex. L. Rev. 1873, 1892 (2005).

⁸ *Id.* at 1893. See MAUDE BARLOW & TONY CLARKE, BLUE GOLD: THE FIGHT TO STOP THE CORPORATE THEFT OF THE WORLD'S WATER 207-208 (2002); VANDANA SHIVA, WATER WARS: PRIVATIZATION, POLLUTION, AND PROFIT 20-30, 137-38 (2002); PETER GLEICK ET AL., THE NEW ECONOMY OF WATER: THE RISKS AND BENEFITS OF GLOBALIZATION AND PRIVATIZATION OF FRESH WATER 4-10 (2002).

⁹ *Chinatown* (Paramount Pictures 1974). For a detailed description of the incident and its effects, see MARC REISNER, CADILLAC DESERT: THE AMERICAN WEST AND ITS DISAPPEARING WATER (PENGUIN REV. ED. 1993).

to extract and sell enough water to meet the demands of some 400,000 households a year.¹⁰ According to Food and Water Watch,

Pickens has been acquiring acreage overlying the Ogallala aquifer with hopes that he could pump and sell as much as 200,000 AFY of water to one of the state's metropolitan centers – El Paso, Lubbock, San Antonio, or Dallas-Fort Worth. The aquifer's minimal recharge rate of less than one AFY means that its users are mining fossil water that will not be replenished.¹¹

Pickens' own website proclaims that his company, Mesa Water, is the largest private holder of groundwater rights in the United States.¹² In 2004, Pickens announced that he anticipated receiving \$500 an acre-foot from either Dallas-Fort Worth or San Antonio, a price that includes the costs of delivering the water through a nine-foot-diameter pipeline.¹³ To date, however, Pickens is still waiting on a buyer.¹⁴

Speculative schemes have cropped up in the eastern United States as well. In 1998, Nova Group, a company allegedly founded in an individual's basement in Sault Ste. Marie, Ontario, obtained a permit to export 600 million liters (about 160 million gallons) of Lake Superior waters annually via tanker vessel to some unidentified recipient in Asia.¹⁵ Nova's proposal coincided with declining water levels in the Great Lakes, and the resulting public outcry persuaded Ontario to revoke the permit and also prompted the Canadian federal government to issue an outright ban on the bulk export of water.¹⁶

Like the star for which it was named, the Nova Group soon faded away to obscurity.¹⁷ Nova's proposal had transcendent effects on water transfers on both sides of the border, however, in that it motivated the eight states and two Canadian provinces bordering the Great Lakes to

¹⁰ See Robert Elder Jr., *Corporate Raider Hopes for River of Green in Texas Panhandle*, *Austin American-Statesman*, Oct. 15, 2003.

¹¹ T. Boone Pickens in Texas, <http://www.foodandwaterwatch.org/water/corporations/t-boone-pickens-in-texas>. For details on the use of the Aquifer, see Sandra Zellmer, *Boom and Bust on the Great Plains: Déjà vu All Over Again*, 41 *Creighton L. Rev.* (forthcoming 2008).

¹² Pickens: Ahead of His Time, http://www.boonepickens.com/man_ahead/default.asp.

¹³ T. Boone Pickens Believes Water Deal with Dallas-Fort Worth Possible Soon, *Dallas Business J.*, June 23, 2004, available at <http://www.bizjournals.com/dallas/stories/2004/06/21/daily22.html>.

¹⁴ Pickens: Ahead of His Time, *supra* note 12.

¹⁵ Nova was subsequently revealed to be a shell company that had been put together by a professor at an Ontario community college and a handful of his friends. Milos Barutciski, *Trade Regulation of Fresh Water Exports: The Phantom Menace Revisited*, 28 *Can.-U.S. L.J.* 145, 148 (2002).

¹⁶ Mark Squillace and Sandra Zellmer, *Managing Interjurisdictional Waters Under the Great Lakes Charter Annex*, 18 *Nat. Res. & Env't* 8, 8 (2003). See Eric Reguly, *It's Time Feds Came Clean on Water*, *Globe and Mail*, Nov. 25, 1999, at B2 (describing the Canadian government's policy on water exports as the hottest trade and environmental issue facing Canada in the next decade). "Bulk export" is defined as "the siphoning of freshwater from lakes or other sources for shipment through pipelines, diversions, or by sea on supertankers." Christopher Scott Maravilla, *The Canadian Bulk Water Moratorium and Its Implications for NAFTA*, 10 *Currents Int'l Trade L.J.* 29, 31 (2001).

¹⁷ Merriam-Webster OnLine, *Nova*, <http://www.m-w.com/dictionary/nova>.

adopt a measure known as “Annex 2001,” designed primarily to prevent large-scale diversions from the basin.¹⁸ Meanwhile, many Canadian provinces, including British Columbia and Ontario, enacted their own bans on bulk water exports.¹⁹

In response to the Canadian bans, in 1998, California Company Sun Belt Water filed a notice of intent to submit a claim against the Canadian federal government and the provincial government of British Columbia under NAFTA's Chapter 11 investor provisions, claiming over \$200 million in lost profits for not being allowed to purchase water for export.²⁰ Although the Sun Belt arbitration has not moved beyond the notice of intent, Sun Belt's scheme was the first serious effort to turn Canada's water into an international commodity.²¹

Sun Belt owner Jack Lindsey has by no means faded quietly into the sunset. Jack, an individual with “no shortage of chutzpah,” is still trying to sell British Columbia water held by defunct pulp mills and other sources.²²

Let us turn our attention to what is perhaps the scariest apparition of late -- the bottled water sector. In a well publicized dispute, Michigan residents, outraged by a proposal of Nestlé Waters (a subsidiary of the Perrier Group) to construct groundwater withdrawal and bottling facilities in Mecosta County for its new product line, Ice Mountain, took to the streets in protest and blocked truckloads of bottled water by lying in the streets.²³ Meanwhile, Michigan Citizens for Water Conservation, a group of riparians and other interested residents, took to the courts, alleging that groundwater pumping would adversely affect a nearby stream in violation of the public trust doctrine and other Michigan laws.²⁴ The public trust claim was dismissed on the ground that the stream was not navigable water subject to the public trust. However, Nestlé was temporarily enjoined because the court found the proposed withdrawal unreasonable under the balancing test applicable to disputes between riparian and groundwater users under Michigan law, to the extent that the withdrawal would cause the loss of recreational uses of the stream and lasting changes to its natural characteristics.²⁵ The opinion was reversed in part on standing

¹⁸ Annex to the Great Lakes Charter, June 18, 2001, available at www.cglg.org/1pdfs/Annex2001.pdf (Annex 2001).

¹⁹ Maravilla, *supra* note 16, at 31.

²⁰ Gregory F. Szydlowski, *The Commoditization of Water: A Look at Canadian Bulk Water Exports, The Texas Water Dispute, and the Ongoing Battle Under NAFTA for Control of Water Resources*, 18 *Colo. J. Int'l Envtl. L. & Pol'y* 665, 677 (2007).

²¹ *Id.* at 677. The Canadian government believes that Sun Belt failed to file a valid claim for Chapter Eleven arbitration. Foreign Affairs and International Trade Canada, *Dispute Settlement: NAFTA - Chapter 11- Investment*, Nov. 7, 2007, at <http://www.international.gc.ca/trade-agreements-accords-commerciaux/disp-diff/sunbelt.aspx?lang=en>. For Sun Belt's perspective, along with pleadings and other documents, see Sun Belt Water, Inc., <http://www.sunbeltwater.com/index.shtml>.

²² Eric Reguly, *Water Fight With U.S. has Just Begun*, *Globe & Mail* (Toronto Can.), Oct. 23, 1999, at B2.

