



# ENVIRONMENTAL WATER RIGHTS TRANSFERS: A Review of State Laws

Prepared by Water in the West for The National Fish and Wildlife Foundation  
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The National Fish and Wildlife Foundation (NFWF) is an independent 501(c)(3) nonprofit organization created by Congress in 1984. NFWF directs public and private dollars to projects to restore fish and wildlife and their habitat. NFWF's Western Water Program works with willing sellers and other stakeholders to acquire and transfer established water rights to improve critical water flows in streams, lakes, wetlands, and riparian areas. To learn more visit: [www.nfwf.org](http://www.nfwf.org).

# EXECUTIVE SUMMARY

This report was prepared in cooperation with, and was funded by, the National Fish and Wildlife Foundation (NFWF), with the goal of providing an assessment of the legal regimes for reviewing and approving environmental water transfers in twelve western states. The ability to transfer, change, or dedicate an existing water right under the prior appropriation system to instream uses is a relatively new legal tool. Legislatures in western states first passed statutes authorizing and governing these transfers in the late 1980s. As part of its overall western water program, NFWF engaged with Water in the West to assess the scope, status, and functioning of these laws in different western states.

Traditional prior appropriation law, and the allocation of water that developed under that legal system, did not favor environmental uses of water. Through most of the system's history, an essential element of an appropriative right was diversion of water from a river or stream, and the law strongly incentivized diverting water and putting it to economic use. Fish habitat, recreation, and other environmental uses were not recognized beneficial uses, and during the period during which much of the West's water was developed, state and federal laws did not include significant protection for aquatic ecosystems, fish, or streamflow. As a result, many rivers in the West have become over-appropriated, meaning the total appropriative rights actually exceed the average flow of the river during low flow periods. Many rivers and streams in the West suffer from diminished flows due to human water diversions, and populations of many fish and other aquatic species have declined in as a result.

Restoring flows to western rivers is a significant challenge, particularly in light of increasing human populations, the importance of agricultural economies, and the risk of changes to the hydrologic regime due to climate change. Most legal tools for protecting and restoring flows have developed relatively recently. Beginning in the 1960s, federal and state laws began to include clearer protections for ecosystems and streamflow. State law began to recognize fish habitat, recreation, and other instream uses as legally valid beneficial uses under the prior appropriation system. The Clean Water Act and Endangered Species Act (ESA) both passed in the early 1970s, although ESA-related regulation of water use in the West did not really kick in until almost 20 years later, as the list of threatened and endangered fish species grew.

Beginning in the late 1980s, state legislatures began passing laws that allowed existing appropriative rights to be transferred or dedicated for purposes of enhancing wildlife habitat and recreation. This meant that water previously diverted could be left instream and benefit from the legal protections afforded such rights, including the seniority date and protection from junior appropriators. Over the last 25 years, most western states have legally recognized these transfers, but with significant diversity in their implementing laws and regulations. During that time frame, use of these transfers has also varied across the West, with states such as Washington and Oregon seeing hundreds of leases and other transfers and other states, such as Wyoming, Arizona, and New Mexico, seeing only a single deal or none.

State laws vary in terms of the limits they place on environmental transfers, the scope of permissible transfers, the process for state approval of different transfers, and other issues. The goal of this study was to analyze and compare the laws of 12 western states<sup>1</sup> related to the permissibility of transfers of appropriative water rights to environmental uses, assess the extent of such transfers in each state, and attempt to identify key attributes of legal regimes that facilitate such transfers. The report focuses on formal transfers of water rights or water that require some degree of state agency or water court approval. Although we include some discussion of new appropriations for flow purposes and informal transactions such as irrigation forbearance agreements, those issues are not the focus of the report.

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1 Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Texas, Utah, Washington, and Wyoming.

Our initial goal was to identify the full range of legal provisions contained in the law that affect the permissibility, scope, certainty, and degree of review and oversight for environmental transfers. Ultimately, we identified ten different legal elements that appear somewhere in the law of the 12 states, with different variations. These were based on analysis of each state's laws, along with feedback received at a conference of environmental water transaction practitioners held in January 2014. Those ten elements are:

1. Whether state law explicitly recognizes fisheries habitat, recreation, or other environmental purposes as beneficial uses.
2. Whether transfers of existing diversionary rights to instream or other environmental uses are allowed by state law (whether by statute, court opinion, or agency opinion).
3. Whether transfers of water rights for environmental purposes are explicitly recognized by statute.
4. Whether private parties can hold instream flow rights.
5. Whether permanent transfers of diversionary rights to instream or other environmental uses are allowed.
6. Whether state law explicitly recognizes short-term leases and provides some form of expedited review for their approval.
7. Whether transfers of rights for environmental uses are subject to significant limitations that do not apply to other water rights transfers, including geographic limitations, limitations as to purpose, or more stringent procedural requirements.
8. Whether the state has a conserved water statute that explicitly allows some portion of water saved by irrigation efficiency improvements to be dedicated to environmental purposes.
9. Whether the state allows the instream uses to be added to a water right, along with diversionary uses, so that the holder of the right may "stack" instream and diversionary uses on a single water right and allocate water between the two uses each year without the need for additional state review or approval.
10. Whether the state's law provides some mechanism for protecting informal short-term private transactions, such as split season agreements or forbearance agreements, from any risk of forfeiture or abandonment.

This report includes a short analysis of the laws of each state, as viewed through the prism of these ten issues. It also includes an assessment of the extent of formal environmental transfers in each state, although the data and other information on transactions we were able to obtain varied considerably from state to state.

The laws of the 12 states differ a great deal across these ten issues. The states vary in the number of elements found on their books, the level of detail, and the precise scope of each of the ten elements. All twelve states recognize fish habitat or recreation as beneficial uses and the legality of transfers of existing rights to instream uses. However, Nevada and New Mexico do not have statutes that explicitly recognize those transfers. The states also vary in terms of the permissible purposes or locations of environmental transfers, with some states limiting them to protecting or restoring particular species, or flows to specific watersheds. Other variations include the permissible duration of transfers, the range of parties that can hold environmental water rights, and the procedures for reviewing and approving transfers.

The states have also processed a wide range of numbers of transactions, potentially due to a variety of factors, including the legal rules. The hundreds of transfers in Washington and Oregon (almost two thousand in the case of Oregon) have been driven in part by efforts and funding to restore runs of ESA listed steelhead and salmon in those states. In addition, both states have robust, diverse, and flexible legal regimes that govern instream flow transactions. At the other end of the spectrum, Arizona, New Mexico, and Wyoming have legal barriers or limitations that make formally transferring water rights to environmental uses either difficult or uncertain. The table below summarizes our findings with respect to the scope of each state's law and the transfer activity in each state.

## Summary of Results

State	Number of Legal Elements	Number of Total Transactions	Average Review Time
Arizona	3	0	N/A
California	9	34 (15 long term/permanent; 15 short term; 4 emergency)	1.3 years (long term); 4 months (short term)
Colorado	7	34 (7 temporary)	6.5 years (long term)
Idaho	5	30	3.8 months (state water bank)
Montana	8	50 (1 pending)	1.5-2 years
Nevada	5	57 (18 temporary)	
New Mexico	5	1	
Oregon	7	113 transfers; 1800 leases	2.8 years (transfers); 30-40 days (leases)
Texas	8	Approximately 20	1 year
Utah	6	8	1-2 years
Washington	8	1118 (586 temporary donations)	6 months-6 years
Wyoming	4	1	1 year

As stated above, the range in transaction numbers is certainly due to a wide variety of factors, including funding, regulatory pressure, agency priorities, and political acceptance of transferring water to the environment. A robust and effective legal regime is, however, a necessary condition of a vibrant environmental transfer market. In our analysis, there was no single aspect of state law that stood out as essential to facilitate environmental transfers. However, five broad conclusions and recommendations emerged from this study regarding provisions of state laws that facilitate environmental transfers.

1. **Breadth of permissible transfers.** A framework of statutes, regulations, and policies that recognizes and facilitates a broad variety of transaction types, and tailors the level of review to the significance and potential impacts of different categories of transactions, is an important foundation to a vibrant environmental transfer market. This provides state agencies and nongovernmental organizations the flexibility to tailor transfers to the needs and preferences of each water rights holder.
2. **Short-term transfers.** The experience of the states we studied indicates that the availability of short-term leases subject to streamlined review can facilitate transfer activity. These types of transfers can offer the advantage of fewer administrative burdens, but they may also appeal to water rights holders who want the flexibility of shorter-term deals. Most of the hundreds of transfers in Oregon and Washington have been leases shorter than five years, subject to streamlined state approval processes. In contrast, Colorado and California, which have relatively burdensome processes for short-term deals, have seen far fewer state-approved environmental transfers.
3. **Informal transactions.** Deals with irrigators that do not require formal water rights transfers or state approval, such as irrigation forbearance agreements, appear to be playing an increasing role in many states. Although they do not involve legal protection for water instream or protection from forfeiture of water rights that are not used, the flexibility and low cost of these deals provide a significant advantage. More formal policies that sanction these arrangements and insulate water rights holders from concerns about forfeiture might make such deals even easier. Washington has a relatively established procedure for temporarily registering rights with the state, while Colorado and New Mexico have procedures on the books that have not been widely used. The effectiveness of these tools merits a separate evaluation.

4. **More streamlined tools for measuring consumptive use.** The expense and time associated with measuring the amount of any given water right that can be transferred, without adverse impacts on other water rights holders, can inhibit environmental transfers and water markets generally. Scholars and commentators support consumptive use as the sole measure of the portion of a water right that can be transferred to new beneficial uses. New tools such as remote sensing and other means of estimating consumptive use could replace current methods in the case of short-term leases. This practice may facilitate transactions while providing a means to assess the effectiveness of these new tools.
5. **Water Banks.** Permanent institutions that can facilitate and manage short-term environmental water transfers, such as water banks, may provide even greater flexibility and ease of transfer. Idaho has seen some environmental transfer activity in its water banks, despite background laws that are relatively limited. These institutions are worth further exploration, perhaps on a pilot basis in watersheds that are the focus of flow restoration activity.



# I. INTRODUCTION

In watersheds around the West, human water withdrawals for purposes such as municipal supply, irrigation, hydropower, and other uses have reduced streamflow and altered natural hydrology, to the detriment of fish and other aquatic species.<sup>1</sup> Restoring flows in these rivers and streams poses a significant challenge, due to human demand for water, growing western cities, and other factors, including potential changes to future hydrology due to climate change. For the last 40 years, public attention and controversy have focused on regulatory solutions to this problem, particularly the mandates of the federal Endangered Species Act (ESA) and other environmental protection statutes. In part driven by these mandates, and in part as alternatives to them, over the last two decades government agencies, conservation groups, and others have begun to turn to market mechanisms to restore stream flows and protect fish and other aquatic species. These market mechanisms include purchases or leases of water rights for the purpose of changing existing appropriative water rights from their current beneficial use, typically irrigation, to instream use for purposes of restoring species or enhancing recreation.<sup>2</sup>

Allowing holders of appropriative water rights to transfer their water rights and dedicate them for environmental purposes is a relatively recent innovation in western water law. Historically, the prior appropriation system required water rights holders to use their water right—meaning divert the water from the stream for beneficial uses—or lose it. Legal protection for a water right left instream was fundamentally inconsistent with the core principles of the legal regime. Not until the 1960s did states begin to pass statutes recognizing instream uses, such as fish habitat and recreation, as beneficial uses. In the late 1980s, states began creating mechanisms to allow water rights holders to transfer appropriative water rights, along with all the legal attributes of those rights, including seniority and enforceability, to environmental purposes.<sup>3</sup> Now, almost every western state has legally authorized some form of transfer, change, or dedication of water rights from diversionary uses to instream uses such as protecting or restoring fish habitat.

The active business of transferring water rights to environmental uses began to get off the ground in the early 1990s, most notably in Oregon and neighboring northwestern states.<sup>4</sup> The use of environmental transfers accelerated in the Northwest during the 1990s and spread to other parts of the West. In some states, multiple water trusts, fisheries conservation groups, and others have invested heavily in buying or leasing water rights for conservation purposes.<sup>5</sup> However, the number of completed transactions varies widely among states, from one in Wyoming to hundreds in Washington and Oregon.

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1 See Lawrence J. MacDonnell, *Environmental Flows in the Rocky Mountain West: A Progress Report*, 9 WYO. L. REV. 335, 336 (2009); TROUT UNLIMITED WESTERN WATER PROJECT, WATER, PEOPLE, FISH: TEN YEARS OF PARTNERSHIP AND INNOVATION FOR WESTERN RIVERS 3 (Trout Unlimited, Aug. 2008).

2 See Charlton H. Bonham, *Perspectives from the Field: A Review of Western Instream Flow Issues and Recommendations for a New Water Future*, 36 ENVTL. L. 1205, 1228 (2006); BRANDON SCARBOROUGH & HERTHA L. LUND, SAVING OUR STREAMS: HARNESSING WATER MARKETS 1 (2007).

3 The first of these statutes arguably passed in 1986, when the Colorado legislature gave the Water Conservation Board authority to appropriate or acquire water for environmental purposes. COLO. REV. STAT. § 327-92-102(3) (2013). (Colorado passed its instream flow legislation in 1973 allowing the Water Conservation Board to appropriate and acquire new rights for instream flow. In 1986, the legislature amended the statute to allow acquisition of senior water rights for transfer to instream purposes). In 1987, Oregon passed the first statute allowing private entities to purchase or receive as donations water rights that could then be dedicated for instream uses and held in trust by the state. OR. REV. STAT. §§ 537.332-.360 (2014). Montana, Colorado, California, Washington, Wyoming, New Mexico, Texas, and Utah have all also passed statutes creating some type of mechanism for dedicating existing diversionary rights for instream use to protect or restore environmental or recreational values.

4 See Janet C. Neuman, *The Good, The Bad, and The Ugly: The First Ten Years of the Oregon Water Trust*, 83 NEB. L. REV. 432, 440-41 (2004).

5 See, e.g., COLUMBIA BASIN WATER TRANSACTION PROGRAM, FY 2013 ANNUAL REPORT (National Fish and Wildlife Foundation 2013).

In all of these states, transfers of water rights are subject to some form of state oversight and approval. State law defines the scope and nature of permissible transfers, and environmental transfers are subject to regulatory approval by the state engineer, water court, or other relevant agency, using the same, or very similar, procedures as those used to approve all water rights transfers. Obtaining this state approval can require significant time, cost, and effort, and create uncertainty in the transfer process.<sup>6</sup>

The West as a whole has more than 20 years of experience with environmental water transfers. Given that, and the wide range of state experiences, now seems to be the appropriate time to evaluate and compare the different state legal regimes for reviewing and approving these transfers.<sup>7</sup> The National Fish and Wildlife Foundation funded this study. It was designed to be part of a larger effort by NFWF to assess the best places in the West to fund environmental water rights transactions. In addition to the legal regime of each state, that larger effort evaluated factors such as the cost of water, the presence of priority species, and the availability of funding. The primary purpose of this study was to evaluate the laws, regulations, and administrative processes of each state with two primary goals. The first was to analyze the laws of each state and their effect on the past success and future potential of environmental water transactions in that state. The second goal was to attempt to explain the impact of the states' legal systems on the wide variance in the use of environmental transfers across the West, and to identify the legal tools and mechanisms that have worked particularly well in specific states.

Previous studies have examined the status of environmental transactions in various western states.<sup>8</sup> Although fairly comprehensive, these reports are at least eight years old and thus do not cover a period that has seen a great deal of activity with respect to environmental water transactions. Our goal was to update these studies to attempt to identify aspects of state legal regimes that best facilitate environmental water transactions, and to make recommendations for improving state programs across the West. As we will discuss below, our study focused on transfers of existing water rights to environmental uses, and the approval of these transfers under state law. We recognize that this leaves out at least two important categories of transactions: new appropriations for stream flow protection, and transfers of water within specific state or federal water projects or irrigation districts that do not formally change the purpose of a water right, and that often do not require state regulatory approval.

The state law process for approving environmental transfers is only one of a number of factors that influence the success of efforts to restore aquatic habitat using voluntary water rights transfers. The availability of funding for the transactions themselves and for work by state agency personnel to approve the transactions is absolutely central. Social attitudes about water use, presence of high priority species, and the cost of water also can drive or impede transactions. Finally, regulatory drivers, primarily the ESA, also focus funding and other agency resources on specific watersheds or regions. We have not attempted to tease out the relative importance of these factors in a rigorous way, although we do address their relevance in specific states.

We undertook this study with two key assumptions. The first is that each state's law is closely intertwined with all of these other social and financial factors. A robust, effective legal regime is a sign that agencies, lawmakers, and nongovernmental organizations have made environmental transfers a priority in the state, both through allocating funding and through making policy. Such a regime can also help attract funding to the state and build support for transfers among key constituencies, most notably irrigators and government agency personnel. The second assumption is that, although many factors can contribute to the level of environmental transfer activity, an effective legal regime is essential to having an active, environmental water market. Put in the negative, even with funding and a high level of interest and engagement by agencies and other stakeholder, uncertainty or high transaction costs caused by the background state laws have significant potential to inhibit transfer activity. These assumptions drove the focus on state laws a critical area of inquiry.

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6 See Laura Ziemer et al., *Changing Changes; A Roadmap for Montana's Water Management*, 14 U. DENV. WATER L. REV. 47, 58-64 (2010).

7 For earlier reviews, see, for example: STEVEN MALLOCH, LIQUID ASSETS: PROTECTING AND RESTORING THE WEST'S RIVERS AND WETLANDS THROUGH ENVIRONMENTAL WATER TRANSACTIONS 36 (Trout Unlimited 2005); Bonham, *supra* note 2; Jesse A. Boyd, *Hip Deep: A Survey of State Instream Flow Law from the Rocky Mountains to the Pacific Ocean*, 43 NATURAL RES. J. 1151 (2003); SCARBOROUGH & LUND, *supra* note 2.

8 See, e.g., SCARBOROUGH & LUND, *supra* note 2; STEVEN MALLOCH, LIQUID ASSETS: PROTECTING AND RESTORING THE WEST'S RIVERS AND WETLANDS THROUGH ENVIRONMENTAL WATER TRANSACTIONS 36 (Trout Unlimited 2005).



The first section of this report provides brief background on environmental water transactions and the state laws that govern them. The second outlines the methods and framework this study employed in reviewing each state's laws. The third consists of summaries of our analyses—and status of—the laws regarding environmental water transfers in twelve western states. The final section includes overall recommendations for legal reforms that could promote environmental water transfers.

## II. BACKGROUND ON ENVIRONMENTAL WATER RIGHTS TRANSFERS

Historically, under the prior appropriation system of western water law, essential prerequisites to a valid water right included physically diverting water from a river, stream, or lake, and putting the water to some economically beneficial use such as irrigation or municipal water supply. The law did not recognize uses of water for instream purposes, such as fish habitat or recreation, and there was no way under the water rights system to claim water or to legally protect it for those purposes. Moreover, if a water rights holder failed to divert and use a portion of their right, they risked losing that right under the doctrines of abandonment or forfeiture. This “use-it-or-lose-it” rule created a maximum incentive to put water to use on the land, driven by the notion that if someone chooses not to put water to use, someone else should be allowed to do so.<sup>9</sup>

The West’s rapid settlement and explosive economic growth have been fueled in part by water, and have strained the region’s water resources. Due to widespread irrigated agriculture, building of major dams and diversion works, and extensive interbasin transfers for urban supply and other uses, many rivers and streams throughout the West are subject to appropriative rights covering more water than flows through them during the driest months of the year. The most famous example is the great Colorado River, which dwindles to a trickle most years and dries up downstream of the U.S./Mexico border before reaching the Sea of Cortez. Many smaller, less noticed western rivers and streams also dry up during the late summer months for the same, albeit more locally focused, reasons.<sup>10</sup>

The prior appropriation system makes it difficult to change this state of affairs. Appropriative water rights are property rights and the law protects them as such. Seniority, the primary principle for allocating water, also contributes to the rigidity of the system by ensuring that the oldest water rights are satisfied in full before newer rights receive any water. A requirement that senior water rights holders reduce diversions in order to restore flows in rivers suffering from over-appropriation could disrupt long-settled expectations of water availability and risk impinging on property rights. Regulatory restrictions to diversions under the Endangered Species Act and other environmental laws began to kick in during the 1980s and 1990s. While these restrictions have played a major role in restoring and protecting aquatic resources, they also have fueled public controversy and, in places, seemingly perpetual litigation.<sup>11</sup>

In the 1960s and 1970s, states began taking steps to make the prior appropriation system more flexible in order to protect rivers, streams, and other aquatic ecosystems in the face of over-appropriation. First, state legislatures passed laws designed to protect rivers that still benefited from healthy streamflows from excessive new appropriations. These statutes typically recognized fish and wildlife habitat, recreational uses, and other environmental values as beneficial uses; empowered state agencies, usually the fish and wildlife agency, to set minimum flow standards for specific rivers; and limited the authority of the state to grant new appropriations that would draw rivers down below those minimum flows. Some statutes authorized state agencies to file for new appropriative rights with a designated beneficial use of protecting streamflow.<sup>12</sup>

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9 See BARTON H. THOMPSON, JR. ET AL., *LEGAL CONTROL OF WATER RESOURCES: CASES AND MATERIALS* (West, 5th ed. 2012).

10 See MacDonnell, *supra* note 1; Theodore E. Grantham & Joshua H. Viers, *100 Years of California’s Water Rights System: Patterns, Trends and Uncertainty*, 9 ENVTL. RESEARCH LETTERS (2014), available at [https://watershed.ucdavis.edu/files/biblio/WaterRights\\_UCDavis\\_study.pdf](https://watershed.ucdavis.edu/files/biblio/WaterRights_UCDavis_study.pdf).

11 See, e.g., *San Luis & Delta-Mendota Water Auth. v. Jewell*, 747 F.3d 581 (9th Cir. 2014) *cert. denied sub nom. Stewart & Jasper Orchards v. Jewell*, 135 S. Ct. 948 (2015) and *cert. denied sub nom. State Water Contractors v. Jewell*, 135 S. Ct. 950 (2015); *San Luis & Delta-Mendota Water Auth. v. Jewell*, No. 1:13-CV-01232-LJO-GSA, 2014 WL 4960786 (E.D. Cal. Oct. 1, 2014).

12 For example, in 1973 Colorado passed a statute that gave the Colorado Water Conservation Board authority to make new appropriations for instream flow in order to maintain the environment. COLO. REV. STAT. § 37-92-102(3) (2013); see also IDAHO CODE ANN. § 42-1501 (2014); MONT. CODE ANN. § 85-2-316 (2014); N.M. STAT. ANN. §72-5-1 (2014); OR. REV. STAT. § 537.336 (2014); WYO. STAT. ANN. § 41-3-1003(c) (West 2014).



These statutes were a significant step in the evolution of the prior appropriation system and indeed altered one of its core principles: they expanded the definition of “beneficial uses” to include instream uses, and made water left in the stream eligible for the same property rights system as water diverted for human use.<sup>13</sup> These new laws also provided important protections from additional impairments of streamflow and for relatively undisturbed rivers and streams. However, they were fairly powerless at improving flows where existing water uses and rights already impaired the aquatic ecosystem. Senior water rights continued to have priority, and new laws held no power to augment streamflows where existing rights caused depleted flows.<sup>14</sup>

States began to address this problem in the 1980s when they explicitly authorized the transfer of existing appropriative water rights for purposes of dedicating those rights to protect fish habitat and other environmental values. The first of these laws was passed in Colorado in 1986. It authorized the Water Conservation Board to acquire water rights for purposes of protecting the environment. Oregon followed suit in 1987. Eventually, Arizona, California, Montana, Texas, Utah, Washington, and Wyoming also passed statutes that directly allow for the transfer or dedication of all or part of existing appropriative rights to environmental uses.<sup>15</sup> Idaho created a system of water banks, some of which may be used to transfer water to environmental uses.<sup>16</sup> Two states we studied have no statutes authorizing such transfers: Nevada and New Mexico have authorized environmental transactions through some combination of judicial or state agency opinion.<sup>17</sup>

Through these new laws, water previously diverted under senior rights could be left in the stream in order to restore streams with flows that are impaired by human withdrawals, as opposed to merely protecting existing flows. After their transfer to environmental purposes, these water rights get treated under the legal and administrative prior appropriation system much like diversionary rights: they maintain their previous seniority and their owners may make calls on the river in order to enforce them.

State procedures for environmental water transfers are either identical or comparable to the laws governing other water rights transfers. Every western state requires that changes to water rights, including any change in the beneficial use or the place of use, be subject to approval by the relevant state authority (water agency, state engineer, or water court). Although the criteria for approving changes in water rights vary from state to state, every state prohibits any such change from adversely affecting other water rights holders. Typically, there is some administrative or judicial process associated with applications for approvals of transfers, including the opportunity for members of the public to file protests and comments. Although the importance of water rights transactions and water markets has grown over the last twenty years, many scholars and commentators have identified these approval requirements and associated transaction costs as a barrier to the growth of water markets in the West.<sup>18</sup> Environmental transactions are subject to the same procedures, and the necessary regulatory hoops can add to transaction costs and the time needed to complete transfers.<sup>19</sup>

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13 Significant case law has also affirmed these protections under the flexibility of the prior appropriation doctrine. *See, e.g.*, In re Adjudication of the Existing Rights to the Use of All the Water, 55 P.3d 396, 399 (Mont. 2002).

