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No Seat at the Water Table: Colorado's New Groundwater Basin Statute Leaves Senior Surface Rights in the Lurch

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NO SEAT AT THE WATER TABLE: COLORADO'S NEW GROUNDWATER BASIN STATUTE LEAVES SENIOR SURFACE RIGHTS IN THE LURCH

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Wells that pump water from underground aquifers deplete water flowing in nearby rivers and streams. Colorado farmers in certain parts of the state use wells to pump large quantities of underground water for irrigation. However, other users who had pre-existing surface-water rights on nearby streams have complained that these wells drain the river and injure their prior vested water rights. Normally, surface water users with prior rights can require more junior users to stop appropriating until the senior user has diverted her full right. However, Colorado presumes that wells in certain districts—called designated basins—do not injure nearby surface streams. Still, to balance the rights of groundwater and surface water users, Colorado statutes for many decades have permitted surface water users to rebut this presumption, arguing that designated basin wells do in fact impact nearby surface streams, and thus that the state should redraw the boundaries of a designated basin to exclude misclassified wells. Those procedural protections were swept away when, in 2010, the Colorado legislature passed Senate Bill 52. That measure essentially prevents surface water users from bringing an action to de-designate a basin or to exclude particular wells from a designated basin. This Comment argues that Senate Bill 52 disrupts the balance between groundwater and surface water users at a time when the lagged effects of well pumping are depleting some surface streams. This Comment maintains that Senate Bill 52 is not only bad policy, but that it violates the Colorado Constitution's Prior Appropriation Clause and the United States Constitution's Due Process Clause. The Colorado Supreme Court should overturn Senate Bill 52 or the state legislature should repeal it. However, the Comment

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concludes that, instead of simply reverting to the previous scheme, the legislature should enact a more balanced approach modeled on recent conjunctive use legislation that has proven effective in other parts of the state.

INTRODUCTION

For decades, Coloradans have appropriated groundwater

according to a carefully crafted statutory framework, the Groundwater Management Act (the "1965 Act" or the "Act").[1] However, in 2010, the Colorado legislature tore apart the Act's basic balancing mechanism for agricultural water users in the eastern part of the state. The amended policy scheme is deeply flawed. Indeed, the new Act strips a number of the state's most senior surface-water appropriators of their vested water rights and it violates those appropriators' basic due process guarantees.

Colorado, like many Western states, apportions the amount of water that any single user can divert from the state's rivers and streams.[2] Generally, rights to use this "tributary water" are allocated among users according to when a user first starts appropriating water for a beneficial purpose.[3] This system for apportioning rights is called the "prior appropriation doctrine" or the "Colorado doctrine,"[4] and Colorado codified this doctrine in its state constitution and statutes.[5]

In addition to the prior appropriation doctrine for tributary water, the Colorado legislature enacted a separate statutory scheme, the 1965 Act, to manage the state's underground water. The 1965 Act established the modern day Ground Water Commission, an agency charged with designating boundaries for groundwater basins and permitting wells to pump water from within those basins.[6] Among its other provisions, the Act contained a presumption that ground water wells within certain "designated basins" were far enough removed from surface streams that they did not injure senior surface water rights.[7] However, the forward-thinking Act recognized that,

1. COLO. REV. STAT. §§ 37-90-101–143 (2012).
2. GEORGE VRANESH, COLORADO WATER LAW § 1.2 (1999).
3. *Id.*
4. *Id.*
5. *See infra* Parts I.B, IV.A.
6. Colorado Ground Water Management Act of 1965, ch. 319, § 148-18-3, 1965 Colo. Sess. Laws 1246; *see infra* Parts I.B, IV.A. Note that Colorado's statutes sometimes use the term "ground water" (with a space), such as in §§ 37-90-102 and 103, and at other times use the term "groundwater" (with no space), such as in § 37-90-106. The inclusion or exclusion of the space is merely stylistic and does not indicate anything substantive in the statute. For this Comment, I insert a space when necessary to quote the statute or to refer to a proper name that has the space inserted, such as the Colorado Ground Water Commission. Otherwise, I use the term "groundwater" with no space.
7. Compare the definition of "designated ground water" in Colorado Ground Water Management Act of 1965 § 148-18-2(3) as ground water located within the boundaries of a designated ground water basin that "would not be available to and

despite this presumption, future scientific data might justify redrawing basins to curtail pumping from designated basin wells that are found to injure surface rights.[8] Accordingly, the Act made the non-injury presumption rebuttable.[9] That is, it allowed senior surface owners to bring a complaint before the Ground Water Commission to curtail "designated ground water" wells from pumping what surface owners could show was in fact out-of-priority tributary water.[10] This prescient provision anticipated hydrology science that now shows that some wells authorized to pump designated ground water actually deplete surface water.[11] The Act's procedural safeguard relied on empirical data to balance senior surface appropriators' rights with junior well pumpers' rights in priority.

However, the Colorado General Assembly recently adopted a drastic change to the Act in the form of Senate Bill 10-52

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required for the fulfillment of decreed surface rights," with section 148-18-5(2) of that Act, which grants the Ground Water Commission the power to establish designated ground water basins, subject to judicial review. State *ex rel.* Danielson v. Vickroy, 627 P.2d 752, 759 (Colo. 1981); *Current Developments, Tributary Ground Water and Change-of-Place-of-Use Rules in Designated Ground Water Basins in Colorado*, 45 U. COLO. L. REV. 229, 232 n.25 (1973) ("With respect to designated ground water, therefore, the Management Act reverses the judicial presumption . . . that underground water is tributary to a surface stream unless proven otherwise.").

8. Colorado Ground Water Management Act of 1965 § 148-18-5(1)(a); *see also* Gallegos v. Colo. Groundwater Comm'n, 147 P.3d 20, 32 (Colo. 2006) (noting that the 1965 Act allows the Ground Water Commission to redraw basins to curtail improperly designated wells); Larrick v. Dist. Court, 493 P.2d 647, 649 (1972) ("If later the petitioners can prove that the water is not designated ground water and that, with proper jurisdiction, the Weld County District Court adjudicated it, the Ground Water Commission and State Engineer must fail in their action.").

9. *Gallegos*, 147 P.3d at 32; *Vickroy*, 627 P.2d at 759.

10. *Gallegos*, 147 P.3d at 32. Tributary water consists of water connected to a natural stream. GARY BRYNER & ELIZABETH PURCELL, GROUNDWATER LAW SOURCEBOOK OF THE WESTERN UNITED STATES 22 (2003). Thus, tributary surface water is the surface water connected to a stream system and tributary groundwater is the underground water connected to a stream system. *Id.*

11. *Gallegos*, 147 P.3d at 32; *see also* Cappaert v. United States, 426 U.S. 128, 142 (1976) ("'[G]roundwater and surface water are physically interrelated as integral parts of the hydrologic cycle.'" (quoting CHARLES E. CORKER, GROUNDWATER LAW, MANAGEMENT AND ADMINISTRATION, NATIONAL WATER COMMISSION LEGAL STUDY NO. 6 xxiv (1971)); THOMAS C. WINTER ET AL., GROUND WATER AND SURFACE WATER: A SINGLE RESOURCE (U.S. Geological Survey Circular 1139) (1998); First Report of Special Master (Subject: Nebraska's Motion to Dismiss) at 22, Kansas v. Nebraska & Colorado, No. 126, Orig. (2000) ("Streamflow . . . comes from both surface runoff and groundwater discharge . . . [A]s a matter of law, a State can violate the [Republican River] Compact through excessive pumping of ground water hydraulically connected to the Republican River and its tributaries.").

("S.B. 52").[12] The new legislation effectively prevents senior surface owners from bringing a legal action to curtail wells in designated ground water basins.[13] Under the new statute, Colorado's Ground Water Commission may not alter basin boundaries to exclude finally or conditionally permitted groundwater wells,[14] even where senior surface owners can prove that pumping from those wells injures their rights.[15] By promoting out-of-priority well pumping at the expense of senior surface rights, the legislation turns Colorado's prior appropriation system on its ear.[16] This significant change disrupts the careful balance between surface and groundwater rights that the legislature struck when it passed the Ground Water Management Act in 1965[17] and that the legislature has preserved despite amending the Act on several occasions since that time.[18]

This Comment posits that the new statute is bad policy, that it cannot survive constitutional Due Process scrutiny under the United States and Colorado Constitutions, and that it contravenes both the spirit and the letter of the Prior

12. 67th Gen. Assemb. (Colo. 2010). S.B. 52 is now codified at COLO. REV. STAT. § 37-90-106 (2012).

13. *See* COLO. REV. STAT. § 37-90-106(1)(a).

14. The Colorado Ground Water Commission permits all new groundwater wells within designated groundwater basins in Colorado. COLO. REV. STAT. § 37-90-107(1) (2012). If a well applicant meets certain initial requirements, the Commission first issues the applicant a year-long conditional permit. COLO. REV. STAT. § 37-90-107(3) (2012). During the conditional permit period, the applicant must construct a well and supply the State Engineer with information about the well's depth, pumping rate, and the geologic formations that the well intercepts. COLO. REV. STAT. § 37-90-108(1)(b) (2012). After the applicant provides the Commission with that information, complies with notice requirements, and puts the well water to beneficial use, the Commission must direct the State Engineer to issue a final permit. COLO. REV. STAT. § 37-90-108(3)(a)(I).

15. COLO. REV. STAT. § 37-90-106(1)(a). By classifying requests to exclude wells after a cutoff date as an "impermissible collateral attack" on the decision to designate the basin, the legislation, in effect, removes legal remedies for surface right owners regardless of the validity of their claims. *See id.*

16. *Id.*

17. Kuiper v. Lundvall, 529 P.2d 1328, 1329 (Colo. 1974); Colorado Ground Water Management Act of 1965, ch. 319, § 148-18-1–38, 1965 Colo. Sess. Laws 1246. *Lundvall* upheld the constitutionality of the Act under the Prior Appropriation Clause of the Colorado Constitution. *Kuiper*, 529 P.2d at 1331. The *Lundvall* court reasoned that designated water that took over a century to reach a tributary could be considered nontributary groundwater and thus not subject to appropriation in priority with surface water. *Id.*

18. DICK WOLFE, SURFACE WATER AND GROUND WATER ADMINISTRATION IN COLORADO 3 (2005). Wolfe's paper notes several major amendments to the Act. This Comment addresses these amendments in further detail in Part I, *infra*.

Appropriation Clause of the Colorado Constitution.[19] Part I explores the legal framework for Colorado's groundwater use under the Act and its amendments and notes the need for flexible policies that meet the state's unique hydrological attributes and evolving economic needs. Part II examines a line of cases, culminating in *Gallegos v. Colorado Ground Water Commission* in 2006, that interpret the Act to provide procedural safeguards for surface owners. Part III suggests that the economic power of well owners and the political circumstances that gave rise to S.B. 52, including a lack of stakeholder input from senior surface owners, tipped the balance too far in favor of designated wells. Part IV argues that the courts should overturn the statute because it violates the United States and Colorado Constitutions. Finally, Part V proposes two possible alternatives to the current statutory scheme that would more fairly balance the rights of well owners and surface owners while providing certainty to Colorado water users on the Eastern Plains.

I. HYDROLOGICAL REALITIES AND LEGAL FICTIONS SHAPING COLORADO'S GROUNDWATER LANDSCAPE

This Part contrasts the flexibility and balance that have long characterized Colorado's groundwater policies with the rigidity that S.B. 52 imposes on the state's designated groundwater regulation system. Additionally, this Part surveys scientific and technological advancements and evolving economic needs, which demand a flexible policy framework. Section A briefly discusses the major geological formations that make up Colorado's diverse underground water landscape; a basic introduction to this geography is necessary to understand Colorado's laws that are tailored to it. Section A also touches on how Colorado's unique groundwater and river systems, and the state's economic interests enmeshed with those systems, require flexible, localized regulations. Section B chronicles how Colorado's groundwater laws have kept pace with the state's evolving water needs.