²³ Klein, *supra* note 6.

²⁴ *Michigan Citizens for Water Conservation v. Nestle Waters North America Inc.* (*Michigan Citizens*), 269 Mich.App. 25, 709 N.W.2d 174 (2005), rev'd in part, 479 Mich. 280, 737 N.W.2d 447 (2007).

²⁵ *Michigan Citizens*, 709 N.W.2d at 208-209.

grounds, and the company subsequently agreed to limit pumping to 218 gallons a minute, approximately half of the amount initially approved by state regulators.²⁶

The controversy continues. In December 2007, Ohio Congressman Dennis Kucinich, a perennial presidential candidate, convened a House oversight subcommittee hearing to consider the environmental impact of bottled water operations. Nestlé offered extensive testimony about the overall benefits of its Ice Mountain enterprise. The congressional query may be aimed at greater federal oversight of the industry.²⁷

Federal concern notwithstanding, it takes little imagination to envision a Sun Belt-like company orchestrating a large-scale water transfer from the water-abundant Great Lakes or the Ogallala Aquifer to the thirsty and growing West.²⁸ Next time, it just might be some well-heeled corporation with plenty of capital and influence to throw around. Remember Enron? According to New York Times reporter Tim Egan,

Enron, the nation's No. 1 marketer of natural gas and electricity, saw water as a commodity that would eventually be deregulated, just as electric power was in California. If that happened, Enron would be free to buy and sell water to the highest bidders -- no different from oil or megawatts. . . . Rebecca Mark, chief executive officer of Enron's water division, Azurix, . . . outlined plans to lay a claim to a global industry worth about \$400 billion. . . . But Enron discovered that water was not as easily corralled as oil or gas. Public agencies and consumer groups, many critical of Enron's role in the debacle of energy deregulation in California, fought the company and others pushing for privatization. . . . [A]fter two years of foraging for water, Enron's water spinoff collapsed, reporting losses of more than \$300 million and retreating from the stock market.²⁹

Enron's water division was not alone in its demise. Enron itself has since declared bankruptcy and been dissolved.³⁰ Enron's failure notwithstanding, other corporate Water Barons may be waiting in the wings. There is at least some political support for such a scheme, at least from the arid Southwest. In October 2007, during his bid for the Democratic nomination for president, New Mexico's Governor Bill Richardson caused an uproar when he suggested that water from the Great Lakes could be piped to the Southwest. Richardson rationalized that the Great Lakes states are "awash in water."³¹ Michigan's Democratic Governor Jennifer Granholm responded swiftly and unequivocally: "Hell no."³²

²⁶ See Todd Spangler, Nestle: We're no Danger to Michigan, Det. Free Press, Dec. 13, 2007; Water Dispute, Grand Rapids Press, July 26, 2007, at A2.

²⁷ Spangler, *supra* note 26.

²⁸ See PETER ANNIN, THE GREAT LAKES WATER WARS (2006) (describing growing pressure to transport Great Lakes water to Asia and other far-flung places).

²⁹ Timothy Egan, Near Vast Bodies of Water, Land Lies Parched, N.Y. Times, Aug. 12, 2001, at 11.

³⁰ Matt Moore, Enron Seeks Chapter 11 Protection, Boston Globe, Dec. 3, 2001, at A2; In re Enron Corp., 2001 Bankr. LEXIS 1564 (D.N.Y. 2001).

³¹ Tim Jones, Great Lakes Key Front in Water Wars, Chi. Trib., Oct. 28, 2007.

³² CNN Newsroom Transcripts, Oct. 13, 2007, available at <http://transcripts.cnn.com/TRANSCRIPTS/0710/13/cnr.05.html>. Ironically, at one point, speculators proposed to pipe Great Lakes water to the Western High Plains to replenish depleted

If adopted by all of the member states and approved by Congress as an interstate compact, Annex 2001 would pose an obstacle to water exports from the Great Lakes. But as things currently stand, a would-be water exporter could employ a crafty lawyer to find a loophole, perhaps in the form of a constitutional challenge under the dormant Commerce Clause.³³ What is that old adage? Oh, yes, “water flows to money and power.”³⁴

Large-scale, transbasin diversions are, as yet, the exception rather than the rule. In part, this is a simple matter of economics – the cost of transporting water, a heavy and unwieldy substance, long distances has, in the past, outweighed the financial benefits. Even if the pressures of a rapidly diminishing supply and ever-increasing demand change this dynamic, the basic elements of prior appropriation law may pose a continuing impediment to water transfers.

III. Ghost-Busting: The Holy Trinity of Beneficial Use

All of the western water codes encapsulate the “doctrinal trinity of beneficial use, waste, and forfeiture.”³⁵ Beneficial use is the lynchpin of the prior appropriation system, as it is “the basis, measure, and limit” of a water right.³⁶ Many state constitutions and all of the water codes of the western states include the term “beneficial use.”³⁷ The definition of beneficial use is similar among prior appropriation jurisdictions, and it typically includes just about any domestic, agricultural, or industrial activity, including sewage treatment, crop production, stock watering, hydroelectric power generation, mining, and recreational pursuits.

An applicant for an appropriative right must demonstrate both the intent to appropriate water for beneficial use and an overt act manifesting this intent.³⁸ If water is put to beneficial use, the user develops a prior appropriation right, which is reflected in a state-issued permit or judicial decree. As between users, a person holding a senior appropriative water right has an exclusive right to use a specified amount of available water for a specified purpose at a specified time and place. The appropriator may not, however, merely possess the water and may not waste it. Water rights holders who fail to show continuous beneficial use of the water may lose the water right through abandonment or forfeiture.³⁹

portions of the Ogallala Aquifer. *See* Editorial, Saving the Great Lakes, Chi. Tribune, Feb. 16, 1985, at 8.

³³ *Sporhase v. Nebraska*, 458 U.S. 941 (1982).

³⁴ LLOYD BURTON, AMERICAN INDIAN WATER RIGHTS AND THE LIMITS OF LAW, at ix (1991) (quoting Peterson Zah, Navajo Tribal Chairman).

³⁵ Janet C. Neuman, Beneficial Use, Waste, and Forfeiture: The Inefficient Search for Efficiency in Western Water Use, 28 *Envtl. L.* 919, 922 (1998).

³⁶ *See id.* at 920 (“Statutes of nine states intone in nearly identical language that ‘beneficial use, without waste, is the basis, measure, and limit of a water right,’ and the remainder refer in some way to beneficial use.”).

³⁷ *Id.* at 923.

³⁸ *See Pagosa Area Water and Sanitation District v. Trout Unlimited (In re Application for Water Rights)*, 170 P.3d. 307 (Colo. 2007) (requiring the appropriator to establish that it “can and will put the conditionally appropriated water to beneficial use within a reasonable period of time”).

³⁹ *See, e.g., Nev. Rev. Stat. §533.060.*

These requirements are intended to ensure that the public's water resource is available to those who actually need water.⁴⁰ More specifically, the holy trinity of western water law – beneficial use, waste, and forfeiture – has three fundamental purposes: 1) avoiding speculation and monopoly; 2) maximizing the use of a scarce resource; and 3) providing flexibility to water users.⁴¹ The first purpose is the subject of this paper. The law of all western states prohibits speculation in water rights.⁴² Colorado law, for example, specifies that no appropriator “may obtain a right to use a portion of the public’s water resource unless it establishes intent to make a non-speculative appropriation,”⁴³ while other states implicitly prohibit speculation through their definition of beneficial use.⁴⁴

Speculation is the act of acquiring a resource for subsequent use or resale. It is not necessarily a bad thing. In fact, speculators can (and do) hold real estate, stocks and bonds, art, and all sorts of other property for future uses. Indeed, “speculative fever was actually an important driving force in early western land and resource development, and as long as it was equal opportunity speculation open to ordinary folks as well as wealthy capitalists, it was encouraged rather than frowned upon.”⁴⁵ Why, then, does western water law cling to the anti-speculation doctrine?

