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MONTANA V. WYOMING: IS WATER CONSERVATION DROWNING THE YELLOWSTONE RIVER COMPACT?

JOE NORRIS

I. INTRODUCTION

Water planners across the western United States are constantly working to address the effects of the world's expanding population, climate change, and energy demands on water. One major cause for hope is the possibility of implementing large-scale water conservation programs.¹ Irrigated agriculture, the largest consumptive use of water in the West, is typically at the forefront of the conservation discussion.² Additionally, the advancement of modern technology in irrigation efficiency is increasing the ability of irrigators to optimize water use in their irrigation practices. However, water rights in the West are notoriously complex and specific to each state, making broad-based efficiency initiatives difficult to implement.

Proponents of irrigation efficiency have enjoyed many positive strides. However, the United States Supreme Court's recent decision in *Montana v. Wyoming* brings to the forefront one of the most complicated and contested facets of irrigation efficiency: who owns the rights to the conserved water? For the last sixty years, Montana, North Dakota, and Wyoming have diverted and used water on the Yellowstone River and its tributaries under the provisions of the Yellowstone River Compact (the "Compact") with relatively little controversy until recently when Wyoming allowed its water users to change from traditional flood irrigation to more efficient sprinkler irrigation.³

Sprinkler irrigation, which more evenly distributes water over crops, allows those crops to consume more of the applied water than flood irri-

1. Craig Bell, *Promoting Conservation by Law: Water Conservation and Western State Initiatives*, 10 U. DENV. WATER L. REV. 313, 313 (2007).

2. Charles F. Wilkinson, *Western Water Law in Transition*, 56 U. COLO. L. REV. 317, 330-31 (1985) (explaining water withdrawals for agriculture in the West are roughly eighty percent of available water resources, while about seventy percent of the world's freshwater resources are dedicated to irrigated agriculture). See also Lawrence J. MacDonnell & Teresa A. Rice, *Moving Agricultural Water to Cities: The Search for Smarter Approaches*, 14 HASTINGS W.-NW. J. ENVTL. L. & POL'Y 105, 105-06 (2008); Rebecca Torres, *Freshwater Resource and International Irrigation Policy and Reform: A Comparative Study*, 13 U. DENV. WATER L. REV. 107, 108 (2009).

3. First Interim Report of the Special Master at 54-55, *Montana v. Wyoming*, 131 S. Ct. 1765 (2011) (No. 137) (Montana alleging that flood irrigation consumes approximately sixty-five percent of water applied to a field, and the other thirty-five percent flows back to the stream over the surface or by percolation through the ground).

gation, which results in more wastewater to recharge groundwater sources and increase return flows to surface water sources.⁴ As a downstream water user on the Yellowstone River, Montana challenged Wyoming's action as increasing its net consumption of water and thereby decreasing the actual flows of water available for Montana users.⁵ Neither party disputed that sprinkler irrigation can be, in general, more efficient and consume more water than traditional flood irrigation; however, the parties both claim their respective right to use this conserved water under the terms of the Compact.⁶

The Compact's preamble states its goal is to "remove all causes of present and future controversy between said States."⁷ It is unclear, however, whether the drafters of the Compact contemplated whether the parties would employ more efficient irrigation technologies that would result in an appreciable increase in consumptive use of the concerned water. The resulting dispute before the Supreme Court (the "Court") embodied a struggle between private appropriative property rights and progress towards more sustainable and efficient irrigation technology. Though the *Montana v. Wyoming* opinion will not be binding precedent on other states or even other interstate river compacts, it will surely have a wide-reaching impact on water policy and society in the West.

II. THE YELLOWSTONE RIVER COMPACT

States can allocate water on interstate rivers in one of three different ways: (i) adversarially through adjudication by the Supreme Court; (ii) by an act of Congress with no state involvement; or (iii) collaboratively through an interstate compact.⁸ Because states can compromise to reach a voluntary agreement, interstate river compacts are often their preferred option.⁹ Montana, North Dakota, and Wyoming chose this third option and jointly signed the Compact on December 8, 1950.¹⁰

The Yellowstone River Basin covers approximately 70,000 square miles and flows north out of Wyoming and through Montana to North

4. *Id.* at 55 (explaining that sprinkler irrigation can increase efficiency from sixty-five percent to ninety percent or more, which reduces return flows from thirty-five percent to ten percent or less).

5. *Montana v. Wyoming*, 131 S. Ct. 1765, 1769 (2011) (listing North Dakota as a party because it is a signatory state to the Compact, however it did not participate in the dispute); First Interim Report of the Special Master, *supra* note 3, at 13.

