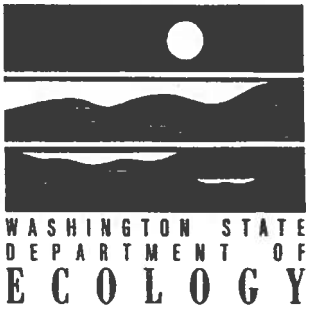
APPENDIX H

BUYER SELLER WATER AGREEMENTS

Contents



Trust Water Rights Program

Guidelines

Publication #92-88

GUIDELINES

TRUST WATER RIGHTS PROGRAM

DEPARTMENT OF ECOLOGY

September 10, 1992

NOTICE

August 24, 1993

These guidelines were adopted in 1992 in accordance with Chapter 90.42 RCW, the statute authorizing the trust water rights program.

The 1993 legislative session resulted in amendments to the statute, eliminating the requirement that the Department of Ecology identify eight Water Resource Inventory Areas for program implementation. The trust water rights program now applies statewide.

No amendments are considered necessary to the guidelines at this time; this document will now apply statewide.

EXECUTIVE SUMMARY

The trust water rights guidelines document summarizes the background and purposes of the program, describes technical and administrative concepts for evaluation of trust water rights proposals, and outlines the process and criteria for implementation. The trust water rights program codified at Chapter 90.42 RCW applies to ten water resource inventory areas (WRIAs) of the state. Two areas have been designated for implementation: the two regional pilot planning areas, the Methow and Dungeness-Quilcene basins. Up to eight additional areas containing "critical water supply problems", four on each side of the Cascade Mountains, may be identified for program implementation. The trust water rights concept will be tested and more information gathered for refinement of the guidelines and the legislation. An earlier trust water rights statute, Chapter 90.38 RCW, applies only to the Yakima basin and is not directly administered through these trust water rights guidelines.

The trust water rights statute has flexibility, for several types of transfers of water and water rights: e.g., dry year lease options, transfer of net water savings to other beneficial uses, and gift or purchase of water rights. Transfers are voluntary and may be temporary or permanent. All trust water rights are to be managed by the Department of Ecology.

A key concept of trust water rights is the maintenance of the original priority date once water is transferred. Water ordinarily subject to relinquishment under Chapter 90.14 RCW is not relinquished in the trust program. Conserved water which is not managed through the trust program may be considered waste and subject to relinquishment.

Evaluation of the amount of water transferable to other uses will be site-specific. The process will, in many cases, be very data-intensive. Many factors will influence the amount of water which may be transferred to other beneficial uses: the amount of water which has historically contributed to return flows, the amount which can be shown, if any, to be salvaged water (see glossary), the amount which is determined to have been used with reasonable efficiency, and other characteristics of the water right being evaluated. A high level of protection is afforded to other existing water rights; potential third party effects are to be carefully evaluated and monitored during creation and implementation of a trust water right.

The guidelines contain criteria which will be used to evaluate water conservation projects related to trust water right proposals for funding and also for considering WRIAs for program designation. The types of public benefits to be included in evaluating funding proposals and for allocating trust water are also described:

A report to the legislature containing recommendations for refinements is to be made by December 1993. This document has been drafted with the assistance of the Trust Water Rights Advisory Committee (members listed in Appendix A).

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INTERIM TRUST WATER RIGHTS GUIDELINES

Washington Water Trust

- Trust Water Rights Basics -

All trust water rights must be placed in the State Trust Water Rights Program to be managed by Department of Ecology (Ecology) and held in the name of the State of Washington. The State may acquire and hold trust water rights to be used for instream flows, irrigation, municipal, or other beneficial uses. Other attributes of the program include:

- Transfers to the trust water right program may be temporary or permanent.

- A trust water right retains the same priority date as the water right from which it originated, but where a trust water right derives from a portion of another right, as between a trust water right and the original right, the trust right is junior.

- Ecology is authorized to "enter into leases, contracts, or such other arrangement with other persons or entities as appropriate, to ensure that Trust Water Rights acquired in accordance with this chapter may be exercised to the fullest extent possible."

- In the case of a direct transfer from off-stream to instream purposes, the water right holder may designate the use of the Trust Water Right (e.g., to be protected for instream purposes).

- Water transferred to the program is not subject to relinquishment. Under common law, when water users conserved so that their needs were met with less water, the water that was left instream "unused" was subject to relinquishment. The Trust Water Rights statute creates a mechanism by which water may be allocated to other uses, including instream flows, without risk of relinquishment or loss of the priority date.

Eligibility for Transfer to Trust

Generally, a water user may only change the portion of a water right that has been put to beneficial use. The change as requested may not impair any existing rights, including pending applications.

Ecology considers the following factors when trying to determine a potential detriment or injury to existing rights: the change will not increase the instantaneous or annual quantity of the water used; the water right is eligible to be changed, and has not been abandoned or relinquished for nonuse; the source of the water will not change; the change will not expand the water right; the change will not increase the consumptive use of the water; and the change is not contrary to the public interest.

Calculating the Transferable Quantity

Where consumptive use (i.e., the water that would have been consumed by the plants, evaporated or otherwise permanently lost to the system) is reduced, that portion of the water right is protected from the point of diversion as far downstream as is measurable or traceable .

The Trust Water Rights statute and guidelines discuss the calculations in terms of gross and net water savings. Each calculation involves first determining the "gross water savings," which is the difference between historical diversions and the conservation-project diversions or the elimination of the diversion altogether. "Net water savings" are determined at any point along the affected reach by calculating the reduction in diversions minus return flows, minus any water needed to satisfy other senior rights. The Trust Water Rights Guidelines contain a technical discussion of how quantification is done.

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WASHINGTON WATER TRUST

Washington Water Trust

- Creative Ways to Put Water Instream -

There are a number of creative methods for acquiring water rights for instream flow protection. In many situations, these methods may be applied to an entire water right, or a portion of the water right.

Purchase – A purchase of a water right is a permanent acquisition of that right for change to an instream flow use. A purchase effectively separates the water from the land to which it was appurtenant.

Lease – A lease of a water right is a temporary acquisition of the right. In Washington state, shorter term leases (less than 5 years) have an expedited administrative change process.

Donation – A donated water lease may be temporary or permanent. Permanent donation may be a charitable contribution for the donor and therefore tax deductible.

Change in point of diversion – Sometimes a simple change in the place where the water is taken from the stream may result in an improved stream flow through critical habitat. One application of this method is to switch a point of diversion from a tributary to the mainstem where dewatering is less likely to occur.

Change in source of water – Sometimes a change in the source of water can result in a net improvement in an instream flow. For example, a switch from a surface water diversion to a groundwater source that is not hydrologically connected may provide an opportunity to restore water to a dry stream reach.

Conservation of a portion of the land – Conservation of important riparian habitat, and changing the water right associated with that portion of the land can lead to a win-win situation in which a farmer continues to irrigate a portion of his acreage while protecting riverine habitat and providing additional instream flows.

Split Season Leases – Split season leases allow a portion of a water right to be used for irrigation in the spring but leave the remaining portion of the water right instream during critical periods such as late summer or fall.

Dry Year Leases – Dry year leases provide opportunities to lease water rights for instream flow purposes during critical years for fish rather than more permanent (and more expensive) acquisitions of water rights. One innovative form of a dry-year lease is an option, which would give the option holder the right to use the water in dry years. Short-term options could be used to let the option holder use water in dry years over the course of 5 to 10 years. A permanent option would give the option holder the right to use the water during dry years in perpetuity.

Rotational Pool Agreements – Rotational pool agreements allow all the water right holders on a stream to either take turns not using their water for a year, or to each give up a portion of their water each year. In such agreements, the teamwork and collaboration experienced by the local community helps provide the support to improve instream flows.

Water Banks – Water banks provide flexibility in the management of competing water needs by allowing water right holders to transfer water rights more easily within a group of water rights holders. Water banks can be particularly effective within irrigation districts.

Benefits to farmers -

- ✔ Market-based compensation
- ✔ Transfers to an instream right may be temporary or permanent
- ✔ A water right retains the same priority date as the original water right
- ✔ Water transferred is not subject to relinquishment
- ✔ Water transferred can be a portion of or the whole water right
- ✔ Site-specific solutions

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WASHINGTON WATER TRUST

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37.02.03 - WATER SUPPLY BANK RULES

IDAPA 37
TITLE 02
Chapter 03

37.02.03 - WATER SUPPLY BANK RULES

000. (RESERVED).

001. TITLE AND SCOPE (Rule 1).
These rules were first adopted by the Water Resource Board in October 1980 as mandated by Section 42-1762, Idaho Code enacted in 1979. The rules govern the Board's operation and management of a Water Supply Bank provided for in Sections 42-1761 to 42-1766, Idaho Code. The purposes of the Water Supply Bank, as defined by statute, are to encourage the highest beneficial use of water; provide a source of adequate water supplies to benefit new and supplemental water uses; and provide a source of funding for improving water user facilities and efficiencies. These rules are to be used by the Water Resource Board in considering the purchase, sale, lease or rental of natural flow or stored water, the use of any funds generated therefrom, and the appointment of local committees to facilitate the lease and rental of stored water. The purchase, sale, lease or rental of water shall be in compliance with state and federal law. The adoption of these rules is not intended to prevent any person from directly selling or leasing water by transactions outside the purview of the Water Supply Bank Rules where such transactions are otherwise allowed by law. (7-1-93)

002. (RESERVED).

003. ADMINISTRATIVE APPEALS (Rule 3).
Any person aggrieved by a decision or action of the Director may request a hearing pursuant to Section 42-1701A(3), Idaho Code. Hearings shall be scheduled and held in accordance with the Department's adopted Rules of Procedure. Any final decision of the director may be appealed in accordance with Section 42-1701A, Idaho Code. (7-1-93)

004. -- 009. (RESERVED).

010. DEFINITIONS (Rule 10).

01. Board. The Idaho Water Resource Board. (7-1-93)

02. Board's Water Supply Bank. The water exchange market operated directly by the Board to facilitate marketing of water rights. (7-1-93)

03. Director. The Director of the Idaho Department of Water Resources. (7-1-93)

04. Department. The Idaho Department of Water Resources. (7-1-93)

05. Lease. To convey by contract a water right to the Board's water supply bank or stored water to a rental pool operated by a local committee. (7-1-93)

06. Local Committee. The committee which has been designated by action of the Board to facilitate marketing of stored water by operating a rental pool pursuant to Section 42-1765, Idaho Code. (7-1-93)

07. Natural Flow. Water or the right to use water that exists in a spring, stream, river, or aquifer at a certain time and which is not the result of the storage of water flowing at a previous time. (7-1-93)

08. Rent. To convey by contract a water right from the Board's water supply bank or stored water from a rental pool. (7-1-93)

09. Rental Pool. A market for exchange of stored water operated by a local committee. (7-1-93)

10. Stored Water. Water made available by detention in surface reservoirs or storage space in a surface reservoir. (7-1-93)

11. Water Right. The right to divert and beneficially use the public waters of the state of Idaho including any storage entitlement. (7-1-93)

12. Water Supply Bank. The water exchange market operated by the Water Resource Board pursuant to Section 42-1761 through 42-1766, Idaho Code, and these rules and is a general term which includes the Board's water supply bank and rental pools. (7-1-93)

13. Year. A time period of twelve (12) consecutive months. (7-1-93)

14. Person. Any company, corporation, association, firm, agency, individual, partnership, Indian tribe, government or other entity. (7-1-93)

011. -- 024. (RESERVED).

025. ACQUISITION OF WATER RIGHTS FOR THE BOARD'S WATER SUPPLY BANK (Rule 25).

01. General. The Board may purchase, lease, accept as a gift or otherwise obtain rights to natural flow or stored water and credit them to the Board's water supply bank. These water rights may then be divided or combined into more marketable blocks provided that there is no injury to other right holders, or enlargement of use of the water rights, and the change is in the local public interest. Any person proposing to sell or lease water rights to the Board's water supply bank, or to otherwise make water available through the water supply bank for the purposes of Section 42-1763A, Idaho Code, shall file a completed application with the Director on a forms or in a format provided by the Department and provide such additional information as the Board or Director may require in evaluating the proposed transaction. The completed application form shall state the period of time a water right is offered for lease, or the period of time that storage water will be released for fish migration purposes in accordance with Section 42-1763A, Idaho Code, and the payment terms, if any, requested by the applicant. (7-1-93)

02. Application. Submitted with the completed application shall be: (7-1-93)

a. Evidence that the water right has been recorded through court decree, permit or license issued by the Department. If the right is included in an ongoing adjudication, a copy of the claim is required; (7-1-93)

b. Proof of current ownership of the water right by the applicant; (7-1-93)

c. Information that the water right has not been lost through abandonment, or forfeiture as defined by Section 42-222(2), Idaho Code; (7-1-93)

d. Evidence to demonstrate the relative availability of water in the source to fill the water right; and (7-1-93)

e. The written consent of such company, corporation or irrigation district to the proposed sale or lease must accompany the application if the right to the use of the water, or the use of the diversion works or irrigation system is represented by shares of stock in a company or corporation, or if such works or system is owned or managed by an irrigation district. (7-1-93)

03. Review. Upon receipt of the completed application the Director will review it for completeness and make such further review as he deems necessary to adequately brief the Board on the proposed transaction. (7-1-93)

04. Inadequate Application. If an application is not complete, the Director will correspond with the applicant to obtain the needed information. If the requested information is not returned in thirty (30) days, the application will no longer be considered a valid request to place a water right into the Board's water supply bank. (7-1-93)

05. Consideration. The Board may consider an application at any regular or special meeting. (7-1-93)

06. Criteria. The Board will consider the following in determining whether to accept an offered water right into the Board's water supply bank: (7-1-93)

a. Whether the applicant is the current owner, title holder or contract water user of the water right proposed to be transferred to the Board's water supply bank or has authority to act on behalf of the owner; (7-1-93)

b. Whether all necessary consents have been filed with the Board; (7-1-93)

c. Whether the information available to the Board indicates that the water right has been abandoned or forfeited; (7-1-93)

d. Whether the offering price or requested rental rate is reasonable; (7-1-93)

e. Whether acquisition of the water right will be contrary to the State Water Plan; (7-1-93)

f. Whether the application is in the local public interest as defined in Section 42-1763, Idaho Code; (7-1-93)

g. The probability of selling or renting the water right from the Board's water supply bank. (7-1-93)

h. Whether there are sufficient funds on hand to acquire the water right for the Board's water supply bank, provided that, if there are insufficient funds, or if in the opinion of the Board, existing funds should not immediately be expended for such acquisition, the Board may find that the water right should be acquired on a contingency basis, with payment to be made to the seller or lessor only after water is subsequently sold or rented from the Board's water supply bank, and (7-1-93)

i. Such other factors as determined to be appropriate by the Board. (7-1-93)

07. Resolution of Board. The Board may by resolution accept an application to sell or lease a water right to the Board's water supply bank, or to otherwise make water available through the water supply bank for the purposes of Section 42-1763A, Idaho Code. An application to lease together with the resolution accepting it becomes a lease and the water right is placed into the Board's water supply bank upon adoption of the resolution. A resolution accepting an application to sell a right to the Board's water supply bank will provide authority for the chairman of the Board to enter an agreement to purchase the water right. The resolution may include conditions of approval, including but not limited to, the following: (7-1-93)

a. A condition providing the length of time the water right will be retained in the Board's water supply bank. (7-1-93)

b. A condition describing the terms for payment to the owner of the water right and the sale or rental price from the Board's water supply bank. (7-1-93)

c. Other conditions as the Board determines appropriate, including a condition recognizing that water is being made available through the water supply bank pursuant to the provisions of Section 42-1763A, Idaho Code, for purposes of fish migration. (7-1-93)

08. Placement of Water Right. Effect of placement of a water right into the Board's water supply bank. (7-1-93)

a. Upon acceptance of a water right into the Board's water supply bank, the owner of the right may withdraw the right within thirty (30) days of acceptance into the bank if the owner does not agree with the conditions of acceptance. (7-1-93)

b. Upon acceptance of a water right into the Board's water supply bank, the owner of the water right is not authorized to continue the diversion and use of the right while it is in the Board's water supply bank, unless the water right is for hydropower and is placed in the Board's water supply bank to be released for salmon migration and power production purposes. (7-1-93)

c. A water right which has been accepted shall remain in the Board's water supply bank for the period designated by the Board unless removed by resolution of the Board. (7-1-93)

d. The owner of the water right shall remain responsible to take actions required to claim the water right in an adjudication or other legal action concerning the water right and to pay taxes, fees, or assessments related to the water right. (7-1-93)

e. The forfeiture provisions of Section 42-222(2), Idaho Code are tolled during the time period the water right is in the Board's water supply bank, pursuant to the provisions of Section 42-1764, Idaho Code. (7-1-93)

026. -- 029. (RESERVED).