Western history provides valuable context for our analysis of the modern-day prohibition on speculation. Prior appropriation arose during the late 1800s as a way to encourage and support western settlement and economic development by allowing maximum use of a scarce but essential resource -- water.⁴⁶ Experiences with scarcity led western societies to believe that the gains from private management of water would outweigh the costs of establishing and enforcing a system of private rights.⁴⁷

Although the oft-repeated story is that westerners simply followed the customs of the mining camps in the use and allocation of water, the underlying objectives were almost certainly more complex. Prior appropriation's roots are as likely to be found in the populist inclinations of homesteaders and other settlers, who abhorred speculative maneuvering by monopolistic land barons and railroad companies. The fear of concentrated power over resources in the developing West shaped the doctrine of beneficial use.⁴⁸ Concerns about monopoly were part of a broader social movement and a much bigger set of issues, including populism, the burgeoning interest in conservation of public lands and wildlife, and Teddy Roosevelt's progressive, trust-busting

⁴⁰ David B. Schorr, *Appropriation as Agrarianism: Distributive Justice in the Creation of Property Rights*, 33 *Ecol. L.Q.* 3, 9, 22 (2005).

⁴¹ Neuman, *supra* note 35, at 962-63.

⁴² *Id.*

⁴³ *Pagosa Water*, 170 P.3d at 307; Colo. Rev. Stat. 37-92-305(9)(b).

⁴⁴ *See Arizona v. California*, 574 U.S. 150, 154 (2006) (defining a perfected water right as having been actually diverted and applied to an approved use); *Little v. Greene & Weed Inv.*, 839 P.2d 791, 794 (Utah 1992) (requiring appropriation “by actual diversion and application of the water to a beneficial use); *Maricopa County Mun. Water Conservation Dist. v. Southwest Cotton Co.*, 39 Ariz. 65, 102-3, 4 P.2d 369, 382-83 (1931) (requiring an appropriator to perfect a water right by applying the water to a beneficial use).

⁴⁵ Neuman, *supra* note 35, at 964.

⁴⁶ *Id.* at 967.

⁴⁷ Anderson & Hill, *The Evolution of Property Rights: A Study of the American West*, 18 *J.L. & ECON.* 163, 177 (1975).

⁴⁸ Neuman, *supra* note 35, at 963; Schorr, *supra* note 40, at 9, 22.

campaigns.⁴⁹ The same sentiments played a role in shaping the provisions of the homestead acts, which required actual settlement and occupancy to obtain title to land, as well as the Reclamation Act, which favored small farmers by limiting delivery of water to 160 acre parcels.⁵⁰

According to legal historian Samuel Wiel, when many western constitutions were being adopted in the late 1800's and early 1900's, constitutional conventions embodied a strong sentiment against wealth and monopolies.⁵¹ The railway and steamship lines were considered especially villainous, but concern about excessive power spread to other public services, including water. The rejection of riparian rights was one means of preventing an owner of just a few acres of land on a stream from locking up the water for that single parcel and thereby impeding the settlement of all surrounding land. Moreover, the adoption of prior appropriation, by definition, required the appropriator to apply the water to beneficial use, thereby precluding speculative hoarding in hopes of future gain.⁵²

Because actual, beneficial use was required, no one could acquire all of the water and thereby monopolize a scarce and valuable resource. Nor could anyone speculate by holding water without using it, and then make a steep profit by selling it to those who needed it.⁵³

The anti-speculation doctrine's populist underpinnings do not reflect anti-property sentiment, however. To the contrary, in many western states, it is commonly accepted wisdom that appropriative rights are a form of property.⁵⁴ Most judicial opinions make it abundantly clear, however, that a water right does not constitute ownership of the water itself; rather, it is usufructuary, or a right to use water.⁵⁵ The laws applicable to water, treating it as a semi-privatized yet community-based resource, and not as an ordinary commodity, are highly unique and apply to "virtually nothing else."⁵⁶

The roots of private property have never been deep enough to vest in water users a compensable right to diminish lakes and rivers or to destroy the marine life within them. Water is not like a pocket watch or a piece of furniture, which an owner may destroy with impunity. The rights of use in water, however long

⁴⁹ *Id.* at 964, citing SAMUEL C. WIEL, WATER RIGHTS IN THE WESTERN STATES 166 (3d ed. 1911). Roosevelt believed that a powerful federal government was essential in order to curb private property rights and guarantee social justice. PATRICIA O'TOOLE, WHEN TRUMPETS CALL: THEODORE ROOSEVELT AFTER THE WHITE HOUSE (2005).

⁵⁰ 43 U.S.C. § 431. *See* Homestead Act of 1862, ch. 75, 12 Stat. 392 (repealed 1976); Robert Hockett, A Jeffersonian Republic by Hamiltonian Means: Values, Constraints, and Finance in the Design of a Comprehensive and Contemporary American "Ownership Society," 79 S. Cal. L. Rev. 45, 99-104, (2005) (outlining the history and political underpinnings of the Land and Homestead Acts of the eighteenth and nineteenth centuries).

⁵¹ Wiel, *supra* note 49, at 149.

⁵² Neuman, *supra* note 35, at 963-64.

⁵³ *Id.* at 964. *See* High Plains A & M, LLC v. Southeastern Colorado Water Conservancy Dist., 120 P.3d 710, 719 n.3 (Colo. 2005).

⁵⁴ A. Dan Tarlock, L. of Water Rights and Resources § 1:1 (2006).

⁵⁵ *See* Sandra Zellmer and Jessica Harder, Unbundling Property in Water, 59 Ala. L. Rev. (forthcoming 2008); John C. Peck, Title and Related Considerations in Conveying Kansas Water Rights, 66-Nov. J. Kan. B.A. 38, 39 (1997).

⁵⁶ Brian E. Gray, The Property Right in Water, 9 Hastings W.-Nw. J. Envtl. L. & Pol'y 1, 27-28 (2002).

standing, should never be confused with more personal, more fully owned, property.⁵⁷

Today, water can be applied for beneficial use anywhere in the West and, once secured through application for beneficial use, water rights can be conveyed by deed, lease, mortgage, or inheritance as an appurtenance with a conveyance of the land where the water was initially put to use.⁵⁸ Changes in place or type of use are tightly controlled by state statutes and common law, however, to ensure that no harm will come to other appropriators. In addition, in some states, changes and transfers are forbidden if unreasonable adverse effects to other third parties, such as riparians, or the general public interest would occur.⁵⁹ As a result of these constraints, transfers of water away from the land on which it was initially used have been the exception rather than the norm. This, in spite of the increasing need to transfer senior priorities to other uses and locations to promote more efficient or socially valuable uses.

The sum total of the beneficial use requirement means that, with a few exceptions described below, speculators cannot hold water for unspecified future uses. Whether this treatment is justified is addressed below in Part VI.

IV. Yet, Municipal and Foreign Speculators Abound

There are several exceptions to the general anti-speculation rule in western water law. Two of the most significant involve municipal water supplies and foreign water. Another exception involves maintenance of instream flows, primarily for fisheries, water quality, and recreational uses.

A. Municipal Growth

Each system of water law in the U.S. -- prior appropriation, the common law of riparian rights, and the law of groundwater capture -- gives a “super-preference” to municipal growth.⁶⁰ In other words, if push comes to shove in a contest over scarce water resources, cities almost always win. It may well be that the dedication of water to urban use comports with the long-standing preference for domestic applications, and it is indisputably rational from an economic standpoint.⁶¹ However, as a result, water law allows if not encourages unrestrained urban expansion.

