

POINTS OF DIVERSION FROM NEVADA'S ESTABLISHED GROUNDWATER LAWS

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INTRODUCTION

As the driest state in the nation,¹ Nevada's ability to sustain a continuously growing population in the middle of a desert has been remarkable. Ever since settlers discovered the gold and silver ore that spurred the beginning of the state's urban development,² Nevada has always struggled to secure one of the most basic resources necessary to sustain civilization: water.³

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¹ Liz Osborn, *Driest States in America*, CURRENT RESULTS, <http://www.currentresults.com/Weather-Extremes/US/driest-states.php> (last visited Dec. 12, 2022) [<https://perma.cc/CYX2-EMJU>].

² Glenn S. Dumke, *Mission Station to Mining Town: Early Las Vegas*, 22 PAC. HIST. REV. 257, 260–67 (1953) (describing development resulting from mining and the railroad); *See also* Earl W. Kersten, *Nevada Then and Now: Forging an Economy*, 47 Y.B. ASS'N PAC. COAST GEOGRAPHERS 7, 12 (1985).

³ Water is an essential component of life. *See* Molly Sargen, *Biological Roles of Water: Why is Water Necessary for Life?*, HARV. U. (Sept. 26, 2019), <https://sitn.hms.harvard.edu/uncategorized/2019/biological-roles-of-water-why-is-water-necessary-for-life/> [<https://p>

Yet against all odds, the city of Las Vegas, the state's primary urban center, stands out today as an incredible oasis in a misanthropic environment. This is a testament to Nevada's perseverance; the state even now continues to expand and grow.⁴ Through interstate politicking,⁵ federally funded projects,⁶ and at least a little foresight,⁷ the state government has perpetually drawn blood from a stone to nurture Nevada's future. To this end, the legislature and state water agencies have consistently demonstrated a liberal view of water management by allowing excessive water provisions to farmers and developers,⁸ indicating a utilitarian policy approach favoring water use and rights holders over conservation.⁹

At present, water use has far exceeded state predictions for water need,¹⁰ and in the face of climate change and overpopulation, Nevada is quickly drying up while scrambling to find or create new ways to bring in water.¹¹ As droughts worsen across the Nation's west and supply inches to the forefront of states' primary concerns, a clearer picture is developing of the future of Nevada water law and the fate of the state's water rights holders: the government is beginning to take new steps and seek new strategies to increase sustainability while juggling users' rights and the welfare of everyone

erma.cc/C5N2-BTGT].

⁴ News 3 Staff, *Nevada Named 3rd Fastest-Growing State in the U.S.*, 3 NEWS (Dec. 18, 2022, 2:11 PM), <https://news3lv.com/news/local/nevada-named-3rd-fastest-growing-state-in-the-us> [<https://perma.cc/P4KX-LQYB>].

⁵ See 43 U.S.C. § 617c.

⁶ See The Editors of Encyclopedia Britannica, *Hoover Dam*, ENCYC. BRITANNICA (June 7, 2023), <https://www.britannica.com/topic/Hoover-Dam> [<https://perma.cc/3BBH-WCM9>].

⁷ See Michael Arthur & Demian Saffer, *A Familiar History of Water and Population Growth*, PA. STATE UNIV., <https://www.e-education.psu.edu/earth111/node/950> [<https://perma.cc/KG4P-989H>] (last visited Dec. 27, 2022) (storing Colorado River water in the ground for future use).

⁸ Eighty-four of Nevada's 256 basins are over-appropriated. *E.g.*, Daniel Rothberg, *After Nearly Two Decades of Drought, State Engineer Tackles Excess Water Rights and Faces a Backlash in the Courts*, NEV. INDEP. (Aug. 6, 2018, 2:05 AM), <https://thenevadaindependent.com/article/after-nearly-two-decades-of-drought-state-engineer-tackles-excess-water-rights-and-faces-a-backlash-in-the-courts> [<https://perma.cc/XKZ4-9NVK>].

⁹ See *infra* note 111 and accompanying text.

¹⁰ The Las Vegas metro area—the highest water use area in the state—was expected to have a population of between 1 and 1.5 million by 2020, yet it has since exceeded 2 million. Compare NEV. DIV. WATER RES., WATER FOR NEVADA 22 (1971), with *Las Vegas Metro Area Population 1950-2023*, MACROTRENDS, <https://www.macrotrends.net/cities/23043/las-vegas/population> [<https://perma.cc/Z28T-655C>] (last visited Nov. 5, 2022).

¹¹ See *Hearing on Bill Draft Request 48-736 Before S. Comm. on Nat. Res.*, 2017 Leg., 79th Sess. 4 (Nev. 2017) (statement by Mike Baughman, Executive Director, Humboldt River Basin Water Authority) (“We will have drought . . . Warming trends and climate change is undeniably going to cause some changes.”).

else in the state relying on equitable access to water. It remains to be seen, though likely not for much longer,¹² whether the state will double down on its current water management policy that keeps use open for all rights holders, or if it begins to dictate sacrifices in a strategy shift toward less use in favor of future reliability. So far, the state has leaned toward the former—particularly regarding its groundwater—which constitutes 40 percent of the state’s use¹³ and is the focus of this Note.

A quick look at the state’s groundwater management system reveals the gravity of the worsening water shortage situation. Nevada has been divided into fourteen major hydrographic regions, which have been further subdivided into 256 distinct “hydrologic units” for state-facilitated water management.¹⁴ Water usage rights are granted in conformation to these units. Over-appropriation of water rights has been an issue in basins throughout the state for decades.¹⁵ 113 hydrologic units have been declared “designated groundwater basins” by the State Engineer.¹⁶ A designated groundwater basin is one that has been found to be over-appropriated or nearly so, with pumping from the basin exceeding its annual recharge rate.¹⁷ This means many—if not all—of these 113 basins are suffering from declining groundwater levels. With almost half the hydrologic units in Nevada experiencing or nearing a net deficit of water resources, and with climate change making matters worse, the state legislature seems to have taken a more serious interest in these problems.¹⁸

In one step to help address the worsening groundwater shortages across the state, the Nevada Legislature passed Nevada Revised Statutes (“NRS”) 534.110(7) and 534.037.¹⁹ These statutes allow the State Engineer to label

¹² See *infra* Parts II, III, IV, V.

¹³ NEV. DIV. WATER PLAN., NEVADA STATE WATER PLAN SUMMARY SECTION 3 – WATER RESOURCES AND USE ASSESSMENT, 11–12 (1999).

¹⁴ See *generally* NEV. DIV. WATER RES., APPENDIX A-1 NEVADA HYDROGRAPHIC REGIONS (BASINS), AREAS, AND SUB-AREAS, <http://water.nv.gov/programs/planning/dictionary/appd-A1.pdf> [<https://perma.cc/4QSA-MX8F>] (last visited Nov. 19, 2022).

¹⁵ See Rothberg, *supra* note 8; see also Miranda Willson, *Las Vegas Groundwater Management a Success, but Overpumping Issues Loom*, LAS VEGAS SUN (Dec. 8, 2019, 2:00 AM), <https://lasvegassun.com/news/2019/dec/08/las-vegas-groundwater-management-success-overpump/> [<https://perma.cc/4PV8-4PTX>]; Mason Voehl, *The Nevada Water Crisis You Aren’t Hearing About*, LAS VEGAS SUN (May 7, 2023, 2:00 AM), <https://lasvegassun.com/news/2023/may/07/the-nevada-water-crisis-you-arent-hearing-about/> [<https://perma.cc/J26D-F4MJ>].

¹⁶ See NEV. DIV. WATER RES., DIVISION OF WATER RESOURCES OVERVIEW 13 (Sept. 11, 2019).

¹⁷ See *id.*

¹⁸ See *infra* Parts II, IV, V.

¹⁹ See *infra* Part II.

designated groundwater basins as Critical Management Areas (“CMA”) and prompt the basin water rights holders to implement sustainable methods for their water use or risk curtailment of their rights for failing to do so.²⁰ Since adoption of these statutes, the State Engineer has marked the Diamond Valley basin as a CMA.²¹ The Diamond Valley basin is one of ninety hydrologic units comprising the Central Region hydrographic region—by far the largest of Nevada’s fourteen hydrographic regions. It is also the most over-appropriated basin out of thirty-three designated basins in that region.²² To remove the CMA label, the rights holders of Diamond Valley spent years drafting a formal Groundwater Management Plan (“GMP”) with the goal of reducing their use to sustainable amounts.²³ The State Engineer’s approval, and the State Supreme Court’s subsequent endorsement, of the Diamond Valley GMP illuminates Nevada’s user-oriented approach to water law, helping set the stage for further related actions by both the legislature and private shareholders.

This Note uses the Diamond Valley basin as a case study to assess Nevada’s prioritization of water management through maintaining access for everyone. Likely future changes to the state’s codified water law regarding groundwater are also addressed. The user-oriented policy approach has been contrary to the state’s established water law, including the prior appropriation doctrine and related adjunct statutes, which would otherwise favor some water rights holders and guarantee their continued access to water while the remainder completely go without. Nevada’s Legislature and Supreme Court’s recent deviations from established water law indicate the beginning of a formal overhaul to the state’s water law that will more accurately reflect the user-oriented policy approach that has been practiced for over a century.

Part I of this Note reviews the fundamentals of Nevada water law, centering on the doctrine of prior appropriation.²⁴ Part II examines NRS 534.110(7) and NRS 534.037, recently codified in Nevada as a strategy to address over-appropriation issues in the state’s groundwater basins. Part III explores the story surrounding Diamond Valley, the GMP that the basin’s water rights shareholders drafted to promote sustainability, and the present condition of the water rights to the basin. This Part concentrates on *Diamond Natural Resources Protection and Conservation Association v. Diamond Valley Ranch, LLC (Diamond Valley)*, the 2022 Nevada Supreme Court case that represents the judiciary’s interpretation of NRS 534.110(7)

²⁰ *Id.*

²¹ *Infra* Section III.A.

²² NEV. DIV. WATER PLAN., *supra* note 13, at 15.

²³ *See infra* Section III.A.

²⁴ This Note focuses on groundwater. Analyses of surface water and conjunctive management exceed the scope of the topic.

and 534.037 which sets novel precedent for future legal handling of state water law issues. Finally, Part IV analyzes the legal implications of the Diamond Valley case and covers potential future changes to the state's practices of the prior appropriation and anti-speculation doctrines. This Part also looks at the government's stances on concepts such as water banking and vested rights and discusses the likely future roles of those concepts in the state's water law.