6. Wyoming's Motion to Dismiss Bill of Complaint at 55, *Montana v. Wyoming*, 131 S. Ct. 1765 (2011) (No. 137), 2008 WL 8118503.

7. MONT. CODE ANN. § 85-20-101 (2011); N.D. CENT. CODE § 61-23-01 (2011); WYO. STAT. ANN. § 41-12-601 (2011) (references to the Yellowstone River Compact are hereinafter only to the Wyoming Statutes Annotated).

8. John B. Draper et al., *Gunboats on the Colorado: Interstate Water Controversies, Past and Present*, 55 ROCKY MT. MIN. L. INST. 18-1, § 18.03 (2009).

9. Annotation, *Constitutionality Construction and Application of Compacts and Statutes Involving Co-operation Between States*, 134 A.L.R. 1411 (1941).

10. WYO. STAT. ANN. § 41-12-601 (2011).

Dakota, where it joins the Missouri River.¹¹ Seasonal flows on the Yellowstone are heavily dependent on snowfall and can vary drastically from year to year.¹² This means that in dry years, many of the junior appropriations will go unsatisfied. The Compact itself outlines three distinct tiers of priority for water distribution among the states when water is low in the Basin.¹³ The first tier lists appropriative rights existing in each signatory state as of January 1, 1950.¹⁴ Second, the Compact allocates supplemental water supplies necessary for already-decreed, pre-1950 uses.¹⁵ The third tier includes the remaining unused water on each tributary river, divided by percentage between Montana and Wyoming.¹⁶ This framework sets all pre-1950 appropriations at an equal seniority between states. Therefore, in dry years, downstream Montana users could potentially receive no water due to pre-1950 Wyoming users lawfully consuming all of the available water.¹⁷

A key provision of the Compact, Article V, apportions “[a]ppropriative rights to the *beneficial* uses of the water of the Yellowstone River system existing in each signatory state as of January 1, 1950.”¹⁸ Additionally, the Compact instructs that these rights “shall continue to be enjoyed in accordance with the laws governing the acquisition and use of water under the *doctrine of appropriation*.”¹⁹ The controversy surrounding the Compact arises from a breach of this seemingly simple provision; however, the parties extensively litigated, and the Supreme Court’s opinion ultimately turned on, the meanings of the terms “beneficial use” and “doctrine of appropriation” in this case. In February 2008, The Supreme Court granted Montana leave to file a complaint against Wyoming for its alleged breach of the Compact.²⁰

11. First Interim Report of the Special Master, *supra* note 3, at 3.

12. *Montana v. Wyoming*, 131 S. Ct. at 1770.

13. *Id.*

14. WYO. STAT. ANN. § 41-12-601 art. V(a) (2011).

15. *Id.* at art. V(b).

16. *Id.* (Wyoming receiving the following percentages of the remaining unused water after pre-1950 appropriations are filled: sixty percent of the Clarks Fork River, eighty percent of the Bighorn River, forty percent of the Tongue River, and forty-two percent of the Powder River; Montana receiving the remainder).

17. *Montana*, 131 S. Ct. at 1772; Transcript of Oral Argument at 51, *Montana v. Wyoming*, 131 S. Ct. 1765 (2011) (No. 137, Orig.), 2011 WL 65029 (stating some other interstate river compacts have used a different construction where upstream states will assure a minimum amount of flow to the downstream state on a yearly basis); *See e.g.* COLO. REV. STAT. § 37-61-101 (2011) (the Colorado River Compact).

18. WYO. STAT. ANN. § 41-12-601 art. V(a) (2011) (emphasis added).

19. *Id.* (emphasis added).

20. *Montana*, 131 S. Ct. at 1770 (as a signatory to the Compact, Montana has standing to sue for a breach of the interstate water compact); U.S. CONST. art. III, § 2, cl. 1; WYO. STAT. ANN. § 41-12-601 art. XIII (2011); Draper et al., *supra* note 8, § 18.02.