This Part corresponds with Part III, which again weaves in themes of flexibility and balance in the context of the 2006 *Gallegos* decision. These Parts stand in stark contrast to Part IV, which argues that S.B. 52 introduced legal rigidity into a

19. U.S. CONST. amend. XIV; COLO. CONST. art. II, § 25, art. XVI, § 6.

system that values flexibility, and that the bill confounded the careful balance between Colorado's complex water needs.

A. Water Flowing Underground

Colorado holds an abundance of underground water trapped in various rock formations. Within the state's borders, underground pores, cracks, and crevices store millions of acre-feet of usable fresh water.[20] Hydrogeologists divide Colorado's usable groundwater resources into three main categories. The first, alluvial or unconfined aquifers, consists of water pooled on shallow sand and gravel near stream drainages.[21] The second type, crystalline aquifers, consists of water in pores between igneous and metamorphic rock in Colorado's Central Mountains.[22] These aquifers supply most of the domestic groundwater for mountain wells.[23] The third category, and the focus of this Comment, consists of sedimentary aquifers, also called groundwater-basin or confined aquifers.[24] These

20. *See* U.S. Geological Survey, *High Plains Aquifer*, *in* GROUND WATER ATLAS OF THE UNITED STATES (1995), *available at* http://pubs.usgs.gov/ha/ha730/ch_c/C-text5.html (noting that, "[i]n 1990, the part of the High Plains aquifer in Colorado contained about 108,000,000 acre-feet of recoverable ground water in storage"). One acre-foot equals approximately 326,000 gallons of water or roughly the amount needed to cover a football field with one foot of water. *See Rain: A Valuable Resource*, U.S. GEOLOGICAL SURVEY (Oct. 31, 2012) http://ga.water.usgs.gov/edu/earthrain.html. Overall, the U.S. holds vastly more water below the earth's surface than within all of the country's surface reservoirs and lakes combined. *Ground Water*, NAT'L ATLAS OF THE U.S. (Jan. 26, 2011, 12:24 PM), http://www.nationalatlas.gov/articles/water/a_groundwater.html. The Central and Western United States in particular hold one of the largest underground water sources in the world, the High Plains Aquifer. Don Comis, *The Ogallala: Gauging, Protecting the Aquifer's Health*, 56 AGRIC. RES. 4 (2008), *available at* http://www.ars.usda.gov/is/AR/archive/apr08/aquifer0408.htm (last visited Mar. 31, 2013). The U.S. Geological Survey estimates that the High Plains Aquifer, also known as the Ogallala Aquifer, contains 155 million acre-feet of water under Colorado and New Mexico alone and notes that the amount of water under those two states accounts for only 5 percent of the total water available in the aquifer. U.S. Geological Survey, *High Plains Aquifer*, *in* GROUNDWATER ATLAS OF THE UNITED STATES (1995), *available at* http://pubs.usgs.gov/ha/ha730/ch_c/C-text5.html. By comparison, an average U.S. household consumes less than one-half of an acre-foot of water per year. *Water Use Statistics*, AM. WATER WORKS ASS'N, http://www.drinktap.org/consumerdnn/Home/WaterInformation/Conservation/WaterUseStatistics/tabid/85/Default.aspx (last visited Nov. 28, 2012).

21. SCOTT G. MEFFORD, GROUNDWATER 101: INTRODUCTORY GROUND WATER ENGINEERING AND GROUND WATER LAW, COLORADO BAR ASSOCIATION CLE (2009).

22. RALF TOPPER ET AL., GROUND WATER ATLAS OF COLORADO 151 (2003).

23. *Id.*

24. *Id.*

formations make up deep regional groundwater systems within sedimentary layers of rock,[25] and some of these formations supply water to wells in designated basins on Colorado's Eastern Plains.[26]

Groundwater interacts directly with the surface water flowing in rivers and streams. The interaction takes place in three ways: streams absorb groundwater through the streambed; streams release water from the streambed into the groundwater table; or they do both, gaining water in some stretches of the stream and losing it in others.[27] In fact, all underground and surface water is connected to varying degrees.[28]

Coloradans are tapping groundwater at an increasingly high rate, especially in areas where surface water sources are limited.[29] Colorado's Eastern Plains, the San Luis Valley, and parts of Adams, Arapahoe, Douglas, Elbert, and El Paso counties are especially dependent on groundwater[30] because surface streams are sparse and groundwater sources are relatively more plentiful in those areas.[31] Because of high demand, state officials currently review over 10,000 well applications each year,[32] and they have authorized over 250,000 wells statewide.[33] Most groundwater, like tributary

25. MEFFORD, *supra* note 21.

26. *See id.*

27. THOMAS C. WINTER ET AL., GROUND WATER AND SURFACE WATER: A SINGLE RESOURCE, U.S. GEOLOGICAL SURVEY CIRCULAR 1139, at 9 (1998).

28. *See* RALPH C. HEATH, BASIC GROUND-WATER HYDROLOGY, U.S. GEOLOGICAL SURVEY WATER-SUPPLY PAPER 2220 (2004); *see also* P. ANDREW JONES & TOM CECH, COLORADO WATER LAW FOR NON-LAWYERS 156 (2009) ("Hydrologists now know that, given enough pumping and enough time, all wells will eventually affect the flow of a surface stream.").

29. TOPPER ET AL., *supra* note 22, at 21. COLO. WATER RES. RESEARCH INST., AGRICULTURAL CHEMICALS & GROUNDWATER PROTECTION IN COLORADO: 1990–2006, at 3 (2007). *See generally* S. Siebert et al., *Groundwater Use for Irrigation—A Global Inventory*, 10 HYDROLOGY AND EARTH SYSTEM SCI. 1863, 1872 (2010), http://www.fao.org/docrep/013/al816e/al816e00.pdf (noting that the percentage of U.S. land irrigated with groundwater jumped from 10 percent in 1920 to 61 percent in 2003 and that total U.S. land irrigated with groundwater increased twenty times between 1920 and 2003).

30. COLO. WATER RES. RESEARCH INST., *supra* note 29, at 3.

31. *See* TOPPER ET AL., *supra* note 22, at 21. For an interesting county-by-county map of groundwater and surface water use in Colorado, see http://geosurvey.state.co.us/apps/wateratlas/images/fig1_4.pdf.

32. *Ground Water Administration and Well Permitting*, COLO. DIVISION OF WATER RESOURCES, http://water.state.co.us/groundwater/groundwater.asp (last visited Nov. 20, 2012).

33. WOLFE, *supra* note 18, at 12.

water, is used for crop production,[34] with agricultural withdrawals constituting approximately 82 to 85 percent of Colorado's groundwater use.[35] Groundwater also provides drinking water for about 18 percent of the state.[36] Overall, groundwater wells now actively draw approximately 3.1 million acre-feet from the water table per year.[37] This use accounts for approximately 18 percent of the total 18 million acre-feet that the state uses annually.[38]

As this Comment shows, the varying connectivity between groundwater and surface water systems and the increasing demand for groundwater in certain parts of the state underscore the vital need for flexible, geographically specific regulations for Colorado's groundwater resources.

B. Developing a Balanced Policy Framework

When early settlers first moved to Colorado, they predominately used the water flowing in rivers and streams because that water was easier to access than underground water for uses prevalent at the time, such as mining, farming, ranching, and domestic supply.[39] Yet over the years, improvements in well-pumping technology made underground water more economical for irrigation,[40] and Coloradans started appropriating more water from the state's diverse array of underground aquifers.[41] As these changes occurred, Colorado's water laws—including the 1965 Act that S.B. 52 alters—adapted to maximize the state's utility from its underground

34. COLO. WATER RES. RESEARCH INST., *supra* note 29, at 3.

35. *Id.*

36. *Id.*

37. *Id.*

38. Colo. Ground Water Comm'n v. N. Kiowa-Bijou Groundwater Mgmt. Dist., 77 P.3d 62, 69 (Colo. 2003).

39. *See* Justice Gregory J. Hobbs, Jr., *Colorado Water Law: An Historical Overview*, 1 U. DENV. WATER L. REV. 1, 4–6 (1997) (chronicling the beginnings of Colorado water use among pioneers in the later 1800s, noting specifically their reliance on surface water resources such as ditches and streams). To access surface water, appropriators generally channel water in ditches directly from a stream. The word "stream" in this context includes rivers, streams, and other tributary surface water. To access groundwater, on the other hand, appropriators bore wells into the ground until they reach the water table. *See* Fellhauer v. People, 447 P.2d 986, 991 (Colo. 1968); RALPH C. HEATH, *supra* note 28, at 56. The water table is the top part of an opening in soil or rock that is saturated with water. TOPPER ET AL., *supra* note 22, at 15.

40. *See* Hobbs, *supra* note 39, at 8–9.

41. *See infra* Part I.A.

water resources. Indeed, over the past half-century, Colorado has developed a complex statutory framework intended to balance the state's competing goals of maximizing utility from groundwater resources and honoring the vested water rights of prior tributary appropriators.[42] To achieve this precarious balance, the state enacted a bifurcated statutory system. It separated designated groundwater, subject to the jurisdiction of the Ground Water Commission under the 1965 Ground Water Management Act, from tributary water and nontributary groundwater outside designated basins, which are subject to water court jurisdiction under the 1969 Water Rights Determination and Administration Act (the "1969 Act").

Of course, Colorado had regulated tributary water long before the 1969 Act. In fact, tributary water laws in Colorado predate groundwater laws by almost a century.[43] As mentioned above, Colorado follows the doctrine of prior appropriation for apportioning the right to use tributary water.[44] That doctrine establishes priorities to available water among users according to when they first started using such water for a beneficial purpose.[45] The doctrine is often summed up as: "first in time, first in right."[46] Colorado formally adopted the prior appropriation concept in its constitution in 1876.[47]

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42. *See* Empire Lodge Homeowners' Ass'n v. Moyer, 39 P.3d 1139, 1150 (Colo. 2001) ("How to protect prior appropriation rights while also allowing new uses required a governmental response.").

43. *Compare* Coffin v. Left Hand Ditch Co., 6 Colo. 443, 447 (1882) (noting that settlers appropriated water according to prior appropriation while Colorado was still a territory), *with* Gallegos v. Colorado Ground Water Comm'n, 147 P.3d 20, 27 (Colo. 2006) (noting that Colorado passed the first comprehensive groundwater legislation in the 1960s).

44. *Coffin*, 6 Colo. at 447.

45. GEORGE VRANESH, COLORADO WATER LAW § 1.2 (1999); *see, e.g.*, *Coffin*, 6 Colo. at 447 ("The first appropriator of water from a natural stream for a beneficial purpose has, with the qualifications contained in the constitution, a prior right thereto, to the extent of such appropriation.").

46. *See, e.g.*, Mount Emmons Mining Co. v. Town of Crested Butte, 40 P.3d 1255, 1258 (Colo. 2002).

47. COLO. CONST. art. XVI, § 6. The Prior Appropriation Clause in Colorado's Constitution reads in pertinent part as follows: "The right to divert unappropriated waters of any natural stream to beneficial uses shall never be denied. Priority of appropriation shall give the better right as between those using the water for the same purpose." *Id.*; *see also Gallegos*, 147 P.3d at 27; State, Dept. of Natural Res., Div. of Water Res., State Eng'r v. Sw. Colo. Water Conservation Dist., 671 P.2d 1294, 1308 (Colo. 1983), *superseded by statute*, An Act Concerning Ground Water, and Making an Appropriation in Connection Therewith, S.B. 5, 1985 Colo. Sess. Laws 1160, *as recognized in* Humphrey v. Sw. Dev. Co., 734 P.2d 637 (Colo. 1987) [hereinafter *The Huston Case*].