I. NEVADA WATER LAW

The doctrine of prior appropriation is a water rights management arrangement that emphasizes priority of water rights for beneficial use.²⁵ The doctrine can be broken down into two principal components: the Rule of Priority and the Beneficial Use Requirement.²⁶ Both components are essential to every water right in Nevada. Under the Rule of Priority, rights to unappropriated water are awarded by the state government on a first-come, first-served basis while the Beneficial Use Requirement mandates the appropriated water be used beneficially.²⁷ Prior appropriation allows for significant government regulation of water use. For regulatory purposes, rights holders are generally separated into two categories based on when they acquired their rights: senior rights holders and junior rights holders. Senior rights holders are those who received and perfected their rights earlier than junior holders and have priority to water supplies over later owners, the junior rights holders.²⁸ If a supply of water—like a basin—drops to an unsustainable level, the government can revoke water rights to that supply in the reverse order that they were rewarded.²⁹ In other words, the most junior rights holders lose their rights first. Should the water supply continue to be at risk, rights continue to be revoked until the most senior rights holders remain, assuming there is enough water remaining for them to use. These most senior of all rights holders own what are known as vested rights. These special “pre-statutory” rights to water use within a given state were claimed

²⁵ See *infra* Part I.

²⁶ RSCH. DIV. LEG. COUNSEL BUREAU, WATER POLICY AND ISSUES IN NEVADA: AN OVERVIEW 1 (2019).

²⁷ *Id.*; see also JASON KING, NEV. DIV. WATER RES., SUMMARY OF STATUTORY PROCEDURES FOR FILING CLAIMS OF VESTED RIGHTS, MAKING APPLICATION FOR A WATER RIGHT AND A SUMMARY OF FEES OF THE STATE ENGINEER 1 (2018) (“Some common beneficial uses are irrigation, stock watering, mining and milling, and domestic.”).

²⁸ FRED W. WELDEN, HISTORY OF WATER LAW IN NEVADA AND THE WESTERN STATES 2 (2003).

²⁹ HARRISON ZEFF ET AL., NICHOLAS INST. FOR ENV'T. POL'Y. SOL., BENEFITS, COSTS, AND DISTRIBUTIONAL IMPACTS OF A GROUNDWATER TRADING PROGRAM IN THE DIAMOND VALLEY, NEVADA 1 (2016).

before that state enacted its statutory water law dictating the process for adjudicating and obtaining water rights.³⁰ Vested rights are generally protected from government impairment and statutory regulations,³¹ which also makes them considerably valuable. Otherwise, under the Beneficial Use Requirement, any rights holder who stops using their appropriated water risks violating the Beneficial Use Requirement and the forfeiture of their rights.³²

The doctrine of prior appropriation first arose in California from the 1855 State Supreme Court case *Irwin v. Phillips*.³³ The primary water rights arrangement in the United States at the time was the riparian doctrine, which grants water rights to people with land bordering bodies of water,³⁴ and permits them reasonable use of the water so long as they do not interfere with its use by other rights holders.³⁵ The California Supreme Court in *Irwin* refused to implement the riparian doctrine, rejecting the requirement that the course of water must flow only in its natural channels in the allocation of water rights.³⁶ The *Irwin* Court instead protected the usage rights of first-in-time miners who needed to divert water from streams to supply the needs of their mines.³⁷ This case arose from the California gold rush,³⁸ when miners had to establish a system of water use to supply their mining claims

³⁰ While any right might be known as “vested” simply through legal establishment of its permanent ownership, vested water rights specifically are generally pre-statutory. In Nevada, vested groundwater rights to basins are those established as owned before 1939. NEV. REV. STAT. § 534.100 (2021).

³¹ Vested (pre-statutory) rights are exempt from forfeiture but can be voluntarily abandoned. *E.g.*, NEV. DIV. WATER PLAN., NEVADA STATE WATER PLAN PART 3, SECTION 1 – WATER SUPPLY AND ALLOCATION 3 (1999); *see also* *In re Manse Spring v. Merickel Holding Corp.*, 108 P.2d 311, 315 (Nev. 1940) (holding a vested rights holder can abandon their rights through cessation of use); *Andersen Fam. Assocs. v. Ricci*, 179 P.3d 1201, 1204–05 (Nev. 2008) (“[Vested] rights may not be impaired by statutory law and may be used as granted in the original decree until modified by a later permit.”).

³² Sandra Zellmer, *The Anti-Speculation Doctrine and its Implications for Collaborative Water Management*, 8 Nev. L.J. 994, 1005 (2008).

³³ *See* Christian Smit, *The Reasonable Use Doctrine, the Public Trust Doctrine, and Surface Water Rights in California: Exploring the Frontiers of Water Rights Reform in an Era of Scarcity and Instability*, 45 ENVIRONS ENV’T. L. & POL’Y J. 71, 76 (2021). *See generally* *Irwin v. Phillips*, 5 Cal. 140 (1855).

³⁴ C. L. MCGUINNESS, U.S. GEOLOGICAL SURV., WATER LAW WITH SPECIAL REFERENCE TO GROUND WATER 2 (1951) (under a riparian system, when land is over water, property owners have a “quasi-riparian” right to the groundwater).

³⁵ *See* Sandra Zellmer, *supra* note 32, at 1009–10.

³⁶ *Irwin*, 5 Cal. at 147.

³⁷ *Id.*

³⁸ *See* Smit, *supra* note 33, at 74–76.

in arid terrain without nearby water sources.³⁹ Prior appropriation allowed them to claim the use of water on a first-come, first-served basis, and to construct dams and canals to divert that water without worrying about the legal consequences of stream depletions and the complaints of future junior rights holders.⁴⁰

All the western states have since adopted the prior appropriation doctrine in some iteration.⁴¹ While California's water laws have evolved into a combination of the riparian and prior appropriation doctrines,⁴² Nevada has remained truer to the fundamentals of prior appropriation. Nevada officially adopted the doctrine in the 1866 case *Lobdell v. Simpson*.⁴³ There, the State Supreme Court mimicked California's departure from the riparian doctrine to better suit the water needs of settlers and miners establishing themselves in the state's desert regions.⁴⁴ Later, the legislature took the first steps in codifying the state's water laws by enacting the Irrigation Law of 1903, which founded the office of the State Engineer and laid the groundwork for controlled irrigation projects.⁴⁵ In 1905, the Irrigation Law was amended to require new appropriators to apply for permits with the State Engineer.⁴⁶ Then, 1913 saw the adoption of the General Water Law Act, further solidifying the basic principles of statutory water law still in force today,⁴⁷ currently codified in NRS 533. While the 1913 General Water Law Act acknowledged groundwater for the first time,⁴⁸ the focus of early 1900s water law in Nevada and throughout the west was primarily on regulating surface water, as groundwater pumping was very slow to develop.⁴⁹ But as Nevada began looking for additional water supplies to support its growth,⁵⁰ the state legislature expanded regulatory water laws to encompass groundwater

³⁹ See *Irwin*, 5 Cal. at 146.

⁴⁰ See *id.* at 146–47.

⁴¹ WELDEN, *supra* note 28, at 2.

⁴² See Duane Rudolph, *Why Prior Appropriation Needs Equity*, 18 U. DENV. WATER L. REV. 348, 350 (2015); see also CAL. CONST., art. X, § 2.

⁴³ See *Lobdell v. Simpson*, 2 Nev. 274, 277–78 (1866).

⁴⁴ See *id.* at 277, 279.

⁴⁵ See A. E. CHANDLER, FIRST BIENNIAL REPORT OF THE STATE ENGINEER 7–8 (1905).

⁴⁶ Sylvia Harrison, *The Historical Development of Nevada Water Law*, 5 U. DENV. WATER L. REV. 148, 165 (2001).

⁴⁷ See WELDEN, *supra* note 28, at 4.

⁴⁸ The 1913 law only incorporated springs and artesian waters into the state's appropriation scheme. These waters are different from “percolating” water, which is water that moves through soil and is the type of groundwater at issue in this Note. Harrison, *supra* note 46, at 171.

⁴⁹ See generally LEONARD F. KONIKOW, U.S. GEOLOGICAL SURV., GROUNDWATER DEPLETION IN THE UNITED STATES (1900–2008) (2013).

⁵⁰ See JEDEDIAH ROGERS, ROBERT B. GRIFFITH WATER PROJECT 4–5 (2006).

in 1939,⁵¹ earlier than most other states to do so. The Nevada Underground Water Act of 1939 made all groundwater appropriable by the public and regulated by the State Engineer,⁵² and it formed a separate chapter for groundwater guidelines: NRS 534. Under both NRS 533 and NRS 534, one can acquire rights to water in Nevada either through adjudication for a vested right made by beneficial use of water prior to the enactment of these water laws,⁵³ or by applying to the State Engineer for rights to unappropriated water and putting that water to beneficial use.⁵⁴

II. RESPONDING TO GROUNDWATER OVER-APPROPRIATION

Many of Nevada's basins are over-appropriated,⁵⁵ exacerbating the state's ubiquity of water shortages. NRS Sections 534.037 and 534.110(7) were enacted in tandem as a strategy to resolve shortages at individual basins.⁵⁶ Before these statutory additions, the State Engineer had the authority to restrict groundwater withdrawals from individual wells to conform their use to the priority rights system if those wells were unreasonably hindering the exercise of rights by senior owners.⁵⁷ Now, the State Engineer's authority is expanded to regulating withdrawal from all wells at once in a basin to ensure the priority of senior rights holders.⁵⁸

NRS 534.110(7) gives the State Engineer authority to declare a basin a CMA.⁵⁹ The State Engineer can apply this designation to "any basin in which withdrawals of groundwater consistently exceed the perennial yield of the basin,"⁶⁰ or in other words, where the basin is losing water faster than it is replenishing. Also, under this statute, the State Engineer "[s]hall designate as a [CMA] any basin in which withdrawals of groundwater consistently exceed the perennial yield of the basin upon receipt of a petition for such a designation which is signed by a majority of the holders" of the water

⁵¹ RSCH. DIV. NEV. LEG. COUNS. BUREAU, POLICY AND PROGRAM REPORT: WATER RESOURCES 2 (2016).

