

# THE RECOGNITION OF FEDERALLY RESERVED RIGHTS IN GROUNDWATER<sup>1</sup>

## I. INTRODUCTION

When the federal government reserves land from the public domain, it implicitly reserves sufficient water to meet the needs of that land.<sup>2</sup> This statement is known as the federally reserved rights doctrine.

The federal reservation of water is empowered by the commerce clause,<sup>3</sup> which permits federal regulation of navigable streams, and the property clause,<sup>4</sup> which permits federal regulation of federal land.<sup>5</sup>

Although states technically lack the authority to frustrate federal rights,<sup>6</sup> reserved water rights have met strong opposition from state water users who fear that the assertion of federal rights will wipe out their state held rights. Consequently, the scope of the reserved rights doctrine has been extensively litigated.<sup>7</sup> As the Law stands today, federally reserved water rights exist only in surface water.<sup>8</sup>

This paper summarizes state water law, retells the litigative history of the federally reserved rights doctrine, and presents arguments for and against the recognition of federally reserved water rights in groundwater. It concludes by asserting that the reserved rights doctrine must encompass groundwater.

---

<sup>1</sup> Authored by Carlin Danz (University of Michigan Law School, Juris Doctor Candidate 2010).

<sup>2</sup> *Winters v. United States*, 207 U.S. 564, 574-78 (1907).

<sup>3</sup> United States Constitution, Art. I Sec. VIII.

<sup>4</sup> United States Constitution, Art. IV Sec. III.

<sup>5</sup> *Cappaert v. United States*, 426 U.S. at 138.

<sup>6</sup> *Winters*, 207 U.S. at 577.

<sup>7</sup> See *Cappaert*, 426 U.S. 128, 131-47 (1976).

<sup>8</sup> *Id.* at 143.

## II. STATE SURFACE WATER DOCTRINE

Water law is predominantly state law.<sup>9</sup> Historically, the federal government has deferred to the states in regard to water allocation,<sup>10</sup> perhaps out of recognition for the fact that water resources vary greatly by geographic region and are therefore better allocated at the state level.

Traditionally, surface water and groundwater were considered legally distinct and had independent rules for allocation.<sup>11</sup> Today, their management has been substantially integrated in most states, though a few notable pockets of resistance remain: namely California, Arizona and Texas.<sup>12</sup>

Each state follows one of two surface water doctrines.

### A. Riparianism

Riparianism is the predominant surface water doctrine in the east.<sup>13</sup> Under riparianism, the right to water is derived from land ownership.<sup>14</sup> Accordingly, the doctrine mandates that all water be used on-tract; out-of-basin transfers are prohibited.<sup>15</sup>

Landowners who own property appurtenant to surface water have the right to make use of that water, but that right is limited by a standard of reasonableness: one riparian's use may not unreasonably harm another riparian.<sup>16</sup> During water shortages, riparian users are required to share any

---

<sup>9</sup> Joseph L. Sax et al, *Legal Control of Water Resources* 396 (4th ed. 2006).

<sup>10</sup> Robert E. Beck et al, *Water and Water Rights* § 37.01 (2004).

<sup>11</sup> Sax at 393.

<sup>12</sup> Id. at 137.

<sup>13</sup> Id. at 13.

<sup>14</sup> Id. at 27.

<sup>15</sup> Id. at 28.

<sup>16</sup> Id.

available water equitably.<sup>17</sup>

## B. Prior Appropriation

Prior appropriation is the prevailing surface water doctrine in the west.<sup>18</sup> Appropriative rights are acquired by first diverting surface water and then applying it to beneficial use.<sup>19</sup>

The priority of the appropriative right is determined by the date on which the water was first put to beneficial use.<sup>20</sup> Appropriative rights are either senior or junior to all other appropriative rights.<sup>21</sup> When there is insufficient water to meet the needs of a senior appropriator, junior appropriators must halt their diversions to ensure that water is available to fulfill senior uses.<sup>22</sup>

Under prior appropriation, no distinction is made between on-tract and off-tract uses.<sup>23</sup> Appropriative water rights cannot be held indefinitely; if an appropriator ceases to make beneficial use of the water, the right is abandoned.<sup>24</sup>

## III. STATE GROUNDWATER DOCTRINE

In the 1800s, groundwater was not well understood. The Law viewed groundwater, not as a hydrologic resource, but as an unknowable, mysterious force. The Ohio Supreme Court once declared that:

[t]he laws of its existence and progress, while there, are not uniform, and cannot be known or regulated. It rises to great

---

<sup>17</sup> Id.

<sup>18</sup> Id. at 13.

<sup>19</sup> Id. at 125.

<sup>20</sup> Id.

<sup>21</sup> Id. at 126.

<sup>22</sup> Id.

<sup>23</sup> Id. at 125.

<sup>24</sup> Id.

heights, and moves collaterally, by influences beyond our apprehension. These influences are so secret, changeable and uncontrollable, we cannot subject them to the regulations of law, nor build upon them a system of rules, as has been done with streams upon the surface.<sup>25</sup>

During the last 100 years, our comprehension of groundwater hydrology has vastly improved.<sup>26</sup> Groundwater modeling technology has enabled us to “understand groundwater systems and simulate and predict their behavior.”<sup>27</sup> Unfortunately, state water law developed before the technology for groundwater modeling and extraction was invented.<sup>28</sup> As a result, it remains the product of conjecture and outdated science.

Each state follows one of five common law groundwater doctrines.

#### A. The Rule of Capture

The Rule of Capture is a zero liability rule.<sup>29</sup> Under this doctrine, a landowner has the right to extract any and all groundwater underlying his or her land, without limitation.<sup>30</sup> Whoever pumps the water gains ownership over it, and is not liable for any harm to neighboring wells and owners caused by that pumping.<sup>31</sup>

---

<sup>25</sup> *Frazier v. Brown*, 12 Ohio St. 294, 307 (1861).

<sup>26</sup> See Sax at 397-411.

<sup>27</sup> National Research Council, *Groundwater Models: Scientific and Regulatory Applications* 22 (1990).

<sup>28</sup> Sax at 396.

<sup>29</sup> *Id.* at 415; see generally *Sipriano v. Great Spring Waters of America*, 1 S.W.3d 75 (Tex. 1999).