III. THE PARTIES

Montana's basic allegation in its complaint was that the Compact guarantees Montana users enough water to meet their pre-1950 needs, subject to natural river conditions.²¹ Montana did not allege that Wyoming's increased irrigation efficiency itself was a Compact violation, but rather argued that a number of Wyoming's actions have increased the water available for Wyoming users and diminished the water available for Montana users.²² Montana also relied on the Compact's definition of "beneficial use" to support its argument that a water right is a consumptive right rather than a diversion right.²³ Alternatively, should the Court construe the Compact language as ambiguous, Montana claimed that a correct interpretation of the drafters' intent is that the Compact created permanent allocations of water to each individual state for pre-1950 uses.²⁴ Finally, Montana recommended the Court ignore the common law doctrine of prior appropriation because it is inconclusive on the topic of return flows.²⁵

Wyoming opposed, alleging that Article V of the Compact created a divertible flow compact, which does not limit an appropriator to a specific volume of water as in depletion compacts.²⁶ Wyoming further argued, therefore, that because efficient irrigation remains a beneficial use, increased consumption under the same historical diversion remains an acceptable use under the Compact. Wyoming claimed that this interpretation is in conformance with the typical administration of water rights in western states.²⁷

The Compact's structure and specific reference to appropriation law also supported Wyoming's argument that the Compact did not establish a permanent volume allocation of water to Montana.²⁸ The Compact lays out a specific methodology in Article V for calculating and allocating the volume of divertible flow on the river for only post-1950 users.²⁹ Wyoming concluded that, because the drafters did not apply this method to pre-1950 appropriations, the Compact intended to consider only *existing* appropriations *as of 1950* under prior appropriation law, and not as permanent allocations.³⁰

21. Montana's Exception and Brief at 9-14, *Montana v. Wyoming*, 131 S. Ct. 1765 (2011) (No. 137), 2010 WL 4132841.

22. *Montana*, 131 S. Ct. at 1770 (Montana's complaint including claims that Wyoming was appropriating water for "irrigating new acreage; building new storage facilities; conducting new groundwater pumping; and increasing consumption on existing agricultural acreage").

23. Montana's Exception and Brief, *supra* note 21, at 18-19.

24. *Id.* at 17.

25. *Id.* at 21, 32.

26. Wyoming's Motion to Dismiss Bill of Complaint, *supra* note 6, at 36.

27. Wyoming's Reply to Montana's Exception at 40-44, 51-52, *Montana v. Wyoming*, 131 S. Ct. 1765 (2011) (No. 137), 2010 WL 4132840.

28. *Id.* at 53.

29. WYO. STAT. ANN. § 41-12-601 (2011).

30. Wyoming's Reply to Montana's Exception, *supra* note 27, at 8, 10.

The Supreme Court has original jurisdiction over interstate compact disputes.³¹ Here, the Court appointed a Special Master to consider Wyoming's motion to dismiss and brief the case.³² The Special Master evaluated numerous amicus briefs, but dismissed one notable brief from the Anadarko Petroleum Corporation.³³ Anadarko argued Wyoming would not adequately represent its interest with respect to the Compact's stance on groundwater.³⁴ Anadarko maintained that Montana's claims to return flows and groundwater threatened produced water in conjunction with its coalbed natural gas operations in Wyoming.³⁵ Anadarko suggested that the holding should not affect produced water from drilling operations.³⁶ Although Montana's claim specifically identified pumping associated with coalbed natural gas in the Tongue and Powder River Basins,³⁷ Anadarko may have seen this case as an opportunity to have the Court differentiate water associated with coalbed drilling and other historical groundwater-consumptive drilling. Still, the Special Master determined that admitting Anadarko's amicus brief could unnecessarily lengthen the discovery and trial proceedings, and accordingly dismissed Anadarko's amicus brief.³⁸

IV. THE SUPREME COURT OPINION

After briefing each party's arguments, the Special Master concluded that the Court should deny Wyoming's motion to dismiss.³⁹ The Special Master agreed in part with Montana that, "Article V of the Compact protects pre-1950 appropriations in Montana from new surface and groundwater diversions in Wyoming," but eventually sided with Wyoming's argument that simple efficiency improvements do not constitute an opportunity for relief.⁴⁰ While both states accepted the majority of the Special

31. U.S. CONST. art. III, § 2.

32. *Montana*, 131 S. Ct. at 1770; see also *Kansas v. Colorado*, 543 U.S. 86 (2004); *Arizona v. California*, 460 U.S. 605 (1983); Vincent L. McKusick, *Discretionary Gatekeeping: The Supreme Court's Management of Its Original Jurisdiction Docket Since 1961*, 45 ME. L. REV. 185 (1993).

33. First Interim Report of the Special Master, *supra* note 3, at 96.

34. Motion for Anadarko Petroleum Corp. for Leave to File Amicus Brief at 2, *Montana v. Wyoming*, 131 S. Ct. 1765 (2011) (No. 137), 2008 WL 8118500.