⁵² WELDEN, *supra* note 28, at 5.

⁵³ NEV. REV. STAT. § 534.100 (2021).

⁵⁴ NEV. REV. STAT. §§ 533.324–533.435 (2021).

⁵⁵ *See* NEV. DIV. WATER PLAN., NEVADA STATE WATER PLAN PART 1, SECTION 4 – WATER RESOURCES BACKGROUND 28 (1999) ("Approximately 60% of the 256 basins have committed resource volumes below the perennial yield estimates.").

⁵⁶ *See* IN THE OFF. OF THE STATE ENG'R OF THE STATE OF NEV., ORDER 1302 6 (2019) [hereinafter ORDER 1302].

⁵⁷ NEV. REV. STAT. § 534.110(6) (2021).

⁵⁸ *See infra* Part II.

⁵⁹ NEV. REV. STAT. § 534.110(7) (2021).

⁶⁰ NEV. REV. STAT. § 534.110(7)(a) (2021).

rights to the basin.⁶¹ If a basin maintains a CMA designation for ten years, the State Engineer “shall order that withdrawals, including, without limitation, withdrawals from domestic wells, be restricted in that basin to conform to priority rights, unless a groundwater management plan has been approved for the basin” by the State Engineer.⁶² Depending on the basin-specific water shortage circumstances, junior rights holders could risk significant cuts to, or complete loss of, their water use if the State Engineer begins enforcing the Rule of Priority in this way. While any shareholder with water rights in a basin deemed a CMA can appeal the designation in accordance with NRS 533.450,⁶³ the GMP, as specified by NRS 534.037, provides a unique opportunity to relieve the designation.⁶⁴

NRS 534.037 allows “a petition for the approval of a [GMP] for the basin” by a majority of the designated basin’s groundwater rights holders.⁶⁵ A GMP is a plan drafted and agreed upon by the shareholders outlining all the necessary steps they will take to stabilize their basin’s groundwater levels, and in so doing, warrant the State Engineer’s removal of the CMA designation from their basin.⁶⁶ The particulars for such a plan, and the degree to which each step is spelled out, are not specified in the statute. However, the Section outlines seven factors the State Engineer must consider for acceptance of the plan:

[1] The hydrology of the basin; [2] [t]he physical characteristics of the basin; [3] [t]he geographic spacing and location of the withdrawals of groundwater in the basin; [4] [t]he quality of the water in the basin; [5] [t]he wells located in the basin, including, without limitation, domestic wells; [6] [w]hether a [GMP] already exists for the basin; and [7] [a]ny other factor deemed relevant by the State Engineer.⁶⁷

So long as the State Engineer considers these factors, and the GMP “set[s] forth the necessary steps for removal of the basin’s designation as a [CMA],”⁶⁸ the State Engineer has the discretion to approve or reject the plan.

⁶¹ NEV. REV. STAT. § 534.110(7)(b) (2021).

⁶² *Id.*

⁶³ NEV. REV. STAT. § 533.450(1) (2021).

⁶⁴ NEV. REV. STAT. § 534.037 (2021).

⁶⁵ NEV. REV. STAT. § 534.037(1) (2011). This provision was recently amended by S.B. 113, adopted by the legislature in 2023, clarifying that the petition must be signed by rights holders “who represent a majority of the total groundwater permitted or certificated for use in the basin,” rather than a majority of rights holders. S.B. 113, 2023 Leg., 82nd Sess. (Nev. 2023).

⁶⁶ *See* ORDER 1302, *supra* note 55, at 1.

⁶⁷ NEV. REV. STAT. § 534.037(2)(a–g) (2011).

⁶⁸ *Id.* § 534.037(1) (the necessary steps are not specified).

Diamond Valley is the first—and so far only—basin to be designated as a CMA by the State Engineer under Section 534.110(7),⁶⁹ and the Diamond Valley community has produced the first GMP to be approved by the State Engineer under Section 534.037.⁷⁰ This plan currently presents the only example for other communities to follow, illustrating what the State Engineer might accept. But it by no means serves as the complete scope, as there are no clear limitations as to what the plan can entail, so long as it works toward more sustainable usage of groundwater. At present, as the Diamond Valley plan exemplified and the court in *Diamond Valley* held, the State Engineer can exercise the authority granted by NRS 534.037 to approve a GMP that does not adhere to Nevada’s statutory water scheme or the doctrine of prior appropriation.⁷¹

The subsequent section of this Note examines the Diamond Valley plan, presents the *Diamond Valley* case, and illustrates the potential ways the plan and its approval conflict with Nevada laws. The section also discusses the implications of the Court’s decision for the future of the state’s water regulatory scheme through a likely overhaul of state water law.

III. DIAMOND VALLEY

Diamond Valley is a hydrologic basin in Nevada’s Eureka County, between the Sulfur Spring Mountain range and the Diamond Mountains range.⁷² It is also the name attributed to the agricultural region that relies on the basin’s groundwater for farming.⁷³ The basin’s perennial yield has been officially established by the State Engineer to be 30,000 acre-feet per year (acre-ft/yr).⁷⁴ This means that pumping in excess of 30,000 acre-ft/yr exceeds the basin’s recharge rate. There were very few wells in Diamond Valley prior to the 1960s,⁷⁵ but after the turn of the decade, the State Engineer began issuing groundwater permits for Diamond Valley,⁷⁶ and allocation ex-

⁶⁹ See IN THE OFF. OF THE STATE ENG’R OF THE STATE OF NEV., ORDER 12645 (2015).

⁷⁰ See, e.g., Paul G. Taggart, *Addressing Water Shortages with Prior Appropriation Principles*, 24 NEV. LAW. 20, 22 (2016).

⁷¹ *Diamond Nat. Res. Prot. & Conservation Ass’n v. Diamond Valley Ranch, LLC*, 511 P.3d 1003, 1008 (Nev. 2022).

⁷² MARY L. TUMBUSCH & RUSSELL W. PLUME, U.S. GEOLOGICAL SURV., HYDROGEOLOGIC FRAMEWORK AND GROUND WATER IN BASIN-FILL DEPOSITS OF THE DIAMOND VALLEY FLOW SYSTEM, CENTRAL NEVADA 2 (2006).

⁷³ *Diamond Valley Ranch*, 511 P.3d at 1004.

⁷⁴ DIAMOND VALLEY GROUNDWATER MANAGEMENT PLAN 8 (2018) [hereinafter “DVGMP”].

⁷⁵ See *id.* at 268–69.

⁷⁶ *Sadler Ranch, LLC’s Answer* at 6, *Eureka Cnty. v. Seventh Jud. Dist. Ct. of Nev.*, 134 Nev. 275 (2018) (No. 72317) [hereinafter “Sadler Ranch Answer”].

ceeded the perennial yield almost immediately after May 12, 1960.⁷⁷ Since then, groundwater levels have declined over 100 feet, and continue to decline at about two feet each year.⁷⁸ There is presently over 130,000 acre-ft/yr allocated in the basin,⁷⁹ over 400% the perennial yield. Not all of that water is in use,⁸⁰ but because the State Engineer failed to enforce a 1982 order requiring installation of meters on groundwater wells, today's actual withdrawal from pumping can only be estimated.⁸¹ One projection puts the rate of extraction at 93,000 acre-ft/yr,⁸² and the State Engineer's own estimate puts pumping as of 2016 at around 76,000 acre-ft/yr.⁸³ Either way, the Diamond Valley basin is one of the most over-appropriated and over-pumped basins in Nevada.

A. *The Diamond Valley Groundwater Management Plan*

The State Engineer, under NRS 534.110(7), designated Diamond Valley a CMA in 2015, potentially motivated by an earlier 2015 petition from Sadler Ranch, a vested rights holder, seeking curtailment of junior rights to remedy over-appropriation.⁸⁴ A majority of the water rights holders to the basin drafted a GMP, and, with it, petitioned the State Engineer under NRS 534.037 to accept the plan and relieve the CMA designation.⁸⁵

This plan for Diamond Valley establishes a thirty-five-year scheme to reduce groundwater pumping from the basin, with the primary goals of stabilizing groundwater levels and reducing water use to, at most, match the perennial yield.⁸⁶ Only irrigation rights, as well as mining and milling rights with irrigation base rights, are represented in the plan, though those few categories make up over 96 percent of rights in the basin.⁸⁷ To better monitor compliance with the reduction scheme, the plan converts all these affected water rights into "shares," and the shares for each rights holder con-

⁷⁷ ORDER 1302, *supra* note 56, at 3.

⁷⁸ *E.g.*, DVGMP, *supra* note 74, at 2, 272.

⁷⁹ *Id.* at 263–64.

⁸⁰ Many water rights in Diamond Valley are likely at risk of abandonment, however the State Engineer has not pursued the issue. *See, e.g.*, Bailey v. Wilson, No. CV-1902-348, 2020 Nev. Dist. LEXIS 267, at *25–26 (Nev. Dist. Ct. Apr. 23, 2020) (citing the State Engineer suggesting abandonment issues through non-use would not be addressed).

⁸¹ Sadler Ranch Answer, *supra* note 76, at 8–9; *see also* IN THE OFF. OF THE STATE ENG'R OF THE STATE OF NEVADA, ORDER 809 2 (1982).

⁸² ZEFF ET. AL., *supra* note 29, at 1; *see also* Sadler Ranch Answer, *supra* note 76, at 6.

⁸³ ORDER 1302, *supra* note 56, at 2.

⁸⁴ Sadler Ranch Answer, *supra* note 76, at 10.

⁸⁵ *See generally* DVGMP, *supra* note 74.

⁸⁶ *Id.* at 1–2, 11.