<sup>30</sup> *Id.*

<sup>31</sup> *Id.*

## B. American Reasonable Use

American reasonable use is a modified version of the rule of capture.<sup>32</sup> Misleadingly, there is no requirement that the water be used reasonably, merely that it be used on-tract.<sup>33</sup> This doctrine provides no remedy to groundwater users for harm caused to them by the unreasonable depletion of groundwater resulting from neighboring uses.<sup>34</sup>

## C. Prior Appropriation

The doctrine of prior appropriation for groundwater is similar to doctrine of prior appropriation for surface water; whoever is first in time is first in right.<sup>35</sup>

## D. Correlative Rights

The doctrine of Correlative Rights is often described as riparianism on its side.<sup>36</sup> It requires landowners who jointly overlie aquifers to share the available groundwater in proportion to the size of their properties.<sup>37</sup> Off-tract uses are allowed, but are subordinate to on-tract uses.<sup>38</sup>

## E. Restatement 2d of Torts Reasonable Use

The Restatement 2d of Torts proposed an allocation regime for groundwater.<sup>39</sup> It holds extractors liable for unreasonable harm to others

---

<sup>32</sup> Id.; see generally *Martin v. City of Linden*, 667 So.2d 732 (Ala. 1995).

<sup>33</sup> Id.

<sup>34</sup> Id.

<sup>35</sup> Id. at 417; see generally *Bining v. Miller*, 102 P.2d 54 (Wyo. 1940).

<sup>36</sup> Id. at 416; see generally *Katz v. Walkinshaw*, 141 Cal. 116 (1903).

<sup>37</sup> Id.

<sup>38</sup> Id.

<sup>39</sup> Restatement of the Law 2d Torts § 858 (1979); see generally *Maerz v. United States Steel Corp.*, 116 Mich. App. 710 (Ct. App. 1982).

caused by groundwater withdrawals in excess of a reasonable share.<sup>40</sup> The Restatement does not establish a hierarchy between off-tract and on-tract uses; neither is favored.<sup>41</sup>

#### IV. FEATURES OF FEDERALLY RESERVED WATER RIGHTS

Reserved water rights share similarities with state regimes for water allocation.

Like riparian rights, federally reserved rights run appurtenant to land: ownership of land is the source of the right.<sup>42</sup> Also, federally reserved rights do not require continuous beneficial use.<sup>43</sup> Put another way, reserved rights are not lost if abandoned.

By design, federally reserved water rights have a great deal in common with appropriative rights. Because the vast majority of federal land is located in the arid west - where prior appropriation is the prevailing legal doctrine<sup>44</sup> - the relevant case law has focused exclusively on the intersection of reserved and appropriative rights.<sup>45</sup> In order to facilitate their integration into the appropriative system, reserved rights were prioritized by date.<sup>46</sup> Further, consistent with the philosophy underlying a priority system, federal water users are not required to share water with junior appropriators during water shortages.<sup>47</sup> Junior users must halt their diversions until sufficient water is available to fulfill the purpose of the reservation.<sup>48</sup>

---

<sup>40</sup> Sax at 416.

<sup>41</sup> *Id.*

<sup>42</sup> Beck at § 37.01.

<sup>43</sup> F. Cohen, *Handbook of Federal Indian Law* 578 (1982).

<sup>44</sup> Sax at 904, note 2.

<sup>45</sup> Beck at § 37.01; *see Winters*, 207 U.S. at 574-78; *see also Cappaert*, 426 U.S. at 138-42.

<sup>46</sup> Beck at § 37.01(c)(1).

<sup>47</sup> Beck at § 37.01.

<sup>48</sup> *Id.*

However, federally reserved rights also have a number of unique characteristics that distinguish them from state water rights. Unlike prior appropriation, reserved rights vest on the date of the establishment of the reservation, not on the date the water was first put to beneficial use.<sup>49</sup> As a result, reserved rights are senior to appropriative uses that were perfected after the establishment of a reservation, even if that reservation has never put its reserved water to beneficial use.<sup>50</sup> So long as a reservation has need of water to fulfill its purpose, its right in that water persists.<sup>51</sup> Of course, the most crucial distinction between reserved rights and state rights is that reserved rights are federal rights and therefore supersede state rights.<sup>52</sup>

Because their scope is uncertain and their assertion threatens water rights that were assumed to be secure, federally reserved water rights continue to create severe tension between the federal government and state water users. They remain one of the most controversial and contentious aspects of water law.

## V. THE JUDICIAL HISTORY OF FEDERALLY RESERVED WATER RIGHTS

As previously mentioned, most federal land is situated in the western half of the United States.<sup>53</sup> As a result, all litigation concerning the application of the reserved rights doctrine has taken place in the context of appropriative rights.<sup>54</sup>

### A. *Winters v. United States*

Federally reserved rights in water have been recognized since 1908, when

---

<sup>49</sup> Beck at § 37.01; *e.g. Arizona v. California*, 373 U.S. 546, 600 (1963).

<sup>50</sup> Beck at § 37.01.

<sup>51</sup> *Winters*, 207 U.S. at 577; *e.g. id.* at § 37.02(a)(1);

<sup>52</sup> Beck at § 37.01.

<sup>53</sup> Sax at 904, note 2.

<sup>54</sup> *See Winters*, 207 U.S. at 574-78; *see also Cappaert*, 426 U.S. at 138-42.

the decision in *Winters v. United States* was handed down.

In *Winters*, the federal government sought to enjoin settlers in Montana from damming the Milk River.<sup>55</sup> The river was the primary source of water for the Fort Belknap Indian Reservation, an otherwise arid and desolate tract of land that had been reserved from the public domain in 1888 on behalf of the Assiniboine Indians.<sup>56</sup> The government alleged that if flow in the Milk River were diverted or otherwise diminished, the Indians that inhabited the reservation would be incapable of cultivating produce or watering livestock.<sup>57</sup>

The 1888 treaty did not address the issue of water rights.<sup>58</sup> The Supreme Court interpreted the treaty by examining the federal government's purpose in establishing the reservation: to remake the Indians into a "pastoral and civilized people."<sup>59</sup> The Supreme Court reasoned that an implicit reservation of water must have accompanied the explicit reservation of land because the purpose of the reservation - recasting the nomadic Indians as agrarians - could not have been realized without a sufficient water source.<sup>60</sup> The Court concluded that "it would be extreme to believe that...Congress...took from the Indians the consideration of their grant, leaving them only a barren waste."<sup>61</sup>

The Court held that when the federal government explicitly reserves land from the public domain, it also implicitly reserves adequate water to fulfill the purpose of that reservation.<sup>62</sup> This statement has come to be known as the federally reserved rights doctrine, or more commonly, the *Winters* doctrine.

---

<sup>55</sup> *Winters*, 207 U.S. at 564.

<sup>56</sup> *Id.*

<sup>57</sup> *Id.* at 565.

<sup>58</sup> *Id.* at 576.

<sup>59</sup> *Id.*

<sup>60</sup> *Id.* at 577.

<sup>61</sup> *Id.*

<sup>62</sup> *Id.* at 576.