The municipal preference flows in part from commonly adopted exceptions to the anti-speculation doctrine. First, the “growing cities” exception allows cities to perfect a water right to the amount that they will need in advance of demand, in some cases up to the anticipated future

⁵⁷ Joseph L. Sax, *The Limits of Private Rights in Public Waters*, 19 *Envtl. L.* 473, 482 (1989).

⁵⁸ Douglas L. Grant, *ESA Reductions in Reclamation Water Contract Deliveries: A Fifth Amendment Taking of Property?*, 36 *Envtl. L.* 1331, 1336 (2006).

⁵⁹ *See, e.g.*, Neb. Rev. Stat. §46-294(1)(d) (2007).

⁶⁰ *See* A. Dan Tarlock and Sarah B. Van de Wetering, *Western Growth and Sustainable Water Use: If There are No “Natural Limits,” Should We Worry About Water Supplies?*, 27 *Pub. Land & Resources L. Rev.* 33 (2006); A. Dan Tarlock & Sarah B. Van de Wetering, *Growth Management and Western Water Law: From Urban Oases to Archipelagos*, 5 *Hastings W.-N.W. J. Env'tl. L.* 163 (1999).

⁶¹ Tarlock and Van de Wetering, *Western Growth*, *supra* note 60, at 48.

capacity of their systems.⁶² The Colorado Supreme Court embraced this type of an exception for its “great and growing cities,” and its decision was subsequently adopted by the Colorado legislature in its Water Right Determination and Administration Act.⁶³ The Act provides, “A governmental agency need not be certain of its future water needs; it may conditionally appropriate water to satisfy a projected normal increase in population within a reasonable planning period.”⁶⁴ Colorado courts have described the reservation of water for Denver and the surrounding vicinity as “not speculation but the highest prudence on the part of the city. . . .”⁶⁵

A related but more limited concept is known as the “progressive growth” doctrine.⁶⁶ This allows claimants, most often cities, to establish a priority date by documenting their anticipated needs for water.⁶⁷ The Montana Supreme Court explained:

It is not requisite that the use of water appropriated be made immediately to the full extent of the needs of the appropriator. It may be prospective and contemplated, provided there is a present ownership or possessory right to the lands upon which it is to be applied, coupled with a bona fide intention to use the water, and provided that the appropriator proceeds with due diligence to apply the water to his needs.⁶⁸

Another means of escaping the restrictions on speculation is to obtain an exemption from forfeiture provisions. Some states provide municipalities with such exemptions, either by statute or by case law.⁶⁹ The underlying rationale is that the development of large-scale supplies for municipal purposes cannot, for all practical purposes, be held to strict “use it or lose it” requirements.⁷⁰

Although technically not an exception to the anti-speculation rule, would-be appropriators may also mitigate its harshness by seeking conditional water rights. Appropriators who seek a permit before putting the water to beneficial use may secure conditional rights and thereby reserve a place in the priority line for when the appropriator completes the adjudicatory process. To obtain a conditional water right, one must demonstrate the intent to appropriate water, as well as the ability to put the water to beneficial use within a reasonable time.⁷¹

⁶² A. Dan Tarlock, L. of Water Rights and Resources § 5:70.1 (2007).

⁶³ *City & County of Denver v. Sheriff*, 105 Colo. 193, 96 P.2d 836 (1939).

⁶⁴ *City of Thornton v. Bijou Irrigation Co.*, 926 P.2d 1, 38 (Colo. 1996), citing Water Right Determination and Administration Act of 1968, Ch. 346, sec. 5, § 37-92-103(3)(a), 1979 Colo. Sess. Laws 1366, 1368 (codified at § 37-92-103(3)(a), 15 C.R.S. (1990)).

⁶⁵ *City & County of Denver*, 96 P.2d at 836. *See also* Or. Rev. Stat. § 537.230(2) (allowing cities to take up to twenty years to complete construction of proposed water works).

⁶⁶ Tarlock and Van de Wetering, *Western Growth*, *supra* note 60, at 50-51.

⁶⁷ Lora Lucero and A. Dan Tarlock, *Water Supply and Urban Growth in New Mexico: Same old, Same Old or a New Era?*, 43 Nat. Resources J. 803, 829 (2003).

⁶⁸ *St. Onge v. Blakely*, 76 Mont. 1, 23, 245 P. 532, 539 (1926). *See also* State ex rel. Crider, 431 P.2d 45, 49 (N.M. 1967); State ex rel. Martinez v. City of Las Vegas, 135 N.M. 375, 89 P.3d 47 (2004).

⁶⁹ Neuman, *supra* note 35, at 965 n.332. *See, e.g.*, N.M. Stat. Ann. §§ 72-1-9, 72-12-8; N.D. Cent. Code § 61-04-23; Or. Rev. Stat. § 540.610(2)(a); Utah Code Ann. § 73-1-4(5); Neb. Rev. Stat. § 46-229.04(5).

⁷⁰ Neuman, *supra* note 35, at 965 n.332.

⁷¹ *See, e.g.* Colo. Rev. Stat. § 37-92-305(9)(b).

To maintain a conditional water right, some states require the appropriator to file an application for a finding of reasonable diligence every few years.⁷² So long as the conditional right holder continues to demonstrate an intent to place the water to beneficial use and exercises reasonable diligence in doing so, a conditional right can be held in perpetuity. When all of the elements of an actual appropriation are finally demonstrated, the conditional water right becomes perfected and declared absolute in a permit or judicial decree.

In its 2007 opinion in *Pagosa Water and Sanitation Dist. v. Trout Unlimited*, the Colorado Supreme Court delineated factors for consideration when a city seeks a conditional appropriation.⁷³ It directed the water court to make specific findings of fact about future land use mixes and about per capita water use requirements. It also directed the water court to consider the effects that implementing conservation and reuse measures would have on the future water needs. Finally, the water court was instructed to determine whether the water suppliers had met Colorado's "can and will" test; that is, whether they can and will put the conditionally appropriated water to beneficial use within a reasonable time period.⁷⁴

The Pagosa Springs suppliers estimated that they would need to triple their current storage capacity to 12,000 AF to meet residents' water needs by 2043.⁷⁵ Taking this a step further, they proposed to develop a reservoir project with a total storage capacity of 35,000 AF, almost triple their estimated 2043 needs, in order to serve population growth through the year 2100.⁷⁶ The court expressed its skepticism about this scheme, and cautioned the water court to "closely scrutinize a governmental agency's claim for a planning period that exceeds fifty years,"⁷⁷ a period of time that had been found reasonable in a previous case where the applicant had "presented extensive evidence to support its projections of future water demand and its ultimate intent," including the testimony of planning experts, along with planning documents and studies prepared by water consultants.⁷⁸

Similarly, the Washington Supreme Court has concluded that a final certificate, *i.e.*, a vested water right, may be obtained only in the amount of water actually put to beneficial use, *not* the amount allowed by the capacity of a developer's water delivery system.⁷⁹ The court reversed a determination by the state Pollution Control Hearings Board that system capacity, or a "pumps and pipes" measure, could be the method of quantification for purposes of the final certificate under state statutory and common law.⁸⁰

B. Foreign (Developed) Water

⁷² See *Double RL Co. v. Telluray Ranch Properties*, 54 P.3d 908 (Colo. 2002) (examining Colorado's six year filing requirement).

⁷³ 170 P.3d 307 (Colo. 2007).

⁷⁴ *Id.* at 320.

⁷⁵ Jeff Kray, *But Not Enough to Drink: Water Scarcity Leads Colorado Court to Reject Water Supplier's Petition* (Dec. 5, 2007), available at http://www.martenlaw.com/news/?20071205-water-petition-rejected#_edn22.

