

# Water law & policy in the US

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## The uses of water in the United States are as varied as its vast landscapes and ever-growing population.

Unfortunately, the laws and administrative practices that determine how water is distributed, regulated, and managed are also, quite literally, all over the map, not following a single, consistent doctrine or code. This situation is the legacy of the successive incorporation into US law of several legal and cultural practices since the beginning of western European influence in the New World more than 500 years ago.

With the Spanish Entrada into North America, a long-standing tradition of controlling nature on a massive scale to suit man's purposes was introduced, dating back to Roman influence in the Iberian Peninsula. By good fortune, the Spaniards also had exactly the kind of experience they needed to survive in the arid western portions of the continent, which was not unlike much of the interior of Spain. The Crown (through its authority in the local governments in the New World) issued water rights; these were *usufructory* (use only), meaning that the Crown retained ultimate ownership. An elaborate system of community allocation and responsibility for maintaining the irrigation ditch network was instituted, still in effect today in the form of the *acequias* in New Mexico. Equitable and proportional quantities of water were guaranteed to the members of a community, as well as to those who lived downstream along a common watercourse; attention was also paid to reducing wasteful practices and maintaining community clean water standards. In general, the rights of the community took precedence over those of the individual, although there developed considerable flexibility to suit local circumstances. One significant outcome

of this system was the recognition of the *pueblo* (town) water right as a *superior* right (having precedence); Los Angeles has been successfully invoking this right for more than 100 years.<sup>1</sup>

In the eastern United States, conditions were very different. Water supplies were much more abundant, predictable, and accessible, and the northern European countries that established influence there had the luxury of adopting the English *riparian* doctrine of water use, whereby a land ownership right also had attached to it the usufructory right to any and all water that flowed along that property. Actual use was not necessary to maintain the right, just location along the stream. However, all water that was used had to be returned to the stream; all riparian rights along a stream were equal, in that one could not impair the riparian rights of others.

Westward expansion by the United States, particularly beginning with the California gold rush of 1849, precipitated intense competition for the much more limited, and widely dispersed, water resources than had been the case under Spanish rule. The frontier doctrine of *prior appropriation* developed, emphasising local control and decision making over government oversight. This had several key elements, which today are still the dominant components of water law in the western United States. These include:

1. *First in time, first in right*: a water right is established by the first user, who, in contrast to the riparian doctrine, does not need to own property along the watercourse. In fact, most users diverted water over considerable distances, which, in the early days, were to mining sites miles from the stream course.

2. *Use it or lose it*: in order to maintain the right, continued (*due diligence*) and appropriate (*beneficial*) use must be demonstrated.

Ultimately, individual states reserved the right to issue water rights, with prior appropriation having dominance (but not exclusively) in the western US, and riparianism in the east. Each state has also developed its own laws and administrative procedures for establishing and regulating rights under the prior appropriation system. For example, in Washington State, the *Surface Water Code of 1917* (Washington) created written law that required application to the State Department of Ecology for a permit for a surface water right. A similar, but separate, application process for acquiring groundwater rights was established in 1945. The right would be granted based on passing the following four-part test: Is water available? Is the water for beneficial use? Will granting the application impair existing rights? Will granting the application be detrimental to public interest? 2

The manner in which states administer the water permitting system unfortunately also forms the basis for a great many water disputes. The date of filing for a permit is earlier than the date when all of the conditions of the permit (the point of diversion from a river, the quantity diverted, the timing of the diversion, the place of use, and how the water is to be put to use) are actually met, which is when the right is *perfected*. However, the date of filing the water right application establishes the priority date. This date is crucial, since it determines the order that water can be withdrawn from a stream, a non-trivial consideration in a land of limited water supply.

In times of water shortage, the holders of senior rights (those with earlier priority dates) are entitled to divert their full allocations before junior right holders can use any water. There is no pro-rationing in times of water shortage; junior right holders risk being left high and dry, while seniors use up their full allocations. A right, or a portion of a right, can be lost (relinquished) if the full quantity of water is not put to continuous beneficial use for the purposes shown on the permit (in Washington State, this means legal diversion must occur at least once every five years).

All of these aspects of obtaining and maintaining water rights, separately defined and administered by each state, are subject to a great deal of uncertainty and abuse. An enormous amount of time, effort, and expense has been devoted to such issues as

establishing dates of priority (either through adjudication, or administratively) and the quantity of water that has actually been put to continuous, beneficial use (and, therefore, not subject to relinquishment). There are usually not the resources, nor often the political will, to sufficiently monitor and enforce many of the regulations that should be met in order to retain a right. Thus, a great deal of waste and illegal use occurs; this also means that the amount of water allocated via the permit system (paper rights) often has no realistic relationship to the amount of water that is actually being withdrawn.

