MEMORANDUM

Project No.: 140129

September 30, 2014

To: Mike Hermanson, Rob Lindsay – Spokane County Utilities

cc: Todd Mielke, Spokane County
Wes McCart, Stevens County
Karen Skoog, Pend Oreille County
Keith Stoffel, Department of Ecology
Rusty Post, Department of Ecology
Ty Wick, Spokane County Water District #3
Dick Price, Stevens PUD
Susan McGeorge, Whitworth Water District
John Pederson, Spokane County
Mike Lithgow, Pend Oreille County Community Development
Erik Johansen, Stevens County Land Services
Kevin Cooke, Spokane County
Steve Davenport, Spokane County
Randy Vissia, Spokane County
Linda Kiefer, Avista

From: Dan Haller, Carl Einberger, Jason McCormick

Re: **Legal, Regulatory, and Policy Framework for Water Banking in Washington**

Introduction and Summary of Key Findings

Spokane County (the County), in conjunction with Stevens and Pend Oreille Counties, is evaluating the use of a water bank to address existing and potential regulatory constraints on existing and new water use, in Water Resource Inventory Area (WRIA) 55, the Little Spokane Watershed. Considerable uncertainty exists regarding the future legal, regulatory, and policy environment that regulation of water resources in WRIA 55 will be subject to, given a number of factors discussed in this Memorandum, including recent and pending court cases. In response to this uncertainty, the County is pursuing a water banking feasibility study to explore options for providing more certainty to existing and new water uses in the basin.

As part of this process, the County has convened a Policy Advisory Group (PAG) to allow interagency and stakeholder coordination and evaluation of alternatives for water banking in the watershed. Aspect Consulting LLC (Aspect) has been engaged by the County to provide consulting services for the Little Spokane Water Banking Feasibility Study. Aspect has prepared this Memorandum to provide a summary to the County and the PAG of the legal, regulatory, and policy framework for water banking in Washington State. In this Memorandum, Aspect provides discussions of:

- Regulatory authority for water banking;
- Water availability (physical and legal) in the Little Spokane Basin;
- Review of baseflows and reservations established by WAC 173-555;
- Applicability of WAC 173-555 to groundwater;
- Case law influences on regulatory drivers for a water bank;
- Rule closures, amendments, and adjudications;
- U.S. Bureau of Reclamation's regional withdrawal of water above Priest Rapids Dam, located on the Columbia River approximately 50 miles upstream of Richland;
- Pre-PAG meeting discussion with Ecology on water banking issues;
- Current Washington State water banking structures and models;
- County-level legal and water bank management considerations; and
- Next steps in this water banking feasibility study.

Determining if water banking is suitable for and applicable to WRIA 55 is a complex question, bearing careful consideration by the County and PAG. Some of the key water bank drivers and findings contained in this Memorandum that may inform this judgment include:

- In several basins in the State (e.g. Kittitas, Skagit, Yakima), regulatory uncertainty over legal water availability has created economic conditions that are politically challenging for counties. Specific examples include the following:
    - In 2001, junior surface water users in the Yakima Basin including 1,000 cabin owners and the City of Roslyn, were given a court ordered water use curtailment. The curtailment resulted in a drop in property values, inability to obtain bank loans for refinancing, a less attractive market for buyers who could not obtain bank loans to buy cabins, and insurance challenges.
    - In 2006, new groundwater use was restricted in the Upper Kittitas basin resulting in work stoppages on active homebuilding projects, and the inability to access bank loans.
    - In 2013, a Washington State Supreme Court Decision (Swinomish Decision) invalidated a portion of an instream flow rule that allowed exempt well development in Skagit and Snohomish Counties. As a result 500 existing homeowners and many undeveloped property owners are now faced with property devaluation, and the inability to access bank loans for refinancing and home sales.

- Case law on exempt use, impairment of instream flows, conjunctive management of surface and groundwater, county building permit and GMA responsibilities, and over-riding considerations of the public interest (OCPI) standards continue to be clarified by the Court, with an increasing trend towards county co-management of risk with the State when instream flows are not met in part by effects of out-of-stream diversions or withdrawals.

- The Little Spokane River instream flow rule (WAC 173-555) does not address groundwater and is ambiguous on the application of exemptions for domestic use.

    - Water is frequently unavailable to fully meet adopted instream flows in WRIA 55. Existing surface water users with water rights junior to the rule have been and continue to be curtailed by Ecology. Groundwater right holders have not historically been curtailed, but could be in the future based on Ecology's and the Court's evolving interpretation of the law, the rule, and standards for protection of existing water rights.

    - Ecology has denied new groundwater rights on the basis of hydraulic continuity with the river and impairment of instream flows; these denials have been upheld by the Pollution Control Hearings Board (PCHB).

    - Although groundwater is not mentioned specifically in the rule, WAC 173-555-010 clarifies that it applies "to waters within and contributing to the Little Spokane River basin".

    - The 1975 Ecology WRIA 55 Basin Program Report on which the rule is based states: "Surface water and/or ground water appropriation permits that will allow direct diversion from, or have measurable effect on, streams where base flows have been established, shall be subject to the base flow limitations, and any such permits or certificates shall be appropriately conditioned to assure maintenance of said base flows".

- Domestic and stockwater uses are not included in closures in WAC 173-555-060, nor were permit exempt uses mentioned in the 1975 Basin Report, so these uses may have the lowest risk and may not be subject to curtailment under the rule. In addition to ambiguous language in WAC 173-555, court decisions (for example, Postema v. Pollution Control Hearings Board and Swinomish v. Ecology) have created uncertainty in the interpretation of the relationship between instream flow rules and permit exempt uses of groundwater. Clarity on this issue may come from pending litigation (Hirst v. Whatcom County).

- Regardless of the uncertainty associated with WAC 173-555, development served by permit exempt wells is still constrained by the Campbell & Gwinn Decision, which limits a development project to one permit exemption thereby limiting the number of residences and the allowable area of irrigated landscape.

- A Little Spokane Water Bank could offer certainty in an uncertain legal and regulatory environment.

- Sufficient statutory authority exists to create a water bank to reduce some of the risk to existing water right holders and new users in WRIA 55.

- Approximately 27 public, quasi-public, and private water banks are in some form of study or active management in Washington. A number of operational and structural framework factors based on a survey of these water banks should be considered as part of planning and consideration of water banking in WRIA 55.

- Water bank management may potentially be conducted at the County level or by a County contractor to implement its authorities. A county has authority to spend money on cooperative watershed management actions for purposes of water supply management under RCW 36.01.230. In order to avoid legal challenge if a water bank is established, each participating county should review its ordinances to determine if any conflicts exist, and adopt new water banking ordinances that create new authority separate from typical surplus property ordinances.

- Counties that establish water banks can, through the adoption of specific business rules, prevent behavior that would be disruptive to the water bank, or would detract from counties' water banking goals, such as third-party speculation with water bank assets.

- A water bank could provide water to development in areas not served by public water, yet do not have legal access to water.

Water Banking Statutory Authorities

The State's Trust Water Right Program (TWRP) provides the fundamental regulatory authority for water banking. A water bank is a mechanism that facilitates transfer of senior water rights between sellers and buyers. The source water right that is "banked" is typically held in the State's TWRP, protected from relinquishment, until its diversion authority is formally conveyed to the buyer. Although the State's TWRP was authorized in 1991, water banks have only significantly expanded in the last 10 years in response to Ecology actions to manage groundwater in closed basins (e.g. Upper Kittitas), as instream flows have been adopted (e.g. Dungeness), in response to local collaboration to solve water supply problems (e.g. Walla Walla, White Salmon, Methow Valley), and through new legislative focusses (e.g. Office of Columbia River (OCR), Cabin Owners).

The State's statute governing water banking is authorized in RCW 90.42[1]. While the concept and use of the term "water bank" has been around for years, comprehensive state-wide water banking legislation was not passed by the Legislature until 2009[2]. A trust water right is any water right acquired by the State for management in the State's TWRP on a temporary and/or permanent basis. The TWRP provides a way to legally hold water rights for future uses without concern for the relinquishment for non-use per RCW 90.14.140(2)(h). Water rights are typically held in trust to

[1] A Yakima basin trust water statute also exists in RCW 90.38; however, it focuses strictly on the trust water right statute applicable to that County.
[2] See in general RCW 90.42.100 through 130.

benefit instream flows or preserve groundwater, to protect them from impairment, to be considered beneficially used, or to offset new out-of-stream uses.

While in the TWRP, the water right maintains its original priority date, with a specified place of use (stream reach or aquifer), an instantaneous and annual quantity (typically specified as a monthly schedule), and a period of use (e.g., irrigation season, or year-round). These instream flow water right attributes are necessary for the trust water right to be beneficially used and account for the water right as instream flow to offset (mitigate) new water uses. Ecology's use of a water right it holds in trust is typically governed by a Trust Water Agreement, which is a contract between the State and the owner of the water right describing the terms of trust.