35. Amicus Brief in Support of Respondent State Wyoming at 2, *Montana v. Wyoming*, 131 S. Ct. 1765 (2011) (No. 137), 2008 WL 8119115. A number of parties have been concerned about the relatively unknown environmental and hydrologic effects of coalbed drilling operations in Montana. See, e.g. Myers, T., *Groundwater Management and Coal Bed Methane Development in the Powder River Basin of Montana*, NORTHERN PLAINS RES. COUNCIL (Oct. 11, 2011), <http://www.northernplains.org/groundwater-management-and-coal-bed-methane-development-in-the-powder-river-basin-of-montana/> (accepted for publication in the *Journal of Hydrology* for March 2009 issue).

36. *Id.* at 4.

37. First Interim Report of the Special Master, *supra* note 3, at 96.

38. *Id.* (the Special Master concluding that Wyoming adequately represented Anadarko's interest in the case).

39. First Interim Report of the Special Master, *supra* note 3, at 89-90, 115-16.

40. *Id.* at 14-15.

Master's lengthy report, Montana objected to the Special Master's rejection of its claim that increased efficiency decreased water available for its pre-1950 appropriators.⁴¹ Accordingly, the Supreme Court only considered one of Montana's several allegations.⁴² The Court's opinion, written by Justice Clarence Thomas, relied on two major principles to resolve the dispute: historical principles of prior appropriation law and interpretation of the Compact itself.

A. PRINCIPLES OF PRIOR APPROPRIATION LAW

Prior appropriation law provides the basis for water rights in most western states, including Montana and Wyoming.⁴³ The Compact expressly states that it is based on "the laws governing the acquisition and use of water under the doctrine of appropriation."⁴⁴ Under prior appropriation law, the date of an appropriation determines the seniority of that water right.⁴⁵ In practice, an appropriative water right entitles a water user to divert a specific amount of water from a stream for a particular beneficial use, typically in units of cubic feet per second ("cfs").⁴⁶ The Supreme Court has made it clear that the measure of an appropriative water right is the actual beneficial use of water, and therefore any appropriators ceasing actual beneficial use forfeit their rights.⁴⁷ Montana's complaint raised two sub-principles of prior appropriation law: the no-injury rule and the doctrine of recapture.

1. The No-Injury Rule

The no-injury rule states that any new appropriator is entitled to divert water subject to the stream conditions as they exist at the record date of appropriation.⁴⁸ Even junior appropriators may raise an injury claim under the no-injury rule when an upstream senior appropriator makes changes to stream conditions.⁴⁹ However, the rule is limited in its application and "generally concerns changes in the location of the diversion and the place or purpose of use."⁵⁰ The Court examined Wyoming and Montana case law and several water law treatises that dealt with changes to more water-intensive crops, day-to-day operations, and the addition of

41. Montana's Exception and Brief, *supra* note 21, at 1.

42. *Montana v. Wyoming*, 131 S. Ct. 1765, 1770 (2011) (No. 137), 2010 WL 4132841.

43. First Interim Report of the Special Master, *supra* note 3, at 5.

44. WYO. STAT. ANN. § 41-12-601 art. V(a) (2011).

45. *Montana*, 131 S. Ct. at 1772.

46. First Interim Report of the Special Master, *supra* note 3, at 5.

47. *E.g. Colo. River Water Conservation Dist. v. United States*, 424 U.S. 800, 805 (1976) ("Continued beneficial use of the water is required in order to maintain the right").

48. *Montana*, 131 S. Ct. at 1773.

49. *Id.*

50. *Id.*

irrigated acreage.⁵¹ Justice Thomas suggested that the relative absence of litigation over changes in irrigation efficiency, compared to other types of water use changes, implied that irrigation efficiency is not a violation of the no-injury rule.⁵² The Court definitively concluded that irrigation efficiency improvements “seem to be the sort of changes that fall outside the no-injury rule as it exists in Montana and Wyoming” because they do not concern changes in place of diversion or purpose of use, both hallmarks of change-of-use disputes.⁵³

2. The Doctrine of Recapture

The doctrine of recapture entitles an appropriator to “exclusive control [of his appropriated water] so long as he is able and willing to apply it to beneficial uses, and such right extends to what is commonly known as wastage from surface run-off and deep percolation, necessarily incident to practical irrigation.”⁵⁴ While the Court readily acknowledged the unsettled nature of this area of law, the doctrine of recapture tends to support allowing increased water consumption due to irrigation efficiency as part of the original appropriative right.⁵⁵ Montana argued that the doctrine of recapture does not apply to water that returns to the source of the original diversion.⁵⁶ While there is some persuasive case law in neighboring Colorado and Utah for this proposition, the Court dismissed Montana’s argument after limiting its analysis to Montana and Wyoming law.