⁸⁷ ORDER 1302, *supra* note 56, at 2–4.

stitute their “[g]roundwater [a]ccount.”⁸⁸ Each share represents a set amount of allocated groundwater, and this groundwater allocation gets reduced each year.⁸⁹ The total number of shares in an account equate to the total amount of groundwater the account’s owner can use in a given year.⁹⁰ The plan calculates the number of shares a rights holder gets by multiplying the total groundwater volume from the holder’s rights by standardized priority factors based on the seniority of those rights, which helps ensure rights holders’ priorities are accounted for.⁹¹ The plan begins with 0.67 acre-ft allocated to each share, and with cumulative reductions of 1 percent each year, the plan is anticipated to end at 0.301 acre-ft after thirty-five years.⁹² While this is the current expectation, the plan also takes into account the unpredictability of groundwater trends, and allows for future adjustments by the State Engineer to the annual reductions based on groundwater level monitoring data to help meet sustainability goals.⁹³ The plan further allows owners of groundwater accounts to trade, sell, or bank their shares, meaning users will not be at risk of losing water rights they do not use.⁹⁴ The only caveat to banking water under this plan is a set reduction to the groundwater allocations of the banked shares to account for the natural water loss process of evapotranspiration.⁹⁵ After holding an obligatory hearing and fielding comments, the State Engineer approved the plan, finding merit in its methods toward sustainability and holding no legal deficiencies.⁹⁶

B. *Diamond Valley in the Nevada Supreme Court*

Diamond Valley is the seminal case addressing the State Engineer’s use of authority conferred by NRS 534.037 and 534.110(7).⁹⁷ The State Supreme Court’s decision to uphold a GMP that does not conform to the doctrine of

⁸⁸ See DVGMP, *supra* note 74, at 1–2, 4.

⁸⁹ *Id.* at 1.

⁹⁰ See *id.* at 1–2.

⁹¹ See *id.*

⁹² See *id.* at 2.

⁹³ See *id.* at 17.

⁹⁴ See *id.* at 4. Shares can only be traded among Groundwater Accounts, meaning transactions are limited to within the basin. *Id.* at 18. See also ORDER 1302, *supra* note 55, at 12.

⁹⁵ *Id.* at 17. Evapotranspiration is the process by which water is transferred from the land to the atmosphere by evaporation from the soil and other surfaces and by transpiration from plants. Water Science School, *Evapotranspiration and the Water Cycle*, USGS (June 12, 2018), <https://www.usgs.gov/special-topics/water-science-school/science/evapotranspiration-and-water-cycle> [<https://perma.cc/Y8B7-MS97>].

⁹⁶ See generally ORDER 1302, *supra* note 56.

⁹⁷ See *Diamond Nat. Res. Prot. & Conservation Ass’n v. Diamond Valley Ranch, LLC*, 511 P.3d 1003, 1005 (Nev. 2022).

prior appropriation historically practiced in Nevada reinforces the user-favored ideals the state has held regarding water management for over a century, and works to propel Nevada toward a likely overhaul of its established water law.⁹⁸

Litigation began after the State Engineer executed Order No. 1302 approving the Diamond Valley plan. A number of senior and vested rights holders filed petitions for judicial review seeking to invalidate the plan “on the ground that its deviance from water-law principles, such as the doctrine of prior appropriation, and from Nevada’s statutory water scheme ma[ke] the plan legally erroneous,”⁹⁹ and “therefore arbitrary and capricious.”¹⁰⁰ They argued that forcing senior rights holders to reduce their water use instead of prioritizing their rights over junior rights holders is against prior appropriation, and water banking as allowed under the plan is contrary to the doctrine’s beneficial use element as well as to the state’s codified beneficial use law NRS 533.035.¹⁰¹ They further explained that the plan contravenes appropriation permitting statutes, NRS 533.325 and 533.345, by allowing users to change points of diversion, such as through the water banking system, without applying to the State Engineer to do so.¹⁰² The State Engineer, in defense of the plan, essentially argued the opposite, that in adopting NRS 534.110(7) and 534.037, “the Legislature unambiguously gave the State Engineer discretion to approve a GMP that deviates from the doctrine of prior appropriation and other provisions in Nevada’s statutory water scheme.”¹⁰³ The petitions were consolidated and approved by the district court, which, having determined that NRS 534.037 and 534.110(7) do not allow for deviation from established water law,¹⁰⁴ concluded that the plan “is contrary to Nevada water laws” and that therefore the State Engineer’s approval order is arbitrary and capricious.¹⁰⁵ The State Engineer and several rights holders in defense of the plan appealed the ruling.

The Nevada Supreme Court in this case interpreted these statutes for the first time, finding for the State Engineer that they are unambiguous and

⁹⁸ See *infra* Part IV.

⁹⁹ *Diamond Valley*, 511 P.3d at 1005.

¹⁰⁰ *Id.* at 1008. An arbitrary decision is one “made without consideration of or regard for facts, circumstances fixed by rules or procedure,” and a capricious decision is one made “contrary to the evidence or established rules of law.” *Bailey v. Wilson*, No. CV-1902-348, 2020 Nev. Dist. LEXIS 267, at *13–14 (Nev. Dist. Ct. Apr. 23, 2020) (citing Black’s Law Dictionary (10th ed. 2014)).

¹⁰¹ *Diamond Valley*, 511 P.3d at 1005–06.

¹⁰² *Id.* at 1006.

¹⁰³ *Id.*

¹⁰⁴ *Bailey v. Wilson*, No. CV-1902-348, 2020 Nev. Dist. LEXIS 267, at *40 (Nev. Dist. Ct. Apr. 27, 2020).

¹⁰⁵ *Id.* at *51.

“plainly give the State Engineer discretion to approve a GMP that does not strictly comply with Nevada’s statutory water scheme or strictly adhere to the doctrine of prior appropriation.”¹⁰⁶ The Court found the statutes to be completely “silent” as to those and any other aspects of Nevada’s water law.¹⁰⁷ The Court further supported their conclusion by recognizing the Legislature’s established authority to “modify the statutory scheme regulating nonvested water rights” and their ability to impair nonvested rights through those laws.¹⁰⁸ As there was no given requirement for the State Engineer to consider prior appropriation and other laws outside of NRS 534.110(7) and NRS 534.037 when approving a GMP, the State Engineer’s decision to approve the Diamond Valley plan was held as legally valid, and not arbitrary and capricious.¹⁰⁹

IV. AN END TO PRIOR APPROPRIATION

Prior appropriation is not a utilitarian approach to water management.¹¹⁰ It favors only some users without consideration for what is best for the community as a whole. A first-come, first-served procedure under prior appropriation will not necessarily apportion water equitably to all who need it. A senior user’s priority entitlement over the water needed by a junior user will not guarantee that the water will get used in the public’s best interests. While Nevada has adopted the priority-based rules under the prior appropriation doctrine, those rules have not been followed to the extent that junior groundwater users lose access to their water in favor of continued senior use, even though some basins have been over-appropriated for decades. In failing to act appropriately in accordance with the priority system (i.e., not curtailing junior rights in over-appropriated basins), the state effectively negated the favoritism inherent in the prior appropriation doctrine and instead continued to allow water use for all rights holders. The adoption

¹⁰⁶ *Diamond Valley*, 511 P.3d at 1012.

¹⁰⁷ *Id.* at 1008.

¹⁰⁸ *Id.* at 1008.

¹⁰⁹ *Id.* at 1009 (“[I]f a GMP were required to comply with every statute in NRS Chapters 533 and 534, there would have been no need for the Legislature to enact NRS 534.037 and NRS 534.110(7)”).

¹¹⁰ This statement can be argued either way. However, when considering water as essential to both economic and social wellbeing, a utilitarian approach to water management would ensure any appropriation and use of water would maximize both factors, and not focus on one over the other. *Cf.* U.N. SUSTAINABLE DEV., UNITED NATION CONFERENCE ON ENVIRONMENT & DEVELOPMENT, AGENDA 21 (1992). Utilitarianism in this context describes the ethical principle of providing for the greatest happiness or good for the greatest number of people. *See* JEREMY BENTHAM, AN INTRODUCTION TO THE PRINCIPLES OF MORALS AND LEGISLATION 6 (Jonathan Bennett ed., Early Modern Texts 2017) (1823).

of NRS 534.110(7) and NRS 534.037, along with the Nevada Supreme Court's approval of Diamond Valley's GMP, act as official endorsements for this significant deviation from prior appropriation by both the legislature via the Office of the State Engineer¹¹¹ and the judiciary. Communities are allowed to implement water management strategies personalized to their basins so all rights holders can have continued access to water.

The *Diamond Valley* decision sets precedent for several changes to Nevada water law that could be applied with regularity to future cases and helps further the state toward a likely future overhaul of its codified water law to better reflect its actual water management practices that are contrary to prior appropriation. For instance, the decision reinforces the legislature's authority to ignore the doctrine of prior appropriation to a large extent when crafting new laws, and community-crafted GMPs are allowed by the legislature to ignore the prior appropriation doctrine and circumvent Nevada's adoption of the anti-speculation doctrine—a reinforcement of the Beneficial Use Requirement—through the establishment of water banks. The decision has also placed the water rights of senior holders at considerable risk, not just from the disregard of the Rule of Priority, but also because it has been deemed acceptable for a community majority to reduce senior rights of use while maintaining the rights of junior holders. The court has also clarified through their decision that vested rights—still generally safe from statutory readjustment—need not be considered specifically for relief from water shortages caused by junior water use.¹¹² While each of these changes indicates a significant shift in Nevada water law, they do not mark any changes in the state's user-favored water management policy. However, they may mark the beginning of the state doubling down on its support of water use, which in turn could lead to a complete overhaul of the state's water law to reflect its practiced policy more accurately.

A. *Interpreting the Majority's Interpretation*

The Nevada Supreme Court in *Diamond Valley* held “the Legislature unambiguously gave the State Engineer discretion to approve a GMP that deviates from the doctrine of prior appropriation and other provisions in Nevada's statutory water scheme” in enacting NRS 534.110(7) and

¹¹¹ The Nevada State Engineer is an office of the Nevada Division of Water Resources – a legislative agency with rulemaking and rule application authority. *See, e.g., Adam Sullivan Appointed Nevada State Engineer*, NEV. DEPT. OF CONSERVATION AND NAT. RES. (July 20, 2021), <https://dcnr.nv.gov/news/adam-sullivan-appointed-nevada-state-engineer> [https://perma.cc/5CTW-JJJS].

¹¹² *See generally Diamond Valley*, 511 P.3d at 1008 n.5. The court did not consider vested rights because they decided they did not need to, even though it is clear that vested rights are also affected by over-appropriation.

534.037.¹¹³ These sections were adopted in 2011 from Assembly Bill 419,¹¹⁴ and in conjunction with the Supreme Court's interpretation, represent a dramatic departure from the state's long-established water laws. But the *Diamond Valley* majority did not look to the legislature's intent in enacting these laws. In failing to do so, the majority ignored the state's "canon against implied repeal,"¹¹⁵ and the state's legislative history, both of which suggest the legislature did not intend to override prior appropriation in adopting these statutes.¹¹⁶ Yet, regardless of the legislature's intent at the time, the Court majority's finding of unambiguity here makes superseding prior appropriation easier through adoption of more contrary statutes should the legislature desire to continue overhauling the state's water law.