030. SALE OR RENTAL OF WATER RIGHTS FROM THE BOARD'S WATER SUPPLY BANK (Rule 30).

01. General. The Board may in its discretion initiate the process to sell or rent water rights from the Board's water supply bank to achieve the purposes stated in Rule 1. The Board may from time to time, as water rights are available, authorize the Director to announce the availability of the rights from the Board's water supply bank, establishing a time and date for receiving applications in the office of the Director to purchase or rent the water rights. An application shall be on a form or in a format provided by the Director. The sale or rental price shall be the price, if any, as determined by the Board. The Director will evaluate applications with respect to the purposes of Rule 1, as to whether there will be injury to other water rights, whether the proposal would constitute an enlargement of the water right, whether the water will be put to a beneficial use, whether the water supply available from applicable rights in the Board's water supply bank is sufficient for the use intended, and whether the proposal is in the local public interest. For applications submitted pursuant to the interim authority provided by Section 42-1763A, Idaho Code, the Director will only make an evaluation as to whether the proposed use of water will cause injury to other water rights. The Director may defer the evaluation of potential injury to other water rights conditioned upon the right of any affected water right holder to petition the Director pursuant to Section 42-1766, Idaho Code, to revoke or modify the rental approval upon a showing of injury. (7-1-93)

02. Notice. The Director may give notice of an intended rental as he deems necessary, provided that prior to approving any application for purchase, or for rental for a period of more than five (5) years, he shall give notice as required in Section 42-222(1), Idaho Code. (7-1-93)

03. Approval. Sale or rental shall be approved only for use of water within the state of Idaho. The Director shall consider in determining whether to approve a rental of water for use outside of the state of Idaho those factors enumerated in Section 42-401(3), Idaho Code, except that this evaluation shall not be required for applications submitted pursuant to the interim authority provided by Section 42-1763A, Idaho Code. (7-1-93)

04. Consideration. All applications received on or prior to the announced date for receiving applications shall be considered as having been received at the same time. Applications received after the close of the application date may be considered only if sufficient available water remains in the Board's water supply bank after all acceptable, timely applications have been filed. (7-1-93)

05. Authorized to Rent. The Director is authorized to rent water rights offered by the Board from the Board's water supply bank for a period up to five (5) years, but shall submit applications for purchase, or rental for a period of more than five (5) years to the Board for action. The Director will advise the Board on applications which require Board approval under Rule Subsection 025.06 whether he can approve the application in whole or in part or with conditions to comply with Section 42-1763, Idaho Code. (7-1-93)

06. Board Review. The Board will review applications for purchase or which propose the rental of water rights for a duration of more than five (5) years, and may approve, approve with conditions or may reject the applications as the Board determines to best meet the purposes of Rule 1 and promote the interest of the people of the state of Idaho. (7-1-93)

07. Order of Consideration. When renting water from the bank, the Director and the Board shall consider rental of water rights in the order the rights were leased to the bank, with first consideration for the rights which have continuously been in the bank the longest period of time provided the rights are suitable for the purpose of the renter. (7-1-93)

031. -- 034. (RESERVED).

035. HANDLING OF MONEY ASSOCIATED WITH THE BOARD'S WATER SUPPLY BANK (Rule 35). Payments received by the Department from the sale or rental of water rights from the Board's water supply bank shall be handled as follows: (7-1-93)

01. Credited Amount. Ten percent (10%) of the gross amount received from the sale or rental of a water right from the Board's water supply bank shall be credited to the Water Administration Account created by Section 42-238a, Idaho Code, for administrative costs of operating the Water Supply Bank. (7-1-93)

02. Excess Funds. Any funds in excess of the amount needed to compensate the owner of the water right in accordance with the resolution accepting the water right into the Board's water supply bank and the administrative charge of Rule Subsection 035.01 shall be credited to the Water Management Account created by Section 42-1760, Idaho Code, for use by the Board for the purposes of Rule 1. (7-1-93)

036. -- 039. (RESERVED).

040. APPOINTMENT OF LOCAL RENTAL POOL COMMITTEES (Rule 40).

01. Board Meetings for Committee Appointments. The Board may at any regular or special meeting to consider appointing an entity to serve as a local committee to facilitate the lease and rental of stored water. At least ten (10) days prior to the meeting, the entity seeking appointment shall provide to the Director information concerning the organization of the entity, a listing of its officers, a copy of its bylaws and procedures, if applicable, a copy of the proposed local committee procedures, pursuant to which the local committee would facilitate the lease and rental of stored water, together with a copy of each general lease and rental form proposed to be used by the local committee. The local committee procedures must be approved by the Board and must provide for the following: (7-1-93)

a. Determination of priority among competing applicants to lease stored water to the rental pool and to rent stored water from the rental pool; (7-1-93)

b. Determination of the reimbursement schedule for those leasing stored water into the rental pool; (7-1-93)

c. Determination of the rental price charge to those renting stored water from the rental pool; (7-1-93)

d. Determination of the administrative charge to be assessed by the local committee; (7-1-93)

e. Allocation of stored water leased to the bank but not rented; (7-1-93)

f. Notification of the Department and the watermaster of any rentals where stored water will be moved from the place of use authorized by the permit, license, or decree establishing the stored water right; (7-1-93)

g. Submittal of applications to rent water from the rental pool for more than five (5) years to the Board for review and approval as a condition of approval by the local committee; (7-1-93)

h. Prevention of injury to other water rights; (7-1-93)

i. Protection of the local public interest, except for applications submitted pursuant to the interim authority provided by Section 42-1763A, Idaho Code; (7-1-93)

j. Consistency with the conservation of water resources within the state of Idaho, except for applications submitted pursuant to the interim authority provided by Section 42-1763A, Idaho Code; (7-1-93)

k. Management of rental pool funds as public funds pursuant to the Public Depository Law, Chapter 1, Title 57, Idaho Code. (7-1-93)

02. Local Committee Procedures. The local committee procedures shall provide that a surcharge of ten percent (10%) of the rental fee charged per acre foot of stored water rented from the rental pool shall be assessed and credited to the revolving development account and the water management account established in Sections 42-1752 and 42-1760, Idaho Code, in such proportion as the Board in its discretion shall determine. Such moneys, together with moneys accruing to or earned thereon, shall be set aside, and made available until expended, to be used by the Board for the purposes of Rule 1 unless the surcharge is prohibited by statute, compact or inter-governmental agreement. (7-1-93)

03. Review by Director. The Director will review the local committee procedures and submit them along with the Director's recommendation to the Board. The lease and rental form must receive the Director's approval. The Board may designate the applying entity as the local committee for a period not to exceed five (5) years. A Certificate of Appointment will be issued by the Board. The Board may extend the appointment for additional periods up to five (5) years, upon written request of the local committee. The Board may revoke a designation upon request of the local committee, or after a hearing pursuant to the promulgated Rules of Practice and Procedure of the Board, if the Board determines that the local committee is no longer serving a necessary purpose or is not abiding by its own approved procedures, these rules or applicable statutes. (7-1-93)

04. Annual Report. The local committee shall report annually on the activity of the rental pool on forms provided by the Board. (7-1-93)

05. Submission of Amendments to Procedures to Board. Amendments to the approved procedures of an appointed local committee which change the amount charged for the rental of stored water shall be submitted to the Board by April 1st of any year. The amendment will be considered approved by the Board unless specifically disapproved at the first regular Board meeting following the amendment action of the local committee. (7-1-93)

041. -- 999. (RESERVED).

Subject Index

Statement of Basis and Purpose

Rules Governing the Arkansas River Water Bank Pilot Program

On June 5, 2001, Governor Bill Owens signed into law House Bill 01-1354 ("H.B. 1354" or "the law"), as codified and found in sections 37-80.5-102, 37-80.5-104 and 37-80.5-105, C.R.S., (2001). The statutory authority for these rules is specifically found in section 37-80.5-104, C.R.S. (2001). Under this authority, the State Engineer must promulgate pilot program rules necessary or convenient for the operation of the program by July 1, 2002.

The purpose of these rules is to establish parameters through which a pilot or test water banking mechanism can be established within the Arkansas River basin that will simplify and allow the approval of water leases, loans, and exchanges, including interruptible supply agreements, of stored water while reducing the costs associated with such transactions. In addition, the purpose of these rules is to assist farmers and ranchers in obtaining value for their water rights without forcing the permanent sale of those water rights from the land.

These rules are not intended to modify or restrict the ability of the holder of a water right to sell, lease or exchange water rights in any other manner that is currently permitted under Colorado law and are not intended to be implemented in any way that would cause material injury to the owner of or persons entitled to use water under a vested water right or a decreed conditional water right. Further, these rules are not intended to permit any expansion of use of stored water deposited into and leased, loaned, optioned or exchanged through the water bank. It is also not the intent of these rules to in any manner amend the existing water rights adjudication system except to allow for leases, loans, and exchanges effectuated through the water bank, which section 37-80.5-104(1)(a)(IV) expressly exempts from the water court change in use requirements of Article 92, Title 37, C.R.S.

These rules provide guidance on the structure of the water bank, limitations on water bank usage, procedures for placing water in the bank, transactional procedures within the bank, bidding and listing procedures, and quantification procedures for water rights placed in the bank, including presumptive consumptive use factors. These rules also set parameters for delivering water from the bank, reporting requirements and time limitations for the water bank.

Rule 1 – Title

Rule 1 is self-explanatory.

Rule 2 – Scope and Purpose

Rule 2 sets forth the scope and purpose of the Rules Governing the Arkansas River Water Banking Pilot Program, establishes that only stored water in the Arkansas Basin can be used in the water bank, and sets the sunset provision of June 30, 2007 for the rules.

Rule 3 – Definitions

Rule 3.A.1 defines "bankable water" to mean legally stored water meeting the criteria of the rules, as opposed to direct flow water rights. Direct flow water rights are not bankable under these rules or the law.

Rule 3.A.2 defines "Article II water" to assist in understanding the potential use of "winter stored water" in the pilot water bank.

Rule 3.A.3 and 3.A.4 are self-explanatory, while Rule 3.A.5 defines "interruptible supply" as required by the authorizing legislation.

Rule 3.A.6 defines an "option agreement" and was added to the rules on recommendations from water users to assist in clarifying this type of agreement. Option agreements may be used extensively in the water bank and assist in realizing the General Assembly's goal of providing a means for water to remain in agricultural type uses within the basin, while temporarily allowing other uses at times when the option is exercised. Rules 3.A.7 and 3.A.8 are self-explanatory.

Rule 3.A.9 defines "water banking" to set forth the general parameters of what water banking means within the terms of H.B. 1354. Rule 3.A.10 is self-explanatory.

Rule 3.A.11 clarifies who may be a "water bank operator" under the authorizing legislation and Rule 3.A.12 defines "winter water" to assist those water users who may utilize this specific type of water in the water bank program.

Rule 3.B is self-explanatory. Rule 3.C clarifies that the general terms of "buyer and seller" can encompass lessors and lessees and other types of parties who have transactions in the water bank. Rule 3.D is self-explanatory.

Rule 4 – Limitations on the Pilot Water Bank

Rule 4 sets forth the limitations on where water can be used, exchanged, leased, loaned and/or optioned. Further, it clarifies the types of water that can be used and the legal parameters under which the water can be used. The limitations set forth in this rule are addressed in sections 37-80.5-102 and 37-80.5-104.

Rule 4.A echoes the limitation set forth in section 37-80.5-104(1)(a)(I) to ensure compliance with the Arkansas River Compact. The purpose of Rule 4.B. is to ensure compliance with existing law concerning instream flow water rights and the enabling legislation for these rules. Rules 4.C and 4.D are self-explanatory.

Rule 4.E sets forth the time frame that "winter water" stored in Pueblo Reservoir can be banked. The purpose of this rule is to help ensure that entities entitled to use "winter water" pursuant to the provisions of Case No. 84CW179, Water Division No. 2, cannot circumvent the terms and conditions of that decree by depositing unused "winter water" in the water bank to prevent the release of such water that would make it available to other appropriators.

Rule 4.F clarifies that only Article II "winter stored water" can be used in the bank and that "summer stored water" may be not be used. Rule 4.G clarifies state and federal requirements, including contractual requirements that must be adhered to in connection with the use of federal projects (e. g. Pueblo Reservoir). Further, the rule ensures that the water bank cannot operate in a manner that will compromise or harm the purposes of the Fryingpan-Arkansas Project Act.

Rule 4.H ensures protection of existing water rights and compliance with applicable compacts, while allowing for temporary use of water through the water bank without formal adjudication, as permitted by section 37-80.5-104(1)(a)(IV), C.R.S. (2001). Further, Rule 4.H states that water used in the bank must return to its historic use after the terms of the transaction and utilization of the resource through the water bank are completed. The purpose of this portion of the rule is to emphasize that water cannot be permanently changed under the provisions of H.B. 1354. Rule 4.I is self-explanatory.

Rule 4.J limits the bank to a yearly operational basis based on storage space and water supply. This rule is included to enable the water bank operator and the Division Engineer to operate the water bank and implement water bank transactions based on current conditions. While Rule 4.J limits the water bank to a yearly operation, Rule 4.K clarifies that leases, loans, options or exchanges of water through the bank may exceed one year terms as long as there are sufficient terms and conditions in place for administration. Rule 4.K also makes it clear that no lease, exchange, etc. within the bank may be for a term longer than the enabling legislation limitations set forth in House Bill 1354.

Rule 5 – Procedures for Placing Water into the Water Bank

Rule 5 sets forth the application procedures that a water user must comply with to deposit water in the water bank. The information required under this rule assists in proper analyses and determinations as to whether the water is eligible to be deposited in the bank. Payment of fees assists in defraying administrative costs in bank operations.

Rules 5.A.1 and 2 ensure that proper permission has been obtained from reservoir owners and that contracting, if required, is completed prior to deposit in the water bank. Rules 5.A.3 through 5 are self-explanatory.

Rule 5.A.6 requires information concerning historic use of irrigation storage rights and plans for future use and irrigation of the land where the water was historically used. This information is required to ensure no expansion of historic consumptive use of the water.

Rule 5.A.7 requires a historic consumptive use analysis to be submitted with the application to determine historic consumptive use of the water right. However, this is only required if the applicant chooses to use consumptive use values different than those established under Rule 8 (presumptive historic consumptive use values) or if the water to be placed in the bank is not from a source listed in Rule 8. Rules 5.A.8 through 10 and Rule 5.B are self-explanatory.

Rule 5.C sets forth minimum terms that must be included in an acceptable "deposit agreement" between the water bank and the depositor. The agreement by the applicant that the bank has exclusive rights to market the water on behalf of the depositor is required so a depositor does not use the bank's listing services and then consummate a transaction outside of the water bank to avoid administrative costs associated with operating and maintaining the bank's services. The rule, as required by the enabling legislation, allows for the depositor to withdraw water from the bank at any time for personal use or permanent sale prior to an actual water bank transaction.

Rule 6 – Listing and Bidding Process

Rule 6 details marketing and bidding procedures for water deposited in the bank. Within this rule, Rules 6.A and B are self-explanatory.

The purpose of Rule 6.C is to meet the requirements of section 37-80.5-104(1)(a)(II), C.R.S. (2001) by balancing in-basin demands and impacts of a water bank transfer, along with out-of-basin demands, while maintaining the value of the banked water. Therefore, this rule requires an in-basin right of first refusal and makes water available in the bank available for use within the basin before making the water available for use within other river basins of the state.

Rule 6.D is self-explanatory. The purpose of Rule 6.E is to ensure that bidders are legitimate and have the resources (money) to consummate a transaction through the bank, and to make it difficult for frivolous Internet users with no interest in the water bank to affect the water bank market.

Rule 7 – Transactional Procedures

The purpose of Rule 7 is to set forth procedures for the water bank operator and the State/Division Engineers to follow after an agreement between a seller and buyer is negotiated by the water bank operator. Rule 7.A requires the water bank operator to provide the State and Division Engineers with a signed agreement that provides the minimum information necessary for the State/Division Engineers to determine if agreement is feasible and whether the proposed use of the banked water will injure vested water rights.

Rule 7.B's purpose is to define the time period by which the State/Division Engineers must review the proposal and impose any terms and conditions, including dry-up provisions, deemed necessary to ensure protection to vested water rights and to prevent expanded use of the water right. Rule 7.C is self-explanatory.

The purpose of Rule 7.D is to notify water bank participants that they must comply with state and local laws that pertain to the potential effects of a change in land use or irrigation practices. Rule 7.E is self-explanatory.

Rule 8 – Quantification Procedures for Water to be Released from the Bank

The purpose of Rule 8 is to provide water users in the basin an efficient and economical means to use features of the water bank without going through the time and expense that a detailed historic consumptive use analysis of the water right to be temporarily changed involves. Concurrently, the figures utilized in Rule 8 were developed in a conservative manner to guard against injury to vested water rights and comply with Arkansas River compact requirements.

The average farm efficiencies relied upon for the derivation of the presumptive factors included in Tables A and B were taken from the water budgets that resulted from use of the Hydrological Institutional (HI) Model. The HI Model was recognized as a reasonable method of determining depletions to usable Stateline flows for the period of 1986 through 1994 by the United States Supreme Court in the matter of Kansas v. Colorado, (No. 105, Original). The average transit loss values used herein were developed by Boyle Engineering for the State of Colorado in the course preparing its defense in the Kansas case, and were applied in order to make the values shown in Table A relate to units of stored water in Pueblo or John Martin Reservoirs.

Rule 8.C is included to clarify that waters associated with the Colorado Canal Reservoirs that have been quantified in the Water Court Case Nos. 84CW62-64 are not included in the presumptive values and will be quantified in terms of "net loss water." Rule 8.D is self-explanatory.

The intent of Rule 8.E.1 is to clarify that, following notification of completion of the transaction per Rule 7.C, the consumable portion shall be available for delivery for the buyer's purposes, but subject to evaporation and transit loss assessments pursuant to Rules 9.C and D.

The rationale for Rules 8.E.2 and 3 is to ensure that the use of water through the water bank will not adversely affect the rights of other owners of the same type of water as that deposited. This will be accomplished by the release of the transit, canal and lateral loss components concurrently with the release of waters of the same type owned by others to maintain the delivery conditions to their point of use.

The purpose of Rule 8.E.4 is to clarify that transit loss and canal/lateral losses will be administered per Rule 8.E.5 and reflect historic return flow patterns when all water of a given type is deposited in the water bank. Rule 8.E.5 recognizes that a portion of each unit of water applied to any use that is not consumptively used returns to a surface stream over a period of time and becomes available to other appropriators, and these appropriators are entitled to the maintenance of historic stream flow conditions. The timing and location of such returns is a function of when the application of water to a use occurs, the distance from the point of application to the stream, and the intervening geohydrologic conditions. The objective of this Rule is to mimic the return flow response, to a practical extent, in accord with the manner in which the deposited water has been historically used. For the purpose of this Rule, the historic pattern of use of various types of stored water anticipated to be deposited in the pilot water bank were investigated. The return flow response of each was then modeled using the Ground Water Accounting Model used by the Division 2 Engineer for similar purposes in connection with the administration of the Amended Rules and Regulations Governing the Diversion and Use of Tributary Ground Water in the Arkansas River Basin, Colorado. Because this model carries out mathematical results for a period of time beyond what is administratively practical for this application, the monthly results have been condensed into a single twelve-month schedule. It is anticipated that this type of schedule will be utilized to accomplish releases from the storage reservoir to the river for a twelve-month period starting from the completion of the transaction (per Rule 7.C.).