While Colorado and Utah are comparatively strict in prohibiting change applications that have a negative effect on stream conditions, neither state suggests differentiating water based on the direction in which runoff or seepage travels.⁵⁷ In *East Bench Irrigation Co. v. Desert Irrigation Co.*, the Utah Supreme Court considered upstream users’ application to change the point of diversion and increase the amount of land irrigated.⁵⁸ The Court recognized that upstream users may increase their consumptive use by irrigating a different crop without filing a change application; however, upstream users cannot file a change of use application that would detrimentally impair stream flow conditions for downstream appropriators.⁵⁹ Similarly, in *Comstock v. Ramsay*, the Colorado Supreme Court addressed a dispute over seepage waters and noted that, “practically every decree on the South Platte River...is dependent for its

51. *Id.* at 1773-74.

52. *Id.* at 1774.

53. *Id.*

54. *Id.* at 1775-76 (citing *Ide v. United States*, 263 U.S. 497, 506 (1924) (internal quotation marks omitted)).

55. *Id.* at 1775, 1777.

56. *Id.* at 1775.

57. *Id.*

58. *East Bench Irrig. Co. v. Desert Irrig. Co.*, 271 P.2d 449, 450 (Utah 1954).

59. *Id.* at 455-56 (the Court granting the upstream users’ application on the condition that the proposed change in place of diversion or place or manner of use would not impair the downstream users vested rights).

supply...upon return, waste and seepage waters.”⁶⁰ In remanding the case, the Court held that allowing a new appropriator to divert seepage waters would replace the fundamental principle of prior appropriation water law—first in time, first in right—with an unrecognized one, “last in time first in right.”⁶¹ While making a fairly persuasive argument, Montana cited no binding authority for its proposition that the doctrine of recapture does not apply to waters that return to their original source of diversion. Further, neither Colorado nor Utah have recognized that an appropriator is prohibited from “reus[ing] his own wastewater while it is still on his property simply because it otherwise would return to the original stream.”⁶²

Despite Montana’s argument, the Court found that both Montana and Wyoming law “apply, without qualification, the basic doctrine that the original appropriator may freely recapture his used water while it remains on his property and reuse it for the same purpose on the same land.”⁶³ It is clear in Wyoming that users diverting irrigation runoff and seepage directly from another user are doing so subject to the original appropriator’s use of water.⁶⁴ The Wyoming Supreme Court has expressly held, “[N]o appropriator can compel any other appropriator to continue the waste of water which benefits the former.”⁶⁵ Montana law expresses essentially the same sentiment, stating the general rule “is that the owner of the right to use the water—his private property while in his possession—may collect it, recapture it, before it leaves his possession.”⁶⁶ Therefore, under both Montana and Wyoming common law, the doctrine of recapture is expansive and most likely allows an appropriator to increase irrigation efficiency (and thereby consumption) on the same land to which the original appropriative water right was applied.⁶⁷

B. COMPACT INTERPRETATION

Montana’s final argument was that the Compact’s definition of “beneficial use” limited the pre-1950 water uses to non-wasteful, beneficial uses.⁶⁸ The term “beneficial use” is defined in Article II(h) as, “that use by which the water supply of a drainage basin is depleted when usefully employed by the activities of man.”⁶⁹ Because the Compact protects pre-

60. *Comstock v. Ramsay*, 133 P. 1107, 1110 (Colo. 1913).

61. *Id.*

62. *Montana*, 131 S. Ct. at 1775.

63. *Id.*

64. *Id.* at 1775-76. (A creek fed by irrigation runoff and seepage could not be secured because it was subject to the irrigator “find[ing] better ways of utilizing the water on the same land so that less waste and seepage would occur”); *Bower v. Big Horn Canal Ass’n*, 307 P.2d 593, 601 (Wyo. 1957).

65. *Montana*, 131 S. Ct. at 1776 (citing *Bower*, 307 P.2d at 601).

66. *Id.* (citing *Rock Creek Ditch & Flume Co. v. Miller*, 17 P.2d 1074, 1080 (Mont. 1933)).

67. *Id.*

68. *Id.* at 1777.