⁷⁶ *Pagosa Springs*, 170 P.3d at 311.

⁷⁷ *Id.* at 317.

⁷⁸ *Id.*, citing *City of Thornton v. Bijou Irrigation Co.*, 926 P.2d 1, 40 (Colo. 1996).

⁷⁹ *Department of Ecology v. Theodoratus*, 135 Wash. 2d 582, 957 P.2d 1241 (1998).

⁸⁰ *Id.* at 592, 957 P.2d. at 1246.

The prior appropriation system is based on the notion that all surface waters within a watershed belong to the stream and are therefore subject to appropriation by users. This means that appropriators have no expectation to water that was never part of the natural stream system.

Developed water is water that has been “added to the supply of a natural stream and which never would have come into the stream had it not been for the efforts of the party producing it.”⁸¹ Examples include water derived from mine dewatering, water exported from another watershed, and treated sewage effluent.⁸² This water is typically treated as the exclusive property of the developer, and is free of the call of the river.⁸³ Thus, it can be transferred at will, free of anti-speculation constraints.

C. Water Banking and Forbearance

The use of water banks to facilitate water marketing is gaining acceptance in many western states. Water banks provide a flexible framework for water transfers, as there is no single required formula.⁸⁴ Generally speaking, water rights are deposited in the bank and available for withdrawal for a fee by others. The bank serves as an intermediary that arranges the transactions and maintains records. The pricing for deposits and withdrawals can reflect both the purpose of the new use – urban, industrial, environmental, recreational, or agricultural – and the location of use, particularly when the water would be used outside the original watershed.⁸⁵

To avoid forfeiture, however, legislation is typically required to facilitate water banking. The state of Idaho was one of the first to authorize a water bank nearly sixty years ago on the Upper Snake River.⁸⁶ Idaho law also authorizes a general purpose water bank for facilitating temporary water transfers.⁸⁷ The bank is designed to provide flexibility to irrigators by allowing those who do not need water in a particular year to grant it to others without forfeiting their water

⁸¹ See, e.g., *City of Thornton v. Bijou Irrigation Co.*, 926 P.2d 1, 72 (Colo. 1996) (interbasin water transfer); *City & County of Denver v. Fulton Irrigating Ditch Co.*, 179 Colo. 47, 506 P.2d 144 (1972) (interbasin water transfer and treated sewage effluent); *Dodge v. Ellensburg Water Co.*, 46 Wash. App. 77, 729 P.2d 631 (1986), review denied, 107 Wash. 1031 (1987) (interbasin water transfer); *Reynolds v. City of Roswell*, 99 N.M. 84, 654 P.2d 537 (1982) (treated sewage effluent); *Thayer v. City of Rawlins*, 594 P.2d 951 (Wyo. 1979) (treated sewage effluent); *Mountain Lake Mining Co. v. Midway Irrigation Co.*, 48 Utah 346, 149 P. 929 (1915) (mine dewatering).

⁸² A. Dan Tarlock, *Waters Subject to Appropriation--Developed Water*, L. of Water Rights and Resources § 5:18.

⁸³ *Id.*; Note, *Colorado's Foreign Water Doctrine: License to Speculate*, 60 U. Colo. L. Rev. 1113 (1989).

⁸⁴ Lawrence J. MacDonnell, *Water Banks: Untangling The Gordian Knot of Western Water*, 41 RMMLF – Inst. 22, 22 (1995).

⁸⁵ George W. Pring and Karen A. Tomb, *License to Waste: Legal Barriers to Conservation and Efficient Use of Water in the West*, 25 Rocky Mt. Min. L. Inst. 25 (1979).

⁸⁶ Idaho Water Resources Board, *Idaho Water Supply Bank*, <http://www.idwr.idaho.gov/waterboard/water%20bank/waterbank.htm> (last visited on Dec. 20, 2007). The bank is designed as an exchange market where individuals can place water in storage or natural flows, if they have excess, and others can purchase or lease this excess water.

⁸⁷ Idaho Code Ann. § 42-1761.

rights.⁸⁸ The Idaho Department of Water Resources was also explicitly authorized to use the bank to provide instream flows for salmon runs on the Snake River.⁸⁹

In Colorado, water banks are authorized for all of the state's major river basins, but as of 2006 none actually existed, other than a pilot water bank in the Arkansas Basin.⁹⁰ A statute that requires the state engineer to "promulgate program rules necessary or convenient for the operation of a water bank within the division in which such district is located" evidently requires such rules to be adopted before establishment of a bank, thereby impeding water banking.⁹¹

The Oregon Water Trust, a nonprofit organization that began buying water for streamflows in 1994, holds a diverse portfolio of water rights, including permanent purchases, long-term, short-term, and split-season leases, use forbearance agreements, and conserved water projects.⁹² Within the first decade of its existence, it protected over 124 cubic feet per second of water in over 300 water rights deals.⁹³ The Trust is able to accomplish instream flow protection because the Oregon legislature recognizes instream uses of water to be beneficial uses,⁹⁴ and specifies that existing water rights converted to instream flow rights retain their priority date.⁹⁵ According to the Trust's director, Professor Janet Neuman, a final key component of the 1987 law that served as a catalyst for water marketing is the conserved water program, which allows water rights holders to improve their efficiency and keep a portion of the water saved.⁹⁶ Absent this provision, the appropriator who accomplishes an authorized beneficial use with less water due to increased efficiencies would lose the saved water to junior users or new appropriators.⁹⁷

A related means of protecting instream flows comes in the form of a use forbearance agreement in which the water user agrees to stop irrigating as of a certain date and to leave the water instream in exchange for a cash payment.⁹⁸ Like water banking, forbearance agreements can be used for instream flow maintenance or other purposes.

In the mid-1990s, to address unused entitlements in Arizona and severe shortages in Nevada and California, the Metropolitan Water District of Southern California (MWD) and the state of Nevada entered into an agreement to pay the Central Arizona Water Conservancy District (CAWCD) to deliver Colorado River water to groundwater irrigators in exchange for rights to that groundwater. James Lochhead, a renowned Denver water lawyer, explains:

⁸⁸ Janet C. Neuman, Drought Proofing Water Law, 7 U. Denv. W. L. Rev. 92, 104 (2003).

⁸⁹ Idaho Code §42-1763B.

⁹⁰ Reed D. Benson, "Adequate Progress," or Rivers Left Behind: Developments in Colorado and Wyoming Instream Flow Laws Since 2000, 36 Env'tl. L. 1283, 1304-1305 (2006).

⁹¹ *Id.* at n.154, citing Colo. Rev. Stat. § 37-80.5- 104.5(1)(a).

⁹² Janet C. Neuman, The Good, the Bad, and the Ugly: The First Ten Years of the Oregon Water Trust, 83 Neb. L. Rev. 432, 433 (2004).

⁹³ *Id.* at 441.

⁹⁴ Or. Rev. Stat. §§ 537.334(1), 537.336(1).

⁹⁵ Or. Rev. Stat. § 537.348(1).

⁹⁶ Neuman, *The Good*, *supra* note 92, at 439.

⁹⁷ *See, e.g.*, Ariz. Rev. Stat. 45-188(A) (2007); Cal. Water Code 1241 (2007); Colo. Rev. Stat. Ann. 37-92-402(11) (2007); Idaho Code 42-222(2) (2007); N.M. Stat. Ann. 72-5-28(A) (2007); Or. Rev. Stat. 540.610(1) (2005); Utah Code Ann. 73-1-4 (2007); Wash. Rev. Code 90.14.160 (2007); Wyo. Stat. Ann. 41-3-401 (2007)

⁹⁸ Neuman, *The Good*, *supra* note 92, at 454.