Rule 9 – Procedures for Delivering Water from Storage Facilities

Rule 9 addresses procedures for implementation of water bank transactions, such as actual delivery of water from the water bank, and the development of a credit and debit accounting system for reservoirs used to store banked water. 9.C and 9.D require the State Engineer to determine transit and evaporative losses and to evaluate and implement exchange operations as authorized by law.

Rule 10 – Reporting Requirements

The purpose of Rule 10.A is to ensure that the public can access summaries of transactions within the water bank. Rule 10.B sets forth the reporting requirements of House Bill 1354.

Rule 11 – Pilot Project Time Limitation

This rule is self-explanatory.

Rule 12 – Continuing Effect

This rule is self-explanatory.

Rule 13 – Effective Dates

This rule is self-explanatory.

California Drought Water Bank

State of California
Department of Water Resources

Capital and Environmental Services

This California Drought Water Bank program has an explicit, intentional purpose and an implicit, possibly unintended (though certainly not surprising) one. It was instituted to solve the water shortage problem in the southern part of California during 1991 and subsequent drought years. Until this program was developed, state and federal policy was to build water projects (stream capture, storage (reservoirs) and aqueducts) to supply more and more water directly to users. Local policy was to institute water conservation measures, allocate supplies, and try to share the suffering among local users. In times of extreme drought, the state could institute emergency regulations to allocate water from one region to another. The innovation of the California Drought Water Bank program is that it allows the thirsty to buy water from the better-supplied at more-or-less market-determined prices. The state operates a "bank," which is actually more of a wholesale warehouse. As a result, water districts that would otherwise have had real shortages (causing the loss of capital (not just annual) crops, such as vines and fruit trees as well as water supply interruptions to industry and residences) instead received the water they need, and the costs of the drought are minimized locally and statewide. The implicit purpose of the program is to accelerate a transition of California agriculture to crops with high ratios of value to water, and in some areas of the state to phase out agriculture entirely, as part of a shift of the state's water to urban and industrial use. Three quarters of California water is used by agriculture, an industry that now engages only 2% of the work force. A good part of this agricultural enterprise is one of the glories of the state economy, but it also includes some absurdities such as rice fields created by artificially low water prices. Arkansas and Texas are prepared to grow all the rice we need, with natural rainfall; most commentators in California think the state's fertile land should be dedicated to other, less thirsty crops like nuts, fruit, tomatoes, lettuce, and the like. The contribution of the Water Bank to this rationalization is to establish a precedent for transfers and to confront farmers with the real value of the water they use. Even those choosing not to sell cannot escape the evidence of what their irrigation water is worth to others.

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Effectiveness of Texas Water Bank Evaluated by Texas A&M International University Researcher

In 1993, the Texas Legislature passed legislation to create the Texas Water Bank, which is now a part of the Texas Water Development Board (TWDB). The idea was that the water bank could promote the buying and selling of water supplies and water rights, thus possibly alleviating water shortages. The legislation (Texas Senate Bill 1030) was intended to create a market atmosphere in which the bank would bring together sellers and buyers.

Recently, an economist at Texas A&M International University (A&M–International) evaluated the structure of the water bank and how it has operated. The goal is to determine the extent to which the bank has been effective at facilitating water marketing. David Yoskowitz, a researcher in the Economics and Finance Department at TAMIU, conducted these studies.

Some of the broad issues being investigated include assessing whether the bank can be flexible in how water trades are allocated, if the tenure of water rights holders is secure, and whether opportunity costs are taken into account. The project is also studying the fairness of the overall water banking process, the parties that participate in the bank, and effects on third parties. Much of Yoskowitz's research involves comparing the Texas Water Bank to California's Drought Water Bank, which was established in 1991.

So far, Yoskowitz notes, there has been little participation in the Texas Water Bank. For example, bank users so far include only one depositor, 14 registered sellers, and just 2 registered buyers. Individuals may contact the TWDB or visit a World Wide Web page to obtain a list of buyers and sellers and where the water source is located. However, pricing information is not shown.

In general, Yoskowitz says the characteristics of the Texas Water Bank reflect a well-defined commodity market that allows water to be easily bought and sold and moved to areas with higher-valued uses. Unlike the California water bank, the Texas bank allows prices to be determined by potential buyers and sellers. Additionally, Yoskowitz found that the Texas Water Bank is much more open-ended about who can participate. For example, non-profit associations can trade water supplies in Texas, while the market was limited to government agencies and cities in California.

A key obstacle that needs to be overcome, Yoskowitz says, is that the amount of groundwater that is available to be bought and sold needs to be quantified in greater detail. "In both Texas and California the availability of surface water supplies is relatively well-known. But the groundwater is difficult to measure and can only be estimated in terms of well yields. This makes it difficult to bank groundwater rights," he said.

Yoskowitz also suggests that the TWDB needs to publicize the Texas Water Bank more effectively, and recommends the Board work with river authorities and groundwater districts to educate potential users. He also recommends that questions regarding the cancellation of water rights need to be addressed. "Water may be put to beneficial use by a lease, but this does not necessarily protect the water right holder from the possibility of cancellation," he said.

Note: For details about this project, contact Yoskowitz at yosko@tamiu.edu or (956) 326-2509. To learn more about the Texas Water Bank, visit their web page at http://rio.twdb.state.tx.us/assistance/WaterBank/waterbankMain.htm or contact Bank manager Dan Beckett, at (512) 463-9893.

From NewWaves Volume 13 Number 4: March 2001

THE WATER BANK TRUST

WaterBank® Trust is a private, non-profit trust, originally established in 1994. It is dedicated to to the use of market-based methods to maintain, restore, and replace ground-water and surface water resources including wetlands throughout the United States. **WaterBank® Trust** works cooperatively with willing water users and landowners to acquire part or all of existing in-stream and out-of-stream water rights and wetlands in need of restoration.

WaterBank® Trust works to acquire water rights to establish a balance between paper water rights and the actual physical supply of water subject to interstate stream compacts.

WaterBank® Trust also acquires water rights to provide for in-stream flow requirement, watershed restoration and runoff augmentation, and restoration of riparian habitat.

WaterBank® Trust may trade water rights with other non-profit entities throughout the United States and abroad in return for water rights they may own in areas where **WaterBank® Trust** has on-going programs.

WaterBank® Trust may lease water rights it owns but is not using for project purposes to provide operating funds.

WaterBank® Trus also accepts wetlands in need of restoration and will issue wetland mitigation credits where wetland restoration projects have been approved.

WaterBank® Trust is authorized to receive grants and funds from public and private sources for the purpose of purchasing water rights or wetlands in areas targeted by donors.

Individuals and business can donate water rights or any other property, including wetlands and water utilities, to **WaterBank® Trust** receive income tax deductions based on the fair market value of the property donated.

As a general rule, there shall be allowed as a deduction to any charitable contribution for the use of a qualified 501(c)(3) entity if it is to be used within the United States and if it is made within the taxable year. A charitable contribution shall be allowable as a deduction for use as a **qualified conservation contribution** if it is a qualified real property interest donated to a qualified organization such as **WaterBank® Trust**. If the water rights are passed on to heirs, the heirs can continue to take deductions by donating the water rights in appropriate amounts **exclusively for conservation purposes**. The term "qualified real property interest" means the entire interest of the donor where the interest donated is the right to the use of property where the property is a **qualified conservation contribution**. To be considered a "qualified conservation contribution," the donation must be used for preservation or protection of relatively natural habitat of fish, wildlife, or plant, or similar ecosystem where such preservation is pursuant to a clearly delineated Federal, State, or local government conservation policy, and will yield a significant public benefit in perpetuity.

The amount of the deduction allowed shall not exceed 50 percent of the taxpayer's contribution base for the taxable year. The contribution base is the taxpayers adjusted gross income computed without regard to any net operating loss carryback to the taxable year.

In most cases, water rights and wetlands contributed to **WaterBank® Trust** will be appreciated property. That is, the acquisition cost or the taxpayers basis or what he paid for the water rights or property is commonly very low compared with the present fair market value of the water rights or wetland property. Appreciated property is called "capital gain property." In this case, the amount of the contribution to **WaterBank® Trust** is the amount of gain, which would have been long-term capital gain if the property contributed, had been sold by the taxpayer at its fair market value. Water rights or land that have been used for a trade or business are treated as a capital asset.

Consequently, if water rights or land are contributed to **WaterBank® Trust**, and if the amount of the contribution exceeds 50 percent of the taxpayer's contribution base for the such taxable year, the excess contribution shall be treated as a charitable contribution paid in each of the 5 succeeding taxable years, in order of time, but, with respect to the succeeding taxable years, only to the extent of the lesser of the two following amounts: the amount by which 50 percent of the taxpayer's contribution base for such succeeding taxable year exceeds the sum of the charitable contributions payment which is made by the taxpayer within such succeeding taxable year and the charitable contributions payment which was made in taxable years before the contribution year which are treated as having been paid in such succeeding taxable year; or, in the case of the first succeeding taxable year, the amount of such excess, and in the case of the second, third, fourth, or fifth succeeding taxable years the portion of such excess paid in any taxable year intervening between the contribution year and such succeeding taxable year. In simple language, if the value of the donation to **WaterBank® Trust** exceeds 50 percent of the taxpayers adjusted gross income, appropriate donations from tax may be taken in the five succeeding years.

If the value of the water rights or contribution of land for wetland restoration cannot be fully used to offset the taxpayers ordinary income in any five-year period, then the amount of water rights donated should be divided so as to benefit fully from the deductions allowed by the tax code. That is, every six years a block of water rights can be donated.

If you think that you have insufficient income to take advantage of the deductions, you may gift them or sell them to relatives or other individuals so that they can donate them to **WaterBank® Trust** at their appreciated, fair market value, and take tax deductions. That is, you can sell a tax deduction. This is perfectly legal and is done every day. Such transactions are sought by individuals in high income tax brackets and we have buyers for water rights to be donated to **WaterBank® Trust** for conservation purposes.

You will not receive the full value of the water rights in this kind of transaction because there must be some incentive for an individual who needs deductions to buy your water rights. After all, the buyer bears the considerable risk of ownership and attempts by the State Engineers and water courts to void water rights. As a general rule, you will receive from one-fourth to one-third of the fair market value of the water rights. That is, in the Middle Rio Grande, for example, a consumptive use water right that has a fair market value when bought and successfully transferred to a new location will have a fair market value of about $4,500 per acre foot of consumptive use water rights. You can expect a buyer to pay from $1,100 to $1,500 per acre foot for them.

If you own less than 20 acre feet of consumptive use water rights and do not have good documentary proof of the date of first use and if you cannot prove continuous use for at least one year out of four years, many western states in the United States can void your water rights or cause you to end up in a hearing or in court. In the Arab world, this can also occur under the principle of Indirass. New water legislation in other countries is adopting this principle also because it is contrary to sound public policy to allow our natural resources to be tied up forever and not used for the economic betterment of the citizenry.

Defending your water rights is expensive and very time consuming. In our experience some of these transactions have taken four and five years to complete. Water rights purchase contracts are written so that you only are paid when the water rights sale and transfer is approved by a regulatory agency, you bear considerable risk. So, it can be better in some cases to donate the water rights or look for a buyer at a discounted price to receive immediate cash than to keep

the water rights and try to get full market value. If you are dealing in more than 20 acre feet of consumptive use rights, it may be better to deal with the regulatory agencies.
The trustee of **WaterBank® Trust** is Dr. William Turner. Dr. Turner has managed trusts for more than 20 years. Dr. Turner has more than 30 years of experience in water. He has worked throughout the United States and 20 foreign countries on water issues. Dr. Turner is presently, the Natural Resources Trustee for the State of New Mexico, a gubernatorial appointment and department of state government, and a Member of the Governor's Blue Ribbon Task Force on Water. He regularly teaches courses on water rights.
A legal opinion by a professional tax attorney regarding donations will be provided to any donor of water rights to **WaterBank® Trust.**
For more information contact: Dr. William M. Turner, Trustee

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Washington State Water Right Adjudication Process

A Primer

A *general adjudication of water rights* determines the validity and extent of existing water rights in a given area. An adjudication is a legal process, conducted through the superior court in the county in which the water is located. An adjudication does not create new rights, it only confirms existing rights. This primer will give you information about how the adjudication process works.

The adjudication process is common to many western states because of the unique western experience because scarce water sources to settle these largely arid, dry lands historically have resulted in complexity and controversy for water rights.

An adjudication benefits water users because it clarifies existing water rights. This provides greater certainty to the ability to use water and the extent of the water right. An adjudication helps the Department of Ecology to better regulate in favor of senior water rights holders during times of shortage and controversy. It also provides Ecology more information to use when considering the impact of granting new rights and proposed changes to existing rights. When the court grants a water right in an adjudication (surface or ground water), it directs Ecology to issue a Certificate of Adjudicated Water Right.

In general, the process for an adjudication is as follows:

1. The area to be adjudicated is defined. For surface water, this area could be either a stream drainage basin (all the land drained by the stream), or a lake or other surface water body. In the case of ground water, the area to be adjudicated could be the area served by a specific aquifer(s). An aquifer is defined as an underground water body.
2. A citizen, organization, or Ecology files the case in a superior court and, for the purposes of the court case, Ecology becomes the plaintiff.
3. Known water users or water right holders within the defined area are notified of the adjudication by summons issued by the superior court. These water users/water right holders are the defendants. People or entities who feel they have a right to use water, whether named defendants or not, can file a Statement of Claim with the superior court. These forms are sometimes referred to as court claims, and should not be confused with Statement of Water Right Claim forms used in registering water right claims with Ecology. In addition to being defendants, these people become Claimants. Claimants may represent themselves or be represented by an attorney.

Publication # WR-98-151

ECOLOGY

4. A referee conducts an evidentiary hearing. Those claiming the right to use water (or their representatives) appear at the hearing to present factual information through testimony and documents supporting their claim.
5. After the hearing, the referee issues findings and recommendations to the court as to which claims should be confirmed water rights and what priority date is associated with each right. The judge reviews the recommendations, and issues a final order in the matter. The order is called a decree.
6. In large complicated adjudications, such as the Yakima River Basin General Adjudication of Surface Water Rights, the superior court judge can elect to hear certain claims (i.e. the federal government, Tribes, and major claimants) and refer other claims to the referee for hearing.

Each confirmed right includes:

- Priority date - the date when your water right was established. The tradition of the legal doctrine (prior appropriation), is "first in time, first in right," which means that the priority date determines the relative seniority of the water right against all others;
- Purpose of use;
- Quantity - the amounts of water a person or organization can use (both instantaneous and annual), the time of year the water right can be used, and in the case of irrigation, the number of acres;
- Point of diversion - the location where the water is taken from its natural source;
- Place of use - the land on which the water is used; and
- Any limitations on use specific to the confirmed water right.

During an adjudication, the two most important elements of protecting a water right are:

1. Filing a Statement of Claim with the court, and
2. Supporting that claim at the evidentiary hearing.

Evidence to support the claimed water right can come in many forms and from many places. Most of it will be old and historic in nature. Examples used in past adjudications to document how, when, or where the water system was developed and used include:

- Newspaper clippings which refer to the property or water system,
- Photographs that can establish a date and water use,
- Maps,
- Historical documents describing the property and/or water system (homestead documents, notices of appropriations, easement for ditches, etc.),
- Letters that would indicate water use or development,
- Books about the area,
- Tax statements or receipts for materials that show property and water use,
- County and state records,
- Chain of ownership (deeds that mention water rights),
- Affidavits from individuals attesting to personal historic knowledge of the water system and water uses(commonly referred to as Old Timer Affidavits), or
- Direct testimony by Old Timers with personal knowledge of development of water use in the vicinity.

A party to an adjudication would not supply original documents to the court. Documents submitted into evidence become part of the case and will not be returned.

The following locations may prove useful when searching for historical evidence:

- The attic or basement,
- Family scrapbooks or bibles,
- Local museums or historical societies,
- State archives,
- County engineer's office (for maps of early roads that may show ditches and streams, etc.),
- County auditor's office (to track property ownership),
- Bureau of Reclamation (for old maps and surveys),
- Ecology's regional offices (for copies of existing water right certificates or water right claims), and
- Local courthouse (copies of civil suits dealing with the water and/or property use).

Eighty-two small drainage systems in the state have been adjudicated. Seven adjudications are currently ongoing, with petitions filed to adjudicate 39 more. Only a small portion of Washington's 165,000 water right claims have been adjudicated and there is no current timeframe to adjudicate the remaining claims.

At the end of the adjudication process, the only water rights legally recognized are those confirmed by the adjudication process.

To understand how the adjudication process fits into Washington's water law history, please call the Department of Ecology's Publication office at (360) 407-7472 and request Publication #WR-98-152, "Washington State Water Law, A Primer."

For more information

This publication does not cover every possible element of an adjudication or provide legal advice. If you have questions about the adjudication process, call the Department of Ecology's Adjudication office, (360) 407-6641. If you have questions requiring a legal opinion, we recommend that you obtain the services of an attorney.

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ASSESSMENT OF WATER LEASING ACTIVITIES IN WASHINGTON STATE

November 1, 2001

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ASSESSMENT OF WATER LEASING ACTIVITIES IN WASHINGTON STATE

The State of Washington faced a record drought situation for the 2001 water year. The opportunity to lease water from current water right holders for the purpose of enhancing instream flows to improve conditions for fish were constrained by the drought. Water leasing activities conducted by the Washington Department of Ecology (WDOE), the Roza Irrigation District, and the U.S. Bureau of Reclamation (USBR) will be discussed here.

Washington Department of Ecology

The Washington Legislature appropriated funds for water leasing and purchase to the WDOE for the 1999-2001 biennium. WDOE also received funds for drought and non-drought related acquisitions in the 2001-2003 budget (See attached appropriation summary). The Legislature also provided criteria for the use of these funds in the appropriation language. The initial work undertaken by the agency with this funding focused on purchase of the Buckley water right on the Walla Walla River in the amount of $680,000. The WDOE also cooperated with the U.S. Bureau of Reclamation by reimbursing the USBR for the water right portion of a property acquisition on the Yakima River near the City of Yakima.

