2012 Report to the Legislature: Water Banking in Washington State

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# Table of Contents

Summary ........................................................................................................................................ iii
Introduction ..................................................................................................................................... 1
What is Water Banking? .................................................................................................................. 2
Water Banking Authority ............................................................................................................... 3
Regional Water Banks ................................................................................................................ 4
  The Yakima River Basin ............................................................................................................... 4
  The Columbia River Water Management Program ...................................................................... 5
  Lake Roosevelt .......................................................................................................................... 6
  Sullivan Lake ............................................................................................................................ 7
  The Walla Walla River Basin ..................................................................................................... 7
  Walla Walla Mitigation Exchange ........................................................................................... 8
  The Dungeness Water Exchange ............................................................................................. 9
Obstacles to Implementing Water Banking ................................................................................... 10
  Difficulty of Valuing Land and Water Separately .................................................................... 10
  Challenges of Separating Water from Land Purchases .............................................................. 11
  Mitigating Local Economic Effects of Water Transfers .............................................................. 11
  Support Mechanisms Necessary for Water Markets ................................................................. 12
Conclusion ....................................................................................................................................... 13
Summary

Washington State has had specific statutory authority to perform water banking since July of 2003, through House Bill 1640. It authorized the Washington Department of Ecology (Ecology) to use the trust water rights program in the Yakima River basin for water banking purposes.

In 2009, the Legislature amended the trust water statute significantly. It now clearly authorizes Ecology to conduct water banking activities statewide. Other new provisions in the bill allow groundwater rights to be placed in trust, clarify conditions for placing water rights in or out of trust, and provide further protection of trust water rights. New legislation in 2009 also authorized a pilot banking effort in Walla Walla.

Despite the new legislation, Ecology recognizes that challenges remain in implementing water banking or making best use of water banking opportunities.

In this report, Ecology identifies obstacles to implementing water banking:

- The difficulty of valuing land and water separately.
- The challenges of separating land from water purchases
- The need to mitigate the economic impacts of inter-basin water transfers.
- The need for support mechanisms to support water banking activities.
Introduction

“Water banking in its most generalized sense is an institutionalized process specifically designed to facilitate the transfer of developed water to new uses. Broadly speaking, a water bank is an intermediary. Like a broker, it seeks to bring together buyers and sellers. Unlike a broker, however, it is an institutionalized process with known procedures and with some kind of public sanction for its activities.”

Washington State has had specific statutory authority to perform water banking since July of 2003 through House Bill 1640. It authorized the Washington Department of Ecology (Ecology) to use the Trust Water Rights Program in the Yakima River Basin for water banking purposes. During the 2009 legislative session, Chapter 90.42 RCW was amended significantly. It now clearly authorizes Ecology to conduct water banking activities statewide.

The law requires Ecology to report on water banking to appropriate legislative committees by December 31 of every even numbered year. This is the fifth such report.

RCW 90.42.130 states:

(1) The department shall seek input from agricultural organizations, federal agencies, tribal governments, local governments, watershed groups, conservation groups, and developers on water banking, including water banking procedures and identification of areas in Washington state where water banking could assist in providing water supplies for instream and out-of-stream uses. The department shall summarize any comments received on water banking and submit a report, including any recommendations, to the appropriate committees of the legislature for their consideration in the subsequent legislative session.

(2) By December 31st of every even-numbered year, the department shall submit a report to the appropriate committees of the legislature on water banking activities authorized under RCW 90.42.100. The report shall:

(a) Evaluate the effectiveness of water banking in meeting the policies and objectives of this chapter;

(b) Describe any statutory, regulatory, or other impediments to water banking in other areas of the state; and

(c) Identify other basins or regions that may benefit from authorization for the department to use the trust water [rights] program for water banking purposes.

2 http://apps.leg.wa.gov/rcw/default.aspx?cite=90.42.100
What is Water Banking?

The July 2004 Ecology report “Analysis of Water Banking in the Western United States”\(^3\) defines water banking broadly as:

"An institutional mechanism that facilitates the legal transfer and market exchange of various types of surface, groundwater, and storage entitlements."