Groundwater, on the other hand, received only sparse legal recognition until Colorado experienced a dramatic increase in groundwater use during the 1940s.[48] During that time, electrification made it possible to pump groundwater on a vastly larger scale than before.[49] Increased unregulated groundwater use gave rise to conflicts between groundwater and surface water users,[50] which in turn lead the legislature to enact the 1957 Ground Water Law (the "1957 Law").[51] The 1957 Law required a permit from the State Engineer to drill a new well.[52] It also established the first groundwater commission.[53] The 1957 Law tasked the commission with designating districts throughout Colorado where intensive well pumping was causing groundwater levels to decline, and it also authorized the commission to regulate those districts.[54] Through the regulation of pumping and well drilling within these districts, the state could control excessive depletion of its valuable underground water resources.

By the late 1960s, principal river systems in Colorado were becoming over-appropriated.[55] Senior surface owners who noticed a water supply shortage suspected that wells depleting tributary groundwater were intercepting water that was necessary to fulfill their senior decreed water rights.[56]

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48. *Gallegos*, 147 P.3d at 27.

49. Fellhauer v. People, 447 P.2d 986, 991 (Colo. 1968). For example, the *Fellhauer* court notes that wells in the Arkansas River Valley pumped only 2,000 acre feet in 1940. *Id.* By 1964, wells in that valley pumped "between 230,000 and 240,000 acre feet of water" annually. *Id.*

50. *See id.* at 991–92.

51. Underground Water Act of 1957, ch. 289, § 147-19-1–18, 1957 Colo. Sess. Laws 863; *see The Huston Case*, 671 P.2d at 1312.

52. *Id.* § 147-19-1(5); WOLFE, *supra* note 18, at 2.

53. Underground Water Act of 1957 § 147-19-1(3); WOLFE, *supra* note 18, at 2–3.

54. Underground Water Act of 1957 § 147-19-1(3); WOLFE, *supra* note 18, at 2–3.

55. Empire Lodge Homeowners' Ass'n v. Moyer, 39 P.3d 1139, 1149–50 (Colo. 2001).

56. Fundingsland v. Colo. Ground Water Comm'n, 468 P.2d 835, 839–40 (Colo. 1970). Surface owners also advocated regulating groundwater wells because groundwater takes a relatively long time to replenish itself, and oversight was needed to ensure that surface owners, and other groundwater users for that matter, did not suffer the long-term consequences of unregulated wells. *Id.* The *Fundingsland* court succinctly framed the problem—it is possible to withdraw groundwater:

> in a rate in excess of the annual recharge[,] creating what is called a mining condition. Unless the rate of pumping is regulated, mining must ultimately result in lowering the water balance below a level from which water may be economically

However, strict application of the priority doctrine to over-appropriated basins would restrict valuable groundwater uses.[57] That is to say, standard prior appropriation law would have allowed surface owners to curtail most well pumping because, for the most part, surface owners had begun using their water earlier than well owners.[58] First in time, first in right. Still, groundwater was becoming increasingly important, and wholesale shuttering of wells would have been devastating in many areas.[59] The state needed a compromise.

The 1965 Act struck exactly that compromise. It repealed the 1957 Law and established a more robust groundwater management system, including creating the Colorado Ground Water Commission.[60] More than simply trying to halt overuse like the 1957 Law, the 1965 Act sought to permit the "full economic development of designated ground water resources"[61] while still recognizing the doctrine of prior appropriation.[62] To achieve its goal of fully developing groundwater in certain parts of the state, the Act gave the Commission, and ground water management districts housed within the Commission,[63] authority to regulate groundwater pumping, including requiring permits for new wells[64] and drawing boundaries for designated basins where groundwater would not injure surface

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> withdrawn. Due to the slow rate at which underground waters flow through and into the aquifer, it may be many years before a reasonable water level may be restored to a mined aquifer.

Id.

57. *Moyer*, 39 P.3d at 1149–50.

58. *See* Fellhauer v. People, 447 P.2d 986, 991 (Colo. 1968) (en banc) (describing the surge in groundwater use in the decades following 1940); *see also*, Hobbs, *supra* note 39, at 4–6.

59. *See Fellhauer*, 447 P.2d at 991 (noting a sharp increase in groundwater use); *see also* Veronica A. Sperling & David M. Brown, *Outline of Colorado Ground Water Law*, 1 U. DENV. WATER L. REV. 275, 283 (1998) ("[I]f curtailment is ever ordered, some sprinkler-irrigated farmland in the eastern High Plains may have to revert to dryland unless replacement plans are devised to protect the calling seniors.").

60. *The Huston Case*, 671 P.2d 1294, 1312 (Colo. 1983).

61. Colorado Ground Water Management Act of 1965, ch. 319, § 148-18-1, 1965 Colo. Sess. Laws 1246, 1246.

62. *Id.*

63. Both of these offices are housed within the State Engineer's Office. The state engineer administers water rights, issues well permits and oversees well construction, represents Colorado in interstate water compact proceedings, monitors streamflow and water use, oversees the state's dams, and keeps records of Colorado water information. COLO. REV. STAT. § 37-80-102 (2012).

64. Colorado Ground Water Management Act of 1965, ch. 319, §§ 148-18-5 to -6, 1965 Colo. Sess. Laws 1246.

rights.[65] Pursuant to its authority under the 1965 Act, the Commission has approved eight designated ground water basins and thirteen ground water management districts, which are all located on Colorado's Eastern Plains.[66] So far, the Commission has permitted approximately seven thousand wells to pump groundwater within these designated basins.[67]

Significantly, the 1965 Act carved out "designated ground water" as its own category, distinct from tributary groundwater.[68] It defined "designated ground water" as underground water that would not be available for or required to fulfill decreed surface rights.[69] The Colorado Supreme Court interpreted this definition to include only "water not tributary to any stream, and other water not available for the fulfillment of decreed surface rights."[70]

These definitions created the legal fiction that some underground water is so removed from tributary systems that pumping it would not injure surface rights. The new definitions went hand-in-hand with the Act's creation of a rebuttable presumption that designated wells do not injure other appropriators' vested rights.[71] Pretending that some underground water is truly disconnected from the tributary

65. *Id.*

66. *Colorado Groundwater Commission Home*, COLO. DIVISION OF WATER RESOURCES, http://water.state.co.us/groundwater/CGWC/Pages/default.aspx (last visited Nov. 1, 2012).

67. Memorandum from Keith Vander Horst, Designated Basins Team Leader, on Staff Activities from May 1 to July 31, 2012 to Dick Wolfe, Exec. Dir., Ground Water Commission (Aug. 17, 2012) (on file with the Colo. Ground Water Comm'n), http://water.state.co.us/DWRIPub/CGWC%20Meetings%20and%20Process%20Documents/StaffReport2012Aug.pdf.

68. Colorado Ground Water Management Act, ch. 319, § 148-18-2, 1965 Colo. Sess. Laws 1246, 1247.

69. *Id.* Alternatively, the legislation contained a "grandfather clause," which included under "designated groundwater" that water in areas not adjacent to streams where well pumping constituted the principal water usage for at least fifteen years before January 1, 1965. Colorado Ground Water Management Act, ch. 319 § 148-18-2(3), 1965 Colo. Sess. Laws 1246, 1247. In other words, even if an area would normally not qualify as a designated groundwater basin, it could nonetheless get groundwater basin designation if the area relied predominately on groundwater pumping for at least fifteen years before the 1965 Act was passed. For purposes of this Comment, this alternative method of classifying groundwater is unimportant because it does not apply in areas where surface and groundwater uses conflict.

70. State *ex rel.* Danielson v. Vickroy, 627 P.2d 752, 756 (Colo. 1981).

71. *Id.* at 758–59; *see also* GEORGE VRANESH, COLORADO WATER LAW § 3.5 (2000); TROUT, WITWER & FREEMAN, P.C., ACQUIRING, USING, AND PROTECTING WATER IN COLORADO § 4.3.2 (2004) ("Ground water within designated basins is presumed to be not tributary, unless proven otherwise before the Commission.").

system lets "designated ground water" wells pump water even if the right to use the water is junior to surface rights. Fortunately, the authors of the 1965 Act recognized that water initially fitting this definition might later be found to actually impact surface water.[72] Thus, the Act also contained a provision *requiring* the Ground Water Commission to alter basin boundaries or descriptions "as future conditions require and factual data justify."[73] In other words, a senior appropriator could overcome the rebuttable non-injury presumption with evidence of actual injury,[74] such as a groundwater modeling report or engineering study showing that designated groundwater wells impact the owner's surface rights.[75] Upon such a showing, the Commission had to alter basin boundaries to exclude the surface rights and improperly designated groundwater.[76] Of course, the owner of the improperly classified well could then always seek a tributary water right from the water courts, just like any other tributary water user.[77]

In 1969, the legislature passed the Water Right Determination and Administration Act, a comprehensive piece of water rights legislation covering both surface and *tributary* groundwater rights.[78] The 1969 Act integrated priority dates for tributary wells and surface water outside the boundaries of

72. *See* Gallegos v. Colo. Ground Water Comm'n, 147 P.3d 20, 31 (Colo. 2006) ("[T]he General Assembly anticipated that a designated ground water basin could include ground water that does not properly fall within the definition of designated ground water.").

73. *Id.* at 31 n.6 (citing the Colorado Ground Water Management Act, ch. 319, § 148-18-5(1)(a), 1965 Colo. Sess. Laws 1246, 1249).

74. See *infra* notes 137–39 and accompanying text for a discussion of new sophisticated technology that surface owners can use to prove that wells have depleted surface flow.

75. *See, e.g.*, Exhibits A & B to Petitioners' Petition to De-Designate Portions of the Upper Crow Creek Designated Ground Water Basin, *In re* Gallegos, No. 03-GW-06 (Colo. Ground Water Comm'n Aug. 11, 2010), *available at* http://water.state.co.us/groundwater/CGWC/Notices/Pages/UpperCrowCreekGallegosPettitio.aspx. Exhibit A consists of a report entitled "Assessment of Impacts of Groundwater Pumping in Upper Crow Creek Designated Basin on the Gallegos Water Rights" done by the engineering firm Hydrokinetics, Inc. in August 2010. Exhibit B consists of a map employing scalable vector graphics (SVG) modeling available on the Colorado Division of Water Resources website showing the parts of the Upper Crow Creek Designated Ground Water basin overlying improperly classified tributary water.

76. *Gallegos*, 147 P.3d at 33.

77. *Id.*

78. Water Right Determination and Administration Act, ch. 373, 1969 Colo. Sess. Laws 1200; *see also* WOLFE, *supra* note 18, at 3.

designated groundwater basins.[79] It also required that tributary wells affect only a de minimis amount of surface water.[80] However, it did not affect designated groundwater covered by the 1965 Act because that water was, at least by definition, not connected to a tributary.[81]

Soon after the 1969 Act passed, however, appropriators engaged in disputes over the line separating tributary water subject to the 1969 Act from nontributary designated groundwater subject to the 1965 Act. For example, in *Larrick v. North Kiowa-Bijou Management District*, a designated basin well owner argued that his district court decree overrode a Commission order enjoining him from changing the authorized place of use for his well water.[82] The well owner based this claim on the fact that his wells, although physically located in a designated basin, were pumping water tributary to a stream.[83] The Colorado Supreme Court held that the 1965 Act gave the Ground Water Commission exclusive jurisdiction over designated groundwater matters.[84] However, if the well owner could prove that his water was really tributary water improperly classified as designated groundwater, jurisdiction would vest with the Water Court instead.[85] The well owner failed to prove that his water was improperly classified as

79. *The Huston Case*, 671 P.2d 1294, 1308–09 (Colo. 1983), *superseded by statute*, An Act Concerning Ground Water, and Making an Appropriation in Connection Therewith, ch. 285, S.B. 5, 1985 Colo. Sess. Laws 1160, *as recognized in* Humphrey v. Sw. Dev. Co., 734 P.2d 637 (Colo. 1987). The court remarked that "[o]ne important purpose of the 1969 Act was to 'integrate the appropriation, use, and administration of underground water tributary to a stream with the use of surface water in such a way as to maximize the beneficial use of all of the waters of this state.'" (quoting COLO. REV. STAT. § 37-92-102(1) (1982 Supp.)).