When necessary, Nevada or MWD could later gain access to this "in-lieu" storage through a forbearance agreement whereby Arizona agreed to forbear, in the future, the use of an equal portion of its Colorado River entitlement to Nevada or MWD. This arrangement increased the use and financial feasibility of the CAP [Central Arizona Project], gave to Arizona farmers water at a cheaper price than their pumped groundwater, and created a storage water bank for Nevada and MWD.⁹⁹

Although negotiations over CAP repayment obligations eventually broke down, the concept of developing a market for Arizona's unused entitlement became an important part of developing Arizona's groundwater bank. Arizona proposed to secure long-term supplies through groundwater storage credits, land fallowing, and interim contracts for excess CAP water. The water bank could then contract with other states for acquisition and storage, and transfers from the bank could be made through forbearance agreements.¹⁰⁰

Negotiations on proposals to address shortages in the basin, particularly California's chronic overuse, continued for years. It was not until December 13, 2007, that Secretary of the Interior Dirk Kempthorne finally signed an agreement to implement a new strategy for management of the Colorado River.¹⁰¹ The decision adopts interim operational guidelines intended to provide a greater degree of certainty with respect to the amount of annual water deliveries in the face of diminished supplies -- particularly in the Lower Division states -- and to encourage and promote water conservation.¹⁰² Conservation measures include an agreement allowing water users to obtain future credit for conserving water and leaving it in Lake Mead, forbearance provisions that allow any party to agree to refrain from exercising its right to surplus Colorado River water, and provisions for cities to contract with farmers to temporarily fallow fields in dry years.¹⁰³ These innovations are made possible by Article II(B)(6) of the Decree in *Arizona v. California*,¹⁰⁴ which authorizes the Secretary to deliver the unused entitlement of one Lower Division state in any one year for use in another Lower Division state.¹⁰⁵ Absent this

⁹⁹ James Lochhead, An Upper Basin Perspective On California's Claims To Water From The Colorado River Part II: The Development, Implementation And Collapse Of California's Plan To Live Within Its Basic Apportionment, 6 U. Denv. W. L. Rev. 318, 344-345 (2003).

¹⁰⁰ *Id.*

¹⁰¹ Interior Press Release, Secretary Kempthorne Signs Historic Decision for New Colorado River Management Strategies, U.S. Fed. News, 2007 WLNR 24646338, Dec. 13, 2007.

¹⁰² Secretary of the Interior, Record of Decision, Colorado River Interim Guidelines for Lower Basin Shortages and Coordinated Operations for Lakes Powell and Mead, <http://www.usbr.gov/lc/region/programs/strategies/RecordofDecision.pdf> (Dec. 13, 2007). See Bureau of Reclamation Lower Colorado Region, Colorado River Interim Guidelines for Lower Basin Shortages and Coordinated Operations for Lakes Powell and Mead (2007), <http://www.usbr.gov/lc/region/programs/strategies.html> (providing a summary and links to decision documents).

¹⁰³ Interior Press Release, *supra* note 101. The interim guidelines also provide that if the basin receives ample runoff at any given time, the Department will have rules in place to distribute the extra water, and set forth new operational rules for Lake Powell and Lake Mead to allow the two reservoirs to rise and fall in tandem, thereby better sharing the risk of drought. *Id.*

¹⁰⁴ 376 U.S. 340 (1963).

¹⁰⁵ *Id.* at 343. See Consolidated Decree Art. II(B), 547 U.S. 150, 126 S.Ct. 1543, 1546 (2006) (allowing the Secretary "to choose among the recognized methods of apportionment or to devise reasonable methods of his own"). For an assessment of the new agreement, see Douglas L. Grant, Collaborative Solutions to Colorado River Water Shortages: The Recent Basin States'

provision, collaborative solutions involving forbearance agreements or water banking may not have been possible.

V. Trust-Busting: A Quick Diversion into Antitrust Principles

In addition to the anti-speculation doctrine, antitrust rules designed to prevent monopolies can also have a chilling effect on water marketing. Although speculation and monopoly are often treated as twin themes, they are not the same thing. A monopoly entails super-concentrated market power, where the monopolist's control of so much of a resource enables it to depress supply or quality and to inflate price.¹⁰⁶ In reality, monopolization of water has not been a significant concern in the West. There is no Wal-Mart, ExxonMobil, or General Electric of the water world; rather, eighty percent of the water withdrawn from the West's surface water bodies is used for agriculture, and although concentration has grown in recent decades, the majority of agricultural water rights holders are still individuals or small corporations.¹⁰⁷ The remaining 20% of the water being used in the West is spread among millions of people, primarily urban dwellers.¹⁰⁸

Individual appropriators can control large blocks of water – in some cases all of the water of a stream – as long as they enjoy a senior priority date and are actually using the water. Yet power over localized water resources by one or two farmers is not a monopoly in an economic sense. It does mean, however, that some streams are “held hostage to historic use patterns.”¹⁰⁹

As water marketing opportunities grow, the potential for collusion and, consequently, antitrust concerns, grow as well. The Sherman Act prohibits agreements that restrain competition as well as predatory or anticompetitive conduct through attempts to monopolize, or through the acquisition and maintenance of monopoly power.¹¹⁰ Sherman Act jurisdiction hinges on restraints that have a “not-insubstantial” impact on interstate commerce.¹¹¹ In addition, the restraint must injure competition, which typically occurs when an agreement interferes with the

Agreement and Beyond, Discussion Paper for Conference on Collaboration on the Colorado River, University of Nevada-Las Vegas, Oct. 12, 2007 (on file with author).

¹⁰⁶ Neuman, *supra* note 35, at 964, citing VERNON A. MUND, *MONOPOLY: A HISTORY AND THEORY* 95, 100 (1933).

¹⁰⁷ *Id.* at 969, citing Western Water Policy Review Advisory Comm'n, *Water in the West: Challenge for the Next Century* 2-22 to 2-23 (1998).

¹⁰⁸ *Id.* See NATIONAL AGRICULTURAL STATISTICS SERVICE, *FARM AND RANCH IRRIGATION SURVEY*, General Explanation IX, XIX & XX (2003), available at <http://www.agcensus.usda.gov/Publications/2002/FRIS/fris03.pdf> (reporting a slight increase in watering efficiency per acre, along with a slight decrease in acres irrigated, which indicates that the balance being used by urban users may have grown somewhat higher than 20%).

¹⁰⁹ Neuman, *supra* note 35, at 969.

¹¹⁰ 15 U.S.C. §§ 1, 2. In addition to federal law, most states have antitrust statutes, often included in their Uniform Commercial Code.

¹¹¹ *Pinhas v. Summit Health, Ltd.*, 894 F.2d 1024, 1031-32 (9th Cir. 1989), *aff'd*, 500 U.S. 322 (1991).

setting of prices by market forces.¹¹² Finally, injury must have resulted from a contract, combination, or conspiracy between separate entities; “unilateral action is not sufficient.”¹¹³

Existing patterns of water ownership may exacerbate the potential for anticompetitive behavior.

The predominant historic use of water has been for agricultural purposes; however, the need has been shifting to uses urban in nature. Thus, the buyers and sellers are grouped in separate camps. The tendency has been for these camps to combine rather than compete. This is, in large part, due to the natural tendency of buyers and sellers to “control” the market to their benefit and the fear that they will be frozen out of the market without this control. Thus, the would-be sellers join together in an attempt to elevate prices, or the would-be buyers join together to hold prices down. Normal competition among and between buyers and sellers and the fostering of truly free markets is thereby frustrated.