The WDOE program continued to evolve in 2001. WDOE with the assistance of the Washington Department of Fish and Wildlife developed list of priority streams segments in the water resource inventory areas that would be targeted for water leases or purchases. These stream segments had been identified during the course of the Limiting Factors Analysis process as areas that would provide the greatest opportunity for habitat improvement from additional stream flows. (See attached Target Streams summary)

The drought disrupted the opportunity to implement a comprehensive lease or purchase of water rights program as the WDOE was forced to move to an emergency response program. WDOE had a dedicated pot of money for acquisitions. At the same time as the agency was responding to the drought crisis the Legislature was engaged in an extended session that created a little uncertainty regarding the amount of funds that would ultimately be available for water lease or purchase.

The WDOE did complete a number of water leases during 2001 for both improved instream flows as well as for emergency supplies for agricultural production. (See attached Water Buying/Leasing Tracking Sheet).

The water leasing program was coordinated by headquarters staff and implemented in large part through the Water Resource Program Regional Managers who were responsible for identifying water right holders with diversion rights on priority stream segments. Press releases and communication through watershed groups helped spread the word. Staff time was not available, however, to undertake a concerted outreach program with every landowner so the program relied to a certain degree on word of mouth and existing relationship with landowners who had been involved with ongoing programs. In the central region, a staff person with the Washington Conservation Commission was able to initiate several contacts and direct persons interested in leasing to the Regional Manager.

The target stream prioritization strategy was well defined and there is general agreement regarding where the work needs to be focused. The leases concluded during 2001 were limited due to the late timing of the draught declaration and, to some degree, the uncertainty of legislative actions. Given the availability of funds during the current year, most all leases that became available on priority stream segments were concluded. The number available was small enough that prioritization was not a factor.

Leases accomplished were all of a senior nature and were rights being used for low value crops, primarily hay and grazing.

Prices were negotiated at the region level using the current rates. Rates in central Washington were the highest due to competition from Roza Irrigation District. Roza was in the market to secure water supplies for the high value perennial crops grown in that district. Valuation methods used varied, but generally reflected current cash rent values for cropland in the area.

Water leases negotiated in the WDOE regional offices were forwarded to WDOE's Olympia headquarters for final processing. WDOE had identified two staff persons to handle the lease contracts. A water resources specialist reviewed the water rights aspects of the lease and a budget/contracts specialist prepared the standard contract that was developed specifically for the program. This aspect of the program operated smoothly and leasing water indicated that they had received their paperwork and payments in a timely manner.

WDOE regional offices were responsible for monitoring the operation of the leases. Monitoring consisted primarily of drive bys to assure that lands that were to be fallowed were in fact not being irrigated.

Outreach and communication regarding the WDOE water leasing/purchase program was minimal, consisting primarily of word of mouth, reference in local newspapers and outreach by cooperating agencies such as the Washington Conservation Commission staff. The agency's efforts were focused on addressing the effects of the drought so specific focus on this particular program became a lower priority.

A group of leases was negotiated with the cooperation of the Dungeness Water Users Association (DWUA). WDOE also was involved. The DWUA represents 4 irrigation districts and 3 ditch companies on the Dungeness River in Clallam County. This group had already been engaged with WDOE in activities to improve the flows in the Dungeness River. The DWUA had, through a previous agreement, agreed to curtail diversion to no more than 50% of the flow of the river. A lease agreement was reached to further improve flows during the lowest stream flow period of August 1st through September 15th. The DWUA managed a process were leases were offered to active farmers in the service area for the 8/1 – 9/15 time period that amounted to 50% of the flow allowed during that period. Thirteen leases were concluded. The value of the leases related to the crop that was being produced on the land taken out of further production ranging from $100 to $200 per acre. The DWUA facilitated the process that was started in early July.

Roza Irrigation District

Roza Irrigation District is located in the lower Yakima Valley and serves about 60,000 acres of primarily high value perennial crops. Roza is part of the federal Yakima Reclamation Project but holds junior water rights that are subject to prorating during water short years. Early in the water year when it became apparent that water supplies would again be prorated the Roza Board of Directors decided to utilize District reserves in the amount of $2.1 to lease water in the Yakima drainage to supplement supplies received from the Bureau. Media coverage of the drought was extensive in the central Washington area so the District manager was able to rely on press coverage to get word out on the District's willingness to lease water. Roza was contacted directly by enough water right holders to fully commit the funds they had available.

Irrigation water supplies in the Yakima River basin are under the control of the USBR through their Total Water Supply Available (TWSA) methodology. The allocation of water is further complicated by several federal court orders and the jurisdiction of Judge Stauffacher under the ongoing Aquavella adjudication. A special process was developed by the affected parties for transfers under leases with in the basin, which allowed all the proposed leases to be concluded with 6 weeks.

Roza announced an initial price of $150 per acre of cropland taken out of production. When this offer didn't produce the volume of water desired, the price was increased to $250 per acre. All leases were paid at the higher amount including those that came in under the initial price announcement. This price for crop leases translates to a value on the water of about $110/acre ft.

Water was leased from individuals as well as other irrigation districts. Some water was acquired from high in the tributaries. The value of one small lease on the Teanaway River in the amount of $8,657 was reimbursed by WDOE. Both WDOE and Roza benefited from that lease since the water stayed in the Teanaway River that was a priority segment for the WDOE.

Once Roza indicated intent to lease water the offers came rather rapidly. This seemed to indicate a greater comfort level in concluding leases with another farming entity as opposed to the WDOE. WDOE also declined to enter into any bidding competition with the District.

U.S. Bureau of Reclamation

The U.S. Bureau of Reclamation (USBR) has utilized water leases on a limited basis under the provisions of the Yakima River Basin Enhancement Project (YRBEP) authority. The USBR has been a part of Yakima River management for nearly 100 years. Congress enacted the YRBEP in 1994 to improve the water supply situation in the Yakima River basin. USBR has been working on the program since that time.

USBR has only leased water as a method to reimburse water users when their water wasn't available due to capital improvement being constructed by the USBR. The USBR has chosen to focus instead on acquisition of land with appurtenant water rights. Their experience is has been that better value is received via permanent acquisition of the water right. They have also found that most land owners are unwilling to sell only the water, since land without water rights in arid areas has little residual value.

USBR has initiated an aggressive program to acquire habitat land adjacent to the Yakima River under this program. They have utilized the services of two part-time staffers with real estate transaction experience who have personally contacted all landowners in the target area, between Selah Gap and Union Gap on the Yakima River. They have let the land owners know of their interest and have concluded several significant purchases through this outreach program.

The USBR subsequently was reimbursed by the WDOE for the water portion of the purchase.

Conclusions

- If specific changes were made to the way leases were advertised, solicited, acquired, held and monitored, water leasing appears to be a very viable short-term approach to resolve water shortage problems and/or economic problems faced by certain farmers. Given that leasing provides farmers with great flexibility, compared to outright acquisitions, leasing also appears to be a very positive long-term approach to address complex water shortage and agricultural problems.

- Water leasing appears to also be a very viable way to develop relationships with water right holders that could lead, when needed, ultimately to voluntary purchases of a portion or all of the water right.

- Water right holders seem to be most comfortable leasing water rights to other farmers or irrigation districts. Regional or locally based leasing structures and organizations should be examined as an additional avenue for soliciting, leasing and holding water rights. Any successful program must partner with local organizations and individuals.

- Some uncertainty exists regarding dealings with the WDOE on water leases. Again, additional regional or locally based structures and organizations should be investigated to solicit, lease and hold water rights.

- The current visual observation approach to monitoring seems appropriate in the short-run given the emergency nature of the program. However, over the long-term a more thorough monitoring program will be needed to assure the public that leased water is left in stream and is not withdrawn by right holders down stream and that the leased water provided desired ecological benefits.

- The current communication and outreach strategy also seems appropriate given the emergency nature of the program. Over the long-term, however, a more thorough communication and outreach program will be needed. Strategies need to be developed to get the word out to all eligible farmers about the program in terms they understand. The information should come from organizations that farmers feel most comfortable with.

- The pricing system may need to be reexamined. There could be an appearance of conflict of interest when the same agency is responsible for determining the extent of your asset and then negotiates a price for the sale. The amount of water that has been put to beneficial use and is subsequently available to transfer is determined by WDOE. This could lead concerns about the

potential to limit that amount to maximize the amount of water received for the price paid. One option to consider would be to contract out for appraisals.

A non-governmental entity could potentially be in a good position to do the outreach and secure leases from targeted water right holders. Non-governmental entities would be in a position to work to maximize the value received by the water right holder. Washington Water Trust is a non-governmental organization that could be looked at for this role. Others exist also.

APPENDIX

Department of Ecology Budgets

SUBSTITUTE SENATE BILL 6155

Chapter 8, Laws of 2001

(partial veto)

57th Legislature
2001 Second Special Session

CAPITAL BUDGET

NEW SECTION. Sec. 304. FOR THE DEPARTMENT OF ECOLOGY
Methow Basin Water Conservation (92-2-009)

The reappropriation in this section is subject to the following conditions and limitations: The reappropriation in this section is provided solely for projects under contract on or before June 30, 2001. Reappropriated funds not associated with contracted projects shall lapse on June 30, 2001.

Reappropriation:

State Building Construction Account--State	$ 87,689
Prior Biennia (Expenditures)	$ 0
Future Biennia (Projected Costs)	$ 0
TOTAL	$ 87,689

NEW SECTION. Sec. 306. FOR THE DEPARTMENT OF ECOLOGY
Water Rights Purchase/Lease (99-1-005)

The appropriation in this section is provided for the purchase or lease of water rights under the trust water rights program under chapters 90.42 and 90.38 RCW, for the purpose of improving stream and river flows in fish critical basins.

Appropriation:

State Building Construction Account--State	$ 1,000,000
General Fund--Federal.	$ 6,000,000
Subtotal Appropriation.	$ 7,000,000
Prior Biennia (Expenditures)	$ 1,000,000
Future Biennia (Projected Costs)	$ 0
TOTAL	$ 8,000,000

NEW SECTION. Sec. 312. FOR THE DEPARTMENT OF ECOLOGY
Referendum 38 Water Supply Facilities (74-2-006)

The reappropriation in this section is subject to the following conditions and limitations:
(1) The reappropriation is provided solely for projects under contracts on or before June 30, 2001. Reappropriated funds not associated with contracted projects shall lapse on June 30, 2001.
(2) The office of financial management may grant waivers from this lapse requirement for specific projects upon findings of exceptional circumstances after notification of the chairs of the house of representatives capital budget committee and senate ways and means committee.
(3) The department shall submit a report to the office of financial management and house of representatives capital budget committee and senate ways and means committee by December 1, 2001, listing all projects funded from this section.
(4) $2,500,000 of the reappropriation from the state drought preparedness account is provided solely to purchase or lease water pursuant to section 306 of this act.

Reappropriation:

State Drought Preparedness--State.	$ 5,525,000
State and Local Improvements Revolving Account (Water Supply Facilities)--State. .	$ 6,000,000
Subtotal Reappropriation.	$11,525,000
Prior Biennia (Expenditures)	$ 6,029,098
Future Biennia (Projected Costs)	$ 0
TOTAL	$ 17,554,098

NEW SECTION. Sec. 313. FOR THE DEPARTMENT OF ECOLOGY
Referendum 38 Water Supply Facilities (02-4-006)

The appropriation in this section is subject to the following conditions and limitations: $250,000 of the appropriation is provided solely to study the development of the Lake Wenatchee water storage project.

Appropriation:

State and Local Improvements Revolving Account (Water Supply Facilities)--State	$ 6,000,000
Prior Biennia (Expenditures)	$ 0
Future Biennia (Projected Costs)	$12,000,000
TOTAL	$18,000,000

NEW SECTION. Sec. 316. FOR THE DEPARTMENT OF ECOLOGY
Water Irrigation Efficiencies (01-H-010)

The appropriation in this section is subject to the following conditions and limitations:
(1) The appropriation is provided solely to provide grants to conservation districts to assist the agricultural community to implement water conservation measures and irrigation efficiencies in the 16 critical basins. A conservation district receiving funds shall manage each grant to ensure that a portion of the water saved by the water conservation measure or irrigation efficiency will

be placed as a purchase or a lease in the trust water rights program to enhance instream flows. The proportion of saved water placed in the trust water rights program must be equal to the percentage of the public investment in the conservation measure or irrigation efficiency. The percentage of the public investment may not exceed 85 percent of the total cost of the conservation measure or irrigation efficiency. In awarding grants, a conservation district shall give first priority to family farms.

(2) By February 1, 2003, the state conservation commission shall submit a progress report to the appropriate standing committees of the legislature on: (1) The amount of public funds expended from this section; and (2) the location and amount of water placed in the trust water rights program pursuant to this section.

(3) $1,000,000 of the water quality account appropriation is provided for water leases or projects in the Yakima River basin for acquifer recharge necessary to allow the use of drought wells to meet essential irrigation needs. Essential irrigation needs is defined as eighty percent of the amount of water a farmer would ordinarily receive from the irrigation district, less the water that is actually delivered and regardless of crops grown.

Appropriation:

State and Local Improvements Revolving Account (Water Supply Facilities)--State.	$ 4,000,000
Water Quality Account--State	$ 5,000,000
Subtotal Appropriation.	$ 9,000,000
Prior Biennia (Expenditures)	$ 0
Future Biennia (Projected Costs)	$ 0
TOTAL	$ 9,000,000

NEW SECTION. Sec. 317. FOR THE DEPARTMENT OF ECOLOGY
Water Measuring Devices and Gauges (01-H-009)

The appropriation in this section is subject to the following conditions and limitations: The appropriation in this section is provided solely for water measuring devices and gauges. The department shall prioritize the distribution of water measuring devices and gauges to locations participating in the department of fish and wildlife fish screens and cooperative compliance programs.

Appropriation:

State Building Construction Account--State	$ 3,400,000
Prior Biennia (Expenditures)	$ 0
Future Biennia (Projected Costs)	$ 0
TOTAL	$ 3,400,000

FISCAL MATTERS

NEW SECTION. Sec. 302. FOR THE DEPARTMENT OF ECOLOGY

General Fund--State Appropriation (FY 2002). . . .$ 46,633,000
General Fund--State Appropriation (FY 2003). . . .$ 44,481,000
General Fund--Federal Appropriation. . . . . .$ 56,805,000
General Fund--Private/Local Appropriation. . . . .$ 4,351,000
Reclamation Revolving Account--State
Appropriation. . . . . .$ 1,810,000
State Emergency Water Projects Revolving Account--
State Appropriation. . . . . .$ 878,000
State Drought Preparedness Account--State
Appropriation. . . . . .$ 5,325,000
State and Local Improvements Revolving Account
(Water Supply Facilities)--State
Appropriation. . . . . .$ 587,000
Water Quality Account--State Appropriation . . . .$ 12,481,000
Water Quality Permit Account--State
Appropriation. . . . . .$ 23,827,000
Water Pollution Control Revolving Account--
State Appropriation. . . . . .$ 467,000
Water Pollution Control Revolving Account--
Federal Appropriation. . . . . .$ 2,316,000
TOTAL APPROPRIATION . . . . . .$ 324,942,000

The appropriations in this section are subject to the following conditions and limitations:

(3) $250,000 of the general fund--state appropriation for fiscal year 2002, $250,000 of the general fund--state appropriation for fiscal year 2003, $564,000 of the state drought preparedness account—state appropriation, and $549,000 of the water quality account—state appropriation are provided solely for enhanced streamflow monitoring in critical salmon recovery basins. $640,000 of this amount is provided solely to implement the Puget Sound work plan and agency action item DOE-01.

(5) $383,000 of the general fund--state appropriation for fiscal year 2002 and $383,000 of the general fund--state appropriation for fiscal year 2003 are provided solely for water conservation plan review, technical assistance, and project review for water conservation and reuse projects. By December 1, 2003, the department in cooperation with the department of health shall report to the governor and appropriate committees of the legislature on the activities and achievements related to water conservation and reuse during the past two biennia. The report shall include an overview of technical assistance provided, reuse project development activities, and water conservation achievements.

(12) $1,500,000 of the general fund--state appropriation for fiscal year 2002, $1,500,000 of the general fund--state appropriation for fiscal year 2003, and $3,000,000 of the water quality account appropriation are provided solely to implement chapter 237, Laws of 2001 (Engrossed Substitute House Bill No. 1832, water resources management) and to support the processing of applications for changes and transfers of existing water rights.

(13) $4,500,000 of the general fund--state appropriation for fiscal year 2002 and $4,500,000 of the general fund--state appropriation for fiscal year 2003 are provided solely for grants to local governments to conduct watershed planning.

(14) $3,114,000 of the water quality account appropriation is provided solely to implement Engrossed Substitute House Bill No. 1832 (water resources management). Of this amount: (a) $2,100,000 is provided for grants to local governments for targeted watershed assessments consistent with Engrossed Substitute House Bill No. 1832; and (b) the remainder of the funding is provided solely for development of a state environmental policy act template to streamline environmental review, creation of a blue ribbon panel to develop long- term watershed planning implementation funding options, and technical assistance.

(15) $50,000 of the general fund--state appropriation for fiscal year 2002 is for a conservation district in the Moses Lake region for a culvert removal project on Rocky Ford creek for the purpose of reducing flooding and improving water quality.

(16) $150,000 of the general fund--state appropriation for fiscal year 2002 and $150,000 of the general fund--state appropriation for fiscal year 2003 are for the conservation commission for the Washington grazing lands conservation initiative's establishment of the Washington watershed, science, and technology program to provide technical assistance to private landowners in conducting water quality monitoring, riparian vegetation management, and noxious weed control.

(17) $75,000 of the general fund--state appropriation for fiscal year 2002 is for a conservation district in the Palouse region for a pilot project to evaluate the ability of existing voluntary and regulatory programs to improve water quality in water quality limited segments listed pursuant to section 303(d) of the federal clean water act.