## B. Arizona v. California

The federally reserved rights doctrine has been significantly expanded since the decision in *Winters*. In *Arizona v. California*, the United States sought to assert water rights in the Colorado River, not only for use on Indian reservations, but also in national forests, parks, monuments, and wildlife refuges.<sup>63</sup>

The Special Master who had been appointed to the case ruled that “the principle underlying the [implied] reservation of water rights for Indian reservations [in *Winters*] was equally applicable to other federal establishments.”<sup>64</sup> The Supreme Court affirmed his findings, thereby extending *Winters* rights to encompass not only Indian reservations, but all federally reserved lands.<sup>65</sup>

## C. United States v. Cappaert

The first court to confront the issue of apportioning groundwater under the *Winters* Doctrine was the 9th Circuit Court of Appeals in *United States v. Cappaert*.<sup>66</sup>

The Cappaerts owned a ranch in Nevada.<sup>67</sup> The ranching operation was sizable, employing more than eighty people and watering 1800 heads of cattle.<sup>68</sup> During a particularly dry summer in 1968, the Cappaerts began pumping groundwater out of a 4500 square mile aquifer that underlay their property in an effort to bolster the ranch’s water supply.<sup>69</sup>

Meanwhile, in the nearby Death Valley National Monument, a pool of water named Devil’s Hole was nestled in the depths of a limestone cavern.<sup>70</sup>

---

<sup>63</sup> 373 U.S. at 595.

<sup>64</sup> *Id.* at 578.

<sup>65</sup> *Id.* at 579.

<sup>66</sup> 508 F.2d 313, 317 (1974).

<sup>67</sup> *Id.* at 315.

<sup>68</sup> *Id.*

<sup>69</sup> *Id.*

<sup>70</sup> *Id.*

President Truman had made Devil’s Hole a part of Death Valley National Monument in 1952 with Presidential Proclamation 2961.<sup>71</sup> The pool was home to the Devil’s Hole Pupfish, an endangered species of fish that does not exist anywhere else in the world.<sup>72</sup> The 9<sup>th</sup> Circuit speculated in its opinion that the pupfish “evolved after the Death Valley Lake System dried up, isolating this species of fish from its ancestral stock.”<sup>73</sup>

Regrettably, the same aquifer that supplied the Cappaerts ranch also supplied the water in Devil’s Hole.<sup>74</sup> From 1968 until 1972, the water level in Devil’s Hole fell 3.9 feet.<sup>75</sup> The drop in the water level exposed rocky ledges which decreased the production of algae, the Pupfish’ primary source of food, and reduced the Pupfish’ potential spawning grounds.<sup>76</sup> Faced with the prospect of the species’ extinction, the federal government sought a preliminary injunction seeking to halt the Cappaerts’ groundwater pumping.<sup>77</sup> The injunction was granted by the district court.<sup>78</sup>

On appeal to the 9th Circuit, the Cappaerts’ argued that Winters rights governed only the implied reservation of surface water and not groundwater.<sup>79</sup> After reviewing the holdings in *Winters* and *Arizona*, the Court boldly concluded that, “[a]lthough these Supreme Court cases involved only surface water rights, the reservation of water doctrine is not so limited...[i]n our view the United States may reserve not only surface water, but also underground water.”<sup>80</sup> The Court found the language of President Truman’s proclamation to be particularly persuasive, concluding that because “the Proclamation referred to the significant contribution of the pupfish to the scientific importance of the Devil’s Hole pool[,] it implicitly

---

<sup>71</sup> *Id.* at 317.

<sup>72</sup> *Id.* at 316.

<sup>73</sup> *Id.*

<sup>74</sup> *Id.* at 315.

<sup>75</sup> *Id.* at 316.

<sup>76</sup> *Id.*

<sup>77</sup> *Id.*

<sup>78</sup> *Id.*

<sup>79</sup> *Id.* at 317.

<sup>80</sup> *Id.*

reserved enough groundwater to assure preservation of the pupfish.”<sup>81</sup>

The Cappaerts also argued that they had a legal right to the groundwater and therefore the injunction amounted to a taking without just compensation.<sup>82</sup> The Court found no takings issue;<sup>83</sup> because the implied reservation of groundwater related back to the initial reservation of the land, the Court ruled that the federal government’s reserved right predated the Cappaerts’ appropriative right.<sup>84</sup> Consequently, the injunction was upheld.<sup>85</sup>

#### D. Cappaert v. United States

The decision was appealed. The Supreme Court was called upon to consider the implications of recognizing federally reserved rights in groundwater.<sup>86</sup>

The Court, in an opinion by Chief Justice Burger, acknowledged that the “evidence showed [that] groundwater and surface water were physically interrelated as integral parts of the hydrologic cycle.”<sup>87</sup> However, the court balked at the prospect of extending the Winters doctrine to groundwater.<sup>88</sup> Utilizing what could be characterized as semantic sleight-of-hand, the court determined that the water in Devil’s Hole was technically an underground pool of surface water, and not groundwater.<sup>89</sup> As such, the court did not reach the issue of whether the Winters doctrine included an implied reservation of groundwater.

Since it was uncontested that traditional Winters rights supersede state rights, the Court was required to hold only that the “United State could protect its water from subsequent diversion [by state water users]...whether

---

<sup>81</sup> *Id.* at 318.

<sup>82</sup> *Id.* at 319.

<sup>83</sup> *Id.*

<sup>84</sup> *Id.* at 318.

<sup>85</sup> *Id.* at 322.

<sup>86</sup> *Cappaert*, 426 U.S. at 138-145.

<sup>87</sup> *Id.* at 142.

<sup>88</sup> *See id.* at 143.

<sup>89</sup> *Id.* at 142.

the diversion is of surface or groundwater.”<sup>90</sup> Thus, the Cappaerts’ groundwater diversion was enjoined for interfering with the Federal Government’s implied reservation of surface water within Death Valley National Monument.<sup>91</sup>

In retrospect, this was a predictable outcome. It was clear from the facts that the pumping was harming a federal interest, and that the groundwater withdrawals had commenced after the federal government had established a reserved right in the water. Moreover, the fate of an endangered species hung in the balance. The enjoinder of the Cappaert’s groundwater pumping was a likely and even necessary result. However, because the decision represented a traditional application of the Winters doctrine, the groundwater issue remains undecided by the Supreme Court.

## VI. STATE SUPREME COURTS SPLIT ON THE SCOPE OF WINTERS RIGHTS

With a lack of guidance from the Supreme Court, state supreme courts have split on the issue of recognizing federally reserved rights in groundwater.

### A. The Big Horn Adjudication

The first state supreme court to address the issue of reserved rights in groundwater was Wyoming in 1988.<sup>92</sup> The litigation arose out of a controversy involving the Big Horn River.<sup>93</sup> The river encompassed many federal lands, including portions of Yellowstone National Park and numerous Indian reservations.<sup>94</sup>

---

<sup>90</sup> *Id.* at 143.

