

Tulsa Law Review

Volume 46
Number 2 *Geoengineering*

Volume 46 | Number 2

Winter 2010

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Recommended Citation

Ryan S. Hansen, *Colorado Residentail Property Owners and their Cloudy Right to Precipitation Capture*, 46 Tulsa L. Rev. 323 (2013).

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COLORADO RESIDENTIAL PROPERTY OWNERS AND THEIR CLOUDY RIGHT TO PRECIPITATION CAPTURE

*A man from the west will fight over three things: water, women and gold, and usually in that order.*¹

I. INTRODUCTION

Until July 1, 2009, all Colorado citizens faced fines and jail time for capturing precipitation on their residential property.² In April 2009, however, Colorado's governor signed into law two statutes that incrementally deviated from the State's traditional appropriation system of water rights by permitting a certain class of residential landowners to use precipitation that collects on their rooftops.³ Colorado's unique water laws and the statute's passage garnered plenty of national attention in two of the country's largest newspapers and on one of the nation's most listened to radio programs.⁴ These new laws now permit a certain class of Colorado residential landowners to capture precipitation on their property before it collects into the State's groundwater or surface water supply by giving less deference to the water rights doctrine of prior appropriation.⁵ Colorado's new law permitting a certain class of residential landowners to capture rainwater on their property was inevitable and prudently legislated, but the law should have encompassed all residential landowners and not only a certain class of such residential landowners on the basis of traditional theories of property, social policy, enforceability, and utility.

Part II of this Comment provides a brief historical background concerning classical theories of property and how such theories apply to Colorado water rights.. Additionally, such theories are discussed in their relation to the recently enacted Colorado law at issue

1. Goldwater, Barry, *Your Show Inbox – Water Quotes*, http://www.9news.com/yourshow/article_fas.aspx?storyid=91152&catid=364 (last updated May 4, 2009).

2. Kirk Johnson, *It's Now Legal to Catch a Raindrop in Colorado*, N.Y. TIMES, June 29, 2009, at A1; Stephanie Simon, *Out West, Catching Raindrops Can Make You an Outlaw*, WALL ST. J., Mar. 25, 2009, at A14.

3. COLO. REV. STAT. §§ 37-90-105(1) and 37-92-602 (2010). These two statutes were enacted as part of 2009 Colo. Sess. Laws S.B. 09-80.

4. See Johnson, *supra* note 2. See Simon, *supra* note 2; *Morning Edition: Water Wars Out West: Keep What You Catch!* (NPR radio broadcast, June 1, 2009), transcript available at <http://www.npr.org/templates/transcript/transcript.php?storyId=104643521>. *The Wall Street Journal* and *The New York Times* rank first and third respectively in highest national newspaper circulation. Tess Stynes, *Journal Keeps No. 1 Ranking*, WALL ST. J., Nov. 2, 2011, at B2. National Public Radio (NPR) "alone reaches more than 20 million listeners, and its daily newsmagazine shows, 'All Things Considered' and 'Morning Edition,' attract a larger audience than any program except Rush Limbaugh's." Samuel G. Freedman, *All Things Considered*, N.Y. TIMES, July 17, 2005, at F18 (Book Review).

5. COLO. REV. STAT. §§ 37-90-105(1) and 37-92-602 (2010).

concerning residential landowners' right to capture precipitation on their property. Furthermore, this section will also provide the reasoning behind Colorado's long accepted standard of appropriation concerning water rights and why Colorado did not adopt a riparian common law water rights standard.

Part III of this Comment will evaluate the legislative history and reasoning behind Colorado's residential precipitation capture laws and provide a response to the criticism of those opposing the new laws. Part III also includes a cost-benefit analysis concerning the new laws that will help explain in part why the State of Colorado decided to enact such laws. Part IV then examines how Colorado's neighboring states treat precipitation capture.

Part V's portion of this Comment will focus on why Colorado's residential precipitation capture laws should be expanded to encompass all residential landowners in the State based on social policy and the bundle of rights associated with land ownership. This argument is substantiated on the grounds that residential landowners should have the right to use land and precipitation that collects on their property as they see fit. Furthermore, Part V will argue why the standard of appropriation can be reconciled with allowing all residential landowners to capture precipitation on their property, and why the liability residential landowners faced under the old law which denied residential landowner the right to capture rainwater on his or her property was impractical, superfluous, and unenforceable. Finally, the remaining portion of Part V sets forth an explanation and argument that despite the laws' positive change, the new laws are inherently difficult to enforce. The argument proceeds to elucidate why the new laws do not adequately address dramatic societal and demographic changes and why residential precipitation capture should encompass all Colorado residential landowners as a means of enforceability and utility.

II. BACKGROUND

Much is written concerning the history and various facets and intricacies of property in general and Colorado water law.⁶ This Comment, therefore, will not give an exhaustive historical examination on property rights or to Colorado water law, but will rather give a brief and cursory overview of both.

Richard Epstein argues, "[p]rivate property has been part of all human societies

6. See RESTATEMENT OF PROP. (1936); JAMES N. CORBRIDGE, JR. & TERESA A. RICE, VRANESH'S COLORADO WATER LAW REVISED EDITION, (1999); John Udem Carlson, *Report to Governor John A. Love On Certain Colorado Water Law Problems*, 50 DENV. U. L. J. 293 (1973); James A. Corbridge, Jr., *Historical Water Use and the Protection of Vested Rights: A Challenge for Colorado Water Law*, 69 U. COLO. L. REV. 503 (1998); Gregory J. Hobbs, *Colorado Water Law: An Historical Overview*, 1 U. DENV. WATER L. REV. 1 (1997); D. Monte Pascoe, *Plans and Studies: The Recent Quest for a Utopia in the Utilization of Colorado's Water Resources*, 55 U. COLO. L. REV. 391, 413-21 (1984); Elizabeth A. Rada, Comment, *Bubb v. Christensen: The Rights of the Private Landowner Yield to the Rights of the Appropriator Under the Colorado Doctrine*, 58 DENV. U. L.J. 825 (1981); Symposium, *A Survey of Colorado Water Law*, 47 DENV. U. L.J. 226 (1970) (as one can surmise from the plethora of resources addressing the issue of water rights in the State of Colorado and throughout the entire western region, it is of little wonder why the University of Denver Sturm College of Law for over a decade has published a law review dedicated solely to water rights issues "that serves as a high-quality forum for the exchange of ideas, information, and legal and policy analyses concerning water law"). The University of Denver Sturm College of Law Water Law Review, *About*, <http://www.law.du.edu/index.php/university-of-denver-water-law-review/about> (last visited Sept. 28, 2009).

since primitive times.”⁷ Property has many meanings within the law but often the word property concerns the “legal relations between persons with respect to a thing.”⁸ Rights to property as defined by the *Restatement (First) of Property* are those “legally enforceable claim[s] of one person against another, that the other shall do a given act or shall not do a given act.”⁹

The common law or traditional approach to property “denies that external things are held in common by mankind and awards ownership of any unowned thing to its first possessor.”¹⁰ The idea of *first in time, first in possession* is encapsulated in a maxim of Roman law, “*qui prior est tempore potior est jure* (who is first in point of time is stronger in right.)”¹¹ Henry Brinklow, simply, yet eloquently, stated that the treatment of property under the common law is: “[f]irst come, first served.”¹² William Blackstone, a renowned English judge, jurist, and professor, argued that property “consists in the free use, enjoyment, and disposal of all [an individual’s] acquisitions, without any control or diminution, save only by the law of the land.”¹³

Despite some limitations to the common law’s treatment of possession as a touchstone to property rights, the principle of possession provides courts “absent a better alternative . . . an attractive starting point, for resolving particular disputes over the ownership of particular things.”¹⁴ The principle of first possession justifies itself because it serves as a means of organization as well as assures and fosters property rights through structured boundaries between individuals.¹⁵ Furthermore, as Epstein argues, the first possession rule by nature is an enduring rule because it resolves competing property interests particularly in disputes between private owners and the state.¹⁶

One of the most well known examples of a starting point for judicial application of the first possessor rule is found in *Pierson v. Post*.¹⁷ The *Pierson* case involved a disputed claim regarding who owned a wild fox — the one who first pursued the fox or the one who killed the fox and took possession of it.¹⁸ The *Pierson* Court concluded that an individual or entity must have more than a mere intention to possess a thing in order to gain title and ownership to it.¹⁹ In *Pierson’s* case, mortally wounding the fox was sufficient for possessory purposes.²⁰

7. RICHARD A. EPSTEIN, *SUPREME NEGLECT* 15 (2008).

8. RESTATEMENT, *supra* note 6.

9. *Id.* at § 1.

10. RICHARD A. EPSTEIN, *TAKINGS: PRIVATE PROPERTY AND THE POWER OF EMINENT DOMAIN* 10 (1985).

11. JESSE DUKEMINIER, JAMES E. KRIER, GREGORY S. ALEXANDER & MICHAEL H. SCHILL, *PROPERTY* 3 (6th ed. 2006).

12. *Id.*

13. POLLY J. PRICE, *PROPERTY RIGHTS: RIGHTS AND LIBERTIES UNDER THE LAW* 19 (2003). *See also Sir William Blackstone*, BLACKSTONE INSTITUTE, <http://blackstoneinstitute.org/sirwilliamblackstone.html> (last visited Oct. 18, 2009).

14. Richard A. Epstein, *Possession as the Root of Title*, 13 GA. L. REV. 1221, 1222–23 (1979).

15. *Id.* at 1238.

16. *Id.* at 1224.

17. 3 Cai. R. 175 (N.Y. Sup. 1805). Epstein provides an excellent detailed analysis of *Pierson* and the principle of first possession. Epstein, *supra* note 14, at 1224–25.

18. 3 Cai. R. 175 (N.Y. Sup. 1805).

19. *Id.*

20. *Id.*

A. *The Unique Nature of Water as Property*

The traditional approach to property rights recognizes the “trinity of exclusive possession, use, and disposition . . . as forming the core of private property that lies at the center of organized social life.”²¹ Water rights are considered property rights.²² However, as vital a resource and valuable a property water is in Colorado, water has “no higher or more protected status than any other sort of property.”²³ It is, therefore, understandable that “[p]roperty rights to land are more readily defined and enforced because it is possible to survey lines and record boundaries.”²⁴ This is because “[m]obile resources such as . . . water . . . are more difficult to bring under the property rights umbrella.”²⁵ The quandary of determining water rights is that their “effective use . . . requires that many people share it at one time.”²⁶ Therefore, “the basic systems of water rights all seek some balance among consumption, navigation, recreation, and fishing.”²⁷ It is no surprise then that “[t]he law constantly speaks of correlative and reasonable uses, never absolute and exclusive dominion.”²⁸ As a result of the unique property characteristics of water, some even argue that water rights claims under the Takings Clause of the United States Constitution will become much more commonplace in the future.²⁹

Property rights hold a fundamental place within the United States Constitution because of “historical antecedents in state constitutions and natural rights philosophy.”³⁰ Property rights had such special importance within American society essentially from its inception because “every state constitution was based on the idea that the purpose of government was to preserve natural rights to ‘life, liberty, and property.’”³¹ James Madison, who helped write the United States Constitution, believed that government’s purpose was to ensure and safekeep the enjoyment of citizens’ property rights.³² However, despite property rights being considered of special importance within the United States as embodied in its Constitution, property rights are not without limitation.³³

B. *The First Possession Rule’s Application to Water Rights*

Richard Epstein argues that “[t]he notion of exclusive possession . . . is implicit in

21. EPSTEIN, *supra* note 7, at 1.

22. Joseph L. Sax, *The Constitution, Property Rights and the Future of Water Law*, 61 U. COLO. L. REV. 257, 260 (1990).

23. *Id.*

24. TERRY L. ANDERSON & LAURA E. HUGGINS, *PROPERTY RIGHTS: A PRACTICAL GUIDE TO FREEDOM & PROSPERITY* 39 (2003).

25. *Id.*

26. EPSTEIN, *supra* note 7, at 16.

27. *Id.*

28. *Id.*

29. PRICE, *supra* note 13, at 174.

30. *Id.* at 3.

31. *Id.*

32. *Id.*

33. U.S. CONST. art. IV, § 3(2); U.S. CONST. amend. V; U.S. CONST. amend. XIV, § 1; PRICE, *supra* note 13, at 3.

the basic conception of private property”³⁴ Epstein asserts that “[t]he first-possession rule leaves each thing with a determinate owner”³⁵ Epstein thus, articulates that over time society is “better off if the surplus in things remains well defined with a single owner, than if each and every owner surrenders some of what he has acquired in exchange for the right to some portion of the surplus of [property] acquired by others.”³⁶

Epstein, furthermore, wrote “[t]he parallels between water law and the first-possession rule to land . . . gives a baseline for analysis that provides a clear foundation . . . and is largely impervious to political manipulation.”³⁷ That said, the nation’s high court determined in *California v. United States* that “except where the reserved rights or navigation servitude of the United States is invoked, the State has total authority over its internal waters.”³⁸

The United States Supreme Court prior to its *California v. United States* decision held that it is within a state’s prerogative to “determine for itself whether the common law rule in respect to riparian rights or that doctrine which obtains in the arid regions of the West of the appropriation of waters . . . shall control. Congress cannot enforce either rule upon any state.”³⁹ Furthermore, the United States Supreme Court in the early 1900s did not consider a landowner’s right to water to be on par with protections afforded by the United States Constitution to real estate.⁴⁰

C. *The Origin of the Prior Appropriation Doctrine*

The appropriation model was “first used in Utah and California and ha[s] some antecedents in Roman law”⁴¹ The State of Colorado, like Utah and most western states, did not adopt the common law’s riparian approach to water rights, but instead adopted an appropriation system of water rights, which greatly differs from the common law’s riparian model.⁴² The appropriation standard’s “basic principle is that the person who first appropriates (captures) water and puts it to reasonable and beneficial use has a right [greater than] later appropriators.”⁴³ A water rights system of appropriation “quantifies the amount of water taken and establishes priorities to available water among users according to when their appropriation was established.”⁴⁴ Colorado utilizes an

34. EPSTEIN, *supra* note 10, at 63.

35. Richard A. Epstein, *The Utilitarian Foundations of Natural Law*, 12 HARV. J.L. & PUB. POLICY 713, 732 (1989). See also RICHARD A. EPSTEIN, PRINCIPLES FOR A FREE SOCIETY: RECONCILING INDIVIDUAL LIBERTY WITH THE COMMON GOOD 27 (1998).