Trust water rights are considered beneficially used when they are exercised for incremental enhancement of instream flow. Ecology can provide notice of exercise of trust rights through a public notification process via the internet (http://www.ecy.wa.gov/programs/wr/market/trstdocs.html).

Ecology has a statutory role in setting up water banks via the TWRP, though day-to-day administration of the banks range from full Ecology administration (e.g. Office of Columbia River, Cabin Owners) to 3rd party administration (e.g. Dungeness, Walla Walla). Potential water bank managers need to reliably fill this function in a way that meets the public trust standard. Managers could include local government, such as counties or conservancy boards, creation of a watershed-based water resource management entity, non-profit NGO's, or a certification program for private companies or individuals.

Water Availability in the Little Spokane Watershed

Baseflows Adopted in Rule and Measured By Stream Gages

Water availability for new permit-exempt and permitted water uses in WRIA 55 is directly affected by limitations in available water supply relative to instream flows adopted by WAC 173-555, the Little Spokane Instream Flow Rule ("the Rule"). The Rule was established with a priority date of January 6, 1976, and permit exempt or permitted water uses after the date of the rule could potentially be subject to curtailment by Ecology when flows are not met.

Baseflows have been established for four stream management units in WRIA 55, based on the stream gage locations shown on Figure 1. At the present time, Ecology manages curtailment of interruptible permitted rights based on flows at the Dartford gage. When seven day average flows fall below the established baseflow, Ecology sends a letter to junior water right holders requesting that they curtail water use. Three of the four gages are currently operational (the Chattaroy gage is not operational). Figures 2 through 4 illustrate average and minimum daily mean flows from 2002 to 2012 relative to the baseflows established in WAC 173-555 to illustrate the streamflow variability that can affect water availability and potential curtailment of permit exempt or permitted water uses after the January 6, 1976 priority associated with rule establishment.

The Elk gage (Figure 2) is the highest gage in the watershed, with relatively low streamflows, and it shows a more limited response to spring runoff than the Dartford or Confluence gages (Figures 3 and 4). For example, while these downstream gages met minimum instream flows at all times

during April 2002-2012, there were occurrences throughout April at the Elk gage when baseflows were not met during certain years. In contrast, the Dartford and Confluence gages show more consistent low flows in the late summer and early fall than the Elk gage. All of the gages showed some excursions below baseflows in the winter months.

Reservation of Water for New Uses in WAC 173-555

In addition to establishing baseflows, the Rule also established reservations of surface water for beneficial uses. It is our understanding that Ecology has not tracked accounting of the reservations. A review and interpretation of reservation debits and seasonal water availability analysis for post-rule permitted water rights will be an important component of water bank planning. Ecology's *"Focus on Water Availability, Little Spokane Watershed, WRIA 55"* noted that a significant number of water rights were issued after the date of the rule, and that these have been regulated almost every year during low flow periods. Ecology concluded that all of the water has been appropriated and no water is available for consumptive uses. The language in WAC 173-555-050 describing the reservation is as follows:

The following language in WAC 173-555-050 describes the reservations:

(1) The department determines that these are surface waters available for appropriation from the stream management units specified in the amount specified in cubic feet per second (cfs) during the time specified as follows:

(a) Surface water available from the east branch of the Little Spokane River, confluence with Dry Creek to headwaters, based on measurement at control station number 12-4270.00 at Elk are:

Month	May		June		July		Aug.		Sept.		Oct.	
Date	1	15	1	15	1	15	1	15	1	15	1	15
Amount	26	22	17	14	11	9	5	5	5	5	5	5

(b) Surface water available from the Little Spokane River from confluence with Little Creek at Dartford to Eloika Lake outlet, and to confluence with Dry Creek based on measurement at control station number 12-4310 at Dartford are:

Month	May		June		July		Aug.		Sept.		Oct.	
Date	1	15	1	15	1	15	1	15	1	15	1	15
Amount	340	236	152	103	62	34	11	11	11	11	20	20

(c) Available surface waters for those days not specified in (a) and (b) shall be defined from Figures II-3 and II-4 in the document entitled "water resources management program in the Little Spokane River basin" dated August, 1975.

(2) The amounts of waters referred to in WAC 173-555-040(1) above are allocated for beneficial uses in the future as follows:

(a) Three cubic feet per second from the amount available in the east branch of the Little Spokane River referred to in WAC 173-555-040 (1)(a) above and five cubic feet per second from the amount available in the Little Spokane River, besides east branch, referred to in WAC 173-555-040 (1)(b) are allocated to future domestic, stockwatering and noncommercial agricultural irrigation purposes within the stream reaches specified therein throughout the year.

(b) The remainder of the amount referred to in WAC 173-555-040 (1)(a) and (b) besides the amount specified in WAC 173-555-040 (2)(a) are allocated to consumptive and nonconsumptive uses not specified in WAC 173-555-040 (2)(a). These are further described in the figures appended hereto. [Order DE 75-24, § 173-555-040, filed 1/6/76.]

Additional review and analysis of permitting of post-rule water rights debiting against the reservation, seasonal water reliability of post-rule water rights, and the extent of permit exempt water use define actual water availability in the Little Spokane Basin. If balances remain in the reservation, then they may be able to help offset new consumptive uses and potentially seed a water bank.

Applicability of WAC 173-555 to Groundwater

Based on our initial assessment, there appears to be conflicting information with respect to the question of whether WAC 173-555 applies to groundwater, whether exempt or permitted, based on the following:

- WAC 173-555 does not contain any explicit references to groundwater.
- In the past Ecology has appeared to interpret the Rule as not applying to groundwater based on the historic issuance of ground water rights with no references to WAC 173-555.
- Ecology recently appeared to interpret the rule as not applying to groundwater, demonstrated by a recent Report of Examination approving changes to groundwater rights junior to WAC 173-555.
- Ecology has not actively curtailed permitted groundwater users junior to WAC 173-555.
- Although groundwater is not mentioned specifically in the rule, WAC 173-555-010 clarifies that it applies “to waters within and contributing to the Little Spokane River basin”. The 1975 Ecology WRIA 55 Basin Program Report on which the rule is based states: “Surface water and/or ground water appropriation permits that will allow direct diversion from, or have measurable effect on, streams where base flows have been established, shall be subject to the base flow limitations, and any such permits or certificates shall be appropriately conditioned to assure maintenance of said base flows.” We note that this only identifies “ground water appropriation permits” and not permit-exempt groundwater uses.
- Domestic and stockwater uses were exempted from tributary and lake rule closures under WAC 173-555-060; however, this exemption is not referenced in WAC 173-555-040, which addresses water reservations in the mainstem of the river.

- Ecology's focus sheet on water availability for WRIA 55 states that the rule does apply to groundwater and that Ecology has stopped issuing water rights based on this. The focus sheet states: "The appropriation of groundwater connected to surface water is subject to the same conditions as surface water uses." and "The Little Spokane watershed is generally closed to new consumptive water uses from surface water and connected groundwater." This document also indicates that exempt uses can still move forward but may be subject to future interruptability.

- Ecology has denied new groundwater rights on the basis of continuity with the river and impairment of instream flows; these denials have been upheld by the Pollution Control Hearings Board (PCHB).

Based on the initial information available, it is possible that:

1. Groundwater is subject to the rule as "water within and contributing to the Little Spokane River basin" under WAC 173-555-010, and all permitted and exempt uses after 1976 are subject to future curtailment risk; or

2. Absent an explicit groundwater reference, no risk exists for existing groundwater users; or

3. Even without an explicit groundwater reference, impairment of senior water rights and case law could create curtailment risk.

4. Based on the language of the rule and the 1975 WRIA Report, groundwater permitted uses are subject to the rule, but exempt groundwater uses are not. Alternatively, only domestic and stockwatering portions of exempt uses are not subject to the rule.

Case Law Affecting Counties and Water Banking

Case law on water rights issues has been evolving based on several relevant recent decisions and will continue to affect water rights decisions in the state, given that several more key decisions are pending. Table 1 presents a summary of relevant legal cases for consideration in this study. Significant cases reviewed in Table 1 include:

- Postema v. Pollution Control Hearings Board. This decision defined the "one molecule" standard for instream flow impairment (i.e. Impairment does not need to be measureable and de minimus impacts constitute impairment.)

- Swinomish Indian Tribal Community v. Ecology. This decision invalidated reservations for new water uses, including exempt wells, created through amendments to the Skagit instream flow rule. It also decided that Ecology went beyond its statutory authority in applying OCPI to rulemaking that conflicted with the established instream flows.

