

Out-of-Basin Water Exports in Colorado

Lawrence J. MacDonnell
Director
Natural Resources Law Center
University of Colorado
School of Law

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Larry MacDonnell

Under the prior appropriation doctrine, water is not restricted in its use to lands adjoining a stream. Indeed, the seminal 1882 case of Coffin v. Left Hand Ditch Company, which held that the appropriation doctrine applied in Colorado even before its official adoption in the 1876 Constitution, involved the diversion of water out of the south fork of the St. Vrain Creek for use on agricultural lands in the Left Hand Creek drainage. The Colorado Supreme Court concluded that the right to use water should not be restricted to the watershed of origin. Rather it noted the many benefits of allowing water to be moved to places where its use would be most productive.

Colorado also has a long history of permitting changes of water rights. As early as 1883 the Colorado Supreme Court allowed a change in the point of diversion. An 1891 decision upheld a change in use from irrigation to municipal purposes. The rule established then and maintained thereafter is that changes of water rights should be permitted so long as other water rights are not injured.

The essential wisdom of these decisions remains intact today. Colorado's water resources must be able to serve the state's needs. Placing artificial geographic restrictions on the place of use or otherwise limiting the transferability

of water resources may unnecessarily hinder our ability to meet these needs.

At the same time it must be recognized that the permanent removal of water from a river basin has economic and social consequences for that area. In a very real sense there is no such thing as "excess" or "surplus" water in a stream. The flows of water in a basin are part of that basin's natural system. In many areas the reliable flows of surface water have been fully allocated for us by those holding water rights. In other areas surface flows exceed current diversions. In either situation when water is permanently removed, the system itself is changed.

Protection of Water Rights

The water law structure is designed to protect existing water rights against any adverse effects associated with such changes. Thus, for example, new water rights are always junior in priority to established water rights. Water rights utilized to divert water resources from a basin are subject to the requirement that any senior water rights must be fully satisfied. Of course, subsequent water rights are then junior to those diverting water out of the basin and may not object to this removal of water even though the reduced flows may well affect the efficacy of those rights. If existing water rights in a basin are transferred in ownership for the purpose of taking that water out of the basin for another use, the water court must be satisfied that there will be no injury to other existing water rights.

Other Affected Interests

The removal of water affects interests broader than those protected by our system of water rights. For example, flows of water may support a viable recreation and tourism economy. People may visit an area to float a raft down white water streams, to fish for trout, to camp alongside a flowing river. The businesses supported by these activities do not own the water that is being used. Yet the economic value associated with water in these uses may be substantial. As another example, the value of irrigated agriculture exceeds that of dry land farming. If the sale and transfer of agricultural water rights cause a significant reduction in an area's economic activity, related businesses are likely to be harmed. The property tax base may decline, reducing funding available for schools and services. As still another example, removal of flows of water may have effects on water quality, causing increased treatment expense for those in the area.

How, if at all, are the various interests being accounted for? Colorado law does require that when a conservancy district constructs a project to take water out of the Colorado River basin, it must ensure that present and prospective consumptive uses of water are not impaired or increased in cost. This requirement has been translated to mean that the conservancy district must build "compensatory" storage on the west slope. Cities like Denver, Aurora, and

Colorado Springs--the current proponents of large transmountain water projects--are not governed by this law.

Colorado water law does permit water rights for instream flows, but to date these rights have only been obtainable by the Colorado Water Conservation Board. The major use of this program has been to protect certain high quality cold water fisheries, typically in high mountain settings, designated by the Colorado Division of Wildlife.

Denver Water Board Agreements

The Denver Water Board (DWB), in connection with its efforts to develop its conditional water rights on the west slope and the South Platte through construction of the Two Forks project, has entered into two important agreements. In its 1985 agreement with Summit County, the DWB agreed to subordinate certain of its water rights in order to assure that towns and ski areas in Summit County can reliably obtain needed water under more junior water rights. The DWB also agreed to maintain the summertime water levels in Dillon Reservoir to protect recreational uses and to participate in a program to protect the water quality of Dillon Reservoir. In return the County agreed to provide "full and complete" support for the "South Platte Reservoir"--i.e., Two Forks, to issue the necessary permits for the Straight Creek Project, and to undertake certain steps to provide replacement water to offset losses caused by the subordination agreement.

The second agreement, reached in December 1986, involved the Colorado River Water Conservation District (River District), and the Northern Colorado Water Conservancy District and the municipal sub-district (Northern). The DWB agreed to lease water from a reservoir to be built by the River District for at least 25 years at \$250 per acre-foot per year and to stipulate to a decree establishing that the River District has exercised reasonable diligence in maintaining certain conditional water rights. The Board also agreed to reduce its planned rate of diversion for the Eagle-Colorado Project and to operate that project so as to protect certain west slope diversions occurring at the time project construction begins.