The report further discusses the wide variety of ways that water banks operate:

Water banks exist in almost all western states. There are significant differences in the way banks operate, particularly the degree of involvement surrounding sales, pricing, and price controls. Although the approaches may differ, the common goal is moving water to where it is needed most.

Water banks can be involved to differing degrees in the exchange of water. Water banks have assumed the role of broker, clearinghouse, and market-maker. Brokers connect or solicit buyers and sellers to create sales. A clearinghouse serves mainly as a repository for information on bids and offers. A market-maker attempts to ensure there are equal buyers to sellers in a market. Many water banks pool water supplies from willing sellers and make them available to willing buyers.

Water banks can provide a host of administrative and technical functions, for example:

- Determining what rights can be banked.
- Establishing the quantity of bankable water.
- Limiting, if necessary, who can purchase or rent from the bank.
- Setting contract terms or prices.
- Facilitating regulatory requirements.

Water banking may also be a tool to document transfers of water rights to and from the trust water rights program.

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\(^3\) [http://www.ecy.wa.gov/programs/wr/instream-flows/wtrbank.html](http://www.ecy.wa.gov/programs/wr/instream-flows/wtrbank.html)
Water Banking Authority

Ecology worked closely with stakeholders to produce draft legislation for water banking that was adopted in the 2009 legislative session. The bill clarifies that Ecology has the authority to use the State Trust Water Program (Chapter 90.42 RCW\(^4\)) for water banking purposes statewide, including mitigation. Water banking is not defined. Crafters of the bill were careful to describe banking as a verb (activity), rather than a noun (institution) to allow flexibility in bank formation and governance.

Under Chapter 90.42 RCW, Ecology is authorized to use water banking to:
- Mitigate for new water uses.
- Hold water for beneficial uses consistent with terms established by the transferor.
- Meet future water supply needs.
- Provide a source of water to third parties on a temporary or permanent basis, for any allowed beneficial use.

Under Chapter 90.42 RCW, Ecology may not use water banking to:
- Cause detriment or injury to existing rights.
- Issue temporary rights for new potable uses.
- Administer federal project water rights.

Regional Water Banks

The Yakima River Basin

Because water banking was first authorized as a pilot in the Yakima River Basin, the banking efforts in the Yakima area are most fully developed. Water banks are currently operating in the Upper and Lower Kittitas County areas under the Kittitas Water Exchange. With the exception of the bank for the Washington State Department of Transportation, the banks are designed to distribute mitigation credits to residential water users. Mitigation credits are based on water rights held in the Trust Water Rights Program which offset the impact on the Yakima River system.

There are 14 water banks in the Kittitas Water Exchange.

Seven of those can be used to find water for new uses:
- Lamb and Anderson bank (Upper Kittitas Basin)\(^5\)
- Roan bank (Swauk Basin)\(^6\)
- SwiftWater Ranch bank (Teanaway Basin)\(^7\)
- Masterson Ranch bank (Upper Kittitas Basin)\(^8\)
- Reecer Creek Golf Course bank (Lower Kittitas Basin)\(^9\)
- Williams and Amerivest bank (Lower Kittitas Basin)\(^10\)
- Roth-Clennon bank (Upper and Lower Kittitas Basin)\(^11\).

Seven banking efforts are self mitigating:
- Northland Resources
- Bruton Ditch
- Starkovich
- Land Lloyd Development
- Williams
- Central Cascades Lands Company
- The Washington State Department of Transportation

The Washington State Department of Transportation (WSDOT) is using banked water to offset water uses for I-90 construction/expansion and riparian landscaping. To mitigate the potential impacts of their water use, WSDOT purchased an existing surface water right. The water right was placed into the Trust Water Rights Program, to be left in the river for instream flows when

\(^5\) http://www.ecy.wa.gov/programs/wr/cro/ukwb.html
\(^6\) http://www.ecy.wa.gov/programs/wr/cro/sbwb.html
\(^7\) http://www.ecy.wa.gov/programs/wr/cro/swrwb.html
\(^8\) http://www.ecy.wa.gov/programs/wr/cro/mrwb.html
\(^9\) http://www.ecy.wa.gov/programs/wr/cro/lkwe.html
\(^10\) http://www.ecy.wa.gov/programs/wr/cro/lkwe_wa.html
\(^11\) http://www.ecy.wa.gov/programs/wr/cro/rcwb.html
not used for project mitigation. When the I-90 construction is complete, WSDOT will be able to move their water to another project location within the Yakima Basin.