36. *Id.*

37. EPSTEIN, *supra* note 10, at 70.

38. 438 U.S. 645, 662 (1978).

39. *Kansas v. Colorado*, 206 U.S. 46, 94 (1907).

40. PRICE, *supra* note 13, at 174–75 (citing *Hudson Co. Water Co. v. McCarter*, 209 U.S. 349, 356 (1908)).

41. DALE A. OESTERLE & RICHARD B. COLLINS, THE COLORADO STATE CONSTITUTION: A REFERENCE GUIDE 339 (2002). Some of the earliest individuals to adopt certain prior appropriation principles were Mormon pioneers who settled various parts of the West, and in particular, what eventually became the State of Utah. See 1 WELLS A. HUTCHINS, WATER RIGHTS IN THE NINETEEN WESTERN STATES 163 (2004); DAVID M. GILLIAN & THOMAS CAPNOR BROWN, INSTREAM FLOW PROTECTION: SEEKING A BALANCE IN WESTERN WATER USE 25 (1997).

42. DUKEMINIER ET AL., *supra* note 11, at 34.

43. *Id.* at 34–35.

44. CORBRIDGE & RICE, *supra* note 6, at 1.

appropriation system because of “the limited availability of water”⁴⁵ in the State, as generally no more than fifteen inches of precipitation falls annually.⁴⁶ In comparison, states east of Colorado, such as Minnesota and Georgia receive forty-six and sixty-six inches of annual rain, respectively.⁴⁷ Because little rain falls within Colorado, the State must rely on snowmelt runoff as its principal water source.⁴⁸ Colorado also adopted the appropriation standard because violence, including gunfights, and the dynamiting of dams was commonplace in its frontier days as miners, ranchers, and farmers vehemently fought over the valued resource.⁴⁹ To this day, various entities continue to duke it out over available water rights within Colorado.⁵⁰ As municipalities continue to grow, water disputes should only intensify.⁵¹ The doctrine of prior appropriation, however, is not infallible or without its shortcomings “even if it makes more productive use of water.”⁵²

Colorado also uses the standard of appropriation because eighteen states and the nation of Mexico rely on part of the State’s water supply.⁵³ The states that rely on Colorado water are situated both east, west, north, and south of the State.⁵⁴ Obvious states that rely on Colorado water include Arizona, California, Nevada, New Mexico, Utah, and Wyoming.⁵⁵ There are, however, states that one may not easily suspect as needing Colorado water, such as Arkansas, Iowa, Kansas, Kentucky, Louisiana,

45. *Id.* at 3.

46. *Id.*

47. EDELLA SCHLAGER, PROPERTY RIGHTS, WATER AND CONFLICT IN THE WESTERN U.S. IN CHANGING PROPERTIES OF PROPERTY 293 (Franz von Benda-Beckmann et al. eds., 2006) (citing *Precipitation Maps of the Western US*, WESTERN REGIONAL CLIMATE CENTER 2001, <http://www.wrcc.dri.edu/pcpn/> (last visited October 2005)).

48. CORBRIDGE & RICE, *supra* note 6, at 3.

49. *Id.* at 7.

50. See Stephanie Simon, *Oil, Water Are Volatile Mix in West*, WALL ST. J., Mar. 19, 2009, at A3 (Simon addresses the increasing amount of control energy companies are currently obtaining within the State of Colorado as they seek to extract oil and natural gas from shale that requires vast amounts of water; environmental groups such as the Western Resource Advocates adamantly oppose such allocation of water, because it believes limited State water resources should be allocated towards growing municipalities, households, and preserving wildlife). The process of oil and natural gas extraction from shale may become an even more attractive option for energy companies in Colorado and elsewhere as a result of the 2010 Deepwater Horizon oil spill in the Gulf of Mexico. See *Morning Edition: Smaller Oil Firms Fear Regulation Backlash In Gulf* (NPR radio broadcast, July 7, 2010), transcript available at <http://www.npr.org/templates/transcript/transcript.php?storyId=128269353>. The popularity of oil extraction from shale is seen in Weld County, a sparsely populated area in northern Colorado, and is viewed by some as a much-needed economic energizer. See Steve Raabe, *Oil-boom Hopes: New Drilling Method May Mean Economic Boost for NE Colo.*, DENV. POST, Aug. 1, 2010, at 1K. There remains an ongoing debate, however, at both the state and national level concerning the shale extraction process. See Mark Jaffe, *Inside Look at Fracking*, DENV. POST, Nov. 20, 2011, at 1K; Tom Bearden, *Tracking Energy Booms, Busts, and the Rise of the ‘Fracking’ Debate*, PBS NEWSHOUR (June 15, 2011), http://www.pbs.org/newshour/updates/science/jan-june11/fracking_06-15.html; *Drilling Down Series*, N.Y. TIMES, http://www.nytimes.com/interactive/us/DRILLING_DOWN_SERIES.html (last visited Oct. 13, 2011). Additionally, there is also another water battle brewing in Colorado concerning who may use waterways within the state for river rafting and other recreational pursuits as two competing principles — the Colorado constitutional right for public use of waterways versus the private ownership interests of riverbeds and banks are at odds. See *Morning Edition: Rafters Push For ‘Right to Float’ in Colorado*, (NPR radio broadcast, July 22, 2010), transcript available at <http://www.npr.org/templates/transcript/transcript.php?storyId=128619563>.

51. *Id.*

52. EPSTEIN, *supra* note 35, at 265.

53. Marsha Looper, *Message from Marsha: Colorado Water – 101 ...*, http://www.gomarsha.org/messages/message_2007sep10.pdf (posted Sept. 10, 2007).

54. *Id.*

55. *Id.*

Mississippi, Missouri, Nebraska, Oklahoma, Tennessee, and Texas.⁵⁶ The main water sources serving each of the aforementioned states and Mexico include the Platte, Arkansas, and Rio Grande Rivers that head eastward as well as the Colorado River that winds to the west.⁵⁷

1. The Colorado Constitutional Standard of Appropriation

The scarcity of water and the conflicts that sprung from such scarcity led to Article XVI's passage into the Colorado Constitution.⁵⁸ Article XVI includes Section 5, which addresses water rights.⁵⁹ Article XVI, Section 5 of the Colorado Constitution planted the appropriation standard deep within Colorado jurisprudence.⁶⁰ The State of Colorado implemented Section 5 of Article XVI as a means of fostering societal peace and economic growth within the State over how water would be used and allocated.⁶¹ Section 5 of Article XVI remains unchanged today from its 1876 adoption into the Colorado Constitution.⁶² The article declares "[t]he 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."⁶³ The system of appropriation requires parties seeking a water right in Colorado to show "[t]he concurrence of intent and overt acts [to a water right] . . . and [that] the date on which the first step is taken [toward appropriation] determines the date of appropriation."⁶⁴ Additionally, one must make beneficial use of such water in order to obtain an appropriated right to it.⁶⁵

The standard of appropriation as adopted by the Colorado Constitution and statutory law applies to more than rivers and streams within the State.⁶⁶ It required all residential landowners within the State up until the 2009 passage of Colorado Senate Bill 09-80 to let precipitation, which fell on their residential property, to become part of the

56. *Id.*

57. *Id.* Unfortunately, the Colorado River is stressed to the point that much of the time no water remains once the river reaches the Pacific Ocean; the river is also becoming increasingly polluted. See *Marketplace*, 'Downstream, Death of the Mighty Colorado', (American Public Media radio broadcast, July 23, 2010) transcript available at <http://marketplace.publicradio.org/display/web/2010/07/23/pm-downstream-death-of-the-mighty-colorado/>. The Colorado River's depleted condition and the ensuing ramifications of the problem is further discussed in *Water Worries: The Drying of the West*, *ECONOMIST*, Jan. 29, 2011, at 32. However, the Colorado River may have received some much needed replenishment "[t]hanks to a blizzard-filled winter [in 2011] and an unusually cold and wet spring, [where] more than 90 measuring sites from Montana to New Mexico and California to Colorado ha[d] record snowpack totals on the ground for late May, according to a federal report" Kirk Johnson & Jesse McKinley, *Record Snowpacks Could Pose Threat To Western States*, *N.Y. TIMES*, May 22, 2011, at A15.

58. COLO. CONST. art. XVI.

59. COLO. CONST. art. XVI; CORBRIDGE & RICE, *supra* note 6, at 7.

60. COLO. CONST. art. XVI; CORBRIDGE & RICE, *supra* note 6, at 7.

61. CORBRIDGE & RICE, *supra* note 6, at 7.

62. COLO. CONST. art. XVI, § 5. If one examines a copy of Article XVI, Section 5 in an 1876 copy of the Colorado Constitution and a current copy of Article XVI, Section 5 in the Colorado Constitution, the language is identical. 1876 *State Constitution*, COLORADO STATE GOVERNMENT ARCHIVES, <http://www.colorado.gov/dpa/doit/archives/constitution/1876.pdf> (last updated Apr. 24, 2001).

63. COLO. CONST. art. XVI, § 5.

64. *City of Thornton v. City of Ft. Collins*, 830 P.2d 915, 924–25 (Colo. 1992).

65. Rada, *supra* note 6, at 828.

66. COLO. REV. STAT. § 37-92-102 (2008); 2009 Colo. Sess. Laws S.B. 09-80; Johnson, *supra* note 2, at A1.

general water supply while barring its use or storage.⁶⁷

The appropriation system in most aspects as adopted by the Colorado Constitution has been consistently upheld as the water rights standard in Colorado court decisions.⁶⁸ The landmark decision of *Coffin v. Left Hand Ditch, Co.* in 1882 thoroughly entrenched the Colorado Constitution's appropriation standard within the State.⁶⁹ In *Coffin*, the Colorado Supreme Court held that the common law doctrine permitting land owners under the riparian water rights doctrine entitlement to the natural flow of a river abutting his or her land as unenforceable in the State of Colorado.⁷⁰ The *Coffin* Court upheld the doctrine of appropriation and determined that minus statutory language stating otherwise, those who first appropriate water and make a beneficial use of such water have superior claim to such water even if the water emanates from the land of another.⁷¹

A short time following the *Coffin* decision, "all eight Rocky Mountain states had judicially and/or statutorily recognized the Colorado doctrine."⁷² Colorado courts do not deviate in recognizing and enforcing the appropriation standard within the State as the Colorado Supreme Court, in one of its most modern opinions concerning water rights, held that "no person 'owns' Colorado's . . . water resource as a result of land ownership."⁷³

D. Colorado Senate Bill 09-80

When the Colorado legislature enacted Senate Bill 09-80, permitting a certain class of residential landowners to capture rainwater on their property, the State deviated somewhat from its system of appropriation.⁷⁴ The new provision found in the 2009 Colorado Digest of Bills for Water and Irrigation:

[a]uthorizes the collection of precipitation from the roof of a building that is primarily used as a residence and is not served by a domestic water system serving more than 3 single-family dwellings, if the water collected is used for: Fire protection; The watering of poultry, domestic animals, and livestock on farms and ranches; The irrigation of not over one acre of gardens and lawns; or Ordinary household purposes.⁷⁵

Nevertheless, Colorado's new laws are not without limitation concerning how residential landowners may use precipitation that collects on their rooftops.⁷⁶ Part of the

67. 2009 Colo. Sess. Laws S.B. 09-80; COLO. REV. STAT. §§ 37-90-105(1) and 37-92-602 (2010); Johnson, *supra* note 2, at A1.

68. *Black v. Taylor*, 264 P.2d 502 (Colo. 1953); *Comstock v. Larimer & Weld Reservoir Co.*, 145 P. 700 (Colo. 1914); *Oppenlander v. Left-Hand Ditch Co.*, 31 P. 854 (Colo. 1892); *Combs v. Agricultural Ditch Co.*, 28 P. 966 (Colo. 1892); *Strickley v. City of Colorado Springs*, 26 P. 313 (Colo. 1891); *Farmers' High Line Canal & R. Co. v. Southworth*, 21 P. 1028 (Colo. 1889); *Fuller v. Swan River Placer Min. Co.*, 19 P. 836 (Colo. 1888); *Sieber v. Frink*, 2 P. 901 (Colo. 1884) (holding in all cases that the doctrine of appropriation applies to both surface waters and groundwater in the State of Colorado).

69. 6 Colo. 443, 447 (1882).