In pursuing the Green Mountain Pumpback Project, the DWB agreed to a number of conditions, especially regarding operation of the reservoir that would be utilized to replace the functions of the Green Mountain Reservoir. For example, the reservoir is to be operated in a manner that will "minimize impacts and enhance the recreation economy" of the west slope's headwaters region. The west slope water rights that are to be protected in the operation of the proposed Eagle-Colorado Project are also to be protected in the operation of this reservoir. Significantly, the DWB agreed to construct the reservoir with "compensatory" storage for the west slope of 25,000 acre-feet plus 15 percent of the yield from the Green Mountain Pumpback Diversion. The Board also agreed that it will utilize its South Platte decrees

"with reasonable efficiency" and maintain a "comprehensive water conservation program."

The major concession on the part of the River District was its agreement not to oppose construction of the Two Forks Reservoir, Straight Creek, and the Williams Fork Extension. In addition, the River District and Northern agreed to settle existing litigation involving DWB water rights for the Straight Creek and Piney River Units of the Roberts Tunnel Collection System and the Eagle-Colorado Project (as modified).

Through these agreements, the DWB has, in fact, addressed a number of the important effects on the west slope associated with its water development activities. Water supplies needed to support growth in Summit County have been made more secure. Measures were adopted to protect the recreational, aesthetic, and water quality values of Dillon Reservoir. A compensatory storage feature was added to the Green Mountain Pumpback project. Existing water rights for west slope towns, agriculture, and snowmaking are protected, though water rights for industrial purposes are not. Nor are instream flow rights mentioned, although the three parties did agree to look for "solutions to minimum streamflow maintenance on the Colorado River in Grand County."

The Two Forks EIS

The draft environmental impact statement for the Two Forks project has identified several likely effects on the west slope which may require mitigation. Fish habitat on the

Williams Fork and the Colorado River is likely to decrease somewhat due to lower water levels. Reduced streamflows also will affect rafting and kayaking opportunities on the Blue River and kayaking on the Colorado River. Some loss of revenues is expected to result from reduced fishing, rafting, and kayaking. In general these effects are judged to be minimal.

Interestingly, the most significant effect was found to be on existing west slope water rights junior to those held by the DWB. Especially affected are the water rights held by several communities in Grand County and the diversion rights for the Windy Gap project. As mentioned, the December 1986 agreement does address these concerns in connection with the Green Mountain Pumpback project and the Eagle-Colorado project. Moreover, the parties also agreed to request the Colorado Water Resources and Power Development Authority to make a feasibility study of water supply options in the Fraser River Valley.

Transfers of Agricultural Water

Recently, front range cities have turned their attention to the supplies of water available for purchase from agricultural users. Colorado Springs and Aurora have acquired shares in the Rocky Ford Ditch Company and the Colorado Canal Company entitling them to water from the Arkansas River. Apparently the land on which this water had been applied also was purchased. The decrees transferring the water rights contain the normal provision regarding dry

up of these lands to make available the historic consumptive water use. Moreover, to protect remaining water right holders in the ditch systems there are provisions to leave enough water to compensate for seepage losses and reservoir evaporation.

An apparently unique part of the agreement in the settlement that led to the decrees was a provision that lands to be dried up would first be revegetated with a grass cover that can exist without irrigation. Aurora is working with the Crowley-Otero Soil Conservation Service in an experimental program to determine the most suitable grasses for this purpose and has committed not to take water from the area until the grass cover is in place.

The City of Thornton has purchased a large number of shares in the Water ls

Supply & Storage Company, a ditch company with very senior rights on the Poudre River, together with the farms which had been using the water. In November 1986 a settlement was reached by which Thornton agreed to pay \$10 million to Water Supply & Storage and to add another 3,000 acre-feet of water to the system from Colorado-Big Thompson supplies. In return, Water Supply & Storage effectively agreed to stop its efforts to prevent the transfer.

An Assessment of Colorado Water Export Activities

Several preliminary observations may be made about these water supply activities in Colorado. First, Colorado may be unique in the west in the relative absence of direct

restraints placed on such movements of water. According to a 1984 study, Colorado has had more water rights transfer activity between 1963 and 1982 than any other western state. In part this is related to rapid urban growth. But California and Arizona have grown even more rapidly during this same period. Yet there has been relatively little water rights transfer activity in these states.

Second, many of the direct effects of the large-scale water transactions in Colorado appear to be addressed either directly or indirectly. On its face the Colorado water rights system seems unduly restrictive in the matters considered in allocating water rights and approving transfers of existing rights. In practice it appears that there are less-visible checks and balances at work in the system that result in a great deal of out-of-court negotiation. The DWB's conditional water rights on the west slope are relatively senior. The Board is not constrained to provide compensatory storage as are conservancy districts. Yet it found it advantageous to subrogate its water rights to Summit County interests, to promise to protect other more junior west slope water rights, to help the west slope build storage by promising to lease most of the stored water for at least a 25-year period, and to agree to add a compensatory storage element to its proposed Green Mountain Reservoir replacement. In the transfer context, the City of Thornton found it prudent to buy off its opposition with money and additional water.

