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Water Transfer Approval: Assuring Responsible Transfers

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List of Acronyms and Abbreviations

COA	Coordinated Operating Agreement
CVP	Central Valley Project
Delta	Sacramento-San Joaquin River Delta
DWR	California Department of Water Resources
Projects	Central Valley Project and State Water Project
Reclamation	U.S. Bureau of Reclamation, Mid-Pacific Region
SWP	State Water Project

Introduction

The lengthy and involved process at times required for developing, reviewing, and approving water transfers is a reflection of their uniqueness and the factual complexity and uncertainties that frequently attend them. Transferring water under a water right is far different from selling a car or a house or commercial goods in which property rights are well-defined and certain.

Water rights are rights to divert flowing water, a moving and changing resource which in its natural state is incapable of possession or ownership or of being subdivided, parceled and sold in the way that land and movable goods are.[1] Watercourses and the uses they sustain are interconnected, variable, and complex. As a consequence, the property rights involved in water transfers are very different from the discrete and certain property interests involved in other kinds of transfers.

Section 1 Real Water Determinations: Reviewing Transfers for Legal Injury

Because of the interconnectedness of water rights, water uses, and water supply, much of the time spent in the review of water transfers is devoted to determining whether a proposed transfer will adversely affect other water users on the stream. This determination is often neither obvious nor simple to make. But it is essential to determining what water in fact can be lawfully transferred.[2]

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[1] Flowing water is the resource in which surface water rights exist. Appropriative water rights–the transferable rights to divert water from a watercourse–are the property rights ultimately involved in water transfers. For simplification, reference to percolating groundwater, the other resource in which water rights exist, has been omitted from the discussion except insofar as interconnected groundwater may impact or be impacted by surface water transfers.

[2] Other major factors contributing to the time required for transfer decision-making include proving up the underlying right, conducting environmental review and preparing environmental documentation, satisfying Water Code Section 1810 requirements, and determining whether there will be conveyance capacity within the State Water Project (SWP) operated by the California Department of Water Resources (DWR) and/or Central Valley Project (CVP) operated by the U.S. Bureau of Reclamation (Reclamation) available to move transfer water across the Sacramento-San Joaquin River Delta (Delta), given the year's hydrology and the institutional constraints that might be in place. The year's hydrology–the pattern of precipitation and runoff–does not generally become known with any degree of certainty until the spring of the year in which a transfer is to occur.

To the degree that a transfer harms other users by decreasing the amount of water in the stream that would have been available to them in the absence of the transfer, it constitutes "legal injury" and is, simply put, water the transferor is not entitled to sell. It is water that is wrongfully being taken from those other users and sold without their consent or compensation.[3]

Section 2 Responsible Transfers

The principle of "economic efficiency" in water markets and transfers is that society is better off through voluntary trades where the price of transferring water reflects its social cost. But transfers that end up trading someone else's water are not voluntary trades; and transfers that do not account for their external social costs, like environmental or water quality impacts, cannot claim to confer the benefit of the economic efficiency model. A responsible transfer is thus one which assures:

1. It is only the transferor's rights that are being transferred, and not someone else's; and

2. The transfer is one whose social costs have been appropriately accounted for.

The vital role to be played in this state by moving and marketing water can only be achieved by making sure that water transfers are responsible transfers. To accomplish this, a process is required (1) to define the rights of the transferor and the amount of transferable water, (2) to assure, at the same time, the protection of the rights of third parties from injury, and (3) to responsibly address the transfer's potential environmental impacts and other external costs.[4]

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[3] The variability and interdependence of water use means that even a transferor's post-1914 water right permit–the title document which specifies his maximum diversion right (which is itself subject to unspecified shortfalls caused by flow conditions and the exercise of prior rights)–does not indicate how much water he in practice diverts nor the lesser amount of water his use actually removes from the system. As discussed below, this lesser amount of water, the amount which may be transferred without harming or injuring others, is called "real water," and the determinations regarding legal injury are called "real water determinations." These threshold property rights determinations are a distinctive characteristic of the water transfers market.