69. WYO. STAT. ANN. § 41-12-601 art. II(h) (2011).

1950 appropriative rights, Montana alleged that Wyoming's amount of beneficial consumption at that date limits its use.⁷⁰ Applying this interpretation would assure downstream Montana users of their access to historical return flows.⁷¹

1. Definition of "Beneficial Use"

Through a plain reading of the Compact and a comparison to other interstate water compacts, the Court joined the Special Master's recommendation to dismiss Montana's statutory interpretation of beneficial use.⁷² Montana's argument stressed that beneficial use equates to depletion of water in the most general sense, and the Court conceded that all types of beneficial use result in some amount of depletion.⁷³ Justice Thomas explained that the clear language of the Compact defining beneficial use merely says that "that use" must be one that "deplete[s]" the "water supply."⁷⁴ Therefore, the Compact defines beneficial use as "a *type* of use that depletes the water supply."⁷⁵ The Court elaborated that this plain reading was justified because, at the time the Compact was drafted, Wyoming had a statutory preference for irrigation over non-depletive uses like power generation.⁷⁶ Additionally, beneficial use in irrigation has, in practice, historically allowed for losses to runoff, evaporation, percolation, leakage, and seepage as long as they are reasonable and claimed in good faith.⁷⁷ The Court suggested that, had the drafters of the Compact intended Montana's interpretation of beneficial use, the definitional language would likely have been more explicit in altering the commonly understood meaning of beneficial use to include "the amount of water *consumed*," or the "*volume* by which the water supply...is depleted."⁷⁸ Putting it simply, the Court stated that any other interpretation of beneficial use would make little sense under the ordinary principles of prior appropriation.⁷⁹

The Court also supported its statutory interpretation of the term beneficial use with a brief investigation of other interstate water compacts. Before the Yellowstone River Compact, Wyoming had already entered into the Colorado River Compact, which explicitly reserved water for "beneficial consumptive use" and required upstream states to assure a flow of 75,000,000 acre-feet for any consecutive ten-year period.⁸⁰ Mon-

70. *Montana*, 131 S. Ct. at 1778.

71. *Id.*

72. *Id.* at 1777-79.

73. *Id.* at 1778.

74. *Id.* (citing WYO. STAT. ANN. § 41-12-601 art. II(h) (2011)).

75. *Id.* (emphasis in original).

76. *Id.*

77. *Id.*

78. *Id.* (emphasis in original).

79. *Id.* at 1778-79.

80. *Id.* at 1779; WYO. STAT. ANN. § 41-12-301 (2011) (the Colorado River Compact was signed by Wyoming on November 24, 1922).

tana's analysis of the Compact was unpersuasive when prior interstate compacts explicitly allocated water based on volumetric or consumptive use parameters.⁸¹ In essence, the Court reasoned that because the Compact's drafters used a formula different from the volumetric apportionment used previously in the Colorado River Compact, the drafters must have intended a different meaning. Montana, North Dakota, and Wyoming agreed in the Compact to distinguish pre-1950 rights from post-1950 rights and apportion water based on a percentage related to a diversion amount rather than a consumptive or volumetric measure.⁸²

2. The Scalia Dissent

Justice Scalia challenged the majority opinion based on its interpretation of statutory language.⁸³ The backbone of the prior appropriation doctrine is beneficial use.⁸⁴ Beneficial use is both the measure and limiting factor of any appropriative water right.⁸⁵ Justice Scalia therefore argued that the drafter's use of the word "deplete" was deliberate, giving it a distinct meaning from "divert."⁸⁶ The words "divert" or "diversion" appear a number of times throughout the Compact, but the drafters specifically chose to use the word "depletion" in the definition of beneficial use.⁸⁷ Justice Scalia argued that the majority's analysis of general prior appropriation principles was unnecessary and suggested that the only question before the Court should have been "whether 'beneficial use' measures the volume *diverted* or the volume *depleted*" within the language of the Compact.⁸⁸ He stated that the Court's only explanation for choosing the diversion interpretation was that Wyoming disfavored non-depletive hydroelectric power.⁸⁹ This reason was unpersuasive to Justice Scalia because non-depletive uses "are already excluded from appropriative rights."⁹⁰ In his dissent he found it extraordinary that the Court used this case to define beneficial use—"a state water law question that *no* court of *any* Western State has *ever* answered"—when the Compact itself appeared to afford a clear answer.⁹¹

81. *Montana v. Wyoming*, 131 S. Ct. 1765, 1779 (2011) (No. 137), 2010 WL 4132841; *see also* COLO. REV. STAT. § 37-67-101 (2011) (the Republican River Compact allocated water to Colorado, Kansas, and Nebraska in April 27, 1923, by the acre-foot for beneficial consumptive use).

82. *See Id.*

83. *Montana v. Wyoming*, 131 S. Ct. 1765, 1780 (2011) (Scalia, J., dissenting).

84. *Id.*

85. *Id.*

86. *Id.*

87. *Id.*

88. *Id.* at 1781 (emphasis in original).

89. *Id.*

90. *Id.*

91. *Id.* at 1782 (emphasis in original).