70. *Id.*

71. *Id.*

72. CORBRIDGE & RICE, *supra* note 6, at 9.

73. *Chatfield East Well Co., Ltd. v. Chatfield East Prop.*, 956 P.2d 1260, 1268 (Colo. 1998).

74. COLO. REV. STAT. § 37-92-102 (2008). Prior to the passage of Colorado Senate Bill 09-80, this statute provided no exception for a class-based residential landowner precipitation capture on such property. *Id.*

75. *Digest of Bills – 2009: Water and Irrigation*, COLORADO GENERAL ASSEMBLY, http://www.state.co.us/gov_dir/leg_dir/olls/digest2009a/WATERANDIRRIGATION.htm (last visited June 22, 2010).

76. *Id.*

new law “[r]estricts use of rooftop precipitation capture systems to persons having or legally entitled to have an exempt or small capacity well.”⁷⁷ The new law also “[s]ubjects such systems to any limitations on use that are or would be contained in the small capacity or exempt well permit.”⁷⁸ In addition, the change in law “[r]ecognizes the authority of the board of a ground water management district to impose rules further restricting the use of rooftop precipitation capture systems.”⁷⁹

Neither is the change in law as simple as installing a bucket on one’s roof, waiting for the next snow or rain storm to come along, and then collecting the water on one’s property from such storms.⁸⁰ Before a storm arrives, Colorado residential landowners who are in the permitted class to collect precipitation on their property must first “file an application in the form and manner specified by the state engineer and, unless the applicant has a current well permit or is applying for a new well permit, pay a fee in an amount to be determined by the state engineer.”⁸¹ Furthermore, under Colorado’s recently enacted residential precipitation capture standard, those applying for precipitation capture permits who are not served by a well, must go through an evaluation process conducted by the Division of Water Resources to determine their eligibility to capture precipitation on their property.⁸²

Once the application is approved, the law further subjugates Colorado residential landowners capturing precipitation on their property to monitoring by state engineers to ensure “compliance with rooftop precipitation capture laws and regulations.”⁸³ The new law also “[a]uthorizes the state engineer and division engineers to issue orders to enforce rooftop precipitation capture laws.”⁸⁴ How exactly the permitted class of residential landowners can violate the new law is unclear but “when . . . [state and division engineers] orders are violated, . . . the state engineer, through the state attorney general, [may] seek an injunction or a fine of up to \$500 for each violation”⁸⁵

III. LEGISLATIVE HISTORY & ANALYSIS OF COLORADO PRECIPITATION CAPTURE LAW

Colorado’s recently enacted residential precipitation capture bill quickly made its way through the legislative process.⁸⁶ The bill originated in the Colorado Senate on January 13, 2009, and within six months became law.⁸⁷ The Senate amended the bill in February 2009⁸⁸ and subsequently passed it by a vote of 34-0-1 in the same month and

77. *Id.*

78. *Id.*

79. *Id.*

80. *Id.* Colorado residential landowners who are permitted to capture precipitation on their property must comply with various rules and regulations prior to installing any type of precipitation capture device — whether it be a bucket, cistern, or a small pail. *Id.*

81. *Id.*

82. Colorado Legislative Council, *State Fiscal Impact* (Jan. 17, 2009).

83. *Digest of Bills – 2009*, *supra* note 75.

84. *Id.*

85. *Id.*

86. *Summarized History for Bill Number SB09-080*, COLORADO GENERAL ASSEMBLY, http://www.leg.state.co.us/Clics/CLICS2009A/csl.nsf/fsbillcont3/49D4349AC4A73794872575370071F5D4?Open&file=080_01.pdf (last visited Oct. 18, 2009).

87. *Id.*

88. *2009 First Regular Legislature Session of the Sixty-Seventh General Assembly Bills Signed by*

year.⁸⁹ The House introduced the bill in March 2009⁹⁰ and the House passed it following a vote of 62-0-3 within twenty days.⁹¹ The Senate evaluated the House's amendments on April 1, 2009,⁹² before Colorado Governor Bill Ritter signed the bill into law on April 22, 2009, making its effective date July 1, 2009.⁹³ Since early August 2009, thirteen Colorado residential property owners, mostly from rural regions of the state, have applied for precipitation capture permits.⁹⁴

Before enacting the State's recent residential precipitation capture laws, the State passed Colorado Senate Bill 119 that called for a study and analysis of one Colorado county's water supply.⁹⁵ The study helped influence the State Engineers Office, the Colorado Water Conservation Office, and some vested water owners to loosen the State's blanket prohibition against residential precipitation capture.⁹⁶ The study aimed to examine how precipitation rates affect available water supplies, the monetary savings residential landowners could attain through precipitation capture on their properties, and the affect precipitation capture could have on existing residential housing developments.⁹⁷ The study indicated that much of the precipitation falling within the State was either evaporating or being absorbed by plant life.⁹⁸ The study also found that within Northwest Douglas County and aggregated to the State of Colorado as a whole, "residents are faced with a declining nonrenewable groundwater supply and limited options for renewable water supplies."⁹⁹ This declining groundwater supply finding is critical as nearly a fifth of Colorado's population depends on water emanating from wells with 70% of such well users needing the water for household and domestic purposes.¹⁰⁰

The study further found that within Douglas County precipitation capture would help alleviate outdoor water supply constraints by 75%, including reducing stress on non-tributary aquifers, which serve as major sources for irrigation and fire fighting.¹⁰¹ The study's results played a major role in granting a limited right to residential precipitation capture within Colorado as the State's lawmakers and many of its water owners recognized the faulty judgment of zealously enforcing laws and policies that discouraged and outlawed a substantiated beneficial practice.¹⁰²

Governor, COLORADO CATTLEMEN'S ASSOCIATION [hereinafter COLORADO CATTLEMEN'S ASSOCIATION], http://www.coloradocattle.org/CMDocs/ColoradoCattlemen/Legislation/Signed_5-11.pdf (last visited Oct. 18, 2009).

89. *Final Status Report 2009 Legislation – Colorado General Assembly*, COLORADO CLIMATE PROJECT [hereinafter *Final Status Report 2009*], www.rockymountainclimate.org/.../2009%20Leg%20final%202009-05-11.pdf (last visited Oct. 18, 2009).

90. COLORADO CATTLEMEN'S ASSOCIATION, *supra* note 88.

91. *Final Status Report 2009*, *supra* note 89.

92. COLORADO CATTLEMEN'S ASSOCIATION, *supra* note 88.

93. 2009 Colo. Sess. Laws S.B. 09-80; COLORADO CATTLEMEN'S ASSOCIATION, *supra* note 88.

94. John Ingold, *Rain Law Wetting Appetites*, DENV. POST, Aug. 5, 2009, at 1B.

95. E-mail from Rep. Marsha Looper, Colo. St. Rep., Colo. Dist. 19 (Nov. 12, 2009, 1:57 p.m. CST) (copy on file with *Tulsa Law Review*).

96. E-mail from Rep. Marsha Looper, *supra* note 95; Leonard Rice Engrs, Inc. et al., *Holistic Approach to Sustainable Water Management in Northwest Douglas County* (2007).

97. Leonard Rice Engrs, Inc. et al., *supra* note 96, at 1.

98. E-mail from Rep. Marsha Looper, *supra* note 95.

99. Leonard Rice Engrs, Inc. et al., *supra* note 96, at 1.

100. Looper, *supra* note 53.

101. Leonard Rice Engrs, Inc. et al., *supra* note 96, at 1–2.

102. Looper, *supra* note 95.

State Sen. Chris Romer and State Rep. Marsha Looper played instrumental roles in the passage of Colorado laws permitting limited residential precipitation capture.¹⁰³ Looper wrote various messages to her constituents about the benefits of precipitation capture and her desire to see some type of precipitation capture law passed within the State of Colorado.¹⁰⁴ Looper, one of the chief legislators behind Colorado's new residential precipitation capture laws argues that Colorado could save as much as 60% in "treated water and energy costs if [Colorado] use[s] . . ."¹⁰⁵ precipitation capture for landscaping and recreational needs.¹⁰⁶ Looper also argues that permitting precipitation capture will alleviate strain on essential municipal and rural water supplies.¹⁰⁷ Looper further argues that permitting residential precipitation capture will also ease the burden on the State's aquifers in addition to increasing the lifespan of them.¹⁰⁸

Romer's previous attempt to pass precipitation capture legislation failed.¹⁰⁹ Concerning the failed first attempt Romer said, "[i]t was stunning to me that this common-sense thing couldn't be done."¹¹⁰ Nevertheless, two laws addressing the issue of residential precipitation capture passed this time around, thanks in part to a study that determined 97% of rainwater never reaches a body of water and residential landowners who rely on wells often find them barren due to drought.¹¹¹

A. Responding to Antagonism of Colorado Residential Precipitation Capture

Despite the findings of the aforementioned study and the benefits Looper argues for, the State of Colorado's official Web page provides a document addressing frequently asked questions about the new residential precipitation capture standard in an attempt to justify its limitation on who can capture precipitation.¹¹² One question within the document addresses what is an ordinary household use of water.¹¹³ The State asserts that watering a garden does not constitute an ordinary household use, and therefore, those outside of the permitted class of residential landowners entitled to precipitation capture are barred from using collected precipitation to water their own plants.¹¹⁴ Such an assertion by the State defies logic: if rain or other precipitation falls directly on a residential landowner's garden, then the landowner can receive the benefit, but if it falls 100 feet away on his or her roof, he or she is barred from using such water for the

103. Nicholas Riccardi, *Who Owns Colorado's Rain Water?*, L.A. TIMES, Mar. 18, 2009, at A13.

104. Marsha Looper, *Message from Marsha: Let It Rain...*, [hereinafter Looper, *Let It Rain*], http://www.gomarsha.org/messages/message_2009mar02.pdf (posted Mar. 2, 2009); Marsha Looper, *Message from Marsha: Rainwater Harvesting. Its Time is Come!*, [hereinafter Looper, *Rainwater Harvesting*], http://www.gomarsha.org/messages/message_2008jun17.pdf (posted June 17, 2008).

105. Looper, *Rainwater Harvesting*, *supra* note 104.

106. *Id.*

107. *Id.*

108. Looper, *Let It Rain*, *supra* note 104.

109. Riccardi, *supra* note 103.

110. *Id.*

111. COLO. REV. STAT. § 37-90-105 (2009); Riccardi, *supra* note 103; Leonard Rice Engrs, Inc. et al., *supra* note 96, at 46.

112. *Rainwater Collection in Colorado*, STATE OF COLORADO, <http://water.state.co.us/pubs/pdf/RainWaterBills.pdf> (last visited Nov. 8, 2009).

113. *Id.*

114. *Id.*

garden.¹¹⁵

Another question asks, “I’m trying to conserve and cut back on the use from my water supplier, am I allowed to collect precipitation for watering my landscaping and to fill a decorative pond?”¹¹⁶ The State’s answer is an emphatic no.¹¹⁷ The State’s reasoning, at best paternalistic, at worst draconian, is simply, “because you receive your water supply through a tap from a water supplier, you may not collect precipitation at all.”¹¹⁸

Opponents of residential precipitation capture argue that such an exception will deplete available water resources within the State, which in turn will violate appropriated water rights.¹¹⁹ One state engineer and critic of residential precipitation capture argued, “[i]f I decide to [take rainwater] in 2009, somewhere, maybe 100 miles downstream, there’s a water right that outdates me by 100 years that’s losing water”¹²⁰ However, despite such fears, in 2007, a multiple Colorado water district “hydrology study . . . found that just 3% of the rain falling on undeveloped land makes it back into the stream system in a dry year, compared with 15% in a wet year.”¹²¹ The number is higher in developed areas because of storm water drainage.¹²² Nevertheless, “in an average year, 97[%] of the precipitation that fell in Douglas County, near Denver, never got anywhere near a stream.”¹²³

These findings greatly substantiate the argument that residential landowners should be able to capture precipitation on their properties and such findings should be carefully considered by the Colorado legislature as it continues to grapple with this issue in the future.¹²⁴ One can, therefore, rationally assert that broadening Colorado’s residential precipitation capture standard is tolerable under the standard of appropriation because “there is no injury to the vested [water] rights of others.”¹²⁵

IV. HOW COLORADO’S NEIGHBORING STATES TREAT PRECIPITATION CAPTURE

Colorado’s nearby states of Arizona, California, New Mexico, and Utah, continue to rely upon the doctrine of appropriation, at least partly, in their jurisdictions’ treatments of water rights.¹²⁶ Utah statutory law until 2010 determined that “[n]o appropriation of water may be made and no rights to the use thereof initiated and no notice of intent to appropriate shall be recognized except application for such appropriation first be made to the state engineer in the manner . . . provided, and not otherwise.”¹²⁷ The State of Utah

115. *Id.*

116. *Id.*

117. STATE OF COLORADO, *supra* note 112.

118. *Id.*

119. Riccardi, *supra* note 103.

120. *Id.*

121. Simon, *supra* note 2.

122. *Id.*

123. Johnson, *supra* note 2, at A14. See also Leonard Rice Engrs, Inc. et al., *supra* note 96, at 46.

124. Johnson, *supra* note 2; Simon, *supra* note 2.

125. CORBRIDGE & RICE, *supra* note 6, at 58.

126. ARIZ. REV. STAT. ANN. § 45-151(a) (West 2003); CAL. WATER CODE §§ 1200-1201 (West 2009); N.M. STAT. § 72-1-2 (2009); UTAH CODE ANN. § 73-3-1 (West 2009).

