

by Congress for certain water uses only, should be freed up to serve any beneficial purposes able to buy the water and to repay federal cost obligations. States could streamline the administrative or court processes by which transfers are reviewed and approved (or modified) by using standard guidelines (e.g. for computing historical consumptive uses), by keeping better water rights and transfer records (today only a specialist lawyer or engineer dare venture a guess about the real nature of a water right), and by providing information on stream flows and storage that will help bring buyers and sellers together.

Water transfers are clearly destined to play an expanding role in the future. No major region of the country need fear water shortage if imaginative transfers are permitted and responsibly administered.

## RECENT DEVELOPMENTS IN WATER MARKETING AND WATER TRANSFERS

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Most of the West's renewable water resources are already appropriated and developed. Opportunities for additional development are limited by a number of factors. At the same time, demands for water in the West are undergoing major and lasting changes. Irrigated agriculture, long the dominant user of water in the West, is declining in relative economic importance. New consumptive demands now derive largely from urban growth. There is also a growing demand for "instream" uses of water. These conditions suggest the need for reallocation of a portion of developed water supplies to these new, higher value demands.

### Western Water Rights

## References

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Rights to use western water resources exist in a variety of forms. Appropriative water rights may provide either direct flows of water or storage rights. In many cases, rights to use ditch water or water in a reservoir are based on ownership shares. Water may be supplied for use on the basis of a contract. Rights to use water may derive from land ownership as, for example, with groundwater in some states. Reallocation occurs when any existing use or right to use is changed or transferred to a new use. The term "water marketing" applies to the lease or sale of any such right. Widespread attention in recent years has been focused on water marketing as a

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voluntary, incentives-based mechanism for facilitating necessary reallocation of water resources.

## **Water Marketing**

The most common form of water marketing in the West involves the sale and transfer of an appropriative water right or a share in such a water right. Simple change in ownership generally occurs without state supervision. Transfers involving changes in the point of diversion, the place of use, or the type of use typically are subject to review to ensure that no injury to other water users will occur.

## **Changes of Water Rights**

While the specifics vary from state to state, the general elements in changing a water right are largely the same. The holder of the water right must file an application requesting approval of the desired change by some state agency. Notice of the requested change is publicized to inform other potentially affected water rights holders. The applicant bears the burden of demonstrating that no injury will result from the change. Generally the question of injury centers on whether the change would adversely affect stream conditions upon which other water rights depend--usually by increasing the quantity of water consumed or by changing the timing of the flow patterns. The formality of the review process largely depends on whether there are any protests. Terms and conditions may be added to modify the transfer proposal in response to concerns about injury.

Changes in appropriative water rights including changes in the beneficial use of the water without loss of priority were first allowed by California courts in the 1850s and have occurred with regularity in several western states including Colorado, New Mexico, and Utah. In these states, the procedures for changing water rights and the rules respecting such changes are well established. Accordingly, there is an active market in the sale of appropriative water rights in these

states.

Not all states followed this approach, however. Arizona and Wyoming, for example, decided early in this century to tie the right to use water directly to the land on which it was used. This strict appurtenancy requirement prevented transfers of water rights involving change in the place of use. Although both states now have eliminated this strict appurtenancy rule, there is very little transfer activity involving appropriative water rights in either one.

## **Water Farms**

There has, however, been transfer activity of a different kind in Arizona -- the purchase of land outside of designated Active Management Areas by cities and developers interested in obtaining rights to the underlying groundwater resource. Under the 1980 Arizona Groundwater Management Act, there are few restrictions on the development and use of groundwater from lands outside of Active Management Areas. Thousands of acres of such "water farms" have been purchased in anticipation of future use of the associated groundwater for urban and commercial development in other locations.

## **Transfers of Conserved Water**

Approximately 80 percent of all withdrawals of water in the West are for irrigated agriculture. By today's standards, much of this irrigation is highly inefficient. Especially in areas without a strong dependency on historical return flow patterns there are opportunities to conserve significant amounts of water. Financial incentive to make necessary conservation improvements can be provided by allowing the transfer of conserved water to the use of the entity paying for the improvements. California and Oregon have enacted statutes encouraging such transfers of salvaged or conserved water. The recent agreement between the Imperial Irrigation District and the Metropolitan Water District of Southern

California (MWD) provides for expenditures by MWD to fund conservation measures that will make an estimated 100,000 acre-feet of water available for use in the MWD service area. A separate agreement provides for MWD to fund the lining of the All American Canal in return for rights to use the salvaged water.

## **Transfers of Bureau of Reclamation Water**

The Department of the Interior recently announced a policy aimed at encouraging voluntary reallocation of water supplied by Bureau of Reclamation projects. The statement of principles, issued December 16, 1988, recognizes the important federal role in transactions involving Bureau of Reclamation storage and conveyance facilities, water rights, and water supply contracts. It insures active federal participation in any such transaction but conditions approval on a number of factors including adequate consideration of "third-party consequences." An important decision embodied in these principles is that the U.S. government will not impose any special charges on such transactions.

## **Concern About Third Party Effects of Transfers**

While these developments tend to encourage transfers, other developments are occurring which may tend to limit such transactions. For example, in 1982 California made approval of water transfers subject to findings that the change will not unreasonably affect fish, wildlife, or other instream uses and will not unreasonably affect the overall economy of the area from which the water is being transferred - in addition to the finding

that there will be no injury to other water users. New Mexico in 1985 added the requirement that, to change water use from irrigation, it must be shown that the change is "not contrary to conservation of water within the state and not detrimental to the public welfare of the state. In February, 1989, the Utah Supreme Court ruled that the State Engineer had to consider whether a proposed change of water

right would interfere with public recreation, the natural stream environment, or the public welfare in addition to the usual question of impairment to other water rights. Arizona has been actively considering some kind of area-of-origin protection legislation in response to the purchases of water farms. Change of water right applications in Colorado and Utah have raised issues of effects on water quality.

## **Conclusion**

Voluntary reallocation of water through transfers of existing rights provides an important means of meeting the changing water needs in the West. Possible effects on other water users can be met by limiting transfers so there is no increase in consumptive water use and no adverse change in the timing or quality of flows. States with limited experience in allowing such transfers can look to the procedures already well established in other states for guidance. Concerns about the third party effects associated with transfers are more problematic. These concerns could limit the size of transfers or restrict transfers in certain sensitive locations. Water marketing is not a panacea for western water problems, but it is an important piece in a set of approaches which represent the direction in which western water policy must go.