Does the "Use it or lose it" doctrine have teeth? Evidence for water right forfeiture in Washington State from 1967 to 2019

This research features the first ever statewide empirical analysis of water right forfeiture under the Western water law doctrine of prior appropriation. Results reveal the unique characteristics of water right change authorizations that make them more or less likely to result in forfeiture.

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This research highlight is based on work in progress.

Land ownership claim stake

Western U.S. water law adheres to the legal doctrine of prior appropriation, which stipulates that “the first in time shall be first in right.” An appropriative water right is valid to the extent that it is used for one or more beneficial uses (e.g., irrigation, stockwater, domestic use). If a water right is not exercised on an ongoing basis, it may be subject to forfeiture either in whole or in part. This "use it or lose it" provision aims to maximize benefits among potential water users while limiting hoarding and speculation. Its direct impact has been to expose water rights to forfeiture by several legal and operational procedures. Meanwhile, the practical impact of "use it or lose it" on, say, willingness to participate in a water market if doing so puts a water right at risk of diminishment, is not well understood. A detailed analysis of the forfeiture rates that attend changes/transfer of water rights would help elucidate the risk of water right diminishment from activities related to water markets, efficiency projects, land sales, etc.

Toward understanding the prevalence of water right forfeiture in Washington State, we analyzed the Water Rights Tracking System (WRTS) of the State of Washington

Department of Ecology (Ecology) for all instances of forfeiture accompanying change authorizations. A change in water right (e.g., claim, permit, certificate) may take numerous forms, including changing the point of diversion, purpose of use, place of use, or adding irrigated acreage. The process begins when a water right holder submits an application for change to Ecology. Once the change request is approved, the water right is formally investigated. The examination includes a review of the water right's validity and whether there has been a period of non-use sufficient to trigger forfeiture.

We quantified both the frequency and magnitude of forfeiture arising from the change authorization process. The frequency is calculated as the count of water rights that experienced some degree of diminishment through one or more changes divided by the count of water rights that were changed. The magnitude is reported as the reduction in annual water volume of the water right divided by the original volume. This paper is, to the authors' knowledge, the very first to quantify water rights forfeiture in the United States.

The frequency and magnitude of forfeiture attending change authorizations varied considerably from 1967 to 2019. Most notably, forfeiture frequency began to increase dramatically in 2000 (Fig. 1a). In fact, from 1967 through 1999 only about 10% of water rights were diminished through change authorization while the frequency increased to 35% for the period 2001-2019. This is likely due to a few factors. First, staffing increases beginning in 2001 increased the number of change applications that could be processed. Second, change application processing became the dominant mode of forfeiture starting in the late 1990's to early 2000's. Third, several court cases (e.g., Okanogan Wilderness v. Town of Twisp, 1997) and statutes (e.g., RCW 90.03.380, 2011) have made the review process more stringent over time. While frequency generally increased through the

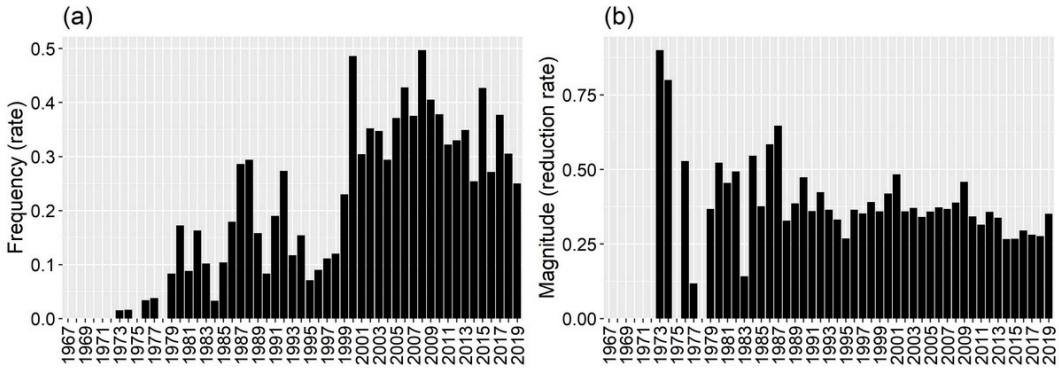

Figure 1. Timeline of forfeiture frequency (a) and magnitude (b) expressed as rates for water rights across Washington State with one or more change authorizations.