127. *Id.* Utah’s law was by far the most restrictive in the states that make use of the appropriation doctrine as prior to 2010 “powerful forces [were] determined to continue limiting access to precipitation” as evidenced by

loosened its restrictive limits on precipitation capture in May 2010, and now permits all of its residential landowners to capture limited amounts of rainwater on their properties provided they register with the Utah Division of Water Rights — which can be done with relative ease on the department's Web site.¹²⁸ California, however, does not constitutionally or statutorily determine all water as being appropriated.¹²⁹ An example of non-appropriated water in California includes water that “has ceased to be put to some useful or beneficial purpose.”¹³⁰ Colorado statutory law, in comparison, provides little exception to the standard of appropriation.¹³¹

Various cities in appropriation states bordering Colorado such as Tucson, Arizona and Santa Fe, New Mexico, require or strongly encourage new residential developments to implement or install some type of rain capture system on rooftops.¹³² Other “cities outside Colorado are encouraging rain harvesting through tax credits, rain-barrel subsidies, even building codes that require rain-catching cisterns . . .”¹³³ such as “[i]n Texas, [where] up to \$40,000 in rebates [are] available to businesses that install collection systems.”¹³⁴ Moving forward, Colorado would be wise to evaluate and implement incentives and programs encouraging residential rain capture.¹³⁵

The State of Texas publishes a manual on rainwater capture that is available to the public.¹³⁶ The manual “serves as a primer on the basics of residential and small-scale commercial rainwater harvesting systems design [and] is intended to serve as a first step in considering options for constructing a rainwater harvesting system or implementing a harvesting program.”¹³⁷ These state and municipal endorsed precipitation capture programs in Arizona, New Mexico, and Texas should not be ignored by the State of

a 2009 bill on Utah's legislative floor, which would have loosened the precipitation capture standard within the state. Simon, *supra* note 2. The bill, however, never gained steam and flamed out in early 2009. *Id.* Limited residential precipitation capture became law in Utah, however, in 2010 when “Utah policymakers [finally recognized] that [a ban on] something as simple as collecting minimal amounts of rainwater was overly cumbersome . . .” O'Donoghue, *infra* note 128, at B7.

128. See Amy Joi O'Donoghue, *When It Rains, It Stores: More Utahns Collect Water*, DESERET NEWS, July 1, 2010, at B1, B7. See also UTAH CODE ANN. § 73-3-1.5 (West 2010); *Rainwater Harvesting Registration*, UTAH DIVISION OF WATER RIGHTS, <http://waterrights.utah.gov/forms/rainwater.asp> (last visited July 2, 2010).

129. CAL. WATER CODE § 1202 (West 2009).

130. *Id.* at § 1202(b).

131. COLO. REV. STAT. § 37-82-101 (2008).

132. Johnson, *supra* note 2. The City of Los Angeles, California is another municipality that “is encouraging residents to recycle rainwater to prevent runoff from polluting the ocean. The city also wants to impose fees on developers who fail to utilize the rain” by not planning for and including precipitation capture mechanisms within certain development projects. *Marketplace Morning Report: L.A. Recycles Rain to Protect Its Ocean* (American Public Media radio broadcast, Apr. 12, 2010), transcript available at <http://marketplace.publicradio.org/display/web/2010/04/12/am-la-recycles-rain-protect-ocean/>. The city is even providing some residents with precipitation capture devices such as a 55-gallon barrel that at least one resident uses on her property. *Id.* On the east coast, multiple cities are using precipitation capture mechanisms to curb pollution and other undesired effects associated with storm runoff. See *Trees Grow in Brooklyn*, ECONOMIST, Nov. 13, 2010, at 39. See also Emily Bobrow, *Let It Pour*, ECONOMIST: THE WORLD IN 2011, 2010, at 50.

133. Simon, *supra* note 2.

134. Leora Broydo Vestel, *The Legalities of Rainwater Harvesting*, N.Y. TIMES GREEN BLOG (June 29, 2009, 9:18 AM), <http://greeninc.blogs.nytimes.com/2009/06/29/the-legalities-of-rainwater-harvesting/>.

135. *Id.*

136. *Texas Manual on Rainwater Harvesting*, TEXAS WATER DEVELOPMENT BOARD (3d. ed. 2005), http://www.twdb.state.tx.us/publications/reports/RainwaterHarvestingManual_3rdedition.pdf.

137. *Rainwater Harvesting Documents*, TEXAS WATER DEVELOPMENT BOARD, <http://www.twdb.state.tx.us/iwt/rainwater/docs.html> (last updated Aug. 25, 2009).

Colorado.¹³⁸ Considering that much of Arizona, New Mexico, and Texas receive very similar amounts of precipitation as Colorado with annual rainfall in Tucson, Arizona, at just over eleven inches, near eight inches in New Mexico, and in parts of southwestern Texas less than eight inches on average, Colorado lacks sufficient justification to not permit each residential landowner the right to capture precipitation on his or her residential properties.¹³⁹

V. THE ARGUMENT TO BROADEN COLORADO'S RESIDENTIAL PRECIPITATION CAPTURE STANDARD

In 2003, the Colorado Division of Water Resources published a directive on rain harvesting for the State.¹⁴⁰ The directive determines in part:

[r]ainwater harvesting is the process of intercepting storm-water runoff and putting it to beneficial use. Rainwater is usually collected or harvested from rooftops, concrete patios, driveways and other impervious surfaces. The diversion and use of rainwater is subject to the Constitution of the State of Colorado, state statutes, and case law.¹⁴¹

The popularity of rain capture or rain harvesting is increasing.¹⁴² Such popularity is shown by the tremendous growth experienced by groups such as the American Rainwater Catchment Systems Association, which advocates greater rain capture from companies and individuals while seeing its membership bloom from 100 to 600 members in two years.¹⁴³ Rain harvesters such as Brad Lancaster have books espousing the societal and household benefits of precipitation capture while giving practical guidance on developing one's own precipitation capture system.¹⁴⁴ Capturing and storing

138. *In Your Yard*, CITY OF ALBUQUERQUE, <http://www.cabq.gov/albuquerquegreen/greenguide/in-your-yard-1> (last visited Oct. 19, 2009); *Texas Manual on Rainwater Harvesting*, *supra* note 136; *Tucson Water—Rain Water Harvesting*, CITY OF TUCSON, <http://www.ci.tucson.az.us/water/harvesting.htm> (last updated June 4, 2009).

139. *Annual Texas Rainfall*, <http://web2.airmail.net/danb1/annualrainfall.htm> (last visited Oct. 19, 2009); *Climate of New Mexico*, NEW MEXICO STATE UNIVERSITY, <http://weather.nmsu.edu/News/climate-in-NM.htm> (last visited Oct. 19, 2009); *Tucson Arizona Climate, Environment, Average Rainfall, Average Temperatures*, TUCSON NEWCOMERS GUIDE, <http://www.tucsonnewcomer.com/features/environment.html> (last visited Oct. 19, 2009).

140. *Graywater Systems and Rain Harvesting in Colorado*, COLORADO DIVISION OF WATER RESOURCES (Apr. 2003), <http://water.state.co.us/pubs/policies/waterharvesting.pdf>.

141. *Id.*

142. Simon, *supra* note 2.

143. Simon, *supra* note 2. Organizations such as the American Rainwater Catchment Systems Association are seeking

to promote rainwater catchment systems in the United States. [Their] memberships consist of professionals working in city, state, and federal government, academia, manufacturers and suppliers of rainwater harvesting equipment, consultants, and other interested individuals. ARCSA's core objectives are as follows: To promote rainwater catchment systems through meetings and seminars, To provide networking between people with experience in rainwater catchment systems and those who might need technical or professional assistance in developing or building such systems, [t]o provide a forum for discussion of new methods, techniques, and materials pertaining to rainwater catchment systems, [t]o develop informal publications to assist in the design and use of rainwater catchment systems, and [t]o establish acceptable treatment methods for harvested rainwater.

About ARCSA, AMERICAN RAINWATER CATCHMENT SYSTEMS ASSOCIATION, <http://www.arcsa.org/about.html> (last visited Sept. 28, 2009). Such groups should play a pivotal role in states considering allowing rain capture on residential properties and could prove influential in broadening the law in the State of Colorado in the future. Simon, *supra* note 2.

144. BRAD LANCASTER, *RAINWATER HARVESTING FOR DRYLANDS AND BEYOND* (VOL. 1): GUIDING

precipitation on one's residential property has many uses including for "evaporative coolers, toilet flushing, car washing, chlorinated swimming pools, and surface irrigation, especially in food gardens."¹⁴⁵ There are multiple benefits to precipitation capture on residential properties including the reduction to flood risk, erosion, and surface water contamination.¹⁴⁶ Precipitation capture on residential property serves as a free and natural water source for landscaping while using water that contains "no chemicals such as fluoride and chlorine, and no dissolved salts and minerals from the soil."¹⁴⁷ Furthermore, residential precipitation capture may possibly lower a residential property owner's water costs while furthering conservation efforts.¹⁴⁸ Each of the aforementioned benefits appear to be highly compelling arguments as to why Colorado should extend its residential precipitation capture standard to include all residential property owners.¹⁴⁹

Colorado's new laws permitting a class of its residential landowners to capture rainwater on their residential property appears to be in lockstep with this growing trend of precipitation capture.¹⁵⁰ The City of San Diego's encouragement of precipitation capture is another example.¹⁵¹ On its official government website, the City of San Diego states that "this ancient practice [of precipitation capture] is currently growing in popularity throughout our communities due to interest in reducing the consumption of potable water and the inherent qualities of rainwater."¹⁵²

Colorado's new laws, like the City of San Diego's encouragement of precipitation capture, took away some of the impracticality, superfluosity, and unenforceability of forbidding residential landowners from capturing rainwater on his or her property.¹⁵³ Legislatures should, however, broaden these new laws to include all residential landowners within the state. Precipitation capture plans in the cities of San Diego, Santa Fe, and Tucson, serve as excellent models for Colorado's consideration.¹⁵⁴

A. Residential Precipitation Capture & the Property Owner's Bundle of Rights

Colorado should free the restraints constraining residential precipitation capture laws and expand them in the spirit of the bundle of rights or "*bundle of entitlements*" associated with land ownership.¹⁵⁵ These rights include "the privilege to use the property, the right to exclude others, . . . and immunity from having the property taken or

PRINCIPLES TO WELCOME RAIN INTO LIFE AND LANDSCAPE (2006); BRAD LANCASTER, RAINWATER HARVESTING FOR DRYLANDS AND BEYOND (VOL. 2): WATER-HARVESTING EARTHWORKS (2007).

145. Joe Gelt, *Graywater and Rainwater Use*, UNIVERSITY OF ARIZONA: WATER SOURCES RESEARCH CENTER, <http://ag.arizona.edu/AZWATER/arroyo/071rain.html> (last visited Oct. 19, 2009).

146. *Rain Harvesting Information*, CITY OF SAN DIEGO WATER DEPARTMENT, <http://www.sandiego.gov/water/conservation/rainwater.shtml> (last visited Oct. 17, 2009).

147. *Id.*

148. *Id.*

149. *Id.*

150. COLO. REV. STAT. §§ 37-90-105(1), 37-92-602 (2009).

151. *Rain Harvesting Information*, *supra* note 146.

152. *Id.*

153. COLO. REV. STAT. §§ 37-90-105(1), 37-92-602 (2009). As explained earlier in the body of this Comment, the previous precipitation capture standard in the State of Colorado permitted no one to collect water on his or her property — a highly impractical and unenforceable standard. COLO. REV. STAT. § 37-92-102 (2008).

154. Vestel, *supra* note 134.

155. JOSEPH W. SINGER, PROPERTY LAW RULES, POLICIES, AND PRACTICES xlv (3d ed. 2002).

damaged without . . . consent.”¹⁵⁶ Richard Epstein considers the right to exclude others from one’s property a serious one because it forcefully establishes a property owner’s interests to the property against its non-owners who have few or no interests at all to such property.¹⁵⁷

Another foundational basis behind the concept of American property rights is that “[o]wners are generally free to use their property as they wish, but they are not free to harm their neighbors’ property substantially and unreasonably.”¹⁵⁸ Joseph W. Singer argues “[g]ranteeing owners power over property ensures that they all can obtain resources to satisfy human needs.”¹⁵⁹ Well-defined property rights “also promotes social welfare by encouraging productive activity and by granting security to those who invest in economic projects.”¹⁶⁰ Furthermore, Singer argues that property laws work best when they “promote efficiency and social welfare by decreasing the costs of using and obtaining property while maximizing [property’s] benefits both to individual owners and to society as a whole.”¹⁶¹ Thus, making Colorado’s precipitation capture laws broader to encompass all residential landowners will “encourag[e] productive activity”¹⁶² concerning the use of precipitation on one’s residential property and “promote efficiency”¹⁶³ within the State, thus reducing budgetary resources required to ensure compliance with antiquated standards that now apply only to a certain class of residential landowners.¹⁶⁴

B. Residential Precipitation Capture & Appropriated Water — Friend or Foe?

The State of Colorado did not write its residential precipitation capture law broader than as enacted¹⁶⁵ because of the State’s appropriation standard.¹⁶⁶ Broadening Colorado’s residential precipitation capture standard can arguably comply with the State’s constitutional standard of appropriation.¹⁶⁷ Precipitation falling from the sky cannot logically be defined as being already appropriated under the Colorado Constitution.¹⁶⁸ It would appear that permitting all residential landowners the right to capture precipitation on their properties complies with “the constitutional provision that the right to divert and beneficially use unappropriated water ‘shall never be denied’”¹⁶⁹

Precipitation capture on residential property of water that falls from the sky before

156. *Id.* at xlv–xlvi.