[4] DWR is regularly (but not exclusively) required to make all three of these determinations. As the last taker in the system–and the junior-most user of unregulated flow (along with CVP) because of statutory area of origin requirements and regulatory constructs and practices that make the SWP and CVP ultimately responsible for operating to meet public interest standards in the estuary–it is SWP and CVP supply that is forced to make up the shortfall when a transfer exceeds the amount of real water provided by the transferor.

Because the SWP export facilities play the largest role in cross-Delta transfers, DWR, as owner of the conveyance facilities, is regularly required to make the determinations under Water Code Sections 1810 et seq. regarding unreasonable impacts on fish and wildlife and other instream beneficial uses and on the economy in the area of water origination–as well as the determination of no legal injury.

Water transfer decision-making can be time-sensitive–as, for example, when planting and financing arrangements must be made in case a transfer of irrigation water ends up not being made. Those involved in water transfers should move expeditiously to develop and approve transfers and continue to look for ways to improve the transfer process. But, this cannot be accomplished by ignoring the complexity of the physical and institutional systems in which transfers occur. Haste at the expense of other right holders or of the environment or water quality will not improve or streamline the water transfers system or make it more efficient. On the one hand, it will not produce the short-run economic benefit that transfers are supposed to provide. And in the long run, it will ultimately bring water transfers into disfavor by leading to mistrust, litigation, parochialism, and perhaps even to more layers of administrative control–especially at the local level.

Legal injury determinations to assure that the water proposed to be transferred is "real water" are required as a matter of course for water transfers because flowing water is a common-pool resource in which multiple property rights can exist at the same time. The exercise of one person's right–or changes in the way that right is exercised–almost invariably impacts, or is impacted by, the rights of others.[5]

Section 3 Understanding Legal Injury

3.1 The Interdependence of Water Rights

Water rights are neither exclusive nor possessory property rights. Although they are rights to use a stream, they do not attach to the substance of the stream flow, much less to a particular, severable parcel of water over which a right holder can exercise control or a power of disposition. Rather, they are nonpossessory "use rights" to take water from a watercourse, a moving, changing, common pool resource in which many can hold and exercise rights at the same time.[6] Not only is the resource a common pool, but it is one in which the same molecules of water may be used and reused, over and over, by different right holders. In other words, it's not just a matter of there being multiple rights in the same watercourse, but of there being multiple right holders relying on and diverting the very same water that comes to them in the form of irrigation return flows, municipal

[5] In the same way, flowing water is a resource and water diversion an activity inextricably connected with environmental uses and values. The stream is not just a common pool for private rights, it is a broader common pool for all uses, including public and instream beneficial uses. Moreover, water is a resource fundamental to the physical and economic well-being of the local communities and areas in which it originates and is used. Along with legal injury–the focus here–these are the principal areas where water transfers may impose social or third-party costs and which therefore require administrative review to assure that they will be socially and economically responsible transfers.

[6] There are two "uses" involved in water rights, which can at times be confusing: (1) the use of the watercourse by diverting water from it, which is what the water right specifically entitles (a water right is often referred to as a "diversion right"); and (2) the subsequent beneficial use of the diverted water, which is what the water right enables and what State policy requires.

effluent discharges, and reservoir releases from upstream users.[7] According to DWR Bulletin 160-98, reuse of surface water on average accounts for six and one-half million acre-feet of developed water use in the state each year. This figure does not include recycled wastewater, nor does it include groundwater.[8]

3.2 Diversion versus Consumptive Use

Water rights are diversion rights; and because of the legally protected reliance of downstream right holders on the availability and reuse of previously diverted water that re-enters the system after being used upstream, what a diverter has a right to transfer is only the "consumptive use" portion of the water he diverts–the water that his use normally consumes or otherwise removes from the system and is thus made unavailable for reuse by others downstream–like water that is lost to crop plant transpiration. Unlike the water user's gross diversion, his consumptive use is not only not measured, it is, as a rule, not measurable. It can only be inferred, imperfectly, from the facts and circumstances that surround the transferor's own pattern of use, which must be gathered and examined to make the necessary real water determinations if he proposes to make a water transfer.