80. *Gallegos*, 147 P.3d at 28.

81. COLO. REV. STAT. § 37-92-103(11), (13) (2012); State *ex rel.* Danielson v. Vickroy, 627 P.2d 752, 758 (Colo. 1981).

82. 510 P.2d 323, 328 (Colo. 1973). A slapstick turn of events led to this case: at first, the well owner simply started constructing a pipeline between his wells, effectively changing the place of use without authorization. *Id.* at 326. His local groundwater management district told him to stop. *Id.* Rather than follow that instruction, the well owner went behind the district's back to get a change of use decree from the water court. *Id.* Unbelievably, the water court granted the decree because it did not realize that the well owner was actually within a designated groundwater basin. *Id.* Needless to say, the State Engineer and Commission quickly filed an injunction motion and motion to vacate the decree. *Id.* The district court, "being then advised that the appellants' well was located within the Basin," immediately vacated its prior order, *id.*, no doubt sheepishly.

83. *Id.* at 327.

84. *Id.* at 329.

85. *Id.* at 326–27 (quoting Larrick v. Dist. Court, 493 P.2d 647, 649 (Colo. 1972) (en banc)).

designated ground water.[86] Thus, the Commission retained jurisdiction to review the owner's change of use application.[87]

C. Refining the Policy Framework

In addition to jurisdictional issues addressed by the court, over the last several decades the Colorado legislature has grappled with how to refine the balance between competing groundwater and surface water interests in different parts of the state. Throughout a number of amendments and new acts, the legislature has consistently shown a preference for solutions that are narrowly tailored to the geology of the state's different regions and that rely on data about the actual interaction between surface and groundwater. As this Comment argues in Parts II–IV, S.B. 52 constituted a total departure from this general trend.

In the mid-1980s and throughout the 1990s, the Colorado legislature codified new definitions for groundwater based on hydrologic data showing differences in the interaction between surface and subterranean water sources. First, in 1985, the legislature passed a bill, now referred to simply as Senate Bill 5, which left in place the 1965 Act's definition of designated groundwater, but which added another distinct category of groundwater called "nontributary ground water."[88] That category refers to water located outside of designated basins and so far away from a tributary that its pumping will not deplete streamflow in a significant way over the next one hundred years.[89] Similarly, in 1996, the legislature passed Senate Bill 96-074, which added the category of "not nontributary ground water"[90] to refer to water in certain

86. *Id.* at 327.

87. *Id.* at 329.

88. An Act Concerning Ground Water, and Making an Appropriation in Connection Therewith, ch. 285, § 37-90-103(10.5), 1985 Colo. Sess. Laws 1160, 1161. The bill defined "nontributary ground water" as "ground water, located outside the boundaries of any designated ground water basins in existence on January 1, 1985, the withdrawal of which will not, within one hundred years, deplete the flow of a natural stream . . . at an annual rate greater than 1/10 of 1 percent of the annual rate of withdrawal." *Id.* (codified as amended at COLO. REV. STAT. § 37-90-103(10.5) (2012)).

89. *Id.*

90. A needlessly confusing term, one might rightfully say. S.B. 96-074 defined "Not nontributary ground water" as "ground water located within those portions of the Dawson, Denver, Arapahoe, and Laramie-Fox Hills aquifers that are outside the boundaries of any designated ground water basin in existence on

confined aquifers along Colorado's Front Range.[91]

These Acts set fixed augmentation rates for the new groundwater subcategories depending on the unique physical characteristics of the "nontributary" or "not nontributary" groundwater source.[92] In other words, rather than the process for "designated" groundwater, where a well or part of an entire basin would be prohibited from pumping once a surface owner demonstrated that the well injured his rights, for groundwater classified as "nontributary" and "not nontributary," the state simply presumes that pumping injures nearby surface water at a given level and requires well owners to supplement stream flow at that level. For example, the statute requires "not nontributary" wells within one mile of a stream to augment the stream one-for-one for all out-of-priority depletions.[93] Wells over one mile away drawing from specific "not nontributary" aquifers[94] must augment the stream at 4 percent of what they pump because that rate is thought to compensate the stream for the amount of water that wells in that zone deplete from it.[95]

Again in the late 1990s and early 2000s, the legislature amended the 1965 Act to pursue a data-driven solution to the problem of groundwater wells depleting surface water in certain parts of the state. This recent legislation focused on the San Luis Valley, where a severe drought placed unusually high demand on tributary rights.[96] Based in part on that concern, and also on acrimony between groundwater and surface water owners in the Valley, the legislature enacted two bills to "safeguard sustainable amounts of groundwater and prevent injury to adjudicated surface water rights."[97] The two

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January 1, 1985, the withdrawal of which will, within one hundred years, deplete the flow of a natural stream . . . at an annual rate of greater than [1/10] of [1] percent of the annual rate of withdrawal." An Act Concerning Augmentation Requirements for Water Well Pumping in the Denver Basin Aquifers, ch. 258, § 37-90-103(10.7), 1996 Colo. Sess. Laws 1360, 1361 (codified as amended at COLO. REV. STAT. § 37-90-103(10.7) (2012)).

91. *Id.*

92. *Id.* § 37-90-137(9).

93. *Id.* § 37-90-137(9)(c).

94. See *supra* note 90 for a description of these specific aquifers, known collectively as "Denver Basin aquifers."

95. *See* TROUT, WITWER, & FREEMAN, P.C., *supra* note 71, § 4.4.3.

96. San Antonio, Los Pinos & Conejos River Acequia Preservation Ass'n v. Special Improvement Dist. No. 1 of the Rio Grande Water Conservation Dist., 270 P.3d 927, 933 (Colo. 2011).

97. *Id.*

measures, H.B. 1011 in 1998 and S.B. 222 in 2004, guided the State Engineer and local water users to draft a groundwater management plan specifically tailored to the area.[98] The plan is largely based on data from the Rio Grande Decision Support System ("RGDSS"), "one of the most comprehensive studies of the Valley's geology and hydrology that has ever been undertaken."[99] The Colorado Supreme Court recently lauded that plan as a "basin-specific mechanism for optimizing the conjunctive use of tributary groundwater and surface water . . . ."[100]

Overall, Colorado has developed a complex statutory framework for balancing its dual goals of maximizing utility from the state's groundwater resources and preserving its commitment to a surface appropriation system based on priority. The 1965 Act allowed an appropriator in an area where groundwater was plentiful to pump that water even if his well's priority date was junior to a surface right, with the important caveat that a surface owner could always challenge wells that in fact connected to the stream. The Act established regulatory authority in the State Engineer to ensure that wells do not pump at an unsustainable rate. It also adapted to new scientific and practical considerations by allowing some wells outside of designated basins to extract water only if users recharged streams at a rate commensurate with the amount that their groundwater pumping injured a stream or nearby shallow aquifer. Moreover, during the nearly fifty years since it was enacted, the legislature has amended the Act to refine the balance between groundwater and surface water users in specific parts of the state.

II. THE *GALLEGOS* DECISION AND JUDICIAL BUILDUP TO S.B. 52

Despite numerous amendments to the groundwater statutes, the legislature preserved the procedural provisions in the 1965 Act that allowed a senior surface owner to petition the Ground Water Commission to "de-designate" a groundwater basin or restrict pumping from wells within that basin.[101] To

98. *See id.* at 933–34.

99. Simpson v. Cotton Creek Circles, LLC, 181 P.3d. 252, 257 (Colo. 2008).

100. *San Antonio, Los Pinos & Conejos River Acequia Preservation Ass'n*, 270 P.3d at 931.

101. *See* Gallegos v. Colo. Groundwater Comm'n, 147 P.3d 20, 29 (Colo. 2006).

prevail on such a petition, the surface owner had to prove that purportedly nontributary "designated ground water" wells actually injured senior surface rights.[102] The Colorado Supreme Court affirmed that reading of the 1965 Act in a line of cases from 1981 through 2006.[103] This Part discusses those cases in contrast with the sweeping change that S.B. 52 brought about, discussed in Part IV.

First, in *State ex rel. Danielson v. Vickroy*, the court acknowledged that simply calling an area a "designated groundwater basin" does not conclusively show that wells within the basin are harmless to tributary right owners.[104] However, the court reached that conclusion in dicta, as a predicate to deciding a jurisdictional question.[105] The 1965 Act gave the Ground Water Commission exclusive jurisdiction over designated groundwater, but the 1969 Act gave the water courts jurisdiction over tributary groundwater.[106] Yet these acts did not resolve the question of which entity retains jurisdiction when the water's tributary status itself is at issue. While Colorado statutes separate tributary from nontributary groundwater, there is no clear physical line separating one from the other.[107] Simply allowing concurrent jurisdiction for both the water courts and the Ground Water Commission would invite forum shopping and cause disorderliness.[108] Therefore, the court looked to the legislative history for the

102. *See, e.g.*, *id.* at 31 ("[T]he surface water right holder must prove the ground water alleged to cause injury is not designated ground water."); Pioneer Irrigation Dists. of Yuma Cnty., Colo. & Dundy Cnty., Neb. v. Danielson, 658 P.2d 842, 845 (Colo. 1983) ("The burden of proving that ground water within a designated basin is not designated ground water rests with the proponent for exclusion."). For a discussion of new, sophisticated technology that surface owners can use to prove that wells have depleted surface flow, see *infra* notes 137–39 and accompanying text.

103. *See, e.g.*, *Gallegos*, 147 P.3d 20; *Pioneer Irrigation Dists.*, 658 P.2d 842; State *ex rel.* Danielson v. Vickroy, 627 P.2d 752 (Colo. 1981).

104. *See* 627 P.2d at 759. For a discussion of this case as it pertains to the 1965 Act, see also *Gallegos*, 147 P.3d at 29–30.

105. *See Vickroy*, 627 P.2d at 759.

106. *Id.*

107. *Id.* The court reflected that "the creation of a designated ground water basin does not establish conclusively that all ground water in the basin is designated ground water." *Id.* (citing *In re* Water Rights in Irrigation Div. No. 1, Irrigation Dist. No. 1, 510 P.2d 323 (Colo. 1973)). For a concise synopsis of the *Vickroy* holding viz. the 1965 Act, see also Ground Water Comm'n v. Shanks, 658 P.2d 847, 848 (Colo. 1983) ("[T]he line separating designated ground water subject to Commission jurisdiction and tributary ground water subject to water court jurisdiction is often indistinct.").

108. *Vickroy*, 627 P.2d at 759.

1965 Act in order to determine which entity should retain jurisdiction. The court noted that the legislature specified in the 1965 Act that applications for an initial water appropriation in a designated basin *of any kind of water* must be addressed to the Ground Water Commission.[109] Therefore, by analogy, a tributary right owner must likewise bring an action before the Ground Water Commission for an initial determination as to whether tributary water in a designated basin has been misclassified as designated groundwater.[110] The court's decision to uphold a surface owner's right to bring an action before the Ground Water Commission for an initial determination about the water's tributary status was an important step in the right direction.