14 MEGAN BRAET, A DRY LEGACY: THE CHALLENGE FOR COLORADO'S RIVERS (Trout Unlimited 2002); *see also* Grantham & Viers, *supra* note 10.

15 *See* CAL. WATER CODE § 1707 (2014); MONT. CODE ANN. §§ 85-2-402, -408 (2014); TEX. WATER CODE ANN. § 11.122 (West 2013); UTAH CODE ANN. § 73-3-30 (2014); WASH. REV. CODE § 90.42 (2014); WYO. STAT. ANN. § 41-3-1001 (2014).

16 *See* IDAHO CODE ANN. §§ 42-1761, -1765A (2014).

17 *See* McClellan v. Jantzen, 547 P.2d 494, 496 (Ariz. Ct. App. 1976); Phelps Dodge v. Ariz. Dep't of Water Res., 118 P.3d 1110, 1117 (Ariz. Ct. App. 2005); Nevada v. Morros, 766 P.2d 263 (Nev. 1988); 98-01 Op. N.M. Att'y. Gen. (1998). The remaining states using some element of the prior appropriation system (the Dakotas, Nebraska, Kansas, and Oklahoma) were not evaluated as part of this study.

18 *See, e.g.*, Bonham, *supra* note 2, at 1225; Boyd, *supra* note 7, at 1191, 1204; PETER CULP, ROBERT GLENNON, & GARY LIBECAP, THE HAMILTON PROJECT & STANFORD WOODS INST. FOR THE ENV'T, SHOPPING FOR WATER: HOW THE MARKET CAN MITIGATE WATER SHORTAGES IN THE AMERICAN WEST (OCT. 2014) (citing literature).

19 *See* Dustin Garrick & Bruce Aylward, *Transaction Costs and Institutional Performance in Market-based Environmental Water Allocation*, 83 LAND ECONOMICS 535 (2012).

The rules for environmental transfers across the western states vary with respect to substance and procedure, and the purpose of this project has been to analyze that diversity and its effects. Some states authorize permanent transfers to environmental purposes, while others allow only leases of defined duration. In many states, only state agencies can hold environmental rights, while other states allow private parties such as water trusts to hold them. Other variables include rules for short term leases, the extent of studies needed to support an application for a transfer, the burden of proof, the rules about protests, the allowable purpose of the environmental water right, and the method to determine the allowable amount.

Given this legal variability, as well as differences in culture regarding water rights, funding levels, and regulatory pressure, it is not surprising that states have had different experiences with environmental water transactions. On one end of the spectrum are Oregon and Washington. Over the last 25 years, these two states have each experienced hundreds of environmental water rights transactions. They also are home to multiple water trusts and other conservation groups dedicated to facilitating those transactions. States at the other end of the spectrum—Wyoming, New Mexico, and Arizona—have witnessed only a handful of such deals.<sup>20</sup>

The environmental water transactions themselves vary. This report focuses on environmental water rights *transfer*: the legally recognized and enforceable change of a water right, through permanent transfers and long and short-term leases, from diversionary use, to a use that enhances ecosystem function. These transfers maintain legal protection for the water left instream, including the seniority date of the original water right and protection from junior rights holders. A variety of environmental water transactions do not involve such a change. These transactions include: devoting water conserved by irrigation efficiency projects to use instream;<sup>21</sup> forbearance agreements whereby irrigators agree, either through a binding contract or otherwise, not to withdraw water for a specified period, potentially multiple years; split season agreements, whereby irrigators agree to irrigate for only part of a season, and which can last multiple years<sup>22</sup>; and transactions whereby water is reallocated within an irrigation district or state or federal water project.

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20 See discussion at *infra* pp. 16–19.

21 This is distinguished from transfers pursuant to salvage water statutes or conserved water statutes in states like Montana, Washington, Oregon, Texas, and California where non-consumptive diversions are protected through formal water right transfers.

22 This refers specifically to contractual agreements with irrigators, but note that the flexibility of a split-season transfer does not preclude a formal water rights change. Split-season agreements have also been formalized in water right transfers, where the instream purpose does not kick in until a specified flow level in the stream is reached or after a particular calendar date.



## III. SCOPE AND METHODS

This study was undertaken with the primary purpose of examining the effects of each state's legal regime on the ease and prevalence of environmental water rights transfers. We looked at twelve states where environmental water transfers have taken place: Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Texas, Utah, Washington, and Wyoming. As discussed above, this analysis focused on transactions involving a legally recognized transfer of a water right from an existing use to an environmental purpose.

Because of the focus on transfers of water rights, we have not looked at a number of transactions that are often included in the loose category of environmental water transactions. We have not looked at shifts in water use within irrigation districts or water projects that do not involve any change to a formal water right. In certain places—most notably California's Sacramento/San Joaquin basin—these types of transactions play an important role in environmental restoration. Also, we have not looked at new appropriations for environmental purposes or state law mandates for instream flows.

The varying level of environmental transaction activity in these states may be attributable to a number of factors other than each state's laws and regulations, including funding availability, the price of water rights, available resources of state agencies, and the level of acceptance of these transactions among irrigators and local communities. Although this study does not look at those issues, it is part of a broader evaluation by NFWF of a planned expansion of its Western Water Program. NFWF has a well-established history of funding environmental water transactions. Since 2001, it has run the Columbia Basin Water Transactions Program (CBWTP), perhaps the West's longest-standing and most consistent funding source for environmental water transactions. The CBWTP was created in part to implement Endangered Species Act requirements imposed on the Columbia and Snake River hydropower system. Under a biological opinion issued by the National Marine Fisheries Service, the Bonneville Power Administration must provide funding every year for transactions to restore streamflow in Columbia Basin tributaries in order to protect runs of listed salmon and steelhead. This program has provided a steady stream of approximately \$4 million to \$6 million a year for environmental water transactions in the Columbia Basin. More recently, NFWF has been running the Walker Basin Restoration Program, a federally funded effort to restore water levels in Walker Lake, Nevada, through environmental water transactions, among other tools. NFWF wanted to assess how to expand its programs beyond the Columbia Basin and Walker Lake, and undertook an effort to evaluate potential barriers to water transactions across the West. This analysis of state laws is part of that effort.

Although the initial purpose of this study was to evaluate each state individually, we also sought to identify aspects of state laws that either facilitated or impeded environmental water rights transfers, and to make recommendations for states seeking to develop better-functioning environmental water transfer programs. We have done this through legal analysis and an analysis of water rights transfers approved by each state. In addition, we interviewed practitioners and state agency personnel about progress in their states. That effort included a conference of environmental water transfer practitioners held in January 2014, the primary purpose of which was to obtain input from leaders in the field about state programs and our framework for analyzing them.

Our initial analysis of state laws identified two ways that those laws could potentially affect environmental water transfers most directly. First, the law influences the degree of certainty associated with both the process of approving transactions and the attributes of environmental water rights themselves. Conservation groups and government agencies are more likely to invest in a specific transaction up front if they know three elements in advance. They want to know that the deal will go through as negotiated and planned, what the processes will be to get the deal approved, and what legal protections such as monitoring and enforcement will apply to water devoted to instream or other environmental uses.

The same concerns are even more salient for water rights holders who are potentially interested in leasing, selling, or donating their water right or otherwise devoting some portion of their water right to environmental uses. One of the greatest risks perceived by water rights holders associated with any change to their water right is that they will unintentionally forfeit or diminish some part of that right as a consequence of a transaction. Irrigators and other water users are more likely to sell, lease, or donate their right if the law spells out clearly in advance what their rights will be after the deal is completed and, if the transaction is temporary, once it expires.

Second, the administrative review procedures for transaction approval determine the cost of and timeline associated with getting environmental water transactions approved. Conservation dollars spent in a state where approval is expensive will not purchase as much water to leave instream as in a state where approval costs are less. A delay associated with approval is also a delay in getting the water back in the stream to accomplish conservation objectives.<sup>23</sup> A cumbersome and time-consuming review process is a particular problem in exigent situations, such as drought, where the goal is to acquire water to put in the stream quickly.

The first stage in our evaluation of state legal regimes was to catalogue the various elements of existing state laws that might affect these two broad factors related to environmental water rights transfers: certainty and the costs and other burdens associated with transfer approval. We accomplished this by reviewing the laws of the 12 study states to identify the full range of diversity of elements among their laws relating to environmental water transfers. Once we had prepared a draft list of these elements of state law, we sought feedback about the list during a January 2014 conference on environmental transactions. After the conference, we edited and refined the list based on the feedback we received from conference participants as well as from NFWF staff.

As a result of this process, we identified ten elements present in the laws of western states that affect the certainty and administrative burden of environmental water rights transfers. We ultimately used these ten elements as the framework for analyzing each state's law, and the details of this make up the next section. Our initial analysis did not attempt to ascertain the relative importance of these elements. Rather, we made a determination that at least one state's laws included some version of an element, and that the element could potentially affect the ease or certainty of different types of environmental transfers. The ten elements are intended to capture the diversity of state laws for environmental transfers and are set out below.

1. **Whether state law explicitly recognizes fisheries habitat, recreation, or other environmental purposes as beneficial uses.** This is a basic prerequisite for environmental water rights transfers, and all of the states in our study have made this step in their laws.
2. **Whether transfers of existing diversionary rights to instream or other environmental uses are allowed by state law (whether by statute, court opinion, or agency opinion).** Initially, the recognition of the environment and recreation as beneficial uses facilitated only new appropriations for those purposes. All of the states we analyzed have taken the additional step of allowing existing rights to be transferred to environmental purposes, although not all have enshrined the step in statute.
3. **Whether transfers of water rights for environmental purposes are explicitly recognized by statute.** The working hypothesis of our study was that statutory recognition of environmental transfers would provide more certainty than their recognition by court or agency opinion. Unlike the first two issues, this is a factor on which the states vary (Nevada and New Mexico lack statutory recognition of environmental transfers, but recognize them through agency or judicial opinion; Arizona's statute recognizes them by implication in a way that has been confirmed by courts).

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<sup>23</sup> Delays also pose problems for landowner relations (being able to tell a water user when a project will happen) and managing funding timelines (if the grant expires before the deal happens, for example).

4. **Whether private parties can hold instream flow rights.** In five states (California, Montana, Texas, Nevada, and to a lesser extent Utah) private parties can purchase or lease instream flow rights without any limitations on the protections afforded those rights. In some other states, private parties can hold such rights, but with limitations or restrictions. In Washington, for example, private parties can change rights to environmental uses and maintain ownership, but with limited protections from the relinquishment, making private ownership far less useful. Private ownership gives water trusts and other NGOs an alternate tool (to state agency ownership of environmental rights) for moving deals forward, and practitioners in some states did indicate that certain water rights holders would have a reluctance to transfer their water right to a state agency. The importance of this factor is certainly up for debate, and may vary from state to state, as the two states with the largest number of transfers—Oregon and Washington—state agencies are the primary holders of environmental. In some cases the water right is subject to more protection if held by the state.
5. **Whether permanent transfers of diversionary rights to instream or other environmental uses are allowed.** States vary in the allowed duration of the transfer of appropriative rights to instream uses. Some allow permanent changes to water rights, but others only allow temporary changes or fixed term leases to water rights for environmental uses. Permanent transfers lock in secure protection for streamflow or other environmental benefits. The availability of permanent transfers, in addition to temporary leases, certainly provides an additional option for some water rights holders.
6. **Whether state law explicitly recognizes short-term leases and provides some form of expedited review for their approval.** Short-term leases of water rights can provide a great deal of flexibility for those pursuing environmental water transactions. They can cost less than permanent transactions and allow a state's portfolio of transactions to be adapted to changing needs and circumstances. Shorter-term leases can be more appealing to irrigators who do not wish to permanently give up their water rights. Short-term deals can also serve as steppingstones or test cases toward longer-term and permanent transfers. In some states, the flexibility and use of short-term leases is enhanced by shorter approval times and less extensive review requirements for transfers shorter than a specific threshold (for example, Washington and Oregon have expedited review for leases of less than five years).
7. **Whether transfers of rights for environmental uses are subject to significant limitations that do not apply to other water rights transfers, including geographic limitations, limitations as to purpose, or more stringent procedural requirements.** In almost every state, environmental water transfers are subject to different rules than transfers between diversionary uses. As discussed with respect to factors 4 and 5, some states limit the parties who can hold instream flow rights and the duration of environmental transfers. We have also evaluated each state's law as to whether environmental transfers are subject to other significant limitations, including geographic limitations, limitations on legal protections afforded instream rights, or other limitations that might limit the use, ease, or enforceability of such transfers. For example, Utah limits certain types of transactions for purposes of protecting or restoring trout that are native to the state. This is a catchall issue, but we discuss specific instances on a state-by-state basis in the full analysis of each state below.
8. **Whether the state has a conserved water statute that explicitly allows some portion of water saved by irrigation efficiency improvements to be dedicated to environmental purposes.** Irrigation efficiency projects, such as replacing ditches with pipes, lining ditches, and replacing flood irrigation with sprinklers or drip irrigation, can play an important role in flow restoration. Traditional western water law, however, disincentivizes irrigation efficiency projects. Under black-letter prior appropriation law, if an irrigator can, through improved technology, irrigate the same number of acres with less water, historically they would face a risk of diminishment of their water right. Some states, such as California, Oregon, Montana, Texas, and Washington, have passed "conserved water" statutes that allow water rights holders to dedicate some or all of the water saved through irrigation efficiency or reduced production to environmental uses. In states without such statutes, the fate of conserved water is uncertain, and such water may in fact simply be available for use by other water rights holders. A conserved water statute is therefore an important tool for facilitating irrigation efficiency projects and for environmental water transactions based on improved efficiency.



9. **Whether the state allows the instream uses to be added to a water right, along with diversionary uses, so that the holder of the right may “stack” instream and diversionary uses on a single water right and allocate water between the two uses without the need for additional state review or approval.** Two states (California and Texas) explicitly allow water rights holders to “stack” two uses (instream and diversionary) onto the same water right, and give them the flexibility to decide every year how to allocate water between the uses, including how much water to leave in stream. Conservation groups in California are currently beginning to use so-called permissive dedications, because they give water rights holders flexibility on a year-to-year basis to change how they apportion their right, without going back to the state for approval of any change. This tool has not been widely used in either state, and its value has yet to be demonstrated, but it does provide some additional flexibility by allowing the conservation group to negotiate different arrangements for streamflows over time without needing the approval of the state for every new deal.
10. **Whether the state’s law provides some mechanism for protecting informal short-term private transactions, such as split season agreements or forbearance agreements, from any risk for forfeiture or abandonment.** In some states, very short-term transactions, such as one year or even split season forbearance agreements, play an important role. The use of such transactions may be growing, in part because of difficulties with more formal water rights transfers. These are typically contracts between an irrigator and a conservation group or state agency that are binding with respect to those two parties, but do not invoke the state’s formal process for temporary water rights leases. This means that the agreements do not provide any legal protection for the water left in stream, and that water is available for diversion by other, junior water rights holders. These deals can be finalized quickly and inexpensively, allowing conservation groups or agencies to put water in the stream where it is needed most on a short-term basis. A potential barrier to these deals is the concern on the part of irrigators that leaving water in the stream exposes their water right to forfeiture. This is particularly true if an irrigator enters into such agreements for several years in a row. All the states we examined have forfeiture periods of five years or more, exceeding the duration of the typical single or split season forbearance agreements.<sup>24</sup> Three states (Washington, New Mexico, and more recently Colorado), however, go a step further in facilitating these transactions by providing some formal mechanism for clarifying that these less formal arrangements do not create any risk of forfeiture or abandonment. In addition, Idaho provides forfeiture protection for rights temporarily deposited in the state water bank.

We vetted this list of issues with NFWF staff and with participants of the January 2014 practitioners’ conference. Ultimately, the consensus of the group was that transactions would be best facilitated by a legal regime that included as many of the ten elements as possible. Such a regime would provide the greatest variety of tools and transaction types, and allow flexibility to find the best arrangements to suit the needs and preferences of different water rights holders. As became apparent from our analysis below, some states with many or most of these tools available (notably Washington and Oregon) have the largest number of transactions, but there are notable exceptions.

Our legal review analyzes each state’s law through this ten-factor framework, and included a tally of how many of the ten elements can be found in each state’s laws or programs. These totals range from a low of four (Arizona) to a high of nine (California). The review of each state also includes data and analysis regarding approved environmental rights transfers<sup>25</sup> in each state. Our goal was to use this data to look at several key questions:

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24 A related problem arises if the future calculation of historical consumptive use, the measure of the water right, determines the instream flow years to be zero use. This can greatly reduce the value of the water right.

25 Our data collection efforts focused only on transfers where the use or ownership of a water right was formally transferred to environmental uses, and where that transfer was approved by the relevant state authority. There are a number of significant categories of environmental transactions that this focus omits. Our data does not include new appropriations dedicated to environmental uses. We have also not included reallocation of water within state or federal water projects not subject to state law approval. Finally, we did not collect data about informal short-term deals, such as forbearance agreements, that did not involve any legally recognized change to the water rights.

- The total number of environmental transfers approved under applicable water transfer statutes in each state,
- The range of duration of dedication of water to environmental uses pursuant to these transfers, and
- The length of time taken to approve these transfers.

The data availability varied among the states, and some states did not have enough transfers to analyze, so the extent of this data analysis varies from state to state. In some states we were able to download transaction data, while in other states we had to rely on summaries provided by state agencies. In one state, California, we were able to review the actual approval files. The total number of transactions ranged from zero in Arizona to almost 2,000 in Oregon.

## IV. SUMMARY OF FINDINGS

Using the ten-factor framework discussed above, we attempted to evaluate the effect of administrative review and approval processes on the past and near-term future ease and certainty of environmental rights transfers in each state. We also attempted to identify factors within state legal regimes that are facilitating or hindering these transfers. As mentioned above, our study focused on the transfer of existing rights to environmental purposes, but we recognize that some of the elements identified also influence transactions that shift water to environmental uses through informal mechanisms that do not involve state approval. These informal transactions play an increasingly important role in states where formal, state-reviewed transfers have thus far been limited. A short analysis of each state's law and transfer experience appears in Section V below.

In all of the states we examined, water rights transfers for environmental purposes undergo some type of formal approval process by a state engineer, water court, or other agency. California, Colorado, Montana, Oregon, Texas, Utah, Washington, and Wyoming have all passed statutes that explicitly allow appropriative rights to be transferred to environmental uses, and that specify procedures for doing so. Idaho operates a system of water banks that may be used to transfer water rights to environmental uses under certain circumstances. The Arizona statute appears to recognize the possibility of environmental transfers, but does not have a clear and separate statutory framework for their recognition, review, and approval. Nevada and New Mexico do not have statutes that explicitly authorize environmental transfers of water rights, but they do have either judicial or agency opinions that legally authorize such transfers.

The different states' laws also vary in terms of the types of transactions authorized, such as permanent transfers, leases, and transfers of conserved water. They also vary in the level of review required for different deals, such as short-term leases as opposed to permanent transfers. In addition, the importance of any particular legal mechanism varies within and between the states, depending on differences in the availability of funding and agency resources, flow restoration needs, and social and political acceptance of environmental flow transactions.

This variability is reflected in the environmental water rights transfer activity among the states. The total number of environmental transfers approved by the relevant state agency or water court varies from zero in Arizona and one each in Wyoming and New Mexico to over fifty in Montana, close to a thousand in Washington, and close to two thousand in Oregon. The table below shows the total out of ten legal elements that we found for each state and the data we collected on environmental transfers. The table provides the total number of environmental water rights transfers approved formally by the state and the average duration of the associated state review process, where we could determine that average. The table provides summary figures for each state that includes review times for leases of less than five years, long-term, and permanent leases if the data permitted separate analysis. The duration of these dedications is discussed in more detail in the individual state summaries. Data availability varied among the states and some states did not have enough transfers to analyze, so the analysis varies from state to state and is not completely comparable among states.



## Summary of Results

State	Number of Legal Elements	Number of Total Transactions	Average Review Time
Arizona	3	0	N/A
California	9	34 (15 long term/permanent; 15 short term; 4 emergency)	1.3 years (long term); 4 months (short term)
Colorado	7	34 (7 temporary)	6.5 years (long term)
Idaho	5	30	3.8 months (state water bank)
Montana	8	50 (1 pending)	1.5-2 years
Nevada	5	57 (18 temporary)	
New Mexico	5	1	
Oregon	7	113 transfers; 1800 leases	2.8 years (transfers); 30-40 days (leases)
Texas	8	Approximately 20	1 year
Utah	6	8	1-2 years
Washington	8	1118 (586 temporary donations)	6 months-6 years
Wyoming	4	1	1 year

These results generally support the importance of facilitating as many different transactions as possible, in order to be able to tailor deals to the requirements of the circumstances and the preferences of water rights holders. States with more of the identified elements have more robust legal regimes that recognize and provide clarity for a broader range of types of transfers than those with fewer elements. The table above shows that states with more of the key elements have tended to see more transfer activity, while those at the low end of the scale have tended to see less. However, this tendency is not universal, and the reasons these results vary are worth discussing.

The states with both the fewest legal elements and the fewest approved water rights transfers are Arizona, New Mexico, and Wyoming. The lack of robust statutory recognition of transfers of existing water rights has limited deals in states like Arizona<sup>26</sup> and New Mexico. Although environmental transfers are recognized by state agencies as legal, the status of and process for these transactions are uncertain compared to states with statutes. In Arizona, for example, water rights remain poorly defined, and uncertainty about the status and process associated with environmental flow transactions has hindered deals. In New Mexico, where formal transactions present greater challenges than in states with clearer statutes, most deals aimed at enhancing flows have involved short-term reallocations of water rather than formal changes to water rights. Conservation groups in New Mexico are seeking deals that can serve as test cases to make the status of formal transfers more certain. This legal setting makes deals difficult for both potential buyers and sellers of water rights. They must spend more to get transactions approved, withstand the risk associated with uncertainty, and expend extra effort to be part of a test case.

<sup>26</sup> Although Arizona statute recognizes transfers for fish habitat and recreation, that recognition is not as direct as in other states, and the state's code does not include a distinct framework for these transfers. See *infra* at p. 21.

New Mexico allows water rights holders in some circumstances to register water rights that are temporarily dedicated to stream flows, such as through informal forbearance agreements, with the state. Along with Washington and Colorado, it is one of only three states to provide some mechanism for protecting rights dedicated to streamflow through procedures far less burdensome than formal rights changes.

The inability of private parties to obtain and hold a water right for environmental purposes without losing that right's priority date, or at least the belief that this is not possible, has impeded environmental water transactions in some states. The inability of a private party to obtain an instream flow right has hindered transactions in Arizona, New Mexico, Wyoming, and Utah, where certain private nonprofit organizations have only recently been allowed to obtain instream flow rights. These states harbor some of the most challenging cultural and political environments for environmental flow restoration work, and negative views persist about relinquishing water rights to a government entity. Limitations on private ownership of flow rights also inhibit the ability of conservation groups and water banks to act creatively and independently to put deals together.

Interestingly, the law in Oregon also forbids private parties to hold environmental flow rights, but Oregon has a vibrant environmental transfer market nonetheless. This could be because its legal regime is otherwise extremely hospitable to environmental transfers, or due to the availability of ample funding for transactions and years of agency and irrigator experience. In addition, Idaho has experienced meaningful transfer activity despite a relatively restrictive statutory regime that includes a prohibition on direct conversion of existing, private rights to environmental purposes. This activity has been largely driven by a robust water banking system that provides more latitude to formally transfer water to instream use than does the background statutory framework.

The most diverse and robust legal frameworks for environmental transfers can be found in California, Colorado, Montana, Washington, Oregon, and Texas, which have clearly defined laws that include seven to nine of the 10 identified legal tools. It is worth comparing Washington and Oregon, which have experienced hundreds of transfers, with California and Colorado, which have each approved 34 transfers. Some of the success in Washington and Oregon is due to the availability of funding for deals from the CBWTP and other sources, agency staffing, and over twenty years of experience. But there is evidence that both the real and the perceived burdens of the administrative process in California and Colorado have been significant obstacles to transactional work in these states. For example, California law includes clear and detailed rules and procedures for dedicating water rights to environmental purposes, but the processes for approving those transactions, and the cost and delay associated with those procedures, are believed by practitioners in the state to be a serious barrier. Like California, Colorado has a robust and clear set of laws for conducting environmental water transactions but in practice, the transactions have been time consuming and expensive. Although Colorado's water court system has clarified and defined water rights, the need for water court approval for transfers extends the approval time and associated costs for long-term transactions relative to agency processes in other states. As discussed below, even temporary transactions that bypass the water court system suffer from geographic and temporal limitations and are subject to procedures comparable to those used for long-term transfers in other states.