<sup>91</sup> *Id.*

<sup>92</sup> *The General Adjudication of all Rights to Use Water in the Big Horn River*, 753 P.2d 76, 99-100 (Wyo. 1988).

<sup>93</sup> *Id.* at 83.

<sup>94</sup> *Id.*

In 1977, Wyoming enacted a statute which authorized the state's legislature to adjudicate water rights basin-by-basin.<sup>95</sup> Subsequently, the State filed a complaint against the United States seeking to adjudicate any interest in or right to use the water in the Big Horn river basin, including the delineation of any groundwater rights attached to government lands.<sup>96</sup>

Claiming that the state lacked jurisdiction, the United States removed the case to the United States District Court for the District of Wyoming.<sup>97</sup> Wyoming moved to remand the case back to state court, and the federal district court granted the motion.<sup>98</sup> Thus, it fell to the Wyoming Supreme Court to contemplate the scope of the Winters Doctrine in regard to groundwater.

The Court reasoned that “[t]he logic which supports a reservation of surface water to fulfill the purpose of the reservation also supports reservation of groundwater”<sup>99</sup> because it was clear that “the two sources are often interconnected.”<sup>100</sup>

Nonetheless, the Wyoming Supreme Court, like the United States Supreme Court before it, lacked the resolve to take the jurisprudential first-step. Noting that “not a single case applying the [Winters] doctrine to groundwater” could be cited, the Court refused to recognize a federally reserved right in groundwater.<sup>101</sup>

An equally divided Supreme Court issued a one-page opinion affirming - sans

---

<sup>95</sup> *Id.* at 84 (citing W.S. § 1-1054.1 (1977)).

<sup>96</sup> *Id.* at 85.

<sup>97</sup> *Id.* at 84.

<sup>98</sup> *Id.*

<sup>99</sup> *Id.* at 99 (citing *Tweedy v. Texas Company*, 286 F. Supp. 383, 383 (Mont. 1968) (whether the necessary waters were found on the surface of the land or under it should make no difference)).

<sup>100</sup> *Id.* (citing W.S. § 41-3-916 (1977) (where underground and surface waters are so interconnected as to constitute in fact one source of supply, a single schedule of priorities shall be made)).

<sup>101</sup> *Id.* at 100-101.

analysis - the holding in *Big Horn*.<sup>102</sup>

### B. Gila River III

The decade following *Big Horn* saw little progress in the debate concerning the recognition of federally reserved rights in groundwater. It wasn't until 1999, when the Arizona Supreme Court was confronted with *Gila River III*, that a state supreme court once again sat in judgment over such a dispute.<sup>103</sup>

The procedural history of the case is daunting in its complexity. In a series of opinions<sup>104</sup>, the Arizona court decided issues that touched upon all facets of water law. The parties to the suit were manifold, encompassing state, government, Indian and private interests. The case was further complicated by the fact that Arizona's water law is bifurcated, applying prior appropriation for surface water and American reasonable use for groundwater.<sup>105</sup> These factors, combined with the contentious nature of reserved water rights in general, resulted in a case that was imposing in scope and intricacy.

Suffice it to say that the Arizona Supreme Court in *Gila River III* specifically addressed the following issue: do federally reserved rights extend to groundwater?<sup>106</sup>

The Arizona Supreme Court began its examination by scolding the Wyoming Supreme Court for shirking its judicial responsibilities, admonishing:

[w]e can appreciate the hesitation of the *Big Horn* court to break new ground, but we do not find its reasoning persuasive.

---

<sup>102</sup> *Wyoming v. United States*, 492 U.S. 406 (1989).

<sup>103</sup> *The General Adjudication of all Rights to Use Water in the Gila River System and Source*, 195 Ariz. 411, 417-21 (1999).

<sup>104</sup> See generally *The General Adjudication of all Rights to Use Water in the Gila River System and Source*, 175 Ariz. 382, 384-86 (1993); See also generally *The General Adjudication of all Rights to Use Water in the Gila River System and Source*, 171 Ariz. 230 (1992).

<sup>105</sup> *Gila River III*, 195 Ariz. at 415.

<sup>106</sup> *Id.* at 417.

That no previous court has come to grips with an issue does not relieve a present court, fairly confronted with the issue, of the obligation to do so.<sup>107</sup>

For its analysis of the issue, the Arizona Supreme Court sought guidance from the Supreme Court's decisions in *Winters and Arizona*.<sup>108</sup> Noting that the reservations in those cases were wholly supplied by surface water sources, the Court had the following epiphany: "some reservations lack perennial streams and depend for present or future survival substantially or entirely upon pumping of underground water."<sup>109</sup> The Court realized that it was "no more thinkable in the latter circumstance than in the former that the United State reserved land for habitation without reserving the water necessary to sustain life."<sup>110</sup> The Arizona Supreme Court reasoned that, because some reservations lack access to surface waters, and because reservations require water in order to fulfill their purposes, it follows that the federal government must implicitly reserve sufficient groundwater with which to meet the needs of reservations that lack access to surface water.<sup>111</sup>

The Arizona Supreme Court then turned to the Supreme Court's ruling in *Cappaert*. *Cappaert* had already established the interrelation of surface and groundwater in the hydrologic cycle.<sup>112</sup> However, what the Arizona Supreme Court found most compelling was the Supreme Court's declaration that "the United States [could] protect its water from subsequent diversion, whether the diversion [was] of surface or groundwater."<sup>113</sup> The Arizona Supreme Court reasoned that if no distinction was being made between water sources when diversions were threatening reserved rights, then it was inconsistent to differentiate between water sources when attempting to define the scope of those rights in the first place.<sup>114</sup>

Having analyzed the precedent, the Arizona Supreme Court boldly concluded

---

<sup>107</sup> *Id.*

<sup>108</sup> *Id.* at 418.

<sup>109</sup> *Id.*

<sup>110</sup> *Id.*

<sup>111</sup> *See id.*

<sup>112</sup> *Id.*

<sup>113</sup> *Id.* (citing *Cappaert*, 426 U.S. 142-43).

<sup>114</sup> *See id.* at 419.

that:

if the United State implicitly intended, when it established reservations, to reserve sufficient unappropriated water to meet the reservations' needs, it must have intended that reservation of water to come from whatever particular sources each reservation had at hand. *The significant question for the purpose of the reserved rights doctrine is not whether the water runs above or below the ground, but whether it is necessary to accomplish the purpose of the reservation.*<sup>115</sup>

As such, the Court ruled that “the federal reserved water rights doctrine applies not only to surface water but to groundwater.”<sup>116</sup>

However, the Court was quick to clarify its ruling by adding that the “reserved right to groundwater may only be found where other waters are inadequate to accomplish the purpose of a reservation.”<sup>117</sup> In other words, the Court held that groundwater could only serve as a secondary source, and that reserved rights applied to groundwater only in circumstances where surface waters were absolutely unavailable.<sup>118</sup>

The Court's qualification of its ruling was ostensibly contrary to its proclamation that it should not matter “whether the water runs above or below the ground.”<sup>119</sup> Still, the fact remains that the Arizona Supreme Court fell short of comprehensively recognizing a reserved right in groundwater. Perhaps the Court was unwilling to concede control of a valuable and scarce resource to the federal government. This ruling presented a palatable solution that granted the state the appearance of hydrologic responsibility while simultaneously maintaining sovereignty over regional water resources.