Another example of controlled markets exists if one considers the normal distribution of water in many arid states. In these situations, areas where water originates often have an advantage of supply over export areas. Again, there appears to be a tendency by those within the respective areas to combine to control the pricing of water.¹¹⁴

Certain types of antitrust immunity may apply to water marketing transactions, however, including state action immunity, Noerr-Pennington immunity, and Local Governments Immunity.

State action immunity has been applied to shield water transfers from antitrust liability in at least two circuits.¹¹⁵ In *Kern-Tulare Water District v. City of Bakersfield*, the Ninth Circuit assessed a challenge to a contract that gave the city a right to veto the district's subsequent sale of water purchased from the city.¹¹⁶ The district brought suit when the city refused to approve the district's sale of surplus water. The court concluded that state law evidenced a “clearly articulated and affirmatively expressed state policy to displace competition with regulation in the area of municipal control over water and water rights, as long as the municipality does not engage in waste or unreasonable use.”¹¹⁷ Accordingly, state legislatures can impact the scope of the immunity available under the state action doctrine by the legislative decisions they make regarding the degree of state regulatory authority over water resources.¹¹⁸

¹¹² *National Soc. of Professional Engineers v. United States*, 435 U.S. 679 (1978). *See* *FTC v. Ticor*, 504 U.S. 621, 639 (1992) (“No antitrust offense is more pernicious than price fixing.”).

¹¹³ Stuart L. Somach and Andrew M. Hitchings, *Antitrust Considerations in Water Marketing*, 11-FALL *Nat. Resources & Env't* 26, 29 (1996).

¹¹⁴ *Id.* at 67.

¹¹⁵ *Kern-Tulare Water District v. City of Bakersfield*, 828 F.2d 514 (9th Cir. 1987), cert. denied, 486 U.S. 1015 (1988). *See also* *McCallum v. Athens*, 976 F.2d 649 (11th Cir. 1992) (holding that state action immunity protected city from antitrust liability for its allegedly anticompetitive operation of waterworks).

¹¹⁶ 828 F.2d at 514.

¹¹⁷ *Id.*

¹¹⁸ *See* Somach and Hitchings, *supra* note 113, at 29; *McCallum v. Athens*, 976 F.2d 649 (11th Cir. 1992) (rejecting consumers' claim against city for its allegedly anticompetitive operation of waterworks where Georgia's municipal statutes specifically authorized cities to provide waterworks service and to determine areas to be served).

Noerr-Pennington immunity allows private individuals to seek favorable anticompetitive treatment from legislative bodies, administrative agencies, and the courts.¹¹⁹ This doctrine protects the constitutional right to petition the government, and it permits lobbying efforts that may harm competitors so long as the lobbying efforts are expected to result in lawful government action.¹²⁰ This form of immunity has come up in a water case in the Ninth Circuit, which held that landowners, when acting through their water district, are immune from antitrust liability if they lawfully seek to influence their water district's decisions, for example, by electing board representatives sympathetic to their position or lobbying board members.¹²¹

Finally, the Local Government Antitrust Act of 1984 protects “local governments,” a term that would likely include most public water agencies, from antitrust liability.¹²² Normally, the anti-trust laws authorize “any person . . . injured in his business or property . . . [to] recover threefold the damages by him sustained, and the cost of suit, including a reasonable attorney's fee.”¹²³ Unfortunately for a person injured by a local government, the Local Government Antitrust Act specifically states that “no damages, interest on damages, costs, or attorney's fees may be recovered . . . from any local government, or official or employee thereof acting in an official capacity.”¹²⁴ It also precludes such remedies “in any claim against a person based on any official action directed by a local government, or official or employee thereof acting in an official capacity.”¹²⁵ In championing these provisions, congressional members argued that government action raises unique considerations:

When you move over to governmental decisions, then the competitive factor is not relevant, really, or far less relevant than environmental considerations, health considerations, safety considerations, and a whole panoply of issues that a governmental body must take into consideration in its judgments allocating contracts, access to sewer lines, zoning, and things like that. . . . So it is clear that the antitrust laws ought to be inapplicable . . . in their most harsh aspect and that is treble damages for governmental decisions. The problem is governments make decisions . . . based on their best judgment on a range of considerations that are not contemplated by antitrust laws. So the antitrust law is a square peg trying to be forced into a round hole of government operation. This remedy [of immunity] is very much needed.¹²⁶

¹¹⁹ Somach and Hitchings, *supra* note 113, at 29.

¹²⁰ *Hedgecock v. Blackwell Land Co.*, 52 F.3d 333 (9th Cir.), cert. denied, 516 U.S. 862 (1995). *See also* *Davric Maine Corp. v. Rancourt*, 216 F.3d 143 (1st Cir. 2000) (lobbying for legitimate government purposes is immune from antitrust suits).

¹²¹ *Hedgecock*, 52 F.3d at 333.

¹²² 15 U.S.C. §§ 34-36.

¹²³ 15 U.S.C. § 15(a).

¹²⁴ 15 U.S.C. § 35(a).

¹²⁵ 15 U.S.C. § 36(a).

¹²⁶ 130 Cong. Rec. H. 12183 (1984) (statement of Rep. Hyde). *See id.* at S. 14367 (statement of Sen. Moynihan) (stating that antitrust suits filed against local governments were having a “paralyzing effect on decisionmaking” so that immunity was needed to “balance the need of local governments to provide essential services--without the fear of lawsuits-- and the right of aggrieved parties to seek injunctive relief against cities”). For a detailed assessment of the legislative history, see *Palm Springs Med. Clinic, Inc. v. Desert Hosp.*, 628 F.Supp. 454, 459-464 (C.D. Cal. 1986).

As a result of these immunity provisions, water marketing transactions may evade antitrust liability, particularly when governmental entities are market participants, absent outright price-fixing or other serious misconduct.

VI. Exorcising the Ghost of Nova

The requirement of that water rights be put to an actual, non-speculative use has served as a universal principle of international water law.¹²⁷ Even so, critics have lobbed several meritorious charges at the anti-speculation rule.

First, it may have the perverse consequence of fostering covert speculation. In other words, prohibiting water rights holders from reserving water for future use “merely force[s] the would-be speculator to disguise his activity by wasting resources in the construction of diversion works that are either economically unjustifiable regardless of their timing, or premature.”¹²⁸ Although it is difficult if not impossible to trace whether covert speculation is occurring and, if so, how often and on what scale, it seems unlikely that a large number of individuals are intentionally irrigating their land for the sole purpose of selling off their water rights at a later date.¹²⁹ It is true that the prior appropriation system encourages irrigators and other water users to err on the side of using too much, because the penalty for nonuse is loss of the water.¹³⁰ But that is a far cry from constructing diversion works and applying the water to a use with no economic benefit, such as a crop with no subsistence value and no market, just to hold on to the water for future sale.

A second criticism is that anti-speculation rules prevent rational planning for anticipated future growth. But the prevalence of municipal exceptions, described in Part IV above, undermines this argument, as does a recent survey by researchers at the University of Arizona and the Bren School of Environmental Management, which found that nearly half of all transfers in the West occurred in the state with the reputation for having the most stringent anti-speculation laws -- Colorado.¹³¹ Much of the water being transferred involves the Colorado-Big Thompson Project, a mutual water company that facilitates a trans-basin diversion of water from the West Slope to the Front Range.¹³²

Other critics point to recent international trends toward privatization of resources. The experiences of South America, however, indicate that privatization schemes should be approached with a good deal of caution. As a component of broad government reforms toward a

¹²⁷ Miguel Solanes and Fernando Gonzalez-Villarreal, THE DUBLIN PRINCIPLES FOR WATER AS REFLECTED IN A COMPARATIVE ASSESSMENT OF INSTITUTIONAL AND LEGAL ARRANGEMENTS FOR INTEGRATED WATER RESOURCES MANAGEMENT ¶17 (June 1999), available at <http://www.africanwater.org/SolanesDublin.html>.