As in California and Colorado, practitioners in Montana identify time-consuming and expensive administrative burdens as a significant barrier to conducting environmental flow transactions, despite the state's strong instream flow laws. Just a few dedicated individuals and organizations have in large part driven the transactional work there. But Montana is still recognized as having a strong statutory foundation for environmental flow transactions. It has been a pioneer in allowing private parties to lease water rights for instream flow purposes and permitting private water rights holders to convert a consumptive right to instream use while maintaining ownership of that right. Nonetheless transactions in the state are hindered by the high burden of proof required to show a lack of any potential—real or imagined—adverse impact on other water rights, and a lack of clarity concerning the administrative agency's technical requirements. .

California and Colorado share one significant difference from Oregon and Washington: both Oregon and Washington support short-term leases with very streamlined procedures and shorter review times, as short as 30 days. They also define “short-term” leases generously, as those lasting up to five years. This class of transfers has played an important role in both states, dramatically illustrated by the 1800 transactions approved in Oregon to date. California and Colorado law are much less friendly to short-term leases. In California procedural streamlining is available only for leases of a year or less, a narrow definition of “short-term.” Leases lasting one to five years get no meaningful procedural breaks, and must go through the same process as permanent transactions. The administrative process associated with even the yearlong leases can still be time consuming, and has led to some deals whose duration barely exceeds the processing time. The state has seen only 17 of these short-term leases. Colorado’s short-term option is a lease where a water right can be devoted to streamflow in up to three out of ten years. Although these do not have to go to water court, the agency review process is time-consuming. The state has seen seven of these leases.

Short-term transfers and the ability to convert rights for limited periods of time can provide important flexibility by reducing transaction costs and allowing transactions to be adapted to changing circumstances and needs in the state. Rights holders who feel hesitant to permanently relinquish their rights find these transactions to be attractive, too. . Many of these benefits, however, can be lost if the approval process is time- consuming and expensive. The experience in Washington and Oregon demonstrate the importance of the availability of short-term, less than five years duration, leases with expedited approval times.<sup>27</sup>

In addition to California and Colorado, Arizona, New Mexico, Texas, Utah, and Wyoming similarly lack an expedited review process for short-term transactions, or do not have an explicit and formal process to facilitate short-term deals.

Finally, conserved water statutes, which allow water rights holders to transfer water saved through irrigation efficiency improvements, are difficult to assess because only California, Montana, Texas, Oregon, and Washington have them. This tool is playing an important role in Oregon, where the program is most established and has resulted in 56 transfers of conserved water to stream flow. Only California and Texas permit true, formal stacking of rights and, although conservation groups have used the tool in both states, it has not been used widely enough to assess its long-term significance.

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27 One of the things that makes expedited review possible in Washington and Oregon is the statutory ability of the state or water master to unwind approved instream transfers after the fact in the event of impairment. This reduces the pressure associated with the initial review and approval of the transfer.



# V. STATE-BY-STATE ANALYSIS

## Arizona

Arizona has 4 of the 10 elements identified in the instream transfer assessment rubric, as follows:

- Recognition of wildlife, fish, and recreation as beneficial uses.
- Legality of transfers of existing water rights to instream uses recognized by judicial decision.
- Statutory recognition of environmental transfers, although that recognition is minimal and lacks a separate framework for approval of such transfers.
- Availability of permanent instream flow transfers.

Missing elements:

- Arizona Department of Water Resources requires parties acquiring an instream flow water right by transfer to own land rights in the benefitting riparian corridor, limiting the parties who can hold instream flow rights.
- Private parties cannot acquire instream flow water rights by transfer without losing the water right's priority date.
- No conserved water statute.
- No expedited review for short-term transfers.
- Stacking of rights not explicitly available.
- No formal forfeiture or abandonment protection for forbearance agreements.

Under Arizona law, instream flow water rights can be created through transfers of existing water rights or appropriations of new water rights.<sup>28</sup> The state has been very active in establishing new appropriative rights for environmental purposes—29 certified instream flow rights, one issued instream flow permit, and 71 pending instream flow appropriation applications currently exist in Arizona. However, protests and uncertain and burdensome transfer requirements have stalled attempted transfers of existing water rights to instream uses in the state thus far.

Arizona judicial case law established the legality of instream flow water rights.<sup>29</sup> Although the Arizona Water Code lacks explicit authorization for instream flow water rights, the Code identifies fish, wildlife, and recreation as valid beneficial uses.<sup>30</sup> Due to that identification, the Arizona Court of Appeals has held that water rights do not require a diversion and can be used instream.<sup>31</sup> The Court of Appeal, which is not the highest court in Arizona, established this precedent in 1976.<sup>32</sup> In 2005, the Court of Appeals

28 ARIZ. REV. STAT. ANN. § 45-172 (2013); *id.* § 45-152.01.

29 *See McClellan v. Jantzen*, 547 P.2d 494, 496 (Ariz. Ct. App. 1976); *Phelps Dodge v. Ariz. Dep't of Water Res.*, 118 P.3d 1110, 1117 (Ariz. Ct. App. 2005).

30 ARIZ. REV. STAT. ANN § 45-151 provides that unappropriated water may be appropriated for, among other things, recreation and wildlife, including fish. § 45-141 provides that beneficial use is the basis, measure and limit to the use of water.

31 The court of appeals held that “in 1941 when ‘wildlife, including fish’ and in 1962 when ‘recreation’ were added to the purposes for appropriation, the concept of in situ appropriation of water was introduced—it appearing [sic] to us that these purposes could be enjoyed without a diversion.” *McClellan*, 547 P.2d at 496.

32 *McClellan*, 547 P.2d at 496.

reaffirmed the legality of instream flow rights, reasoning that the state legislature's silence on the subject since the court's original decision amounted to implicit approval.<sup>33</sup>

The Arizona Water Code actual authorization of environmental transfers is very spare. It merely states that water rights may be severed from the land and transferred for a variety of purposes, including for "use for recreation and wildlife purposes, including fish."<sup>34</sup> However, the code places limitations on transfers for those purposes, which do not apply to other types of transfers. Only the state or its political subdivisions can serve as the purchaser or donee for transfers for purposes of fish, wildlife, and recreation, if the water right is to maintain its original priority date.<sup>35</sup> Thus, while private parties or federal agencies can theoretically be recipients of instream flow water rights in transfers, the loss of priority date would diminish the benefits of such transfers. Perhaps the most limiting condition for prospective instream flow transfers in Arizona is the requirement that the state agency or subdivision that receives the right must own the riparian corridor associated with the stream segment that will benefit from the transfer.<sup>36</sup>

Additionally, Arizona broadly authorizes transfers of all durations by statute without reference to temporary transfers, so no expedited transfer approval mechanisms exist for short-term transfers.<sup>37</sup> Similarly, Arizona law does not authorize formal transfers of conserved water, either through saved diversions or reduced consumptive use.<sup>38</sup> In fact, the Arizona Court of Appeals has held that appropriative water rights holders who conserved water by lining ditches did not maintain any rights to use conserved water on adjacent lands where they had no water right.<sup>39</sup> As a result of these limitations, some of the most meaningful instream flow transactions in Arizona have been informal saved diversions, or forbearance agreements that do not involve a transfer of the water right or require state approval.

Although two instream flow severance and transfers are currently pending, Arizona has processed no formal transfers of water rights to instream flow purposes. Conservation practitioners attribute this dearth of completed instream flow transfers to three primary barriers: 1) the state's uniquely burdensome requirements for instream flow transfers; 2) the undefined nature of most of Arizona's surface water rights; and 3) the state's inability to resolve protests to instream flow transfers.<sup>40</sup> The instream flow transfers to date have seen protests filed, perhaps due to cultural resistance or ideological motivation.<sup>41</sup> In part because undefined water rights make these protests difficult to resolve, protests have stalled previous attempted transfers of this type.

Informal water transactions represent the most promising mechanism for instream flow restoration in Arizona. The Arizona Water Code's five-year forfeiture period<sup>42</sup> is consistent with short-term aquatic and riparian conservation, although the code does not include any additional formal protections from forfeiture for water involved in these deals.<sup>43</sup> Conservation groups in Arizona are turning to informal transactions and infrastructure upgrades as an alternative to formal rights transfers.<sup>44</sup> These mechanisms include temporary diversion reduction agreements that do not alter consumptive use; forbearance agreements in which an irrigator temporarily agrees not to divert or pump water; and financing improved irrigation infrastructure.<sup>45</sup>

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33 *Phelps Dodge*, 118 P.3d at 1116.

34 ARIZ. REV. STAT. ANN. § 45-172(A).

35 *Id.*; *id.* § 45-152.01.

36 Telephone interview by Philip Womble with Kim Schonek, Verde River Project Manager, The Nature Conservancy (Jan. 24, 2014); Telephone Interview by Philip Womble with David Weedman, Aquatic Habitat Program Coordinator, Ariz. Game and Fish Dep't. (Jan. 24, 2014).

37 ARIZ. REV. STAT. ANN. § 45-172.

38 Schonek, *supra* note 36.

39 Salt River Valley Water Users' Ass'n v. Kovacovich, 411 P. 201, 202-04 (1966); *see also* WELLS A. HUTCHINS, WATER RIGHTS LAW IN THE NINETEEN WESTERN STATES 646 (3d ed. 2009).

40 Schonek, *supra* note 36; Weedman, *supra* note 36.

41 Weedman, *supra* note 36.

42 ARIZ. REV. STAT. ANN. § 45-188(A).

43 Schonek, *supra* note 36.

44 Weedman, *supra* note 36.

45 Schonek, *supra* note 36.

Formal transfers may become more viable in the future in Arizona, however. For example, the Salt River Project, one of the State's major water users, has sponsored two pending instream flow transfer applications on the San Pedro River. Unlike the case for much of the State, the water rights on this river have been adjudicated, which may impede protests to stall these transfers.<sup>46</sup>

## California

California has 9 of the 10 elements identified in the instream transfer metric, as follows:

- Express statutory recognition of wildlife, fish, and recreation as beneficial uses.
- Legality of transfers of existing diversionary water rights to instream uses recognized.
- That recognition is by statute.
- Law does not significantly limit environmental transfers, substantively or geographically.
- Private parties can acquire or dedicate instream flow water rights by transfer without losing the water right's priority date.
- Availability of permanent instream flow transfers.
- Express legal protection of conserved water.
- Explicit ability to add or "stack" instream flows with other beneficial uses.
- Expedited review of short-term transfers (although "short-term" is defined as one-year or less, diminishing the value of this provision).

Missing elements:

- No formal forfeiture or abandonment protection for forbearance agreements.

California's complex system of water rights includes a robust set of rules for environmental water rights transfers. For instance, in addition to clear procedures for formal transfers, California law also provides a mechanism for putting conserved water to environmental uses while maintaining the full protections of the original water right,<sup>47</sup> as well as an explicit authorization for "stacking" environmental use with other beneficial uses.<sup>48</sup>

Nonetheless, the procedures for approving those transactions, and the cost and delay associated with those procedures, are perceived as a barrier by practitioners in the state.<sup>49</sup> Transactions that involve a formal change in water rights and are subject to state review have not made up the majority of environmental transactions in California. Indeed, the California State Water Resources Control Board (SWRCB) has approved only 34 environmental water rights transfers under section 1707 of the Water Code. Many other water transactions in California have occurred within the scope of the State Water Project or the Central Valley

<sup>46</sup> Weedman, *supra* note 36.

<sup>47</sup> CAL. WATER CODE § 1707 (2014).

<sup>48</sup> California State Water Resources Control Board, *In the Matter of the Petition for Reconsideration of Order Approving 1707 Petition for Dedication of Instream Flow*, Order WR 2011-0001-EXEC, available at [http://www.waterboards.ca.gov/waterrights/board\\_decisions/adopted\\_orders/orders/2011/wro2011\\_0001.pdf](http://www.waterboards.ca.gov/waterrights/board_decisions/adopted_orders/orders/2011/wro2011_0001.pdf).

<sup>49</sup> Telephone interview by Julia Forgie with Phil Crader, Div. of Water Quality Asst. Deputy Dir., State Water Res. Control Bd. (Nov. 1, 2013); *see also* MALLOCH, *supra* note 8, at 36 (noting that whenever "California and water are mentioned in a sentence, words often found in proximity are 'complex,' 'contentious' and 'expensive'").

Project, pursuant to the Central Valley Project Improvement Act or CALFED's Environmental Water Account.<sup>50</sup> Many of these involve reallocation of water within the projects, and do not formally change a water right.

California has recognized instream flow transfers since 1991, when the legislature adopted Section 1707 of the California Water Code, which identified instream flow as a "beneficial use" and allowed the state and private individuals to hold instream rights.<sup>51</sup> Transfers of water rights to environmental uses must comply with both Section 1707 and the relevant California Water Code provisions for all water rights changes-of-use. For instance, Section 1725 applies for short-term transfers of up to one year, and Section 1735 applies for long-term transfers of more than one year.<sup>52</sup> These formal changes in water rights all require approval by the SWRCB, and some are subject to analysis under the California Environmental Quality Act.<sup>53</sup>

Short-term petitions are exempt from CEQA analysis and subject to expedited review by the Board, but they suffer other administrative hurdles that hamper their usefulness.<sup>54</sup> Petitioners may transfer water rights short-term only if the Board finds the transaction will cause "no injury" to other rights holders and the amount of water transferred is equal to what would have been consumptively used.<sup>55</sup> The burden of establishing consumptive use may undercut any benefits of the expedited review and CEQA exemption provided by Section 1725. In fact, the average approval time for transactions of a year or less in duration has been over four months (seven months for small transactions), a delay that limits the utility of these transactions.

Section 1735 allows long-term transfers, but provides no exemption from CEQA analysis or other expedited review, and includes all transactions of longer than one year in the definition of long-term.<sup>56</sup> These long-term transfers are not limited to water that would have been consumptively used and are subject to a "no substantial injury" standard, rather than the more demanding Section 1725 "no injury" standard.<sup>57</sup> Nonetheless, these transactions face other obstacles. The board, for example, must provide notice and opportunity for a hearing, which may subject the long-term transfer process to delay from protests.<sup>58</sup>

As of May 2014, when we last reviewed their files, the SWRCB had approved 34 instream flow dedications under Section 1707 and related statutes.<sup>59</sup> In total, 15 of the 34 dedications have been long-term or permanent<sup>60</sup>, 15 have been short-term, and four have been emergency.<sup>61</sup> These dedications vary by size and by type of petitioner. Individuals, private companies, water conservation organizations, and the National Park Services have filed for approval of smaller transactions, as small as six acre-feet of water.<sup>62</sup>

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50 See ELLEN HANAK & ELIZABETH STRYJEWSKI, CALIFORNIA'S WATER MARKET, BY THE NUMBERS: UPDATE 2012 32-35 & Figure 11 (Public Policy Inst. of Cal. 2012), available at [http://www.ppic.org/content/pubs/report/R\\_1112EHR.pdf](http://www.ppic.org/content/pubs/report/R_1112EHR.pdf) (discussing the overall breakdown of the environmental portion of California's water markets).

51 CAL. WATER CODE § 1707.

52 *Id.* § 1700.

53 See, e.g., *id.* §§ 1725, 1735; see also Crader, *supra* note 49.

54 CAL. WATER CODE § 1725.

55 *Id.*

56 *Id.* § 1735.

57 *Id.* § 1736.

58 See *id.*

59 This number is based on the petitions available on the SWRCB website, Instream Flow Dedication, STATE WATER RES. CONTROL BD., available at [http://www.waterboards.ca.gov/waterrights/water\\_issues/programs/applications/instream\\_flow\\_dedication/](http://www.waterboards.ca.gov/waterrights/water_issues/programs/applications/instream_flow_dedication/) (last viewed May 5, 2014), in addition to further investigation and review of State Water Rights files. Multiple petitions filed together for the same region, often incorporated into a single Approval Order or multiple nearly identical Approval Orders, are counted as one dedication. For instance, one of the pending approvals reflects eight distinct petitions filed by The Nature Conservancy.

60 Because the petitions and approval orders do not always specify whether a dedication is long-term (§1735) or permanent (§1700), these two categories are combined.

61 These numbers are all based on review of approval orders issued under the relevant statutes.

62 These small dedications are typically driven by the size of the transaction relative to the size of the stream. For example, in some coastal streams, 0.5 cfs can be 100% of the summer flow.



In contrast, water and irrigation districts and the U.S. Bureau of Reclamation have petitioned to dedicate hundreds of thousands of acre-feet of water, though these dedications are generally associated with the State or Central Valley Water Projects.<sup>63</sup>

### §1707 Petition Approvals by Type (through April, 2014)

	Dedications Filed by Private Entities/ Conservation Organizations/NPS (typically smaller)	Dedications Filed by the Reclamation/Irrigation Districts (typically larger)	Total
Number of Approvals	11 (+2 pending)	23	34 (+2 pending)
Permanent/ Long-term (§1700/1735)	9 (+2 pending)	6	15 (+2 pending)
Short-term (§1725)	2	13	15
Emergency Short-term (§1435)	0	4	4

State inaction, extensive documentation requirements, the public notice and comment period, and the potential role of CEQA analyses have led to long approval process times for transfers of water rights.<sup>64</sup> On average, the state approval process for instream flow dedications has been 480 days for permanent and long-term, 128 days for short-term, and approximately one week for emergency, short-term dedications. At times, the typically smaller dedications by individuals, conservation groups, and others have required a longer approval process than the larger dedications by irrigation districts and Reclamation. The average approval time for short-term transfer in the former category is seven months.<sup>65</sup> This is particularly striking, given the less than one-year duration of these dedications. These averages confirm the anecdotal opinion of practitioners that approval time is a major factor in completing environmental dedications in California.

### §1707 Petition Average Approval Times (through April, 2014)

	Dedications by Private Entities/ Conservation Organizations	Dedications by Irrigation Districts/Reclamation	Total
Average approval process duration	504 days	157 days	270 days
Permanent/Long-term	571 days	344 days	480 days
Short-term	202 days	117 days	128 days
Emergency Short-term	NA	7.3 days	7.3 days
Average number of protests/comments*	0.9	2.7	2.1
Permanent/Long-term	1.1	4.3	1.4
Short-term	2.5	3.5	3.4
Emergency Short-term	NA	0	0

63 See HANAK & STRYJEWSKI, *supra* note 50, at 26-27, 32-33.

64 Approval times are calculated from date SWRCB receives petition to date of approval. They do not include reconsideration petitions and orders.

65 These numbers are based on review of SWRCB files.

Various factors may account for these approval times. One potential source of delay might be protests, but those do not seem to be a major factor in the state. If an individual submits a protest, the board and petitioners must coordinate to adequately address and resolve the protest. To date, dedication petitions have received only about two protests per petition.<sup>66</sup> Based on numbers alone, there is no indication that the approval time increases with the number of protests filed. However, anecdotal evidence from practitioners and documented in the dedication files suggests that responding to and addressing these protests requires significant time and effort.<sup>67</sup>

In addition to protests, confusion over the role of the CEQA<sup>68</sup> creates perceived delays and barriers. While the impact of CEQA on the transaction approval process remains unclear, and the state retains broad discretion to minimize CEQA's role, particularly for simple, small transactions, many potential participants in environmental water transactions view CEQA as a significant barrier. The transaction data reveal little about the potential role of CEQA, and it does not appear that dedications exempt from CEQA had shorter approval times than dedications involving a CEQA environmental analysis. Practitioners note, however, that uncertainty regarding which CEQA exemption applies can create confusion and delay.<sup>69</sup> Even state agencies have demonstrated confusion over how, or whether any, CEQA requirements apply.<sup>70</sup>

The state's recent prioritization of environmental water transactions,<sup>71</sup> as well as growing public awareness of their existence and implications, suggest transactions will become easier and less costly in the near future<sup>72</sup>. More experience with transaction approval—including SWRCB experience with processing and practitioner experience with preparing petitions—may expedite the process and facilitate more deals. The so-called expedited review process for short-term transactions appears to be a particular barrier. This process applies only to transactions of one year or less, and still involves meaningful delay. Speeding up this review, and/or extending the definition of “short-term” to multi-year transactions, may facilitate more transactions.

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66 *Id.*

67 *See, e.g.,* Crader, *supra* note 49; telephone interview by Julia Forgie with Amy Campbell, The Nature Conservancy (Nov. 7, 2013).

68 CAL. PUB. RES. CODE §§ 21000-21177 (West 2014).

69 Telephone interview by Julia Forgie with Sari Sommarstrom, Scott River Water Trust (May 21, 2014).

70 *Id.* (describing confusion among Dep't of Fish and Wildlife and Dep't of Water Resources regarding a biological justification for a dedication).

71 Even though it is not embodied in the code, as a practical matter, the SWRCB Division of Water Rights now prioritizes processing and expedites review of Section 1707 changes within its queue of petitions. The Board made them a priority and the SWRCB has been expediting review. *See Applications: Permitting and Licensing*, SWRCB, [http://www.swrcb.ca.gov/waterrights/water\\_issues/programs/applications/priority\\_criteria.shtml](http://www.swrcb.ca.gov/waterrights/water_issues/programs/applications/priority_criteria.shtml). In addition, under the North Coast Instream Flow Policy, the Board may expedite petitions with an environmental benefit within the geographic area of the Policy. *See DIV. OF WATER RIGHTS, SWRCB, POLICY FOR MAINTAINING INSTREAM FLOWS IN NORTHERN CALIFORNIA COASTAL STREAMS 17* (Feb. 4, 2014), *available at* [http://www.waterboards.ca.gov/waterrights/water\\_issues/programs/instream\\_flows/docs/adopted\\_policy.pdf](http://www.waterboards.ca.gov/waterrights/water_issues/programs/instream_flows/docs/adopted_policy.pdf) (“The State Water Board will expedite, where feasible, processing of petitions that will result in enhanced conditions for fish and wildlife, including section 1707 petitions and any water right applications or petitions to amend existing permits or licenses that accompany them.”).

72 This is arguably already occurring based on the increasing number of petitions being processed each year.

## Colorado

Colorado law includes 7 of the 10 elements identified in our environmental transfer metric:

- Express statutory recognition of wildlife, fish, and recreation as beneficial uses.
- Legality of transfers of existing diversionary water rights to instream uses recognized.
- That recognition is by statute.
- Law does not significantly limit environmental transfers, substantively or geographically.
- Availability of permanent instream flow transfers.
- Expedited procedures for short-term transactions (although procedures are relatively burdensome compared to other states).
- Some formal forfeiture or abandonment protection for forbearance agreements.

Missing elements:

- The state does not have a conserved water statute. Transfers of saved consumptive use but not saved diversions are allowed.
- Private parties cannot hold instream flow rights.
- Law does not explicitly allow “stacking” of rights.

Colorado has a clear set of statutes that establish and protect environmental water transactions. Despite robust and mature laws, the length and cost of transaction approval continues to slow the pace of transactions in the state.

The Colorado Water Conservation Board (CWCB) administers the state’s instream flow program, through which the CWCB may acquire or appropriate water rights to preserve or improve the environmental quality of streams or natural lakes.<sup>73</sup> The CWCB acquires instream flow water rights through two different avenues: long-term or temporary acquisitions of water rights.<sup>74</sup> Permanent or long-term acquisitions include long-term donations, purchases, or leases, while temporary acquisitions encompass short-term leases to the CWCB.<sup>75</sup> The CWCB must apply to water court for instream flow decrees to complete long-term transactions, while only State Engineer approval is needed for temporary transfers.<sup>76</sup> This system sets up two layers of process—one is the CWCB process to decide whether to move forward with a transfer, and the second is the water court process to formally approve the deal.

The CWCB may acquire existing water rights for instream flows by “grant, purchase, bequest, devise, lease, exchange or contractual agreement.”<sup>77</sup> The board must consider prospective donations before other types of acquisitions.<sup>78</sup> Moreover, the CWCB

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73 COLO. REV. STAT. § 37-92-102(3) (2015).

74 LAWRENCE J. MACDONNELL & CURRIN TRICK, UNIV. OF WYO. COLL. OF L., ENHANCING STREAM FLOWS IN WYOMING 20-22 (2012).

75 *Id.*

76 *Id.* at 17 (citing A. DAN TARLOCK, ET AL., WATER RESOURCE MANAGEMENT 158 (6th ed. 2009)).

77 COLO. REV. STAT. § 37-92-102(3).

78 2 COLO. CODE REGS. § 408-2(6f)(3) (2013). Donations may occur when other parties purchase water rights for the purpose of instream flow protection or restoration and then donate them to CWCB. For example, the Colorado Water Trust bought and then donated a water right to the CWCB to preserve and improve the Blue River in Summit County. *See Water acquisitions*, COLO. WATER CONSERVATION BD., <http://cwcb.state.co.us/environment/instream-flow-program/Pages/WaterAcquisitions.aspx> (last visited Dec. 21, 2013).

must find that a prospective acquisition will “preserve or improve the natural environment to a reasonable degree.”<sup>79</sup> All water right acquisitions by the CWCB consist of voluntary transactions made on an as-offered basis by the right holder to the CWCB.<sup>80</sup> Water rights that the CWCB acquires for its instream program maintain their original priority date, and the state administers them similarly to diversion-based water rights. State law protects from abandonment water rights left in stream due to temporary or long-term loans to the CWCB.<sup>81</sup>

CWCB regulations set out the criteria and procedures used to assess potential permanent instream flow water rights acquisitions.<sup>82</sup> The CWCB must follow these regulations in assessing whether to pursue an acquisition or accept a donation. After following this regulatory process, the CWCB then files a change of water right application in water court to obtain an instream flow decree.<sup>83</sup> This, of course, represents an entirely separate and new process, and the transfer is not complete until the water court approves it.