This, then, is the basic, interconnected and interdependent physical and institutional setting in which we seek to identify what may be "severed" and removed from the common pool for transfer without causing harm to other users. Water in this state can be transferred and frequently is. But, while society benefits from voluntary water transfers, as it does from voluntary transfers of other types of property, the transfer of water inherently raises both private and public issues of third-party impacts and other external costs and concerns different from the transfer of virtually any other type of property. A viable system of responsible transfers of water must recognize this fact and deal with those issues and concerns. It must also recognize that the physical system is complex and that water rights law is complex for a reason,[9] with the result that transferring water routinely involves a complex and time-consuming burden of factual inquiry and decision-making.[10]

[7] Natural flow through a dam that turns a turbine to produce electricity may be diverted and reused downstream by a farmer to leach salts from the root zone of a planted field. That water, returning to the stream as drainage or seepage, may be diverted and used yet again farther downstream on another farmer's crop.

[8] Nor does it include water use and reuse involving instream beneficial uses.

[9] As the California Supreme Court observed, "The scope and technical complexity of issues concerning water resources management are unequaled by virtually any other type of activity presented to the courts." (*Environmental Defense Fund v. East Bay Municipal Utility District, 20 Cal.3d 327, 344 (1977).*

[10] Where agreed to by the affected parties, modeling, simplifying assumptions, and risk-spreading mechanisms have been used to ease the factual complexity and uncertainty of transfer approvals.

3.3 The Concept of Legal Injury

The concept of "legal injury" in water law arises from the particular way in which society has defined water rights, the fundamental property in natural sources of water. It is well understood that the purpose of transfers is to make water available to higher-demand uses, to promote economic efficiency, and to make the maximum use of the limited water we have. Similarly, it was historically the State's desire for multiple use, for efficient use, and for the maximum beneficial use of its limited water resources that led it to recognize and to give form to private property rights in watercourses in the way that it has.

3.3.1 The Specific Scope of the Water Right

A water right is a right to divert water for beneficial purposes from a watercourse, in which others may also hold water rights. Priority of right among diverters on the same watercourse is based upon the temporal priority of diversion and application of water to beneficial use.[11] Later diversions/uses have lower priorities.

Because flowing water is a common pool resource, because the water right is not a right to a particular parcel of water but a nonpossessory right to use the watercourse by diverting water from it, and because reuse is such an integral feature of water supply and use, the water right is defined not just as to time, rate, and quantity of diversion but specifically as to location (place of use and point of diversion) and to purpose of use. The purpose in defining and limiting the water right so specifically has been to create as much certainty and reliability in the stream's remaining, unappropriated flow as possible by fixing the pattern of upstream use (as much as can be had given the natural vagaries of watercourses and the need to give a degree of flexibility to diverters–to rotate crops, for example, or to build out to their maximum permitted level of use), in order to encourage others to use the stream, too, thus fostering the fullest beneficial use of the resource.[12]

3.3.2 The Protection of Junior Users to Encourage Maximum Water Use

There is an important way in which the property right of every user on the stream is qualitatively the same–and equally entitled to protection: Every water right holder has the right to take water for beneficial use up to his permitted maximum, subject to existing conditions and uses. The first user has the first right to make the permitted diversion for his stated purpose, subject (only) to natural conditions. The second user's right to make the permitted diversion is subject to the stream conditions as modified by the first user's pattern of use. Like the first user, his right is also limited, not only as to quantity, season of use, and priority, but also as to place and purpose of use and point of diversion, precisely in order to fix the patterns of return flow and net downstream flow produced by the exercise of his right, to encourage and protect subsequent use of the stream by yet other diverters.