The most active of the Kittitas banks is the Lamb and Anderson bank offered by Suncadia. The Suncadia bank has been operational since April 2010. An accounting of applications for water transfers from the bank\(^\text{12}\) shows 194 applications since it became operational. Of those applications, 14 were withdrawn, and 150 have been approved. This water is used for an additional 269 domestic connections.

Northland Resources has received permits based on placement of water rights into the Trust Water Rights Program that are sufficient to serve more than 1,200 residences.

### The Columbia River Water Management Program

On February 14, 2006, the Washington State Legislature passed House Bill 2860 (Chapter 90.90 RCW) creating a new Columbia River Basin Water Management Program. The bill directed Ecology to aggressively pursue development of water supplies to benefit both in-stream and out-of-stream uses through storage, conservation, and voluntary regional water management agreements. The bill also required that Ecology complete a two-part report on:

- The Columbia River’s water supply.
- A forecast of future water supply and demand requirements.

On November 16, 2006, Ecology released the first report. Written in two sections, the report includes a water-supply inventory and a long-term water supply and demand forecast. It also identifies conservation and storage projects that the state might use to meet future water needs. The water supply inventory report is updated annually; the water supply and demand forecast is updated on a five year cycle. The most recent supply and demand forecast was issued in June 2012.\(^\text{13}\)

The reports specifically mention water banking as a potential tool for managing water:

> "Water marketing, the purchase of existing water rights for allocation to new uses, along with water banking have been proposed as an approach to water management in the Columbia River Basin. Water marketing and water banking could reallocate existing water rights to new uses."\(^\text{14}\)

The reports also mention the development of proposals for full and partial season water banking as a tool for solving problems and assisting conservation efforts for water users in the Columbia Basin counties of Grant, Adams, and Franklin.\(^\text{15}\)


\(^{13}\) [http://www.ecy.wa.gov/programs/wr/cwp/cr_07legrpt.html](http://www.ecy.wa.gov/programs/wr/cwp/cr_07legrpt.html)


\(^{15}\) Ibid, Sec. 2.1.2.2, Conservation Component p. 2-10
The Columbia River Water Management Program recommends water banking activities including acquiring water through purchase and conservation to meet needs both in-stream and out-of-stream, and use of potential new storage facilities to hold water for future use.

The 2006 legislation authorizes Ecology to use money from the $200 million Columbia River Account to acquire water rights. It also directs Ecology to inventory conservation projects, and identifies funding to implement the best projects. Ecology is to place net water savings from such projects in trust in proportion to state funding of the project.\(^{16}\) The legislation set up mechanisms to then assign this conserved water to other water uses and users through new permits.

**Lake Roosevelt**

The Columbia River Program includes the Lake Roosevelt Incremental Storage Releases Project.\(^ {17}\) This project provides water for drought relief, municipal and industrial supply, replacement of ground water use in the Odessa Subarea, and enhanced stream flows for fish. The storage releases come from the U. S. Bureau of Reclamation’s (USBR) existing 6.4 million acre-foot storage behind Grand Coulee Dam.

Releases occur April to August at times deemed most beneficial for aquatic species by the Fish Flow Release Advisory Group. Lake levels return to normal by the end of September. The storage releases result in one foot of additional drawdown of the lake level during spring and summer months, and 1.8 feet during drought years. This added drawdown is small compared to the normal operating range of Lake Roosevelt, which fluctuates up to 80 feet a year and up to 2.5 feet a day.

In June 2009, USBR released a Final Environmental Assessment (EA) and Finding of No Significant Impact for the Lake Roosevelt Incremental Storage Releases Project. The EA analyzed the withdrawal of additional water from Lake Roosevelt to provide drought relief, improve municipal and industrial supply, provide a replacement for some of the groundwater use in the Odessa Subarea, and improve instream flows in the Columbia River below Grand Coulee Dam.