- Whatcom County v. Hirst. This is a pending appeal by the county of a decision by the Growth Management Hearings Board that decided that if a basin is closed to additional withdrawals, it is unlawful to issue development permits that are dependent on new exempt

well use. This pending decision may provide greater clarity of County responsibility for adequately protecting water availability when approving developments relying on exempt wells.

Case law on exempt use, impairment of instream flows, conjunctive management of surface and groundwater, county building permit and GMA responsibilities, and OCPI standards continue to be clarified by the Court, with an increasing trend towards county co-management of risk with the State when instream flows are not met in part by effects of out-of-stream diversions or withdrawals. Several court decisions and pending decisions also have significant potential to affect water availability and the structure and management of any future water bank in WRIA 55.

Ecology and counties are exploring ways to co-manage risk based on the direction being provided by the courts, such as the evaluation of water bank feasibility for particular basins like WRIA 55. One of the emerging challenges that is playing out in the courts, in stakeholder forums, and potentially the Legislature, is the standard under which OCPI authority can be exercised by Ecology. This becomes important when seeding a water bank, and trying to match supply and demand through banking transactions while striving for a "zero risk" of future curtailment under WAC 173-555.

Water banks are often seeded through existing irrigation water rights or infrastructure projects. Irrigation rights are not typically authorized year-round, and most infrastructure projects cannot be managed in a way to completely match supply and demand. In these cases, OCPI can be a supporting component of the water bank by waiving very small impacts to instream flows, with much greater benefits at other times.

The ability to use OCPI to address imperfect supply and demand matching in a water banking is in a state of flux at this time. The *Swinomish Indian Tribal Community v. Ecology (2013)* case invalidated the 2006 Amendment to the Skagit Rule that provided water for new uses of the permit exemption and clarified that OCPI should be used less broadly than Ecology applied it in this case. The *Foster v. Eco*logy and *Okanogan Wilderness League v. Methow Valley* cases (Table 1) are currently evaluating whether OCPI in the context of an individual permitting decision was appropriate, including relying in part on out-of-kind benefits (e.g. habitat, water quality, passage). The current *Okanogan Wilderness League and Center for Environmental Law and Policy v. Ecology and Kennewick General Hospital* case is evaluating under what standards OCPI needs to be used, and whether impairment exists if the functions and values of the instream flow are still met. Three options exist that may play out over the next few years that may affect the viability of a water bank in WRIA 55:

- <u>The current regulatory framework is the new normal</u>. While it is clear that Ecology and many stakeholders would like to see greater clarity and changes to OCPI, with legislation being a potentially viable pathway, other key water resource issues, such as relinquishment, have had limited success in legislative change. Bills have been frequently introduced to change relinquishment, and only modest changes have occurred in that pivotal statute since 1967. The

implications of the current OCPI case law and legislative inertia is that it may be more suitable to permitting actions than rulemaking, and will likely require broad stakeholder consensus and a robust compensatory mitigation package.

- The Legislature may change or clarify the OCPI standard. Ecology is leading a process with stakeholders (Rural Water Supply Workshops) to determine whether legislative action is appropriate in the future to address OCPI. It is difficult to speculate on what this effort may yield, and it may take multiple legislative sessions for an agreement to be reached.

- The Courts could clarify that impairment of instream flows is more sophisticated than a simple "one molecule" standard. Several cases identified in Table 1 are evaluated as to whether projects that create impacts to adopted instream flows during certain time periods, but maintain base flows that preserve and protect the instream flow values of wildlife, fish, scenic, aesthetic and other environmental values, and navigation values, represent impairment and even require an OCPI determination.

    1. If future court decisions or legislation allow a functions and values approach to considering impairment of instream flow as an acceptable standard, or when evaluating options related to seeding a water bank, the aquatic conditions of WRIA 55 should be considered. Based on the WRIA 55 Watershed Management Plan (2005), and Ecology's TMDL (2010), WRIA 55 has the following aquatic conditions:

        - Elevated temperature;
        - Fecal Coliform levels above water quality standards;
        - Phosphorus concentrations that lead to low dissolved oxygen; and
        - Polychlorinated biphenyls (PCB's) concentrations above water quality standards.

    2. The WRIA 55 Watershed Management Plan listed the following aquatic species of concern:

        - Redband/Rainbow Trout, O. mykiss; and
        - Mountain Whitefish, P. wiliamsoni.

    Regulatory agencies will likely consider impacts to these criteria and species in future permitting efforts. Projects aimed at improving these issues in the watershed could be used for bank seeding or offsetting mitigation in the future.

Rule Closures, Amendments, and Adjudications

In addition to the statewide uncertainty regarding exempt wells, OCPI, and instream flow rules, specific uncertainty exists for 173-555 WAC. Some of these factors that may affect water availability are discussed below.

The Rule closed streams and lakes to further consumptive appropriations, with the noted exception of domestic and stockwater uses from June 1 to October 31. The omission of these purposes of use appears to significantly reduce the risk of curtailment of these purposes, even if groundwater is subject to the rule. Specific surface water closures include Dry, Otter, Bear, Deer, Dragoon, Deep, Deadman, and Little Creeks; the West Branch of the Little Spokane River from the outlet of Eloika Lake, and all natural lakes in the basin. Water banking would need to consider impacts on specific closures. The challenge is that these tributary closures could create the need for many mini-banks with geographically-targeted mitigation, rather than a more regional bank with gage-triggered mitigation.

Two tributaries within the watershed have been adjudicated (Deadman Creek and Bigelow Gulch). On the one hand, this offers more certainty than in other basins where unadjudicated claims exist. However, this creates a greater impetus in those basins to protect senior out-of-stream uses that have been confirmed in addition to instream flows.

A proposed rule amendment for the Little Spokane Basin is linked with changes under consideration for the mainstem Spokane River. This provision is targeted to areas where the Spokane Valley Rathdrum Prairie Aquifer (SVRP) is within WRIA 55 but is considered hydraulically connected to the mainstem Spokane River. It is our understanding that a small group of exempt wells will be mitigated by purchased water rights by Ecology under the rule amendment, but not in the geographic area of WRIA 55. A key change in the rule is for the first time, groundwater is explicitly considered as being subject to WAC 173-555. However, the language only ties the "shallow aquifer associated with the Little Spokane River" to the rule, and not the deeper SVRP aquifer to WAC 173-555. Rather that would be covered under the new Spokane River rule. Because Ecology is not amending the portion of WAC 173-555 outside the SVRP footprint (which less than 5% of the WRIA), it does not do much to clarify groundwater uncertainty in the WRIA. The proposed language is as follows:

AMENDATORY SECTION (Amending Order DE 75-24, filed 1/6/76)

WAC 173-555-010 General provision. These rules, including any subsequent additions and amendments, apply to waters within and contributing to the Little Spokane River basin, WRIA-55 (see WAC 173-500-040). Chapter 173-500 WAC, the general rules of the department of ecology for the implementation of the comprehensive water resources program, applies to this chapter 173-555 WAC. In the area where this rule and chapter 173-557 WAC overlap, the application of each rule shall be determined as follows:

(1) New water use from the Little Spokane River, its tributaries, and the shallow aquifer associated with the Little Spokane River and its tributaries shall be regulated under this rule (chapter 173-555 WAC).

(2) New water use from the Spokane Valley Rathdrum Prairie aquifer shall be regulated under chapter 173-557 WAC, Water resource management program for the Spokane River and Spokane Valley Rathdrum Prairie (SVRP) aquifer.

A new water bank in WRIA 55 would likely need to include business rules that cover different conditions spatially and temporally to deal with the unique character of WRIA 55, and the existing and proposed rule framework for the basin.

Withdrawal of Water for Tributaries above Priest Rapids Dam

In 2004, the U.S. Bureau of Reclamation filed notice with Ecology that it intends to make examinations and surveys for the use of the unappropriated waters of the Columbia River and its tributaries above Priest Rapids Dam, located on the Columbia River approximately 50 miles upstream of Richland (RCW 90.40.030). This withdrawal expires on December 23, 2014, but has been extended before and is likely to be extended again based on the progress of the Yakima Basin Integrated Plan. According to Ecology's Focus Sheet on Water Availability:

- All new applications for surface water and potentially groundwater connected to surface water within WRIA 55 cannot be processed until a release from the Bureau of Reclamation is obtained or the withdrawal has expired.

Reclamation typically does not grant releases of new consumptive use, but has accepted nonconsumptive uses and fully mitigated consumptive uses as not being in conflict with the withdrawal. A new water bank in WRIA 55 should be able to incorporate this withdrawal into its business rules.

Pre-PAG Meeting Discussion with Ecology on Water Banking Issues

On September 19, 2014, Ecology participated in a conference call to discuss several questions relevant to the WRIA 55 Water Banking Feasibility Study, at the request of Spokane County and Aspect. Participants were Keith Stoffel, Kelsey Collins, and Rusty Post (Ecology), Mike Hermanson and Rob Lindsay (Spokane County Utilities), and Dan Haller and Carl Einberger (Aspect).