Water rights owners may also temporarily lease water to CWCB for stream or lake protection or improvement.<sup>84</sup> To avoid reductions in a lessor’s historical consumptive use from loaning water to the CWCB, the period of the loan is excluded from any historical consumptive use analysis.<sup>85</sup> These temporary leases, however, face three noteworthy limitations. These leases may be exercised at most for three years during any 10-year period and for no longer than 120 days in one year,<sup>86</sup> they can only be used in a location with an existing instream flow decree,<sup>87</sup> and the CWCB may not lease water for flows that exceed the decreed flow target or extend beyond the reach for the decreed flow.<sup>88</sup>

State law provides a simplified approval process for these temporary leases to the CWCB. Instead of a water court decree case, the State Engineer’s Office evaluates and approves temporary loans through a notice-and-comment process.<sup>89</sup> The CWCB must still assemble data needed by the State Engineer to determine that temporary loans avoid injury to existing water rights.<sup>90</sup> Although this State Engineer process provides an expedited alternative, it involves similar levels of review to longer-term water rights transfers in other western states. This review may account for the apparent difficulty of environmental transfers in Colorado despite its relatively robust laws.

The CWCB’s Alternative Agricultural Water Transfer Methods Grant Program (ATM Grant Program) presents additional opportunities to protect or restore instream flows.<sup>91</sup> This program supplies financial assistance for farmers to transfer some of their historical consumptive use to other water users while retaining some water for irrigation.<sup>92</sup> This is not strictly speaking an environmental transfer program, but by leasing water to downstream users—whether municipalities, other farms, or decreed instream flow rights—farmers often place more water instream.<sup>93</sup>

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79 COLO. REV. STAT. § 37-92-102(3).

80 *Id.*

81 *Id.* § 37-92-103(2)(b)(V)-(VI).

82 2 COLO. CODE REGS. § 408-2(6)(3).

83 *Id.* § 408-2(6i).

84 COLO. REV. STAT. § 37-83-105.

85 *Id.* § 37-92-105(2)(c).

86 *Id.* § 37-92-105(2)(a).

87 *Id.*

88 2 COLO. CODE REGS. § 408-2:6.

89 COLO. REV. STAT. § 37-83-105(2)(a).

90 *Id.*

91 Leila C. Behnamour, Comment, *Reforming a Western Institution: How Expanding the Productivity of Water Rights Could Lessen Our Water Woes*, 41 ENVTL. L. 201, 229-30 (2011).

92 *Id.* at 229.

93 *Id.* at 230.



The ATM Grant Program includes long-term and temporary transfers and can facilitate improved water use efficiency and benefits for multiple water rights holders.<sup>94</sup> Alternative mechanisms that may be applied through this program “include interruptible supply agreements, rotational fallowing, water banks, reduced crop consumptive use, and purchase and lease-back.”<sup>95</sup>

Despite Colorado’s robust and clear set of laws, environmental water transactions have been time-consuming and expensive. Indeed, the CWCB had completed just 27 permanent or long-term instream flow transfers and processed only seven temporary instream flow leases (as of the end of 2013).<sup>96</sup> There appear to be several, closely related reasons for this, most notably that water transfers are processed through the water court system, which is more costly and time-consuming than state agency processes in other states. While the continuous adjudication provided by Colorado’s water courts clarifies the quantity of water associated with water rights, it increases the cost and delay of approving transfers.<sup>97</sup> Temporary transfers can be processed through the State Engineer, but only in limited situations and with procedures comparable to those used for longer-term transfers in other states.<sup>98</sup>

Our analysis of past water rights transactions in Colorado indicates that long-term instream flow transactions required years to obtain approval from water court. The CWCB indicated that the date of its first action on a transfer provides a good indicator of when it initiated a formal agreement with a water rights holder. For the last eight long-term transactions, the process took an average of 6.52 years from the initial CWCB Board consideration of the transfer until the time CWCB received a water court decree.<sup>99</sup> Once the application was filed with the Water Court, it took an average of 2.5 years to receive a decree.<sup>100</sup> Prior to filing a water court application, CWCB must complete detailed engineering to support the requested change of water right and to demonstrate to the court and potential objectors that the change will not cause injury to other water rights. For acquisitions in heavily appropriated basins, this engineering can be quite complex and can require a longer time to complete than a simple change in a more remote basin. With regard to the length of time required for the court to enter a decree, the recently revised Colorado water court rules have expedited decrees in most cases. As past studies have concluded,<sup>101</sup> the water court process likely extends the approval time and associated transaction costs for long-term transactions in Colorado.

Short-term instream flow transactions—which bypass the water court—may present a favorable alternative to long-term transfers in Colorado. The division engineer, as directed by statute, processes temporary transfers within no more than twenty days after the transfer proponent satisfies legal requirements for notice.<sup>102</sup> Nonetheless, Colorado’s statutory authorization for temporary instream flow transactions suffers from geographic and temporal limitations when compared to other western states. Temporary instream flow transfers approved under code section 37-83-105(2) may only occur in locations where a water court previously approved an instream flow decree. While the CWCB has established a large number of decreed instream water rights through appropriations and acquisitions, practitioners still report that this spatial restriction limits transfer opportunities.<sup>103</sup>

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94 *Id.*

95 *Id.* at 299.

96 *Water acquisitions, supra* note 79; Telephone interview by Philip Womble with Linda Bassi, Chief, Stream and Lake Prot. Section, Colo. Water Conservation Bd. (Nov. 4, 2013).

97 We received data on approval duration by email from Colorado Water Conservation Board staff. Email from Rob Viehl, Water Resource Specialist, Colo. Water Conservation Bd., to Philip Womble, Student, Stanford University (Nov. 15, 2013) (on file with author).

98 COLO. REV. STAT. § 37-83-105(2)(b)(VI).

99 Email from Rob Viehl, Water Resource Specialist, Colo. Water Conservation Bd., to Philip Womble, Student, Stanford University (Nov. 20, 2013) (on file with author).

100 Email from Rob Viehl, Water Resource Specialist, Colo. Water Conservation Bd., to Philip Womble, Student, Stanford University (Nov. 15, 2013) (on file with author).

101 BONNIE G. COLBY ET AL., UNIV. OF ARIZ., DEP’T. OF AGRIC. ECON., WATER TRANSFERS AND TRANSACTIONS COSTS: CASE STUDIES IN COLORADO, NEW MEXICO, UTAH, AND NEVADA 43-45 (1989).

102 COLO. REV. STAT. § 37-83-105(2)(b)(VI).

103 Telephone interview by Philip Womble with Zach Smith, Staff Attorney, Colo. Water Trust (Apr. 28, 2015). However, CWCB indicates it has completed instream water rights on 8,500 miles of stream. See Instream Flow Program, COLO. WATER CONSERVATION BD., <http://cwcb.state.co.us/environment/instream-flow-program/Pages/main.aspx> (last visited June 21, 2015).

Perhaps a greater constraint, however, is the limitation that precludes temporary leases from providing water in excess of the decreed instream flow reach, or the amount in the existing decreed instream flow right.<sup>104</sup> In effect, temporary leases can provide flow only for decreed instream rights that are water-short.<sup>105</sup> Additionally, temporary instream flow leases may occur for at most three years in any 10-year period.<sup>106</sup> These restrictions limit the usefulness of temporary transfers as an alternative to the procedurally onerous Colorado water court process.

Because of these limitations, Colorado water practitioners are currently exploring alternative mechanisms to protect and restore instream flows. These alternative mechanisms, however, have been applied sparingly to date. Forbearance agreements and efficiency improvement transactions contribute consumptive savings and saved diversions to instream flows without requiring a formal water rights transfer. Yet this conserved water still faces diversion by other users and sometimes face a determination of abandonment. Until recently, a water rights holder engaged in a forbearance agreement also risked a decrease in the historical consumptive use associated with their water right. A 2013 statute now provides explicit protection for water rights' historical consumptive use when water users decrease that consumptive use through qualifying conservation programs.<sup>107</sup> Similarly, Colorado law protects water rights holders engaged in approved water conservation programs from abandonment.<sup>108</sup> Conservation groups are actively exploring opportunities to conduct forbearance agreements that restore streamflows as part of these qualifying conservation programs that protect water rights' historical consumptive use and protect water rights from abandonment.<sup>109</sup>

## Idaho

Idaho has 5 of the 10 elements identified in the instream transfer metric, as follows:

- Express statutory recognition of wildlife, fish, and recreation as beneficial uses.
- Legality of transfers of existing diversionary water rights to instream uses recognized, although only through state and regional water banks.
- That recognition is by statute.
- Existence of water banking system that supports temporary changes of use and permits expedited review.
- Rights are protected from forfeiture when they are deposited in and/or rented from the state bank or local pools.

Missing elements:

- Idaho Water Resource Board is the only entity able to obtain and hold an instream flow right in Idaho.
- Statutory scheme does not explicitly authorize permanent environmental transfers (although IDWR has made two rentals permanent by special resolution).
- Instream flow rights are limited geographically.
- No explicit protection for conserved use (and conserved water cannot be leased to a bank or pool).
- Law does not explicitly allow “stacking” of rights.

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104 2 COLO. CODE REGS. § 408-2:6.

105 *Id.*

106 COLO. REV. STAT. § 37-83-105(2).

107 *Id.* § 37-92-305(3)(c)(II).

108 *Id.* § 37-92-103(2)(b)(I).

109 Smith, *supra* note 103.

Although Idaho statute recognizes instream flow rights, it affords these rights a lesser status than traditional water rights. Restrictive statutory and regulatory treatment of environmental transactions has hindered the transfer of existing rights to instream flow. Nonetheless, Idaho has succeeded in fostering the transfer of water to environmental uses through its system of water banks. These banks do not provide the full range of options that could be afforded by a developed instream transfer statute, but they appear to provide an effective, flexible way of reallocating water to instream uses on an annual or short-term basis.

The Idaho Minimum Stream Flow Act and the state's water banking system are the principal statutory means of protecting and enhancing environmental flows in Idaho, although the legislature can also directly appropriate water for the protection of environmental values.<sup>110</sup> The Minimum Stream Flow Act grants the Idaho Water Resource Board the authority to file for minimum stream flow rights on unappropriated waters.<sup>111</sup> However, these appropriations are junior to all existing rights and cannot legally prevent a stream from being dewatered by preexisting, senior water rights. Additionally, these new instream flow rights are limited to a minimum amount of water<sup>112</sup> and may be eliminated in the future if the minimum flow right is no longer considered to be in the public interest.<sup>113</sup> This kind of uncertainty is not seen in most private water rights.<sup>114</sup> To date, IWRB has established almost 300 minimum flow rights, although their significance is limited by their recent, junior status.

Idaho law provides no means outside of the water bank system for directly converting an existing water right to instream purposes while maintaining the original priority date, and only IWRB is able to receive an instream transfer.<sup>115</sup> As a result, transfers of existing water rights to instream flow in Idaho have consisted almost exclusively of short-term leases through the state water bank, or contractual forbearance-related arrangements and easement agreements with farmers that do not formally change ownership of the right.

Idaho's water banking system consists of a state water supply bank and six geographic-specific, local rental pools.<sup>116</sup> The state bank is managed by the Idaho Department of Water Resources (IDWR) on behalf of IWRB and serves as a centralized exchange for natural flow and storage rights throughout the state.<sup>117</sup> A water rights holder may lease any right to the bank and rent water rights from the bank for beneficial uses. Four of the local pools manage only storage water; one, the Lemhi Pool, is designed specifically for handling natural flow water rights;<sup>118</sup> and the sixth local pool, the Shoshone-Bannock Water Bank, manages reservoir rights.

These banks serve as clearinghouses for temporary changes in existing rights to other uses, including instream purposes,<sup>119</sup> but

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110 MacDonnell, *supra* note 1 at 354-55.

111 IDAHO CODE ANN. §§ 42-1501 *et seq.* (2014).

112 Telephone interview by Elizabeth Hook with Peter Anderson, Idaho Water Project, Trout Unlimited (April 3, 2014); Telephone interview by Elizabeth Hook with Sarah (Rupp) Lien, Trout Unlimited & Friends of the Teton River (Nov. 14, 2013). Minimum flows are useful for calling water if they're not being filled because they at least provide a place to send water on paper. However, enforcement of the minimum flows without calling them is generally lax. Lien.

113 Ruth Schellbach, *The Protection of Instream Flows in Idaho* 1, 16 (Feb. 1992) (unpublished M.A. thesis, Oregon State University).

114 *Id.*

115 IDAHO CODE ANN. §§ 42-1501, -222. The language of the water code is somewhat ambiguous and does not appear to explicitly prohibit the change of an existing consumptive right to an instream flow. Peter Anderson, attorney for Trout Unlimited's Idaho Water Project, said he was unsure if such an action was actually disallowed but said that he was not aware of any attempts to convert existing rights directly to instream flows. He thought that a change application for that purpose would likely be denied if submitted. This understanding is supported by a bill that the Idaho Legislature rejected in 1991/1992 that would have allowed a water right holder to assign or donate his right to IWRB who could then seek to hold the right for instream flow purposes. This legislation also failed to clarify whether conserved water could be transferred to instream use, but the presumption is that it cannot be. *See also* Boyd, *supra* note 7, at 1175 ("[I]t is possible that an individual could donate a water right to the WRB for application to a minimum flow. This strategy would require a creative interpretation of the law, and it is not certain that such a donation would result in a protectable instream right. Given that many right holders would balk at donating water to a state agency and that the creation of an instream right would be uncertain, significant donation of rights to the WRB for instream purposes is unlikely without a firm statement from the judiciary that those instream rights would be valid.").

116 IDAHO CODE ANN. §§ 42-1761, 1765; *see also* OVERVIEW OF THE IDAHO WATER SUPPLY BANK, *supra* note 116. The focus of the state bank has been natural flow rights; storage rights have been left to the rental pools. PEGGY CLIFFORD ET AL., WASH. DEP'T. OF ECOLOGY, ANALYSIS OF WATER BANKS IN THE WESTERN STATES 63-64 (2004), available at <https://fortress.wa.gov/ecy/publications/publications/0411011.pdf>.

117 *Id.*

118 *Id.*

119 MacDonnell, *supra* note 1.

there are limitations to the use of the banks for streamflow restorations. First, only IWRB or the Bureau of Reclamation can rent water from the state bank and pools for environmental purposes.<sup>120</sup> Second, the rights rented for these purposes can only be used to supply minimum flows where they have already been established by the State.<sup>121</sup> Third, these rentals can be only temporary. However, rentals that last fewer than five years are not subject to the formal, state change-of-use review process.<sup>122</sup> For that reason, IDWR now approves leases for, almost exclusively, fewer than five years,<sup>123</sup> although IDWR has expanded and converted some short-term transfers into longer-term arrangements.<sup>124</sup> In addition, although the default rules governing water banks do not authorize permanent transfers, IDWR has made two temporary rentals permanent through a special resolution. Water rights deposited in or rented from the banks are not subject to the state's forfeiture laws, and the water obtained through these rentals is legally protected.<sup>125</sup>

Between 2003 and 2013, IDWR has processed 75 instream flow transactions, protecting more than 746,000 acre-feet of water instream.<sup>126</sup> Of these transactions, thirty involved state approved changes in water rights to instream purposes, and were partial or full-season leases through the state water bank and Lemhi rental pool (27 through the state bank and 3 through the Lemhi pool) and protect the full consumptive use of the right by applying the water to a minimum flow right.<sup>127</sup> The remaining transactions did not involve a formal lease or other transfer of the water right. Twenty of the 75 transactions were agreements not to divert (and bypass agreements) or minimum flow agreements, 16 were source switches, and nine were conservation easement contracts.<sup>128</sup> Source switches tend to have 20-year terms because they rely on permanent changes in the points of diversion.<sup>129</sup> Conservation easements are permanent. The durations of leases, rentals, and minimum flow agreements vary but tend to be temporary and short-term in nature.<sup>130</sup>

Based on data for 26<sup>131</sup> environmental transactions in the state supply bank, the average processing time from when the application was submitted to the bank to when it was approved by IDWR was 3.8 months.<sup>132</sup> Transactions processed through the Lemhi rental pool had an average processing time of 2.5 months, but this is based on only two<sup>133</sup> transactions.<sup>134</sup> The injury analysis is probably the most time-intensive element of IDWR's review and approval process,<sup>135</sup> but efforts made before submittal to IDWR to gather information and prepare the groundwork for the analysis can smooth and hasten a transaction.

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120 "The Idaho Legislature amended the banking statutes in 1992 to provide temporary and limited authority to the BOR to lease water from the rental pools or state water bank for flow augmentation in the lower Snake River Basin." CLIFFORD ET AL., *supra* note 117, at 62.

121 James Capurso, *Achieving Instream Flows in Idaho: Case Studies and Recommendations* 13, 15 (Nov. 2011) (unpublished Ph.D. dissertation, University of Idaho), *available at* [http://www.kysq.org/docs/Capurso\\_InstreamFlows.pdf](http://www.kysq.org/docs/Capurso_InstreamFlows.pdf).

122 IDAHO CODE ANN. § 42-1764(1).

123 Telephone interview by Elizabeth Hook with Morgan Case, Biologist, Idaho Dep't. Water Res. (Nov. 8, 2013).

124 *See, e.g.*, IDAHO WATER RES. BD., IDAHO WATER TRANSACTIONS PROGRAM, *available at* <http://www.idwr.idaho.gov/waterboard/WaterPlanning/Water%20Transaction%20Program/PDFs/WaterTransactionProgram.pdf>. IWRB rented water through the state bank for a minimum stream flow from water rights holders on the Salmon River (at the confluence with Fourth of July Creek). The water rights holders refrained from diverting and 2.9 cfs were kept instream. The transaction started as a series of annual leases but turned into a twenty-year lease in 2009. The lease also includes an option for IWRB to apply the lease payments toward buying the water rights permanently. *See Case, supra* note 123.

125 MacDonnell, *supra* note 1; IDAHO CODE ANN. § 42-1764.

126 IDWR data provided by Morgan Case. Email from Morgan Case, Biologist, Idaho Dep't. Water Res. to Elizabeth Hook, Student, Stanford University (Nov. 13, 2013, May 2, 2014) (on file with author).

127 *Id.*

128 *Id.*

129 Email from Morgan Case, Biologist, IDWR, to Elizabeth Hook, student, Stanford University (May 1, 2014) (on file with author).

130 *Id.* But, for example, on February 12, 2015, IDWR released public notice of an application by IWRB to lease 5.15 cfs from the Water Supply Bank from January 1, 2015 through December 31, 2034 to meet a minimum flow on the Salmon River. *See* IDWR, Notice of Proposed Rental from the Water Supply Bank, *available at* [http://www.idwr.idaho.gov/files/water\\_supply\\_bank/20150212\\_Notice\\_of\\_Proposed\\_Rental\\_from\\_the\\_WSB.pdf](http://www.idwr.idaho.gov/files/water_supply_bank/20150212_Notice_of_Proposed_Rental_from_the_WSB.pdf).

131 Data on processing time was only available for 26 of the 27 transactions.

132 Email from Case, *supra* note 126.

133 Data on processing time was only available for two of the three transactions.

134 Email from Case, *supra* note 126.

135 Case, *supra* note 123.

## Environmental flow leases processed by IDWR (2003-2013)

Year	Name	Type	Duration (years)	Volume (cfs)	State Process	Approval Process Duration
2003	Big Hat Reconnect	Full Season Lease	1	0.52	Water Supply Bank	Incomplete record
2003	Otter Creek	Lease/Rental	1	4	Water Supply Bank	1.5 months
2004	Big Hat Creek Stream Flow Reconnect	Lease/Rental	1	0.52	Water Supply Bank	3.5 months
2004	Fourth of July Phase II Stream Flow Reconnect	Lease/Rental	2	2.97	Water Supply Bank	4 months
2004	Beaver Creek-Salmon River above Alturas Lake Creek	Lease/Rental	1	9.45	Water Supply Bank	1.5 months
2004	Kenney Creek Ranch and Land LLC Partial Year Lease	Partial Season Lease	1	3.72	Water Supply Bank	1.5 months
2005	Big Hat Creek	Lease	2	0.52	Water Supply Bank	3 months
2005	Kenney Creek Ranch and Land LLC Partial Year Lease	Partial Season Lease	1	3.72	Water Supply Bank	4.5 months
2005	Beaver Creek and Salmon River above Alturas Lake Creek	Lease/Rental	10	9.38	Water Supply Bank	1.0 months
2005	Lower Eighteenmile Creek	Lease/Rental	1	0.51	Water Supply Bank	3 months
2005	Lemhi Near Baker	Lease/Rental	1	3.36	Lemhi Rental Pool	2 months
2005	Lemhi Late Season Instream Flow	Lease/Rental	1	24.5	Lemhi Rental Pool	Incomplete Record
2006	Lower Eighteenmile – Ellsworth	Partial Season Lease	10	0.52	Water Supply Bank	5.5 months
2006	Alturas Lake Creek	Lease/Rental	1	8.52	Water Supply Bank	1 month
2006	Lower Eighteenmile – Kruckeberg	Partial Season Lease	1	1.8	Water Supply Bank	2 weeks
2006	Big Hat Creek	Lease/Rental	2	0.52	Water Supply Bank	1 month
2006	Fourth of July – 2006	Lease/Rental	2	2.97	Water Supply Bank	3 months
2007	Alturas Lake Creek – Pivot	Lease/Rental	1	5.86	Water Supply Bank	6 months
2007	Alturas Lake Creek – Non-Pivot	Lease/Rental	5	2.66	Water Supply Bank	6 months
2008	Fourth of July 2008	Lease/Rental	1	2.97	Water Supply Bank	6.5 months
2008	Big Hat 2008	Lease/Rental	1	0.52	Water Supply Bank	0.5 months
2009	Fourth of July 2009	Lease/Rental	20	2.97	Water Supply Bank	5 months
2009	Big Hat Creek	Lease/Rental	1	0.83	Water Supply Bank	2 months



Year	Name	Type	Duration (years)	Volume (cfs)	State Process	Approval Process Duration
2010	Big Hat 2010	Lease/Rental	5	1.23	Water Supply Bank	3.5 months
2011	TNC Donation	Lease	Permanent	0.3	Lemhi Rental Pool	3 months
2012	Sulphur Creek Donation	Permanent Lease/Rental	Permanent	1.07	Water Supply Bank	1.5 months
2013	Spring Creek – RE Beard	Lease	5	0.17	Water Supply Bank	8 months
2013	Spring Creek – L Beard	Lease	5	0.11	Water Supply Bank	8 months
2013	Spring Creek – City of Tetonia (Donation)	Lease	5	1.5	Water Supply Bank	8 months
2013	Spring Creek – Smaellie (Donation)	Lease	5	0.07	Water Supply Bank	8 months

Although Idaho's state water bank and local rental pools have functioned well to reallocate water within the state, they disfavor environmental transactions in some respects. As mentioned above, water rented for environmental purposes can be used only for streams where the state has already designated minimum flow targets. The lack of minimum flow points for delivery of instream flows has been the primary limitation in extending the success of instream flow work to other parts of the state, outside the Lemhi basin, for example. Because new instream flow targets must be approved by the Idaho legislature, through a slow process with uncertain outcomes, the geographic specificity of water rentals for environmental flows is a significant hurdle to instream work in many parts of the state.

Additionally, the rental pools generally operate under a last-to-fill rule and favor in-basin agricultural water use,<sup>136</sup> which creates a risk for water rights holders who wish to lease to IWRB for instream flows. Last-to-fill rules provide that stored water used for downstream uses, such as flow augmentation, will be the last storage space to be refilled the following year. This can affect the future water supply of a contributing user for multiple years if, for instance, a drought persists. Last-to-fill and in-basin irrigation prioritization rules can impact the dependability of using rental pool water for flow restoration, and disincentivize water users from leasing stored water to be used for environmental purposes.

Furthermore, although prices in the bank and rental pools are generally stable and fairly low, the rates for renting from the Lemhi pool, which specifically permits instream flow dedication of surface rights, are dramatically higher than those of the other pools.<sup>137</sup> Finally, the banking system does not generally work smoothly for reallocating large quantities of water, or for streams with many tributaries.<sup>138</sup> Nonetheless, water banking will likely continue to play a central role in transferring existing rights to instream purposes in Idaho.<sup>139</sup> Some small changes to the bank, such as changing the last-to-fill rules and expanding the purpose of more local pools, could increase the frequency and effectiveness of instream flow transactions in Idaho. More significant changes, to address the geographic limitations of where instream flows can be applied, would more meaningfully expand instream transactions in the state.

136 HENRYS FORK BASIN STUDY PRELIMINARY WATER MARKET ANALYSIS, TECHNICAL REPORT PREPARED FOR IWRB (Nov. 2012), available at <http://www.usbr.gov/pn/programs/studies/idaho/henrysfork/techrept/interim/appd.pdf>.