157. EPSTEIN, *supra* note 7, at 19.

158. SINGER, *supra* note 155, at xlvii.

159. *Id.* at 1.

160. *Id.*

161. *Id.*

162. *Id.*

163. SINGER, *supra* note 155, at 1.

164. *Id.* The Colorado precipitation capture standard requires a tremendous amount of oversight by state engineers in enforcing the policy. *Digest of Bills – 2009*, *supra* note 75. Broadening the precipitation capture standard as argued in this Comment could do away with much unnecessary administration. *Id.*

165. *Id.*

166. COLO. CONST. art. XVI; COLO. REV. STAT. § 37-92-102 (2008).

167. COLO. CONST. art. XVI, § 6; Symposium, *supra* note 6, at 234.

168. COLO. CONST. art. XVI, § 6.

169. Symposium, *supra* note 6, at 234 (quoting COLO. CONST. art. XVI, § 6).

becoming part of a ground or surface water supply, therefore, is unappropriated water that could be diverted under Colorado's standard of appropriation.¹⁷⁰ Capturing precipitation would constitute a diversion of water because diverting water within the State does not necessarily have to be the result of "an actual, physical diversion of water from a stream"¹⁷¹ Colorado residential landowners would arguably have an acquired legal water right to precipitation capture as "there [would] be a taking of the [precipitation] water and an application to beneficial use."¹⁷² Furthermore, Colorado residential landowners, who capture rainwater on their properties would be in compliance with the inherent principle behind appropriation, that being *first in time, first in right*, because they would be first to claim title to such water that would not be part of an already appropriated water source such as a stream or well.¹⁷³

The beneficial uses residential landowners would contribute if permitted to capture precipitation on their property include reduced domestic and municipal water usage for landscaping, washing, wildlife, and other household uses.¹⁷⁴ Water needed for landscaping alone accounts for up to 50% of household water use.¹⁷⁵ Residential precipitation capture could also serve as a beneficial use of water to curb erosion¹⁷⁶ and problems associated with heavy rains and flooding predicted to plague the Western states in coming years.¹⁷⁷

C. Colorado's Residential Precipitation Capture Laws' Inherent Unenforceability

Colorado's new laws are still arguably unenforceable because they permit only a certain class of residential landowners to capture precipitation while excluding others.¹⁷⁸ Addressing and enforcing rights to natural resources that are mobile in nature, such as water, are more challenging than immobile real property such as boundary lines to land parcels.¹⁷⁹ Inherently, enforcing water rights is substantially more expensive "when it is

170. *Id.*

171. *Id.* at 235 (citing *Denver v. Northern Colo. Water Conservation Dist.*, 276 P.2d 992, 998 (Colo. 1954)).

172. *Id.* (citing *Bd. of Com'rs of Jefferson Co. v. Rocky Mountain Water Co.*, 79 P.2d 373, 378 (Colo. 1938)).

173. PRICE, *supra* note 13, at 173.

174. *Rainwater Harvesting: Rainwater Basics*, AGRILIFE EXTENSION: TEXAS A&M UNIVERSITY, <http://rainwaterharvesting.tamu.edu/rainwaterbasics.html> (last visited Nov. 8, 2009).

175. *Id.*

176. *Id.*

177. See THE ROCKY MOUNTAIN CLIMATE ORGANIZATION, NATIONAL PARKS IN PERIL, 18 (2009), available at <http://www.rockymountainclimate.org/website%20pictures/National-Parks-In-Peril-final.pdf>. According to researchers at Stanford University, the Western United States may also be in for some intense heat within the next two decades — particularly between "2030 to 2039, [where] most areas of Utah, Colorado, Arizona and New Mexico could endure at least seven seasons equally as intense as the hottest season ever recorded between 1951 and 1999" Mark Schwartz, *Heat Waves and Extremely High Temperatures Could Be Commonplace In the U.S. by 2039, Stanford Study Finds*, STANFORD REPORT, July 8, 2010, <http://news.stanford.edu/news/2010/july/extreme-heat-study-070810.html>. Hopefully, increased rainfall amounts and flooding that may confront Colorado and the West in the future will not be comparable to what the arid climate of Pakistan faced in the summer of 2010. See Salman Masood, *Pakistan Struggles to Deal with Latest Crisis as Floods Kill at Least 800*, N.Y. TIMES, Aug. 1, 2010, at A6; Salman Masood, *Monsoon Rains Continue in Flood-Ravaged Pakistan*, N.Y. TIMES (Aug. 9, 2010) www.nytimes.com/2010/08/10/world/asia/10pstan.html; Salman Masood & Kevin Drew, *Pakistan Straining to Cope with Floods, U.N. Says*, N.Y. TIMES (Aug. 10, 2010) www.nytimes.com/2010/08/11/world/asia/11pstan.html.

178. COLO. REV. STAT. §§ 37-90-105(1), 37-92-602 (2009).

179. ANDERSON & HUGGINS, *supra* note 24, at 39.

flowing through time and space . . .”¹⁸⁰ than after it is “captured and stored . . .”¹⁸¹ Property rights and laws protecting such rights are limited in their effectiveness because they are nearly impossible to enforce.¹⁸² Generally, the government acts as the traditional and least expensive enforcer of property rights, “but it is naïve to assume that government . . . is always the optimal solution.”¹⁸³ This is especially true in light of Colorado’s “brutal” budget cuts the State will experience because of an enormous fall in 2009 tax revenues.¹⁸⁴ Recent estimates place the Colorado budget as \$1 billion short.¹⁸⁵ Budget cuts facing Colorado include funds to its state prisons.¹⁸⁶ Even some of Colorado’s convicted criminals were released early from prison as a result of the State’s cash strapped status.¹⁸⁷ In November 2009, Colorado’s governor proposed cuts of \$260 million to education and a new \$132 million tax on soft drinks, candy, and online sales to make up some of the State’s budgetary shortfall.¹⁸⁸ State officials, however, should be concerned about the successful likelihood of future tax increases in light of the City of Boulder voting against a proposed tax hike since Boulder is one of Colorado’s more tax friendly municipalities.¹⁸⁹ Furthermore, State of Colorado employees will face slashed salaries and the State’s universities will see a reduction of \$56 million in available funding come 2010.¹⁹⁰ These budget cuts are so serious in nature that the State is considering allowing its citizens to amend Colorado’s Constitution in 2012.¹⁹¹ The vote would address whether to overturn a constitutional provision enacted in 1992 requiring voter approval of tax increases.¹⁹²

As a result of such budgetary constraints facing Colorado, the allocation of state budget monies to enforce an antiquated rule barring most residential landowners from capturing precipitation on their properties trickles down to harm the indigent of Colorado as resources that could be spent tackling such issues as education, community health, and

180. *Id.* at 40.

181. *Id.*

182. *Id.* at 3.

183. *Id.*

184. Tim Hoover, “Brutal” Budget Cuts Loom, *DENV. POST*, June 12, 2009, at 1A. This article notes that Colorado’s state budget could be \$150 million to \$300 million less than expected. *Id.* At the onset of 2011, Colorado and its recently elected governor, John Hickenlooper faced a budgetary shortfall of close to \$1.5 billion. *All Things Considered*, “Teflon” Governor Must Tackle Colo.’s Budget Shortfall, (NPR radio broadcast, Jan. 12, 2011), transcript available at <http://www.npr.org/templates/transcript/transcript.php?storyId=132805670>. See also *All Things Considered*, Governors Prepare For State Of The State, (NPR radio broadcast, Jan. 30, 2011), transcript available at <http://www.npr.org/2011/01/30/133354593/Governors-Prepare-For-State-Of-The-State>.

185. ASSOC. PRESS, *In Colorado, Plan to Fill Budget Gap*, *N.Y. TIMES*, Nov. 8, 2009, at A33.

186. Hoover, *supra* note 184.

187. Lynn Bartels, *Budget Salvos Signal Storms Ahead Gov. Ritter’s List of Cuts Brings a Testy Exchange Between Party Pals*, *DENV. POST*, Oct. 30, 2009, at 3B.

188. ASSOC. PRESS, *supra* note 185. An example of the plight facing public education in the State of Colorado is found in the Denver public school system, which finds itself in peril following an investment plan that was supposed to significantly boost its budget but has since gone awry. See Gretchen Morgenson, *Exotic Deals Put Denver Schools Deeper in Debt*, *N.Y. TIMES*, Aug. 6, at A1.

189. Editorial, *Voters Aren’t in Mood for Taxes*, *DENV. POST*, Nov. 6, 2009, at 10B.

190. *Id.*

191. Tim Hoover, *A Panel Recommends Giving Voters the Chance to Amend the State Constitution in 2012*, *DENV. POST*, Nov. 5, 2009, at 1B.

192. *Id.*

homelessness initiatives are allocated to enforce arcane water law regulations.¹⁹³ If cuts to education, prisons, community health, and new consumption based taxes are not disconcerting enough, even State infrastructure is not immune from a Colorado budgetary trim down — including bridge maintenance.¹⁹⁴ This is especially unsettling as a recent federal study indicated that 17% of Colorado's bridges are "structurally deficient or functionally obsolete."¹⁹⁵ In addition, the study also found the condition of 32% of Colorado's roads was either average or poor.¹⁹⁶ The study concluded that "bad roads are costly as well as dangerous . . ."¹⁹⁷ For instance, roads and bridges in disrepair lead to shorter vehicle life and increased repair and maintenance expenses, which costs individual motorists on average \$335 annually in the United States.¹⁹⁸

Therefore, permitting all residential landowners to capture precipitation on their properties could lessen some monitoring costs and strain on the state budget associated with ensuring compliance with precipitation capture standards and household water costs, especially in residential landscaping.¹⁹⁹ With the State of Colorado as one of the top ten states in foreclosure rates,²⁰⁰ reducing any type of cost associated with land

193. Jessica Fender, *Colorado Budget Cuts Will Hurt Indigent Most, Some Say*, DENV. POST, Aug. 20, 2009, at 1B. For a detailed look at the homelessness problem in Colorado's capital city of Denver see Jeremy P. Meyer, *Search for a Solution to Denver's Homelessness Street Battle*, DENV. POST, Nov. 27, 2011, at 1A.

194. Editorial, *Budgeting By a Thousand Cuts*, DENV. POST, Dec. 22, 2008, at 23A.

195. TRIP, *Key Facts About Colorado's Road and Bridge Conditions and Federal Funding*, (May 2009), http://www.tripnet.org/Fact_Sheet_CO.pdf.

196. *Id.* Additionally, because of budgetary deficits confronting Colorado Springs, Colo., "the city [has] switched off a third of its 24,512 streetlights to save money on electricity . . ." Michael Cooper, *Governments Go to Extremes as the Downturn Wears On*, N.Y. TIMES, Aug. 7, 2010, at A1. Thus "the downturn [in one Colorado city] will be remembered, quite literally, as a dark age . . ." as many feel that crime and other dangers have been some of the unintended consequences to turning off streetlights to save precious public dollars. *Id.*

197. *All Things Considered, Golden State Highways Are a California Nightmare* (NPR radio broadcast, Nov. 23, 2009), transcript available at <http://www.npr.org/templates/transcript/transcript.php?storyId=120585057>. Although, this radio broadcast focused in particular on California's roadways, much of the story's findings are important to Colorado because the organization, TRIP who NPR interviewed extensively during this broadcast also conducted a study on Colorado's roadways and bridges in May 2009. TRIP, *supra* note 195.

198. *Id.* Interestingly, "83% of the land area of the continental U.S. is [within a mile] of a road." Jesse R. Barber, Kevin R. Crooks & Kurt M. Fristrup, *The Costs of Chronic Noise Exposure for Terrestrial Organisms*, 25 TRENDS IN ECOLOGY & EVOLUTION 180, 182 (Mar. 2010). See also Jeff Rice, *Western Soundscapes: Noise (Part 3)*, (KUER radio broadcast, July 7, 2010) audio available at <http://www.publicbroadcasting.net/kuer/news.newsmain/article/0/0/1671809/KUER.Local.News/Western>.

Soundscapes.Noise.%28part.3%29. Conversely, many urban cities plan to remove various roadways and such efforts are facing skepticism by many citizens who think fewer roadways will mean greater traffic congestion even though proponents argue that reducing roadways in urban centers will actually reduce traffic congestion and make cities more aesthetically pleasing. See *Marketplace: Some Cities Want Fewer Roadways, Not More*, (American Public Radio radio broadcast, July 14, 2010), transcript available at <http://marketplace.publicradio.org/display/web/2010/07/14/pm-some-cities-want-less-roadways-not-more>.

Furthermore, some municipalities are ditching paved asphalt roadways for inexpensive gravel amid budget cuts and voter opposition to raising taxes. Lauren Etter, *Roads to Ruin: Towns Rip Up the Pavement*, WALL ST. J., July 17, 2010, at A1.