The Supreme Court declined to hear an appeal of the *Gila River III* decision.<sup>120</sup>

---

<sup>115</sup> *Id.* (emphasis added).

<sup>116</sup> *Id.* at 420.

<sup>117</sup> *Id.*

<sup>118</sup> *Id.*

<sup>119</sup> *Id.* at 419.

<sup>120</sup> *Phelps Dodge Corporation v. United States*, 530 U.S. 1250 (2000).

### C. Montana v. Stults

The final and most recent state supreme court to confront the issue of groundwater in the context of the Winters doctrine was Montana in *Montana v. Stults*.<sup>121</sup>

The respondent in *Stults* purchased land on the Flathead Indian reservation with the intention of bottling water for commercial sale.<sup>122</sup> He attempted to obtain a beneficial use permit for groundwater extraction from the State's Department of Natural Resources and Conservation.<sup>123</sup> The Confederated Salish and Kootenai tribes filed an objection to the permit on the grounds that the Department of Natural Resources and Conservation did not have the jurisdiction to issue permits for groundwater use on the reservation.<sup>124</sup>

Like Arizona before it, the Montana Supreme Court began by examining the holding in *Winters*. The Court determined that though:

the *Winters* case dealt only with surface water...the same implications which led the Supreme Court to hold that surface waters had been reserved would apply to underground waters as well...[w]hether the waters were found on the surface of the land or under it should make no difference.<sup>125</sup>

The Montana Supreme Court next cited *Cappaert* for the proposition that ground water and surface water are interrelated,<sup>126</sup> and *Gila River III* for the proposition that "the federal reserve water rights doctrine applies not only to surface water but to groundwater."<sup>127</sup>

---

<sup>121</sup> 312 Mont. 420 (2002).

<sup>122</sup> *Id.* at 423.

<sup>123</sup> *Id.*

<sup>124</sup> *Id.*

<sup>125</sup> *Id.* at 429.

<sup>126</sup> *Id.* at 430.

<sup>127</sup> *Id.* (the Montana Supreme Court's reading of *Cappaert* is overly broad and fails to acknowledge the qualification that there is no right to groundwater when an available surface water source is sufficient to fulfill the purpose of

The Montana Supreme Court concluded by stating that it saw “no reason to limit the scope of [its] prior holdings by excluding groundwater from the tribes’ federally reserved water rights.”<sup>128</sup> As a result, the Montana Department of Natural Resources was prohibited from issuing water use permits on the Flathead reservation.<sup>129</sup> Montana is the first and only state to recognize an unlimited federally reserved right in groundwater.<sup>130</sup>

## VII. ARGUMENTS AGAINST THE RECOGNITION OF FEDERALLY RESERVED RIGHTS IN GROUNDWATER

Without guidance or leadership from the Supreme Court, state courts have struggled to resolve the issue of groundwater in the context of federally reserved rights. Perplexingly, the Wyoming Supreme Court and the Arizona Supreme Court reached irreconcilable conclusions, yet both courts cited *Cappaert* approvingly in their respective holdings.<sup>131</sup>

Since *Cappaert* was decided, the Supreme Court has twice passed on the opportunity to address this issue, first with an opinion-less affirmation of *Big Horn*<sup>132</sup>, then by declining to hear an appeal of *Gila River III*.<sup>133</sup> In order to prevent the disparate disposition of federal interests, the Court must inevitably address this matter.

At that time, the Supreme Court will be presented with many strong arguments in opposition to the recognition of federally reserved rights in groundwater.

---

the reservation).

<sup>128</sup> *Id.*

<sup>129</sup> *Id.* at 431.

<sup>130</sup> *Id.* at 430.

<sup>131</sup> See *Big Horn*, 753 P.2d at 99; see also *Gila River III*, 195 Ariz. at 418.

<sup>132</sup> 492 U.S. at 406.

<sup>133</sup> 530 U.S. at 1250.

### A. Adherence to Precedent

Past opinions demonstrate that the Supreme Court is predisposed to construe reserved rights narrowly. Two cases in particular emphasize the Court's reluctance to expand reserved rights.

The Court's attitude toward federally reserved rights was decidedly hostile in *United States v. New Mexico*.<sup>134</sup> In that case, the Supreme Court was tasked with interpreting the Organic Administration Act.<sup>135</sup> The act defined the purposes for which national forests could be reserved.<sup>136</sup>

In his opinion, Justice Rehnquist concluded that the legislative history of the act "demonstrate[d] that Congress intended national forests to be reserved for only two purposes – to conserve the water flows, and to furnish a continuous supply of timber for the people."<sup>137</sup> Consequently, the Court held that water could not be reserved for the purposes of recreation, aesthetics, wildlife preservation, or cattle grazing in national forests.<sup>138</sup> The Court's narrow interpretation of the Organic Administration Act displayed hostility at the prospect of expanding reserved rights.<sup>139</sup>

Moreover, in *Cappaert*, the Supreme Court was presented with the perfect opportunity to recognize reserved rights in groundwater.<sup>140</sup> Instead of doing so, the Court skirted the issue by relying on overly pedantic semantics in concluding that Devil's Hole was an underground pool of surface water, and not groundwater.<sup>141</sup> The Court's linguistic contortions further demonstrate its uneasiness with the idea of broadening Winters rights.

---

<sup>134</sup> 438 U.S. 696 (1978).

<sup>135</sup> *Id.* at 707 (citing 30 Stat. 34, 16 U.S.C. § 473 et seq. (1976)).

<sup>136</sup> *Id.* at 706.

<sup>137</sup> *Id.* at 707

<sup>138</sup> *Id.* at 697.

<sup>139</sup> *But see id.* at 716 (supporting the proposition that minimum stream flows are within the purview of the Winters doctrine if the purposes of watershed maintenance and timber preservation require those in-stream flows).

<sup>140</sup> 426 U.S. at 131-45.

<sup>141</sup> *Id.* at 142.

Given its disposition in *New Mexico* and *Cappaert*, it would be a remarkable departure from the narrow analysis of past decisions if the Court recognized federally reserved rights in groundwater in the near future.