V. POLICY

Ultimately, the Court concluded, “[t]he doctrine of appropriation in Wyoming and Montana allows appropriators to improve the efficiency of their irrigation systems, even to the detriment of downstream appropriators.”⁹² In a decision of first impression, the Court relied heavily on policy considerations associated with weighing private property rights against irrigation efficiency measures. Upon review of the Court’s opinion, the Special Master’s Report, and the parties’ briefs, several major policy concepts emerge: (i) administering water rights practically; (ii) encouraging efficient irrigation; and (iii) defining beneficial use.

The most evident policy implication of the Court’s opinion is that administering appropriated water rights is impracticable on a net consumption basis. The net consumption concept suggests that beneficial consumptive use limits any water right to the volume consumed minus the volume of return flows. Historically, western states have required appropriators to install structures such as headgates, weirs, or flumes to measure the amount of water diverted under their decree at the specific point of diversion.⁹³ Augmented stream flow due to irrigation return flows, however, are not as easy to measure.⁹⁴ Determining the timing and location of groundwater return flows requires extensive and expensive groundwater modeling.⁹⁵ The expense and physical presence of testing equipment required for such testing would likely make even basin-wide applications of a net consumptive concept economically and politically infeasible. At oral argument, Justice Bryer questioned, “how can you read this treaty to require landowners to put back amounts into the river [when] they didn’t even know what they were?”⁹⁶

Next, the policy of encouraging efficient irrigation technologies will be exceedingly important for the future of water law in the West. Commentators have long criticized prior appropriation’s “use it or lose it” principle as discouraging water conservation in agriculture.⁹⁷ Conservation and efficiency in irrigation are essential to ensuring future water supplies for growing populations in the arid West.⁹⁸ However, there is no universal agreement as to the best use of conserved water. The Court’s

92. *Id.* at 1779.

93. *E.g.* WYO. STAT. ANN. § 41-3-613 (2011).

94. *See* A.J. Clemmens, R.G. Allen, and C.M. Burt, *Technical Concepts Related to Conservation of Irrigation and Rainwater in Agricultural Systems*, 44 WATER RESOUR. RES. W00E03, 4 (2008) (doi:10.1029/2007WR006095). (to technically evaluate irrigation efficiency, one must consider five separate categories: (i) crop evapotranspiration; (ii) other evapotranspiration; (iii) recoverable surface and ground water; (iv) unrecoverable groundwater; and (v) storage water within the system).

95. *See* MacDonnell & Rice, *supra* note 2, at 120-21.

96. Transcript of Oral Argument, *supra* note 17, at 12. (Justice Sotomayor also questioned, “How in the world do any States monitor that? The change in crops, the change in irrigation methods, the change in anything that would cause a difference in return flow?”); *Id.* at 7.

97. Bell, *supra* note 1, at 314-15.

98. *Id.* at 313-14.

decision in *Montana v. Wyoming* seems to support protecting vested private rights in water by allowing appropriators to retain conserved water for their own use. At the end of the day, the Court likely sided with protecting private property rights because of an overall sense of fairness in protecting senior appropriators' vested rights.

Because many rivers in the West are overappropriated, water planners are paying close attention to the potential for new water sources deriving directly from conservation projects.⁹⁹ Commentators have suggested a variety of innovative solutions to promote conservation through voluntary programs and/or legislative actions.¹⁰⁰ Appropriators have long used salvaged water transfers as a private sector tool to realize the monetary benefits of irrigation efficiency.¹⁰¹ Montana itself enacted a statute in 1991 allowing appropriators to use or transfer water made available by water-saving methods.¹⁰² This program is entirely voluntary and is also subject to approval from the Montana Department of Conservation and Natural Resources in order to protect third party appropriators from injury.¹⁰³ A similar concept to the salvaged water transfer agreement is the water bank, wherein irrigators may deposit excess or salvaged water for purchase or use by multiple parties.¹⁰⁴ Conversely, some assert that the best use of conserved water is dedication to instream flows. A major argument for instream flow protection derives from the state's public interest in protecting the waters of the state for the benefit of fish, wildlife, and recreation.¹⁰⁵

Ultimately, any state can amend or pass its own laws or programs to require more efficient irrigation technologies and then distribute the conserved flows however it pleases.¹⁰⁶ Oregon, for example, allocates seventy-five percent of conserved flows to the irrigator implementing the efficient practices, while the state reserves seventy-five percent of the flows for instream flow protection.¹⁰⁷ While there exist a number of proven tools for implementing irrigation efficiency programs, governments have mostly resorted to grassroots and watershed-specific campaigns rather than state- or region-wide programs due to political pressures, third party impacts, and environmental threats.