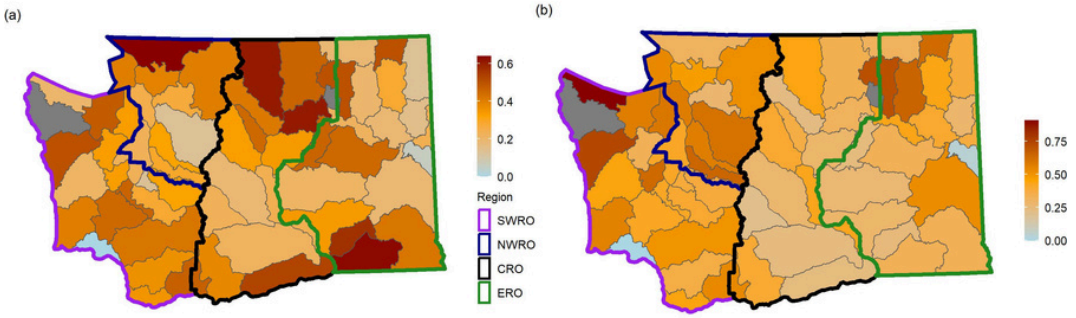

Figure 2. Geographic variation of forfeiture frequency (a) and forfeiture magnitude (b) expressed as rates for water rights across Washington State with one or more change authorizations. Maps only reflect changes authorized after Jan. 1, 2000.

study period, there was an accompanying decrease in magnitude (Fig. 1b). This can partially be explained by the higher percentage of court claims and superseding certificates among the more recently changed water rights. These types of water rights have previously been examined by a court or a review board, making further reductions less extreme.

Forfeiture rates also varied geographically. Fig. 2 shows forfeiture frequency (panel a) and magnitude (panel b) by administrative region and subbasin, for changes authorized after Jan. 1, 2000. Forfeiture frequency was lowest (30%) in the central region (CRO) and highest (43%) in the eastern region (ERO) (Fig. 2a). While water rights in both the central and eastern regions are predominately authorized for irrigation use, which is the purpose of use with greatest forfeiture risk, the difference in frequency between the two regions is likely due to the large number of changes on adjudicated certificates in the eastern region, especially in Walla Walla located on the Washington-Oregon border. Older adjudicated certificates tended to be issued with water duties that exceed the requirement of modern irrigation systems. Changes often were authorized at lower water duties to reflect more modern irrigation efficiencies, resulting in forfeiture. In contrast, many of the changes in the central region were made on court claims that were confirmed in the Yakima general adjudication. On average, a short time elapsed between review by the court and when the change was filed, limiting the opportunity for a 5-yr period of nonuse to trigger forfeiture, thereby leading to low forfeiture rates. Forfeiture magnitude in terms of reduction rate was lowest (36%) in the central region and highest (49%) in the northwest region (Fig. 2b). Regional differences in forfeiture magnitude are partly due to the mix of water right purpose of use. A high percentage of the water rights in the northwest region are authorized for domestic and municipal purposes. While these have low frequencies of forfeiture compared to irrigation rights, the magnitude of forfeiture, when forfeiture occurs, is greater on average for municipal and domestic rights than it is for irrigation rights.

The empirical evidence shows that the “use it or lose it” provision of the prior appropriations doctrine has been enforced with much greater regularity since the beginning of the 2000’s, reflecting both institutional and statutorial changes that have made the change authorization process much more likely to result in forfeiture. However, the risk is not equally distributed. Attributes of the water right (e.g, whether the purpose is irrigation or municipal use, whether the right is a claim or certificate), among other factors explored in the full-length paper (under review), make a large difference in both the frequency and magnitude of forfeiture. These baseline rates of forfeiture more fully inform the risks associated with any number of activities, including water market participation, changes in irrigation practice, and land sales that rely on freedom to change/transfer water rights. In order to facilitate these activities, Ecology may consider implementing safeguards in the form of additional forfeiture exemptions to mitigate risk.

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Full paper:
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