Next, several years after *Vickroy*, the court again recognized in *Pioneer Irrigation Districts v. Danielson* that, under the statutory scheme contemplated in the 1965 Act, a surface right owner can bring an action before the Ground Water Commission to exclude wells from a designated basin.[111] While "[t]he hydrological realities of ground water make categorization a difficult factual issue,"[112] the legislature in the 1965 Act intended the Ground Water Commission to make that difficult determination, while also allowing surface owners, such as Pioneer, to appeal that determination directly to the Commission.[113] Of course, the Commission should presume that designated groundwater is nontributary until the proponent of excluding wells from a basin shows that the wells in fact deplete tributary water.[114] Still, like in *Vickroy*, the court in *Pioneer* only reached a jurisdictional issue, deciding the venue in which a surface owner in a designated basin may seek redress for a claim that designated groundwater was improperly classified.[115] The court did not have an opportunity to squarely address a de-designation petition until the 2006 *Gallegos* decision.

In *Gallegos*, the court specifically interpreted the 1965 Act to require the Commission to redraw a basin to exclude wells

109. State *ex rel.* Danielson v. Vickroy, 627 P.2d 752, 759 (Colo. 1981)
110. *Id.* at 760.
111. Pioneer Irrigation Dists. of Yuma Cnty., Colo. & Dundy Cnty., Neb. v. Danielson, 658 P.2d 842, 846 (Colo. 1983).
112. *Id.* at 845.
113. *Id.* at 846.
114. *Id.*
115. *Id.*

that cause out-of-priority surface depletions.[116] The court noted that groundwater basin boundaries are political, not hydrological.[117] However, it found that the legislature intended basins to conform to hydrological boundaries as closely as possible.[118] Thus, a surface owner should have the opportunity to demonstrate that a political boundary has deviated from the hydrologic reality to such an extent that the basin should be redrawn.[119] The legislature intended this method to ensure that "designated ground water" wells pump only the nontributary water that the law allows them to appropriate.[120] "Not only does the statute require this result, but our holding respects legislative intent by keeping designated ground water and [tributary] ground water subject to the 1969 Act separate and distinct."[121]

This line of cases consistently interpreted the balanced intentions underlying the 1965 Act requiring that the Commission redraw a designated basin if a senior surface appropriator proves injury. However, four years after *Gallegos*, S.B. 52 dispatched with that guarantee.

III. S.B. 52: IGNITING THE CONTROVERSY BETWEEN TRIBUTARY AND GROUNDWATER USERS

S.B. 52 nullified the contestation procedures upheld in *Gallegos* and its predecessor cases. The legislation prohibited the state from shrinking a basin to exclude conditionally permitted or finally permitted wells.[122] On the other hand, it allowed the state to enlarge a designated basin "as factual data justify."[123] In the eyes of well users in many groundwater basins, the bill stabilized a water source vital to their economy.[124] However, from a tributary water user's

116. Gallegos v. Colo. Ground Water Comm'n, 147 P.3d 20, 32 (Colo. 2006).

117. *Id.* at 29 (acknowledging the "consistent observation by both this Court and water law commentators" that a designated basin could contain both legitimate designated groundwater and other surface water that had been improperly classified as designated groundwater).

118. *Id.* at 31 ("[G]round water which has more than a *de minimis* impact on surface waters cannot properly be classified as designated ground water.").

119. *Id.* at 24.

120. *Id.* at 32.

121. *Id.*

122. S.B. 10-52, 67th Gen. Assemb., 2d Reg. Sess. (Colo. 2010) (now codified at COLO. REV. STAT. § 37-90-106 (2012)).

123. *Id.*

124. *See* Garin Vorthmann, *House Gives Final Approval to SB 52*, THE PULSE-

perspective, the bill let well owners dry up streams, injuring prior vested water rights. Worst of all, it denied injured parties legal recourse. Section A of this Part focuses on the one-sided political process leading to S.B. 52, in which groundwater interests ambushed surface users with an unexpected, significant proposal to amend the 1965 Act. Section A concludes that the lopsided process led to lopsided legislation. Section B of this Part then breaks down S.B. 52's effects on the balance between tributary water right owners and designated groundwater users in designated basins.

A. The S.B. 52 Political Process: Flawed from the Start

From the beginning, the groundwater interests that pushed S.B. 52 ensured that the measure would be one-sided because they did not solicit input from surface water stakeholders. Senator Greg Brophy introduced S.B. 52 in the state Senate on January 13, 2010, the first day of the 2010 legislative session.[125] Eastern Plains well owners formed a powerful lobbying bloc to usher S.B. 52 through the statehouse. From the start, the legislation had support from the Yuma County Water Authority and the Colorado Agricultural Preservation Association,[126] a recently formed group of Eastern Plains groundwater irrigators opposed to curtailing wells in the Republican River Basin.[127] Significantly, the Colorado Water Congress, Colorado Farm Bureau, and Rocky Mountain

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OF COLORADO FARM BUREAU (Mar. 11, 2010), http://cofarmbureaublog.wordpress.com/2010/03/11/house-gives-final-approval-to-sb-52/.

125. S. JOURNAL, 67TH GEN. ASSEMB. 2D REG. SESS. 19 (2010). Senator Brophy is a farmer from Wray, Colorado, *Bio*, GREG BROPHY: HUSBAND, FATHER, FARMER, http://greg-brophy.com/about/ (last visited October 27, 2012), where groundwater is the predominant water source for crop irrigation, COLO. WATER RES. RESEARCH INST., *supra* note 29, at 3. Wray is within the Northern High Plains Designated Ground Water Basin. *See Designated Basins and Management Districts*, COLO. DIVISION OF WATER RES., http://water.state.co.us/DWRIPub/DWR%20Maps/DesBasins.pdf (last visited Nov. 24, 2012).

126. *Bill Number Search*, COLO. SECRETARY OF STATE, http://www.sos.state.co.us/lobby/SearchSubject.do (select "Senate Bill" for Bill/Resolution Prefix field; select "2010" for Reporting Year field; enter "052" for Bill/Resolution Number).

127. *See* Press Release, Colo. Agric. Preservation Ass'n (Feb. 7, 2011) (on file with the Colorado Agricultural Preservation Association), http://coyotegulch.files.wordpress.com/2011/02/final_pr_capa_annual_meting_2-03.pdf; *see also Colorado Agricultural Preservation Association*, FACEBOOK, http://www.facebook.com/pages/Colorado-Agricultural-Preservation-Association-CAPA/191779550838569?sk=info (last visited Mar. 25, 2013).

Farmers Union also supported the measure.[128] With that formidable lobby behind it, S.B. 52 glided through the Senate Agriculture and Natural Resources Committee on January 21, 2010, on a 6–1 vote.[129] It passed the Senate with a unanimous vote on January 28, 2010.[130]

Although opposition coalesced once the bill got into the House, that chamber was unable to attach any amendments counterbalancing the designated basin power grab. When the measure hit the House Agriculture, Livestock, & Natural Resources Committee, Representative Marsha Looper spoke out strongly against it, recognizing that "this bill gives senior rights to these wells."[131] Looper joined the no-votes in that committee, but the bill still survived on a slim 7–6 tally.[132] Political parties were divided on either side.[133] Following that narrow passage, the bill nearly died again on the House floor. It was declared lost on second reading,[134] only to be resurrected at the last minute on a 33–30 vote.[135] Then-Representative, now-Congressman, Cory Gardner was outraged that the bill almost died. "This is an issue that really does mean life or death on the eastern plains [sic]," he told the Denver Post.[136] In the end, the bill passed the House with a 38–26 margin and Governor Bill Ritter signed it into law on March 31, 2010.[137]

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128. *Bill Number Search*, *supra* note 126.

129. *Votes for—SB10-052*, COLO. GEN. ASSEMB., http://www.leg.state.co.us/clics/clics2010a/csl.nsf/fsbillcont/E8816E12796818B4872576A80027B7B8?Open&target=/clics/clics2010a/commsumm.nsf/GetVotes?OpenAgent&billnum=SB10-052 (last visited Nov. 24, 2012).

130. S. JOURNAL, 67TH GEN. ASSEMB, 2D REG. SESS.106–07 (2010).

131. Patrick Malone, *Groundwater Bill Moves Forward*, THE PUEBLO CHIEFTAIN, Mar. 10, 2010, at A1.

132. *Votes for—SB10-052*, *supra* note 129.

133. *Id.* (four Republicans, two Democrats, and one Independent voted "yes" and five Democrats and one Republican voted "no.").

134. H. JOURNAL, 67TH GEN. ASSEMB. 719 (2010).

135. Jessica Fender, *Oh No He Di'n't...Vote on a Water Bill*, THE SPOT (Mar. 9, 2010 5:47 PM), http://blogs.denverpost.com/thespot/2010/03/09/oh-no-he-dint-vote-on-a-wa
ter-bill/6645/.

136. *Id.*

137. *Summarized History for Bill Number SB10-052*, COLO. GEN. ASSEMB., http://www.leg.state.co.us/clics/clics2010a/csl.nsf/fsbillcont/E8816E12796818B4872576A80027B7B8?Open&target=/clics/clics2010a/csl.nsf/billsummary/902F785D2244D31287257639004F25FC?opendocument (last visited Nov. 24, 2012).

B. S.B. 52's Harsh Consequences for Tributary Water Right Owners in Designated Basins

While the bill assured designated groundwater users that their most economically important water source could not be curtailed, it went too far by gutting the de-designation process that protected surface owners' rights. First, S.B. 52 prohibited the State Engineer from shrinking a basin to exclude conditionally permitted or finally permitted wells even if factual data justify redrawing the lines to ensure that senior surface appropriators actually get the water to which they have a vested right.[138] Indeed, factual data that could substantiate a surface owner's claim has become more readily available in recent years due to enhancements in groundwater measurement technology. For instance, the U.S. Geological Survey developed a measurement system called the "modular three-dimensional finite-difference groundwater model," also known as MODFLOW.[139] This "widely accepted" model[140] simulates the movement of groundwater, and it can demonstrate that groundwater pumping in Colorado's designated basins has likely injured surface water rights.[141] However, despite the availability of data showing that wells injure surface rights, S.B. 52 prohibits redrawing basins to curtail wells based on such data, instead allowing alterations to basin boundaries only to enlarge the basin or in instances where altering the basin would not exclude permitted wells.[142]

Furthermore, S.B. 52 characterized this change in the law as a mere clarification of the 1965 legislature's intent in passing the original Groundwater Management Act.[143] By divining that the legislature intended forty-five years

138. S.B. 10-52, 67th Gen. Assemb., 2d Reg. Sess. (Colo. 2010) (now codified at COLO. REV. STAT. § 37-90-106 (2012)).

139. *See MODFLOW and Related Programs*, U.S. GEOLOGICAL SURVEY, http://water.usgs.gov/nrp/gwsoftware/modflow.html (last visited Oct. 28, 2012).

140. San Antonio, Los Pinos & Conejos River Acequia Preservation Ass'n v. Special Improvement Dist. No. 1 of Rio Grande Water Conservation Dist, 270 P.3d 927, 933 (Colo. 2011).

141. *See* U.S. GEOLOGICAL SURVEY OFFICE OF GROUNDWATER, STATUS OF MODFLOW VERSIONS AND MODFLOW-RELATED PROGRAMS AVAILABLE ON USGS WEB PAGES (2011), http://water.usgs.gov/nrp/gwsoftware/modflow-status-2011Jan.pdf. (stating that "the family of MODFLOW-related programs now includes capabilities to simulate coupled groundwater/surface-water systems.").