99. COMMITTEE ON WESTERN WATER MANAGEMENT, NATIONAL RESEARCH COUNCIL, WATER TRANSFERS IN THE WEST: EFFICIENCY, EQUITY, AND THE ENVIRONMENT 8, 14 (1992).

100. MacDonnell & Rice, *supra* note 2, at 136-37.

101. *Id.*

102. MONT. CODE ANN. § 85-2-102.02, -419 (2011).

103. MacDonnell & Rice, *supra* note 2 at 136-37 (to make a salvaged water change of use, a Montana appropriator must prove (i) water rights of others are no affected; (ii) the proposed change works are adequate; (iii) the proposed use is beneficial; and (iv) the applicant for the change has consent of the proposed beneficial user).

104. Bell, *supra* note 1, at 321.

105. *Id.* at 313-14, 324; NATIONAL RESEARCH COUNCIL, *supra* note 99, at 11.

106. MacDonnell & Rice, *supra* note 2, at 121.

107. OR. REV. STAT. § 537.470(3) (2011).

Finally, *Montana v. Wyoming* brings into question the well-known and often-litigated definition of "beneficial use." Although the Court stopped short of explicitly defining the term, it analyzed many of the essential components of the doctrine of beneficial use. One component, water duty, will likely become a more contentious efficiency-related concept in the future. Water duty is one measure of reasonable and beneficial use in a specific geographic region, taking into consideration crop type, climate, and soil characteristics.¹⁰⁸ For example, water duty quantifies the reasonable use of water to a specific amount of acre-feet per year. Beneficial use is still the ultimate measure and limit of a water right; however, some courts have set a maximum water duty in adjudicating appropriations and resolving water disputes.¹⁰⁹ The next logical question is whether technological advances should require water duties to decrease to reflect modern advances in conservation and efficiency.¹¹⁰ Allowing a sliding scale for water duty may provide a more flexible approach to determining what is actually "beneficial" use. As a common law principle that each western state sets individually, beneficial use is flexible and will eventually adapt to include or even require modern, more-efficient technologies. However, water law is a creature of tradition, slow to change, and can be altered more quickly through legislative initiatives favoring irrigation efficiency.

VI. PRECEDENT AND FUTURE IMPLICATIONS

Although the policies underlying the Court's holding are compelling, the actual legal precedent that this case sets for western water law will be somewhat limited for several reasons. First, because water law is specific to each state, *Montana v. Wyoming's* holding will only be binding on interpretations of Wyoming and Montana law. Second, the law of return flows is distinctly different in other western states, and the Supreme Court could potentially reach the opposite conclusion in a different state. Lastly, the Yellowstone River Compact's three-tier system is unusual in comparison to other interstate water compacts. However, the Court's determination that more efficient and more consumptive irrigation practices are allowable under the Compact will have a broad effect on western water law in general. Water practitioners will undoubtedly be able to cite *Wyoming v. Montana* for the assertion that prior appropriation law is

108. MacDonnell & Rice, *supra* note 2, at 128-29 (the Oregon Water Resources Department terminated work with Oregon State University developing technical data to establish regional water duties in the state due to limited time and incomplete regulatory structure to implement the regional system).

109. *E.g.* United States v. Alpine Land & Reservoir Co., 697 F.2d 851, 853 (9th Cir. 1983) (the federal appellate court upheld the 3.5 acre-feet per year water duty to bottom-land farmer and 4.5 acre-feet per year to the Newlands Project to irrigate agricultural lands on the Carson River in California).

110. Janet C. Neuman, *Beneficial Use, Waste, and Forfeiture: The Inefficient Search for Efficiency in Western Water Use*, 28 ENVTL. L. 919, 980 (1998).

rooted in the practical administration of rights, and the protection of private water rights will reward appropriators embracing irrigation efficiency.

VII. CONCLUSION

The biggest concern in the West is that “[a]ll the water that will ever be is, right now.”¹¹¹ Western water users will undoubtedly continue to pursue more efficient technologies because of economic and environmental incentives, creating conflicts with downstream users who rely on upstream waste or return flows. The Supreme Court’s opinion in *Montana v. Wyoming* will undoubtedly be persuasive in such disputes despite the fact that it is non-binding on other western states. In Montana, water users have always been subject to pre-1950 Wyoming users, but will this expansive view of appropriative rights further tighten Wyoming’s grip on the Yellowstone River Basin? For now, the practical effect of this decision on the Yellowstone River Compact remains unknown.

111. U.S. Geological Survey, Water Resources of Connecticut: Water Quotes (Jun. 25, 2010), <http://ct.water.usgs.gov/education/morewater.htm> (citing National Geographic, Oct. 1993).