(18) $200,000 of the water quality account appropriation is provided solely to provide coordination and assistance to groups established for the purpose of protecting, enhancing, and restoring the biological, chemical, and physical processes of watersheds. These groups may include those involved in coordinated resource management, regional fisheries enhancement groups, conservation districts, watershed councils, and private nonprofit organizations incorporated under Title 24 RCW.

(19) $325,000 of the state drought preparedness account—state appropriation is provided solely for an environmental impact statement of the Pine Hollow reservoir project to be conducted in conjunction with the local irrigation district.

(21) $600,000 of the water quality account--state appropriation is provided solely for setting instream flows in six basins not currently planning under the watershed planning act.

*Sec. 302 was partially vetoed. See message at end of chapter.

ENGROSSED SUBSTITUTE SENATE BILL 5180

Chapter 309, Laws of 1999
(partial veto)

56th Legislature
1999 Regular Session
FISCAL MATTERS

NEW SECTION. Sec. 302. FOR THE DEPARTMENT OF ECOLOGY

General Fund--State Appropriation (FY 2000) $33,558,000

General Fund--State Appropriation (FY 2001) $33,539,000
General Fund--Federal Appropriation $48,981,000
General Fund--Private/Local Appropriation $4,234,000
Special Grass Seed Burning Research Account--
State Appropriation. . . . . .$ 14,000
Reclamation Revolving Account--State Appropriation. $1,735,000
Flood Control Assistance Account--
State Appropriation. $3,989,000
State Emergency Water Projects Revolving Account--
State Appropriation. . . . . .$ 317,000
Waste Reduction/Recycling/Litter Control Account--
State Appropriation. $13,192,000
Salmon Recovery Account--State Appropriation. $1,120,000
State and Local Improvements Revolving Account
(Water Supply Facilities)--State Appropriation . . . . . .$ 557,000
Water Quality Account--State Appropriation. $3,879,000
Wood Stove Education and Enforcement Account--
State Appropriation. . . . . .$ 351,000
Worker and Community Right-to-Know Account--
State Appropriation. $3,155,000
State Toxics Control Account--State Appropriation $46,838,000
State Toxics Control Account--Private/Local
Appropriation. . . . . .$ 377,000
Local Toxics Control Account--State Appropriation $4,586,000
Water Quality Permit Account--State Appropriation $21,003,000
Underground Storage Tank Account--State
Appropriation. $2,475,000
Environmental Excellence Account--State
Appropriation. . . . . .$ 20,000
Biosolids Permit Account--State Appropriation . . . . . .$ 572,000
Hazardous Waste Assistance Account--State
Appropriation. $3,942,000
Air Pollution Control Account--State Appropriation. $15,844,000
Oil Spill Administration Account--State
Appropriation. $7,521,000
Air Operating Permit Account--State Appropriation $3,548,000
Freshwater Aquatic Weeds Account--State
Appropriation. $1,430,000
Oil Spill Response Account--State Appropriation $7,078,000
Metals Mining Account--State Appropriation. . . . . .$ 43,000
Water Pollution Control Revolving Account--
State Appropriation. . . . . .$ 439,000
Water Pollution Control Revolving Account--
Federal Appropriation. $2,200,000
TOTAL APPROPRIATION $266,537,000

The appropriations in this section are subject to the following conditions and limitations:

(3) $374,000 of the general fund--state appropriation for fiscal year 2000 and $283,000 of the general fund--state appropriation for fiscal year 2001 are provided solely for the department to digitize water rights documents and to provide this information to watershed planning groups.

(4) $500,000 of the general fund--federal appropriation is provided solely for the department to update its water rights tracking system. $250,000 of this amount may be expended in each fiscal year of the biennium only if the state receives greater than $25,000,000 from the federal government for salmon recovery activities in that fiscal year. Funds authorized for expenditure in fiscal year 2000 may be expended in fiscal year 2001.

(13) $438,000 of the general fund--state appropriation for fiscal year 2000, $1,025,000 of the general fund--state appropriation for fiscal year 2001, and $1,870,000 of the general fund--federal appropriation are provided solely to implement Substitute Senate Bill No. 5670 (noxious weed herbicide) for the establishment of total maximum daily loads for water bodies across the state. $433,000 of the general fund--state appropriation is to implement the Puget Sound work plan and agency action item DOE-2. If the bill is not enacted by June 30, 1999, the amounts provided in this subsection shall lapse.

(14) $591,000 of the general fund--state appropriation for fiscal year 2000 and $1,131,000 of the general fund--state appropriation for fiscal year 2001 are provided solely to process water rights applications.

(15) $414,000 of the general fund--state appropriation for fiscal year 2000, $383,000 of the general fund--state appropriation for fiscal year 2001, and $797,000 of the general fund--federal appropriation are provided solely for technical assistance and project review for water conservation and reuse projects. $398,000 of the general fund--federal appropriation may be expended in each fiscal year of the biennium only if the state receives greater than $25,000,000 from the federal government for salmon recovery activities in that fiscal year. Funds authorized for expenditure in fiscal year 2000 may be expended in fiscal year 2001.

(16) The entire salmon recovery account appropriation is provided to increase compliance with existing water quality and water resources laws.

(17) $4,500,000 of the general fund--state appropriation for fiscal year 2000, $4,500,000 of the general fund--state appropriation for fiscal year 2001, and $1,500,000 of the general fund--federal appropriation are provided solely for grants to local governments to conduct watershed planning. $750,000 of the general fund--federal amount may be expended in each fiscal year of the biennium only if the state receives greater than $25,000,000 from the federal government for salmon recovery activities in that fiscal year. Funds authorized for expenditure in fiscal year 2000 may be expended in fiscal year 2001.

(18) $100,000 of the general fund--state appropriation for fiscal

year 2000, $82,000 of the general fund--state appropriation for fiscal year 2001, and $181,000 of the general fund--federal appropriation are provided solely for the department, in cooperation with the department of fish and wildlife, to establish fish and habitat index monitoring sites to measure the effectiveness of salmon recovery activities. $90,500 of the general fund--federal amount may be expended in each fiscal year of the biennium only if the state receives greater than $25,000,000 from the federal government for salmon recovery activities in that fiscal year. Funds authorized for expenditure in fiscal year 2000 may be expended in fiscal year 2001.

(23) $145,000 of the general fund--state fiscal year 2000 appropriation and $145,000 of the general fund--state fiscal year 2001 appropriation are provided solely for training and technical assistance to support the activities of county water conservancy boards.

SUBSTITUTE HOUSE BILL 1165

Chapter 379, Laws of 1999
(partial veto)

56th Legislature
1999 Regular Session
CAPITAL BUDGET

NEW SECTION. Sec. 301. FOR THE DEPARTMENT OF ECOLOGY
Water Rights Purchase

The appropriation in this section is subject to the following conditions and limitations:

(1) The appropriation is provided for a pilot project for the purchase of water rights under the trust water rights program under chapter 90.42 RCW, for the purpose of improving stream and river flows in fish critical basins. This appropriation shall only be used to acquire water rights in basins with current or proposed listings of salmon or steelhead under the federal endangered species act (16 U.S.C. Sec. 1531 et seq.) and where low flows have been identified as a limiting factor for salmon recovery. Priority for funding such purchases and leases shall take into consideration the following:

(a) Proposals providing the greatest benefit for restoring and protecting fish;

(b) Proposals providing benefits in addition to protecting fish critical streams and rivers;

(c) Proposals that include funds from other sources;

(d) Proposals showing a broad level of support among interested parties;

(e) Proposals requiring the lowest administrative costs to implement; and

(f) Proposals requiring the lowest overall cost within the context of the local marketplace.

(2) On or before December 1, 2000, the department shall report to the governor and appropriate legislative committees on the progress in implementing the pilot program and recommendations for continuation of the program.

Appropriation:
State Building Construction Account--State $1,000,000

Prior Biennia (Expenditures) . . . . . $ 0
Future Biennia (Projected Costs) $24,000,000

TOTAL $25,000,000

NEW SECTION. Sec. 303. FOR THE DEPARTMENT OF ECOLOGY
Referendum 38 Water Supply Facilities (74-2-006)

The appropriations in this section are subject to the following conditions and limitations:
(1) The reappropriation in this section is provided solely for projects under contracts on or before June 30, 1999. Reappropriated funds not associated with contracted projects shall lapse on June 30, 1999.
(2) The office of financial management may grant waivers from this lapse requirement for specific projects upon findings of exceptional circumstances after notification of the chairs of the house of representatives capital budget committee and senate ways and means committee.
(3) The department shall submit a report to the office of financial management and the house of representatives capital budget committee and senate ways and means committee by December 1, 1999, listing all projects funded from this section.

Reappropriation:
State and Local Improvements Revolving Account
(Water Supply Facilities)--State. $6,004,436
Appropriation:
State and Local Improvements Revolving Account
(Water Supply Facilities)--State. $4,100,000
State Drought Preparedness Account--State. $6,800,000

Subtotal Appropriation. $10,900,000

Prior Biennia (Expenditures) $4,320,950
Future Biennia (Projected Costs) . . . . . .$ 0

TOTAL $21,225,386

NEW SECTION. Sec. 304. FOR THE DEPARTMENT OF ECOLOGY
State Emergency Water Projects Revolving Account (76-2-003)

Reappropriation:
State Emergency Water Projects Revolving Account--
State . . . . . .$ 577,833

Prior Biennia (Expenditures) . . . . . .$ 0
Future Biennia (Projected Costs) . . . . . .$ 0

TOTAL . . . . . .$ 577,833

NEW SECTION. Sec. 309. FOR THE DEPARTMENT OF ECOLOGY
Methow Basin Water Conservation (92-2-009)

Reappropriation:
State Building Construction Account--State . . . . . .$ 87,689

Prior Biennia (Expenditures) . . . . . .$ 312,311
Future Biennia (Projected Costs) . . . . . .$ 0

TOTAL . . . . . .$ 400,000

Drought Response Fish Mitigation: Eastern Washington Stream Flow Supplementation - Initial Regional Funding Priorities *

March 20, 2001

WRIA 32 - Walla Walla & Touchet R. Tribs (~June through Oct.)

Priority 1 Mill Ck. above Blue Ck. confluence
N. Fk.. Touchet R. above U.S. 12

Priority 2 Coppei Ck. system
Dry Ck. above U.S. 12 at Smith Rd.

Priority 3 Cottonwood Ck.
South Fk.. Touchet R.
South Fk.. Patit Ck.

WRIA 48 - Methow R. Basin (~June through Oct.)

Priority 1 Twisp R., R.M. 0-8
Methow R. & tribs, RM 40.2 -59.7 (Twisp R. up to Weeman Bridge)
Chewuch R.& tribs, RM 0-8

WRIA 37,38,39- Lower, Middle, & Upper Yakima Basins

Priority 1 Teanaway R, ~RM 0-5 (July -mid Oct.)
Toppenish/Simcoe Ck., 6.8 ml. below Lateral Canal (mid June - mid Dec.)
Taneum Ck., RM 0-3.5 (late summer - early fall)
Lower Yakima R., RM 36-47 (July-Sept.)
Naches R., Downstream of Wapatox Dam (mid July - mid Sept.)

Priority 2 Manastash Ck., RM 1.5-3.0 & 3.3-4.9 (late summer - early fail).

Ahtanum Ck., RM 12.0-19.6 @ Wapato diversion (Aug. - mid Oct.)
Wiison/Naneum/Coleman/Cheny Ck., RM 0-9.0 (Summer-early fall)

Priority 3 — Swauk Ck., RM 0-5.0 (late summer-early fall)
Big Ck. (upper Yakima trib.), RM 0-2.1 (entire irrigation season)

WRIA 45 - Wenatchee R. Basin (June through October)

Priority 1 — Wenatchee R. & tribs. , RM 0-54.2 (Lake Wenatchee outlet)
Chiwawa R. & tribs, RM 0.0-3.6

Priority 2 — Peshastin Ck., RM 0.0-4.8

WRIA 35 - Middle Snake Tribs. (Tucannon/Asotin/Alpowa, etc., detail to be add

* Notes:

1. WRIAs were selected to include flow limited basins with an ESA and significant agricultural diversion nexus.

2. Selection and prioritization of projects within a WRIA considered: Number of ESA listed species, relative condition of habitat, importance of the reach for salmonid spawning and rearing, number of diversions and amount of diverted water, size of stream, amount of water needed to improve conditions, and relative benefits expected.

3. Additional areas will be added as regional detail is expanded.

State of Washington Laws and Regulations governing drought response.

RCW 43.83B.400
Drought conditions -- Defined -- Intent.

It is the intent of the legislature to provide emergency powers to the department of ecology to enable it to take actions, in a timely and expeditious manner, that are designed to alleviate hardships and reduce burdens on various water users and uses arising from drought conditions. As used in this chapter, "drought condition" means that the water supply for a geographical area or for a significant portion of a geographical area is below seventy-five percent of normal and the water shortage is likely to create undue hardships for various water uses and users.

RCW 43.83B.405
Drought conditions -- Withdrawals and diversions -- Orders, procedure.

(1) Whenever it appears to the department of ecology that a drought condition either exists or is forecast to occur within the state or portions thereof, the department of ecology is authorized to issue orders, pursuant to rules previously adopted, to implement the powers as set forth in RCW 43.83B.410 through 43.83B.420. The department shall, immediately upon the issuance of an order under this section, cause said order to be published in newspapers of general circulation in

the areas of the state to which the order relates. Prior to the issuance of an order, the department shall (a) consult with and obtain the views of the federal and state government entities identified in the drought contingency plan periodically revised by the department pursuant to RCW 43.83B.410(4), and (b) obtain the written approval of the governor. Orders issued under this section shall be deemed orders for the purposes of chapter 34.05 RCW.

RCW 43.83B.410
Drought conditions -- Withdrawals and diversions -- Orders, authority granted.

Upon the issuance of an order under RCW 43.83B.405, the department of ecology is empowered to:

(1)(a) Authorize emergency withdrawal of public surface and ground waters, including dead storage within reservoirs, on a temporary basis and authorize associated physical works which may be either temporary or permanent. The termination date for the authority to make such an emergency withdrawal may not be later than the termination date of the order issued under RCW 43.83B.405 under which the power to authorize the withdrawal is established. The department of ecology may issue such withdrawal authorization when, after investigation and after providing appropriate federal, state, and local governmental bodies an opportunity to comment, the following are found:

(i) The waters proposed for withdrawal are to be used for a beneficial use involving a previously established activity or purpose;

(ii) The previously established activity or purpose was furnished water through rights applicable to the use of a public body of water that cannot be exercised due to the lack of water arising from natural drought conditions; and

(iii) The proposed withdrawal will not reduce flows or levels below essential minimums necessary (A) to assure the maintenance of fisheries requirements, and (B) to protect federal and state interests including, among others, power generation, navigation, and existing water rights;

(b) All withdrawal authorizations issued under this section shall contain provisions that allow for termination of withdrawals, in whole or in part, whenever withdrawals will conflict with flows and levels as provided in (a)(iii) of this subsection. Domestic and irrigation uses of public surface and ground waters shall be given priority in determining "beneficial uses." As to water withdrawal and associated works authorized under this subsection, the requirements of chapter 43.21C RCW and public bidding requirements as otherwise provided by law are waived and inapplicable. All state and local agencies with authority to issue permits or other authorizations for such works shall, to the extent possible, expedite the processing of the permits or authorizations in keeping with the emergency nature of the requests and shall provide a decision to the applicant within fifteen calendar days of the date of application. All state departments or other agencies having jurisdiction over state or other public lands, if such lands are necessary to effectuate the withdrawal authorizations issued under this subsection, shall provide short-term easements or other appropriate property interest upon the payment of the fair market value. This mandate shall not apply to any lands of the state that are reserved for a special purpose or use that cannot properly be carried out if the property interest were conveyed;

(2) Approve a temporary change in purpose, place of use, or point of diversion, consistent with existing state policy allowing transfer or lease of waters between willing parties, as provided for in RCW 90.03.380, 90.03.390, and 90.44.100. However, compliance with any requirements of (a) notice of newspaper publication of these sections or (b) the state environmental policy act, chapter 43.21C RCW, is not required when such changes are necessary to respond to drought conditions as determined by the department of ecology. An approval of a temporary change of a water right as authorized under this subsection is not admissible as evidence in either supporting or contesting the validity of water claims in *State of Washington, Department of Ecology v. Acquavella*, Yakima county superior court number 77-2-01484-5 or any similar proceeding where the existence of a water right is at issue.

(3) Employ additional persons for specified terms of time, consistent with the term of a drought condition, as are necessary to ensure the successful performance of the activities associated with implementing the emergency drought program of this chapter.

(4) Revise the drought contingency plan previously developed by the department; and

(5) Acquire needed emergency drought-related equipment.

[1989 c 171 § 3.]

RCW 43.83B.430
State drought preparedness account.

The state drought preparedness account is created in the state treasury. All receipts from appropriated funds designated for the account and funds transferred from the state emergency water projects revolving account must be deposited into the account. Moneys in the account may be spent only after appropriation. Expenditures from the account may be used only for drought preparedness.

[1999 c 379 § 921.]

WAC 173-166-040 General eligibility rule. (1) Applications for emergency drought permits, water transfers, or funding assistance made under this chapter will be processed only for previously established activities in a geographical area or part of a geographical area declared to be suffering from drought conditions. Where required by law, such activities must be conducted under a valid water right permit, certificate, or supported registered water right claim.

(2) Applications will be processed if the water user is receiving, or is projected to receive, less than seventy-five percent of normal water supply for the previously established activity and experiencing undue hardship as a result.

(3) All permits and approvals issued under this chapter will be subject to existing rights.

(4) Water obtained through the issuance of temporary permits, water right transfers, and/or funding assistance for projects or measures must be put to beneficial use in lieu of water which is unavailable because of drought conditions.

(5) All permits and approvals issued under this chapter will be of a temporary nature and will contain an expiration date.

WAC 173-166-050 Forecast of drought conditions. (1) Whenever it appears to the department of ecology that drought conditions as defined in WAC 173-166-030(2) either exist or are forecast to occur, ecology will consult with the state's water supply availability committee or its successor. Other appropriate sources of water supply information, such as the Columbia River water management group and the U.S. Army Corps of Engineers, may be consulted by the WSAC as needed.