For a statute to be ambiguous, it must "be capable of two or more reasonable but inconsistent interpretations."¹¹⁷ The *Diamond Valley* majority found NRS 534.110(7) and 534.037 unambiguous, and so refused to analyze legislative intent.¹¹⁸ Their reasoning may have been influenced by deference toward the State Engineer in interpreting statutes concerning "scientifically complex matters" potentially beyond the understanding of the Court,¹¹⁹ which NRS 534.110(7) and 534.037 do involve. The State Engineer and the other appellants pressed the understanding that the statutes allowed GMPs to deviate from prior appropriation *if* approved by the State Engineer, given that the State Engineer otherwise *shall* order withdrawals conforming to the Rule of Priority if the CMA designation remains in effect for over ten years.¹²⁰ Even assuming deference toward this interpretation, the majority's finding of unambiguity here is doubtful, because this was one of two contradictory interpretations presented by NRS Sections 534.110(7) and 534.037, and the majority did not address any shortcomings of the alternative interpretation they disagreed with. The *Diamond Valley* Court's conclusion reflects a user-favored cogitation regarding water law that is in line

¹¹³ *Id.* at 1006.

¹¹⁴ A.B. 419, 2011 Leg., 76th Sess. (Nev. 2011).

¹¹⁵ *Diamond Valley*, 511 P.3d at 1014 (Parraguirre, C.J., dissenting). "In the enactment of a statute, 'the legislature will be presumed not to intend to overturn long-established principles of law, and the statute will be so construed unless an intention to do so plainly appears by express declaration or necessary implication.'" *Hardy Companies, Inc. v. SNMARK, LLC*, 245 P.3d 1149, 1155–56 (Nev. 2010) (quoting from 73 Am. Jur. 2d. Statutes § 97 (2001)).

¹¹⁶ *Diamond Valley*, 511 P.3d at 1012 (Parraguirre, C.J., dissenting).

¹¹⁷ *United States v. State Eng'r*, 27 P.3d 51, 54 (Nev. 2001).

¹¹⁸ *Diamond Valley*, 511 P.3d at 1008, 1009.

¹¹⁹ *Id.* at 1011.

¹²⁰ *Id.* at 1006; Appellant State Engineer's Opening Brief at 26, *Diamond Nat. Res. Prot. & Conservation Ass'n v. Diamond Valley Ranch, LLC*, 511 P.3d 1003 (Nev. 2022) (No. 81224).

with the state's water management practices, where a less policy-centered court would likely have ruled to the contrary in favor of the alternate interpretation. The respondents argued that approval of a GMP simply allows the State Engineer to choose not to order any withdrawals, with the sections saying nothing about allowing for deviation from prior appropriation.¹²¹ The majority rejected this interpretation, yet it did not offer any explanation, leaving in doubt the actual degree of ambiguity of NRS 534.110(7) and 534.037. This doubt is further exacerbated by the Court's precedent in finding "[a] statute's language is ambiguous when it is capable of more than one reasonable interpretation."¹²² Simply denying one of the reasonable interpretations allowed the majority to avoid considering legislative intent and their precedent against implied repeal, an analysis which would have made promoting a user-favored approach to water management significantly more difficult.

When a statute is found to be ambiguous, "the court must look to legislative history and rules of statutory interpretation to determine its meaning."¹²³ Had the majority found NRS 534.110(7) and 534.037 ambiguous, they would have turned to the statute's legislative history and the canon against implied repeal, and would have likely concluded that the statutes do not allow GMPs to deviate from prior appropriation. In the legislative hearing on AB 419 for the enactment of NRS 534.110(7) and 534.037, Assemblyman Pete Goicoechea, in advocating for the bill's passage, reiterated the Rule of Priority as established in Nevada, explaining that the rebalancing of basins as intended by this bill would begin with the newest permits and work from newest to oldest.¹²⁴ He focused on junior rights holders as the ones "try[ing] to figure out how to conserve enough water under these [GMPs]."¹²⁵ And, as Judge Fairman pointed out when deciding *Diamond Valley* in the district court, "nowhere in the Legislative history of AB 419 is one word spoken that the proposed legislation will allow for a GMP whereby . . . allocat[ion] will be on a basis other than by priority."¹²⁶ After the pas-

¹²¹ See *Diamond Valley*, 511 P.3d at 1006–07; see also Respondents Sadler Ranch, LLC Answering Brief at 5, 31–32, *Diamond Nat. Res. Prot. & Conservation Ass'n v. Diamond Valley Ranch, LLC*, 511 P.3d 1003 (Nev. 2022) (No. 81224).

¹²² *Diamond Valley*, 511 P.3d at 1013 (Parraguirre, C.J., dissenting) (quoting *Orion Portfolio Servs. 2, LLC v. County of Clark*, 245 P.3d 527, 531 (Nev. 2010)).

¹²³ *Id.* (Parraguirre, C.J., dissenting) (quoting *Orion Portfolio Servs. 2, LLC v. County of Clark*, 245 P.3d 527, 531 (Nev. 2010)).

¹²⁴ *Hearing on A.B. 419 Before the S. Comm. On Gov't. Affairs*, 2011 Leg., 76th Sess. 13 (Nev. 2011) ("Water rights in Nevada are first in time; first in right. The older the water right, the higher the priority. We would address the newest permits and work backwards to get basins back into balance." Statement by Assemblyman Pete Goicoechea).

¹²⁵ *Id.* at 16.

¹²⁶ *Bailey v. Wilson*, No. CV-1902-348, 2020 Nev. Dist. LEXIS 267, at *44 (Nev. Dist. Ct.

sage of AB 419, the State Engineer introduced SB 73 in 2017 to propose changes to NRS 534.037 that would allow the State Engineer to approve GMPs that deviate from the Rule of Priority.¹²⁷ The introduction of this bill indicates the State Engineer understood that GMPs could not deviate from prior appropriation. That understanding also seemed to be shared by Diamond Valley water rights holders participating in the drafting of the Diamond Valley GMP.¹²⁸ The legislature did not speak to this interpretation of NRS 534.037 as SB 73 was never discussed in assembly and never progressed to a vote. Furthermore, under Nevada’s canon against the implied repeal doctrine, “the Legislature will be presumed not to intend to overturn long-established principles of law” when enacting a statute.¹²⁹ This means that in Nevada, when two laws conflict, the courts assume no intention by the legislature to repeal the earlier law via the later one when no express terms to repeal are used. The canon against implied repeal supports respondents’ interpretation of the statutes at issue because there is no text in the statutes mentioning departure from prior appropriation or any of the doctrine’s aspects.¹³⁰ NRS 534.110(7) and 534.037 should be assumed to not repeal or deviate from prior appropriation. Yet even without any evidence indicating legislative intent to depart in any way from long-established water law, the majority chose to hold that the State Engineer could deviate from prior appropriation through approval of GMPs.¹³¹

Apr. 23, 2020).

¹²⁷ S.B. 73, 2017 Leg., 79th Sess. (Nev. 2017).

¹²⁸ See *Hearing on Bill Draft Request 48-736*, *supra* note 11, at 15 (“Senate Bill 73 will give us the opportunity to implement the [GMP] and move forward” Statement by Denise Moyle, owner/operator and partner of a family farm in Diamond Valley).

¹²⁹ *Hardy Companies, Inc. v. SNMARK, LLC*, 245 P.3d 1149, 115556 (Nev. 2010) (quoting from 73 Am. Juris. 2d. Stat. § 97 (2001)).

¹³⁰ See *generally* NEV. REV. STAT. §§ 534.037, 534.110 (2021).

¹³¹ Ultimately, the legislature’s intent in adopting NRS 534.110(7) and 534.037 is unclear. There is little evidence that suggests legislative intent, and what little that is available only dubiously informs an assumption that the legislature did not intend to override prior appropriation. See *generally supra* Section IV A. There is a lot more needed to accurately assess legislative intent than is currently available here. See, e.g., J. MYRON JACOBSTEIN & ROY M. MERSKY, *FUNDAMENTALS OF LEGAL RESEARCH* 163 (2nd ed.1981) (“[C]ourts constantly look to extrinsic aids in determining the intent of a legislative body.”). One piece of evidence not available to the Nevada Supreme Court in 2022 was the adoption of S.B. 113 introduced during the 82nd legislative session on behalf of the Nevada Farm Bureau to, at least marginally, restore the priority system to the initial GMP legislation. S.B. 113, 2023 Leg., 82nd Sess. (Nev. 2023). Assemblyman Goicoechea spoke on the goals of the initial legislation, indicating NRS 534.110(7) and NRS 534.037 were never meant to contradict prior appropriation. See *Hearing on S.B. 113 Before the S. Comm. On Nat. Res.*, 2023 Leg., 82nd Sess. at 4:02:55, 4:04:56 (Nev. 2023) [hereinafter

Though the state had already hybridized prior appropriation through application of user-favored water management practices, *Diamond Valley* significantly reduced the role prior appropriation plays in Nevada's statutory scheme. While GMPs with the opportunity to deviate from prior appropriation are limited to over-appropriated basins designated as CMAs, a majority of water rights shareholders of any given over-appropriated basin can petition the State Engineer to apply the CMA designation to their basin, and the State Engineer would be obligated to comply. Those shareholders could then draft a GMP to manipulate the apportionment and use of water in their basin in whatever manner they like so long as they set some sort of goal to eventually reduce use. The Diamond Valley plan, for example, sets a thirty-five-year goal to stabilize the basin's groundwater levels,¹³² but it is unclear whether such a drawn-out plan would end in success before the basin's aquifer is depleted. The State Engineer still approved the plan even having considered the lack of scientific support for the plan's success.¹³³ It is clear, therefore, that an adequate GMP need only meet the bare minimum requirements for approval without assurance of success.¹³⁴ The State Engineer's satisfaction is based only on demonstration that action is taken, not whether the action is sufficient.¹³⁵ Given that many of Nevada's basins are over-appropriated and the ease at which a GMP is approved, many water

Hearing on S.B. 113] <https://sg001-harmony.sliq.net/00324/Harmony/en/PowerBrowser/PowerBrowserV2/20230302/-1/?fk=10924&viewmode=1> [<https://perma.cc/YJF4-VS7R>]. However, it is likely this bill merely caters to frustrated senior rights holders and holds no bearing on the State's intended water management policy, given its only minor allowances to senior holders and a lack of any substance that would actually effectuate better water conservation.