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[11] As noted above, the discussion is limited to appropriative water rights.

[12] Its purpose was also to prohibit the monopolization and hoarding of a resource so vital to the state's economic life. In this, it also recognized the essential public character of the state's water supply, a recognition expressly set forth both in the Water Code and in the State Constitution.

Able to rely on the existing conditions as modified and defined by the pattern of the existing senior uses, other appropriators may then come and take and use water and acquire in their turn vested rights in the flowing water that is still there and lawfully subject to appropriation. The rights of still later users follow the same rule: New uses are subordinate to existing uses. In the same way–and this is key–new uses even by a senior right holder are subordinate to existing uses.

A transfer–a use involving a change in the place or purpose of use or point of diversion of the existing right–is simply a new use under an existing right. Transfers are thus subordinate to existing uses, including those existing uses otherwise junior in right to the transferor's specific permitted use under his senior water right. Harm to junior right holders caused by a transfer thus constitutes legal injury to those junior users.

This explains why it is within the senior user's water right (if diligently exercised) to expand his existing water use within the permitted scope of his right and to lawfully harm later users thereby; but that the same harm to the same later users is unlawful (i.e., it constitutes "legal injury") if caused instead by the senior user's transfer–i.e., by a "new" use involving a new purpose or place of use or point of diversion.[13]

3.3.3 The Effect of Not Addressing Legal Injury in Water Transfers

A water transfer causes injury to a third party by reducing the net downstream flow that would have occurred in the absence of the transfer and been used by that third party. There can be different specific reasons for the reduced flows–surface water depletion from groundwater substitution, evaporation from weed growth on fallowed land, over-estimation of transferable crop evapotranspiration of applied water, etc. But any flow reduction caused by the change in use that harms other users constitutes legal injury.[14]

Because of the variability and uncertainty of natural conditions and other lawful uses on a stream, it may not be obvious to a third party that the shortage he is experiencing is due to a transfer, and his loss will go unremedied. This is another reason why an approval

[13] The difference between what is allowed to be diverted "on paper" under the water right permit for a particular use at a particular place of use and point of diversion and the lesser amount that can be transferred under that same right (lesser, because junior downstream users have protected expectations in the part of the upstream diversion that returns to the stream as return flow) is called "paper water"–as opposed to the net water added to the stream by the cessation of the transferor's diversion (i.e., the applied water consumptively used or lost to irretrievable sources and thus lost to the system when diverted) and which can be transferred without harm to others, which, as noted, is called "real water."

[14] "Legal injury" is the phrase used to describe particularly injury to junior users caused by a change in place or purpose of use or point of diversion. Injury may also be caused in other ways, by the transferor simply violating a senior user's priority altogether (as to the entire transfer), for example, or by the transferor exceeding the scope of his water right as to amount, diversion rate, or season of use (which is also a "trespass" under Water Code Section 1052 enforceable by the State Water Resources Control Board).

process that addresses the question of legal injury in advance of making transfers is needed.[15]

Sometimes it is said that the extensive effort that is often required to assure that a transfer does not injure other users is an "impediment" to transfers. But, this is like saying that having to search out, resolve and satisfy the easements, leases, liens, or mortgages that may encumber a parcel of land before it may be sold is an impediment to transferring real property or that having to follow the rules of probate or estate administration impedes the transfer of a decedent's assets. It is true that the assurance process may slow things down. It may even cause some water transfer opportunities to be missed. But it is an "impediment" only if society and the law do not care whether the rights being transferred belong to the transferor or to someone else. Obviously, indifference to title and to injury to others cannot be the basis of a successful property transfer system, or, for that matter, of an intelligible system of property. For markets to work at all, there must be confidence that a water transfer is a transfer of right, not a transfer in derogation of right.