(2) Should the water supply availability committee determine that a geographical area or a part of a geographical area is receiving, or is likely to receive, seventy-five percent or less of its normal water supply, it will advise the executive water emergency committee and the Indian tribes within the area of that fact. The executive water emergency committee will then make a determination as to whether or not undue hardships will occur as a result of the shortage.

(3) Should the executive water emergency committee determine that an area will suffer undue hardship as a result of a reduced water supply, it will submit a recommendation to that effect to the governor for written approval. Affected Indian tribes will be notified at the time such a recommendation is submitted.

(4) Upon securing the written approval of the governor, ecology will then issue an order declaring a geographical area or a significant part of a geographical area to be suffering from drought conditions and publish that order in a newspaper of general circulation in the area affected by the order.

(5) The determination of drought conditions will be based upon the updated seasonal forecast as applied to the water supply conditions within the designated geographical area or part of a designated geographical area.

WAC 173-166-060 Orders declaring drought conditions. (1) If the department of ecology determines that a geographical area or part of a geographical area is suffering from drought conditions, it may, upon the advice of the water supply availability committee, with the concurrence of the executive water emergency committee, and the written approval of the governor, issue an order to that effect.

(2) The order declaring drought conditions for a geographical area or part of a geographical area must contain the following elements:

(a) A description of the geographical area or part of a geographical area which is being so designated.

(b) The facts leading to the issuance of the order.

(c) The statutory authority upon which the order is being issued.

(d) The commencement date and termination date of the order. The termination date may be no later than one calendar year from the date the order is issued.

(e) Brief descriptions of the actions which are possible under the order.

(f) Provisions for the termination of withdrawals if essential minimum flows are jeopardized.

(3) Ecology must publish the order declaring a geographical area or a part of a geographical area to be suffering from drought conditions in a newspaper of general circulation in the area affected by the order.

(4) Persons may file written protest as to the contents of the order with ecology. Ecology will have fifteen calendar days from the date of receipt of the protest in which to make a determination as to its validity, using the procedure specified in WAC 173-166-050.

(5) A person who believes that an area should be declared to be suffering from drought conditions may petition ecology for such a declaration. Upon the receipt of such a petition, ecology will have fifteen calendar days from the date of receipt of the petition in which to make a determination as to its validity, using the procedure specified in WAC 173-166-050, and

provide a decision to the applicant. The petition should contain the following information:

(a) A description of the geographical area or part of a geographical area which is being requested for designation.

(b) The nature of the relief sought in requesting such a designation.

(c) The facts upon which the petition is based.

(6) Orders declaring areas to be suffering from drought conditions may, with the written approval of the governor, be amended one or more times to change the termination date, provided that the termination date of the order, as amended, is no more than two calendar years from the date the order is first issued.

(7) Orders declaring areas to be suffering from drought conditions may be issued for different areas of the state and sequentially for the same area if drought conditions persist.

WAC 173-166-070 Emergency drought permits. Ecology may allow water users to obtain water from alternate sources during drought conditions. To accomplish this, ecology may issue emergency drought permits authorizing withdrawals of ground water and surface water, including dead storage in reservoirs. Permits will be processed under the following criteria:

(1) Applicants must be conducting a previously established activity within a geographical area or part of a geographical area declared to be suffering from drought conditions.

(2) An application will be processed if the water user is receiving, or is projected to receive, less than seventy-five percent of normal water supply, as the result of natural drought conditions, for the previously established activity and experiencing, or is expected to experience, undue hardship as a result.

(3) Ecology, plus all state and local agencies with authority to issue permits or other authorizations in connection with emergency actions authorized under the provisions of this chapter, will have fifteen calendar days from the date of receipt of the respective application(s) in which to provide a decision to the applicant. Agencies with authority to review applications for emergency drought permits, such as under RCW 75.20.050, and affected Indian tribes will have fifteen calendar days from the date ecology receives the application in which to provide ecology with an opinion as to any effects of the proposed withdrawal.

(4) Waters authorized to be withdrawn must be used in relation to a previously established activity as defined in this chapter. The permit must not cover irrigation of new lands, restoration or enhancement of the fisheries resource, or a water supply in addition to the normal amount used in the past by individuals, private entities, or public bodies.

(5) Waters to be withdrawn must constitute an alternate (supplemental) water supply to the user's normal source of water.

(6) The withdrawal must not reduce flows or levels below essential minimums necessary to assure the maintenance of fisheries requirements and to protect federal and state interests including, but not limited to, power generation, navigation, water quality, and existing water rights.

(7) Emergency drought permits issued under this chapter will be temporary in nature and must expire no later than the expiration date of the order declaring the area in which the permitted activity is authorized to be suffering from drought conditions.

(8) Priority will be given to domestic and irrigation uses of water for any emergency withdrawals authorized under this chapter.

(9) Emergency drought permits issued under this chapter must contain provisions for termination should the withdrawal reduce flows or levels below essential minimums as defined in this chapter.

(10) To expedite the issuance of emergency drought permits, ecology is authorized to process

the applications and issue the permits without compliance with requirements for:

(a) Notice of newspaper publication.

(b) The State Environmental Policy Act.

WAC 173-166-080 Temporary transfers of water rights. (1) Ecology may approve emergency water right changes in order to effect a transfer of water between willing parties. Water right changes can include purpose of use, place of use, and point of diversion.

(2) Examples of possible water right transfers include, but are not limited to, the following situations:

(a) A water right holder may choose to reduce irrigated acreage and transfer the unused water to another water right holder whose normal water supply is decreased by drought conditions. The acreage irrigated with transferred water on the second parcel may not exceed the acreage reduction on the first parcel.

(b) A water right holder may transfer a water right from an out-of-stream use to an instream use.

(c) Municipalities or other public bodies may transfer water between one another.

(3) Requests for water right transfers will be processed under the following criteria:

(a) Applicants must be conducting a previously established activity within a geographical area or part of a geographical area declared to be suffering from drought conditions.

(b) An application for a water right transfer will be processed if the recipient water user is receiving, or is projected to receive, less than seventy-five percent of normal water supply, as the result of natural drought conditions, for the previously established activity and experiencing, or is expected to experience, undue hardship as a result.

(c) All approvals by ecology for water right transfers under this chapter will be temporary in nature and will be for the purpose of alleviating drought conditions. These approvals must terminate no later than the expiration date of the order which declares the area to be suffering from drought conditions.

(d) Water right transfers between willing parties may be approved when an emergency exists only if such a transfer will not affect existing rights whatsoever, or reduce flows or levels below essential minimums, or adversely affect federal and state interests including, but not limited to, power generation, navigation, and water quality.

(e) Water rights may be transferred within areas declared to be suffering from drought conditions. Water rights may also be transferred from outside an area declared to be suffering from drought conditions into an area declared to be suffering from drought conditions, provided such a transfer of water is physically possible and is consistent with the provisions of RCW 90.03.380, 90.03.390, and 90.44.100. Water rights will not be transferred from within an area declared to be suffering from drought conditions to outside that area.

(f) To expedite water transfers during drought conditions, ecology can approve temporary changes in water rights without compliance with requirements for:

(i) Notice of newspaper publication.

(ii) The State Environmental Policy Act.

(g) In those cases where temporary water transfers require court approval while general adjudication proceedings are ongoing, ecology will assist the court in coordination, maintaining communications, and providing technical assistance when requested.

(h) The temporary changing of a water right under this chapter will not be admissible as evidence in either supporting or contesting the validity of water claims in a general adjudication of water rights in the state of Washington.

(i) Ecology, plus all state and local agencies with authority to issue permits or other

authorizations in connection with emergency actions authorized under the provisions of this chapter, will have fifteen calendar days from the date of receipt of the respective application(s) in which to provide a decision to the applicant. Agencies with authority to review applications for temporary water right transfers, such as under RCW 75.20.050, and affected Indian tribes will have fifteen calendar days from the date ecology receives the application in which to provide ecology with an opinion as to any effects of the proposed transfer.

SAVING OUR STREAMS
THROUGH WATER MARKETS

■

A PRACTICAL GUIDE

by Clay J. Landry

Political Economy Research Center

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Acknowledgments

This *Guide* would not have been so practical without the help and assistance of many who took the time to share their experiences and insights on instream flows and water markets. In particular, I want to thank Andrew Purkey of the Oregon Water Trust who has played a significant role in my career and who was invaluable throughout this project. I also want to acknowledge Graham Chisholm of Great Basin Land and Water for sharing the lessons he has learned from years of buying water for environmental protection.

PERC thanks the Orvis-Perkins Foundation, Wayne Nordberg, the M. J. Murdock Charitable Trust, and the Sand County Foundation's Bradley Fund for the Environment for supporting this project.

The guide would not have been completed without the patience, support, and expertise of PERC's staff. Jane Shaw, PERC Senior Associate, provided valuable suggestions and editing, Dianna Rienhart was in charge of production and design, Daphne Gillam provided the cover design, and James Lindquist captured the spirit of the guide in the cover artwork.

Finally, I wish to thank Terry Anderson, PERC Executive Director, for asking me to write this guide. It was an opportunity to explore my interest in cooperative and innovative approaches to environmental protection.

■

INTRODUCTION

Anglers who normally flock to the Big Hole River in Montana remember 1994 with pain and anger. Because of low snowpack and light spring rain, water flows were unusually low. Even so, ranchers and farmers continued to exercise their rights to divert water for their crops. Out of concern for the fishery, the state closed the famous stream to angling. Although late in the season the state persuaded some irrigators to stop or cut back their diversions, it was "too little, too late." The river remained closed.

"Market solutions to environmental needs are long overdue in our market-driven nation."
— *Kirk Hana*

This conflict could have been resolved by market exchanges of water, and today, at long last, we are beginning to make such exchanges possible. "Market solutions to environmental needs are long overdue in our market-driven nation," says Kirk Hana,[1] a board member of the Nature Conservancy and past president of the Colorado Cattlemen's Association.

This manual will help practitioners and policy makers take the first steps toward using water markets to protect instream flows. It draws upon the extensive experience of practitioners in these markets. The manual begins by providing some general background on instream flow markets and then offers specific advice for those interested in implementing this idea.

Working with 'Prior Appropriation'

For more than a century the prior appropriation doctrine has been the underlying principle for water law in every western state. One distinct characteristic of the doctrine is that it allocates water use through private property rights. The doctrine uses the principle of "first in time, first in right," which means that the first person to put water to a beneficial use is granted a right to continue that use without interference from those using it later. However, the doctrine has made it difficult for an individual to assert a right to the flow of the stream. Water claims were limited to uses that required diversions.

When the prior appropriation doctrine was first implemented, most states did not have a system for recording and documenting water rights. Without formal documentation, right holders needed to find ways to verify priority dates. They soon discovered that the best evidence of first use was the date the water was physically diverted from the stream. Diversions were quickly adopted as an essential requirement for a water right claim; thus, the prior appropriation doctrine rewarded those who were quickest to divert water from rivers and streams.

Over the years, people have come to recognize the social, economic, and environmental importance of instream flows.

The development of water rights typically came at the expense of instream uses such as habitat for fish and wildlife, outdoor recreation, and the protection of scenic and aesthetic values and water

quality. Over the years, however, people have come to recognize the social, economic, and environmental importance of instream flows.

As pressures to consider instream flow values in water policies increased during the 1960s and 1970s, many states responded with regulatory approaches such as setting minimum stream-flow requirements and placing conditions on new appropriations (Anderson 1983; Bolling 1994). Some states even tried issuing new water rights for instream flows. But these protection measures were implemented after much of the available water had already been appropriated for out-of-stream uses. In addition, these approaches offer only junior rights with modern priority dates and have no effect on established uses. As a result, instream flow rights and minimum flow requirements are proving to be ineffective in protecting and restoring flows in rivers and streams across the West.

No approach offers as much promise of restoring stream flows as transfers of water through markets. On heavily appropriated streams, acquisitions of senior rights to support instream flows may present the only effective option for protecting flows. Transfers allow flow restoration through voluntary action. Private organizations or state and federal agencies interested in protecting instream flows can work cooperatively with water right holders who are willing to transfer their water rights to instream use. Water right holders are fully compensated for selling or leasing their water rights.

New Laws Allow Markets

Each western state has had a different experience with water markets. The Pacific Northwest is proving to be a leader in instream flow markets. The region has encouraged the development of markets by allowing individuals to participate in the market and acquire water rights for instream uses. This development was prompted by a flood of instream flow laws beginning in 1987, when Oregon adopted changes that allowed public or private entities to lease or purchase water rights and convert them to instream flow rights.

The Pacific Northwest has encouraged the development of markets by allowing individuals to participate in the market and acquire water rights for instream use.

Other states in the Northwest have also moved toward markets. In 1989, Montana adopted legislation that created a temporary program to allow the Department of Fish, Wildlife and Parks to lease water rights for the purpose of maintaining or enhancing stream flows for the benefit of fisheries. Washington followed in 1991 by establishing the Trust Water Rights program, which allows voluntary water right transfers for instream needs. In that same year, California changed its water code to allow water rights transfers to preserve or enhance wetlands habitat, fish and wildlife, or recreation. One year later Idaho granted exceptions to its water banking statutes that made it possible for the U.S. Bureau of Reclamation to lease water from the water banking program for instream use. In 1995, Montana reformed its water right leasing program to allow private groups to acquire water rights for instream flows. Though each state has taken a slightly different approach,

they all allow market forces to drive instream flow transfers.

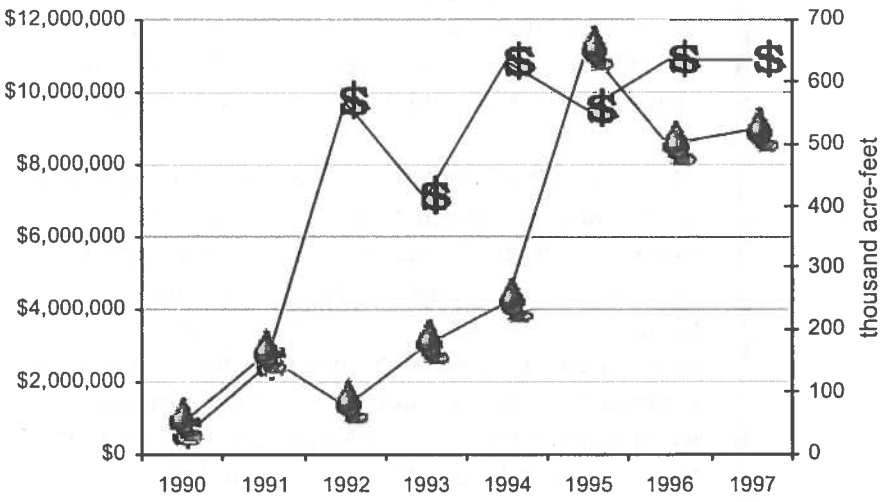
In contrast, most Rocky Mountain states are relying on state agencies to act in the marketplace. Colorado, Utah, and Wyoming require that instream flow rights be held by the state. The region has had only a handful of instream flow acquisitions in the last ten years, and conservation groups across the region contend that the public ownership requirement is locking them out of the instream flow market. Colorado, currently, is the only state in the region with an active acquisition program. It is limited in scope and can only acquire water for instream flows through donations, not purchases or leases. In Utah, Trout Unlimited is working with the Division of Wildlife Resources to negotiate Utah's first water right acquisition for instream flows. In Wyoming, conservationists and state officials are meeting to discuss policy reform to allow private organizations to pursue instream flow transfers.

Throughout the Southwest, state and federal agencies are spending an enormous amount of money to improve instream flows. New Mexico has spent over $18 million to purchase and lease water rights to restore flows in its streams and rivers. Arizona has established a fund with $5 million available annually for river and stream restoration projects including water right acquisitions. In Nevada, the Division of State Lands and the U.S. Fish and Wildlife Service have spent more than $16 million to restore flows for two wildlife refuges on the Carson River.

Who is Acquiring Water and at What Price?

Much of the recent activity in instream flow acquisitions is driven by efforts to restore flows for endangered fish species.[2] Since 1990, an estimated $61 million has been spent on leases and purchases of water for instream use. The market saw a significant jump in 1992, when total expenditures rose to more than $9.6 million, about four times the amount spent in 1991 (Figure 1). This increase reflected the initiation of several federal and state acquisition programs—most notably, the San Joaquin Refuge water acquisition program funded by the Central Valley Project Improvement Act and the New Mexico Interstate Stream Commission acquisition program prompted by the Pecos River Compact.

Figure 1: Annual Instream Flow Acquisitions, 1990–1997



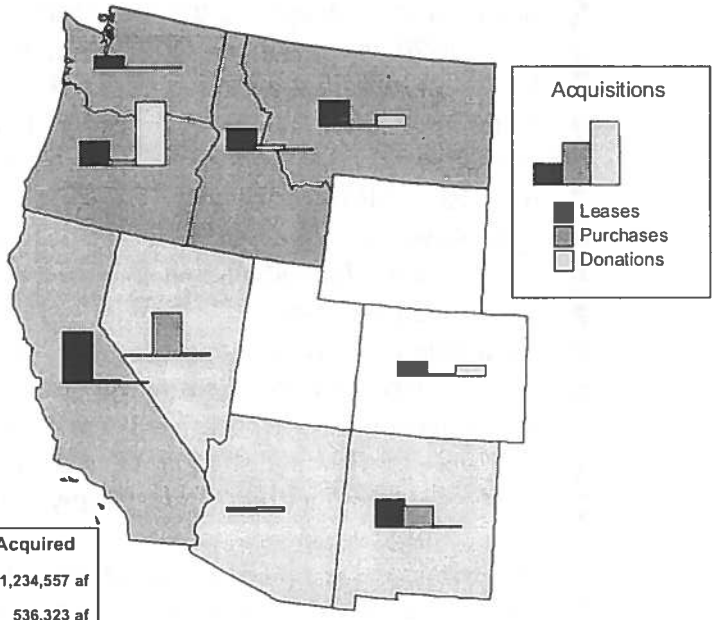
Source: Landry (1998).