¹³² See *supra* Section III.A.

¹³³ ORDER 1302, *supra* note 56, at 14.

¹³⁴ The legislature's adoption of S.B. 113 in 2023 amended NRS 543.037 and 534.110 to require the State Engineer review GMPs ten years after their initiation and restrict basin withdrawals to conform to priority rights if the State Engineer does not find "significant progress" made toward stabilizing groundwater levels. S.B. 113, 2023 Leg., 82nd Sess. (Nev. 2023). "Significant progress" has not been defined, even though it was inquired into by the legislature. See Hearing on S.B. 113, *supra* note 131, at 4:19:44 (question raised by Assemblywoman Melanie Scheible, and non-answer response by Assemblyman Pete Goicoechea). The State Engineer has just as much discretion as before S.B. 113 regarding approval and determined effectiveness of GMPs.

¹³⁵ Legislative history also suggests the actual success of a GMP need not have much bearing on its approval. See *Hearing on A.B. 419 Before the Assembly. Comm. On Gov't. Aff.'s*, 2011 Leg., 76th Sess. 67 (Nev. 2011) ("I am not saying [a GMP] would ever get [a basin] completely back [into compliance]. [The rights holders] surely would not get there in ten years, but as long as it was on its way to recovery, I think the State Engineer would feel comfortable with that." Statement by Assemblyman Pete Goicoechea).

rights holders now have the power to exert significant control over the waters in their basins and craft usage schemes at their discretion, no longer needing to follow prior appropriation or favor sustainability to any significant degree. The *Diamond Valley* decision is leading the way for further reconstruction of Nevada water law in favor of users and implicates a number of near-future legal changes for groundwater that will continue to make prior appropriation more obsolete in practice, perhaps eliminating it altogether.

B. Devaluing Priority and Vested Rights

At particular risk of reform is the Rule of Priority element of prior appropriation. All rights holders in Diamond Valley will still have access to water through the GMP's thirty-five-year period, regardless of their rights' priority values. This leads to one of the largest concerns implicative of legal change originating from the *Diamond Valley* decision, which is whether all rights holders entitled to water in the basin will still have access to water throughout the Diamond Valley Plan's thirty-five-year period until use is supposed to equate to the perennial yield and the water level stabilizes. At present, priority values as applied under prior appropriation give senior rights holders more entitlement to water use than others, and of them, the ones most legally entitled to the water are those with vested rights.¹³⁶ Under Nevada's established water law, vested rights holders should be the last to continue using any remaining water in times of shortage, and are singled out in statute as being specifically protected from all other rights and other legislation that might otherwise impair their access to water.¹³⁷ The lack of surety in the effectiveness of the Diamond Valley's sustainability plan suggests a disregard for the priorities of all senior rights holders, particularly vested rights holders given the indifference toward their additional statutory protection.

Vested water rights are appropriative rights that were held before the codification of the water law that delineates the process and requirements for obtaining rights. In Nevada, 1939—the year that the Nevada Groundwater Act was adopted—is the year separating vested rights to groundwater from non-vested rights, though vested rights holders must take additional steps to demonstrate proof of their rights.¹³⁹ The State Engineer may issue an adjudication order in a basin, requiring all claimants of vested rights to submit to the State Engineer records and documentation proving continuous use of the water they appropriated, and that their use began before the stat-

¹³⁶ See NEV. REV. STAT. § 533.037(1) (2021).

¹³⁷ See NEV. REV. STAT. § 533.085(1) (2021).

¹³⁹ KING, *supra* note 27, at 1.

ute adoption date.¹⁴⁰ Vested rights claimants may also submit their claims with proof to the State Engineer at any time to perfect their rights even absent an order to do so.¹⁴¹ At present, all vested rights holders in Nevada who have not yet perfected their rights must file proof of their claims with the State Engineer before December 31, 2027, or their claims will be considered abandoned.¹⁴²

Vested water rights in Nevada are statutorily protected by NRS 533.085(1),¹⁴³ and the Nevada judiciary has relied on this statute when enforcing the protection of vested water rights.¹⁴⁴ Notably, the text of this statute only limits the protection of vested water rights from all provisions only in Chapter 533. Chapter 534 contains many provisions that could impair vested water rights, including NRS 534.037 and 534.110(7), yet does not have a rule comparable to NRS 533.085(1). But there are no instances in the state's precedence in which a court has approved impairment of vested rights. Rather, Nevada courts have explicitly held that these rights cannot be impaired by statutory law, and that the State Engineer does not have any authority to alter them.¹⁴⁵ It can thus be assumed that Nevada vested water rights have complete protection. The *Diamond Valley* majority might argue that their decision does not depart from this long-standing practice, as they declared NRS 534.110(7) only applies to priority rights, and therefore does not impair the vested rights excluded from the priority system.¹⁴⁶

The *Diamond Valley* majority avoided addressing the possibility that the Diamond Valley GMP may infringe on vested water rights in the basin. There were also no suggestions on reconciling the GMP with Nevada statutory water law requiring preservation of vested rights. While respondents in the case raised concerns that the plan did not account for vested rights and therefore posed a risk of impairing their vested rights,¹⁴⁷ they raised no evidence of any particular instance of impairment. The majority was thus satisfied that the State Engineer did not act arbitrarily or capriciously regarding

¹⁴⁰ *Id.*

¹⁴¹ NEV. REV. STAT. § 534.100(2) (2021).

¹⁴² NEV. REV. STAT. § 533.087(1) (2021).

¹⁴³ NEV. REV. STAT. § 533.085(1) (2021) (“Nothing contained in [Chapter 533] shall impair the vested right of any person to the use of water”).

¹⁴⁴ See *United States v. Alpine Land & Reservoir Co.*, 503 F. Supp. 877, 884 (D. Nev. 1980); see also *Andersen Family Assocs. V. Ricci*, 179 P.3d 1201, 1205 (Nev. 2008).

¹⁴⁵ See, e.g., *Andersen Family Assocs.*, 179 P.3d at 1206; see also *Ormsby Cnty. v. Kearney*, 142 P. 803, 810 (Nev. 1914); *Bailey v. Wilson*, No. CV-1902-348, 2020 Nev. Dist. LEXIS 267, at *28–30 (Nev. Dist. Ct. Apr. 23, 2020); *St. Clair v. King*, No. CV 20. 112, 2016 Nev. Dist. LEXIS 461, at *14 (Nev. Dist. Ct. Apr. 22, 2016).

¹⁴⁶ See *Diamond Nat. Res. Prot. & Conservation Ass'n v. Diamond Valley Ranch, LLC*, 511 P.3d 1003, 1009 (Nev. 2022).

¹⁴⁷ See Respondents Sadler Ranch, LLC Answering Brief, *supra* note 121, at 27–29.

vested rights in approving the plan because there was no evidence vested rights would be impacted at all.¹⁴⁸ However, the lack of any evidence regarding the impact to vested rights, and the lack of accounting for vested rights in the plan, presents an entirely unclear future for vested rights in the basin from which a conclusion of non-impact cannot be logically drawn.

The Nevada Supreme Court's conclusion that the exemption of vested rights from NRS 534.110(7)—and therefore also from any GMP—is enough to continue their protection afforded by statute and all precedent lacks consideration for the fact that all groundwater in a basin is interconnected. Pumping of groundwater from the basin by one user inherently affects the water level of the entire basin, such that continuous usage by a large number of users may drain the basin to a level unattainable for use by a vested rights holder.¹⁴⁹ Pumping by junior rights holders in an over-appropriated basin leads to vested rights holders experiencing a constant risk of loss of their entitled water use that they have through their vested rights. Vested rights holders in the Diamond Valley basin brought this risk to the attention of the courts and the State Engineer.¹⁵⁰ With the basin over-appropriated, they likely considered it only a matter of time before they lost access to their water. The Diamond Valley GMP does not alter the circumstances for vested rights holders. The plan's water usage reduction scheme reduces use in small increments over a period of thirty-five years and maintains the Diamond Valley basin at an over-appropriated level for at least that long. While it would be impractical to expect immediate usage reduction to below the basin's perennial yield, neither the State Engineer nor the Nevada Supreme Court considered that the plan is insufficient in protecting vested rights given the possibility that continued over-pumping within that period could reduce the water table to levels unusable by vested rights holders, thereby impairing their rights.¹⁵¹ The *Diamond Valley* Court made a baseless assumption that the GMP's exclusion of vested rights meant the plan ensured the protection of those rights. In so doing, the court not only departed from established water law, but also from traditional precedent, establishing an uncertain future for all vested rights in Nevada that may see their priority value disregarded altogether and the practical end to the Rule of Priority.

¹⁴⁸ *Diamond Valley*, 511 P.3d at 1008 n.5.

¹⁴⁹ Cf. RALPH C. HEATH, BASIC GROUND-WATER HYDROLOGY 46–47 (2004) (demonstrating water level drawdowns from well pumping).

¹⁵⁰ See, e.g., *Sadler Ranch, LLC's Appendix Volume 3 at 668*, *Eureka Cnty. v. Seventh Jud. Dist. Ct. of Nev.*, No. 72317 (Nev. 2017); see also *Eureka Cnty. v. Seventh Jud. Dist. Ct. of Nev.*, 417 P.3d 1121, 1122–23 (Nev. 2018).

¹⁵¹ See Appellant State Eng'r's Opening Brief, *supra* note 120, at 38–40; see also *Diamond Nat. Res. Prot. & Conservation Ass'n v. Diamond Valley Ranch*, 511 P.3d 1003, 1008 n.5 (Nev. 2022) (“[W]e decline to address respondents’ arguments [regarding vested rights].”).