199. COLO. REV. STAT. §§ 37-90-105(1), 37-92-602 (2010) (Colorado law provides for the authorization of state engineers to monitor compliance with precipitation capture on residential properties; although, some oversight by state engineers and other agencies authorized by law to ensure compliance with established water law in Colorado could be needed, permitting all residential landowners to capture precipitation on their properties could ease household costs currently facing Coloradoans). Creatively, some residential property owners in the Phoenix metropolitan area now spray their lawns with green paint rather than fight a losing battle against the scorching sun and high water costs. Marc Lacey, *Spraying to Make Yards Green ... But With Paint, Not Water*, N.Y. TIMES, Apr. 10, 2011, at A1.

200. See Alex Veiga, *Homes Lost to Foreclosure On Track for 1M in 2010*, ASSOC. PRESS, July 15, 2010, available at http://news.yahoo.com/s/ap/20100715/ap_on_bi_ge/us_foreclosure_rates/print.

ownership would be particularly helpful to the State's residential landowners as home values remain volatile²⁰¹ despite some slow recovery.²⁰² This is important even though the Federal Reserve recently indicated that it does not intend to raise interest rates in the foreseeable future²⁰³ as the economy seeks to drag itself out of the abyss of a recession,²⁰⁴ endures a rollercoaster ride on Wall Street,²⁰⁵ and seeks solutions to its

201. See Nick Timiraos & Robbie Whelan, *Housing Market Stumbles*, WALL ST. J., July 21, 2010, at A1; Christine Hauser, *Mortgage Delays Blamed For Home Sales Decline*, N.Y. TIMES, June 23, 2010, at B3; David Streitfeld & Javier C. Hernandez, *Home Prices May Be Nearing a New Dip*, N.Y. TIMES, Nov. 25, 2009, at B1. Additionally, there appears to be an excess of supply as it relates to the demand for homes even though interest rates remain low. *Morning Edition, Shadow Housing Inventory Stalls Economic Recovery*, (NPR radio broadcast, Aug. 2, 2010), transcript available at <http://www.npr.org/templates/story/story.php?storyId=128923334>. There is little movement in the housing market even in light of some of the lowest mortgage rates seen in decades that do not appear to be going up any time soon. See Alan Zibel, *Mortgage Rates Dip Below 4 Pct. on 15-Year Loans*, ASSOC. PRESS, Aug. 5, 2010, available at http://news.yahoo.com/s/ap/20100805/ap_on_bi_ge/us_mortgage_rates/print; *Morning Edition, Mortgage Rates Should Remain Low for Some Time*, (NPR radio broadcast, Aug. 6, 2010), transcript available at <http://www.npr.org/templates/story/story.php?storyId=129021148>.

202. Margaret Jackson, *Metro Home Resales Decline, But Prices Up From a Year Ago*, DENV. POST, Nov. 7, 2009, at 9B; *Marketplace, Has Housing Market Still Not Hit Bottom?* (American Public Media radio broadcast, Oct. 27, 2009), transcript available at <http://marketplace.publicradio.org/display/web/2009/10/27/pm-housing-prices/>.

203. See Sewell Chan, *Fed Move on Debt Signals Concern About Economy*, N.Y. TIMES, Aug. 11, 2010, at A1; Sudeep Reddy, *Fed Weighs Stimulus If Outlook Worsens*, WALL ST. J., July 15, 2010, at A4; Edmund L. Andrews, *Fed Signals Any Increase in Interest Rate Is Far Away*, N.Y. TIMES, Nov. 5, 2009, at B1.

204. See Editorial, *As the Economy Slows*, N.Y. TIMES, Aug. 9, 2010, at A18; Editorial, *Help Needed for the Economy*, N.Y. TIMES, July 4, 2010, at WK6; Miriam Jordan, *Recession's Pain Reaches Deep Into Work Force*, WALL ST. J., June 30, 2010, at A2; Edmund L. Andrews, *Fed Views Recession as Near End*, N.Y. TIMES, Aug. 13, 2009, at A1. For many, it feels like the recession continues notwithstanding some GDP and other economic growth. See Ann Zimmerman, *Shoppers Unable to Trade Back Up*, WALL ST. J., Oct. 4, 2011, at B1; Hannah Karp, *How Tough Are Times? Parents Cut Back Diapers*, WALL ST. J., Oct. 4, 2011, at B1; Catherine Rampell, *Why It Still Feels Like a Recession*, N.Y. TIMES ECONOMIX BLOG (Aug. 2, 2010, 5:24 PM), <http://economix.blogs.nytimes.com/2010/08/02/why-it-still-feels-like-a-recession/>. Furthermore, the recovery may take years with gains being much less than needed as has been the case following each recession since the 1970s. *All Things Considered, History Repeating: Weaker Economic Recoveries*, (NPR radio broadcast, July 8, 2010), transcript available at <http://www.npr.org/templates/transcript/transcript.php?storyId=128385152>. In July 2010, Ben Bernanke, chairman of the Federal Reserve, indicated, that unemployment will remain 7% or greater through 2010. Sewell Chan, *No Fed Plans to Give More Support, Bernanke Says*, N.Y. TIMES, July 22, 2010, at B1. Additionally, even the affluent have joined the masses as they tighten their belts in light of the uncertain economic environment currently confronting the United States. See Motoko Rich, *Wealthy Reduce Buying in a Blow to the Recovery*, N.Y. TIMES, July 17, at A1. The new big fear is that of deflation, and its effects could be devastating. See Sewell Chan, *Within the Fed, Worries of Deflation*, N.Y. TIMES, July 30, 2010, at B1; William Greider, *Deflation, Not Deficit, Is the Real Threat*, THE NATION, July 30, 2010, available at <http://www.thenation.com/article/38063/deflation-not-deficit-real-threat>; Gregory Zuckerman, *Big Investors Fear Deflation*, WALL ST. J., Aug. 2, 2010, at C1; *All Things Considered, More Economists Cite Concerns Over Deflation*, (NPR radio broadcast, Aug. 2010), transcript available at <http://www.npr.org/templates/story/story.php?storyId=128936438>. For an interesting look at why deflation is so worrisome see *All Things Considered, Examining the Risks of Deflation*, (NPR radio broadcast, Aug. 2, 2010), transcript available at <http://www.npr.org/templates/story/story.php?storyId=128936434>. There is some debate amongst economic experts on the likelihood of a deflation threat. See Nelson D. Schwartz, *2 Top Economists Differ Sharply on Risk of Deflation*, N.Y. TIMES, Aug. 6, 2010, at B1.

205. See Christine Hauser, *Stocks Soar on Central Banks' Move; Skeptics Doubt a Lasting Rally*, N.Y. TIMES, Dec. 1, 2011, at B1; Matt Phillips & Brendan Conway, *Black Friday Leads to Green Monday*, WALL ST. J., Nov. 29, 2011, at C1; Jonathan Cheng & Brendan Conway, *Panel's Failure Sinks Stocks*, WALL ST. J., Nov. 22, 2011, at C1; Jonathan Cheng, *Banks Behind a Late Swoon*, WALL ST. J., Nov. 17, 2011, at C4; Jonathan Cheng & Steven Russolillo, *Dow Continues Comeback After Midweek Dive*, WALL ST. J., Nov. 12, 2011, at B4; Steven Russolillo, *Stocks Occupy Positive Terrain*, WALL ST. J., Nov. 11, 2011, at C4; Jonathan Cheng, *Stocks Color the Day in Red*, WALL ST. J., Nov. 10, 2011, at C1; Jonathan Cheng, *Stocks Up Big On Ben*, WALL ST. J., Nov. 3, 2011, at C1; Steven Russolillo, *Dow Sinks 276 Points*, WALL ST. J., Nov. 2, 2011, at C1; Jonathan Cheng & Brendan Conway, *Dow at 12208, Boosted by Deal*, WALL ST. J., Oct. 28, 2011, at C1;

highest unemployment numbers in almost three decades.²⁰⁶

Jonathan Cheng, *Stocks Jump on Europe Hopes*, WALL ST. J., Oct. 27, 2011, at C5; Steven Russolillo, *Earnings, Europe Derail Stocks*, WALL ST. J., Oct. 26, 2011, at C4; Jonathan Cheng & Steven Russ, *Brighter Mood Buys Dow Rally*, WALL ST. J., Oct. 22, 2011, at C1; Steven Russolillo, *A Volatile Session Ends With Stocks Up*, WALL ST. J., Oct. 19, 2011, at C4; Jonathan Cheng & Brendan Conway, *Stocks Slide Back Into Red*, WALL ST. J., Oct. 18, 2011, at C1; Tom Lauricella & Gregory Zuckerman, *Traders Warn of Market Cracks*, WALL ST. J., Oct. 18, 2011, at A1; Jonathan Cheng, *Optimism Drives Dow's 'Stocktober'*, WALL ST. J., Oct. 13, 2011, at C4; Jonathan Cheng & Steven Russolillo, *Rally Has Legs: Dow Up 330.06*, WALL ST. J., Oct. 11, 2011, at C1; E.S. Browning, *Volatile Market Sends a Warning*, WALL ST. J., Oct. 10, 2011, at A1; Jonathan Cheng & Steven Russolillo, *Stocks Claw Back Against the Bear*, WALL ST. J., Oct. 5, 2011, at C1; E.S. Browning, *Market Nears Bear Territory*, WALL ST. J., Oct. 4, 2011, at A1; Tom Lauricella, *Spooked Investors Seek Safety*, WALL ST. J., Oct. 3, 2011, at C1; Matt Phillips, Min Zeng & Al Yoon, *Fed Twist Prompts Markets to Turn*, WALL ST. J., Sept. 22, 2011, at C1; Steven Russolillo, *Week Ends on a Positive*, WALL ST. J., Aug. 13, 2011, at B1; Tom Lauricella, *Stocks Swing Up in Wild Week*, WALL ST. J., Aug. 12, 2011, at A1; Tom Lauricella, Matt Phillips & David Enrich, *Stocks Dive Again on Europe, Economy Fears*, WALL ST. J., Aug. 11, 2011, at A1; Sudeep Reddy & Jonathan Cheng, *Markets Sink then Soar After Fed Speaks*, WALL ST. J., Aug. 10, 2011, at A1; E.S. Browning, *Downgrade Ignites a Global Selloff*, WALL ST. J., Aug. 9, 2011, at A1; Jonathan Cheng, *Dow Loses Grip on the Year's Gains*, WALL ST. J., Aug. 12, 2010, at C1; Jonathan Cheng & Kristina Peterson, *Stocks Build on July's Momentum*, WALL ST. J., Aug. 3, 2010, at C1; Christine Hauser, *Markets Sharply Higher on Earnings*, N.Y. TIMES, July 23, 2010, at B1; Donna Kardos Yesalavich & Steven Russolillo, *Optimism Fades, as Do Stocks*, WALL ST. J., July 17, 2010, at B1; Donna Kardos Yesalavich, *Best Week in a Year for Dow, Up 511 Points*, WALL ST. J., July 10, 2010, at B1; Jonathan Cheng, *Dow's Surge: 452.51 Points in 3 Days*, WALL ST. J., July 9, 2010, at C1; Graham Bowley, *Markets See Biggest Rally Since May*, N.Y. TIMES, July 8, 2010, at B1; Jonathan Cheng, *Dow Roars Past 10000 Again*, WALL ST. J., July 8, 2010, at C1; Christine Hauser, *U.S. Stocks Drop on New Jitters About Global Growth*, N.Y. TIMES, June 30, 2010, at B1; Jon Hilsenrath & Mark Whitehouse, *Fear of a Stall Hits Market*, WALL ST. J., June 30, 2010, at A1; Susan G. Kim, *Markets Rebound, Rising Almost 3%*, N.Y. TIMES, June 11, 2010, at B7; Susan G. Kim, *BP Concerns Drag Down Other Stocks*, N.Y. TIMES, June 10, 2010, at B1; Christine Hauser, *U.S. Indexes Fall Sharply on Jobs Data*, N.Y. TIMES, June 5, 2010, at B1; Geoffrey Rogow & Peter A. McKay, *US Stocks In Narrow Range as Consumer Companies Gain*, MARKET WATCH (Nov. 6, 2009), available at <http://www.marketwatch.com/story/us-stocks-in-narrow-range-as-consumer-companies-gain-2009-11-06>; Javier C. Hernandez, *Stocks Tumble on Consumer Weakness; Dow Down 2.5%*, N.Y. TIMES, Oct. 31, 2009, at B1.