3.4 The Burden of Real Water Determinations

Understanding water rights and the basic concept of legal injury frames the complex factual inquiries necessary to determine what water can be responsibly transferred vis-à-vis other water users. For example: What is the net water added to the stream from not planting a particular crop at a particular location–which will constitute "new" water to the system and thus can be transferred without harming others? What would be the pattern of water use in the absence of the transfer and how should that be determined? Under what circumstances can a surface supply be transferred and groundwater substituted at the transferor's place of use without diminishing the net transfer amount because surface and groundwater sources are hydraulically connected? When does subsequent reservoir refill that "fills the hole" in storage created by the release of water for a transfer simply deprive third parties of water at a later time?

These are often time-, location-, and circumstance-specific questions for which data is frequently not available in advance but must instead be developed and verified at the time the transfer proposals are being considered. They lead to further questions, such as, what are the appropriate baselines and metrics for making these determinations? Understanding the basic nature of legal injury also informs the discussions of exchanges, forbearance agreements, hydraulic continuity, water conservation transfers, carriage

[15] The inability to readily discern the reasons for shortage is endemic to water use in general, not just to transfers. Reducing such fundamental uncertainty is what makes stream-wide adjudications, watermaster service, and the creation of overarching legal constructs like river compacts and the declaration of fully appropriated streams attractive. Historically, the adoption of these measures was sought as relief from and an alternative to recurrent litigation. In the sphere of transfers, a deliberate and credible threshold process for making real water determinations and otherwise assuring responsible transfers likewise helps to forestall costly and inefficient lawsuits.

water,[16] balanced conditions,[17] Term 91,[18] Coordinated Operating Agreement (COA) accounting,[19] and other varied and specialized applications of the principle of legal injury that enter into transfers of water in the Central Valley, which can add to the complexity of real water determinations.

Avoiding legal injury to third parties and, equally important, accounting for social impacts and costs, are part of the necessary and sometimes time-consuming administrative process required for the transfer of water. They are essential to assuring that a proposed transfer of water will be a responsible transfer.

[16] Carriage water is a mitigation to mitigate the potential for increased salinity from exporting transfer water across the Delta. See DWR memo Draft Carriage Water Overview for Non-Project Water Transfers (October 2019) for details.

[17] Cross-Delta transfers take place only when the Delta is in "balanced conditions"–i.e., when all the water in the system is being used for diversion or to meet Delta standards and there is no surplus water available for appropriation, usually in the summer and fall. Because there is no surplus water in the system, and because the SWP and CVP guarantee that Delta standards will be met, when a new diversion occurs under balanced conditions, the Projects must reduce their exports or increase their releases of water from storage to maintain compliance with Delta standards. The period during balanced conditions when the Projects are making storage withdrawals to meet Delta standards is called "Term 91 conditions" (see next note).

[18] "Term 91 is the standard permit term the State Water Resources Control Board includes in new water rights (post-1964) that requires the permittee to cease diverting at those times when all the natural flow (more accurately called "unregulated flow," meaning all the flow that is not SWP and CVP storage releases) in the system is needed to help meet Delta standards and there is therefore no appropriable surplus. At such times (called "Term 91 conditions"), the Projects have already ceased their own diversion of natural flow and are exporting only the water they have added to the system through releases from storage. During term 91 conditions, the Projects are also having to use their stored water to maintain Delta standards. Thus, a transfer of other than "new water" added by the transferor effectively takes water from Project storage (and constitutes legal injury).

[19] COA is an agreement between DWR and the USBR to allocate responsibility between the SWP and CVP, among other things, for meeting Delta standards under balanced conditions. When one Project proposes to facilitate a cross-Delta transfer under Term 91 conditions, it must demonstrate to the other Project that only new water is being transferred, because, if it is not, the shortfall will be made up from both Projects' supply in accordance with the COA sharing formulas and accounting provisions.