137 Capurso, *supra* note 121 at 13, 26 (“As a protective measure against out pricing themselves and attracting legal challenges, water bank managers have stabilized water bank prices. Even during drought, when water is in highest demand, prices in water banks remain stable.”).

138 Lien, *supra* note 112.

139 OVERVIEW OF THE IDAHO WATER SUPPLY BANK, *supra* note 116.

Conservation organizations have done what they can to conserve water instream within Idaho's limited statutory provisions, but they also pursue contractual arrangements and strategies outside of the formal regime. These include forbearance agreements, shepherding arrangements, bypass agreements, and permanent conservation easements to keep water in or restore water to streams. Relatively smooth, short-term deposits and rentals from the water banks can facilitate forbearance agreements. Non-diversion agreements carry the risk of forfeiture under Idaho's statutory five-year non-use period,<sup>140</sup> yet the state appears to have a fairly weak forfeiture standard with little oversight or investigation, and numerous possible defenses.<sup>141</sup>

## Montana

Montana has 8 of the 10 elements identified in the instream transfer metric, as follows:

- Express statutory recognition of wildlife, fish, and recreation as beneficial uses.
- Legality of transfers of existing diversionary water rights to instream uses recognized.
- That recognition is by statute.
- Law does not significantly limit environmental transfers, substantively or geographically.
- Private parties and individuals may unilaterally convert a water right to instream flow use or may lease a water right for instream flow purposes without losing the water right's priority date.
- Permanent conversions of diversionary rights to instream or other environmental uses are allowed.
- State law explicitly recognizes short-term transactions and provides some form of expedited review for their approval.
- Salvaged water may be leased for a beneficial use, including instream flow.

Missing elements:

- Law does not explicitly allow "stacking" of rights.
- No formal forfeiture or abandonment protection for forbearance agreements.

Montana's statutory framework provides a strong foundation for implementing instream flow transactions. Montana is a leader among western states for allowing private parties to lease water rights for instream flow purposes and for permitting private water rights holders to convert a consumptive right to instream use, while maintaining ownership of the right. Because of this robust legal foundation, private individuals and entities,<sup>142</sup> like Trout Unlimited and the Clark Fork Coalition,<sup>143</sup> and the state, through the Department of Fish Wildlife and Parks,<sup>144</sup> are able to implement innovative transactions that enhance instream flows. The Clark Fork Coalition currently manages 18 instream flow rights, TU manages 21, and DFWP manages 11. Despite Montana's favorable legal

140 IDAHO CODE ANN. § 42-222(2).

141 *See id.* § 42-223 ("No portion of any water right shall be lost or forfeited for nonuse if the nonuse results from a water conservation practice, which maintains the full beneficial use authorized by the water right."); *see generally* Peter R. Anderson & Aaron J. Kraft, *Why Does Idaho's Water Law Regime Provide for Forfeiture of Water Rights*, 48 IDAHO L. REV. 419 (2012).

142 MONT. CODE ANN. § 85-2-408(2)(b) (2013) (the "private leasing" statute defines "person" as "an individual, association, partnership, or corporation").

143 Referred to in many sources as the former Montana Water Trust.

144 MONT. CODE ANN. § 85-2-436.

framework, several issues hinder the instream flow transaction process in the state. Most notable are procedural inefficiencies and unclear policies regarding the burden of proof to meet the “no injury” requirement of the transfer approval process.<sup>145</sup> The Department of Natural Resources and Conservation (DNRC), the agency that must review and approve all transactions for instream flow, places a significant burden on applicants to demonstrate the lack of potential adverse effects on other water rights holders, and to prove historic consumptive use.<sup>146</sup> These requirements increase transaction costs and uncertainty associated with environmental water leases.

A Montana statute authorizes temporary and permanent changes to a consumptive-use water right for instream flow purposes, on the condition that the instream flow is necessary to benefit fisheries.<sup>147</sup> Changes of use are accomplished via conversion, lease, or donation. Conversions, which may be temporary or permanent, involve a change in the use of the right without a change in ownership; donations transfer ownership of the right, and leases temporarily transfer the right, although the water right holder retains full title to the leased right and the right reverts to the owner when the lease is terminated. Private entities and individuals may hold and manage temporary instream flow leases and conversions, but only DFWP may receive donations and hold permanent conversions.<sup>148</sup> Temporary conversions are authorized for time periods up to 10 years, unless the transaction involves water that was freed by upgrades in water efficiency, in which case conversions may be granted for periods up to 30 years.<sup>149</sup> Unlimited renewal options are available in either case.<sup>150</sup> DFWP rarely seeks permanent conversions, and has not completed a single permanent conversion to date.<sup>151</sup> Private entities like TU can facilitate permanent conversions by purchasing temporary water rights and then donating them to DFWP, which can then pursue a permanent conversion.

From 1995 to 2005, DNRC approved only 20 environmental change of use applications, including leases and conversions.<sup>152</sup> Since 2005, however, the pace of these applications has increased, and we identified 50 active environmental transfers in the state. Not counting renewals, TU has facilitated 21 transfers of use to instream purposes, the Clark Fork Coalition has facilitated 18 such transfers, and the state has acquired 11 leases and is processing one permanent conversion as of April 2014.<sup>153</sup> By 2010, the state held 106 instream rights from new appropriations and had reservations on 372 stream reaches.<sup>154</sup>

We were able to acquire data on approval processing time only from the 21 transactions facilitated by TU. Of the 18 leases TU facilitated, with durations ranging from 10 to 30 years, the review time varied from six months to 35 months, with an average approval time of 14.3 months.<sup>155</sup> With respect to the conversions TU facilitated, a 15-year conversion required 4 months for approval, a 30-year conversion required 16 months, and a right that TU donated to the state for permanent conversion is still pending review. The application preparation time for these transactions includes gathering baseline data and historic use

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145 Telephone interview by Kori Lorick with Laura Ziemer, Senior Counsel, Trout Unlimited (Feb. 2014); Telephone interview by Kori Lorick with Barbara Chillcott, Legal Dir., Clark Fork Coalition (Feb. 27, 2014).

146 *Id.*; MONT. CODE ANN. § 85-2-408.

147 *Id.* § 85-2-408(3).

148 *Id.* §§ 85-2-407, -408, -436.

149 *Id.* §§ 85-2-407(2), (3), (9).

150 *Id.* §§ 85-2-407(2), (3).

151 See Laura Ziemer and Scott Yates, Trout Unlimited, *The Good, The Bad, and The Ugly: Obstacles and Opportunities in State Water Right Change Process* (January 2014) (PowerPoint presentation), available at [http://waterinthewest.stanford.edu/sites/default/files/5.%20Montana,%20Idaho,%20Wyoming\\_Ziemer\\_Yates.pdf](http://waterinthewest.stanford.edu/sites/default/files/5.%20Montana,%20Idaho,%20Wyoming_Ziemer_Yates.pdf).

152 Laura Ziemer et al., *supra* note 6. See BRANDON SCARBOROUGH, ENVIRONMENTAL WATER MARKETS: RESTORING STREAMS THROUGH TRADE 20 (PERC 2010). Scarborough suggests 229 instream flow transactions occurred between 1987-2007. These would likely be a combination of state reservations, state and federal agency transactions, as well as conversions and leases.

153 Data from Laura Ziemer and Stan Bradshaw, Trout Unlimited.

154 Response Brief of Trout Unlimited in Support of Petition for Declaratory Ruling, to the DNRC, at 2, available at [http://dnrc.mt.gov/wrd/declaratory\\_ruling/response\\_trout\\_unlimited.pdf](http://dnrc.mt.gov/wrd/declaratory_ruling/response_trout_unlimited.pdf).

155 Email from Stan Bradshaw, Mont. Water Project, Trout Unlimited to Elizabeth Hook, Student, Stanford University (Nov. 21, 2014) (on file with author).

documentation. The staff time needed for this has ranged from 100 to 200 hours, depending on the complexity of the application, and it has occasionally run longer.<sup>156</sup>

Despite impressive recent history, the change of use approval process in Montana poses challenges to efficiently conducting instream flow transactions. Lack of clarity about the process and high transaction costs impede an otherwise robust system. On average, DNRC approval takes one-and-a-half to two years from the time a change of use application is filed, though it may take much longer.<sup>157</sup> If other parties file objections during the approval process, this can slow the process further. But objections do not tend to be a source of delay.<sup>158</sup>

Recently, the burden of approving transfers has created uncertainty for conservation groups and water rights owners. Montana's statute requires a demonstration by a preponderance of the evidence that a change in use will not cause injury to another water user.<sup>159</sup> This must include evidence to demonstrate the historic consumption of water under their right. DNRC also requires a showing of no-injury across the entire river basin, not just with regard to water rights in the vicinity of the water right being considered for a change in purpose.<sup>160</sup> The actual amount of evidence required to satisfy this requirement is not clear, and some participants believe in practice DNRC has set the standard higher than the statute requires.<sup>161</sup> The administrative rules also lack detailed guidance for what types of dates, studies, and other information the DNRC should consider in making a determination about adverse effects. What's more, DNRC's close scrutiny burdens applicants with producing hard-to-find evidence about historic water use. The change in use process for temporary and permanent applications must conform to the same administrative rules,<sup>162</sup> but these rules do not clarify a standard of review by which the DNRC should consider these applications.

Montana's instream flow regime is strong. But it could be improved by a more efficient transaction approval process; increased permanency and flexibility offered through statutory protections; and clarification of DNRC's standards and guidelines for the approval process.

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156 *Id.*

157 Ziemer, *supra* note 145.

158 *Id.*

159 MONT. CODE ANN. §§ 85-2-408(3).

160 In effect, this means that DNRC is not allowing any change in the return-flow regime regardless of whether another water right is injured or harmed as a result. Ironically, this is due to the presence of the state-held, junior instream flow reservations, which could be "harmed" by the change in the return-flow regime due to decreasing the amount of flow in the river or stream from return flows as a result of changing from irrigation to instream purpose. DNRC, for example, is denying a change to an instream purpose to re-water a dewatered tributary due to the decrease in return flows in the mainstem river after the irrigation season.

161 Telephone Interview by Kori Lorick with Laura Ziemer, Senior Counsel, Trout Unlimited (April 2014).

162 MONT. ADMIN. R. 36.12.1901(2) (2014). Additional statutory guidance exists for instream flow change in use applications. Per ADMIN. R. 36.12.1901(3), applicants must conform to MONT. CODE ANN. §§ 85-2-407 and 85-2-408, or 85-2-436.

## Nevada

Nevada has 5 of the 10 elements identified in the instream transfer assessment rubric, as follows:

- Wildlife, fish, and recreation recognized as beneficial uses.
- Legality of transfers of existing diversionary rights to instream uses recognized by State Supreme Court opinion.
- Private parties and individuals may convert a water right to instream flow use or may lease a water right for instream flow purposes without losing the water right's priority date.
- Permanent transfers of diversionary rights to instream or other environmental uses are allowed.
- State law explicitly recognizes short-term transactions and provides some form of expedited review for their approval (but only for transactions of one year or less in duration).

Missing elements:

- No express statutory recognition of transfers of existing rights to instream uses.
- Absence of clear rules for the approval of and limitations on transfers based on existing court decrees.
- Stacking of rights not available.
- No formal forfeiture or abandonment protection for forbearance agreements.
- No protection of water under a conserved or salvaged water use statute.

Nevada lacks an explicit statutory scheme recognizing instream transfers.<sup>163</sup> Nevada's instream transfer law is largely founded on a 1988 Nevada Supreme Court case confirming the Nevada legislature's statutory recognition of instream flow for wildlife purposes, including the use of water for fisheries and their related habitats, as a valid beneficial use. The court also held that physical diversion was not required to perfect a water right.<sup>164</sup> These rulings create the foundation for both new appropriations and transfers of existing rights for wildlife habitat. In either case, the water right may be held by a state or private entity. There have been a total of 57 transfers of existing rights to instream flow in Nevada.<sup>165</sup>

Nevada does have a specific statute for temporary, one- year instream changes or leases for wildlife use,<sup>166</sup> and typically relies on the procedures in the general transfer statute for longer term or permanent environmental transfers. The Nevada State Engineer is charged with approving water use change applications in Nevada.<sup>167</sup> To transfer or change an existing right, a water right holder must apply to the State Engineer for a permit to change the place of use, manner of use, or point of diversion.<sup>168</sup> The review criteria employed by the State Engineer are relatively simple: (1) the water must be available; (2) the requested right cannot conflict with other existing rights; and (3) the requested beneficial use cannot threaten a public interest.<sup>169</sup>

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163 NEV. REV. STAT. § 533.023 (2014).

164 *State v. Morros*, 766 P.2d 263,266, 268 (Nev. 1988).

165 Data provided by Jamie Morin, Mentor Law Group, and based on a review of State Engineer Orders and Permits from [water.nevada.gov](http://water.nevada.gov).

166 NEV. REV. STAT. § 533.024.

167 *Id.* § 533.325 (application for permit to change place of diversion, manner of use or place of use of water already appropriated must be submitted to State Engineer).

168 *Id.* §§ 533.370(5); 533.325 (to appropriate public waters or change place of diversion, manner of use or place of use of appropriated waters, a person must first "apply to the State Engineer for a permit to do so").

169 *Id.* § 533.370(3).



The processes for temporary and permanent transfers are largely the same.<sup>170</sup> After an application for a temporary transfer is filed and the State Engineer has investigated and found that the transfer will not impair other rights or any public interests, notice is filed and a comment and protest period are opened. A hearing may be held at the discretion of the State Engineer.<sup>171</sup> The State Engineer may also determine that there is no need for notice and comment if the application satisfies the initial review.<sup>172</sup> Notice and comment are required for permanent and long-term transfers.<sup>173</sup>

Many of the surface water rights in Nevada are subject to federal court adjudication decrees arising from litigation involving Nevada, California, federal agencies, and tribes.<sup>174</sup> Those decrees may provide additional hurdles for the transfer of existing rights. Where the surface water rights are subject to a federal court decree, state substantive law and procedure still govern the review and approval of any transfer,<sup>175</sup> but an additional procedural step may require the federal court with jurisdiction to review the state agency decision, to ensure it conforms to administration of the decree.<sup>176</sup> The Orr Ditch Decree, which resolved a dispute over water in the Truckee basin, for example, restricts transfers for non-irrigation purposes to the consumptive use. In addition, it limits delivery of water for non-irrigation purposes in any single month to no more than 25 percent of the annual available total. The Walker River Decree requires that state-approved changes be reviewed by the court and integrated with the decree before they become effective. Although the Walker River Decree does not have the express consumptive use limitation of the Orr Decree, it refers to the use of return flows to satisfy other decree rights.

Given the lack of a robust statute, and the added layer of complexity associated with basin adjudications, Nevada has seen a comparatively large number of instream flow transactions. Issues associated with delays and protests have tended to be basin-specific. Transfer activity in the state has occurred largely in the Truckee basin, as a result of the Truckee River Settlement among the Pyramid Lake Paiute tribe, the State of Nevada, and various federal agencies and local governments.<sup>177</sup> There have been 41 transfers of existing rights for “wildlife purposes” in the Truckee River basin, two in the Walker River basin, and 14 in other areas.<sup>178</sup> Of the transfers in the Truckee basin, 17 were temporary and 24 were permanent. On the Walker, one was permanent and one was temporary. The transfers in other areas have all been permanent.<sup>179</sup>

The review and approval processes can be relatively quick for temporary transfers if the State Engineer determines neither a notice and comment period nor a hearing are necessary.<sup>180</sup> The process can take several months, however, if the state engineer deems a notice and a comment period necessary, limiting the value of these short-term transfers.<sup>181</sup> As noted, most transfers of private rights to instream purposes occurred as part of the Truckee River Settlement. Several of these transfers have been protested.<sup>182</sup> The protests have involved concerns over, among other things, how much water can be transferred instream and what stretch of river can be protected. In the Walker Basin, the application for the first permanent transfer was filed in 2011, and the State Engineer approved the change of use application in March 2014. In May 2015, the Federal District Court ruled on the motion from

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170 Boyd, *supra* note 7, at 1200.

171 NEV. REV. STAT. § 533.345.

172 NEV. REV. STAT. § 533.345(2)-(3); Boyd, *supra* note 7, at 1200.

173 NEV. REV. STAT. § 533.360(1).

174 See *United States v. Orr Water Ditch Co.*, In Equity Docket A-4 (D. Nev. 1944); *United States v. Walker River Irrigation District et al.*, C-125 (D. Nev. 1940); *United States v. Alpine Land and Reservoir Co.*, Equity No. 0-183 (D. Nev. 1980).

175 *United States v. Orr Water Ditch Co.* (Orr Ditch III), 391 F.3d 1077 (9th Cir. 2004).

176 Information provided by Jamie Morin, Mentor Law Group (Jan. 26, 2015).

177 Boyd, *supra* note 7, at 1200-01.

178 Data provided by Jamie Morin, Mentor Law Group, and based on a review of State Engineer Orders and Permits from [water.nevada.gov](http://water.nevada.gov).

179 *Id.*

180 Boyd, *supra* note 7, at 1200.

181 *Id.*

182 *Id.* at 1201.

the applicant to integrate the State's change approval with the Walker River Decree for administration. The Court ruled to allow the change, but remanded the matter back to the state with specific direction on quantification. The State Engineer, the applicant, and others have filed notices of appeal with the 9th Circuit. Once the court process is complete, this transaction could serve as a model for additional transfers in the basin.

Nevada holds promise for environmental water transactions because of the state's relatively simple legal framework, which permits any private party to apply to transfer existing water rights to instream flow.<sup>183</sup> Because the process for reviewing instream flow transfer applications is the same as for change of use applications for other purposes, uncertainty over the administrative process may be less of a concern in Nevada than in some other western states.<sup>184</sup>

The lack of specific statutory requirements for instream flow transactions, however, has left practitioners unsure how basic issues associated with transfers will be addressed. These issues include the amount of water that can be transferred, and the stretch of river that can be protected by the transfer.<sup>185</sup> Additionally, many concerns and issues are basin-specific. As basins may be geographically and politically isolated from one another,<sup>186</sup> the lessons learned in one basin may not be readily applicable to other basins. With the basin-centric nature of issues in the state, practitioners' understanding of the ease of environmental transactions in Nevada is still developing.

## New Mexico

New Mexico law includes 5 of the 10 elements of the instream metric, as follows:

- Recreation, fish, wildlife, and other ecological purposes recognized as beneficial uses in Attorney General opinion.
- Legality of transfers of existing water rights to instream uses recognized by Attorney General.
- Availability of permanent instream flow transfers.
- Express legal protection of conserved use under the Water Conservation Program.
- Mechanism for registering informal forbearance deals and protecting rights from forfeiture.

Missing elements:

- No express statutory recognition of transfers of existing rights to instream uses.
- No expedited review for short-term environmental water transactions, except for emergency transactions.
- Limited geographic scope of instream flow rights: distinguish native and San Juan-Chama waters.
- Stacking of rights not available.
- It is unknown whether private parties can acquire instream flow water rights by transfer without losing the water right's priority date.

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183 *Id.* at 1199.

184 Telephone interview by Elizabeth Hook with Jamie Morin, Mentor Law Group (Feb. 9, 2015).

185 Boyd, *supra* note 7, at 1201.

186 *Id.*

New Mexico law does not create a favorable framework for instream flow transfers, and most environmental water transactions in the state are driven by the federal Endangered Species Act, rather than state policy.<sup>187</sup> To date, the State Engineer in New Mexico has approved only one true instream flow water rights transfer for environmental purposes.<sup>188</sup> However, other transactions and leases as well as programs dedicated to protecting fish and wildlife signal increasing interest in instream flow restoration. Future expansion of these efforts is expected as the state develops more experience with environmental water transactions and flow restoration.

Although New Mexico statutes do not expressly recognize instream flow rights, an opinion issued by the state Attorney General in 1998 recognized these rights and the ability to transfer water rights to these uses.<sup>189</sup> The State Engineer has concurred and stated that it would approve instream flow transfer applications that meet certain requirements.<sup>190</sup> Since the Attorney General's opinion and complementary State Engineer memorandum, the State Engineer and the Interstate Stream Commission have granted limited flow rights for species protection and compact deliveries. Practitioners within the state are looking for a test case to determine the availability of water rights leases and transfers for flow restoration, including determining whether private entities may lease or hold native water rights for instream flow, or whether this is purely a state function.<sup>191</sup> The State Engineer's single formal approval of an instream water rights transfer was in connection with the Vaughan Conservation Pipeline on the Pecos River and had the explicit purpose of protecting wildlife and habitat. In that case, the ISC purchased water rights from a farmer and submitted an emergency application to the State Engineer. The permit was approved, and although it has been going through the protest process since then, the water has already been transferred to the river.<sup>192</sup>

Despite the lack of statutory recognition of environmental water transfers, New Mexico has several active programs to ensure instream flow for the protection of endangered fish species. These programs are administered by various government agencies, and for the most part involve the leasing and reallocation of water on an annual basis, and not the transfer or change in the beneficial use of water rights themselves. These programs include the Strategic Water Reserve, which was established by the legislature in 2005 to purchase or lease water to benefit listed and sensitive species, and the River Stewardship Program (formerly known as the River Ecosystem Restoration Initiative), which grants funds to irrigation districts, water conservation districts, municipalities, watershed groups, and non-profits for river restoration projects.<sup>193</sup>

There have been a limited number of environmental water transactions under these programs, and each of these programs suffers from limitations that hinder effectiveness. These limitations include leaving water rights holders vulnerable to forfeiture, or not providing the same protection as a lease, dedication, or transfer approved as a change of a water right.<sup>194</sup> Established in 2005, the ISC may purchase or lease water and place it into the Strategic Water Reserve for use to benefit "threatened or endangered species or in a program intended to avoid additional listing of species."<sup>195</sup> The ISC may sell rights from the Reserve only if they are no longer

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187 New Mexico's water laws and policies operate differently on its two categories of water—San Juan-Chama and native water. Although some flow protections for endangered species also apply to San Juan-Chama waters, the transactions discussed here primarily concern the native water that falls under the jurisdiction of the State Engineer.

188 Telephone interview by Julia Forgie with Beth Bardwell, Dir. of Freshwater Conservation, Audubon New Mexico (Oct. 31, 2013); telephone interview by Julia Forgie with Josh Mann, U.S. Bureau of Reclamation, Interstate Stream Commission (Jan. 8, 2014).

189 98-01 Op. N.M. Att'y. Gen. (1998); *see also* WESTERN GOVERNORS' ASS'N, WATER TRANSFERS IN THE WEST: PROJECTS, TRENDS, AND LEADING PRACTICES IN VOLUNTARY WATER TRADING (Dec. 2012).

190 *Id.*; Memorandum from Legal Services Div. of Office of the State Eng'r to Tom Turney, State Eng'r (January 8, 1998).

191 Bardwell, *supra* note 188.

192 *Id.*

193 Beth Bardwell, *Water for New Mexico Rivers*, 15 WATER MATTERS! 1 (2010); N.M. STAT. ANN. 1978 § 72-14-3.3(B) (2005).

194 Bardwell, *supra* note 188.

195 Bardwell (2010), *supra* note 193; N.M. STAT. ANN. 1978 § 72-14-3.3(B) (2005).

necessary for conservation.<sup>196</sup> Proceeds from these sales go to the State Engineer to adjudicate water rights.<sup>197</sup> All acquisitions must be approved by the State Engineer and follow the State Engineer's transfer provisions.<sup>198</sup> The program demonstrates legislative recognition of instream flow as a beneficial use, but suffers from a limited scope and uncertain funding, requires significant administrative effort, and functions only on prioritized river basins.<sup>199</sup> Since 2008, the ISC has used the Strategic Water Reserve a handful of times on the Pecos, Middle Rio Grande, and Canadian River Basins.<sup>200</sup>

Another tool, the state's Water Conservation Program, is of particular note, because it is a tool unique to New Mexico, and now Colorado.<sup>201</sup> The state's code authorizes rights holders to enroll in a State Engineer-approved water conservation plan and fallow acreage or otherwise reduce their irrigation to leave their water in the stream without risk of forfeiture.<sup>202</sup> This tool provides assurances for participants in forbearance agreements and other informal, temporary arrangements that their rights will not be diminished or forfeited. There have been three successful environmental water conservation programs created that temporarily retire rights while protecting them from forfeiture. The State Engineer recently authorized a new program on the Mimbres River to restore flows for the federally listed Chihuahu chub.<sup>203</sup> This program's effectiveness will be worth following in coming years because it could prove useful in other states as well.

Overall, New Mexico has had limited experience with transfers or changes in water rights for environmental purposes. Most of the flow enhancement transactions that have occurred in the state thus far have involved short-term reallocations of water rather than formal changes to water rights. Formal environmental water rights transfers present greater challenges than in states with clearer statutes. State responsibility for instream flows is spread among many agencies, which creates challenges of coordination and communication, and the lack of staff dedicated to making progress on these issues contributes to the state's inaction.<sup>204</sup> Nevertheless, the immediate future holds promise for progress. Conservation groups in the state are looking for a solid test case of the Attorney General and State Engineer's authorization for private transfers of native water rights to instream flows. The legislature recently considered express statutory recognition of environmental water leases, and efforts are underway to expedite review of short-term transactions.