Total acquisition of water by lease, purchase, and donation is on an upward trend as Figure 1 shows. Since 1990, more than 2.3 million acre-feet of water have been acquired for instream use. The quantity of water traded increased considerably in 1995, with more than 600,000 acre-feet of water acquired in that year. This rise marked the beginning of an aggressive campaign by the Bureau of Reclamation to lease water for endangered salmon species in the Columbia River Basin. The bureau's efforts in the Columbia River Basin are driven by a 1995 National Marine Fisheries Service biological opinion that calls on the agency to provide 427,000 acre-feet of water each year for flow and stipulates that the water must be acquired from willing sellers (Rigby 1997).

Purchases, leases, and donations of water for instream flows were reported in 9 of the 11 western states (Wyoming and Utah being the exceptions) between 1990 and 1997 (Figure 2).[3] The federal government accounted for just over half of all expenditures and 70 percent of the total quantity acquired during the period 1990 to 1997 (Table 1). Most of the federal government's acquisition responsibilities have been delegated to the Bureau of Reclamation, which has initiated acquisition programs in Idaho, California, Oregon, and Washington.

The bureau's Idaho program, begun in 1991 to help salmon recovery in the Snake River, has leased and purchased more than 1.15 million acre-feet. In 1994, the agency expanded its acquisition efforts to California to improve flows in the Sacramento and

FIGURE 2: WESTERN U.S. WATER ACQUISITIONS, 1990–1997



Total Quantity Acquired	
Pacific Northwest	1,234,557 af
California	536,323 af
Southwest	306,658 af
Rockies	286,482 af

Source: Landry (1998).

San Joaquin Rivers. The bureau's California program, funded by the Central Valley Project Improvement Act, has leased 420,000 acre-feet of water from 1994 to 1997. In Washington, the bureau initiated a pilot leasing program in 1996 to restore flows in the Yakima River Basin and has leased a total of 7,000 acre-feet of water to date. The most recent addition to the bureau's acquisition efforts was in 1997 when it began a demonstration program in Oregon's Klamath River Basin, which has completed three leases, totaling 400 acre-feet.

The bureau is not the only federal agency active in the water market. The U.S. Fish and Wildlife Service is buying and leasing water throughout California, the Southwest, and the Rocky Mountain regions, but most of its efforts are devoted to the Stillwater Wildlife Refuge in Nevada. This acquisition program was initiated in 1990 as a cooperative effort between the U.S. Fish and Wildlife Service and the Nature Conservancy. The conservancy acted as a broker responsible for negotiating purchase agreements. The U.S. Fish and Wildlife Service has since assumed the responsibilities of the acquisition program and expects to purchase an additional 55,000 acre-feet of water (U.S. Fish and Wildlife Service 1996).

TABLE 1: MARKET ACTIVITY BY ACQUISITION METHOD, 1990–1997

	Federal	State	Private	Total
Lease Expenditures	$ 27,653,410	$ 10,095,861	$ 96,482	$ 37,845,754
Purchase Expenditures	$ 5,857,956	$ 14,970,577	$ 3,059,055	$ 23,887,588
Total Expenditures	$ 33,511,366	$ 25,066,438	$ 3,155,537	$ 61,733,342
Lease Quantity (af)	1,595,088	385,255	22,083	2,002,426
Purchase Quantity (af)	59,391	63,962	8,979	132,333
Donation Quantity (af)	0	31,477	213,783	245,261
Total Quantity (af)	1,654,479	480,695	244,846	2,380,021

Source: Landry (1998).

Commonly criticized for not devoting enough money to acquire water (Sterne 1997; Root 1995), states are now stepping up efforts to acquire water for instream needs. Between 1990 and 1997, state agencies in the West spent an estimated $25 million to lease and purchase a combined total of about 450,000 acre-feet of water (Table 1). Montana, Nevada, and New Mexico have some of the most active state acquisition programs. Created as a temporary program, Montana's leasing program allows the Department of Fish, Wildlife and Parks (DFWP) to lease water rights to maintain and enhance stream flows for fish. Since the program's inception in 1989, the DFWP has negotiated nine long-term leases and has paid between $1 and $50 per acre-foot annually (Montana Fish, Wildlife and Parks 1998).[4] Nevada's Division of State Lands with the help of the Nature Conservancy has permanently purchased more than 6,000 acre-feet of water since 1992 for the Carson Lake Refuge (Nevada Division of State Lands 1998). The New Mexico Interstate Stream Commission, one of the best-funded state programs,[5] has leased and purchased just over 276,000 acre-feet of water to maintain flows in the Pecos River (New Mexico Interstate Stream Commission 1998).

Since 1990, private groups have spent over $3.1 million to acquire roughly 31,000 acre-feet of water.

Private organizations are starting to make their presence known. Since 1990, private groups have spent over $3.1 million to lease and purchase a combined total of roughly 31,000 acre-feet of water. Several new organizations have formed (Table 1).

The Oregon Water Trust, the Washington Water Trust, and Nevada's Great Basin Land and Water are three new groups using market techniques to acquire senior water rights and convert them into instream rights. Traditional environmental organizations are also expanding their role. The Environmental Defense Fund, the Nature Conservancy, and Trout Unlimited have participated in water acquisitions in Idaho, Colorado, Nevada, Oregon, and Montana.

Private groups have received 51 donations totaling more than 213,000 acre-feet of water.

In addition to their market activity, private organizations have been successful in procuring a large quantity of water through donations. These groups have received 51 donations totaling more than 213,000 acre-feet of water. Most of these occurred within the last three years. The Oregon Water Trust has been particularly successful, with 46 of the 51 donations.[6] Most donations were for small amounts of water ranging from 15 to 1,000 acre-feet.

Other organizations have successfully acquired a limited number of large donations. The largest single donation is from the Pittsburg and Midway Coal Mining Company to the Nature Conservancy for rights to about 200,000 acre-feet of water in the Gunnison River, Colorado (Anderson and Snyder 1997). The Conservation Fund recently donated 2,200 acre-feet of water valued at over $1 million to the Colorado Water Conservation Board, the only entity in Colorado that can hold instream flow rights. The water rights were a part of the Aspen Ranch, an 850-acre parcel that the fund purchased in 1995

(Thomas 1998). A portion of the ranch is being managed for wildlife habitat, so the water rights were no longer needed for irrigation. The fund converted the rights to instream flows and donated them to the state of Colorado.

As with any locally based market, prices for water vary considerably depending on demand and supply and depending on the duration of the right. Water purchased outright for instream uses in the West sold for about $400 per acre-foot between 1990 and 1997. The highest price, $850 per acre-foot, was paid by the New Mexico Interstate Stream Commission in 1994 (New Mexico Interstate Stream Commission 1998). On the low end of the market, the Bureau of Reclamation paid $65 per acre-foot in 1996 to buy back a water service contract for water stored in the Lucky Peak Reservoir, Idaho (Rigby 1997).

TABLE 2: MARKET PRICE AND QUANTITY SUMMARY, 1990–1997

	Average	High	Low	Number of Transactions
Purchase Price ($/af)	$ 397.47	$ 850.00	$ 65.00	59
Lease Price ($/af)	$ 29.84	$ 214.10	$ 0.08	124
Purchase Quantity (af)	2,242.94	44,900.00	11.27	59
Lease Quantity (af)	16,148.60	232,839.10	12.00	124

Source: Landry (1998).

Short-term leases of less than five years accounted for the majority of market transactions. The average annual lease price between 1990 and 1997 was $30 per acre-foot annually. The highest lease price, $214 per acre-foot, was paid by the Bureau of Reclamation in 1997, as a part of the water acquisition demonstration project in Oregon's Klamath Basin (Davis 1997). The lease was negotiated with a farmer who had already planted wheat and was planning to irrigate the crop. The lowest lease price was $0.08 per acre-foot paid by the New Mexico Interstate Stream Commission (New Mexico Interstate Stream Commission 1998).[7] The most unusual lease agreement was arranged by the Oregon Water Trust in 1994. The trust negotiated a lease with a cattle rancher to increase stream flows in exchange for 76 tons of hay forgone by reduced irrigation (Oregon Water Trust 1996).

Speculation Concerns

A common argument raised against private ownership of instream flows is that it will result in speculation. Some people fear that speculators will use instream flow rights as a way to claim and hold water at little cost in order to sell it later for a large profit (Gillilan and Brown 1997). Some argue that speculators will force out current water users, mostly irrigators, through high prices (McKinney 1991). However, there is no indication of widespread speculation in the instream flow sector.

It is true that speculation is occurring in other sectors of the water market. Water purchases for domestic and municipal use are one sector experiencing price speculation (Person and Michelsen 1994; Gardner and Miller 1983). Developers buying water in anticipation of new growth in the Reno area, for example, have pushed up water prices by more than tenfold since the 1980s (Colby 1993). Current market prices are as high as $2,500 per acre-foot.[8] Growth along the Front Range of Colorado has driven water prices up. In the Colorado Big Thompson (CBT) project north of Denver, market prices have risen more than 50 percent since 1990. At the end of 1996, CBT water shares traded for $3,143 per acre-foot (*Water Strategist* 1997). Prices in the CBT do not reflect the agricultural value of the water, but, rather, the growing demand from municipalities (Person and Michelsen 1994; Gardner and Miller 1983). Indeed, 90 percent of all CBT shares traded in 1996 were for domestic or municipal water use (*Water Strategist* 1997).

Prices in the instream flow market reflect estimated agricultural production values of water.

In contrast, there have not been large price jumps in the instream flow sector of the water market. Prices in the instream flow market reflect estimated agricultural production values of water (Duffield and Neher 1991; Gibbons 1986). The highest prices for instream flows were paid by government agencies, which are not likely to engage in market speculation.

Some Advice for Entering the Market

With instream flow markets developing all across the West, several private organizations and public agencies have gained extensive experience with market transfers. Not all acquisitions have been a success, and not all trades were easy. But after a decade of trading these organizations and agencies have learned a great deal. Their experiences provide some sound guidance to others interested in acquiring water rights for instream flows.

Finding Willing Sellers

Finding willing sellers is one of the most challenging tasks in acquiring water rights for instream flows. This is a new, emerging market, so many potential participants are uninformed or uncertain about how it works. To overcome this challenge, some irrigation districts are helping facilitate market activity by providing posting services to members. Bulletin boards are maintained in the district offices where members can advertise their intent to buy or sell water. In areas outside irrigation districts, classified notices in newspapers advertising water for sale are becoming more common.

Many instream flow buyers are locating sellers through more direct approaches: phone calls, mailings, and public meetings. The Bureau of Reclamation conducted a telephone campaign to find potential sellers in Washington's Yakima River Basin.[9] The Oregon Water Trust solicits interest in leasing or selling water rights through direct mailings to water right holders. Both the trust and Great Basin

Land and Water in Nevada have held public meetings to provide information on their water acquisition programs.

As in many markets, referrals and personal contacts are proving to be effective means of finding willing sellers. Personal contacts overcome the mistrust of instream flow transfers that exists among water right holders (Sterne 1997; Crammond 1995). The Oregon Water Trust believes that an active community presence is the key to overcoming mistrust and is working hard to establish such a presence in areas where it is trying to acquire water rights. In fact, it has hired basin coordinators who live in the watersheds where the trust is interested in acquiring water.

Great Basin Land and Water also recognizes the importance of an active community presence. It takes every opportunity to participate in natural resource and community development projects, even if some are not directly related to water. For example, the group has helped with weed control and local land-use planning. Participating in such activities increases the group's exposure and demonstrates its concern for the local community.

The Biggest Ecological Bang for the Buck

Where and how should money be spent? For example, should money be spent to increase flows on large rivers such as the Columbia, the Snake, and the Colorado, or should it be spent on protecting habitat in smaller streams and tributaries? The

answers depend mainly on the budget available for acquiring instream flows. Hence, the federal government is spending millions of dollars throughout the West on large rivers, while the Oregon Water Trust is spending its initial $500,000 acquisition budget on small streams and tributaries.

Consider how much water $500,000 buys on a river like the Columbia. The typical irrigation right in Oregon sells for about $350 per acre-foot (Landry 1996). If the trust spent its entire budget on permanent acquisitions, it could augment the Columbia's flows by about 5 cubic feet per second, or less than one percent of the river's flow.

By focusing on tributaries, however, the Oregon Water Trust has been able to increase flows on more than 25 different streams and rivers. Most of its acquisitions are for a small amount of water, less than 500 acre-feet, but often that represents the entire flow of the stream. For example, in a recent purchase on Squaw Creek, a small stream in central Oregon, the trust spent about $42,000 to increase flows by 0.86 cubic feet per second on a three-mile stretch of the creek that dries up in most years due to irrigation withdrawals (Oregon Water Trust 1997). Admittedly, this is a small amount of water, but the additional flow provides habitat for bull trout, which is proposed for listing under the federal Endangered Species Act. In a partnership that began in 1994, the trust leases 196 acre-feet (0.93 cubic feet per second) of water on Buck Hollow Creek in exchange for 76 tons of hay.[10] Buck Hollow is one

of the best steelhead spawning tributaries of the Deschutes River, an internationally famous fishing river (Oregon Water Trust 1996). These two acquisitions illustrate how a small budget can yield significant ecological benefits.

Negotiating Fair Market Value

Determining and negotiating fair market value for water rights is difficult given the limited price information typical of most water markets. With relatively few exceptions, most transactions are private, and information about prices is not readily available. There are several creative ways to help overcome this problem, the most common of which is a water right appraisal.

Prior to the start of price negotiations, the Bureau of Reclamation[11] and the Nevada Division of State Lands[12] require that a qualified appraiser make an appraisal. But this approach is not without problems. First, finding a qualified water rights appraiser may be difficult. Generally, most appraisers specialize in land valuation and have limited experience with water right sales. They typically lack an understanding and appreciation of the legal complexities of water rights, and most rely on techniques that estimate the production value of water. Yet legal characteristics such as water right seniority, flow rates, and the location on a stream (which they tend to ignore) are significant price determinants (Landry 1996; Colby, Crandall, and Bush 1993).

A second problem with using appraisers is the cost. The Nevada Division of State Lands (1998) spends as much as $30 per acre-foot for water right appraisals. For some sales this represents a third of the negotiated price.

Great Basin Land and Water and the Oregon Water Trust use a combination of appraisals and market experience to negotiate sale price. The Oregon Water Trust uses economic research, funded in part by one of the state universities, to value water rights. The trust then works with the water right holder to reach an agreement that satisfies both parties. Great Basin Land and Water uses a similar approach, but benefits from operating in an area that has an established water market with more public information.[13]

Another approach to the pricing problem is to offer a standing price and to wait for offers from sellers. The Bureau of Reclamation uses a standing-price approach for purchasing storage water in Idaho. It has a standing offer of $150 per acre-foot for stored water that will be reliably delivered (Rigby 1997). A standing-price offer is also used in California's Drought Water Banking program. In 1991, the program's first year of operation, the standing offer was $125 per acre-foot, but that offer was reduced to $50 per acre-foot the following year when water conditions improved (Jercich 1997).

Finally, water auctions are a possibility, but they remain mostly a theoretical concept at this time. A report by the Environmental Defense Fund recom-

mends water auctions for leasing water in dry years (Willey and Diamant 1994). Auctions would serve as a way of establishing a spot market price at which water would be purchased for immediate flow needs. An auction format allows water prices to reflect rapidly changing supply and demand conditions.

Know What You are Buying

To say the least, water rights and water laws are very complex. This complexity can cause headaches and confusion even among the savviest of buyers. As a result, most buyers perform a legal evaluation prior to purchase. The Bureau of Reclamation probably has the most extensive screening process of all the groups currently acquiring water rights. Its evaluation process usually includes a title search, owner verification, seniority assessment, review of historical cropping patterns, and verification of acres irrigated over the last five years (U.S. Bureau of Reclamation 1998).

Not every evaluation process needs to be as extensive as the bureau's. However, as with title to land, diligence must be undertaken to research and investigate each water right. It is important to know the quantity and seniority of a water right. But most important, a review provides a check on the validity of a water right. Some less-than-scrupulous water right holders have tried selling water rights that are threatened with forfeiture due to lack of use. A simple review can help ensure that water rights are more than paper claims.

Lease, Purchase, or Donation?

Determining which acquisition option is best will depend on the circumstances surrounding the acquisition. Some water right owners need flexibility, others need cash, and some want tax benefits. Leases provide flexibility, purchases offer permanency and large cash sums, and donations are inexpensive and can provide tax relief.

Leases are often criticized as being short-term fixes to a chronic problem. Yet leasing has a number of advantages. First, leases provide an opportunity for everyone to "test the waters" at little cost. They offer a way for water right holders and organizations to become comfortable with the idea of instream flow marketing. Water right holders have a chance to see how a lease affects their water needs, and organizations can assess how effective water rights are in protecting stream flows.

Second, leases provide an opportunity for organizations to become familiar with the state transfer process. This experience will help streamline application procedures and thus reduce costs. Further, many state agencies have limited experience in handling applications for converting water rights to instream flow rights. Leases provide an opportunity for organizations to work with state officials and develop procedures for transfers. For example, the Oregon Water Trust helped develop the state's fast-track leasing process for short-term leases.

Third, leases provide an opportunity for organizations to demonstrate the impacts that instream flow

transfers have on local communities. Critics contend that leaving water instream, rather than using it for irrigation, takes land out of production, eroding a community's economic base. The agricultural community points to the devastating impact that large water transfers had on the economy of Owens Valley, California. Leasing can show how these costs can be minimized and how instream flow transfers can actually benefit communities by improving water quality (Weinberg, Kling, and Wilen 1993) and enhancing recreational opportunities (Leones et al. 1997).

- Leases offer flexibility for both buyers and sellers.
- Purchases offer permanent solutions to instream needs.
- Donations offer a low-cost way of acquiring water.

Finally, leases offer flexibility to accommodate particular needs of both buyers and sellers. A variety of lease options are available beyond the standard annual and multi-year contracts. Dry-year options and split-season leases are two of the more creative contract arrangements. With dry-year options, arrangements are made ahead of time for access to water during drought (Colby 1990).[14] Split-season leases allow a portion of a water right to be used for irrigation early in the year, leaving the remaining portion of the right for instream use later in the summer. Option leases provide a way to protect fish, wildlife, and recreational values without tying up water and funds when stream flows are adequate (Colby 1990).