A contract negotiated in 2010 - 2011 between Ecology and USBR for a 40 year lease of Lake Roosevelt water was completed on August 11, 2011. The trust water certificate for this water was issued on August 17, 2011. The Office of Columbia River (OCR) began issuing permits mitigated by the Lake Roosevelt Storage Releases Program in January 2012. Twenty-three permits have been issued under the program to date.

\(^{16}\) See RCW 90.90.010(4).
\(^{17}\) For additional information about the Lake Roosevelt Incremental Storage Releases, please visit our webpage dedicated to this project at [http://www.ecy.wa.gov/programs/wr/cwp/cr_lkroos.html](http://www.ecy.wa.gov/programs/wr/cwp/cr_lkroos.html)
**Sullivan Lake**

The Pend Oreille County Public Utility District will release 14,000 acre-feet (ac-ft) of water each summer, when the water is needed most. OCR will issue water rights from 9,400 of the 14,000 ac-ft of water supply developed at Sullivan Lake. The 9,400 ac-ft will be split in half with 4,700 ac-ft going to new municipal/industrial and domestic water rights and 4,700 ac-ft allocated for all other types of water rights (i.e. irrigation, stock water, etc). The remainder will be used to enhance stream flows to benefit fish.

Under state law, RCW 90.90.110, water developed from the Sullivan Lake Project may only be allocated to applicants in six northeastern Washington counties: Douglas, Ferry, Lincoln, Okanogan, Pend Oreille, and Stevens.

**The Walla Walla River Basin**

Two banking efforts are active in the Walla Walla River Basin. They have different geographic scopes, and provide different results.

**The Walla Walla Water Bank**

The unique pilot effort to manage water locally, based on 2009 legislation, is now solidly established in the Walla Walla valley. The Walla Walla Watershed Management Partnership (Partnership) water bank is in operation and accruing benefits for farms and fish. This program is a result of a watershed planning effort that began in 2000, involving local water users, conservation groups, citizens, Tribes, and governments. They worked collaboratively with the state and federal agencies to identify where stream flows were inadequate for existing water right holders and federally-listed endangered fish species.

A total of 92 water banking agreements are now in place between local water users and the Partnership. Groundwater and surface water rights in the Partnership’s one-of-a-kind water bank total over 8,418 acre-feet annually and, depending on the time of year, up to 29 cubic feet per second (cfs) and up to 5,689 gallons per minute gallons per minute basin wide.

The Partnership’s Walla Walla Water Bank offers an opportunity for water users to conserve water and preserve their water rights at the same time, through participation under RCW 90.92.070. The Partnership is uniquely authorized to accept water rights into the water bank, hold it for environmental benefit while the water right holder chooses to conserve water, and return it to the water right holder with its original priority date and other conditions intact when the agreement ends.

Water banking is available for surface water rights and groundwater rights within the Partnership.

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planning area, with voluntarily participation on a temporary or permanent basis, under terms and conditions agreed upon by the water rights holder and the Partnership as provided in Chapter 90.92 RCW. To-date, water banking participants include individuals, multi-owner water right holders, municipalities, and state agencies. Both surface water and groundwater rights have been banked.

With approval of the water right holder and the Partnership, the water rights (or portion of a water right) enter the bank but are still owned by the water right holder and not subject to relinquishment for non-use during the agreement term. When the water banking agreement term ends, water rights return to the same status held prior to participation. The agreement period is simply deemed as a “tolling of the clock” during the authorized non-use period and participation does not permanently change a water right. Since these water banking agreements do not include an “extent and validity” review, banked water rights are not available for reallocation out-of-stream but instead are held by the Partnership for environmental enhancement. Enhanced flows from banked surface water rights benefit endangered fish species that rely on local streams for passage and instream habitat.

Further phases of the water banking program were developed in late 2010 for future implementation. This includes the Partnership assuming the management of the local mitigation bank program for new domestic permit-exempt wells, and the purchase and lease of water rights for instream flow enhancement. A fully functional water bank, with reallocation of water to out-of-stream uses, will be a future phase of program expansion.