### B. Hesitance to Create Federal Common Law

The Supreme Court may refuse to recognize Winters rights in groundwater to avoid creating federal common law. It has long been held that:

[e]xcept in matters governed by the Federal Constitution or by Acts of Congress, the law to be applied in any case is the law of the State. And whether the law of the State shall be declared by its Legislature in a statute or by its highest court in a decision is not a matter of federal concern. There is no federal general common law.<sup>142</sup>

Only under the narrowest of circumstances has the creation of federal common law been allowed to continue, as when a federal rule is necessary to protect the rights and obligations of the United States.<sup>143</sup> In that situation “a significant conflict between some federal policy or interest and the use of state law must...be specifically shown.”<sup>144</sup>

Even if it is apparent that state water policies interfere with federal interests, it remains unclear whether they *significantly* interfere with federal interests. As a result, despite the United States’ substantial interest in securing reserved rights in groundwater, without a showing of significant interference the Supreme Court could find that the creation of federal common law unnecessary and choose to apply state water law instead.<sup>145</sup>

---

<sup>142</sup> *Erie R. R. v. Tompkins*, 304 U.S. 64, 78 (1938).

<sup>143</sup> *Tex. Indus. v. Radcliff Materials*, 451 U.S. 630 (1981).

<sup>144</sup> *Wallis v. Pan Am. Petroleum Corp.*, 384 U.S. 68 (1966).

<sup>145</sup> *See Miree v. Dekalb County*, 433 US 25, 31 (1977) (holding that the application of the Clearfield Trust rule for a breach of contract suit against the FAA was not required even though the United States had a substantial interest in regulating and ensuring safe air travel).

### C. Deference to State Water Law

The Supreme Court may continue to defer to state groundwater law in the resolution of federal claims to groundwater. It is well established that:

[c]ontroversies directly affecting the operations of federal programs, although governed by federal law, do not inevitably require resort to uniform federal rules. Whether to adopt state law or to fashion a nationwide federal rule is a matter of judicial policy dependent upon a variety of considerations always relevant to the nature of the specific governmental interests and to the effects upon them of applying state law.<sup>146</sup>

There are three circumstances in which the application of state law is appropriate despite federal concerns: (1) when “there is little need for a nationally uniform body of law,”<sup>147</sup> (2) when the “application of state law would [not] frustrate specific objectives of the federal programs”<sup>148</sup> and (3) when “application of a federal rule would disrupt commercial relationships predicated on state law.”<sup>149</sup>

#### 1. Nationally Uniform Body of Law

The Supreme Court could conclude that there is no need for a uniform national rule for administering federally reserved rights in groundwater. Certainly, the assortment of groundwater regimes followed by the states suggests that a unified federal rule is unnecessary<sup>150</sup> and perhaps even undesirable given the uneven distribution of water resources across the country.

---

<sup>146</sup> *United States v. Kimbell Foods*, 440 U.S. 715, 728-729 (1979).

<sup>147</sup> *Id.* at 728.

<sup>148</sup> *Id.*

<sup>149</sup> *Id.* at 729.

<sup>150</sup> *See Wilson v. Omaha Indian Tribe*, 442 U.S. 653 (1979) (holding that so long as federal interests were treated evenhandedly in disputes under state law there was no need to develop federal common law).

## 2. Specific Objectives of Federal Programs Are Not Frustrated

State law proponents make a great deal of the fact that the technology for large scale exploitation of groundwater did not exist at the time most federal reservations were established.<sup>151</sup> Only after the invention of the high-speed centrifugal pump in 1937 did groundwater become economically viable.<sup>152</sup> Before 1937, groundwater extraction was prohibitively costly in comparison to surface water diversion.<sup>153</sup>

As the argument goes, recognizing federally reserved rights in groundwater would unfairly entitle federal lands to water that would not have been available to them at the time of their creation<sup>154</sup>. Consequently, the purposes of those reservations cannot be frustrated by declining to recognize a right in groundwater because it was never contemplated that those reservations would have access to groundwater when they were originally set aside. By the time inexpensive turbines became widely available, federal lands were capable of acquiring rights in groundwater on equal standing with other groundwater users under state law.

That argument, of course, fails to account for reservations established after 1937. It also falsely assumes that state water law adequately protects *traditional* Winters rights.<sup>155</sup> If state water law fails to protect federally

---

<sup>151</sup> Beck at § 19.02.

<sup>152</sup> Sax at 395.

<sup>153</sup> Id.

<sup>154</sup> See *Gila River III*, 195 Ariz. at 418 (concluding that the federally reserved water rights are “intended to “continue through years” and that “an implied reservation includes sufficient waters to satisfy the future as well as the present needs of the Indian Reservations,” implying that Federally Reserved rights are altered by advancements in technology); see also *Stults*, 312 Mont. at 428 (holding that reserved rights reflect future need as well as present use).

<sup>155</sup> See *Gila River III*, 195 Ariz. at 418-419 (noting that some Indian reservations on the Gila River had been dewatered by off-reservation pumping by state water users and emphasizing that a “theoretically equal right to pump groundwater, in contrast to a reserved right, would not protect a federal reservation from a future depletion of its surface water by off-reservation pumpers).

reserved surface water rights by allowing nearby groundwater pumpers to deplete surface water sources, then the purpose of the federal land will have been frustrated, and the application of state law will be precluded.<sup>156</sup>

### 3. Commercial Disruption to Holders of State Water Rights

The Supreme Court could also conclude that the superimposition of federal groundwater law on state groundwater law will be overly disruptive to commercial relationships that are predicated on state law.

Because federally reserved water rights are distinct from state water rights,<sup>157</sup> the adoption of a federal rule will treat neighboring landowners differently under the Law merely because one is located on federal land and the other is not. This will make negotiating a land or water rights transfer more costly because property owners will bear the burden of ascertaining the limits of their property rights under, not one, but two water allocation regimes.

The imposition of federal rights in groundwater may also alter or eliminate existing state groundwater rights, thereby seriously upsetting the expectations of water users that have been fostered by state law.<sup>158</sup> The fact that federally reserved rights do not expire for lack of use further compounds this issue;<sup>159</sup> property owners often lack sufficient notice of dormant reserved rights that could potentially prevent them from diverting water and reduce the economic value of their property.<sup>160</sup>

Given the staunch protection afforded to the expectations of property holders,<sup>161</sup> the Supreme Court may find that the recognition of Winters

---

<sup>156</sup> *Cappaert*, 426 U.S. at 142.

<sup>157</sup> Beck at § 37.01.

<sup>158</sup> Sax at 843.

<sup>159</sup> Cohen at 578.

<sup>160</sup> Beck at § 37.01(c)(1).

<sup>161</sup> See *Lucas v. S. Carolina Coastal Comm'n*, 505 U.S. 1003, 1028 (1992) (holding that substantially depriving land of economically beneficial use constitutes a taking for which just compensation is due).

rights in groundwater will be unduly disruptive to state groundwater investors.