C. *Water Banking Degrades Beneficial Use*

Also with a doubtful future is the Beneficial Use Requirement of prior appropriation due to the expanding practice of water banking. By endorsing the Diamond Valley GMP, the Nevada Supreme Court consequently endorsed water banking and approved its implementation by the Diamond Valley rights holders.¹⁵² Water banking is a system of pooling the water rights of participating rights holders into a single collection from which water can be distributed at will, either as a sale or a lease of use of those water rights.¹⁵³ Water banking is not only contrary to beneficial use, but also the anti-speculation doctrine, which was first established by Colorado in 1979,¹⁵⁴ and subsequently followed by Nevada.¹⁵⁵ Should water banking be legalized, and be practiced more frequently, the Beneficial Use Requirement would be rendered obsolete. The Nevada Supreme Court's official acceptance of water banking via the *Diamond Valley* decision sets the stage for adoption of statutory water banking laws and allows for future implementation of additional water banks in other GMPs.

Water banking is an established practice in many western states,¹⁵⁶ but it has no precedent in Nevada and is contrary to the state's established water law. While speculation—holding a resource or asset for future use or resale¹⁵⁷—is a common practice amongst many resources, western water law, based on prior appropriation, recognizes the risks and dangers of doing so with water. Water is a necessary resource for sustaining life, so life would be placed at great risk should speculators buy up water rights and restrict access to water from use by people who are in desperate need of it. The anti-speculation doctrine prevents speculative claims to water rights by eliminating the marketability of water which could lead to water hoarding and monopolies.¹⁵⁸ Even if not officially adopted, this doctrine is already implicitly

¹⁵² See *Diamond Valley*, 511 P.3d at 1012.

¹⁵³ See LAWRENCE J. MACDONNELL ET. AL., WATER BANKS IN THE WEST 3–4 (1994).

¹⁵⁴ See *Colo. River Water Conservation Dist. v. Vidler Tunnel Water Co.*, 594 P.2d 566, 568 (Colo. 1979) (en banc) (“[Colorado’s] constitution guarantees a right to appropriate, not a right to speculate. The right to appropriate is for [u]se, not merely for profit . . . [Colorado’s statutes] give no one the right to preempt the development potential of water.”).

¹⁵⁵ *Bacher v. Office of State Eng’r of Nev.*, 146 P.3d 793, 795 (Nev. 2006). Beneficial use inherently prohibits speculation, so all western states follow the anti-speculation doctrine, even if not explicitly. See, e.g., Janet C. Neuman, *Beneficial Use, Waste, and Forfeiture: The Inefficient Search for Efficiency in Western Water Use*, 28 ENV’T L. 919, 962–64 (1998).

¹⁵⁶ See generally MACDONNELL ET. AL., *supra* note 153.

¹⁵⁷ Neuman, *supra* note 155, at 964.

¹⁵⁸ See Zellmer, *supra* note 32, at 998.

applied in the West due to states' use of the prior appropriation doctrine. The Beneficial Use Requirement of prior appropriation precludes speculation because speculated water is assumed to not be in use,¹⁵⁹ or at least not be in use for any purpose in line with the Beneficial Use Requirement.¹⁶⁰

While water speculation by non-government entities has never been sanctioned in Nevada,¹⁶¹ the Nevada Supreme Court clarified the state's adoption of the anti-speculation doctrine in *Bacher v. Office of the State Engineer of Nevada*. The Court in *Bacher* reemphasized the Beneficial Use Requirement as preclusive of water speculation,¹⁶² and it explicitly adopted the anti-speculation doctrine's requirement of needing a "formal relationship" with water needs in order to apply for water rights.¹⁶³ *Adaven Management v. Mountain Falls Acquisition Corporation* elaborates on Nevada's application of the anti-speculation doctrine, clarifying it does not limit the free alienability of water rights.¹⁶⁴ A water rights holder may freely transfer water rights, so long as the transferee can prove they will be put to beneficial use.¹⁶⁵

Water banking is a speculative use of water that grants marketability and allows the participating rights holders to set lease prices to the potential detriment of consumers in desperate need of water during times of shortage. By all accounts, water banking has been implicitly banned in Nevada due to the state supreme court's holdings in *Bacher* and *Adaven Management* and the statutory requirements making beneficial use a condition for obtaining water rights. This implicit ban is one basis of the *Diamond Valley* respondents' claim that the Diamond Valley GMP was legally erroneous.¹⁶⁶ However, both past, present, and proposed future conduct by the state suggests the

¹⁵⁹ See SB 20-048, REPORT OF THE WORK GROUP TO EXPLORE WAYS TO STRENGTHEN CURRENT WATER ANTI-SPECULATION LAW 30 (2021) (describing "Traditional Water Speculation").

¹⁶⁰ Speculators might hide their speculative intentions by putting their water to beneficial use while owning their rights only for investment purposes. The anti-speculation doctrine is still violated in this circumstance because beneficial use is not the primary goal, and the speculator has no actual *need* for the water. *Id.*

¹⁶¹ See Amicus Curiae Brief in Support of Appellants at 7, *Bacher v. Office of the State Eng'r of Nevada*, 146 P.3d 793 (Nev. 2006) (No. 42699).

¹⁶² *Bacher v. Office of the State Eng'r of Nevada*, 146 P.3d 793, 799 (Nev. 2006) ("Precluding applications by persons who would only speculate on need ensures satisfaction of the beneficial use requirement that is so fundamental to [Nevada's] water law jurisprudence.").

¹⁶³ *Id.*

¹⁶⁴ *Adaven Mgmt. v. Mountain Falls Acquisition Corp.*, 191 P.3d 1189, 1194 (Nev. 2008).

¹⁶⁵ *Id.*

¹⁶⁶ See Respondents Sadler Ranch, LLC Answering Brief, *supra* note 121, at 3-5.

practice of water banking in and of itself is not explicitly illegal.¹⁶⁷ Furthermore, a controversial bill, AB 354, was brought in the Nevada Legislature in 2021.¹⁶⁸ If passed, AB 354 would have officially legalized water banking and allowed for cooperative management of collections of water rights.¹⁶⁹ The bill intended, among other goals, to promote optimal and transparent water use, open water markets, support the agricultural economy, and promote water quality standards.¹⁷⁰ Its passage would have clarified the legislature's stance on the anti-speculation doctrine, and its failure would have placed the legality of Diamond Valley's GMP into further doubt.¹⁷¹ However, the outcome would have only cleared up circumstances for private rights holders as the state government has been practicing water banking for decades. Since 1987, the state's Southern Nevada water management agency, known as the Southern Nevada Water Authority ("SNWA") since 1991, has been storing water under the Las Vegas Valley, artificially recharging the aquifer using the Colorado River.¹⁷² More than 345,000 acre-ft have since been banked in-state.¹⁷³ While this water represents a cumulative portion of Nevada's Colorado River allocation that the state is entitled to under the Colorado River Compact,¹⁷⁴ it is not being put to beneficial use. Rather, it sits ready to be used for whatever strikes the government's fancy, be it to support large-scale development projects or as an emergency supply in dire times of need.¹⁷⁵ Currently, it is the latter, and proponents of any future wa-

¹⁶⁷ See, e.g., S. NEV. WATER AUTH., 2021 WATER RESOURCE PLAN 26 (2021) (describing the Southern Nevada Water Bank); see also Liz Gagliardi & Perry Schaffner, *Groundwater Banking as a Drought Preventing Measure in Reno, Nevada*, URBAN WATER ATLAS (May 9, 2020), <https://www.urbanwateratlas.com/2020/05/09/groundwater-banking-as-a-drought-prevention-measure-in-reno-nevada/> [<https://perma.cc/C5WM-88B8>] (describing a proposal for a water recycling and groundwater banking facility in Reno, Nevada).

¹⁶⁸ A.B. 354, 2021 Leg., 81st Sess. (Nev. 2021).

¹⁶⁹ *Id.*

¹⁷⁰ *Id.*

¹⁷¹ This bill was never discussed in the Assembly, nor proceeded to a vote. Statutory clarity surrounding water banking will not come until there is legislative action on a future water banking bill.

¹⁷² S. NEV. WATER AUTH., *supra* note 167, at 27; see also Miranda Willson, *Las Vegas Groundwater Management a Success, but Overpumping Issues Loom*, LAS VEGAS SUN (Dec. 8, 2019, 2:00 AM), <https://lasvegassun.com/news/2019/dec/08/las-vegas-groundwater-management-success-overpump/> [<https://perma.cc/4PV8-4PTX>].

¹⁷³ S. NEV. WATER AUTH., *supra* note 167, at 26.

¹⁷⁴ Nevada received an allotment of 300,000 acre-ft/yr of the Colorado River from the Colorado River Compact. Joe Gelt, *Sharing Colorado River Water: History, Public Policy and the Colorado River Compact*, 10 WATER RES. RSCH. CTR. 1, 4 (1997).

¹⁷⁵ Whether the water actually exists as it does on paper is unknown. The artificial recharge program was suspended in 2011, and since then groundwater extraction from the

ter banking bills can cite the SNWA's use of water banking for conservation purposes as an effective strategy, as well as the potential for expanded sustainability efforts should water banking be extended to private rights holders. The fact that the government is already banking water further supports the likelihood that future water banking bills will pass and solidify legal support for water banking in Diamond Valley. It also supports the notion that water banking is not technically illegal and is therefore within the State Engineer's discretion to allow in GMPs.

The use of water banking is intensifying in other Western states,¹⁷⁶ with advocates touting its conservation effectiveness in a variety of scenarios.¹⁷⁷ But skeptics, not only worried that opening water marketability would lead to high costs,¹⁷⁸ are unconvinced that water banking is necessarily a strategy for sustainability.¹⁷⁹ In many cases, there is nothing stopping water bank shareholders from leasing their rights for use outside the basins, and even exporting water out-of-state.¹⁸⁰ Removing water from its natural sources

basin has exceeded 70,000 acre-ft/yr. See Mary Caperton Morton, *Is Green Las Vegas Gone Forever?*, EOS (May 28, 2021), <https://eos.org/features/is-green-las-vegas-gone-forever> [<https://perma.cc/B6WF-BQKY>].

¹⁷⁶ Jordan Rane, *As Water Becomes Scarce, Water Banks Take Control*, COLOM. INSIGHT (Aug. 6, 2020), <https://columbiainsight.org/as-water-becomes-scarce-water-banks-take-control/> [<https://perma.cc/WH8N-GFX2>]; Darah Fuller, *Big Business is Investing in Water Banks*, THE ENV'T AT 5280 (Feb. 13, 2022), <https://environmentat5280.org/du-env-blog/big-business-is-investing-in-water-banks> [<https://perma.cc/23E8-64S2>].