The administrative environment surrounding water use in the US, and in the west in particular, is made more complicated when federal government agencies operate water projects or manage federal waters within individual state boundaries. The federal government has been involved in water allocation and management issues dating back to the establishment of the Army Corps of Engineers in 1802. With the formation of the Bureau of Reclamation in 1902, which signalled the onset of federal involvement in water management on a grand scale, there has been increasing complexity in the establishment and execution of water management policy. On the following page there is a list of the agencies or administrative units, at various levels both below and above that of the individual state, that play some role in water issues; it should be noted that each entity has a separate and distinct legal mandate (enacting legislation) as well as a unique internal bureaucratic 'culture' that drives how that legal mandate is actually carried out.

Today, the range of parties involved in water issues (stakeholders) is more varied than ever. A quick glance at one of the many sites that list conferences provides just a small indication of this breadth of interest.<sup>3</sup> Partly a cause of, and partly caused by, this explosion of involvement in water is a wide array of relatively recent trends that has energised traditional stakeholders and created entirely new categories of stakeholder groups, from across the political spectrum. These trends include:

*Recognition of 'non-traditional' water rights:*

These include vast *Native American* water rights granted or impliedly reserved by the numerous treaties entered into between the federal government (Bureau of Indian Affairs (BIA)) and the many individual sovereign First Nations, mostly in the period between 1850 and

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1900. Such rights were first reaffirmed in the US Supreme Court *Winters* decision in 1908, but did not truly begin to be enforced until the 1970s. In most cases, these rights are superior (granted earlier) to those that were granted by states, and is an area of vigorous legal challenge to, or renegotiation with, the modern descendants of those original treaty parties.

Another, broader 'new' category is the interest of the common citizen, as embodied in the *Public Trust Doctrine*, which holds that the public has overriding rights in waterways that cannot be exclusively granted to individual parties.<sup>4</sup> The first significant application of this doctrine to the preservation of water quantity was the 1983 California Supreme Court decision that held that the City of Los Angeles could not continue to divert water from Mono Lake at historical levels, despite holding legal water rights to do so, because to do so would be in conflict with the public interest by degrading the lake's habitat. Finally, an even broader new category of implied, and largely thus far unquantified water right is the environment itself. This, in a sense, can be conceptualised as a variation on the Public Trust Doctrine as applied to the natural world, but is applied in statutory schemes such as the federal *Endangered Species Act* 1973 (US) (ESA). Under the ESA, individual species may be *listed*, that is, recognised as being either threatened or endangered (this process is usually a complex mix of politics and science), and are therefore entitled to special protections. For freshwater species, this could trigger a process where minimum *instream flows* could be mandated in order to protect the habitat of those species, in a sense, once again granting a right that is senior to some of those issued by the state. In all three of these categories, the potential for these previously unrecognised classes of water rights to be established could limit water availability to new or junior users, and could also challenge long-established patterns of water use. In addition, these issues have also often created conflict between federal and state authority.

*Water markets:* Despite the fact that most water rights in the United States are based on establishing and maintaining patterns of use, they are most often considered by those that hold them to be in the same category as a land right, and thus subject to lease or sale. In a market situation, a water user with a valid right can agree to discontinue water use and sell that quantity of potential water use to someone who will divert it elsewhere. The priority date

#### Federal

US Army Corps of Engineers (USACE), US Geological Survey (USGS), US Bureau of Reclamation (USBR), US Fish and Wildlife Service (USFWS), National Park Service (NPS), Bureau of Land Management (BLM), US Environmental Protection Agency (USEPA), Natural Resources Conservation Service (NRCS), US Forest Service (USFS), Federal Energy Regulatory Commission (FERC), National Marine Fisheries Service (NMFS), Federal Emergency Management Agency (FEMA), Bureau of Indian Affairs (BIA)

#### Multi-state agencies

Many of these exist; examples are the Chesapeake Bay Commission, the Missouri River Basin Commission, and the Colorado River Basin Commission

#### Other

Municipal Water Departments, Levee and Flood Control Districts, Water and Sewer Districts, Mutual Ditch and Irrigation Companies, Irrigation Districts, Conservancy/Conservation Districts, Natural Resources Districts, Groundwater Management Districts, Water Management Districts, Underground Water Conservation Districts, Power Administrations, International Water Commissions, Watershed Planning Units

stays the same as that of the original water right.