206. See Ben Casselman, *Economy Adds Jobs, but Not Enough*, WALL ST. J., Oct. 8, 2011, at A1; David Leonhardt, *Broader Measure of Unemployment Stands at 17.5%*, N.Y. TIMES, Nov. 7, 2009, at A1; Peter S. Goodman, *Unemployment Rate Rises to 10.2%, Offering Little Reassurance to Job Seekers*, N.Y. TIMES, Nov. 7, 2009, at B1; Editorial, *Jobless Recovery*, N.Y. TIMES, Nov. 8, 2009, at WK7; see also Jordan, *supra* note 204. A large majority of those who are unemployed have been without a job for periods of time not seen since World War II. David Leonhardt, *For Those With Jobs, A Recession With Benefits*, N.Y. TIMES, Aug. 11, at B1. Despite the enormity of the recession, the unemployed "ha[ve] been concentrated among a surprisingly small number of people . . ." *Id.* Unfortunately, despite some job gains in recent months, many have few if any job prospects—even those who have received specialized training with enhanced critical skills. See Peter S. Goodman, *After Job Training, Still Scrambling for Employment*, N.Y. TIMES, July 19, 2010, at A1; Michael Luo, *Frustration and Despair as Job Search Drags On*, N.Y. TIMES, July 18, 2010, at A13; see also *Faces—and Fates—of the Jobless*, WALL ST. J., Aug. 9, 2010, at A6. For those who have expended the 99-week limit for unemployment benefits, the situation is even more dire. See Michael Luo, *99 Weeks Later, Jobless Have Only Desperation*, N.Y. TIMES, Aug. 3, 2010, at A1. The limited amount of jobs is evidenced by the May 2010 applicant-to-job ratio of 4.67% as reported by the U.S. Bureau of Labor Statistics. Catherine Rampell, *Job Openings Ratio Little Changed in May*, N.Y. TIMES ECONOMIX BLOG (July 13, 2010, 11:23 AM), <http://economix.blogs.nytimes.com/2010/07/13/job-openings-ratio-little-changed-in-may/>. One group hit particularly hard by dismal job prospects are young men aged 20 to 24 with only high school diplomas; they face an unemployment rate in excess of 22%. Conor Dougherty, *Young Men Suffer Worst as Economy Staggers*, WALL ST. J., Nov. 7, 2011, at B1. There are some employers, however, who are having difficulty finding workers to fill some available positions—even "the kind that sometimes seem to have all but vanished: secure, well-paying jobs with good benefits that don't require a college degree." See Ben Casselman, *Help Wanted: In Unexpected Twist, Some Skilled Jobs Go Begging*, WALL ST. J., Nov. 26, 2011, at A1. Nevertheless, John Harwood's blog post helps shed some light as to why no one seems to be able to definitively articulate the reasons for such long-lasting high unemployment numbers. John Harwood, *Mystery for White House: Where Did the Jobs Go?*, N.Y. TIMES – THE CAUCUS BLOG (July 19, 2010, 12:40 AM), <http://thecaucus.blogs.nytimes.com/2010/07/19/mystery-for-white-house-where-did-the-jobs-go/>. Additionally, it appears that any job gains in the near future will prove difficult as evidenced by low GDP growth in the second quarter of 2010. See Catherine Rampell, *With Recovery Slowing, the Jobs Outlook Dims*, N.Y. TIMES,

Additionally, all of Colorado's residential landowners should be able to capture precipitation on their properties in light of growing concerns over municipal water shortages facing not only the West, but also even historically much wetter climates.²⁰⁷ Such shortages are inducing states, including Arizona, California, Florida, and Texas, to implement plans for turning treated sewage water into safe drinkable water.²⁰⁸ These shortages could be further exacerbated by green technology projects that require an immense amount of water to operate.²⁰⁹ Hopefully, the nation's and State of Colorado's waters resources never become so depleted that water capture from the moon will need anything more than fleeting consideration.²¹⁰

There are even some red flags rising with concern to the quality of the U.S.'s water supply and water systems.²¹¹ Water quality is important because it provides individuals

July 31, 2010, at A1; Conor Dougherty & James R. Hagerty, *Recovery Loses Momentum*, WALL ST. J., July 31, 2010, at A1. The unemployment rate may actually be headed upward and serve as a prolonged, unwelcome houseguest. See Phil Izzo, *Broader U-6 Jobless Rate at 16.5%: May Be Headed Higher*, WALL ST. J. BLOG – REAL TIME ECONOMICS (Aug. 6, 2010, 9:11 AM), <http://blogs.wsj.com/economics/2010/08/06/broader-u-6-jobless-rate-at-165-may-be-headed-higher/>; Nelson D. Schwartz, *Jobless and Staying That Way*, N.Y. TIMES, Aug. 8, 2010, at WK1. For those that had some type of employment in 2009, many saw a significant decrease in the amount of their income. See Phil Izzo, *U.S. Incomes Tumbled in 2009*, WALL ST. J. BLOG – REAL TIME ECONOMICS (Aug. 9, 2010, 12:17 PM), <http://blogs.wsj.com/economics/2010/08/09/us-incomes-tumbled-in-2009/>; see also Conor Dougherty, *Incomes Fall in Most Metro Areas*, WALL ST. J., Aug. 10, 2010, at A2. According to the Commerce Department, Boulder and a large swath of the Denver metropolitan area—two major Colorado regions saw income declines of 5.1 and 4.2% respectively. Izzo, *supra* note 206.

207. Robert Glennon, *Our Water Supply, Down the Drain*, WASH. POST, Aug. 23, 2009, at B2 (the author mentions various water shortages facing various regions within the country including a 2008 shortage in metropolitan Atlanta, the increasingly parch condition of various lakes in Florida, and the troublesome low water level of Lake Superior). The State of California is facing an even more dire situation concerning the availability of water as “after three years of drought, dozens of towns and cities have imposed mandatory water rationing and a half million acres in the country’s agricultural breadbasket are lying fallow.” *60 Minutes: Why California Is Running Dry*, (CBS News television broadcast, Dec. 27, 2009), transcript available at <http://www.cbsnews.com/stories/2009/12/23/60minutes/main6014897.shtml>. For a look at the dangers water shortages present, see Bryan Walsh, *Dying for a Drink*, TIME, Dec. 15, 2008, at 46.

208. Randal C. Archibold, *From Sewage, Added Water for Drinking*, N.Y. TIMES, Nov. 27, 2007, at A29.

209. Todd Woody, *Alternative Energy Projects Stumble on a Need for Water*, N.Y. TIMES, Sept. 30, 2009, at B1 (for example, one solar energy project “revealed that its preferred method of cooling [its] power plants would consume 1.3 billion gallons of water a year, about 20 percent of [a Nevada] desert[’s] . . . available water”).

210. See Kenneth Chang, *Water Found on Moon, Researchers Say*, N.Y. TIMES, Nov. 14, 2009, at A1 (Chang’s article addresses the long held suspicions of astronauts and other scientists about water’s availability on the moon and why they were not surprised at the vast quantity of water recently discovered hundreds of thousands of miles from Earth). There is now debate on how much water — if any exists on the moon or ever did exist there. See Sindya N. Bhanoo, *Observatory: Water on Moon Unlikely, a New Study Indicates*, N.Y. TIMES, Aug. 10, 2010, at D3. Nevertheless, a few months later, NASA issued another report substantiating the claim that water may in fact exist on the moon. Kenneth Chang, *NASA Reports a Moon Oasis, Just a Little Bit Wetter Than the Sahara*, N.Y. TIMES, Oct. 22, 2010, at A20. Furthermore, recent discoveries indicate that there may be thousands of additional planets in the Milky Way — fifty-four of which may even have liquid water. Dennis Overbye, *Hunting the Galaxy for Planets and Finding 1,235 Contenders*, N.Y. TIMES, Feb. 3, 2011, at A1.

211. See Charles Duhigg, *U.S. Bolsters Chemical Restrictions for Water*, N.Y. TIMES, Mar. 23, 2010, at B1; Charles Duhigg, *Saving U.S. Water and Sewer Systems Would Be Costly*, N.Y. TIMES, Mar. 15, 2010, at A1; Charles Duhigg & Janet Roberts, *Rulings Restrict Clean Water Act, Foiling E.P.A.*, N.Y. TIMES, Mar. 1, 2010, at A1; Charles Duhigg, *That Tap Water Is Legal But May Be Unhealthy*, N.Y. TIMES, Dec. 17, 2009, at A1; Charles Duhigg, *Millions in U.S. Drink Dirty Water, Records Show*, N.Y. TIMES, Dec. 8, 2009, at A1; Charles Duhigg, *As Sewers Fill, Waste Poisons Waterways*, N.Y. TIMES, Nov. 23, 2009, at A1; Charles Duhigg, *Some Coal Plants Cleanse the Air at the Expense of Waterways*, N.Y. TIMES, Oct. 13, 2009, at A1; Charles Duhigg, *Health Ills Abound as Farm Runoff Fouls Wells*, N.Y. TIMES, Sept. 18, 2009, at A1; Charles Duhigg, *Toxic Waters – Clean Water Laws Are Neglected at a Cost in Suffering*, N.Y. TIMES, Sept. 13, 2009, at A1; Charles Duhigg, *Debating Just How Much Weed Killer Is Safe in Your Water Glass*, N.Y. TIMES, Aug. 23, 2009, at A1.

and communities with healthy aquatic populations, safe drinking water, and water that may be safely used for recreational purposes.²¹² The EPA states that water quality deterioration limits and restricts water use.²¹³ A water supply of poor quality also leads to expensive treatment to control and mitigate its harmful effects.²¹⁴ Over a decade ago, the private sector spent \$30 billion combating polluted water, and municipalities spent another \$23 billion on the problem.²¹⁵ Thus, from a logical standpoint as water quality concerns appear to be rising,²¹⁶ none of Colorado's residential landowners should be punished for prudently and beneficially making use of precipitation falling on their property, especially if it lessens the burden on municipal water distribution and seeks to alleviate water quality concerns.

1. Colorado Citizen Confusion Concerning State Water Law

An inherent problem Colorado faced in enforcing its previous standard forbidding precipitation capture and one that now permits a certain class of residential landowners to capture precipitation on their property is the State's "wink-and-nod shadow economy."²¹⁷ Within Colorado, one can visit a hardware, home improvement, or gardening store and find "[r]ain equipment . . . legally sold, but [with] retailers [who know] better than to ask what the buyer intend[s] to do with the product."²¹⁸ Today, permitting a certain class of Colorado's residential landowners to capture precipitation on their properties while barring others from doing so creates greater confusion and enforceability problems.²¹⁹

The doctrine of prior appropriation in itself is a perplexing policy that confronts Colorado citizens.²²⁰ Lobbyists like Kevin Bommer do not want residential landowners to be permitted to capture precipitation on their properties and argues that "[e]very drop of water that hits the ground belongs to someone."²²¹ The State Engineers Office, the Colorado Water Conservation Commission, and the majority of vested water owners within the State are hell-bent on the view espoused by those such as Bommer.²²²

All of these articles appeared in a series by *The New York Times* examining the deteriorating condition of America's water supply as well as America's water systems and how regulatory agencies are responding. *Toxic Waters Series*, N.Y. TIMES, <http://projects.nytimes.com/toxic-waters> (last updated Mar. 22, 2010).

212. EPA, *Executive Summary: The Quality of Our Nation's Waters*, 3, 4 (1998), <http://www.epa.gov/305b/98report/execsumm.pdf>.

213. *Id.* at 4.

214. *Id.*

215. *Id.*

216. See *Toxic Water Series*, *supra* note 211.

217. Johnson, *supra* note 2, at A14.

218. *Id.*

219. *Id.*

220. Bob Berwyn, *State's Waters Laws a House of Cards*, SummitDaily.com, <http://www.summitdaily.com/article/20090706/COLUMNS/907069998/1078&ParentProfile=1055> (last updated July 6, 2009). Berwyn not only addresses the confusing nature of Colorado's water laws for the general populace, but also argues that water law power brokers within the State seek to keep water laws as confusing as possible. *Id.* Berwyn opines that Colorado's water laws were made with a "goal . . . to ensure that entrenched interests — a huge conglomeration of lobbyists, lawyers, and water managers — maintain ironclad control. State-run public hearings for permits feature dense legal verbiage and bureaucratic proceedings that make it extremely difficult for the public to participate in a meaningful way." *Id.*

221. Stephen K. Paulson, *New Colorado Laws Affect Water, Health Care*, ASSOC. PRESS, June 29, 2009.

222. E-mail from Rep. Marsha Looper, *supra* note 95.

However, one could legitimately argue that the majority of Colorado residential landowners believes that precipitation falling on their residential property belongs to them.²²³ Therefore, what Bommer and the Colorado legislature fail to understand is the infeasibility of permitting one class of residential landowners to capture precipitation on their property while barring others of such right.²²⁴ This in turn only further confuses Colorado citizens in their struggle to grasp the intricacies of the State's water laws. The confusion Colorado citizens have concerning who or what controls water resources within the State is said well by Rep. Marsha Looper, "[p]eople are shocked that some developer or water provider owns the water that falls out of the sky."²²⁵

Looper's expressed shock that precipitation falling from the sky as already owned under Colorado law is irreconcilable with a traditional underpinning of property law.²²⁶ This traditional underpinning is one that both common and civil law accept as critical for determining who owns what because "the taking of unowned things is the only possible way to acquire ownership of them."²²⁷ Because precipitation falling from the sky has yet to reach surface or ground waters, the argument can be made that those who do capture precipitation on their properties have acquired ownership to such water irrespective of the doctrine of prior appropriation.²²⁸ Such an argument is logical considering that 97% of precipitation falling in Colorado never reaches a body of water.²²⁹

The enforceability problem Colorado continues to face even in light of its new precipitation capture standard is illustrated by the story of Kris Holstrom.²³⁰ Holstrom "fancifully painted 55-gallon buckets underneath the gutters of her farmhouse on a mesa 15 miles from the resort town of Telluride. The barrels catch rain and snowmelt, which Holstrom uses to irrigate the small vegetable garden she and her husband maintain."²³¹ When Holstrom sought official word on if her precipitation capture mechanism was permissible, she contacted "the state water department, which told her it was technically illegal, though it was unlikely that she would be cited."²³² Holstrom's story helps beg the question, why should the State of Colorado continue to place restrictions on precipitation capture on any residential landowner if its law is too cumbersome to enforce?