## VIII. ARGUMENTS FOR THE RECOGNITION OF FEDERALLY RESERVED RIGHTS IN GROUNDWATER

When it again faces this issue, the United States Supreme Court must recognize federally reserved rights in groundwater for a variety of reasons.

### A. Hydrologic Reality

First, it is well established that surface water and groundwater are hydrologically interconnected.<sup>162</sup> The use of one resource necessarily impacts the other.<sup>163</sup>

Surface water interacts with groundwater continuously: water percolates from aquifers to rivers and vice-versa.<sup>164</sup> When groundwater is withdrawn from an aquifer, the total supply of available surface water is diminished because flow that otherwise would have been discharged into a river is captured.<sup>165</sup> If the groundwater withdrawal is severe enough, it can even induce flow from surface waters into the groundwater system.<sup>166</sup> In simpler terms, *groundwater pumping takes water out of rivers.*

The legal tragedy here is that the Supreme Court has long acknowledged that “groundwater and surface water are physically interrelated as integral parts of the hydrologic cycle.”<sup>167</sup> It is legally and ecologically irresponsible for the

---

<sup>162</sup> Sax at 399.

<sup>163</sup> Final Report to the President and to the Congress of the United States by the National Water Commission 233 (1973).

<sup>164</sup> Sax at 399.

<sup>165</sup> Id. at 401.

<sup>166</sup> Id.

<sup>167</sup> *Cappaert*, 426 U.S. at 142.

Court to differentiate between groundwater and surface water in the adjudication of reserved rights while at the same time acknowledging that groundwater and surface water are elements of a larger hydrologic system. This kind of legal double-speak damages the credibility of the Court and results in the double allocation of limited and non-renewable water resources.

### B. Unpersuasive Precedent

Second, the sole opinion to explicitly reject the recognition of Winters rights in groundwater is unpersuasive.

In *Big Horn*, the Supreme Court of Wyoming refused to recognize Winters rights in groundwater merely because no previous case could be cited to support that proposition.<sup>168</sup> The Wyoming Supreme Court's premise is no longer tenable; the Arizona Supreme Court expressly recognized Winters rights in groundwater in *Gila River III*.<sup>169</sup> Further, it was judicially irresponsible for a court to shirk its duty to consider a legal issue simply because no previous court has done so.<sup>170</sup>

Even the Wyoming Supreme Court was aware that its decision was spurious, sheepishly admitting in its opinion that "[t]he logic which supports a reservation of surface water to fulfill the purpose of the reservation also supports reservation of groundwater."<sup>171</sup>

### C. To Avoid Frustrating the Purpose of Federally Reserved Land

Third, if surface water is inadequate to satisfy the purpose of a reservation, then available groundwater must be reserved.<sup>172</sup>

---

<sup>168</sup> 753 P.2d at 99.

<sup>169</sup> 195 U.S. at 418.

<sup>170</sup> *Id.* at 417.

<sup>171</sup> *Big Horn*, 753 P.2d at 99 (citing *Tweedy*, 286 F. Supp. at 385).

<sup>172</sup> *Gila River III*, 195 Ariz. at 418.

As articulated by the Arizona Supreme Court, “[t]he significant question for the purpose of the reserved rights doctrine is not whether the water runs above or below the ground but whether it is necessary to accomplish the purpose of the reservation.”<sup>173</sup> This statement is particularly compelling in light of the fact that some federally reserved lands *lack access to any surface water*; these reservations depend wholly upon groundwater to fulfill their respective purposes.<sup>174</sup> If reservations require water to fulfill their purposes, and surface water is inaccessible on some reservations, then it must be inferred that there is an implied reservation of groundwater on reservations that lack access to surface water. Without a property right in that groundwater, the purposes of reservations that only have access to groundwater could be frustrated by neighboring pumpers.

This argument is the same utilized by the Supreme Court in *Winters*; it is illogical to reserve land from the public domain for a particular purpose without giving that reserved land a means of protecting the fulfillment of that purpose.<sup>175</sup> Whether applied to surface water or groundwater, the reasoning remains sound: because the *Winters* doctrine ensures sufficient water to fulfill the purpose of a reservation, and some reservations lack surface water, then those reservations must rely upon groundwater to fulfill their purposes and their right to that groundwater must therefore be protected.

#### D. Concerns over Economics, Efficiency and Availability

Fourth, *Winters* rights should be extended to include groundwater out of consideration for economics, efficiency and availability. Federally reserved lands should have the ability to choose between surface water and groundwater if both resources are accessible.

Pumping groundwater is often less expensive than diverting surface water.<sup>176</sup> Because *Winters* rights run appurtenant to land, reservations will

---

<sup>173</sup> *Id.*

<sup>174</sup> *See United States v. Washington*, United States District Court, Western District of Washington, Nov. 24, 2006 (No. C01-0047Z).

<sup>175</sup> *See generally Winters*, 207 U.S. at 574-78.

<sup>176</sup> Sax at 194.

harvest groundwater for use on location.<sup>177</sup> The utilization of surface water, by comparison, necessitates the construction of costly transmission and storage facilities.<sup>178</sup>

The installation of an electric pump will often be more efficient than the excavation of an irrigation ditch because groundwater extraction does not result in the wasteful transmission losses that are associated with surface water diversions.<sup>179</sup> “Conveyance losses result from evaporation from canals and ditches, consumption by [vegetation] growing along the channels, and seepage...[n]early one-fourth of the stream flow withdrawn by a typical irrigation system fails to reach the [water user].”<sup>180</sup> As a result, allowing groundwater withdrawals under the Winters doctrine could actually result in *more water being available to all neighboring users* because the federally reserved land will have obtained its allotted water more efficiency than it could have by diverting surface water.

Also, groundwater is a more reliable source of water than surface water because it is not dependant on annual or seasonal precipitation,<sup>181</sup> and is therefore more readily available year round.

This is not to say that all reservations will choose to extract groundwater rather than divert surface water. Concerns regarding groundwater quality and recharge rate, as well as electrical cost and land subsidence may all counsel the use of surface water.<sup>182</sup> However, the ability to choose allows the federal government to decide what is most efficient under the circumstances, thereby ensuring that public dollars are well spent and that Indian interests are adequately protected.

---

<sup>177</sup> Id. at 394.

<sup>178</sup> Id.

<sup>179</sup> Id.

<sup>180</sup> Id. at 160 (citing 61 Oregon Law Review 483).

<sup>181</sup> Id.

<sup>182</sup> Id. at 395.

## E. Takings Claims

Fifth, takings claims do not present a substantial obstacle to the recognition of federally reserved rights in groundwater.

