

On the Frontier of Water Rights: The Why of Forfeiture

Forfeiture of a water right for the failure to make beneficial use is often criticized for incentivizing wasteful water use and inefficient irrigation technologies, as well as creating transaction costs by causing uncertainty about the validity of a right. Yet forfeiture was an integral part of the mining codes that informed the development of western water rights institutions. Why was forfeiture considered an important policy on the frontier and how was the situation different from today? We model forfeiture as a policy designed to balance competing concerns, focusing on two aspects with respect to water. First, forfeiture balances the cost of unnecessary use against the cost of claimed but unused water. Second, forfeiture balances the risk of forfeiting a right due to non-use against the risk of not having water due to increased use by more senior rights-holders. We use our model to examine how the optimal forfeiture policy changes along three dimensions: (1) the percent of water resources claimed, (2) the economic value of the water claimed, and (3) the seniority of the right. We discuss the policy implications for fully appropriated basins as is the case in much of the western United States as well as for regions currently transitioning from open access to private rights.