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196 § 72-14-3.3(E).

197 See WESTERN GOVERNORS' ASS'N., *supra* note 189; N.M. STAT. ANN. 1978 § 72-14-3.3 (2005).

198 N.M. ADMIN. CODE § 19.25.14.

199 Bardwell, *supra* note 188.

200 *Id.*

201 See note 106 and accompanying text (noting Colorado's recent adoption of a similar program).

202 N.M. STAT. ANN. 1978 § 72-5-28(G).

203 Bardwell, *supra* note 188.

204 Bardwell (2010), *supra* note 193.

## Oregon

Oregon has 7 of the 10 elements identified in the instream transfer metric, as follows:

- Express statutory recognition of wildlife, fish, and recreation as beneficial uses.
- Legality of transfers of existing diversionary water rights to instream uses recognized.
- That recognition is by statute.
- Law does not significantly limit environmental transfers, substantively or geographically.
- Permanent transfers of diversionary rights to instream or other environmental uses are allowed.
- State law explicitly recognizes short-term transactions and provides some form of expedited review for their approval.
- Conserved Water Program allows conserved water to be allocated to instream flow.

Missing elements:

- Private parties cannot acquire instream flow water rights.
- Law does not allow “stacking” of rights.
- No formal mechanism to protect forbearance agreements from risk of forfeiture.

Oregon has one of the most comprehensive and advanced water rights transaction schemes in the West and is a leader in instream flow restoration and protection. The State has approved almost 2000 individual instream leases and transfers involving existing diversionary rights and allocations of conserved water. Oregon has also converted over 500 minimum flows established between 1955 and 1987 to instream flow rights, as well as appropriated new instream rights.<sup>205</sup>

Oregon law explicitly recognizes instream water rights and provides that they hold the same legal protection as diversionary rights.<sup>206</sup> The Oregon Water Resources Department holds instream flow rights in trust for public uses including recreation, pollution abatement, and maintenance and enhancement of fish and wildlife habitat.<sup>207</sup> Despite not authorizing private ownership of instream rights, Oregon law offers numerous mechanisms for private entities to protect instream flows and support creative transactions.

In addition to authorizing the creation of instream rights through new appropriations and conversions of minimum flows, Oregon statute explicitly allows existing consumptive or diversionary rights to be converted to instream flow rights. These instream rights maintain the priority date of the original right and are thus enforceable senior rights dedicated to environmental purposes. Existing rights may be converted to instream flow through permanent transfers, time-limited transfers known as a long-term leases, short-term leases, allocations of conserved water to instream use, and transfers of supplemental groundwater rights to primary rights.<sup>208</sup> OWRD must approve any of these changes to a water right, and as with any other water right change, the law prohibits an instream

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205 See SASHA CHARNEY, COLO. WATER CONSERVATION BD., *DECADES DOWN THE ROAD: AN ANALYSIS OF INSTREAM FLOW PROGRAMS IN COLORADO AND THE WESTERN UNITED STATES* 111 (2005), available at <http://cwcb.state.co.us/public-information/publications/documents/reportsstudies/isfcompstudyfinalrpt.pdf>; OR. REV. STAT. §§ 536.310(7), 537.346.

206 Boyd, *supra* note 7, at 1180; OR. REV. STAT. § 537.350.

207 Boyd, *supra* note 7, at 1181; OR. REV. STAT. § 537.332(3); OR. ADMIN. R. 690-077-0010(14).

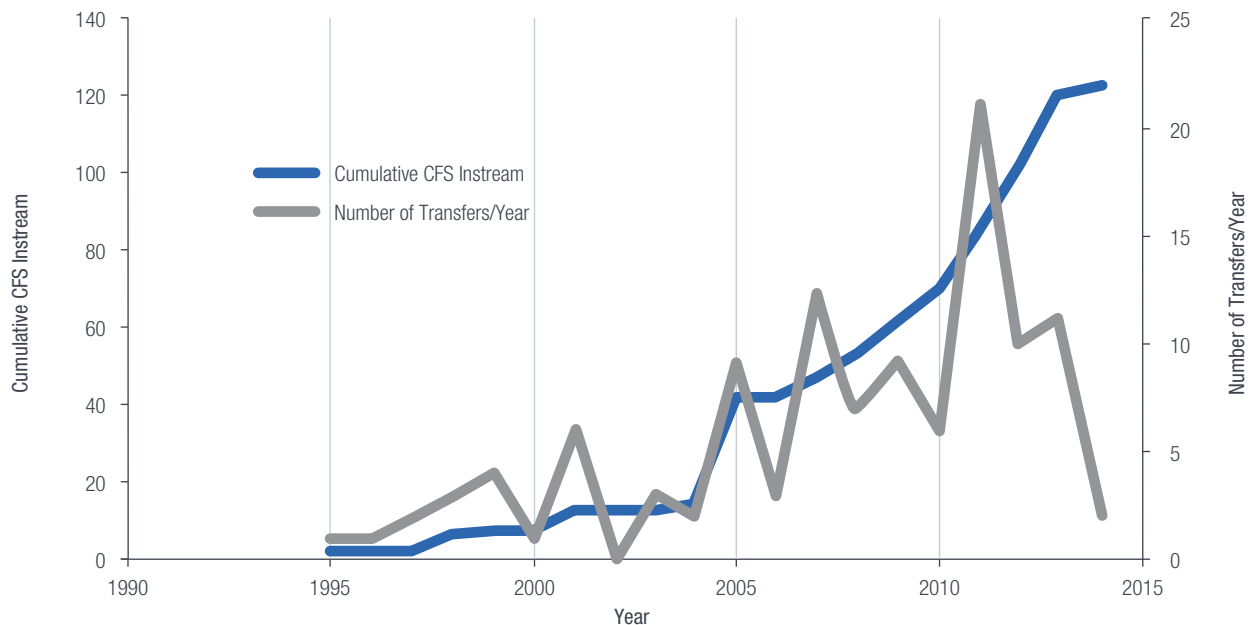
208 OR. REV. STAT. § 537.346-350.



flow transfer or conversion from injuring other water rights holders or from causing the enlargement of a water right.<sup>209</sup> The statute also provides that instream rights and transfers may not exceed the flows necessary to increase public benefits.<sup>210</sup>

Water rights transfers are the most secure legal mechanism for conducting instream flow transactions in Oregon. Instream flow transfers can be permanent or time-limited; time-limited transfers may expire on a particular date or when a specified event transpires, such as a change of ownership of the appurtenant land.<sup>211</sup> As of July 2014, OWRD had processed 113 permanent or time-limited transfers and was reviewing an additional 39 such transfers. These transactions have taken an average approval time of 2.76 years, and six instream flow rights transfers have been protested.

### Oregon Instream Flow Transfers (1995–2014)



In addition to its water rights transfer program, Oregon also maintains an active instream flow lease program. The number of leases in Oregon has far exceeded the number of permanent or long-term transfers. Since 1994 when OWRD issued its first instream lease, Oregon had processed 1,794 flow leases as of July 2014. Oregon’s instream flow lease program allows existing water rights holders to lease part or all of their water right to instream flow for terms of up to five years, or for irrigation rights, up to five irrigation seasons.<sup>212</sup> Water rights holders can renew these leases an unlimited number of times. Leases undergo an expedited review process, and OWRD usually approves the leases in 30 to 40 days after receiving an application.<sup>213</sup> The procedure is expedited in part because OWRD reviews the transaction based on the paper water right, without requiring additional data or studies regarding consumptive use or other issues. The risk of injury to other water rights holders is dealt with in part by the fact that OWRD can modify or terminate the lease after

209 OR. ADMIN. R. 690-077.

210 *Id.*

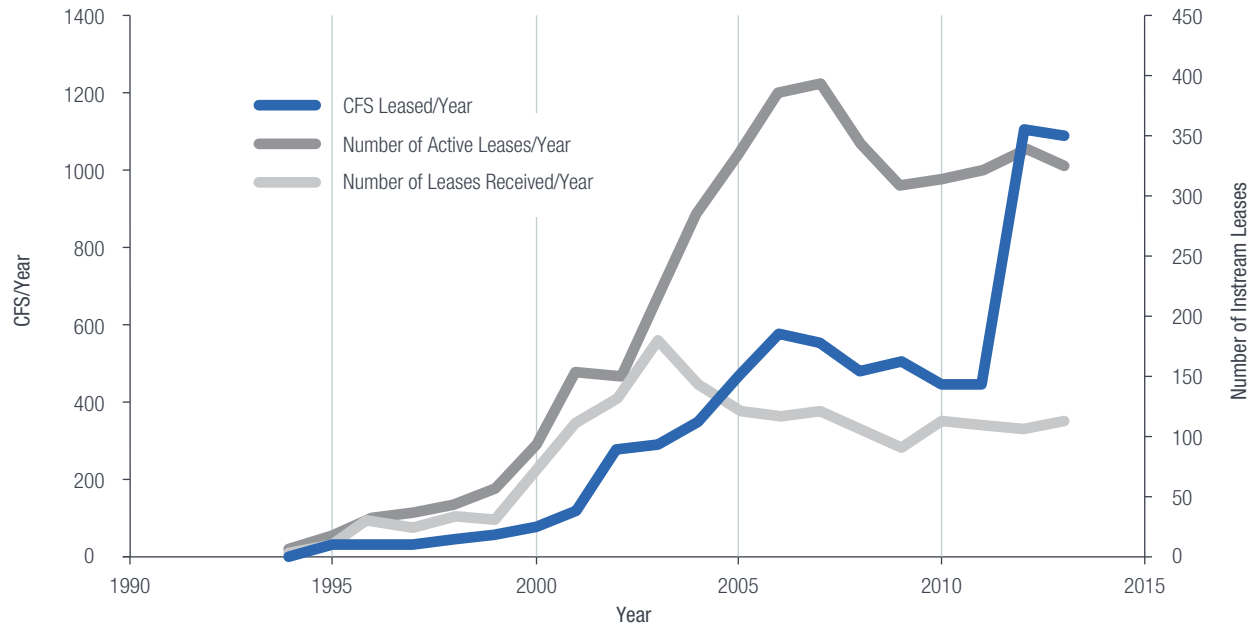
211 See Boyd, *supra* note 7, at 1182.

212 See OWRD, AN INTRODUCTION TO OREGON’S WATER LAWS: WATER RIGHTS IN OREGON 31 (2009), available at [http://www.oregon.gov/owrd/pubs/docs/centennial\\_aquabook.pdf](http://www.oregon.gov/owrd/pubs/docs/centennial_aquabook.pdf); see also Neuman, *supra* note 4.

213 *Oregon’s Flow Restoration Toolbox*, OR. WATER RES. DEP’T, [http://www.oregon.gov/owrd/pages/mgmt\\_instream\\_tools.aspx](http://www.oregon.gov/owrd/pages/mgmt_instream_tools.aspx) (last visited May 5, 2015).

the fact if it finds injury to another water right or receives a valid complaint after approval.<sup>214</sup> Water rights for surface water use, storage, the use of stored water, and water saved through the conserved water program may be leased instream.<sup>215</sup>

### Oregon Instream Flow Leases (1994–2013)



The Allocation of Conserved Water Program is another tool to restore instream flows, and is unique among western states in *requiring* allocation of a portion of the conserved water to instream flow. This program allows water rights holders who conserve water to apply some conserved water on other lands, sell or lease the conserved water, or transfer the conserved water to instream flows.<sup>216</sup> Under this program, the amount of conserved water that remains after mitigating injury to any other water rights is typically allocated as follows: 75 percent of the conserved water becomes available to the original water rights holder, while the state retains 25 percent of the conserved water for instream flow restoration.<sup>217</sup> In instances where a water conservation project receives more than 25 percent of its funding from federal or state non-reimbursable sources, however, the state retains a higher percentage of the water for instream flow restoration. To date, OWRD has approved 56 projects under this program with an average approval time of 1.3 years.

Oregon’s program for instream flow transactions is the most successful in the West, as measured by number of transactions. In particular, its program for expedited approval of leases up to five years, with an option to rescind after the fact if other water rights holders are impacted, could serve as a model procedure for other states.

<sup>214</sup> *Id.*

<sup>215</sup> *Id.*

<sup>216</sup> OR. REV. STAT. § 537.455-537.460; OR. ADMIN. R. 690-018; *Oregon’s Flow Restoration Toolbox*, *supra* note 213.

<sup>217</sup> *Id.*

## Texas

Texas law includes 8 out of a possible 10 elements of the instream transfer assessment rubric. This score is based on:

- Express statutory recognition of wildlife, fish, and recreation as beneficial uses.
- Legality of transfers of existing diversionary water rights to instream uses recognized.
- That recognition is by statute.
- Law does not significantly limit environmental transfers, substantively or geographically.
- Private parties can acquire instream flow water rights by transfer without losing the water right's priority date.
- Availability of permanent instream flow transfers.
- Express legal protection of conserved water.
- Statute explicitly allows dedication of a portion of a water right to instream use, so that the water rights holder may "stack" instream use with other diversionary uses and flexibly choose how to allocate their water between these uses.

Elements missing:

- No explicit and expedited process for short-term transfers.
- No formal forfeiture or abandonment protection for forbearance agreements.

Texas boasts a favorable and flexible legal environment for instream flow transactions.<sup>218</sup> Because the Texas Water Code authorizes all types of amendments to water rights—including changing a right to instream use—with a single, broad statute, it affords substantial flexibility for different types of instream flow transactions. Texas law also allows any party to hold instream flow water rights,<sup>219</sup> and specifically allows for transfers of conserved water to instream use.<sup>220</sup> Finally, Texas law permits water rights holders to combine or "stack" instream uses on water rights that concurrently maintain other, diversionary uses.<sup>221</sup> This enhances flexibility for water rights holders by affording them the option to choose the uses that they will exercise in a given year or season.<sup>222</sup> This favorable legal environment, however, has not yet fostered many transactions, due to a combined lack of interest, funding, and regulatory drivers.

While relatively few instream flow transactions have occurred in Texas to date, the law's flexibility has encouraged some permanent and temporary transfers to instream use.<sup>223</sup> These transactions have been completed by varied entities, including the state-run Texas Water Trust, the Trans-Pecos Water Trust, the Guadalupe-Blanco River Trust, and the San Saba River Trust.<sup>224</sup> Parties such as the Texas Historical Commission, the U.S. Department of Interior, the Lower Colorado River Authority, the San Antonio Water System, and private citizens have also amended water rights to include instream uses.<sup>225</sup>

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218 See, e.g., TEX. WATER CODE ANN. § 11.122 (West 2013) (broadly authorizing amendments to water rights' place or purpose of use; point or rate of diversion; or acreage irrigated).

219 *Id.*

220 *Id.* § 11.002(4), (9).

221 *Id.* § 11.122; Mary Kelly, Principal, Parula, LLC, Presentation at Stanford University Conference on Environmental Water Transactions (Jan. 15, 2014), available at [http://waterinthewest.stanford.edu/sites/default/files/8.%20Colorado%20and%20Texas\\_Kelly.pdf](http://waterinthewest.stanford.edu/sites/default/files/8.%20Colorado%20and%20Texas_Kelly.pdf).

222 *Programs: Water Rights Acquisitions Project*, TRANS PECOS WATER AND LAND TRUST, <http://www.tpwt.org/programs/waterrightsacq.php> (last visited April 1, 2014).

223 Telephone interview by Philip Womble with Mary Kelly, Principal, Parula, LLC (Feb. 17, 2014).

224 *Id.*

225 *Water Rights Database and Related Files*, TEX. COMM'N ON ENVTL. QUALITY, [http://www.tceq.texas.gov/permitting/water\\_rights/wr\\_databases.html](http://www.tceq.texas.gov/permitting/water_rights/wr_databases.html) (last visited Apr. 1, 2014).

About 20 formal changes of water rights to instream use have occurred to date.<sup>226</sup> Practitioners attribute the low number of transactions to limited funding, low enforcement of cancellation, and little state outreach.<sup>227</sup>

Texas law mandates that water users who seek to change their beneficial use or other aspects of their right must apply to the Texas Commission on Environmental Quality for approval.<sup>228</sup> The Texas Water Code imposes the typical requirements for approval of water rights changes, including no adverse impacts on other water rights users, lack of impacts on the environment, and consistency with a variety of factors related to the public interest. Applicants maintain the burden of proving no adverse impacts.<sup>229</sup> Unlike many western states, however, the Texas Water Code does not explicitly limit transfers to their historical consumptive use.<sup>230</sup> Texas's "full use assumption," which relies heavily on paper water rights, may speed amendment approval times and reduce transaction costs relative to historical consumptive use analysis by avoiding the complex hydrological analyses common in other states' transfer procedures.<sup>231</sup>

To facilitate transactions, the Texas Water Development Board operates the Texas Water Bank.<sup>232</sup> This state-run water bank includes the Texas Water Trust, which holds water rights dedicated to environmental needs.<sup>233</sup> Water rights may be placed in the Trust temporarily or permanently<sup>234</sup> after review and approval by the Texas Commission on Environmental Quality, in consultation with the Water Development Board and the Texas Parks and Wildlife Department.<sup>235</sup> State law protects those water rights that are deposited in the Water Bank, or in the Trust, or that otherwise include instream use, from cancellation.<sup>236</sup> This provides a flexible and straightforward way for a water rights holder to devote water to streamflow without transferring the right to another entity or risking forfeiture.

In addition to instream transfers, the state legislature established two separate initiatives to study, define, and implement environmental flows standards. The Instream Flows Program is jointly managed by the Texas Commission on Environmental Quality, the Texas Water Development Board, and the Texas Parks and Wildlife Department, and performs detailed scientific and engineering studies of instream flow conditions to generate environmental flow recommendations.<sup>237</sup> The Program plans to complete studies in six priority sub-basins by 2016.<sup>238</sup> Texas does not permit new appropriations for instream flow, and the second initiative, the Environmental Flows Process, helps fill this legal gap by establishing environmental flow standards<sup>239</sup> and protecting environmental

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226 Kelly, *supra* note 223.

227 Kelly, *supra* note 221 (presentation at Stanford); MARY KELLY, ENVTL. DEF., A POWERFUL THIRST: WATER MARKETING IN TEXAS 44-46 (2004), available at [http://texaslivingwaters.org/wp-content/uploads/2013/04/powerful\\_thirst.pdf](http://texaslivingwaters.org/wp-content/uploads/2013/04/powerful_thirst.pdf).

228 TEX. WATER CODE ANN. § 11.122.

229 30 TEX. ADMIN. CODE § 297.45(d) (2013).

230 TEX. WATER CODE ANN. § 11.122(b).

231 *City of Marshall v. City of Uncertain*, 206 S.W.3d 97, 112 (2006) (stating that "[a]s we read the Water Code and the Commission's implementing rules, however, the issues that are subject to hearing have been considerably narrowed by the elimination of significant potentially contentious issues that generally require complex hydrological analysis. . . . Under the full-use assumption, an amendment's impact on other water rights and the on-stream environment, including the issues of habitat mitigation, water-quality effects, estuarine considerations, and in-stream uses, can in most instances be determined from a facial review of the permit application without an evidentiary hearing. Moreover, application of the full-use assumption may substantially limit the pool of potential parties to a contested-case hearing.").

232 TEX. WATER CODE ANN. § 15.702.

233 *Id.* § 15.7031. The Texas Water Trust can hold water rights for the following purposes: "instream flows, water quality, fish and wildlife habitat, or bay and estuary inflows." *Id.*

234 *Id.* § 15.7031.

235 *Id.* § 15.7031.

236 *Id.* § 15.704.

237 *Id.* § 11.1471.

238 *Texas Instream Flow Program*, TEX. WATER DEVELOPMENT BD., [www.twdb.texas.gov/surfacewater/flows/instream/](http://www.twdb.texas.gov/surfacewater/flows/instream/) (last visited Sept. 4, 2015).

239 TEX. WATER CODE ANN. § 11.1471(a).

water “set-asides” that support the standards.<sup>240</sup> The authorizing law divides the State into 11 river basins and calls for expert science teams and stakeholder committees in each basin.<sup>241</sup> The Texas Commission on Environmental Quality has not yet adopted environmental flow standards for all the basins,<sup>242</sup> and the standards promulgated so far have been criticized by environmentalists for setting lower flow targets than those recommended by each basin’s expert science committee.<sup>243</sup>

Although the track record is not extensive, the Texas Commission on Environmental Quality’s processing times have been relatively short and protest rates relatively low for the instream use amendments that have occurred. Indeed, for the 15 instream use amendments for which Commission on Environmental Quality could report processing times, the Commission averaged 353 days for approval. The Commission’s approval for the instream use amendments that the Trans Pecos Water Trust has completed “probably took less than three months,” including the 30-day notice period.<sup>244</sup> Likewise, only two of the 20 instream use amendments that the Commission reports in Texas experienced protests. The average approval time, 301 days, for instream use amendments that lacked protests barely exceeds the Commission’s 300-day target approval time for amendments that require notice.

Practitioners suggest that lax enforcement of cancellation of rights contributes to Texas’ lack of transactions. Without active cancellation, one of the primary legal incentives for changing to or adding instream use or depositing water in the Texas Water Bank is absent.<sup>245</sup> Further, the Texas Water Trust has attracted relatively few water rights deposits. Critics point to three primary shortcomings of the Trust. First, they note that regulatory or other incentives, such as cancellation enforcement, to deposit rights in the Trust are weak or non-existent.<sup>246</sup> Second, they attribute the Trust’s inactivity to its lack of funding for water rights acquisitions.<sup>247</sup> Last, they assert that the Trust has conducted very limited public outreach and general solicitation of water rights.<sup>248</sup> Inactivity in the Trust has prompted instream flow water rights acquisitions by regional, non-profit water trusts.<sup>249</sup> Texas also has attracted less federal funding than other states for instream flow transactions to mitigate impacts to federally endangered and threatened species. To date, this lack of funding has made Texas more reliant on state, local, and private funding for instream flow transactions.<sup>250</sup>

Although environmental water transactions have not been widely employed in the state, the law appears very receptive to them and lays a foundation for growth in the use of flow transfers. Because Texas has experienced funding limitations for instream flow transactions, increased funding for water trusts may accomplish meaningful benefits. Increased funding could directly finance water acquisitions, and it could remedy low public outreach for instream flow transactions. In addition, increased cancellation enforcement could boost instream and general water marketing. Clarifying what qualifies as “conserved water” that can subsequently be marketed might prompt more water conservation and subsequent marketing. Since no test cases of conserved water marketing for instream flow restoration have occurred in Texas, funding such a test case might provide clarity. Last—and perhaps most importantly—Texas has exhibited relatively fast amendment approvals and low protest rates. Consequently, funding for instream flow transaction efforts in Texas may present particularly promising opportunities to improve aquatic and riparian ecosystem health.

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240 *Id.* § 11.1471(a)(2).

241 *Id.* § 11.02362.

242 *Statewide Environmental Flows*, TEX. WATER DEVELOPMENT BD., <http://www.twdb.texas.gov/surfacewater/flows/environmental/index.asp> (last visited June 20, 2015); Senate Bill 3 *Environmental Flows Process*, TEX. LIVING WATERS PROJECT, <http://texaslivingwaters.org/environmental-flows/sb3-environmental-flows-process/> (last visited June 20, 2015).

243 *Id.*

244 Email from Mary Kelly, Principal, Parula, LLC, to Philip Womble, Student, Stanford University (Mar. 31, 2014) (on file with author).

245 Kelly, *supra* note 223. As described above, however, the Lower Rio Grande operates with different rules than other basins in Texas. KELLY, *supra* note 227, at 35.

246 Kelly, *supra* note 223.

247 KELLY, *supra* note 227, at 46.

248 *Id.*

249 Kelly, *supra* note 221; Kelly, *supra* note 223 (interview).

250 Kelly, *supra* note 223; KELLY, *supra* note 227, at 43-45.



## Utah

Utah law includes 6 of the 10 elements from the instream flow assessment metric. This is based on:

- Express statutory recognition of wildlife, fish, and recreation as beneficial uses.
- Legality of transfers of existing diversionary water rights to instream uses recognized.
- That recognition is by statute.
- State law provides for permanent and short-term instream flow transfers.
- Certain private entities can acquire instream flow water rights by transfer without losing the water right's priority date.
- Law includes potential for forfeiture protection if a portion of right is left in stream and not used.

Missing elements:

- Environmental transfers are limited geographically and the mechanism for transfer is more restricted than for other water rights.
- Expedited review is available for temporary changes in use (including for instream flow purposes) but only for changes made by the State.
- Lack of express legal protection for conserved water.
- Law does not expressly permit “stacking” of rights.

Instream flow protections in Utah are largely tied to recovery efforts for native endangered fish. To date, eight water rights have been transferred to instream flow use in Utah, and all of these converted flow rights are held by the Division of Wildlife Resources.<sup>251</sup> This reflects the fact that Utah's law regarding instream flow transfers has been fairly restricted. However, significant legislative changes have occurred in the past five years that may expand the opportunities available for environmental water rights transfers. The next several years will be critical in assessing how the state will process transactions under the new statutory framework and for building greater public acceptance of environmental water transfers.