Purchases offer permanent solutions to instream needs. Most private groups acquiring water for

instream flows prefer purchases to leases. Great Basin Land and Water considered leasing but decided to limit its acquisitions to outright purchases. The Oregon Water Trust has relied on leases but considers them an interim device and is shifting its focus to purchases. Both organizations agree that purchases are the best option for streams that have chronic flow problems.

Donations offer a low-cost way of acquiring water. There are some costs associated with donations, usually in the form of legal and transfer fees. Organizations receiving donated water rights typically pay these expenses.

Donations are becoming an important means of protecting instream rights. Various factors motivate water right holders to donate rights for instream use (Barkley 1997), including potential tax benefits. Since water rights are property rights, donations may provide federal and state tax benefits.[15] A water right holder in Montana accepted a below-market-value price for a lease and claimed a tax deduction for the balance of the lease price (Sterne 1997).[16] Several water right holders who donated their rights to the Colorado Water Conservation Board for instream use have also claimed tax benefits.

The State Transfer Process

Just about every western state has a formal approval process to transfer an existing water right to an instream flow right. Some critics have expressed

disdain for the state transfer proceedings, which have been described as slow and painful,[17] costly,[18] and an unnecessary imposition on markets (Anderson and Johnson 1986). Sydney Macy of the Conservation Fund says that the cost and the hurdles of the transfer process could deter the group from pursuing future donations.[19] Bruce Farling of Montana Trout Unlimited believes that many provisions in Montana's transfer process are unnecessary and impede the success of instream flow markets.[20]

However, these apparent high costs need not deter acquisition efforts. Groups with extensive market experience offer a brighter outlook on the transfer proceedings. Andrew Purkey[21] of the Oregon Water Trust says that experience counts in the instream flow market. Some of the early transfers by the trust were costly, but with time the group has become more familiar with the transfer process. Now application costs and time delays are "not a problem," says Purkey.[22] Great Basin Land and Water has found the same to be true in Nevada's instream flow market. Initially, state officials were not prepared to deal with instream flow transfers. Graham Chisholm,[23] executive director of the group, says the state is much more cooperative now than it was during some transfers in the early 1990s. As with any innovation, private parties and public officials must learn about and adjust to the new forms of market activities.

"Experience counts in the instream flow market."
— Andrew Purkey, Oregon Water Trust

A State-by-State Review

Instream flow protection efforts are under way in every western state. Some efforts involve extensive legislative reform proposals, others are simple modifications to the way state agencies implement instream flow policies, and others are private efforts to implement existing policy. A summary of current instream flow protection efforts in each western state follows in alphabetical order.

Arizona

Arizona has established a Water Protection Fund with $5 million available annually for river and stream restoration projects including water right acquisitions.[24] The fund was created in 1994 as a way to make use of surplus water from the Central Arizona Project (CAP). However, most of the money from the fund has been used to construct off-site livestock water facilities and to develop wetlands.

In 1997, for the first time the fund approved the acquisition of CAP water to protect a riparian area in the Picacho Reservoir south of Phoenix.[25] The reservoir was originally built to store water for agricultural use, but vegetation that has grown along its edges has attracted several threatened and endangered bird species, including the Yuma clapper rail, the snowy egret, and the yellow-billed cuckoo. A twenty-year agreement with Pinal County to lease CAP water will maintain water levels in the reservoir. In 1997, the county leased about 2,000 acre-feet of water at a cost of $80,000.

In 1997, the Department of Interior, encouraged by Arizona's congressional delegation, spent $720,000 to maintain the water level at San Carlos Reservoir. The delegation claimed that the reservoir was important not only to the San Carlos Apache tribe as a source of revenue, but to environmentalists, recreationists, and anglers (Hayworth 1997). A plan was negotiated to deliver 18,000 acre-feet of CAP water to users, who accepted it in lieu of water from the San Carlos Reservoir.

California

California adopted changes to its water code in 1991 to allow the use of water rights for the purpose of preserving or enhancing wetlands habitat, fish and wildlife resources, or recreation.[26] While the change does not explicitly recognize instream flow rights, it specifically allows water right holders to change the use of their right for instream purposes.

The federal government has also entered into the instream flow arena in California because of endangered salmon runs. Two federal projects are now underway to address flow needs for salmon recovery. The Bureau of Reclamation is continuing the acquisition program established by the Central Valley Project Improvement Act. The program, initiated in 1995, is a three-year effort to lease water to help meet immediate fish and wildlife needs in the Sacramento-San Joaquin River sys-

tem. In 1997, the bureau leased over 167,000 acre-feet at an estimated cost of $7.3 million (U.S. Bureau of Reclamation 1998).

The CALFED Bay-Delta Program may be assisting the Bureau of Reclamation in its acquisition efforts. CALFED is a consortium of state and federal water agencies and local citizens that addresses the water problems of the Bay-Delta, a 738,000-acre region where the Sacramento and San Joaquin Rivers enter the San Francisco Bay. Currently, the program's advisory committee is considering a proposal to allocate about $20 million to purchase and lease water rights to increase flows in the Bay-Delta.[27] Water acquisitions are not likely to begin in 1998 because the advisory committee is still working on other flow-enhancement plans.

Colorado

The Colorado Water Conservation Board is stepping up its efforts to increase awareness of the state's instream flow acquisition program.[28] The acquisition program allows the board to enter into agreements with water right holders to obtain rights for instream flows.[29] Because the acquisition program has never received money to purchase water rights, the board expects donations to be the primary means of acquiring instream flows. The board sees tax benefits from donations as incentive enough. "We've had several large donations and the primary motivation was the tax break," says program director Dan Marriman.[30]

Others are not as optimistic about the state's acquisition program. Since its inception in 1973, the state has received only seven water right donations.[31] "The state lacks a focused organization to really push instream flow markets," says Robert Wigington of the Nature Conservancy.[32] While the Nature Conservancy could take on this role, Wigington is not convinced the organization is ready for the job. "The Nature Conservancy has a terrestrial bias, making it difficult to buy something it can't put a fence around," says Wigington.[33] He thinks Colorado needs a group like the Oregon Water Trust, which specializes in water right purchases.

Idaho

Currently, Idaho limits market transfers for instream flows to stored water held in the water-banking program.[34] However, there is a "move afoot in Idaho," says Marti Bridges[35] of Idaho Rivers United, to allow private groups to buy or lease water rights for instream flows. The Idaho Water Resources Board (1996) recently adopted changes to the State Water Plan that recommend expanding market opportunities for instream flows. Unfortunately, these changes are not expected to be approved by the legislature in 1998, which is dominated by agricultural interests that typically resist instream flow marketing.[36] In the past eight years the Idaho legislature has twice rejected legislation similar to that recommended by the statewide water plan (Sterne 1997, 210).

The U.S. Bureau of Reclamation continues to benefit from legislation instituted in 1992 that allows the agency to lease storage water from reservoirs for salmon migration. The legislation created a three-year test program that was updated in 1996 and extended for another four years. The Bonneville Power Administration, with the help of Idaho Power Company, was the first to lease water through the program for the so-called "salmon flush" (Beeman 1993). Since then the bureau has taken the lead in providing flows for salmon. In 1997, the agency leased 427,000 acre-feet of water from the state's water banking program and permanently acquired 57,000 acre-feet of storage rights.[37] These acquisitions were an effort to comply with the 1995 Biological Opinion for salmon recovery. The bureau may step up its efforts in the near future. A Snake River systems configuration study due out in 1999 is considering the need for an additional 1.4 million acre-feet of flow for Snake River salmon.[38]

Montana

In 1995, an unlikely partnership of environmental and agricultural groups formed to pass legislation that allows individuals or private organizations to lease water rights for instream needs.[39] The governor's office hailed the law as an example of successful consensus building, claiming that it demonstrates how key advocacy groups like the Montana Farm Bureau and the Wildlife Federation can work together (McKinney, n.d.). Yet the

implementation of this success is off to a slow start. So far, only one lease for a small amount of water has been finalized. Montana Trout Unlimited, the only group actively pursuing leases, says it has other deals in the works but contends that the state's administrative process is slowing them down.[40]

New Mexico

Ask any state official in New Mexico about the state's instream flow program and he or she is likely to claim it does not exist.[41] At best, the official might say that it plays a minor role in water management. Ask about instream flow markets, and you are likely to receive a blank look. Yet all across the state, cash is changing hands to keep water in streams and rivers.

New Mexico's Pecos River compact agreement with the state of Texas is just one illustration. The state has yet to issue instream flow rights officially; however, the compact agreement is creating the same effect, and the methods used to meet the compact's goals often end up resembling instream flow marketing. New Mexico is purchasing irrigation water rights on the Pecos River and retiring them to meet the flow obligation to Texas stipulated by the compact.

New Mexico's Middle Rio Grande Conservancy District recently declared its water bank open for business. The bank provides a way for the district to

lease surplus water to other users. Although some state officials question the bank's legality, it has already leased about 2,000 acre-feet of water to agricultural users in the valley (*U.S. Water News* 1997). The U.S. Fish and Wildlife Service has expressed interest in leasing some of the bank's water for the endangered silvery minnow and may become the bank's next customer.[42]

Water banking may become possible in the rest of the state if the 1998 legislature passes a bill[43] that would create a statewide program to allow water right holders to deposit conserved or surplus water for lease to other users. The bill contains provisions that allow such water to be used for the benefit of the public. However, it is unclear whether this provision includes instream flows.

Nevada

Nevada is developing an active instream flow market.[44] The market began in 1990 when the Nature Conservancy spent $1.5 million to purchase water for the Stillwater Refuge. The U.S. Fish and Wildlife Service has since taken over the responsibility of purchasing water for the refuge, and in 1997 it acquired just over 8,000 acre-feet from local irrigators. The market around the refuge is maturing, and trading has remained relatively constant in recent years.[45]

Market transfers are helping solve some of the water quality problems in the Truckee River. Great Basin

Land and Water is finalizing several water right purchases to increase flows and address these problems. It expects to successfully negotiate about seven purchases by the end of 1998. The group got its start through the congressionally approved Truckee River Water Quality Settlement Agreement of 1980, which set aside $24 million for water acquisitions to augment flows during the summer. Half of the money for acquisitions is coming from the Department of Interior and half is coming from the coffers of Washoe County and the cities of Reno and Sparks.

The Walker River Basin may be the next region in the state to see an instream flow market emerge. Talks are underway among state and federal agency officials and the local agricultural community to consider water purchases for Walker Lake. The U.S. Bureau of Land Management is interested in purchasing stored water to maintain flows through the Walker River and into the lake to provide fish and wildlife habitat. The agricultural community is not very receptive to this proposal, but government officials are pitching the idea of a pilot leasing program to introduce instream flow markets.

Oregon

Oregon continues to lead the development of instream flow markets, even though during the last two legislative sessions several bills were introduced to prohibit the transfer of agricultural water to any other use.[46] Fortunately for Oregon's

active market, these bills were rejected. Beyond these bills, there have been few recent legislative proposals to change the state's instream flow water laws.

Administrative changes, spearheaded by salmon recovery efforts, continue to shape the state's instream flow transfer and leasing process. The Oregon Water Resources Department is placing a priority on instream transfers and leases by providing a final decision within 180 days of receiving the application (Oregon Governor's Office 1997). This commitment is part of the Oregon plan, a recovery effort for coho salmon that is based on voluntary habitat restoration by private landowners.[47]

Ownership of instream flow rights has been an issue in Oregon since the approval of the first instream lease. The 1987 instream flow legislation that allowed market transfers is unclear about ownership. It authorizes the purchase or lease of water rights for instream flows by private groups, but defines an instream flow right as "a water right held in trust by the Water Resources Department for the benefit of the people of the State of Oregon to maintain water in-stream for public use."[48] The department has held this position until this year.

Private groups purchasing water rights for instream flows have argued that ownership is essential to the success of their efforts. To address this concern, the agency now issues a new type of right called a "flow enhancement water right." This new right is

similar to an instream flow right except that it may be held by private organizations.[49]

The Oregon Water Trust and the Environmental Defense Fund are continuing their instream flow marketing efforts. In 1997, the trust completed 27 acquisitions that accounted for about 15,000 acre-feet of additional flow (Oregon Water Trust 1997). In addition, the Environmental Defense Fund, with the help of the Confederated Tribes of Warm Springs Reservation, is working with several irrigation districts to lease water conserved by irrigators so that it can remain in the Deschutes River (Willey and Diamant 1996). The conserved water was made available by improving the irrigation districts' delivery systems.

Utah

The Utah Division of Wildlife Resources and Division of Parks are the only entities that can hold instream flow rights.[50] However, the Utah Chapter of Trout Unlimited (TU) is working with the Division of Wildlife Resources to purchase water rights for instream use on the Price River. The proposed deal would acquire storage rights to maintain late-season flows in the Price River. Currently, the Carbon County Water Conservancy District operates a dam on the upper portion of the Price River. The gates on the dam are closed at the end of the irrigation season, leaving little water in the river. TU believes that it can maintain river flows year-round with about 700 additional acre-

feet, but the water may come at a substantial cost. With water rights expected to cost $700 to $800 per acre-foot, TU is hoping that the Division of Wildlife Resources and several private funding sources will pick up most of the tab.[51]

The Division of Wildlife Resources is working on some of its own acquisition efforts. However, the fact that the Division of Wildlife Resources must seek legislative approval to purchase water rights for instream use has slowed efforts.

Water shares may present an opportunity for the agency to acquire water for instream flows without the need for legislative approval. Water shares are slightly different from water rights. Irrigation districts typically hold a water right and issue water entitlements or shares to their customers. These shares are commonly traded for irrigation purposes. Division of Wildlife Resources officials think it might be possible to buy these water shares for instream use without legislative approval.

Twice the Division of Wildlife Resources has attempted to do this. Both attempts failed, but in one case the division went so far as to make an offer of $165,000 for 1,100 shares of water totaling 7,200 acre-feet.[52] A rapidly growing city in northern Utah held the first right of refusal to the water and decided to purchase the shares instead. While the division has yet to complete a deal, its officials still view purchases of water shares as an opportunity to expand the state's lagging instream flow program.

Washington

Washington is attempting to develop new markets for instream flows.[53] In 1996, the state saw its first lease of an irrigation water right for instream flows (Environmental Defense Fund 1996). This transaction in the Teanaway River, a tributary of the Yakima River, was the first in the Bureau of Reclamation's $12 million water acquisition program to restore flows for salmon habitat. Program Director Tracy Yerxa[54] says the bureau will increase its efforts in the coming years to lease and buy more water. The bureau has formed an advisory group, representing diverse interests ranging from environmentalists to ranchers and tribal members, to provide guidance on water acquisitions.

The 1998 legislature is considering further refinements to the state's water code that would greatly enhance instream flow trades. Legislation is pending that would allow individuals to acquire and hold instream flow rights, in contrast to the state's water code, which is unclear about ownership of instream flows.[55]

The proposed changes may help revive the state's Trust Water Rights Program, which provides a mechanism for voluntary transfers of water rights to instream flows. Under this program, state and federal agencies and private organizations may acquire water rights for instream flows but the rights must be held by the Washington Department of Ecology. However, the department has not issued a single trust water right since the program started in 1991 (Sterne 1997; Crammond 1995). Frustrated by the inaction, two private organizations announced

that they are taking matters into their own hands. The Center for Environmental Law and Policy and American Rivers have formed the Washington Water Trust, which will use the provisions of the Trust Water Rights Program to acquire water through leases or purchases for instream needs. The job will become easier if the proposed legislation passes to allow private ownership of instream flows.

Wyoming

Wyoming first reformed its water code in 1986 to recognize instream flows.[56] The legislation was praised as a necessary change to make the century-old concept of prior appropriation more contemporary (Fasset 1993). Unfortunately, its impact has been negligible. Only a handful of new instream flow rights have been issued and water flow problems persist. The lack of progress has left many people dissatisfied. Representatives from state agencies and conservation groups are meeting in an effort to get policy reform and Wyoming's rivers flowing again. At the top of their reform wish list is amending the state's water code to extend ownership of instream flow rights to private organizations. (At present, the state is the only entity that can apply for and hold instream flow rights.) Jill Morrison of the Powder River Basin Resource Council contends that the absence of private ownership has slowed instream flow protection.[57]

The group believes that there is a lot of misinformation and misunderstanding about instream flow

rights. Part of this group's effort is to clarify the process. "We're trying to get the witches out of the closet and open discussions on instream flows," says Tom Annear, instream flow coordinator for the Wyoming Game and Fish Department.[58] He anticipates that legislation to allow private ownership of instream flows will be passed in five years.

Wyoming's water codes allow donations of water rights for instream use. The water right is converted to an instream flow right and is held by the state. But some water right holders who want to improve stream flows are reluctant to transfer their rights to the state. They may be more willing to donate to a private group. Annear says several water right holders who were interested in transferring their rights to instream flow rights have contacted him. "These people wanted to do something good for the stream but weren't interested when they found out that they had to sign over their right to the state." Annear believes that allowing private ownership of instream flow rights would stimulate donations.[59]

Conclusion

Instream flow markets are coming of age in the West. More and more, legislators, ranchers, and environmentalists recognize the benefits of buying and selling water rights to increase stream flows. However, market exchanges of water rights for instream flows may see only modest growth until more western states ease restrictions on transfers. The Pacific Northwest region has led the way. Idaho, Montana, Oregon, Washington, and California have all adopted changes that allow water rights to be traded to enhance instream flows. As a result, markets are developing. Since 1990 the region has had more than 150 transactions totaling more than 1.7 million acre-feet.

As legislative reform occurs, private groups are taking advantage of the changes and are leasing and purchasing water rights for instream use. Combined, private organizations have negotiated 87 transfers to acquire more than 244,000 acre-feet of water.

The success of these organizations demonstrates that private resources can and will be devoted to environmental goods such as instream flows. The value of increasing stream flows is high enough to attract funds to create a market. The advice offered in this manual is drawn from the experiences of on-the-ground market entrepreneurs and should encourage others to take the first steps necessary to protect streams and rivers through water market transfers.

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