Water banking in the Walla Walla differs from banking in the rest of the state because it is authorized under a different statute. We believe that where provisions of the statewide water banking law and the Walla Walla law (Chapter 90.92 RCW) overlap, the Walla Walla provisions will prevail. Ecology assists the Walla Walla banking effort by documenting banked water and coordinating water rights management.

**Walla Walla Mitigation Exchange**

In 2007, Ecology adopted an instream flow rule for the Walla Walla Basin (WRIA 32). It requires mitigation for new outdoor uses from permit-exempt wells drilled in the shallow aquifer in some high density areas of Walla Walla County.

The Washington Water Trust (WWT), Ecology, and Walla Walla County worked to develop a mitigation plan revolving around the purchase of water, to be transferred to the State Trust Water Program and held in a water exchange. To help start the Walla Walla Mitigation Exchange, the WWT acquired two groundwater rights, and a third purchase is pending. So far, three mitigation certificates have been purchased. Homebuilders are able to pay a set fee to the Water Exchange (cost of their portion of water acquired to mitigate) to allow them to use well water for outdoor uses such as gardening, watering lawns, and filling swimming pools. The program became fully functional at the same time that the economy slowed, so the program has not been used as much as expected. However, it is ready to support new residential activities when demand increases.

With the formation of the Walla Walla Watershed Management Partnership in 2009, the Partnership began to locally administer Ecology’s state-assisted mitigation program to offset impacts from future rural development.

**The Dungeness Water Exchange**

Currently under development, and expected to become active in early 2013, the Dungeness Water Exchange (DWE) will provide a mechanism to create and transfer mitigation credits to offset new groundwater uses in the Dungeness watershed. The DWE will also manage an instream flow restoration program for the main stem of the Dungeness River. The DWE will purchase water and create mitigation credits to supply the bank. The Washington Water Trust will administer the DWE, and Ecology will process mitigation credits on a case by case basis.

Obstacles to Implementing Water Banking

Many areas of the state are interested in using water banking to address new water supply needs or to protect instream flows. It will take some time to develop markets and create water banks, and there will be challenges, including those related to stakeholder concerns about water banking. Still, there are clearly potential benefits from being able to efficiently trade water, especially in times of shortage.

Despite the new legislation, obstacles remain to implementing water banking and making the best use of water banking opportunities. Legal challenges could require rule or statute amendments. The following obstacles are further described below:

- The difficulty of valuing land and water separately
- The challenges of separating water and land purchases
- The local economic effects of water transfers.
- Lack of support mechanisms necessary develop water markets

Difficulty of Valuing Land and Water Separately

In the Yakima River basin, USBR manages a large portion of the available water. USBR leases and purchases both water and land for environmental mitigation. Ecology partners with USBR on water leases and purchases in the basin, and sponsors much of the trading activity. Both agencies are important participants in creating an active water market.

Federal acquisition regulations that place strict limits on obtaining separate valuations of land and water are an impediment to USBR’s involvement in water trading in the basin. The federal restrictions fail to recognize that separating the sale of the land and the appurtenant water can yield a combined value that exceeds the appraised value of the land and water right together. Federal regulations do not allow the sum of the parts to exceed the value of the whole, and thus tend to undervalue water. Federal land appraisers are using the federal acquisition regulations to conduct water valuations, whereas expert water valuation specialists in the private sector are using less restrictive valuation methods to more accurately determine the value of water. This has put the USBR at a competitive disadvantage in the Yakima River basin market.

Federal regulations regarding land and water acquisition would need to be amended to alleviate this problem, perhaps by exempting water right purchases from certain land appraisal restrictions. USBR is working in coordination with the Yakima Basin Water Enhancement Program’s Conservation Advisory Group to try to get the federal regulations corrected.
Challenges of Separating Water from Land Purchases

It would be helpful, in some cases, for Ecology to have the ability to purchase land and water together as a package. This is particularly true where the land would serve important public needs, such as providing habitat benefits for critical salmon stocks. This is also true in cases where the sale of a critical water right is dependent on purchase of both land and water.

Many landowners are uncomfortable separating their water right from their land. In the current market, separation of the two can be an advantage or disadvantage depending on the local economy. Landowners are concerned about the effect the loss of the water right could have on the value and future use of the land.