142. S.B. 10-52, 67th Gen. Assemb., 2d Reg. Sess. (Colo. 2010) (now codified at COLO. REV. STAT. § 37-90-106 (2012)).

143. *Id.*

previously to keep injurious wells within basin boundaries, this last clause clandestinely applies the redrawing restrictions retroactively to wells that the Commission had already permitted. Moreover, this was a questionable reinterpretation of legislative intent because it directly contravened the Colorado Supreme Court's interpretation of that intent, which the court expounded only four years before in *Gallegos*. That opinion could not have been more clear: "[O]ur holding respects legislative intent by keeping designated ground water and [tributary] ground water . . . separate and distinct."[144]

To be sure, S.B. 52 helped groundwater users in designated basins plan their lives without the threat that a nearby surface owner could curtail their pumping. That certainty is especially valuable for many Eastern Plains farmers, who rely on designated groundwater to irrigate their fields. Plus, while the Colorado Supreme Court had acknowledged the de-designation system's importance in a number of cases since the 1965 Act passed, the 2006 *Gallegos* decision represented the first time that a surface owner in a designated basin had prevailed on a de-designation petition. Thus, designated basin well owners may have wondered why they had to live in constant uncertainty that their well water might get turned off when de-designation procedures were used so infrequently anyway.

However, these arguments fail to appreciate several barriers to a successful de-designation proceeding that existed for surface owners until only recently, and they fail to recognize the importance of surface water appropriation in designated basins. First, injury to a surface stream may only manifest itself after years or even decades of pumping.[145] Indeed, the injury tends to escalate as time goes by.[146] In addition, the injury is compounded by the State Engineer's authorization of more wells to pump, as it has done prolifically in recent years.[147] Thus, it makes sense that it took many years for the 1965 Act's de-designation procedures to be used effectively. Indeed, the limited use of these procedures until 2006 does not show that the procedures themselves were ineffective, but

144. Gallegos v. Colo. Ground Water Comm'n, 147 P.3d 20, 32 (Colo. 2006).

145. WILLIAM M. ALLEY ET. AL, U.S. GEOLOGICAL SURVEY CIRCULAR 1186: SUSTAINABILITY OF GROUND-WATER RESOURCES 31 (1999), *available at* http://pubs.usgs.gov/circ/circ1186/.

146. *Id.* at 31–33.

147. *See, e.g.*, Memorandum from Keith Vander Horst, *supra* note 67, at 1–2.

rather that newly felt injuries are only now making the procedures relevant.

Furthermore, technology to measure the extent of a designated well's injury to a surface stream has developed markedly over the past two decades, further reducing yet another barrier to a successful de-designation claim.[148] With the advent of computers and more sophisticated modeling programs, surface owners finally have at their disposal the means to scientifically prove that well pumping injures their water rights.[149] These technological improvements, combined with the escalating nature of well pumping's injury to surface streams, explain why, close on the heels of the *Gallegos* decision, yet another group of designated basin surface owners filed a major de-designation claim.[150] In fact, such reinvigorated use of the de-designation procedures in the early and mid-2000s might explain why designated basin well owners sought legislation eviscerating those procedures in 2010.

Additionally, the stability arguments put forward by groundwater interests in support of S.B. 52 minimize the economic importance of surface water in designated basins. Although certainly less economically important than designated wells, surface water still irrigates thousands of acres of farmland within designated basins.[151] There is no indication that those acres are any less productive than the acres irrigated with groundwater.

Plus, stability for well owners alone should not justify the profoundly negative impact that S.B. 52 has for some surface water users who have relied on the state's guarantee that their vested rights would not be disturbed. For instance, many farmers in the Republican River drainage hold surface rights with priority dates reaching back over one hundred years.[152]

148. *See, e.g.*, *Summary of MODFLOW-2000*, U.S. GEOLOGICAL SURVEY, http://water.usgs.gov/nrp/gwsoftware/modflow2000/Mf2k.txt (last visited October 28, 2012).

149. *See, e.g.*, *MODFLOW and Related Programs*, *supra* note 139.

150. DICK WOLFE, 2008 WATER UPDATE FOR COLORADO: SEO FORUM, *available at* http://water.state.co.us/DWRIPub/DWR%20Presentations/seoforum08_dwolfe.pdf. (describing *Laird Ditch v. Colo. Ground Water Comm'n*, No. 06-CV-31 (Yuma Cnty. Dist. Ct. 2006). The claim ultimately settled, but had the *Laird Ditch* surface owners prevailed, their claim could have shut down 1,300 high capacity wells in the Northern High Plains Designated Ground Water Basin.).

151. *See* Ken Knox, Colorado State Engineer's Office, Republican River Compact Briefing, at 15 (Dec. 10, 2003).

152. *See, e.g.*, Pioneer Irrigation Dist. of Yuma Cnty. v. Danielson, 658 P.2d

Their predecessors built elaborate ditch systems to channel water from the North Fork of the Republican, South Fork of the Republican, and Arikaree Rivers to nearby fields for irrigation.[153] However, the Republican watershed lies within the Northern High Plains Designated Ground Water Basin.[154] Surface water depletions from wells within the basin are thoroughly documented.[155] In fact, Colorado and several other states developed a groundwater model approved by the United States Supreme Court specifically to determine the river depletions caused by well pumping in that basin.[156] The model shows that designated wells have caused tens of thousands of acre-feet of depletion to the rivers.[157] Prior to S.B. 52, senior surface right owners, such as the Gallegos Family, could have brought that data before the Ground Water Commission, and the Commission would have been required to curtail the wells. Now, under the new scheme, well users can irrigate their fields with as much water as they are permitted to take, while surface users see their prior vested water rights dry up before their eyes.

IV. THE NEW STATUTE FLOUTS BASIC CONSTITUTIONAL GUARANTEES

Needless to say, surface water owners are now looking for avenues to attack the legislation. As this Part discusses below, S.B. 52 as applied to senior surface owners in designated basins is susceptible to constitutional attacks under the Prior Appropriation Clause in Colorado's Constitution and under the Procedural Due Process Clause of the United States

842, 844 (Colo. 1983) (noting that the Pioneer surface appropriators had a priority date of April 4, 1890).

153. *In re* Adjudication of Priorities of Right to the Use of Water for Irrigation and Other Beneficial Purposes in Water Dist. No. 65 in Water Div. No. 1 of the State of Colorado, CA0872, at 5–6 (Colo. Dist. Ct. 1912) (cataloguing ditches on the North Fork of the Republican and Arikaree Rivers by their construction dates ranging from 1887-1911); *In re* Application for Water Rights of Davis, W0045, at 2 (Colo. Dist. Ct. 1970) (noting that Mr. Davis's predecessors-in-right initially appropriated water from the Ireland Ditch on the South Fork of the Republican River on November 1, 1885).

154. *See Designated Basins and Management Districts*, *supra* note 125.

155. *See infra* notes 171–73 and accompanying text.

156. Final Report of the Special Master with Certificate of Adoption of RRCA Groundwater Model, Kansas v. Nebraska & Colorado, No. 126, Orig. (U.S. Sept. 17, 2003). *See infra* notes 174–76 and accompanying text.

157. *See infra* notes 174–76 and accompanying text.

Constitution.[158] Section A argues that the bill violates the Prior Appropriation Clause because it allows junior groundwater users in designated basins to pump water that senior surface owners can show materially deprives them of their prior vested rights. Section B argues that the bill also contravenes procedural due process guarantees in the Fourteenth Amendment of the U.S. Constitution.[159]

A. S.B. 52 Contravenes the Prior Appropriation Clause

The Prior Appropriation Clause entrenches in the state constitution a chronological priority system for apportioning rights to use the "waters of any natural stream."[160] Specifically, the clause provides that "[p]riority of appropriation shall give the better right" among those using water for beneficial purposes.[161] Thus, it is unconstitutional for a junior appropriator to divert tributary water when doing so injures a senior water right.[162] The clause controls regardless of the method junior appropriators use to acquire a senior appropriator's water.[163] Thus, just like out-of-priority depletions directly from the stream, out-of-priority well pumping that injures a senior surface right violates the clause.[164] Nonetheless, S.B. 52 sanctions such injurious out-of-priority well depletions as long as the culprit wells are

158. U.S. CONST. amend. XIV § 1; COLO. CONST. art. XVI, § 6.

159. Or alternatively, the procedural due process clause in Colorado's constitution: COLO. CONST. art. II, § 25.

160. COLO. CONST. art. XVI, § 6.

161. *Id.* The clause states that priority of appropriation shall give the better right "as between those using the water for the same purpose." However, the Colorado Supreme Court has interpreted the same purpose to mean "beneficial use" rather than a specific type of use such as irrigation or drinking water. *See* Strickler v. City of Colo, Springs, 26 P. 313, 317 (Colo. 1891).

162. *See, e.g.*, City & Cnty. of Denver v. N. Colo. Water Conservancy Dist., 276 P.2d 992, 1001 (Colo. 1954).

163. *See* Cascade Town Co. v. Empire Water & Power Co., 181 F. 1011, 1018 (C.C.D. Colo. 1910), *rev'd in part* 205 F. 123 (8th Cir. 1913), *modified sub nom.* Bigger v. Empire Water & Power Co., 205 F. 130 (8th Cir. 1913). "The complainant is not required to construct ditches or artificial ways through which the water might be taken from the stream, in order that it might appropriate the same." *Id.*

164. *See, e.g.*, Fellhauer v. People, 447 P.2d 986, 991 (Colo. 1968) ("[W]henever a court or water administration official can make a finding that the pumping of a junior well materially injures senior appropriators who are calling generally for more water, there exists a legitimate and constitutional ground and reason for the regulation of the well. . . ."); *see also* Hall v. Kuiper, 510 P.2d 329, 331 (Colo. 1973).

classified as "designated groundwater" wells, even if that designation turns out to be erroneous. While the Colorado Supreme Court has held that the 1965 Act's "modified prior appropriation doctrine" for designated basins comports with the Prior Appropriation Clause,[165] S.B. 52 unhinges the 1965 Act's protections for prior appropriative rights in designated basins, thus triggering a Prior Appropriation Clause violation.

The clause protects senior tributary users even from surface depletions that do not manifest themselves immediately, such as depletions caused by designated wells that may only become noticeable years after the initial pumping occurs. For instance, in *Comstock v. Ramsay*, water from the South Platte flooded about two hundred acres of land adjacent to the river after a downstream dam was constructed.[166] The plaintiff claimed a right to divert this "seepage water." He claimed that the water was not tributary to the stream because it did not return immediately to it. Thus, he argued, prior users had not appropriated the seepage water and he could appropriate it.[167] The court disagreed. It held that "practically every decree on the South Platte River . . . is dependent for its supply, and for years and years has been, upon return, waste and seepage waters."[168] To permit a person who never had a water right to divert tributary water "would be in effect to reverse the ancient doctrine, 'first in time first in right,' and to substitute in its stead, fortunately, as yet, an unrecognized one, '*last* in time first in right.'"[169] Although water from the flooded fields might take a long time to return to the river, the court nonetheless considered the seepage water tributary because it eventually augmented and replenished the river's flow.[170] Similarly, the fact that water pumped out of aquifers in designated basins may take months or even years to significantly impact a nearby stream does not alone alter the determinative fact that groundwater pumping injures vested rights legally secured under the Prior Appropriation Clause.