A summary of key questions and initial responses is presented below. Ecology clarified that these initial responses were in the spirit of trying to provide some technical assistance to the counties in this feasibility study, but the positions were evolving and could change in the near future. Ecology will be consulting with the Washington State Attorney General's (AG's) Office and is expecting to provide additional responses as the study progresses, hopefully in time for the January PAG meeting. In addition, Ecology and the AG's office are actively conducting an audit of older instream flow rules, including the Little Spokane Rule (WAC 173-555) that may provide further clarity on some of the questions and uncertainties and preliminary Ecology responses outlined below:

- <u>There appears to be conflicting information with respect to the question of whether WAC 173-555 applies to groundwater, whether exempt or permitted. Can Ecology clarify this issue?</u>

  Ecology acknowledged that its management history in WRIA 55 has been inconsistent in regulating groundwater permitting under the rule. Clarity is needed as to whether groundwater has ever been subject to curtailment. Some groundwater right applications have been denied

based on the rule, while other permits have been approved without reference to the Rule. At this time, processing of applications for groundwater rights will remain on hold. The AG's review of WAC 173-555 may provide additional clarity on this broad issue, including potential regulation of exempt wells under the rule.

- The draft rule amendment language specifying that "new water use" from the "shallow aquifer associated with the Little Spokane River" is subject to the existing rule could be read to imply that "existing" groundwater use from the "shallow aquifer associated with the Little Spokane River" is not subject to the existing rule, and only new uses would be interruptible or require mitigation. If this is the correct interpretation, would the date after which groundwater supplies would be interruptible be the effective date of the rule amendment?

  Ecology noted that the amendment language is intended to be 'surgical'; that is, it is only intended to address the area of the SVRP aquifer that is within the mapped boundaries of WRIA 55 and is in known hydraulic connection with the mainstem Spokane River. In this area the SVRP is separated into shallow and deep systems that are separated by a clay layer; the shallow system is connected to the Little Spokane River, while the deep system is not. The question of whether existing uses in that area are also subject to the rule is unresolved at this time.

- What does Ecology see as the key drivers for pursuing a water bank?

  Ecology has no in intention of issuing new water rights in the basin under the current conditions. Ecology acknowledged that there is potential risk for regulation of exempt wells based on current and pending case law, and the significant uncertainty in this regard. The AG's office recently filed an Amicus Curie brief on behalf of Ecology in the Whatcom v. Hirst case stating the opinion that the Nooksack instream flow rule (WAC 173-501) does not apply to exempt wells. If the court agrees with the current AG's opinion, it is possible that may provide more clarity for WRIA 55 management. The language in the two rules is not the same, but it is possible that exempt wells (or some purposes authorized under an exemption) may be excluded from the rule.

- To what extent is the document "Water Resources Management Program – Little Spokane River Basin" (August 1975) utilized in interpreting and implementing WAC 173-555?

  Additional clarity is needed regarding the applicability and use of this document.

- WAC 173-555-060 closed surface water appropriations in several tributary subbasins. Will Ecology allow the water bank to provide for new appropriations in these basins if the bank is seeded with downstream rights, or rights in the lower reaches of the tributaries? This brings up the broader issue of the approach for establishing bank management areas (for example, will the bank managed with respect to the three working gages only?).

  Right now only Dartford is managed, but all gages need to apply. The mitigation Ecology is buying is only in the lower SVRP, not the shallow SVRP in continuity with the Little Spokane.

- Has Ecology tracked reservation debits and what is the current status? What is Ecology's view on the reliability of the reservation? Is it possible that there may be non-irrigation season water reserve unallocated based on existing allocations to irrigation? This could serve as important mitigation water to supplement seeding of the water bank with irrigation rights.

  Ecology does not have reservation accounting available. This will require a review of water rights authorized since the Rule was established.

- Is Ecology open to clarifications on how the reserve accounting should be done? For example, can the reservation be managed based on consumptive use rather than total use?
  Ecology is open to clarifications and potential management of the reserve based on consumptive use.

- Under what circumstances would Ecology support a rule amendment? Does this need to occur to support a future water bank?

  Ecology has no plans for a rule amendment at this time given the existing moratorium on rule making (with the notable exception of the pending mainstem Spokane River Rule amendments). Ecology does not consider this necessary to implement water banking in WRIA 55.

- Are future restrictions on lawn watering being contemplated by Ecology in the basin?

  Ecology is not planning this at the present time.

- Is Ecology willing to consider a suite of mitigation options to preserve the functions and values of instream flow, including in-kind and out-of-kind mitigation, and in-place and out-of-place mitigation, with the understanding that mitigation has to preserve the overall function and quality of instream flow?

  Yes, Ecology is willing to consider this.

- Is Ecology willing to consider out of basin transfers to seed the water bank (from the Pend Oreille River during surplus times for example)?

  Yes, Ecology is willing to consider this.

- Is Ecology open to project-based water bank seeding (shallow aquifer recharge, conservation, aquifer storage and recovery, or others)?

  Yes, Ecology is willing to consider this.

- To what extent is OCPI still allowable in bridging the gap between supply and demand?

  There is considerable uncertainty based on recent case law, such as Swinomish v. Ecology. One of the goals of the recently convened Rural Water Supply Workshops is to develop solutions to this uncertainty. Additional pending legal cases may provide more clarity.

- Is there a water right holder that would not be eligible for participating in a water bank, such as Group A, Group B, or exempt wells?

  No, Ecology would have no restrictions in this regard.

- Does Ecology have funding (OCR) project investment for projects like a pipeline from Pend Oreille River? Is Ecology open to buying and transferring water into trust to support bank seeding?

  This is unknown at this time.

- Is there operational funding from Ecology potentially available to support bank management?

  This is uncertain. Ecology has asked the legislature for $15 M in the capital budget for watershed planning funding target to instream flow achievement work.

Current Washington State Water Banking Structures and Models

Approximately 27 water banks are in some form of study or active management in Washington. A summary of the location and structure of these banks is provided in Figure 5.

A number of operational and structural framework factors should be considered as part of planning for water banking in WRIA 55. A summary of water bank establishment under state water code and water bank structures and pricing is presented in the following sections, along with four examples of active water banking models.

Water Bank Establishment

The establishment of a water bank requires the input of some form of credit for water use resulting from an action that adds to the overall condition of the basin. Bank credit inputs have typically fit into kind (in-kind/out-of-kind), time (in-time/out-of-time), and place (in-place/out-of-place) metrics Ecology (and potentially the Washington Department of Fish and Wildlife) uses in determining the value of a given action. These credits can potentially come in the form of:

- Retiring an existing senior water right and placing it in the State's TWRP;
- Building in-basin surface water storage;
- Importing water through inter-basin transfers;
- Water conservation (usually related to agricultural irrigation);
- Implementing a shallow aquifer recharge (SAR) or aquifer storage and recovery project (ASR);
- Reserves in instream flow rules;
- Restoring habitat or wetlands that improve conditions addressing the functions and values of critical fish species or water quality; and

- Other watershed improvement activities.

Most existing water banks in Washington State rely consistently on the State's TWRP to transfer and store bank credits, but several also combine some of the other elements described above. Water is typically held in trust to benefit groundwater maintenance and surface water instream flows, and later permanently conveyed to Ecology to offset new uses through a prearranged trust water agreement with Ecology.

As noted earlier in this Memorandum, there is significant uncertainty at the present time regarding application of out-of-kind mitigation and seeding approaches, based on recent OCPI court outcomes and pending outcomes; however, these approaches may ultimately be options for a WRIA 55 Water Bank.

While utilization of the State's TWRP attributes offer some common benefits applicable to seeding all water banks (e.g. no relinquishment, certainty in regulation, in-kind), there are numerous ways that water banks can be structured, seeded, and maintained that should be considered by the County and the PAG to best fit the Little Spokane Basin.

Comparing Water Banks

Water banks transact quantities of water for a variety of purposes, from groundwater use under the permit exemption of generally less than one acre-foot (i.e. indoor and outdoor domestic use for a single residence) to permitted water rights in the tens, hundreds, or thousands of acre-feet (i.e. irrigation, industrial and municipal uses). For example: one transaction from a private water bank in Kittitas County will convey 0.137 acre-feet per year consumptive for indoor and 500 square feet of outdoor domestic mitigation, but one transaction from the Office of Columbia River, Sullivan Lake Water Bank conveyed 1,100 acre-feet per year to the City of Bridgeport as a new water right Permit.