It is also more difficult to determine market value of water separated from the land it is attached to. For this reason, the ability to purchase the land and water together provides an advantage to the purchaser.

While USBR may purchase land and water together, the Legislature has previously limited Ecology to purchases of water. This is one of the reasons the two agencies have partnered on some acquisitions. In some instances, especially when timing is a factor, it would be helpful for Ecology to be able to purchase land and water together without needing to partner with another agency. If the option were available for Ecology to purchase land and water together, Ecology would transfer any purchased land to a land trust organization to manage. Ecology has previously partnered with other agencies by buying the water portion of a land purchase.

Mitigating Local Economic Effects of Water Transfers

In response to concerns about the economic effects of out-of-basin water right transfers, Washington’s Legislature appropriated funds for a study. Ecology contracted with Lawrence J MacDonnell to assess the current situation, research how other states have addressed the issue, and develop recommendations. The resulting report to the Legislature, “Protecting Local Economies,” published in November 2008, discusses legislative options to protect rural communities in Northeast Washington from disproportionate economic, agricultural, and environmental impacts when upstream water rights are purchased and transferred to a downstream watershed or county.

The report concluded that water right transfers can benefit the state’s economy while preserving the environment, but that much can be done to reduce their potential adverse effects on local communities. One way to maintain local control over regional water rights is to form rotational pools of water rights that structure water transfers to reduce their potential adverse effects on local communities. The report gave examples of two groups in other states that have organized to collectively manage their water rights. What these groups are doing is a form of water banking:

The Metropolitan Water District of Southern California has entered into an agreement with the Palo Verde Irrigation District for a long-term water supply based on temporarily fallowing no more than 20 percent of the lands within the district at any time. To implement the agreement, lands are only temporarily taken out of irrigation on a rotating basis. The payments made to the irrigators to forego irrigation are largely used in the local economy.

In the lower Arkansas Valley of Colorado, shareholders in the many mutual ditch companies in the area are working to pool their rights and, using rotation fallowing, create a supply of water that would be available for use elsewhere in the basin. Compensation is given to those temporarily foregoing use, and part of the funds go to improving irrigation facilities, including on-field practices. A water conservancy district, a form of local agency with general taxing and bonding authority, is orchestrating the effort, and a term has been coined for the program – “Super ditch.”

The report stated that such proactive efforts are essential if local areas are to continue to derive benefits from the water once transferred outside the area.

“Water uses will inevitably change over time as new demands emerge and existing users decide to stop making their uses. Some of these uses will be within the same local area, but some will not. It is important for the state’s economy that water be available to support emerging beneficial needs, wherever they exist. Ultimately, if local areas want to retain the benefits of the water presently used they will have to develop ways to make some of this water available to others in return for revenues that can be reinvested in the local area.”

Washington should investigate use of agricultural rotational pools as a banking tool to protect local economies. State, federal, and local governments; water trust organizations; agricultural groups; and other stakeholders should work together to encourage water right holders to form groups that can respond in a coordinated way to requests for water.

Support Mechanisms Necessary for Water Markets

One of the key issues inhibiting formation of water banking is the need to create exchanges that support marketing and brokerage functions. Water transactions are often hard to predict and more expensive than expected. How the risks are distributed between the public and private sectors is critical to persons considering investing in supply for the water bank to function. Support mechanisms such as technical assistance and brokerage, as well as activities like purchasing, managing, and monitoring contribute to building the supportive infrastructure.

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Conclusion

The ability to use the Trust Water Rights Program to create and protect trust water rights for instream flow purposes provides the key mechanism to incrementally increase stream flows for fish, wildlife, and other in-stream values. The 2009 water banking legislation amended the trust water statute to broaden the scope of the program, and will encourage the use of water banking as a tool to manage water in many areas of the state.

We now have most of the tools needed to facilitate water banking in Washington, and a developing market. However a robust water market needs a predictable and well-established infrastructure to fully develop. At this point, the program needs support mechanisms to build the infrastructure to encourage market creation. Infrastructure includes, among other items, technical assistance, brokerage, and activities such as purchasing, managing, and monitoring. In addition, fallowing land cooperatively through rotational pools should be encouraged to protect local economies and provide new sources of water.