Although new appropriations of water for instream flow use are not authorized by statute,<sup>252</sup> the Utah Division of Wildlife Resources and the Division of Parks and Recreation are allowed to file for temporary or permanent changes to an existing right to dedicate water instream for environmental purposes.<sup>253</sup> These agencies may obtain an instream flow right through three mechanisms: by converting a perfected water right already owned by the agencies to instream use; acquiring a right by donation, lease, agreement, gift, exchange, or contribution; or purchasing a right with funds specifically appropriated by the legislature for that purpose.<sup>254</sup> The State Engineer, as the chief water rights administrative officer of the state, must approve water rights changes.<sup>255</sup> In addition to being subject to the same requirements imposed on traditional change of use applications, applications for changes of use to

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251 Data provided by Boyd Clayton from the Utah Division of Water Rights with additional information acquired by searching the individual water rights records in the Div. of Water Rights online database. Email from Boyd Clayton, Deputy State Eng'r, Utah Div. of Water Rights, to Elizabeth Hook, Student, Stanford University (Nov. 15, 2013) (on file with author); *Water Rights Records*, UTAH DIV. WATER RIGHTS, <http://www.waterrights.utah.gov/wrinfo/query.asp> (revised March 26, 2004). Five of the rights have a status of “approved” and three have “certificated” statuses. One application by a private individual was rejected.

252 UTAH CODE ANN. § 73-3-30(6) (West 2014).

253 *Id.* § 73-3-30(2)(a).

254 *Id.* § 73-3-30(2)(b)(i).

255 *Id.* § 73-2-1.

instream flow must provide additional technical information that justifies the biological need for the water instream and shows the need is consistent with the purposes of the statute.<sup>256</sup>

Few transactions dedicating water for environmental uses have occurred in Utah through this process. Since 1986, the State Engineer has processed and approved eight transfers of water rights to instream uses,<sup>257</sup> all of which are held by the Division of Wildlife Resources.<sup>258</sup> Four of these transfers were processed in the last six years.<sup>259</sup> The State Engineer’s office processed five of the eight transfers in less than one year each and all eight in less than two years each.<sup>260</sup>

## Environmental Water Rights Transfers in Utah

Applicant	Application Year	Volume (cfs)	Protests	Approval Process Duration (years)
Div. Wildlife Res.	1993	38.5	11	1.5
Div. Wildlife Res.	2000	0.5	0	0.25
Div. Wildlife Res.	2001	0.11	0	0.5
Div. Wildlife Res.	2002	3	0	0.25
Div. Wildlife Res.	2007	5.5	1	1.67
Div. Wildlife Res.	2008	2.3	8	1.8
Div. Wildlife Res.	2008	50	1	0.25
Div. Wildlife Res.	2009	0.04	0	0.67

In part to address the lack of transactions in the state, the state legislature amended its instream flow law in 2008. The law now permits certain private nonprofit “fishing groups,” that support fishing opportunities, to file change applications for instream flow, and to hold instream rights.<sup>261</sup> Trout Unlimited is an example of such a fishing group. The mechanisms for converting rights to instream flow are more limited, and the scope of the rights are narrower, compared to other water rights transactions in Utah and environmental transfers in many states.<sup>262</sup> For instance, fishing groups may file for change applications for instream flow, but only for the protection or restoration of habitat for the three native species of trout that occur in Utah.<sup>263</sup> A fishing group is also required to have either entered into one of two specific agreements. These agreements include either a programmatic Candidate Conservation Agreement with Assurances with the United States Fish and Wildlife Service, or a contract with the water right holder agreeing to indemnify the water right holder until a Candidate Conservation Agreement with Assurances is in place.<sup>264</sup> This provision

<sup>256</sup> *Id.* § 73-3-2.

<sup>257</sup> See *supra* note 251.

<sup>258</sup> *Id.*

<sup>259</sup> *Id.* The earliest four transfers were donations made to DWR as part of larger agreements. Alan Matheson, Jr., *Utah Law Developments: Let It Flow: Wading Through Utah’s Instream Flow Statute*, UTAH BAR J. 18, 21-22 (2004).

<sup>260</sup> *Id.*

<sup>261</sup> UTAH CODE ANN. § 73-3-30(3)(a); MacDonnell, *supra* note 1, at 372.

<sup>262</sup> *Id.*

<sup>263</sup> *Id.*

<sup>264</sup> UTAH CODE ANN. § 73-3-30(3)(e).

is designed to resolve concerns regarding increased regulatory oversight under the federal Endangered Species Act that might come with improved habitat and populations of listed species.

Fishing groups are also restricted to changes of more than one and less than ten years, although state agencies can hold both shorter term and permanent instream flow rights.<sup>265</sup> This fixed time range cannot receive expedited review.<sup>266</sup> However, an expedited review process is available for temporary changes of use of less than one year, authorized only for changes made by the State.<sup>267</sup>

In Utah, water users who leave water instream, without a formal change of use, risk losing their water right pursuant to the State's seven-year forfeiture statute. The state's law provides some forfeiture protection, as small amounts of water left instream may be exempt from forfeiture if "substantially all" of the water is still put to a beneficial use.<sup>268</sup> In addition, rights holders may apply for nonuse of up to seven years at a time, which does not count toward the seven-year forfeiture period, if an applicant can demonstrate a "reasonable cause for nonuse."<sup>269</sup> Water conservation and efficiency practices count as reasonable causes for which the State Engineer will approve a full or partial nonuse exemption from forfeiture.<sup>270</sup> There do not appear to be limitations to continued renewals of a nonuse application.<sup>271</sup> Although a water right may be protected from forfeiture through a nonuse exemption, the water left in stream receives no legal protection against other users. This is because Utah does not have a water conservation statute that explicitly protects undiverted water conserved through efficiency improvements or other measures.

The low number of transactions in Utah is due to several factors. Prior to 2008, the statutory limitation of instream flow water right acquisitions to legislatively funded purchases, or to private donations to state agencies, limited possible transactions. Also, these agencies made little use of their ability to convert rights they already own to instream use, or to aggressively pursue private donations.<sup>272</sup>

The amendment that allows fishing groups to hold instream flow rights represents a significant change in Utah's law, because it offers water rights holders an appealing alternative to relinquishing their rights to the State.<sup>273</sup> Nonetheless, the provision languished unused for almost five years due to administrative complications related to the Endangered Species Act.<sup>274</sup> The original amendment required that a Candidate Conservation Agreement with Assurances (CCAA) be in place before a fishing group's change in use application could be approved, in order to give landowners certainty about obligations in the event the species whose habitat the transaction would enhance was listed under the ESA. However, neither TU nor any other groups have yet been able to negotiate a suitable CCAA with the Fish and Wildlife Service. The legislature amended the statute in 2013 to allow the water rights change to proceed if the fishing group contractually indemnified the water rights owner until a CCAA was developed.<sup>275</sup>

This amendment has the potential to open more instream flow transaction opportunities in Utah. Indeed, as of early 2014 TU had one change application ready to be sent to the State Engineer for approval.<sup>276</sup> The ability of TU to influence legislative change in 2008 and again in 2013 highlights the strength and will of organizations on the ground in Utah. And their success suggests a changing political and cultural climate.<sup>277</sup>

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265 *Id.* Additionally, the statute states that fishing groups may apply for changes on "perfected, consumptive" water rights while applications by DWR and DPR do not appear to be limited to consumptive rights.

266 *Id.* § 73-3-30.

267 *Id.* §§ 73-3-3(1), (6).

268 *Id.* § 73-3-4(2)(e)(vi).

269 *Id.* § 73-1-4(4)(a).

270 *Id.* § 73-1-4(4)(b)(ii).

271 *Id.* § 73-1-4 (2)(b)(iii); Telephone interview by Elizabeth Hook with Tim Hawkes, Dir. Utah Water Project, Trout Unlimited (Oct. 30, 2013).

272 Hawkes, *supra* note 271.

273 *Id.*

274 *Id.*

275 *Id.*

276 *Id.*

277 *Id.*; MacDonnell, *supra* note 1, at 372.

## Washington

Washington law includes 8 out of the 10 factors from the instream flow assessment metric, as follows:

- Beneficial use is specifically defined as protecting instream flows.
- Legality of transfers of existing diversionary water rights to instream uses recognized.
- That recognition is by statute.
- Law does not significantly limit environmental transfers, substantively or geographically.
- Availability of permanent transfers.
- Existence of an effective conserved water statute.
- Availability of expedited review for short-term transactions.
- Ability to temporarily place rights in the Trust Water Rights Program, insulating them from forfeiture for nonuse.

Weaknesses:

- Although private parties are allowed to acquire instream flow water rights, such rights are only eligible for automatic relinquishment protection if held by the state.
- Law does not expressly permit “stacking” of rights.

Washington has a number of established, successful mechanisms to transfer water rights to enhance stream flows. This is due to a strong and flexible legal framework that recognizes and facilitates various environmental water transfers. This flexibility has enabled Washington’s Department of Ecology (DOE) and private entities, like the Washington Water Trust and Trout Unlimited, to tailor water right transactions to the needs of local communities, whether through the creation of regional water banks or individualized transactions. The range of tools available under state law, the state’s active investment and involvement in prioritizing and funding instream flow restoration, and the longevity of the State’s program have contributed to hundreds of environmental transfers in Washington.

Our data collection was constrained by variations in which different districts enter and code transactions within the DOE’s water transaction database, and by limits on the ability to query the database. However, our best estimates indicate that DOE has processed 267 permanent acquisitions, including purchases, donations, and rights acquired through other mechanisms.<sup>278</sup> We identified 178 short-term leases or other transactions with durations of less than five years, and 105 long-term leases or agreements with durations ranging from five to 41 years.<sup>279</sup> DOE has processed approximately 568 temporary donations.<sup>280</sup> All of these figures are as of December 2014.

Two separate statutory schemes govern Washington’s environmental flow transactions. A statewide program, the Trust Water Rights Program (TWRP), authorizes the reallocation of consumptive water rights to be held in trust by the state for any beneficial use—including but not limited to environmental purposes.<sup>281</sup> The second scheme creates a trust mechanism strictly for the Yakima

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278 Data provided by Kelsey Collins, DOE, to Elizabeth Hook, Student, Stanford University (Dec. 2014) (data and email correspondence on file with author).

279 *Id.*

280 *Id.*

281 WASH. REV. CODE § 90.42 (2014). Washington operates a variety of programs outside of the trust framework to maintain and benefit instream flows.

Basin.<sup>282</sup> The Water Code recognizes instream flow as a beneficial use. Private parties may change the purpose and place of use to instream flow and own an instream flow right, but the utility of private ownership is limited. Only the state, via the TWRP, may hold trust water rights,<sup>283</sup> and only instream rights held by the state are exempt from relinquishment or abandonment.<sup>284</sup> While the trust program is not intended solely to facilitate environmental flow transactions, the majority of transactions into the TWRP benefit instream uses.<sup>285</sup>

A water right holder can opt to donate, lease, or sell all or a portion of a water right to the state to be held in trust for instream flow purposes.<sup>286</sup> The water right maintains its priority date throughout the duration of its dedication to instream use.<sup>287</sup> A water right is considered exercised when it is enrolled in trust through donation, lease, sale, or other means, such as banking.<sup>288</sup>

In Washington, all water rights must go through a transfer process for any change to the point of diversion, purpose of use, or place of use. Section 90.03.380 of the Water Code provides details for the conversion process. For permanent transactions and long-term leases (over five years) that are intended to benefit instream flow, DOE conducts an extensive evaluation of the water right prior to approving the conversion. In addition to requiring public notice for all long-term transactions, DOE reviews the water right to evaluate its quantity, purpose, and historic usage.<sup>289</sup> As part of this analysis, the Water Code requires DOE to conduct an “extent and validity” review to determine if the water right is valid and has historically been put to beneficial use, and to quantify the amount of water available for instream dedication based on an assessment of the consumptive use. DOE will perform this review only on the portion of the water right being transferred to instream flow—any remainder of the water right that will continue to be held and used by the original owner will not come under scrutiny.<sup>290</sup> DOE must also conduct an impairment analysis and consider the impact on the public interest.<sup>291</sup> This review and analysis typically takes from nine to 12 months.<sup>292</sup>

Temporary transactions and donations benefit from expedited review processes. For example, short-term leases and donations do not require an impairment analysis or consideration of the public interest prior to acceptance.<sup>293</sup> To shorten the process further, both types of transactions require public notice only via online posting, compared with the in-print notice that long-term transactions require.<sup>294</sup> The statute does not provide a timeframe during which the expedited review must be completed, and we were not able to collect the data needed to calculate an average estimate of the length of time required for the expedited review process. However, the state has processed 178 short-term leases and 568 temporary donations, thus showing the utility and popularity of these procedures.

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282 *Id.* § 90.38. The Yakima Basin trust program is similar to the statewide system, except tailored to the regional needs of the Yakima. This paper will not go into detail on the differences between the two.

283 *Id.*; *see also id.* § 90.42.040(1).

284 WASH. REV. CODE § 90.42.040(3), (4)(c); *see also* WASH. REV. CODE § 90.14.140 (1).

285 Telephone interview by Kori Lorick with Jamie Morin, Mentor Law Group (Jan. 2014).

286 DOE, Trust Water Rights Program, What Is It and How Can It Help Me?, Water Res. Program (Dec. 2012), *available at* [www.ecy.wa.gov/programs/wr/market/trust.html](http://www.ecy.wa.gov/programs/wr/market/trust.html).

287 WASH. REV. CODE § 90.42.040(3).

288 “Other means” is usually an agreement in which a private party agrees to deed their water right to DOE in exchange for something else, usually a new water right or rights somewhere else. Information provided by Kelsey Collins, DOE (March 18, 2015).

289 WASH. REV. CODE § 90.03.380.

290 WASH. REV. CODE § 90.42.040(9).

291 *Id.*; *see generally* DOE, WATER RES. PROGRAM, GUIDANCE FOR PROCESSING AND MANAGING TRUST WATER RIGHTS (June 2011), *available at* [http://www.ecy.wa.gov/programs/wr/rules/images/pdf/guid\\_1220.pdf](http://www.ecy.wa.gov/programs/wr/rules/images/pdf/guid_1220.pdf).

292 Telephone interview by Kori Lorick with Bob Barwin, DOE (Feb. 2014).

293 WASH. REV. CODE § 90.42.080(5).

294 WASH. REV. CODE § 90.42.040.

Additional incentives exist for donations. Temporary donations to TWRP do not go through an examination process or other formal review, so there is no risk of losing all or part of the water right in review.<sup>295</sup> The statute requires DOE to accept donations for instream purposes unless the water right holder imposes overly burdensome restrictions.<sup>296</sup> Donations do not undergo review to assess historical use and validity;<sup>297</sup> however, the amount donated may not exceed the average consumptive use over the last five years, and the water right holder must provide proof to DOE that he used the water within the last five years.<sup>298</sup> No application fee is required for donations, and permanent donations to the trust program may be tax deductible.<sup>299</sup> If a water right holder requests to donate or “park” their water right for a temporary period of time, the right holder has only to define how long he wants the water right in trust. The holder can donate or park the right only for the purpose of instream flow. The water right holder can request that the water be taken out of the trust at any time, and DOE must respond to the request within 60 days. This provides a very straightforward and low cost mechanism to protect water left in stream, either because it is not needed or through a forbearance agreement, from any risk of forfeiture.

The number of environmental transfers in Washington is due in part to the State Water Acquisition Program, a program that facilitates leases, purchases, or donations. The Water Acquisition Program proactively seeks to acquire water rights and their transfer to the TWRP.<sup>300</sup> DOE prioritizes acquisitions based on the quantity of water being offered, geographic area, funding, priority date, and the length of the lease. The program allows DOE broad flexibility to craft transactions towards regional demands, and DOE uses a range of transactions and tools to transfer water from irrigation to instream uses. In addition to simple transfers and leases, these tools have included forbearance agreements, split-season leases, dry-year leases, reverse auctions, land acquisition through other agencies, and irrigation efficiency projects.

Water banks serve as another tool within the trust framework to accomplish instream flow goals. The trust statutes authorize water banks for various purposes, and explicitly note they may be established to maintain and enhance streamflows.<sup>301</sup> As of 2012, there were approximately 20 water exchanges and banks operating in Washington.<sup>302</sup>

Water banks address water users’ needs in several ways,<sup>303</sup> primarily by getting water to where it is otherwise unavailable. Because the state is not issuing new water rights, options to acquire water are limited to transferring an existing right or purchasing water for mitigation from a water bank to lessen the impacts of any new water diversions. DOE performs an investigation for every new application for a mitigated water right permit to ensure that water is locally available, will be dedicated to a beneficial use, will not be a detriment to the public interest, and will not impair other users’ rights. The application process for a new mitigated permit can move much quicker than the change in use application process, often avoiding the one- to two-year application change process.<sup>304</sup>

Although Washington’s instream flow program is successful, practitioners have identified areas that could be strengthened. In particular, the state continues to battle public perception issues and fears associated with environmental flow transfers in some parts of the state. The perception that the state values fish over farming has led water right holders, and entire communities, to

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295 DOE, *supra* note 286.

296 WASH. REV. CODE § 90.42.080(b).

297 *Id.* § 90.42.080(5).

298 *Id.* § 90.42.080(5) (2014); *see also* GUIDANCE, *supra* note 291.

299 WASH. REV. CODE § 90.42.080 (7) (2014).

300 WASH. DEP’T OF ECOLOGY, *Water Resources*, <http://www.ecy.wa.gov/programs/wr/market/wacq.html>.

301 WASH. REV. CODE § 90.42.100 (1) and (2) (2014).

302 DOE, 2012 *Report to the Legislature: Water Banking in Washington State* (2012), available at <https://fortress.wa.gov/ecy/publications/publications/1211055.pdf>.

303 WASH. REV. CODE § 90.03.380 governs the water right transaction process for transfer or changes of water rights.

304 Susan Adams, Wash. Water Trust, *Dungeness Water Exchange: Instream Flow Rule and Banking* (Dec. 2012), available at [http://www.celp.org/archive/pdf/CLE\\_2012-2\\_Adams.pdf](http://www.celp.org/archive/pdf/CLE_2012-2_Adams.pdf) (PowerPoint presentation).



reject the transaction process.<sup>305</sup> Further, cost and time delays still deter some water rights holders from participating, despite state improvements in the application process. Because of the intensive review process and the backlog of applications,<sup>306</sup> the transfer process for permanent and long-term transactions averages nine to 12 months. However, this average does not capture the fact that some transactions take much longer. For example, as of May 4, 2015, there were approximately 115 pending change applications for transactions with instream flow listed as at least one of the purposes, and 19 of those applications have been pending for five years or more.<sup>307</sup> Due in part to this lengthy process, the cost per application can range from \$5,000 to \$15,000.<sup>308</sup>

## Wyoming

Wyoming has 4 out of the 10 elements identified in our instream transfer metric, including:

- Express statutory recognition of wildlife, fish, and recreation as beneficial uses.
- Legality of transfers of existing diversionary water rights to instream uses recognized.
- That recognition is by statute.
- Availability of permanent instream flow transfers.

Elements lacking:

- The ability to change water rights to instream use is limited in scope and the mechanism for transfer is more restricted than for other water rights.
- State law does not explicitly recognize short-term transactions for environmental purposes.
- Lack of express legal protection for conserved water.
- Law does not expressly permit “stacking” of rights.
- Private parties cannot obtain hold flow rights.
- No formal tool for protecting forbearance agreements and other informal transactions from risk of forfeiture.

Environmental water transfers have played a limited role in Wyoming. To date, only one existing privately held appropriative right in the state has been converted to an instream flow right. The State has created new appropriations for purposes of instream flow, but these all have very recent priority dates. Despite Wyoming’s limited statutory framework, conservation groups in the state are starting to have success in protecting flows through alternative tools.

Wyoming statutes authorize transfers of existing rights to instream flow uses, but limit the scope and utility of such transfers more than other states’ laws. The statutes provide that only the State of Wyoming may hold an instream flow right.<sup>309</sup> More significantly, Wyoming law further limits the mechanisms for converting diversionary rights to instream rights to donations and gifts to the

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305 Barwin, *supra* note 292.

306 In fiscal year 2013, the Dep’t of Ecology received 416 new applications.

307 WASH. DEP’T OF ECOLOGY, *Pending Water Right Applications in Washington State*, [www.ecy.wa.gov/programs/rights/tracking-aps.html](http://www.ecy.wa.gov/programs/rights/tracking-aps.html) (database last accessed May 4, 2015).

308 Barwin, *supra* note 292.

309 WYO. STAT. ANN. § 41-3-1002(e) (2014).

state.<sup>310</sup> Rights acquired through donation or gift maintain the same priority date as the original water right.<sup>311</sup> The state cannot purchase existing water rights for the purpose of converting them to instream flows.<sup>312</sup> The statute also prohibits the state from acquiring instream flow rights through condemnation or abandonment.<sup>313</sup>

The State Engineer reviews petitions for changes in use of water rights, including changes to instream flow.<sup>314</sup> As is typical of many western states, Wyoming requires that a change not exceed the amount or rate of water historically diverted or consumed under the existing use, and not cause injury to other rights holders.<sup>315</sup> In reviewing a petition for a water rights change, the State Engineer is allowed to consider, among other things, the economic loss to the community and to the State, if the use from which the right is transferred is discontinued.<sup>316</sup> Donations to the state for instream flow purposes must undergo the same approval process as any other application for a permanent change in a water right.<sup>317</sup> The State Department of Game and Fish bears all costs associated with petitioning the State Engineer to change an existing right to an instream flow.<sup>318</sup>

Wyoming also lacks a mechanism to allow water rights holders to temporarily convert a water right for the purposes of instream flow.<sup>319</sup> Wyoming statute permits the temporary transfer of water rights for up to two years, and reviews temporary change of use applications under abbreviated procedures, but this mechanism is available only for designated industrial purposes.<sup>320</sup> Additionally, because state law allows only the consumptively used portion of a water right to be changed for any purpose, and instream flow rights are non-consumptive, an instream flow right cannot be converted back to consumptive use after a temporary change.<sup>321</sup>

Wyoming law allows for the creation of new appropriations for instream flow uses. In cooperation with the State Engineer and the Department of Game and Fish, the Water Development Commission—the entity authorized by statute to act on behalf of the State to apply for new instream flow appropriations—has applied for approximately 130 new instream flow appropriations, and is working on applications for four or five more appropriations.<sup>322</sup> Most of these rights are concentrated on stream segments with popular trout fisheries, in limited areas of the state.<sup>323</sup> Although these appropriations demonstrate the state's commitment to flow protection, their effectiveness may be limited by their very junior priority dates.

The Department of Game and Fish has successfully converted three existing, state-held, non-consumptive rights that had historically been associated with fish hatcheries to instream flow.<sup>324</sup> But so far, the first and only private water right in Wyoming to be converted to an instream flow purpose was acquired through donation in 2011.<sup>325</sup> That consumptive right was changed to an instream flow storage right in a reservoir upstream of the relevant stream reach. No protests were filed in response to the

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310 *Id.*

311 *Id.* § 41-3-1007.

312 *Id.* §§ 41-3-1003(c), -1006(a), -1007.

313 *Id.* §§ 41-3-1009, -1010.

314 *Id.* § 41-3-104.

315 *Id.* § 41-3-104(a).

316 *Id.*

317 *Id.*

318 *Id.* § 41-3-1003(c); CHARNEY *supra* note 205, at 129.

319 WYO. STAT. ANN. § 41-3-110.

320 *Id.*

321 MICHAEL S. ROBERTSON & THOMAS C. ANNEAR, WYOMING GAME AND FISH DEPARTMENT, WATER MANAGEMENT UNIT PLAN AND STREAM PRIORITIZATION 4 (2011).

322 Telephone interview by Elizabeth Hook with Tom Annear, Instream Flow Supervisor, Wyo. Dep't of Game and Fish (Nov. 13, 2013).

323 MacDonnell, *supra* note 1, at 375.

324 ROBERTSON & ANNEAR, *supra* note 321, at 4.

325 Anne MacKinnon, *From Hay Fields to Fish Flows: Pinedale Irrigator First in Wyoming to Convert Water Right for Fish*, WYOFIL (Nov. 15, 2011), <http://wyofile.com/amack/from-hay-fields-to-fish-flows-pinedale-irrigator-first-in-wyoming-to-convert-water-right-for-fish/>.

application and the state approval process took approximately one year.<sup>326</sup> The Department of Game and Fish believes subsequent transactions will be faster, but has no other planned transactions involving existing rights.<sup>327</sup> Prior to the 2011 transaction, two applications had been submitted to the Board of Control to change the use of existing rights to instream flow.<sup>328</sup> The State Engineer denied the applications because the applicants did not want to transfer their rights to the State.