For the purposes of this report, Aspect has consolidated the significant variation in quantities of water involved in each transaction to a "unit of mitigation" for the purposes of comparing one water bank to the next when reporting transaction volumes (i.e. units of mitigation sold) and unit pricing (i.e. cost per unit). When reporting acre-foot consumptive pricing, we have quantified water conveyed by the residential unit and water conveyed by the acre-foot to the acre-foot consumptive equivalent. In summary, significant variation exists between water banks based on market forces, demand, purpose, and regulatory requirements. The above assumptions are built into the analysis to provide a platform to equally compare the overall productivity of water banks.

Water Bank Structures

The several existing approaches to water banking in Washington have strengths and weaknesses that should be considered by the County and the PAG. To date, water banks have operated under four general water bank formational, operational, and managerial structures. The operational structures include: Public, Quasi-Government, Nongovernmental Organizations (NGO), and Private. A water bank can be formed, operated, and managed by a single entity or different entities, while achieving the goals of providing reliable and legally defensible water transfers to the customer base. The following sections summarize each of these four structures and provide pros and cons of each.

Public

Public entities for the purpose of this section are considered to be State, County, City, or other local governments. Many public entities in the State operate water banks. In some cases, these are called "water banks", in others "water exchanges", or in some cases by the entities served (e.g. Cabin Owners) or the supply that seeded the bank (Lake Roosevelt Drawdown). Regardless of whether the public entity calls it a "water bank", it is a water bank if it uses the trust water program to convert senior water rights into new appropriations. However, the footprint of the public entity could range from merely their typical regulatory function to also include all formation, operation, and management functions of a water bank. When a public entity contracts with a third party to perform the non-regulatory functions, hybrid banks result.

Water banks formed, operated, and/or managed under the jurisdiction of public entities for the purposes of providing domestic mitigation to-date include: Yakima Basin Cabin Owners, Chelan County, and Kittitas County Water Bank. These banks have focused specifically on providing mitigation for exempt well use, with the exception of Chelan which also includes opportunities for permitted uses under WAC 173-545.

Other water banks are being studied or are in development to facilitate counties in meeting legal availability requirements for domestic exempt well water demand. These developing water banks are associated with areas of heightened groundwater management and groundwater rules in the following areas: Yakima County, Skagit County, Douglas County, and Klickitat County, and WRIA 59 (Colville Basin).

In addition, Ecology, through the Office of Columbia River is operating water banks and permitting water rights for new uses beyond domestic water use with the following programs: Lake Roosevelt Drawdown, Sullivan Lake, and the Port of Walla Walla. The following table summarizes the pros and cons of public water banks:

Table 2: Summary of Pros and Cons of Public Water Banks

Pros	Cons
May be formed, operated, and/or managed by public entities	Timing – generally slow to establish (1 to 3 years)
Set parameters on pricing, unit volume, service area, etc., through public process; ability to manage market activity, trading zones, targeted users	Potential concerns over divestiture of assets; potential third-party litigation
Most favorable pricing	Sustainability/duration based on low cost
Typically established and seeded through public funds	Restrictions on availability and use public funds
Established to serve basic and extended public services (outside irrigation, stockwater, etc.)	Costs associated with bank management

A summary of public water bank transaction costs and volumes is provided in Figure 6. To date, public water banks have accounted for an estimated 250 units of domestic mitigation transacted. Costs have ranged in price from $1,000 per mitigation unit and consumptive acre-foot (Sullivan Lake), to $60 per mitigation unit and $3,600/acre-foot consumptive (Ecology, Yakima Basin Cabin Owners).

Quasi-Government and Nongovernmental Organizations (NGO)

Quasi-government organizations for the purpose of this section are considered to be entities formed by the legislature (i.e. Irrigation Districts, Walla Walla Watershed Management Partnership) and Nongovernmental Organizations (NGO) are considered to be entities formed under IRS tax code 501c3 (i.e. Washington Water Trust). Water banks formed, operated, and/or managed under the jurisdiction of quasi-government and NGO entities for the purposes of providing domestic mitigation include: Dungeness Water Exchange (hybrid with Public) and the Walla Walla Water Exchange. The following table summarizes the pros and cons of quasi-government and NGO Water Banks:

Table 3: Summary of Pros and Cons of Quasi-Government / NGO Water Banks

Pros	Cons
May be formed, operated, and/or managed by public interest entities	Timing – generally slow to establish (1 to 3 years)
Typically set parameters on pricing, unit volume, service area, ext. through public process	Decreased concerns over divestiture of assets, although retained as a concern if NGO works on behalf of a public entity
Generally mid-range prices	Restrictions on availability and use public funds
Usually established and seeded through public funds	Management of the water bank likely to be less costly than public banks
Established to serve basic and extended public services (outside irrigation, stock water, etc.)	Potential long-term fiduciary liability to managing entity
Ability to establish market activity, trading zones, ext.	
Sustainability, higher prices than public banks can extend longevity	

A summary of quasi-government and NGO water bank transaction costs and volumes is provided in Figure 7. To date, Quasi-Government and NGO water banks have accounted for an estimated 60 units[3] of domestic mitigation transacted at a price ranging from $1,000 per mitigation unit and $11,100/acre-foot consumptive (Dungeness Water Exchange, Clallam County/Washington Water Trust), to $2,000 per mitigation unit and $3,600/acre-foot consumptive (Walla Walla Watershed Management Partnership, Walla Walla Water Exchange).

Private

Private entities for the purpose of this section are considered to be private for-profit corporations incorporated under State and Federal Law. Private water banks currently in operation are limited to the Yakima Basin where an Ecology Upper Kittitas County Emergency Groundwater Rule, and now permanent Groundwater Rule, WAC 173-539A, required mitigation of all new groundwater uses in Upper Kittitas County (specifically exempt wells) on or after July 16, 2009. Ecology ceased permitting new groundwater uses in the Yakima Basin in 1999 and surface water has been closed to new appropriation since May 10, 1905.

In response, 11 private water banks formed to fill the new market demand of individual rural landowners needing to mitigate for new exempt wells for domestic purposes. Prices have adjusted

[3] 50 units of mitigation are also attributed to the previous Public Water Bank section.

as the market has matured over the last 5 years since 2009, and can be expected to further mature, resulting in general downward price pressure. In the case of Kittitas County, the recently developed public water bank has the potential to exert additional downward price pressure. The following table summarizes the pros and cons of private water banks.

Table 4: Summary of Pros and Cons of Private Water Banks

Pros	Cons
Formed, operated, and managed to generate profit	Formed, operated, and managed to generate profit
Set parameters on pricing, unit volume, service area, ext. based on buyer willingness to pay and demand (i.e. market forces)	Set parameters on pricing, unit volume, service area, ext. based on buyer willingness to pay and demand (i.e. market forces)
Timing – generally the quickest to establish (6 months to 1 year)	Management of the water bank likely to be less costly
Established and seeded through private investment funds	Generally highest prices and highest transaction costs.
Usually serves basic and extended public services (outside irrigation, stock water, ext.) based on market demand	Limited ability to establish market activity, trading zones, ext.
Control over divestiture of assets	Sustainability – limited controls on longevity
Tend to convey mitigation units effectively and efficiently	

A summary of private water bank transaction costs and volumes is provided in Figure 8. To date, private water banks have accounted for an estimated 700 units of mitigation transacted in the Yakima Basin at a price ranging from $1,250 per mitigation unit, $41,600/acre-foot consumptive (Kittitas "Private" #1), to $10,000 per mitigation unit, $72,900/acre-foot consumptive (Kittitas "Private" #1 and 2).

Water Bank Structures Summary

Selection of the type of water banking model is dependent on the regulatory environment, timing of the need for water bank development relative to regulatory actions, and ability of Ecology and counties to agree on the standards for legal water availability and physical availability. Choosing a water banking model is highly dependent on State and local governments' ability to be proactive about management of water resources and legal water availability.

Price and volume of units transacted is highly variable between water banking models, as shown in Table 5. Public water banks account for the lowest overall cost per unit and cost per acre-foot, but with the lowest number of units transacted to-date. Private water banks account for the highest cost per unit and cost per acre-foot, and include the highest number of units transacted. Private water banks appear to the be the most productive based on the number of units transacted, but the units transacted is skewed in favor of private water banks based on the nature of regulatory actions related to rural growth and scale of Upper Kittitas County in the Yakima Basin. A summary of transaction differences between public and private banks is shown on Figure 9.

Within private water banks, there is competition for market share. Two of the water banks shown on Figure 9 show much higher activity than the others. Some of the reasons for this are hard to determine, but in at least one case is likely due to Water Bank #6 (Suncadia) being the first into the market, a high visibility and marketing strategy, and partly a built in customer base. The following table presents a summary of water banking costs and activity based on our review of available data.