¹⁷⁷ Rane, *supra* note 176; Sarah E. Null, *Water Banking Can Help Great Salt Lake*, in THE FUTURE OF WATER MARKETS: OBSTACLES AND OPPORTUNITIES 27 (Eric Edwards & Shawn Regan eds., 2022); Lael Gilbert, *Muddy Waters: Understanding Utahns' Varied Perspectives on Water Banking and Security*, UTAH STATE UNIV. (Feb. 8, 2022), <https://www.usu.edu/today/story/muddy-waters-understanding-utahns-varied-perspectives-on-water-banking-and-security> [<https://perma.cc/2ZA4-DADU>].

¹⁷⁸ Jeniffer Solis, *'Water Banking' Will Lead to Privatization and Speculation, Critics Warn*, NEV. CURRENT (Apr. 7, 2021, 6:00 AM), <https://www.nevadacurrent.com/2021/04/07/water-banking-will-lead-to-privatization-and-speculation-critics-warn/> [<https://perma.cc/MQL4-SJMD>] (risk of speculation turning water into a "commodity" may start bidding wars that drive up price); see also Eli Francovich, *Corporations are Consolidating Water and Land Rights in the West*, HIGH COUNTRY NEWS (Dec. 15, 2021), <https://www.hcn.org/articles/water-corporations-are-consolidating-water-and-land-rights-in-the-west> [<https://perma.cc/DDD7-7H4A>].

¹⁷⁹ The energy needs associated with water banking might offset the benefits of conserving water in some instances. Meaghan Daly, *Water-Energy Dependency May Put a Damper on Water Banking in California*, COLUM. CLIMATE SCH. (June 10, 2009), <https://news.climate.columbia.edu/2009/06/10/water-energy-dependency-may-put-a-damper-on-water-banking-in-california/> [<https://perma.cc/P9SD-PQ89>].

¹⁸⁰ See Daniel Rothberg, *In Nevada, Investors Eye Underground Water Storage as a Path*

could have dire consequences for communities dependent on that water for their livelihoods and where its availability is already a “tense subject.”¹⁸¹ The Diamond Valley plan is an exception and potential model for addressing this issue, containing a provision prohibiting out-of-basin water transfers.¹⁸² The plan also allows the State Engineer to apply penalties under NRS 354 to anyone violating plan provisions. But there is no express language necessitating such penalties, and there are no specific penalties for out-of-basin transfers, placing doubt around actual enforcement of the provision.¹⁸³ The water banking scheme, which does allow for intra-basin use, provides extra incentive to carry out inter-basin transfers as well, as the current increased flexibility in water transferability already makes moving water around a lot easier. The incentive, combined with dubious enforcement and unspecified penalties, leaves open the opportunity for out-of-basin transfers, and in turn reduces the value of the plan’s sustainability goals. Even if water banking is approved by the legislature, carrying out the practice in an over-appropriated basin such as Diamond Valley without sufficient regulations may lead to results contrary to water sustainability. In addressing this issue surrounding the Diamond Valley plan, the State Engineer merely acknowledged that the plan is not “perfect,” and referred to provisions in the plan allowing for its amendment, in effect taking a wait-and-see approach.¹⁸⁴ The *Diamond Valley* majority did not address water banking at all. Only time will tell how water banking in Diamond Valley will be utilized, whether it be for profit or conservation. But state and judicial approvals, along with the past presentation of AB 354, seem to follow a trend toward overhauling Nevada water law to legitimize practices that favor rights holders and their continued access to water, and giving users the benefit of the doubt in allowing them more freedom with how they use their rights.

CONCLUSION

The Diamond Valley GMP and the associated *Diamond Valley* case re-inforce Nevada’s user-oriented groundwater management policy contrary to

to Profits, KUNC (June 2, 2020, 4:55 PM), <https://www.kunc.org/environment/2020-06-02/in-nevada-investors-eye-underground-water-storage-as-a-path-to-profits> [<https://perma.cc/U4BY-3X83>].

¹⁸¹ *Id.*

¹⁸² While the Diamond Valley GMP prohibits out-of-basin transfers, it leaves open the possibility of an amendment to allow them should certain conditions be met. DVGMP, *supra* note 74, at 11 n.11.

¹⁸³ *Cf.* SIMEON HERSKOVITS & IRIS THORNTON, A PUBLIC INTEREST REVIEW OF THE PROPOSED DIAMOND VALLEY GROUNDWATER MANAGEMENT PLAN 4 (2018) (pointing out how separating water rights from the land via share creation can facilitate out-of-basin transfers).

¹⁸⁴ ORDER 1302, *supra* note 56, at 12.

statutory water law, foreshadowing the end of prior appropriation in the state. Through implementation of a GMP, communities in a groundwater basin can ignore the rules of prior appropriation and instead follow a groundwater use and management scheme drafted and agreed upon by a majority of basin rights holders. The risk of curtailment in accordance with the Rule of Priority need no longer loom over junior rights holders, and water use need no longer be limited by the Beneficial Use Requirement. By ignoring priority and allowing water banking, GMPs allow all rights holders to acquire significantly more freedom in what they do with their water. With this freedom, rights holders may use their water more sustainably and work toward improving future water availability.¹⁸⁵ Whether rights holders actually take advantage of the conservation opportunities provided by GMPs remains to be seen.¹⁸⁶

While legislative intent is ultimately unclear,¹⁸⁷ the primary concern of the legislature in enacting NRS 534.110(7) and 534.037 and enabling implementation of GMPs seems not to be conservation, but rather the continuation of the state's user-oriented policy approach to water management during times of prolonged shortage. Under an approach based on prior appropriation, curtailment of junior rights would force many irrigators to declare bankruptcy.¹⁸⁸ Consideration for the economic wellbeing of communities and users is likely why groundwater rights have never been curtailed,¹⁸⁹ even though senior rights have been at risk due to over-appropriation in many basins for decades. GMPs are “an important step for-

¹⁸⁵ Kaleb Roedel, *A Plan To Share the Pain of Water Scarcity Divides Farmers in This Rural Nevada Community*, INSIDE CLIMATE NEWS (Sept. 25, 2022), <https://insideclimatenews.org/news/25092022/nevada-rural-farmer-water-scarcity/> [<https://perma.cc/2D36-B5DB>] (“[The Diamond Valley GMP] encourages conservation in a way that prior appropriation never would do Prior appropriation has the exact opposite—it has no incentive to conserve, because then you lose your water rights and nobody wants to do that.”) (quoting Debbie Leonard, Esq., attorney for supporters of the Diamond Valley GMP).

¹⁸⁶ See HERSKOVITS & THORNTON, *supra* note 183, at 3–4.

¹⁸⁷ See *supra* Section IV.A and note 131 for a discussion on legislative intent.

¹⁸⁸ See Daniel Rothberg, *Departing State Engineer Approves Controversial Water Market Near Eureka*, NEV. INDEP. (Jan. 20, 2019, 1:55 AM), <https://thenevadaindependent.com/article/departing-state-engineer-approves-controversial-water-market-near-eureka> [<https://perma.cc/ERN9-SX64>]; see also *Hearing on Bill Draft Request 48-736*, *supra* note 11, at 16 (“If the [Diamond Valley GMP] is not adopted within the [ten-year] time frame . . . we will no longer be able to make a living.” Statement by Russell Conley, junior rights holder and member of the Diamond Valley GMP advisory board).

¹⁸⁹ Supplemental groundwater rights (supplemental to surface rights) have been an exception, with some past instances of curtailment. See, e.g., IN THE OFF. OF THE STATE ENG’R OF THE STATE OF NEV., ORDER 1267 (2015); see also IN THE OFF. OF THE STATE ENG’R OF THE STATE OF NEV., ORDER 1268 (2015).

ward in recognizing that there is a need to support community-based plans . . . in a way that's least harmful to the community affected and the public water resource."¹⁹⁰ Any harm that does befall a community due to its GMP would be difficult to blame on the government, as would any failure to actually follow through on any measures meant to promote conservation. This makes GMPs—if nothing else—an effective method by the legislature for allowing rights holders their continued freedom of use during times of shortage while at the same time taking conservation-oriented action without dictating sacrifices. With the State Supreme Court's support of legislation contrary to prior appropriation, the future of Nevada's water law is subject to change, with a complete overhaul emerging as one of the possibilities on the horizon. It may be too late to ever rely on prior appropriation as an effective management strategy.¹⁹¹

¹⁹⁰ Daniel Rothberg, *Justices Uphold Groundwater Plan in Ruling that Could 'Significantly Affect Water Management'*, NEV. INDEP. (June 22, 2022, 6:54 AM), <https://thenevadaindependent.com/article/justices-uphold-groundwater-plan-in-ruling-that-could-significantly-affect-water-managementefbfc> [<https://perma.cc/83L7-A3J4>] (quoting Adam Sullivan, Nevada State Engineer).

¹⁹¹ *Cf. Hearing on Bill Draft Request 48-736*, *supra* note 11, at 15–16 (“I live in the middle of the cone of depression for the whole [Diamond Valley] . . . I feel that to curtail strictly by priority at this point is not going to help me. My water has dropped 300 feet.” Statement by Vickie Buchanan, Diamond Valley senior water right holder). A cone of depression is the phenomenon created by well pumping lowering the water table around the well. Water Science School, *Cone of Depression: Pumping a Well Can Cause Water Level Lowering*, U.S.G.S. (July 24, 2018), <https://www.usgs.gov/media/images/cone-depression-pumping-a-well-can-cause-water-level-lowering> [<https://perma.cc/GV3V-H3GT>]. Large composite cones of depression from many overlapping well drawdowns can take decades to recover and can result in complete loss of well functionality. Richard C. Peralta, *Assuring a Long Term Groundwater Supply: Issues, Goals, and Tools*, UTAH STATE UNIV. EXTENSION 2–3 (1995), https://digitalcommons.usu.edu/extension_histall/17/ [<https://perma.cc/TV3C-SCGG>]. Nevada's many cones of depression formed from decades of over-pumping may necessitate a more thought-out approach to water management than strict curtailment by priority. *Cf. Hearing on Bill Draft Request 48-736*, *supra* note 11, at 9 (“The time to fix this problem through strict prior appropriation was 60 years ago . . . [Prior appropriation] is unworkable for a community.” Statement by Jake Tibbitts, Natural Resources Manager, Eureka County).

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