A taking results when the government acquires private property and fails to fairly compensate the owner.<sup>183</sup> A taking can occur without the actual physical seizure of property, such as when government regulation substantially devalues property.<sup>184</sup>

It is often argued that recognizing federally reserved rights in groundwater will result in the taking of privately held water rights,<sup>185</sup> necessitating the payment of just compensation. The threat of incurring potentially massive compensation payments is frequently presented as a justification for curtailing the Winters doctrine. However, the recognition of Winters rights in groundwater will not greatly upset property values in the western United States.

Once they have been quantified,<sup>186</sup> reserved rights pose few conceptual or administrative difficulties to states that follow prior appropriation because both appropriative rights and Winters rights are prioritized by date.<sup>187</sup> Appropriative rights are prioritized by the date on which the water was first put to beneficial use.<sup>188</sup> Federally reserved water rights are prioritized by the date on which the reservation was established;<sup>189</sup> at that time there is an implicit reservation of then unappropriated water with which to fulfill the purpose of the reservation.<sup>190</sup>

---

<sup>183</sup> United States Constitution, Amd. V.

<sup>184</sup> *Lucas*, 112 S. Ct. at 2900.

<sup>185</sup> *See Cappaert*, 508 F.2d at 318.

<sup>186</sup> The Supreme Court has determined that state courts are a proper forum to quantify reserved rights; see *Colorado River Water Conserv. Dist. V. United States*, 424 U.S. 800 (1976); see also *Arizona v. San Carlos Apache Tribe*, 463 U.S. 545 (1984).

<sup>187</sup> Beck at § 37.01(c)(1).

<sup>188</sup> Sax at 125.

<sup>189</sup> Beck at § 37.01(c)(1).

<sup>190</sup> *Id.*

Reserved rights do not trump appropriative rights that predate the creation of reservations because reserved rights extend only to water that was *unappropriated at the time the reservation was created*.<sup>191</sup> Consequently, reserved rights are junior to any appropriative rights that were already in existence at the creation of the reservation. There cannot be a taking under those circumstances because the reservation may not assert its junior right to the detriment of a senior right.<sup>192</sup>

Nor does the recognition of Winters rights in groundwater divest later-in-time appropriators of their property; there is no taking in that situation because the reservation is properly asserting a senior right over a junior right in accordance with the doctrine of prior appropriation.<sup>193</sup>

Consequently, in states that follow prior appropriation, recognition of Winters rights in groundwater will not result in any legitimate takings claims.<sup>194</sup> By recognizing federally reserved rights in groundwater, the Supreme Court will not be taking private property, but will merely be recognizing senior federal rights that have been lying dormant, and then asserting them within the confines of the appropriative system. Senior reserved rights users may prevent diversions by junior appropriative users in the same way that any senior appropriator can prevent diversions by a junior appropriator.<sup>195</sup> To reiterate, the recognition of reserved rights in groundwater will not work takings, but will merely assert first-in-time rights consistent with the doctrine of prior appropriation.

The same would prove true in states with bifurcated system of water law, such as those that apply prior appropriation for surface water and either the rule of capture or American reasonable use for groundwater, such as Arizona.<sup>196</sup> Again, because they are prioritized by date, Winters rights easily integrate into the appropriative system.<sup>197</sup> And because the rule of capture and the doctrine of American reasonable use do not afford protection for

---

<sup>191</sup> *Cappaert*, 426 U.S. at 138 (emphasis added).

<sup>192</sup> See Beck at § 37.01(c)(1).

<sup>193</sup> See Sax at 125-26.

<sup>194</sup> See generally Beck at § 37.01(c)(1).

<sup>195</sup> See Sax at 125-26.

<sup>196</sup> See *Gila River III*, 195 Ariz. at 415.

<sup>197</sup> See Beck at § 37.01(c)(1).

property rights,<sup>198</sup> no takings claims will arise.

For the eastern half of the country, however, the outcome is less clear. No case has ever involved the application of reserved rights in a riparian jurisdiction.<sup>199</sup> Though reserved rights are analogous to riparian rights in that they originate in land ownership<sup>200</sup> and are not lost through nonuse,<sup>201</sup> riparianism requires the equitable sharing of water during shortages.<sup>202</sup> By contrast, the doctrine of reserved rights would necessitate the reservation of sufficient water during a shortage to avoid impermissibly frustrating the purpose of the reservation; once the purpose of the reservation had been secured, whatever water was left over would then be divided among the remaining riparian users.<sup>203</sup> This incompatibility makes the specter of takings claims impossible to ignore in riparian states.

However, the impact of reserved rights on riparian states is of little consequence. Because the vast majority of federal land is in the west where prior appropriation is the prevailing water doctrine,<sup>204</sup> and it has been established that the assertion of Winters rights does not result in takings claims under prior appropriation, it follows that the recognition of federally reserved rights in groundwater will generate an inconsequential number of takings claims confined to the eastern United States. In those relatively few instances, the federal government can simply pay compensation for the water needed to fulfill the purpose of the reservations.

---

<sup>198</sup> See Sax at 415.

<sup>199</sup> Beck at § 37.01(c)(2).

<sup>200</sup> Beck at § 37.01.

<sup>201</sup> Cohen at 578.

<sup>202</sup> Beck at § 37.01(c)(2).

<sup>203</sup> *Id.*

<sup>204</sup> Sax at 904, note 2.

## IX. CONCLUSION

The integration of water rights is essential in order to allocate water resources responsibly and efficiently. In 1973, the National Water Commission reported the distressing fact that the United States was double allocating its limited water resources. The Commission concluded that the bifurcation of surface water and groundwater law management was the single greatest crisis facing water law in the United States.<sup>205</sup>

The legislative response to the report has been slow but encouraging. Today, most states have enacted legislation purporting to integrate the management of surface water and groundwater.<sup>206</sup>

Given the inevitability that is fully integrated water management, it is logical and necessary that federally reserved rights be recognized in groundwater for the foregoing reasons:

(1) Groundwater and surface water are inextricably interrelated. Therefore, a legal doctrine designed to allocate one resource and not the other is fatally flawed. (2) The case law rejecting the recognition of Winters rights in groundwater is unpersuasive and should be overturned. (3) Groundwater is needed to fulfill the purposes of federal lands that do not have access to surface water. Therefore, protection for groundwater withdrawals must be afforded to avoid frustrating the purpose of those reservations. (4) For efficient disposition of federal resources, federal lands should be able to choose between surface water and groundwater when both are available. (5) Takings claims do not present a substantial conceptual or financial obstacle to the recognition of Winters rights in groundwater.

When the Supreme Court next faces this issue, it must conclude that when the federal government reserves land, it implicitly reserves sufficient surface water *and groundwater* to fulfill the purpose of the reservation. Without guidance from the nation's highest court, state supreme courts will continue to split on this issue, resulting in the uneven and inadequate protection of federal rights.

---

<sup>205</sup> National Water Commission at 230.

<sup>206</sup> Sax at 137.