D. The Utility in Broadening Colorado's Residential Precipitation Capture Laws

Colorado's precipitation capture standard should also be broadened as a means of utility.²³³ Implicit within the legal theory of utilitarianism is the goal of enacting societal laws and policies that "compare the costs and benefits . . ."²³⁴ This is due to the

223. Riccardi, *supra* note 103.

224. COLO. REV. STAT. §§ 37-90-105(1), 37-92-602 (2010).

225. Paulson, *supra* note 221.

226. Epstein, *supra* note 14, at 1221-22.

227. *Id.*

228. COLO. CONST. art. XVI, § 5; Epstein, *supra* note 14, at 1221-22.

229. Riccardi, *supra* note 103; Leonard Rice Engrs, Inc. et al., *supra* note 96, at 46.

230. Riccardi, *supra* note 103.

231. *Id.*

232. *Id.*

233. DAVID A. REIDY, ON THE PHILOSOPHY OF LAW 100 (2007).

234. SINGER, *supra* note 155, at lvi.

principle of utilitarianism that looks to the future concerning the overall impact of laws to “maximize . . . welfare or some other ‘good.’”²³⁵ With regard to a residential precipitation capture standard, the State of Colorado should enact a law that yields the most favorable consequences.²³⁶ Entitling all Colorado residential landowners the right to precipitation capture under the legal theory of utilitarianism could “yield . . . more total . . . value.”²³⁷ Broadening Colorado’s residential precipitation capture standard, therefore, may serve as a “good utilitarian rule [that] advance[s] utility”²³⁸

Colorado’s residential precipitation capture standard must be viewed through the prism of utility because of the consequences such a standard will have on residential landowners’ ability to control and possess their properties fully.²³⁹ Beneficial consequences are what ultimately give any law utility.²⁴⁰ Permitting all of Colorado’s residential landowners the right to capture precipitation on their properties will lead to beneficial consequences.²⁴¹ These beneficial consequences include compliance with traditional ideals of real property ownership by permitting all Colorado residential landowners to use their property as they see fit, and it will afford all residential landowners the same beneficial opportunity and treatment under the law, which in turn, promotes maximum welfare,²⁴² a societal good,²⁴³ and arguably creates “the greatest total or aggregate utility”²⁴⁴

Colorado’s current residential precipitation capture applies only to those who live in rural areas.²⁴⁵ Such an application is alarming from a utility standpoint based on recent statistics indicating that within the United States over “three-fourths of prospective home buyers are now more inclined to live in an urban area”²⁴⁶ The State’s decision to permit only rural Colorado residential landowners the right to precipitation capture fails to recognize this considerable change in American demography.²⁴⁷ In 2007, the average commute time for Americans was twenty-five

235. RAYMOND WACKS, UNDERSTANDING JURISPRUDENCE: AN INTRODUCTION TO LEGAL THEORY 245 (2005).

236. SUSAN DIMOCK, CLASSIC READINGS AND CASES IN THE PHILOSOPHY OF LAW 529 (2007).

237. REIDY, *supra* note 233.

238. Emily Sherwin, *Epstein’s Property*, 19 QUINNIPIAC L. REV. 697, 712 (2000).

239. See SINGER, *supra* note 155, at xlv.

240. DIMOCK, *supra* note 236; Sherwin, *supra* note 238.

241. DIMOCK, *supra* note 236.

242. REIDY, *supra* note 233.

243. EPSTEIN, PRINCIPLES OF A FREE SOCIETY, *supra* note 35, at 13.

244. REIDY, *supra* note 233. See also WACKS, *supra* note 235.

245. COLO. REV. STAT. §§ 37-90-105(1), 37-92-602 (2010).

246. Peter S. Goodman, *Fuel Prices Shift Math for Life in Far Suburbs*, N.Y. TIMES, June 25, 2008, at A18. See also *Marketplace, Museum Takes on Study of Suburban Life*, (American Public Media radio broadcast, July 9, 2010), transcript available at <http://marketplace.publicradio.org/display/web/2010/07/09/pm-museum-takes-on-study-of-suburban-life/>.

247. *Id.* One author, Christopher B. Leinberger, an urban studies professor elaborates on this demographic shift and argues,

[a] structural change is under way in the housing market—a major shift in the way many Americans want to live and work. It has shaped the current downturn, steering some of the worst problems away from cities and toward the suburban fringes. And its effects will be felt more strongly, and more broadly, as the years pass. Its ultimate impact on the suburbs, and the cities, will be profound.

Christopher B. Leinberger, *The Next Slum?*, ATLANTIC, Mar. 2008, at 70, 71. See also Christopher B. Leinberger, *The Death of the Fringe Suburb*, N.Y. TIMES, Nov. 26, 2011, at A19. Leinberger’s view, however,

minutes as the result of the American workforce living further and further from their respective places of employment.²⁴⁸ However, various studies now indicate that suburban and rural housing is an increasingly unpopular option as more than twenty million homes in excess of “a sixth of an acre” could be vacant within the next fifteen years.²⁴⁹

With this demographic shift and with the principle of utility in mind, it appears imprudent that residential precipitation capture applies only to those living in rural areas.²⁵⁰ Furthermore, Colorado will undoubtedly have to broaden its residential precipitation capture standard in the near future as a result of President Barack Obama “[e]ncouraging more people to live in neighborhoods close to their workplaces . . .”²⁵¹ and as the EPA and Department of Housing and Urban Development “us[e] the government’s powers to control land-use and transportation funding to promote ‘energy efficient housing choices.’”²⁵² Such initiatives are also coupled with President Obama’s hopes of cutting carbon emissions by 17% in the next ten years.²⁵³ These goals are particularly important for the State of Colorado’s consideration since President Obama and the EPA will undoubtedly seek to implement them as “Obama chose [environmental] officials who take the threat of climate change seriously and value the independent opinion of scientists”²⁵⁴

What this aforementioned shift in demography and Obama administration goals could mean for the United States and State of Colorado is “fewer subdivisions sprawled out in cornfields, and more housing along transit lines or in settled neighborhoods.”²⁵⁵ Thus, as the federal government issues more guidelines and incentives for housing

has been criticized as being overly pessimistic, as one author argues that the suburbs and exurbia will remain popular residential staples of American life whose demise is being grossly exaggerated. See Joel Kotkin, *The Myth of the Back-to-the-City Migration*, WALL ST. J., July 6, 2010, at A17.

248. *Morning Edition, Study: Americans Commute an Average 25 Minutes* (NPR radio broadcast, Oct. 12, 2007), transcript available at <http://www.npr.org/templates/transcript/transcript.php?storyId=15218380>.

249. Leinberger, *The Next Slum?*, *supra* note 247, at 71. Furthermore, the housing crisis has not impacted merely the middle class — as more and more wealthy individuals are abandoning upscale residential homes rather than paying mortgages on properties where little or no equity remains. David Streitfeld, *Biggest Defaulters on Mortgages Are the Rich*, N.Y. TIMES, July 9, 2010, at A1. See also *Marketplace Morning Report, Rich More Likely to Walk From Homes*, (American Public Media radio broadcast, July 9, 2010), transcript available at <http://marketplace.publicradio.org/display/web/2010/07/09/am-rich-more-likely-to-walk-away-from-homes-q/>. Surprisingly, however, the glut of available housing has enabled many who rely on subsidized government housing, which is often found in poorer, unsafe areas to now find themselves in spacious new living arrangements — some even located in gated communities. See Dawn Wotapka, *Housing Bust Opens New Doors for Subsidized Tenants*, WALL ST. J., Aug. 2, 2010, at A1.

250. COLO. REV. STAT. §§ 37-90-105(1) and 37-92-602 (2010).

251. Joseph B. White, *Dude, Where’s My Car?*, WALL ST. J., Oct. 28, 2009, at D1.

252. White, *supra* note 251. See also Andrew Moseman, *Who Owns the Rain? Hint: It’s Not Always Home Owners*, POPULAR MECHS., Dec. 18, 2009, <http://www.popularmechanics.com/science/earth/4314447.html>. Interestingly, *Popular Mechanics’* web site also includes how-tos on rain capture. See, e.g., Francesca Lyman, *How to Safely Capture the Rain*, POPULAR MECHS., Aug. 19, 2010, <http://www.popularmechanics.com/science/environment/water/how-to-safely-capture-the-rain/>; *Water-Collection Tip: Rain Barrels Make For Smarter Home*, POPULAR MECHS., Oct. 1, 2009, <http://www.popularmechanics.com/home/improvement/4313371>.

253. Seth Borenstein, *Obama Wants Big Carbon Dioxide Cuts, But Daily Life Should be Much the Same With Higher Bills*, ASSOC. PRESS, Nov. 27, 2009.

254. Bryan Walsh, *High Hopes for Obama’s Green Dream Team*, TIME, Dec. 16, 2008, <http://www.time.com/time/health/article/0,8599,1866682,00.html>.

255. White, *supra* note 251.

development closer to urban centers, there is even more reason for the State of Colorado to permit all its residential landowners the right to precipitation capture rather than merely a certain class of rural ones.²⁵⁶

VI. CONCLUSION

Colorado's new laws permitting a certain class of residential landowners to capture precipitation on their property were inevitable and prudently legislated, but the laws should encompass all residential landowners and not only a certain class of such residential landowners on the basis of traditional theories of property, social policy, enforceability, and utility.

Traditional theories of property, in particular, the principle of first possession should entitle all Colorado residential landowners the right to precipitation capture.²⁵⁷ Colorado's residential precipitation capture standard should also be broadened with enforceability in mind as both the past and current precipitation capture standards were and are difficult to enforce because of their complicated and non-commonsensical nature.²⁵⁸ As a means of utility, the State should broaden its precipitation capture standard to encompass all residential landowners thereby granting such owners the ability to control and possess their properties fully.²⁵⁹ With social policy in mind, Colorado's lawmakers should broaden the residential precipitation capture to all residential landowners as a means of reducing some of the State's energy, water, and enforcement costs as well as household expenditures associated with residential land ownership such as landscaping.²⁶⁰

Colorado wisely ended its blanket prohibition concerning precipitation capture on residential property; however, Colorado should look to models developed in Albuquerque, San Diego, Santa Fe, and Tucson, as well as the State of Utah, to create and achieve a workable system where the doctrine of appropriation and an individual residential property owner's right to capture precipitation on his or her property can be reconciled.²⁶¹ Permitting all residential property owners, not just a certain class of them, to capture rainwater on their property under the new law will not divert a dramatic amount away from Colorado's ground and surface waters as opponents argue.²⁶²

A solution is achievable. The State of Colorado is entitled to place some restriction on the collection, use, and rights to water within the State as determined by its Constitution.²⁶³ However, this does not mean that only a certain class of residential landowners should be the beneficiaries of the new laws while leaving others high and dry without the same benefit to use captured precipitation as they see fit.²⁶⁴ Making

256. *Id.* See also Leinberger, *The Death of the Fringe Suburb*, *supra* note 247, at A19.

257. DUKEMINIER ET AL., *supra* note 11; EPSTEIN, *supra* note 10; Epstein, *supra* note 14; SINGER, *supra* note 155.

258. See Johnson, *supra* note 2; Riccardi, *supra* note 103.

259. See SINGER, *supra* note 155.

260. Looper, *Rainwater Harvesting*, *supra* note 104.

261. See O'Donoghue, *supra* note 128; Vestel, *supra* note 134.

262. Johnson, *supra* note 2; Simon, *supra* note 2.

263. COLO. CONST. art. XVI.

264. 2009 Colo. Sess. Laws S.B. 09-80.

Colorado's residential precipitation capture standard broader is compliant with the standard of prior appropriation because it would not injure water rights already vested in others.²⁶⁵

Furthermore, by permitting all Colorado residential landowners the right to precipitation capture on their properties, they would be making beneficial use of water that is arguably not already appropriated by reducing domestic and municipal water usage for landscaping, washing, wildlife, and other household uses.²⁶⁶ In addition, permitting all of Colorado's residential landowners the right to precipitation capture could also serve as a beneficial use of water as a means of slowing erosion²⁶⁷ with heavy rains and flooding expected to confront Colorado and the Western United States in the future.²⁶⁸

Colorado must broaden its laws by extending the right to precipitation capture to all residential landowners. There is no strong evidence that a shortage in ground and surface water supplies will result by broadening the law as the majority of precipitation that falls on such properties is usually absorbed by landscaping or evaporates.²⁶⁹ Broadening the laws to encompass all residential landowners concerning precipitation capture will help Colorado alleviate some of its fiscal demands and constraints, particularly in light of the State's decreased tax revenue stream and today's uncertain economic environment.²⁷⁰ Broadening the law will most importantly create a more equitable and enforceable law that is in harmony with both individual property rights and the State's interest in the proper allocation of what is arguably Colorado's most important natural resource.

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265. CORBRIDGE & RICE, *supra* note 6, at 58.

266. See Rada, *supra* note 6, at 828; *Rainwater Harvesting: Rainwater Basics*, *supra* note 174.

267. *Rainwater Harvesting: Rainwater Basics*, *supra* note 174.

268. See THE ROCKY MOUNTAIN CLIMATE ORGANIZATION, *supra* note 177.

269. Johnson, *supra* note 2; Simon, *supra* note 2; E-mail from Rep. Marsha Looper, *supra* note 95.

270. See Editorial, *supra* note 189; Hoover, *supra* note 184; Leonhardt, *supra* note 206.

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