Because the law regarding formal rights transfers is so narrow, state agencies and conservation groups in the state (most notably Trout Unlimited) are exploring other mechanisms for moving water from irrigation to streamflow. They agree that time is a major factor in developing relationships, trust between agencies, and the institutional memory needed to understand and address the challenges particular to Wyoming.<sup>329</sup> In addition to working with the legislature to develop a bill that would allow private entities to hold instream flow rights, Trout Unlimited is focusing on advancing conservation through efficiency upgrades and split-season and non-diversion agreements that will not jeopardize rights for nonuse.<sup>330</sup> Under Wyoming law, a water right may be considered abandoned if the right is not used for five successive years.<sup>331</sup> All these deals would presumably be of shorter duration than five years.

Wyoming is still in the early stages of implementing transfers of existing diversionary water rights to environmental purposes. Significant barriers need to be overcome before these transactions can play a major role in the state. Signs of progress exist, however, and conservation organizations' work on short-term, less formal deals with irrigators could create a template for conservation. The state's experience with its first instream flow transaction may also lay the groundwork for smoother processing of additional deals. Ultimately, new legislation that broadens the scope of permanent transfers would provide a tremendous boost to more deals.

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326 Annear, *supra* note 322; Telephone interview with Cory Toye, Dir. Wyo. Water Project, Trout Unlimited (Oct. 28, 2013).

327 Annear, *supra* note 322.

328 CHARNEY, *supra* note 205, at 131.

329 *Id.*; Toye, *supra* note 326.

330 *Id.*

331 WYO. STAT. ANN. §§ 41-3-401, -402.

## VI. CONCLUSIONS AND RECOMMENDATIONS

The number of environmental water rights transfers varies from state to state, despite the appeal of voluntary, market-based transactions as a conservation and restoration tool. Each state has its own history and context with respect to environmental water transfers, and some of the variation in the use of these deals is certainly due to factors other than transfer rules, including funding availability; political and social attitudes; agency priorities and staffing; the level of water trust or other conservation NGO activity in the state; and legal mandates to restore stream flows. However, the administrative costs of these deals and the level of certainty and clarity provided by each state's laws and regulatory guidance stand out as critical factors. The lack of clear statutory frameworks has been a barrier to deals in New Mexico and Arizona; the administrative hurdles for approval have probably limited transfers in Colorado and California; and relatively narrower statutes have limited transactions in Utah and Wyoming. The high levels of transfer activity in Washington and Oregon, in contrast, are no doubt attributable to a wide range of factors, but that activity would not have been possible without a robust and flexible legal regime.

Our analysis, along with the extensive policy research that has been done on water markets generally, provides a number of recommendations for state law frameworks that can facilitate transactions while protecting other water rights holders. There has been a great deal written about the potential benefits of water markets for allocating water more efficiently and the attributes of the prior appropriation system that inhibit such markets.<sup>332</sup> Most of this literature has focused on the closely related goals of streamlining regulatory oversight of transfers and making appropriative water rights more fungible and easier to trade. Certain legal or policy tools proposed by this general literature on markets are particularly promising for environmental transfers. Indeed many of those have been tested and used by various western states and have been shown to hold potential to lower transaction costs and to improve certainty and predictability for irrigators as well as funders of these deals. Our work has identified five particularly promising legal tools for facilitating environmental water rights transfers:

- A framework of statutes, regulations, and policies that recognizes and facilitates a broad variety of transaction types, and tailors the level of review to the significance and potential impacts of different categories of transactions.
- Streamlined but clear rules for short term leases of five years or less, and even more streamlined review procedures for very short-term (one year or less) transfers.
- Policies for ensuring that informal, short-term forbearance agreements do not create any risk of abandonment or forfeiture of water rights.
- More streamlined tools for measuring consumptive use, the primary measure of the portion of a water right that can be transferred to new beneficial uses.
- Permanent institutions, particularly water bank that can facilitate and manage short-term environmental water transfers.

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332 The academic and policy literature on water markets is extensive and growing. For five examples that provide an excellent discussion of barriers to water markets created by the prior appropriation system, see CULP ET AL., *supra* note 18; Mark Squillace, *The Water Marketing Solution*, 42 ENVTL. L. REPORTER 10800 (2012); Stephen N. Bretsen & Peter J. Hill, *Water Markets as a Tragedy of the Anticommons*, 33 WM. & MARY ENVTL. L. & POLICY REV. 723 (2009); Jedidiah Brewer, Robert Glennon, Alan Kerr, and Gary Libecap, *Transferring Water in the American West: 1987-2005*, 40 U. MICH. J. L. REFORM 1021 (2006-07); Brian E. Gray, *The Shape of Transfers to Come: A Model Water Transfer Act for California*, 4 HASTINGS W.-NW. J. ENVTL. L. & POL'Y 23 (1996).

## A. Establish a Framework for a Broad Range of Transactions.

The overwhelming consensus of the environmental transaction practitioners who participated in our project was that no single aspect of state law governing water transactions was of overriding importance. Rather they agreed that use of voluntary transactions would flourish where the law established a framework for a broad diversity of deals. Every ranch or farm has its own idiosyncratic circumstances, and every irrigator brings different priorities and preferences to the table. In addition, every transaction takes place at the intersection of a range of physical, biological, social, and personal variables that call for an individually tailored approach. A wide range of available transaction types makes it more likely that a conservation group or state agency can fashion a transaction to fit the needs of each specific project.<sup>333</sup>

The different transactions<sup>334</sup> we identified in the literature and in the course of our work include:

- Permanent transfers and long-term leases (greater than five years)—these are subject to state approval and result in full legal protection of the water from other appropriators, subject to seniority.
- Short-term leases (up to five years)—these are also subject to state approval and carry with them full legal protection of the water, albeit for a shorter period of time (recognizing that the distinction between short- and long-term leases is a bit arbitrary).
- Legally recognized annual transfers of specific amounts of water—these are annual, short-term transfers of actual “wet” water. They typically involve some level of state oversight, such as conforming to the rules of a water bank or other exchange.
- Conserved water transactions—these deals involve the installation of more efficient irrigation equipment and practices, and the dedication of some portion of the saved water to flow restoration, with some degree of legal protection from other water rights holders. This protection can be memorialized in a separate transfer or lease, but the distinguishing characteristic is that the state sanctions the transfer of some portion of the conserved water.
- “Splitting” water rights by time or between environmental and other uses. The most common such changes are split-season deals, but in California and Texas water rights holders can add environmental beneficial uses as a potential use to a diversionary water right.
- Short-term contractual arrangements with irrigators, such as forbearance agreements covering all or part of the growing season, that do not involve any change in water right and are not subject state review.

The benefits of explicitly recognizing a wide range of transactions is largely confirmed by the experiences of the various western states we examined. Washington and Oregon have approved, by a wide margin, the most individual environmental water rights transfers of any other states we studied. Both states have laws that recognize a wide range of transactions, have agency personnel and NGOs on the ground with experience in a broad range of transactions, and have a long enough track record to build confidence in the irrigation community for a wide range of deals. In contrast, Wyoming and Utah have much less robust state laws, a great deal less experience, and have only seen a handful of transactions.

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333 See MALLOCH, *supra* note 8 at 14-17 (describing the importance of matching sellers to the right transaction types). The importance of a wide range of available transactions has been identified as an important factor in promoting water markets and transactions more general. See generally Charles W. Howe, *Reconciling Water Law and Economic Efficiency in Colorado Water Administration*, 16 U. DENV. WATER L. REV. 37 (2012) (identifying low transaction costs and legal framework that provides for a wide range of transactions as key to efficient water markets); CULP ET AL., *supra* note 18 (recommending range of temporary transactions as a means to open up water markets). This comports with the practical experience of one of the most established water trusts in the West. See generally Neuman, *supra* note 4.

334 By “transaction” here we mean some change in the beneficial use of a particular water or water right. There are a variety of water management changes and other tools that can accompany a water rights change, or that can be used to restore flows without changing a water right. Two examples of this are switching an irrigator to a less environmental sensitive source of water (such as switching sources from a tributary to the mainstem river) or transferring the ownership or use of land associated with a water right. This list of transaction types is not intended to capture the full richness of the overall package deals used to restore environmental water, but only the nature of changes to water rights.

However, it is not enough for a state to simply recognize a wide range of transactions. It is also necessary that the level of review of a transaction be calibrated to its scope, duration, and potential impacts. As discussed in more detail below, having the option of short-term leases or annual transfers gives participants in the market flexibility to respond to changing conditions and an easier option when parties simply are not willing to commit to a longer-term deal or want to execute a deal that can be approved more quickly. We identified at least two states, Colorado and California, where the procedures for short-term leases, although more streamlined than those for permanent or long-term transfers, were so time-consuming as to limit the utility of these transactions and the extent of their use in the state. In Oregon, by contrast, leases of less than five years are approved very quickly, and have proliferated in the state.

## B. Expedited Review for Short-term Leases.

Providing expedited procedures for short-term transactions shows particular promise as a means of expanding environmental water markets. Permanent and long-term leases of water rights provide certainty and enforceability for the long run. Locking in long-term protection may play an important role in watersheds that are the particular focus of broader species restoration efforts and in specific, ecologically significant sites. For example, where an agency is spending significant funds to restore physical habitat or fish passage in a particularly important spawning tributary, it may need a tool to guarantee water at the mouth of the tributary for fish passage.

Long-term transactions, however, have their disadvantages. Many irrigators may be unwilling to give up control of their water right for the foreseeable future. In most states these transfers also require more scrutiny and a more extensive record for approval, as any impacts on other water rights holders will be lengthy or permanent. Buying permanent water rights may involve greater up front investment than buying annual water or paying for short-term leases (although it may be more cost-effective than buying short-term water every year in perpetuity). Finally, buying a water right means spending funds for a conservation asset that is fixed in place. Rapidly changing conditions, including those driven by climate change, carry a risk that the initial conservation objectives of a permanent deal may become irrelevant. This risk has come up in discussions about perpetual conservation easements, with the most cited possibility being that a particular species such as a type of salmon may cease using particular habitat when its range shifts due to a warming climate. Such an eventuality would effectively strand the conservation investment in that species.<sup>335</sup>

Short-term transactions offer some advantages, and can complement longer-term deals.<sup>336</sup> Many irrigators may be more comfortable committing their water to instream uses of five years or less. Short-term deals, particularly leases or forbearance agreements that last less than a year or even part of an irrigation season, can give state agencies and conservation groups flexibility to allocate water where it is needed most, based on short-term hydrologic conditions. More frequent and repeated success with short-term leases may also build comfort with environmental transfers among irrigators and other community members, with less burden and time commitment than that required by longer-term deals.

A final advantage of short-term leases is that they allow shorter review times and lower transaction costs. However, in some states this advantage is diminished by review processes that are not well tailored to shorter-term transfers. The two states where this appears most true are California and Colorado.

California has expedited review for leases lasting one year or less, yet any lease or transfer of greater than a year is subject to the full statutory review process, potentially including analysis under the California Environmental Quality Act. This means that a relatively short transaction (between one and five years) does not get any procedural break. The average review time for long-term transactions is 480 days, a significant investment in time for a transfer lasting less than five years. The expedited process

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335 See, e.g., A.R. Rissman et al., *Adapting Conservation Easements to Climate Change*, 8 CONSERVATION LETTERS 68 (2014).

336 The potential benefits of short term transactions has been recognized for purposes of water markets generally. See, e.g., Mark Squillace, *supra* note 332 at 10817 (noting that the advantage of temporary transactions “is that they allow agricultural sellers to retain ownership and control over water rights, even as the water is made available for municipal use”); see also *id.* at 10826.



for transactions of a year or less is also not particularly well suited to such short-term deals. The average review time for short-term transactions is more than four months. To have any chance of putting water in the stream on an effective timeframe, any proponent of such a deal would have to start the review process well in advance of the irrigation season. As a result, short-term leases in California have not played a large role in the program, with only 15 short-term leases approved during the period covered by this study.<sup>337</sup>

Colorado provides expedited review for short-term leases, but both the level of review and the nature of the leases have limits, and these leases have not yet played a major role in the state. Colorado's short-term lease tool is limited to transactions that devote water to stream flows no more than three years out of a given 10 year period. These leases are subject to an expedited review process when compared to permanent and long-term transfers, but that is in part because permanent and long-term transfers have to be approved by the Colorado Water Conservation Board and then filed in water court for a separate approval process. Short-term leases can go forward with only the approval of the State Engineer. Although this represents an easing of administrative burdens compared with going to water court, the requirements of the process are not that different from the administrative process for longer-term transfers in some other states. These leases have been used relatively sparingly so far, with only seven approved in total, all in the last three years.

Oregon, in contrast, has a highly expedited process for reviewing short-term leases, and a much more expansive definition of "short-term" than either California or Colorado. Oregon allows leases of fewer than five years to be reviewed based solely on the paper water rights, and strives to approve such leases within 45 days. This expedited review is facilitated in part by an exit ramp for problematic transactions — the law includes the option of revoking a transaction if, after implementation, it adversely impacts other water rights holders. Although Oregon has very high numbers for all water transfer categories, including 113 permanent transfers and 52 conserved water transactions, it has approved an extraordinary number of short-term instream leases, 1794 since 1994. These leases in recent years have been a consistent mainstay of Oregon's program—the state has approved over a hundred a year for each of the last ten years. The combination of the available duration of the leases, the accelerated approval time, and the legal certainty of an approved lease, has made them appealing to conservation groups and irrigators alike.

### **C. Clarify that short-term, informal transactions carry no risk of forfeiture or abandonment.**

Informal transactions, such as single-season or full-season forbearance agreements, appear to be of increasing importance in many western states. These are deals between irrigators and conservation groups or state agencies whereby the water rights holder agrees to leave water in the stream without any formal change to a water right or any state review. The advantage of these deals is that they provide more flexibility, particularly for water trusts, fisheries conservation groups, and other NGOs. Such groups can straightforwardly pay farmers and ranchers not to irrigate in places and at times when the needs of target species for streamflows are most acute. There is no delay for state approval of the transaction, and funds can be allocated where water is most needed in a particular year.

Because of these low barriers, such transactions may be increasing in frequency in many states, in part due to the transaction costs or other barriers associated with state approval of water rights changes. We have not collected data on this, but our interviews indicated anecdotally that many conservation groups are either using or trying to use forbearance agreements more in several states, including Wyoming, Arizona, Colorado, and California. One of the disadvantages of these deals is that the water left in the stream does not enjoy any of the legal protections of a water right, and is subject to withdrawal by other, even junior, water rights holders. Those disadvantages can be minimized if deals of this type are employed in the right place, such as smaller tributaries with few other water rights holders, or under the right circumstances, such as occur when multiple irrigators sign agreements.

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<sup>337</sup> Annual water purchases from Central Valley Project and State Water Project contractors, which are not subject to section 1707, however, have played a significant role in the state.

Another disadvantage is that any irrigator who does not use all or a portion of their water right risks losing that right under the doctrines of forfeiture or abandonment.<sup>338</sup> These doctrines embody the “use it or lose it” principle of the prior appropriation doctrine. All 12 states we analyzed had statutory forfeiture periods that were consistent with short-term forbearance agreements. These forfeiture periods ran between five and 10 years,<sup>339</sup> meaning that a water rights holder could choose not to divert water during a period of that duration without risking loss of their water right. Thus, all the states have forfeiture periods consistent with forbearance agreements lasting a year, part of an irrigation season, or even multiple years up to the statutory limit.<sup>340</sup>

Nevertheless, water rights holders’ concerns about forfeiture or abandonment were reported to us as a barrier to forbearance agreements. One solution to this issue might simply be experience —the more irrigators who enter into forbearance agreements without compromising their water rights, the more other irrigators will be willing to do the same. There are, however, some states that have taken extra steps to protect water rights in connection with short-term decisions not to irrigate. New Mexico, for example, allows irrigators to agree not to divert water and register their rights in a recognized Water Conservation Program, which protects that right from forfeiture. Colorado has recently adopted a similar provision. Washington allows water rights holders to temporarily donate their rights to the water trust program, leave the water instream, and be protected from forfeiture or abandonment. Another step that would potentially facilitate these deals would be statements of policy through new statutes, rules, or simply agency guidance that make clear that the rules of forfeiture or abandonment do not apply to decisions to temporarily suspend irrigation in order to enhance streamflows.<sup>341</sup>

#### **D. Develop more streamlined and effective tools for quantifying the amount of water that may be transferred to environmental uses.**

In almost every state we surveyed, practitioners singled out the process for quantifying the amount of water that can be transferred to environmental uses as a source of cost and delay. This process serves to satisfy the fundamental requirement of the prior appropriation system that water rights transfers cause no injury to other water rights holders, including those junior to the seller. For most irrigators and other water users, some portion of water diverted makes it back into the stream as direct or indirect return flows, and is available for withdrawal by other downstream or adjacent users. If other water users rely on this water to satisfy their water rights, the no-injury rule protects them, meaning the transfer cannot affect the availability of this water. In the case of traditional water rights transfers, this water must be left in the stream for withdrawal by these other users. For instream transfers, this means that none of this water can be included in the amount legally protected from diversion by junior water rights holders. Only the amount of water historically consumed or otherwise permanently removed from the stream can be formally protected by an instream flow right.

The procedures for establishing that critical quantity can involve presenting a variety of data and information about the seller’s past water use, including the quantity of water historically diverted, the timing of those diversions, the quantity and location of return flows, and the amount of water consumed by crops or lost to evaporation.<sup>342</sup> In some states, parties must present many years of data or document decades-past irrigation practices. Assembling and analyzing this information can be expensive under any

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338 All western states recognize that abandonment will result in the loss of a water right, most western states also have some form of statutory forfeiture that allows for the loss of a water right through nonuse without intent to abandon.

339 See CAL. WATER CODE § 1241 (5 years); COLO. REV. STAT. § 37-92-402(11) (10 years); IDAHO. CODE ANN. § 42-222(2) (5 years); MONT. CODE ANN. § 85-2-404(2) (10 years); NEV. REV. STAT. § 533.060 (surface water abandonment only); OR. REV. STAT. § 540.610(1) (5 years); UTAH CODE ANN. § 73-1-4(2)(a) (7 years); WASH. REV. CODE § 90.14.160 (5 years); WYO. STAT. ANN. § 41-3-401(a) (5 years).

340 Except Colorado, as noted earlier.

341 CULP ET AL., *supra* note 18, at 16 (making a similar suggestion).

342 Laura Ziemer et al., *supra* note 6, at 55-60. For a survey of state requirements for data to support short term water transfers generally, see LANA JONES & BONNIE G. COLBY, MEASURING, MONITORING, AND ENFORCING TEMPORARY WATER TRANSFERS: CONSIDERATIONS, CASE EXAMPLES, INNOVATIONS AND COSTS (2012), available at [http://ag.arizona.edu/arec/pubs/facultypubs/MME\\_6-25-12OPT.pdf](http://ag.arizona.edu/arec/pubs/facultypubs/MME_6-25-12OPT.pdf).

circumstances. In many parts of the West, neither the state nor water users collect data related to these issues, and the extent of withdrawals and use by a given irrigator have to be reconstructed using less direct information, such as aerial photographs, affidavits, old notes and records, and other hard to find or expensive to obtain documentation.<sup>343</sup> All of this is made more difficult by a core aspect of the no-injury rule—the requirement to prove a negative. It is much easier to prove that some specified event happened than it is to prove that any of a potentially large number of unspecified potential harms will not occur, even more so in contexts where multiple water users divert from a particular river or stream. It is no easy task for an agency to calibrate and set rules about the amount of evidence needed in order to be satisfied as to the non-occurrence of any contingent future event—indeed, any additional incremental piece of evidence an agency requires might be the one that shows the event will occur. Inconsistent and changing agency practices with respect to this issue have received recent criticism.<sup>344</sup>

The technical and administrative costs of satisfying the no-injury rule have been identified as one of the primary barriers to more open and efficient water markets generally, not just to environmental water transactions.<sup>345</sup> Researchers and commenters have identified a range of legal and policy reforms to reduce these costs so that water rights can be more easily traded. Many of these proposals, such as clarification of water rights through basin adjudications, would involve considerable time and expense, or fundamental changes to the prior appropriation system, such as eliminating or scaling back core doctrines like beneficial use, no-injury, and anti-speculation. Most of these proposals are beyond the scope of this report.

One of these proposals, however, is directly relevant to instream flow transfers and could be adopted without any significant overhaul of the legal and administrative framework of the prior appropriation system. That proposal is to consider consumptive use by crops as the measure of the water right that can be transferred, and to limit the no-injury analysis to this issue.<sup>346</sup> The reasoning behind this proposal is that water consumptively used by crops is never available to other rights holders. Limiting review of transfers to this issue would streamline the process with no risk of impact on other water users.

It is important to note, however, that proving consumptive use on a site-specific basis can require data collection or studies, and cost both time and money. Consumptive use depends on a number of factors, which vary with location and over time, including soil types, crops grown, temperature, precipitation, topography, the amount of water available to the user during different types of water years, and even irrigation practices on neighboring lands.<sup>347</sup> The greatest potential for reducing transaction costs and speeding up review lies in the use of tools to estimate consumptive use based on crops grown, location, climate conditions, soils types, and other measures that do not require site-specific studies.<sup>348</sup> Some states already use technical manuals and other tools that serve this function for various purposes; using them for environmental transactions would potentially lower the costs and reduce time of review considerably.<sup>349</sup> More work is needed to evaluate these methods and decide which would work best for each state. From a policy perspective, one option for testing these methods and building support for them would be to use them initially only for short-term transactions to determine how well they work. They could be deployed for longer-term deals only after they have proven their value and become accepted by agencies and water users.<sup>350</sup>

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343 Ziemer et al., *supra* note 6, at 61-62.

344 See, e.g., Ziemer et al., *supra* note 6.

345 CRAIG BELL & JEFF TAYLOR, WESTERN STATES WATER COUNCIL, WATER LAWS AND POLICIES FOR A SUSTAINABLE FUTURE: A WESTERN STATES' PERSPECTIVE 117 (2008); THE WESTERN GOVERNORS' ASS'N., WATER TRANSFERS IN THE WEST: PROJECTS, TRENDS, AND LEADING PRACTICES IN VOLUNTARY WATER TRADING 36 (2012).

346 An extensive discussion of making the historical consumptive use of a water right transferable with less procedural oversight appears in Squillace, *supra* note 332, at 10817. See also CULP ET AL., *supra* note 18, at 15; Gray, *supra* note 332.

347 JONES & COLBY, *supra* note 342, at 5-6.

348 CULP ET AL., *supra* note 18, at 15.

349 See Squillace, *supra* note 332, at 10821-22, n.131 and 132 for a list of examples of such studies.

350 CULP ET AL., *supra* note 18.

## E. Further study water banks and other institutions that facilitate transactions.

One possible lesson from the experience of western states is that institutions such as water banks have considerable potential to facilitate water transfers, including environmental water transfers.<sup>351</sup> Idaho stands as a notable outlier in the study. Its background laws concerning formal transfers of environmental water rights are relatively restrictive, and included only four of the elements we identified as important to environmental transactions, yet it has still processed and approved 30 environmental water leases.<sup>352</sup> These transactions have been facilitated by Idaho's water banking system, which sets up rules for short-term leases and transfers. The Bureau of Reclamation has also been able to lease stored water in Snake River reservoirs in order to meet ESA flow obligations for listed salmon and steelhead, which represents a significant quantity of water.<sup>353</sup> Although these transactions were outside the scope of this study, most environmental water transfers in California have been short-term reallocations pursuant to the rules of institutions such as the Central Valley Project or State Water Project.<sup>354</sup>

The basic structure of the Idaho water banks sets up rules for relatively short term transfers, and subjects transactions that meet those rules to minimum levels of review. The short-term nature of the transactions gives irrigators the flexibility to move in and out of the market as their plans and needs change. The amount of water that agencies lease for stream flows can also vary each year depending on hydrologic conditions and flow needs.

The functioning of these banks has not been ideal—indeed a bank failed that was set up for the upper Wood River specifically for environmental water. But their success is promising enough to merit further study and experimentation. A permanent water bank with adequate long-term funding for environmental transactions, if set up properly, would have the potential to take advantage of the flexibility and low transaction costs of short-term transfers. At the same time it may provide a longer-term guarantee of institutional permanence for environmental water.

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351 Squillace, *supra* note 332, at 10829 discusses the potential of water banks to promote water markets generally, and cites literature.

352 A recent study by WestWater Research also singled out Idaho. It reported on both the amount of water transferred to streamflows and the amount spent on those transactions (but not the number of transactions). That report found that Idaho had actually seen the largest volume of water dedicated to streamflows (over 2.8 million acre feet between 2003 and 2012), largely through annual leases of uncontracted water stored in Snake River system reservoirs. *Environmental Water Markets*, WATER MARKET INSIDER (WestWater Research, 4th Quarter 2014). In addition, a study of transaction costs for flow transactions in the Columbia Basin found that transaction costs in the Salmon River Basin were generally lower and more stable than other basins, in part because of the up front investment in the creation of water banks. See Garrick & Aylward, *supra* note 19.

353 *Environmental Water Markets*, *supra* note 352.

354 HANAK & STRYJEWSKI, *supra* note 50; See also Squillace, *supra* note 332 (discussing the Colorado Big Thompson project).













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