Table 5: Summary of Cost of Water for Public/Private Water Banks

	Cost of Water/Unit	Cost/acre-foot	Units Transacted
Public			
Average	$580	$1,290	46
Minimum	$35	$35	0
Maximum	$1,700	$3,600	200
Sum	-	-	230
Quasi-Government/NGO			
Average	$1,500	$7,350	27
Minimum	$1,000	$3,600	3
Maximum	$2,000	$11,100	50
Sum	-	-	60
Private			
Average	$5,620	$54,345	62
Minimum	$1,250	$27,000	1
Maximum	$10,000	$131,200	329
Sum	-	-	700

Evaluation of Four Active Water Banking Models

To provide additional detail on how different water banks were formed and have influenced the market, the following sections summarize four different water banks.

Yakima Basin Cabin Owners (Public)

The Yakima Basin Cabin Owners (Cabin Owners) water bank is a public water bank operated by Ecology. Washington State Senate Bill 6861, with an effective date of June 07, 2006, provided guidance to Ecology to develop a water bank to solve curtailment issues associated with junior

Cabin Owners water needs by providing administrative and seed funds to develop the water bank. Ecology seeded this bank with a senior irrigation water right they purchased, and are using the Bureau of Reclamation Storage Exchange Contract to convert the seasonal right to year-round authority. Because there is robust storage in the basin that is managed to meet federal instream flow targets, they can manage it and mitigate instream flow impacts from Cabin Owners without having to reach to an OCPI finding. To date, Ecology has conveyed 200 units of mitigation at a rate of $60/unit and $3,600/acre-foot consumptive.

Website: http://www.ecy.wa.gov/programs/wr/cro/sb6861.html

Dungeness Water Exchange (Public/NGO Partnership)

The Dungeness Water Exchange is a Public/NGO partnership water bank operated by Clallam County and Washington Water Trust (WWT). The Dungeness Water Management Rule, Chapter 173-518 WAC, went into effect on January 02, 2013 and required new uses of groundwater to be mitigated. Ecology provided administrative and seed funds to develop the water bank through the acquisition of senior irrigation rights. Water was determined to be available outside the irrigation season, so no OCPI finding was necessary. A portion of the bank involves development of infrastructure projects to retime and recharge high flow events to augment base flow through groundwater augmentation. To date, WWT and Clallam County have conveyed an estimated 50 units of mitigation at a rate of $1,000/unit and $11,100/acre-foot consumptive.

Websites: http://www.washingtonwatertrust.org/water-exchange; and

http://www.ecy.wa.gov/programs/wr/instream-flows/dungeness.html

Walla Walla Water Exchange (Quasi-government)

The Walla Walla Water Exchange is a Quasi-government water bank operated by the Walla Walla Watershed Management Partnership (WWWMP). The Walla Walla River Basin Rule, Chapter 173-532 WAC, was amended in September 2007 to require new outdoor irrigation uses of groundwater under the permit exemption to be mitigated. Ecology provided state administrative and seed funds to develop the water bank through the acquisition of senior irrigation rights. Only irrigation season offsets are being provided, so no OCPI finding was necessary. To date, WWWMP has conveyed less than 10 units of mitigation at a rate of $2,000/unit and $3,600/acre-foot consumptive.

Website: http://www.wallawallawatershed.org/partnership/participate/138-wb-ewmp

Yakima Basin Water Exchanges (Private Sector)

The Yakima Basin Water Exchanges are predominately a series of private water banks operated by for-profit corporations. The Yakima Basin Water Exchanges began when Ecology enacted a series of emergency groundwater rules in Upper Kittitas County beginning on July 16, 2009 requiring all new permit exempt groundwater uses to be mitigated. On January 22, 2011 Ecology formalized the permanent Upper Kittitas Ground Water Rule, Chapter 173-539 WAC, cementing groundwater mitigation requirements. The State of Washington, through Ecology, has used public funds to provide regulatory administrative services (issuing Water Budget Neutral Determinations) and regulatory oversight, but has not participated in the development of water banks. Private investors have seeded their own water banks and manage all of the administration. Seeding has occurred through acquisition of senior irrigation rights, and either the use of the Bureau of Reclamation

Storage Exchange Contract to cover offseason impacts, or use of private on-site storage-and-release ponds for off-season mitigation. To date, the 11 private water banks in the Yakima Basin have conveyed an estimated 700 units of mitigation at rates ranging from $1,250 per mitigation unit, $41,600/acre-foot consumptive, to $10,000 per mitigation unit, $72,900/acre-foot consumptive.

Website: http://www.ecy.wa.gov/programs/wr/cro/wtrxchng.html

Water Bank Operational and Structural Elements Options

There are a number of operational and structural elements that must be considered when considering the "business" of developing and managing a water bank. Those elements include: roles, services, business decisions, and design. These elements are important because they will dictate who the water bank serves, water bank pricing, sustainability and longevity, and managing the resource amongst other competing demands.

Water Bank Roles

When considering the operating structure of a water bank, there are many different roles and responsibilities that are required by the formation, operation, and maintenance of a water bank. These roles can be handled completely by one entity or responsibility can be delegated to separate entities with different timelines.

Some water bank roles include:

- Deciding on the water bank model;
- Developing water bank framework and implementation;
- Seeking funding;
- Seeding the water bank;
- Constructions of projects/funding for seeding activities;
- Operating the water bank;
- Ensuring customers use the water bank; and
- Marketing the water bank.

Water Bank Services

Water banks can fill a variety of services when it comes to meeting out-of-stream and instream water demands. Each water bank model will dictate who the water bank will eventually serve and for what reason. The County could elect to try a universal solution, or a master water bank for the entire watershed. Or, given the spatial and temporal complexities of the basin, it could create a smaller water bank to start, with conditions that give it the best chance of success in solving a particular problem (e.g. perhaps mainstem only, and irrigation offsets only). Finally, the County could simply adopt ordinances that encourage individual users or group to "self-solve" through specialized water banks for the following purposes:

- Retail (domestic, lawn irrigation, limited stock water);
- Wholesale (agricultural, municipal, small water systems, industrial);
- Single user (self-mitigating); and
- Other (banking for instream flow).

Water Bank Business Decisions

When developing a water bank, the County and the PAG will need to consider a number of different business options regarding how to functionally operate the water bank.

- Who to serve – Mitigation use types?
- Where to serve – Geographic region(s) to serve? Limit services to particular regions?
- Quantities available for sale – Unit size(s) for sale?
- New uses/existing uses – How to serve and charge existing uses? Necessary? How to serve and charge new uses?
- Pricing – How much? Different packages?
- Cost-recovery or profit – Cost-recovery to include water/development cost and/or administration? Include profit margin to seed the bank?
- Longevity/Sustainability – How long with the water bank operate?

Each of these choices has potential impacts on the departments within the counties that will need to interact with the water bank. This is complicated by the fact that WRIA 55 spans 3 counties, each with their own organizational structure and division of responsibilities. The following table summarizes some of the key banking functions and the potential departments within each county that could have a participatory role:

Table 6: Summary of Potentially Affected County Departments under Water Banking

	Formation	Operations	Management
Stevens County			
Land Services	X	X	
Auditors		X	X
Treasurers	X	X	
Public Works		X	X
Assessor		X	
Pend Oreille			
Planning	X	X	
Auditors		X	X
Treasurers	X	X	
Public Works		X	X
Assessor		X	
Spokane County			
Building and Planning	X	X	
Auditors		X	X
Treasurers	X	X	
Utilities	X	X	X
Assessor		X	
Spokane Regional Health District		X	X

Water Bank Design

As an institution, a water bank can be designed to prevent exceedingly high water market prices, moving too much water from one region to the next (e.g. upstream to downstream, tributary to mainstem), moving too water from one user group to another (e.g. agriculture to municipal, or rural growth limitations), and other undesirable conditions. The counties could decide to engineer limitations on the marketplace to ensure sustainability into the future. Essentially this is a tradeoff between free market principles, and social engineering around what is perceived to be "fair" or of value in WRIA 55. For example, some guidelines or business rule topics could include:

- Establishing water pricing standards;
- Defining unit size;
- Defining specific quantities to preserve or to develop incentives to access, such as price breaks;

- Reserving tributary water for in-tributary use only or allowing portability for reverse-transfer of mitigation credits back to their point of origin;
- Determining the degree to which administrative costs are discounted, if at all;
- Creating trading zones divided up by county, tributaries, control points, or subwatersheds;
- Establishing market longevity (i.e. perpetuity, short-term, long-term, etc.); or
- Develop an oversight Board with equal representation from each county to review policy issues.