¹²⁸ Neuman, *supra* note 35, at 968, quoting Stephen F. Williams, The Requirement of Beneficial Use as a Cause of Waste in Water Resource Development, 23 Nat. Resources J. 7, 13 (1983).

¹²⁹ *Id.* at 969.

¹³⁰ *See, e.g.*, Neb. Rev. Stat. §§ 46-290, 46-294.

¹³¹ Jedidiah Brewer, Robert Glennon, Alan Ker, and Gary Libecap, Transferring Water in the American West: 1987-2005, 40 U. Mich. J.L. Reform 1021, 1043 (2007).

¹³² *Id.* As “developed” water, it is subject to the complete control of the company. Another important feature of the Colorado-Big Thompson project involves the use of shares to represent members’ interests to water, which in turn allows an active market for the shares by minimizing transaction costs. *Id.*

market-oriented economic policy, Chile did away with its anti-speculation prohibition in its 1981 Water Code.¹³³ The Code granted an unconditional private water right that allowed owners to freely change their types of water use without government approval. Water rights holders were not required to actually use the water nor were they charged a fee for the concessions.¹³⁴ As a result, hydropower projects belonging to a single corporation purchased vast quantities of water rights on a speculative basis, locking new entrepreneurs out of the power market and making water unavailable for actual, beneficial uses.¹³⁵ The Water Code also spawned confrontations between indigenous peoples and the government over indigenous lands and water resources.¹³⁶ In 2005, Chile amended its Water Code and imposed a new annual tax on unused water rights.¹³⁷ As a consequence, owners have been induced to sell their unused water rights to avoid paying the annual license, creating substantial activity in water rights transactions. Chile's experimentation with rescinding its anti-speculation provision indicates that the requirement has continuing value and should not be cavalierly discarded.

Finally, proponents of opening water markets to speculative transfers argue that existing laws governing water transfers can address any potential harm to other appropriators and third parties. And if water moves to the highest and best use, everyone stands to benefit, so the argument goes. The question, then, is whether free market principles should be allowed to take their course, allowing speculative transfers if the benefits exceed the costs, or whether other legal reforms may be appropriate.

There is still a strong sense that speculation in water is just plain wrong, perhaps because so many people and ecological communities depend on it.¹³⁸ Thus, to the extent that society envisions water marketing as a significant tool to reallocate water use, federal, state, and local governments must continue to play a significant role in overseeing water transfers – speculative and otherwise – to ensure that the interests of affected third parties are protected.¹³⁹

Giving increased priority to conservation measures might go a long way toward alleviating the concerns about speculative water transfers for future, unspecified uses. San Diego, which is water-limited both by geography and its limited Colorado River entitlement, may serve

¹³³ CARL J. BAUER, *SIREN SONG: CHILEAN WATER LAW AS A MODEL FOR INTERNATIONAL REFORM* (2004). Provisions that allowed privatization of water in Bolivia triggered public outcry and subsequent reforms as well. See Salzman, *supra* note 3.

¹³⁴ Rutgerd Boelens and Hugo de Vos, *Water Law and Indigenous Rights in the Andes*, 29 *Cultural Survival Quarterly* 4 (2006), available at <http://www.cs.org/publications/Csq/csq-article.cfm?id=1867>.

¹³⁵ Solanes and Gonzalez-Villarreal, *supra* note 127, at ¶ 18, ¶ 110.

¹³⁶ See Lila Barrera-Hernández, *Indigenous Peoples, Human Rights and Natural Resource Development: Chile's Mapuche Peoples and the Right to Water*, 11 *Ann. Surv. Int'l & Comp. L.* 1, 13-14 (2005) (describing the Panguel-Ralco Project, an ambitious hydro-electric development plan approved by the Chilean government in 1989 in the upper Bio Bio River area on traditional Mapuche lands).

¹³⁷ Miriam Grunstein, Juan Francisco Pardini, Andrew B. Derman, Andrew Melsheimer, Schuyler B. Marshall V, Maria Cecilia Andrade, Ilan Dunsky, Clarisse Kehler Siebert, Juan Francisco Mackenna, and Marcos Ríos, *International Legal Developments in Review: 2006 Energy and Natural Resources*, 41 *Int'l Law* 491, 505 (2007), citing Title XI of the Chilean Water Code; Stephen Hodgson, *Modern Water Rights: Theory and Practice*, *FAO Legislative Study # 92*, 66 (2006), available at <ftp://ftp.fao.org/docrep/fao/010/a0864e/a0864e00.pdf>.

¹³⁸ Neuman, *supra* note 35, at 974.

¹³⁹ Glennon, *supra* note 7, at 1902.

as an example.

The city has linked water supply and growth as part of its ongoing growth management program with a six-part strategy. In the future, in addition to possible water transfers from the embattled and divided fiefdom known as the Imperial Irrigation District, San Diego will depend on a combination of: (1) more efficient use of existing supplies; (2) demand management; (3) reallocation of existing supplies through water marketing; (4) more limited new storage and distribution facilities; (5) desalination; and (6) greater conjunctive surface and groundwater use. This strategy has allowed it to add some 300,000 new residents since 1990 without increasing its water use during that period.¹⁴⁰

The City of Santa Fe has followed suit by developing innovative conservation measures and by making water availability a key determinant of future growth. The city first restricted new water connections outside city limits absent a valid, preexisting agreement for water service. Next, all new projects within the city were required to offset their water usage by retrofitting existing toilets with high-efficiency units. Finally, an ordinance adopted in 2005 requires new, large construction projects to transfer water rights to the city prior to receiving building permits.¹⁴¹

At least one thing seems clear. Statutory expressions of beneficial use have changed and will continue to evolve over time to reflect changed social values and new scientific understanding.¹⁴² Beneficial use, and the related anti-speculation doctrine, “must expressly come to mean beneficial by the standard of today’s culture, not by the standards of some culture long-eclipsed by changing values and circumstances.”¹⁴³

Epilogue

Dr. Venkman and his ghost-busting team eventually realized that the gateway to Hell swung both ways, into and out of New York City. When the Ghostbusters crossed their proton streams and fired at the portal, they succeeded in causing “total protonic reversal,” destroying the portal and saving New York City from the clutches of Zuul and her demonic boss, Gozer-the-Destructor. Paranormal activity resumed normal levels, making a lucrative but manageable business portfolio for the Ghostbusters. Happy endings for all . . . but, of course, one can safely speculate that there may be a sequel or two. According to Ghostbuster Ray Stantz, Zuul’s return wasn’t entirely random, but rather “Nature’s way of telling us to slow down. You have to admit it’s kind of humbling, isn’t it?”¹⁴⁴

¹⁴⁰ Tarlock and Van Wetering, *supra* note 60, at 61, citing, inter alia, San Diego County Water Authority, 2005 Urban Water Management Plan, <http://www.sdcwa.org/manage/pdf/2005UWMP/FinalDraft2005UWMP.pdf> (Dec. 2005).

¹⁴¹ *Id.* at 65. See Julie Ann Grimm, County Wades Into Long-Range Planning for Water Allocation, *The New Mexican*, Mar. 1, 2006, at A1.

¹⁴² Neuman, *supra* note 35, at 924.

¹⁴³ Eric T. Freyfogle, Water Rights and the Common Wealth, 26 *Envtl. L.* 27, 42 (1996).

¹⁴⁴ Harold Ramis and Dan Aykroyd, *Ghostbusters*, Final Shooting Script, Oct. 7, 1983, at <http://www.awesomefilm.com/script/Ghostbusters.txt>.