Of course, a number of cases have affirmed the 1965 Act's constitutionality even though some designated groundwater

165. Kuiper v. Lundvall, 529 P.2d 1328, 1329 (Colo. 1974).
166. 133 P. 1107, 1108 (Colo. 1913).
167. *Id.* at 1109.
168. *Id.* at 1110.
169. *Id.*
170. *Id.* at 1111.

wells under the Act eventually impact surface streams.[171] In *Kuiper v. Lundvall*, for instance, the court held that designated basin groundwater that would take over a century to reach a nearby stream did not fall under the Prior Appropriation Clause because an appropriator's intercepting such slowly moving groundwater would cause only a de minimis impact to the stream.[172] However, *Kuiper v. Lundvall* and other cases finding that designated well pumping did not violate the Prior Appropriation Clause turn on the de minimis impact that the wells at issue had on surface streams.[173] On the other hand, when an appropriator materially injures a stream by intercepting even a slow return flow, that material injury can give rise to a Prior Appropriation claim.[174]

Indeed, the Prior Appropriation Clause allows a low injury threshold for senior right owners to seek redress against injurious junior depletions. For example, in *Hall v. Kuiper*, the court held that the State Engineer could shut down wells that depleted the amount of water reaching the river, even though the Engineer could not point to a *particular* injured surface right.[175] The *Hall* court reasoned that even pumping barely noticeable to any one senior water right holder can still materially injure vested rights.[176] Such injury cannot withstand the low threshold required to trigger the Prior Appropriation Clause.[177]

Well pumping in designated groundwater basins often depletes surface streams to an extent far surpassing that at

171. Kuiper v. Lundvall, 529 P.2d 1328, 1331 (Colo. 1974); Upper Black Squirrel Creek Ground Water Mgmt. Dist. v. Goss, 993 P.2d 1177, 1182 (Colo. 2000); *see also* Colo. Ground Water Comm'n v. N. Kiowa-Bijou Groundwater Mgmt. Dist., 77 P.3d 62, 77 (Colo. 2003).

172. *Lundvall*, 529 P.2d at 1331.

173. *See, e.g.*, *Goss*, 993 P.2d at 1182 ("In addition [to water implicated by the Prior Appropriation Clause], there is in Colorado a category of the public water resource that is not part of the natural stream. Use of this ground water has a *de minimis* effect on any surface stream.").

174. *Compare* Cline v. Whitten, 372 P.2d 145, 148 (1962) (finding that, under the Prior Appropriation Clause, once waters have been established as tributary to a stream "they cannot be interrupted in their course and diverted from the stream; they belong to the creek"), *with* Hall v. Kuiper, 510 P.2d 329, 331 (1973) (holding that allowing a defendant to drill his two proposed wells could materially injure a surface stream even though the underground water he proposed to pump moved at three-tenths of a mile per year and was thirteen miles away from the stream to which it connected).

175. 510 P.2d 329, 331 (Colo. 1973).

176. *Id.*

177. *Id.*

issue in *Comstock* and *Hall*. Although perhaps not intuitive, data demonstrate that streams draw up groundwater through the streambed.[178] Thus, groundwater pumping can cause stream flow depletion by reducing the groundwater discharge flowing from subterranean sources up into streams.[179] Additionally, groundwater pumping can deplete stream flow because pumping creates new space in an aquifer into which surface water can seep.[180] This phenomenon is referred to as a "losing stream" because the stream loses water when gravity pulls the water through the streambed into an underlying aquifer.[181]

The Colorado Ground Water Commission has acknowledged this dynamic in a number of instances. For example, the Commission anticipated that well pumping in the Upper Crow Creek Basin—at issue in *Gallegos*—could interfere with senior tributary appropriation.[182] In designating that basin, the Commission recognized that:

> there are existing decreed surface water rights located within the drainage of Crow Creek and Little Crow Creek. Therefore, in reviewing any new well permit application . . . the Commission shall determine whether the ground water to be pumped is tributary to the source of any such vested surface water right, and shall deny any application which would injuriously affect any such decreed surface water rights.[183]

The Commission also acknowledged the potential for designated wells to injure surface flows when it denied a designation for the proposed Box Elder Creek Designated Ground Water Basin.[184] The Box Elder Basin proponents

178. WINTER ET AL., *supra* note 11, at 9.

179. BUREAU OF RECLAMATION, U.S. DEP'T. OF THE INTERIOR, REPUBLICAN RIVER BASIN WATER MANAGEMENT STUDY: COLORADO, NEBRASKA, KANSAS 41, 43 (1985).

180. *Id.*; TOPPER ET AL., *supra* note 22, at 18.

181. TOPPER ET AL., *supra* note 22, at 18.

182. Report, Findings of Fact, Conclusions of Law and Initial Decision of the Hearing Officer in the Matter of the Creation of a Designated Ground Water Basin on Upper Crow Creek in the State of Colorado, No. 86GW12 at ¶ 18 (Colo. Ground Water Comm'n Jan. 20, 1987) [hereinafter Upper Crow Creek Designation].

183. *Id.*

184. Findings of Fact, Conclusions of Law, and Initial Decision of the Hearing Officer in the Matter of a Petition to Create a New Designated Ground Water

applied for basin designation to pump groundwater in an area surrounding the South Platte River, an already over-appropriated river system.[185] The Commission found that anywhere from 1,000 acre-feet to 21,571 acre-feet or more of depletion to the South Platte would occur under the proposed designation.[186] Although the South Platte produces over 630,000 to 640,000 acre-feet of median surface flow per year, the well depletions might nonetheless injure stream flows.[187] Accordingly, the hearing officer denied the designation because "depletions caused by Petitioners' pumping are not de minimis to the South Platte River and are needed by senior and junior water rights on this over-appropriated system."[188] The same prior appropriation concerns that guide the Ground Water Commission in designation decisions should likewise guide the Commission to curtail pumping within a basin once the basin has been designated.

S.B. 52 violates the Prior Appropriation Clause because it prevents the State Engineer from remedying injurious depletions that the Engineer failed to detect at the basin designation stage. Although the State Engineer takes care to avoid designating wells that have more than a de minimis impact on the surface stream, he cannot accurately predict at the designation stage the ultimate impact that wells will have on surface flows. Indeed, the State Engineer has been plain wrong in classifying a large number of wells within groundwater basins as nontributary. For example, recent figures show that pumping from designated wells within the Northern High Plains Designated Ground Water Basin has depleted an average of 21,330 acre-feet per year from the river systems within that basin from 1981 through 2000.[189] Some years, the average exceeded 28,000 acre-feet,[190] enough water to fill over 13,000 Olympic-sized swimming pools.[191] That water

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Basin to be known as the "Box Elder Creek Designated Ground Water Basin" in Adams, Arapahoe, Denver, Elbert, and Weld Counties, No. 06GW23 (Colo. Ground Water Comm'n Feb. 20, 2007).

185. *Id.* ¶ 20.

186. *Id.* ¶ 27.

187. *Id.* ¶ 35.

188. *Id.*

189. Final Report of the Special Master with Certificate of Adoption of RRCA Groundwater Model, Kansas v. Nebraska & Colorado, No. 126, Orig. at U1 (U.S. Sept. 17, 2003).

190. *Id.*

191. One acre-foot of water equals 326,000 gallons. *Rain: A Valuable Resource*, *supra* note 20. Doing the math, 28,000 acre-feet equals 9.1 billion gallons of water.

is simply unavailable to surface owners who have a legal right to use it.

Indeed, S.B. 52 lets wells with junior priority dates appropriate water that would otherwise be available for senior surface rights because the measure sets the basin designation date as the final time at which surface owners can seek to curtail basin wells. This ignores the thoroughly documented fact that wells are often found to deplete surface water only *after* a basin is finally designated. Although the 1965 Act purported to enact a "modified" prior appropriation system in designated basins, the Act does not permit the state to contravene its own constitution by carving out designated basins from the prior appropriation system altogether. As applied to tributary waters, "[p]riority of appropriation shall give the better right."[192] S.B. 52 gives the "better right" to a designated well regardless of whether the well is tributary to a stream. That scheme deprives the Prior Appropriation Clause of force, an outcome that the Colorado Supreme Court should not condone.

B. S.B. 52 Strips Surface Owners of Procedural Due Process Guarantees

Not only does S.B. 52 encourage well users to consume previously appropriated water, but it also sidesteps procedural due process by removing the de-designation hearing that the pre-2010 Groundwater Management Act guaranteed. Stripping senior users of their vested water rights without a hearing violates the Due Process Clauses of the U.S. and Colorado Constitutions.[193] Procedural due process claims are based on three criteria: (1) whether a property right has been identified; (2) whether governmental action with respect to that property right amounts to a deprivation; and (3) whether the deprivation, if one is found, was visited upon the plaintiff without due process of law.[194] This Part argues that, as applied

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An Olympic-sized swimming pool holds 660,000 gallons. *Water Trivia Facts*, ENVTL PROTECTION AGENCY, http://water.epa.gov/learn/kids/drinkingwater/water_trivia_facts.cfm (last visited Oct. 28, 2012).

192. COLO. CONST. art. XVI, § 6.

193. The procedural due process clause can be found in U.S. CONST. amend. XIV and in COLO. CONST. art. II, § 25.

194. *E.g.*, Hillside Cmty. Church v. Olson, 58 P.3d 1021, 1025 (Colo. 2002); *see also* Pawnee Well Users v. Wolfe, No. 10CW89, slip op. at *14 (Colo. Water Div. 1. Sept. 8, 2011).

to injured surface owners in designated basins, the S.B. 52 statutory scheme meets all three criteria necessary to trigger a procedural due process violation.

1. Water Rights Constitute an "Identified Property Right"

A surface owner's water right in a designated groundwater basin constitutes an identified property right for due process purposes. A water right, "being property, is protected by our constitution so that no person can be deprived of it without 'due process of law.'"[195] Water rights are peculiar property interests because the extent of the right is limited by the prior appropriation doctrine. An appropriator does not constantly own the physical water, but instead owns only the right to use the water when it is available in priority.[196] In other words, a water right counts as vested property subject to due process guarantees as long as enough water is available in a given year to satisfy the right.[197] Surface right owners in designated basins often have enough water available to satisfy their rights because many of them hold rights with very early priority dates, entitling them to use water in most years.[198]

2. Well Pumping Deprives Water Right Owners of Water that Would Otherwise Be Available in Priority

Additionally, a senior surface owner in a designated groundwater basin can probably prove that setting unchallengeable basin boundaries amounts to a property deprivation. A state violates procedural due process rights when it deprives a senior appropriator of water that is available to her.[199] Colorado recognized this conclusion early on.[200] In *Strickler v. City of Colorado Springs*, the Colorado

195. Nichols v. McIntosh, 34 P. 278, 280 (Colo. 1893).
196. Navajo Dev. Co. v. Sanderson, 655 P.2d 1374, 1377 (Colo. 1982).
197. *Id.*
198. *See, e.g.*, Pioneer v. Danielson, 658 P.2d 842, 844 (Colo. 1983) (noting that the Pioneer surface appropriators had a priority date of April 4, 1890); Gallegos Answer-Reply Brief at 21, Gallegos v. Colorado Groundwater Comm'n., 147 P.3d 20 (Colo. 2006) (No. 05SA253) (noting that the Gallegos Family's surface water right had a priority date of 1885).
199. *See* Strickler v. City of Colo. Springs, 26 P. 313, 317 (Colo. 1891).
200. *Id.*

Supreme Court held that a city must compensate a diverter before appropriating water to which the diverter has a prior right.[201] A city using water out of priority "fall[s] under the ban of the [F]ourteenth [A]mendment to the federal constitution, which provides that no person shall be 'deprived of life, liberty, or property without due process of law.'"[202] The court reasoned that the Fourteenth Amendment ensures that cities compensate senior appropriators before prior vested rights can be "taken or injuriously affected."[203]

Since *Strickler*, Colorado courts have consistently acknowledged that senior surface owners who can prove actual injury are guaranteed due process. For example, in *Pawnee Well Users v. Wolfe*, the water court suggested that "erroneous State Engineer nontributary determinations" can substantiate a due process claim.[204] However, in that case, the court held that a due process violation did not occur because surface owners merely asserted that the State Engineer's nontributary determination for Coal Bed Methane wells *might* deprive them of a vested right "in the future."[205] Mere speculation about potential future deprivations does not amount to a deprivation.[206] Rather, to prevail, the plaintiffs had to show an actual direct deprivation of water that was available to them in priority.[207]