County-Level Legal and Water Bank Management Considerations

Water bank management may potentially be conducted at the County level or by a County contractor. Under this management model, a local government may purchase water rights or develop and obtain water rights for an infrastructure project and transfer them to the State's trust program for the purpose of creating a water bank under Chapter 90.42 RCW. The County has specific corporate powers to hold property as may be necessary to implement its authorities, and a county has authority to spend money on cooperative watershed management actions for purposes of water supply management under RCW 36.01.230. Creating and implementing a water bank may, however, require adoption of a County ordinance, a question that should be explored with the County's prosecuting attorney's office with these considerations:

- The authority to spend public funds for a water bank must be in compliance with state law, primarily Chapter 90.42 RCW, and the local government's legislative authority.
- The authority to utilize the trust water must also be for public and private purposes. County expenditures for purely private benefit may run afoul of both state and federal Constitutional provisions.

As pointed out above, we believe Counties have the state law authority to create and manage a water bank, subject to some potential legal and Constitutional limits. Similarly, we recommend that the County explore whether existing local ordinances regarding disposal of property may stand as an obstacle to managing a water bank. In order to avoid legal challenge if a water bank is established, each participating county should review its ordinances to determine if any conflicts exist, and adopt a new water banking ordinances that creates new authority separate from typical surplus property ordinances.

Another area requiring careful legal analysis is the degree to which counties may adopt water bank "business rules" that are designed to effectuate County water management priorities. Such business rules may limit or encourage access to the water bank, or may target certain geographic areas or certain classes of water users. For example, as the County considers establishing business rules, the following should be evaluated:

- Should single domestic, Group B, and Group A water systems all be allowed equal participation in the water bank or should one be prioritized over another?

- Should the bank prioritize allocations based on reducing risk for existing users under future curtailment, or encourage new growth, or be first-come-first-serve?

- Are particular uses more at risk to post-rule curtailment, such as indoor domestic vs. lawns, or stockwater vs. industrial uses under the exemption?

- Are particular areas in the basin more at risk to relinquishment, so should water acquisition and allocation be prioritized therein?

- Should permitted uses be allowed to participate in the bank (i.e. irrigation, industrial)?

Our analysis suggests that counties are not prohibited from creating business rules for a water bank that encourage some water uses and discourage others, or which are geographically targeted. The legal defensibility and public support of those choices is likely enhanced if they are harmonized with existing land use and watershed plans. Of course, there are legal and Constitutional limits that apply to all governmental activities, such as prohibition on gifts of public funds, and prohibition of racial or gender based discrimination. Provided these limits are not implicated, we understand that Counties may adopt business rules that effectuate County water management priorities.

We also considered whether there is a legal basis for different conditions to exist if a County operates the bank directly, or contracts that to a third party. We understand that the most likely legal standard is that the same conditions would apply to the bank irrespective of who operates it. If the Counties create water banking business rules that conflict with its existing ordinances, plans, or policies, and then contracts with a third party to administer that bank, protection from third-party litigation based on existing county ordinances would not likely exist.

In some instances, water systems have found that parties will attempt to speculate on a public asset. For example, when a public water system announces a significant increase in the cost to connect to a water system, some parties may try to buy connections in advance to take advantage of a lower rate. Water systems often combat this by requiring “perfection” of a connection within a reasonable period of time, such as 6 months. One potential concern in creating a water bank, particularly one that is publically-subsidized, is that parties may buy water they either don’t intend to use or intend to market to others.

The water code has existing tools to ensure projects proceed with diligence and water right applicants due not speculate or hoard water. Some of these requirements include:

- Developing a permit with diligence under a reasonable development schedule (RCW 90.03.320).

- Receiving permit extensions for a reasonable period of time for good cause shown (RCW 90.03.320).

- Permit holders cannot change the purpose of use of their projects until it has been put to beneficial use (RCW 90.03.380 and RCW 90.44.100).

- Permit holders must assign permits with Ecology approval (RCW 90.03.310).

Counties that establish water banks can, through the adoption of specific business rules, prevent behavior that would be disruptive to the water bank, or would detract from counties' water banking goals.

Next Steps

Our goal is to share these initial issues on existing bank performance, applicability to WRIA 55, risk, and options moving forward with the PAG at the meeting on October 15, 2014. We anticipate a robust conversation about options, and will take comments under advisement to incorporate along with this material into the final Water Banking Feasibility Report. Our next focus will begin to work on other portions of the study, including the demand analysis, water banking seeding options, and economics to fully evaluate options in preparation for the next PAG meeting in January 2015.

Limitations

Work for this project was performed for Spokane County (Client), and this memorandum was prepared in accordance with generally accepted professional practices for the nature and conditions of work completed in the same or similar localities, at the time the work was performed. This memorandum does not represent a legal opinion. No other warranty, expressed or implied, is made.

All reports prepared by Aspect Consulting for the Client apply only to the services described in the Agreement(s) with the Client. Any use or reuse by any party other than the Client is at the sole risk of that party, and without liability to Aspect Consulting. Aspect Consulting's original files/reports shall govern in the event of any dispute regarding the content of electronic documents furnished to others.

Attachments:

Table 1 – Relevant Legal Cases
Figure 1 – Gage Locations for Establishment of Baseflows under WAC 173-555
Figure 2 – Established Baseflows vs. Gage Data (2002-2012) – Little Spokane River at Elk
Figure 3 – Established Baseflows vs. Gage Data (2002-2012) – Little Spokane River at Dartford
Figure 4 – Established Baseflows vs. Gage Data (2002-2012) – Little Spokane River at Confluence
Figure 5 – Distribution of Water Banks in Washington
Figure 6 – Public Water Bank Unit Cost and Cost of Water/acre-foot Consumptive Pricing Variability
Figure 7 – Quasi-Government and NGO Water Bank Unit Cost and Cost of Water/acre-foot Consumptive Pricing Variability
Figure 8 – Private Water Bank Unit and Cost of Water/acre-foot Consumptive Pricing Variability
Figure 9 – Current Private, Quasi-Government/NGO, and Public Water Bank Pricing
Figure 10 – Current Water Bank Market Activity

TABLES

Table 1 – Relevant Legal Cases

Project 140129 - Little Spokane River Basin Water Bank Feasibility Study

Case Reference	Key Issues	Date Decided or Pending	Significant Findings	Potential Implications for WRIA 55 Water Bank
Postema v. Pollution Control Hearings Board (142 Wn2d 68)	Instream flow impairment, OCPI[1], exempt well use[2]	2000	1. Instream flow impairment does not need to 'direct and measureable', and where there is hydraulic continuity with the stream based on current modeling, even de minimus impacts ("one molecule") on a stream may be considered to be impairment of existing surface water rights including an minimum instream flow 2. The Court recognized that OCPI can provide a 'narrow exception' that can allow impairment.	1. The "one-molecule" standard makes mitigation challenging without any recognition of the underlying functions and values of the instream flow rule or the "relief valve" of OCPI. 2. Could be used as a rationale for regulation of post-rule permit exempt and permitted water use in the Little Spokane Basin. 3. The decision does suggest that OCPI in support of new permit exempt and permitted water uses is allowable under a narrow set of circumstances.
Department of Ecology v. Campbell & Gwinn (146 Wn.2d 1)	Exempt well use	2002	1. Exempt well use cannot be 'bundled' for a single project above the established 5,000 gpd ceiling. A project developer is limited to one exemption for a single development regardless of the number of wells in the development.	1. Provides a legal standard for use of exempt wells at new developments/projects.
Kim v. Pollution Control Hearings Board	Exempt well use	2003	1. 5,000 gpd allowable under the industrial portion of the groundwater exemption applies to the agricultural industry, and is not limited to ½ acre.	1. Small agricultural use including mitigation is allowed under the exemption and could provide additional demand in the water bank.

[1] OCPI is "overriding considerations of the public interest", and it is the standard that must be met to allow water use that will impair a minimum instream flow or the base flow necessary to protect instream flow resources.

[2] Exempt well use is a term used to describe statutory exemptions of a water right permit for specific uses of groundwater. RCW 90.44.050.