Although this cursory examination suggests that many of the direct effects of these water transactions are being addressed, it is not possible to evaluate the actual effectiveness of these agreements at this time. The fact that the parties involved all agreed to these arrangements suggests that, for the present at least, satisfaction was found. One aspect needing further attention is whether all essential interests are in fact represented in these agreements. For example, in the west slope situation, existing industrial water rights are not among those the DWB has promised to protect. What is the basis for excluding these rights? Moreover, Summit County was able to negotiate an agreement that protected its major interests. However, similar interests in Grand County appear not to have fared as well--apparently because of a weaker bargaining position.

As suggested earlier, even the indirect effects have been addressed to some degree. The DWB has agreed to operate Dillon Reservoir so as to maintain its recreational uses and to participate in a water quality improvement program. It has agreed to operate the proposed Green Mountain Reservoir replacement so as to minimize impacts and enhance the recreation economy of the headwaters region of the west slope. It has promised to look for "solutions" to minimum streamflow maintenance on the Colorado River in Grand County. As a consequence of the permitting process associated with Two Forks, it is likely to have to engage in some fishery enhancement activities and possibly other types

of mitigation. The revegetation of dried up farmland in the Arkansas River Valley also represents a modest step toward addressing an indirect effect of agricultural water transfers.

Legislative Proposals

Last year the Colorado legislature debated at some length two bills that would have provided state financing for new water projects taking water from the Colorado River basin. A special fund derived from sales tax revenues was to be established. Fifteen percent of the money in such fund was to be utilized to assist construction of compensatory west slope storage, to assist construction of facilities needed to maintain water quality standards in the Colorado River Basin, to restore or maintain "adequate streamflows" in the Colorado River Basin depleted by transbasin diversions, and to pay for other mitigation measures "identified by a local, county or state land use process." The Colorado Water Conservation Board was to make the initial determination of what mitigation actions should be financed. However, the legislature itself would have had to actually approve any such expenditures. Apparently the major point of disagreement centered on whether the project proponent would still be responsible for mitigation desired by west slope counties but not accepted by either the Board or the legislature. The interesting aspect of this bill was its implicit recognition of the major effects of large-scale transbasin exports.

This year the Colorado legislature is considering a bill that would create a \$25 million fund to be administered by the Colorado Water Conservation Board. The money would be used to help pay the costs associated with mitigating impacts on wildlife caused by water diversion and storage facilities. As presently drafted the project proponent would be responsible for mitigation costs up to five percent of the total project costs. The fund would then be used to pay for additional costs, up to another five percent.

Adequacy of Compensation

Is there still need for compensation in the case of water exports? Or does the present legal system provide adequate mechanisms to protect the area of origin? The standard I would seek to apply is that the area of origin should be at least as well off after the export as before the export. Under this analysis, the benefits to an area (e.g., payment to holders of water rights, availability of new storage capacity, employment from project construction and operation, etc.) should at least equal the costs to the area (effects on junior water rights, water quality, instream flows, income and employment losses, wildlife impacts, etc.). It seems to me that the fundamental issue is the same irrespective of the basin from which the water is diverted and irrespective of whether it is being diverted based on a new or conditional water right or the transfer of existing decreed rights.

My preliminary assessment is that there may in fact still be a need for compensation to address third party effects of transbasin exports. In the transmountain context, much depends on the outcome of the Two Forks permitting process and the kinds of mitigation the Corps of Engineers requires. There are still a number of important unresolved issues regarding the scope of the Corps' authority and the standard to be applied in evaluating project impacts. At this point, I am encouraged by the negotiated agreements established by the DWB which appear to address other major west slope issues. But questions remain regarding whether all necessary interests are represented and are fairly protected in such ad hoc settlements.

I am less comfortable with the situations involving transfers of substantial quantities of agricultural water to urban uses in distant locations. Although the holders of water rights are themselves compensated and other existing water rights must not be injured, no other interests are recognized in the transaction. Unlike the transmountain diversions, federal permits and county land use regulations are not likely to be involved. Thus many of the potential impacts may not be addressed. The only real leverage in this process appears to rest with senior water rights holders who, if they oppose the transfer, can add substantial transactions costs.

In principle, transfers of agricultural water can be very beneficial. However, possible negative effects on those

rural areas must not be neglected. The economic base in many of these areas already is declining. A straightforward mechanism that could help address this problem without unduly impeding beneficial transfers is an export fee assessed on a per-unit basis. Such a fee could provide the basis for an economic development fund that would return money to the area for other beneficial purposes.

Summary

By way of summary, let me repeat that Colorado's water resources should not be artificially restricted in their movement. At the same time, large-scale water transfers permanently removing water from a basin have important effects which may not be fully addressed in the transaction. Transmountain diversions appear to account for many of the effects because of the compensatory storage law in the case of conservancy districts and because of federal permitting and county land use regulations in the case of municipal projects. Large scale transfers of agricultural water are not subject to these controls. Rather than imposing restrictions that could unnecessarily hinder valuable transfers of this kind, I would suggest that a fee be assessed on an acre-foot basis with the monies going to a rural development fund that would benefit the area from which the water is transferred.

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