Hence, in a scarcity situation, senior water rights where the quantity of continuous uses has been clearly established are more valuable in the water market. Because most water rights are administered by states, the development of markets has been highly variable, but is viewed by some as the best practical solution to finding 'new' water, because the transfer of a water right between regions does not usually require the construction of any new infrastructure, such as dams.<sup>5</sup>

*Storage:* Contrary to the first 75 years of the 20th century, when the predominant view was to create massive water storage and diversion

projects involving dams and aqueducts built on a heroic scale (administered by some of the so-called alphabet agencies listed above, such as USACE, BLM, and USBR), a recently developed view has been to store water in other ways, such as by injection into the groundwater table for later removal (Aquifer Storage and Recovery (ASR)). This involves highly technical groundwater hydrology and economic cost-benefit analyses on a site-by-site basis, and has only successfully been carried out at a few localities so far. Another evolving view of storage issues is the move to remove dams, thus restoring natural riparian habitat and river flow patterns. Such opportunities arise when the 50-year licence for a power-generating dam is up for renewal by the Federal Energy Regulatory Commission (FERC). The Elwha River Dams in Washington State have thus been decommissioned and are to be removed in the near future. Numerous similar proposals have been made for other river systems, such as for the Snake River, and, as for the Elwha River, the economic as well as environmental benefits of such actions are being considered.

*Evaluating the true economic value, and costs, of water:* As the field of environmental economics emerged in the 1980s, it became apparent that many of the arguments that had long been instrumental in driving water policy in the US—such as the economic benefits of large infrastructure projects—were often based on limited or one-sided data. Methods were developed to identify and evaluate the benefits of alternative uses of water, as well as the environmental, societal, and economic costs of traditional ways of managing water. New policies (such as consideration of dam removal as an option) have started to emerge as valuation techniques became more thorough and sophisticated, and thus more commonly incorporated into planning protocols.<sup>6</sup>

*Metering:* At the confluence of economic analysis and water rights allocation and management is the concept of identifying the actual volumes of water removed from surface or groundwater sources by legal rights holders, and charging for those withdrawals. A great deal of opposition to this has, understandably, developed, since in most cases a direct pay per volume system has never existed, and water is usually viewed as a right that should be available for free. A variety of fee systems have been proposed, with the most controversial being those that have rates that are positively indexed to use (use more, pay a higher rate). Proponents

contend that such schemes would encourage conservation. Metering is also viewed as a critical component of water budgeting and the enforcement of relinquishment ('use it or lose it') statutes. Measuring water use is also important to achieving minimum instream flow levels, essential for protecting an entire riparian habitat (expanding the single-species approach of the ESA), since an accurate accounting of the actual volumes of water being removed from rivers is a necessary component of managing the overall nature and quantity of river discharge.

*Recognising the potential effects of climate change on future water availability:* This issue has the potential to override all other considerations regarding water management, and should be a key component of any planning process. However, this is still only rarely the case, reflecting both the highly politicised nature of acknowledging the existence and causes of climate change, as well as the truly balkanised structure of the water policymaking and management system in the United States.

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#### Endnotes

1. N Hundley, *The Great Thirst—Californians and Water: A History*, (2nd Ed. 2001). Chapters 2 and 3 provide an excellent overview of the history of water use customs and law in the western United States.
2. Revised Code of Washington State <<http://apps.leg.wa.gov/rcw/>> at 23 November 2006. See Titles 90 and 91. For links to the other state and federal laws that govern water use, see <[www.megalaw.com/top/water.php](http://www.megalaw.com/top/water.php)> at 23 November 2006.
3. See, for example, <[www.thewaterreport.com/calendar.html](http://www.thewaterreport.com/calendar.html)> at 23 November 2006.
4. C Wilkinson, *Crossing the Next Meridian: Land, Water, and the Future of the West* (1992), 284.
5. R Glennon, *The Quest for More Water: Why Markets Are Inevitable* (2006) PERC Reports, 7–9. For a vigorous argument in favour of viewing water rights (typically defined legally in the United States as usufructory) to be equivalent to land rights (typically an ownership right), see <[www.perc.org](http://www.perc.org)>.
6. R Young, *Determining the Economic Value of Water: Concepts and Methods* (2005).