Courts in other states grappling with the same issue have likewise acknowledged that a property deprivation can occur when government officials prevent a water right holder from satisfying his right during a time when water is available. For instance, in *Keating v. Nebraska Public Power District*, the Eighth Circuit held that junior appropriators were not deprived of their vested rights because they did not prove that the state curtailed their rights at a time when the water to fulfill the rights was available.[208] In that case, the Nebraska Public Power District ("NPPD") called on its senior right during a dry year, meaning that junior diverters had to forgo using water in

201. *Id.*
202. *Id.*
203. *Id.*
204. Pawnee Well Users v. Wolfe, No. 10CW89, slip op. at *14 (Colo. Water Div. 1 Sep. 8, 2011).
205. *Id.*
206. *Id.*
207. *Id.*
208. *See* Keating v. Neb. Pub. Power Dist., 660 F.3d 1014, 1018 (8th Cir. 2011).

order to fulfill NPPD's full right.[209] Pursuant to NPPD's call, the Nebraska Department of Natural Resources issued closing notices to junior diverters, including the plaintiff-appellant farmers.[210] The notices required the farmers to stop using water so that downstream senior appropriators could use it instead.[211] The farmers argued that the closing notices effected a property deprivation.[212] Thus, the farmers maintained, procedural due process required that the state offer them a pre-deprivation hearing.[213] But a water user's ownership of her water right, which is a necessary element for a due process claim, is conditioned on the state's determination that the stream contains enough water to satisfy the purported owner's right. The water right permit is not the right itself. Rather, the permit simply gives the diverter a right to use the water "when there is sufficient capacity."[214] Thus, the closing notices did not deprive the farmers of a property right without due process because, at the time the notices were issued, there was insufficient stream capacity for the farmers to claim a property right.[215]

Conversely, it stands to reason under *Keating* that, if the stream held sufficient capacity to fulfill the farmers' rights, the state's curtailment orders, absent a hearing, would have unconstitutionally deprived the plaintiffs of those rights. *Keating* turns on the farmers' status as junior appropriators, to whom water in a dry year is unavailable. The farmers were not deprived of their property rights only "[b]ecause the issuance of Closing Notices does not impact the property right bestowed by the permit to use the surface water when there is sufficient capacity."[216]

By contrast, Colorado's surface water owners in designated basins would have an easy claim that a deprivation has occurred because designated well pumping deprives some surface owners of water that would be available to them but for the pumping.

209. *Id.* at 1016.
210. *Id.*
211. *Id.*
212. *Id.*
213. *Id.*
214. Keating v. Neb. Pub. Power Dist., 660 F.3d 1014, 1018 (8th Cir. 2011).
215. *Id.*
216. *Id.*

3. S.B. 52's Gutting the 1965 Act's Hearing Provisions Violates Even the Flexible Procedural Standards that the Due Process Clause Guarantees

Finally, many injured surface owners in designated groundwater basins can show that, under the S.B. 52 regime, Colorado never provides them with an opportunity for a meaningful hearing. Courts have construed the fundamental requirement of due process as the opportunity to be heard "at a meaningful time and in a meaningful manner."[217] This is a flexible standard, calling only for such procedural protections "as the particular situation demands."[218] For example, in the water context, the Colorado Court of Appeals indicated in *Meridian Ranch Metropolitan District v. Colorado Ground Water Commission* that a management district's restrictive pumping rules did not violate a group of well owners' due process rights because the management district gave the well owners notice and an opportunity to be heard at a public hearing.[219] In that case, the well owners argued against the rule twice in front of Commission hearing officers and received review from the Commission as a whole before the rule went into effect.[220] Thus, "there was no violation of procedural due process" because the well owners had "adequate advance notice and opportunity to be heard prior to state action resulting in deprivation of a significant property interest."[221]

Unlike the ample hearing opportunities in *Meridian*, S.B. 52's exact purpose is to eliminate the hearing before the Ground Water Commission that the 1965 Act originally allowed for surface owners to challenge groundwater basin boundaries. The statute prohibits the State Engineer from shrinking a basin to exclude wells,[222] making basin boundaries

217. Mathews v. Eldridge, 424 U.S. 319, 333 (1976). Note that the exact format of the hearing is flexible "as long as the basic opportunity for a hearing and judicial review is present." Ortega v. Indus. Claim Appeals Office of State, 207 P.3d 895, 899 (Colo. App. 2009).

218. Wilkinson v. Austin, 545 U.S. 209, 224 (2005) (quoting Morrissey v. Brewer, 408 U.S. 471, 481 (1972)).

219. Meridian Ranch Metro. Dist. v. Colo. Ground Water Comm'n., 240 P.3d 382, 391 (Colo. App. 2009).

220. *Id.* at 384.

221. *Id.* at 391.

222. S.B. 52, 67th Gen. Assemb. (Colo. 2010) (codified at COLO. REV. STAT. § 37-90-106 (2012)).

essentially unchallengeable. In fact, even more than that, the legislation permits basins to grow unhampered, essentially creating a reverse ratchet effect. Yet under S.B. 52, a surface owner has no redress whatsoever, even if he can prove that water would have been available for his prior vested right but for basin wells. It is true that due process hearing standards are flexible and that in some cases even sparse hearings satisfy due process requirements. However, S.B. 52's utter elimination of *any* hearing for injured surface owners in designated basins surely falls short of providing even those minimal standards.

As the Colorado Supreme Court reflected in reference to a water deprivation: "If private rights may be stripped from the citizen by state 'compacts,' by legislative fiat, by commissioners, by the uncontrolled discretion of state engineers, then 'due process' is dead in Colorado."[223]

V. TWO POSSIBLE ALTERNATIVES TO S.B. 52: STANDARD AUGMENTATION RATES OR A BASIN-WIDE GROUNDWATER MANAGEMENT PLAN

While repealing S.B. 52 would be better than the current scheme, several even stronger policy solutions present opportunities going forward. Rather than de-designating entire basins, the state should find an alternative that balances groundwater users' interest in stabilizing a water source on which they now rely with surface water users' equally important interest in protecting their prior vested water rights.

Although the 1965 Act provided a mechanism to prevent designated wells from pumping tributary water, that mechanism had major weaknesses. First, the 1965 Act's de-designation procedure was onerous for an allegedly injured surface owner. The Act required a surface owner to bring a legal claim to the Ground Water Commission every time the owner wanted to get his full right. Not only could the legal costs mount under such a scheme, but to prove injury, a surface owner generally would have to order his own potentially very expensive studies showing that designated wells in fact caused the injury about which the owner complained. In addition, not only was that de-designation mechanism difficult for surface owners, but it also was unstable for groundwater users who

223. La Plata River & Cherry Creek Ditch Co. v. Hinderlider, 25 P.2d 187, 188 (Colo. 1933) (internal quotations omitted).

lived under constant uncertainty that their wells would be de-designated. For many designated well owners, curtailment could be ruinous.

Although S.B. 52 should be repealed or overturned, tributary and designated groundwater users should nonetheless try to strike a different compromise. There are several promising options. For one, the state could enact a scheme for designated groundwater similar to the scheme that S.B. 74 enacted for "not nontributary" groundwater.[224] For water so designated, the statute requires all new wells to augment nearby streams at fixed rates depending on their proximity to the stream.[225] That is, the state presumes that all wells pumping "not nontributary" groundwater injure streams to some extent, and the state requires those well owners to replenish water in nearby streams at a rate commensurate with the presumed injury, measured by how close their well is to the stream.[226] Under that plan, the augmentations do not restore the stream to its "natural state" every year. In some years the standard augmentation probably adds too much water back into the tributary system, and in other years it probably results in not enough available tributary water. However, the standard augmentation system gives groundwater users the stability they sought under S.B. 52 without depriving surface owners of the rights to which they are entitled.

Additionally, designated basins could follow a model similar to the groundwater management plans required for the San Luis Valley under H.B. 1011 and S.B. 222.[227] Those bills required local stakeholders to create their own conjunctive use program based on available data measuring the extent to which well pumping in the Valley injures surface water rights in that area.[228] As applied to designated basins, requiring a conjunctive use model based on broad stakeholder input would resolve some of the fairness issues surrounding S.B. 52's

224. COLO. REV. STAT. § 37-90-103 (2012); *see also supra* notes 88–95 and accompanying text.

225. COLO. REV. STAT. § 37-90-103 (2012); *see also supra* notes 88–95 and accompanying text.

226. COLO. REV. STAT. § 37-90-103 (2012); *see also supra* notes 88–95 and accompanying text.

227. *See supra* notes 98–102 and accompanying text.

228. San Antonio, Los Pinos and Conejos River Acequia Pres. Ass'n v. Special Improvement Dist. No. 1 of the Rio Grande Water Conservation Dist., 270 P.3d 927, 933 (Colo. 2011).

enactment. Moreover, such a program would reaffirm the 1965 Act's preference for apportioning rights based on hard data. That preference makes eminent sense for Colorado, where diverse geographical features, such as varying porosity between aquifers, can significantly alter the impact that well pumping has on nearby surface streams. Last, modeling a plan for designated basins similar to H.B. 1011 and S.B. 222 would rightfully treat water apportionment in designated basins as a community issue to be solved collectively, rather than as a dispute between two individual adversaries, which characterized the 1965 Act's approach.

CONCLUSION

S.B. 52 tips the balance too far in favor of groundwater users at the expense of senior surface owners who, in some cases, have been appropriating pursuant to a vested water right for over one hundred years. From the start, S.B. 52 lacked the stakeholder input from surface owners necessary for a balanced rule. Indeed, the current statute after S.B. 52 reflects this imbalance. Rather than redrawing basins based on data, the new statute only lets basins grow, but not shrink.[229] The legislation removed the Commission hearing that *Gallegos* and its predecessor cases determined were part of the legislature's intent in passing the 1965 Act. And by characterizing this change in the law as a mere clarification of the 1965 legislature's intent, the bill snuck in a retrospective application to already permitted wells.

S.B. 52 plainly ignores the hydrological reality that surface and underground water in designated groundwater basins are inextricably linked. The declared purpose of the 1965 Act was to permit the "full economic development of designated ground water resources" without materially disrupting decreed surface rights.[230] The Act intended to apportion relatively nonrenewable groundwater resources so that enough water would be available for both sustained groundwater pumping and continued tributary diversions. The Act, under S.B. 52, still achieves part of its original purpose by instructing the Ground Water Commission to designate basins where, at one

229. S.B. 52, 67th Gen. Assemb. (Colo. 2010) (now codified at COLO. REV. STAT. § 37-90-106 (2012)).

230. Colo. Ground Water Management Act of 1965, ch. 319, § 148-18-1, 1965 Colo. Sess. Laws 1246, 1246.

point in time, the State Engineer determined that well pumping did not materially injure surface streams. But the current Act fails to account for injuries to surface owners that are discovered only after groundwater basins have been designated. Such an incongruous system contradicts the legislative intent behind the 1965 Act, while ironically characterizing the contradiction as a clarification of original legislative intent.

Besides simply constituting unfair policy, the statute violates the Colorado Constitution's Prior Appropriation Clause[231] because it gives junior wells the right to appropriate tributary stream water that has already been decreed to prior appropriators. Finally, the measure also violates the Due Process Clause[232] of the United States and Colorado Constitutions because it deprives senior surface owners of their vested water rights without a meaningful hearing.

The legislature should repeal S.B. 52 or the Colorado Supreme Court should overturn it as unconstitutional. However, rather than reverting to the 1965 Act's de-designation procedures, state policymakers should consider other alternatives. Several recent pieces of legislation provide models that, if applied to designated basins, could reaffirm Colorado's longstanding values of flexibility and balance in its water laws. On the whole, Colorado would be better served if *both* the "waters of the state" and "designated ground water" converged to maximize legal stability and Colorado's economic benefit from its scarce water resources.

231. COLO. CONST. art. XIV, § 6.
232. U.S. CONST. amend. XIV; COLO. CONST. art. II, § 25.