Table 1 – Relevant Legal Cases

Project 140129 - Little Spokane River Basin Water Bank Feasibility Study

Case Reference	Key Issues	Date Decided or Pending	Significant Findings	Potential Implications for WRIA 55 Water Bank
Knight v. City of Yelm (173 Wn2d 325, 267 P.3d 973); see also Kittitas County v. the Eastern Wash. GMHB, 172 Wn.2d 144 (2011).	Water availability, exempt well use	2011	1. Adequate water supply must be confirmed prior to final development approval by local jurisdictions. 2. Concern over water availability and impacts from water use can be grounds for standing to challenge a land use decision.	1. Water availability needs to be established as part of County approved development permit approvals. 2. The risk of litigation regarding water availability and instream flow issues is supported by the standing granted in this case.
Five Corners Family Farmers v. State of Washington (PCHB No. 84632-44)	Exempt well use	2011	1. Stock water permit exemption is not subject to a quantity limit. 2. Permit exempt well use can be 'stacked" for a single project: stock watering, watering of ½ acre, single or group domestic use up to 5,000 gpd, and industrial use up to 5,000 gpd.	1. Provides clarity on beneficial use and allowable quantities for exempt wells that could provide additional demand for the water bank.
Kittitas County Conservation et al v. Kittitas County [with intervenors New Suncadia} and Roan)	Exempt well use, water availability, GMA compliance, senior water right impairment	2014	1. Kittitas County's water bank planning is in compliance with GMA and associated regulations to protect surface and groundwater resources. 2. State statues administered by Ecology protect senior water right holders from impairment.	1. Appropriately mitigated water banking structures can be legally managed at a county level under GMA, provided that compliance with Ecology regulations is established.
Swinomish Indian Tribal Community v. Department of Ecology (178 Wn.2d 571)	Exempt well use, OCPI, instream flow impairment	2013	1. Invalidated 2006 amendments to the Skagit instream flow rule, including tributary reservations of water for both new permit exempt and permitted water uses	2. The Court interpreted the OCPI exception to be very narrow, not allowing general application of OCPI to create a reservation for water for another beneficial use, such as domestic use, if minimum instream flows are impaired. 1. Significant uncertainty now exists regarding the potential for future application of OCPI to support

Table 1 – Relevant Legal Cases

Project 140129 - Little Spokane River Basin Water Bank Feasibility Study

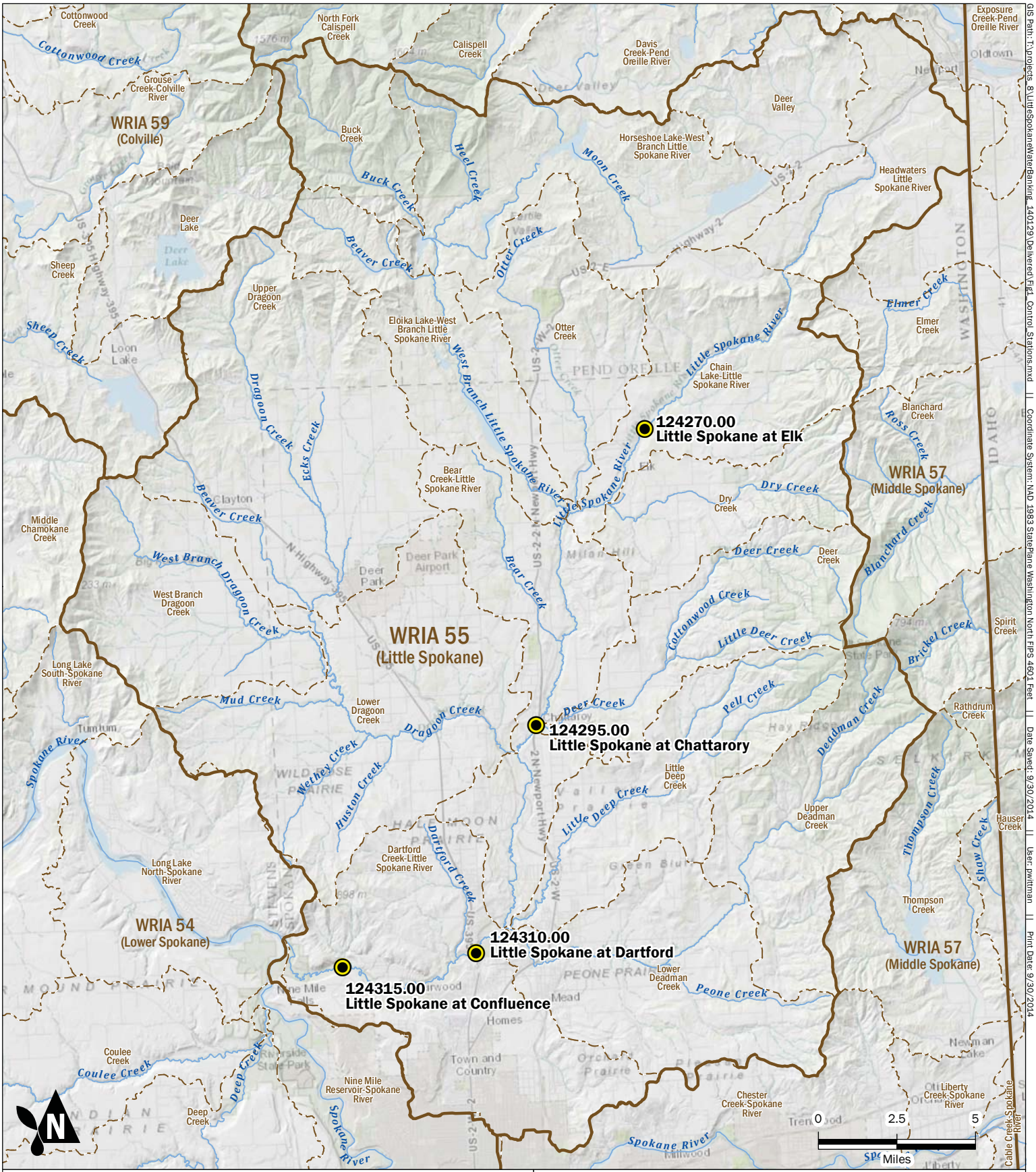
Case Reference	Key Issues	Date Decided or Pending	Significant Findings	Potential Implications for WRIA 55 Water Bank
			2. Supreme Court found that Ecology went beyond its statutory authority in applying OCPI to rulemaking that conflicted with previously established instream flows.	new permit exempt and permitted water uses, including those mitigated with out-of-kind approaches.
Okanogan Wilderness League v. Methow Valley Irrigation District and Ecology (PCHB #14-100)	OCPI, out-of-kind mitigation, instream flow rule impairment	Pending PCHB Hearing.	TBD	1. May provide greater clarity on whether impairment of instream flows occurs when flow is diminished but the functions and values of the instream flow rule are enhanced. 2. May clarify when out-of-kind mitigation is appropriate. 3. May provide greater clarity on the kinds of "rare circumstances" that OCPI can be used.
Okanogan Wilderness League and Center for Environmental Law and Policy v. Ecology and Kennewick General Hospital (PCHB #13-146)	OCPI, out-of-kind mitigation, instream flow impairment	Summary judgment ruling; pending PCHB Hearing on remaining factual issues.	1. Ecology has authority to utilize out-of-kind mitigation for new water permits. 2. The Board interpreted the specific instream flow rule to allow Ecology to approve a water use that would impair a minimum instream flow if the water use would otherwise maintain base flows that preserve and protect the instream flow values of wildlife, fish, scenic, aesthetic and other environmental values, and navigation values. 3. Ecology cannot issue a permit that impairs the instream flow values that stand behind the	1. After the factual hearing, this case should provide greater clarity on whether impairment of instream flows occurs when flow is diminished but the functions and values of the instream flow resources are protected or enhanced. 2. Should clarify when out-of-kind mitigation is appropriate. 3. May provide greater clarity on the kinds of "rare circumstances" that OCPI can be used.

Table 1 – Relevant Legal Cases

Project 140129 - Little Spokane River Basin Water Bank Feasibility Study

Case Reference	Key Issues	Date Decided or Pending	Significant Findings	Potential Implications for WRIA 55 Water Bank
			established minimum instream flows, and Ecology must demonstrate how such values are adequately protected and how the water right associated with those values is not impaired.	
Whatcom County v Hirst (WWGMHB #12-2-0013) see also Kittitas County v. the Eastern Wash. GMHB, 172 Wn.2d 144 (2011).	Exempt well use, water availability, GMA applicability to exempt wells, instream flow impairment	Pending State Court of Appeals ruling. Ecology has filed Amicus Curiae Brief.	1. The GMHB ruled that if a basin is closed to additional withdrawals, it is unlawful to issue development permits that are dependent on new exempt well use (under appeal).	1. May provide greater clarity of County responsibility for adequately protecting water availability, and specifically when approving developments having an intent to use exempt wells. 2. Ecology's position in its Amicus Curiae Brief is that the Nooksack instream flow rule (WAC 173-501) does not apply to exempt wells. The ruling may provide clarity on this position and potential applicability to the Little Spokane flow rule (WAC 173-555).
Foster v. Ecology (Case No. 13-2-01080-9)	OCPI, instream flow impairment	Pending before Thurston County Superior Court.	1. The PCHB upheld a new water right for the City Yelm based on OCPI associated with out-of-kind mitigation (under appeal).	1. Should provide greater clarity on the kinds of "rare circumstances" that OCPI can be used, in a specific permit decision, rather than in a reservation under a rule as decided in the Swinomish case.

FIGURES



USGS Gaging Station/ Control Station
Defined in WAC 173-555

Named Watercourse

WRIA Boundary

Subbasins
(12th-digit, Watershed Boundary Dataset)

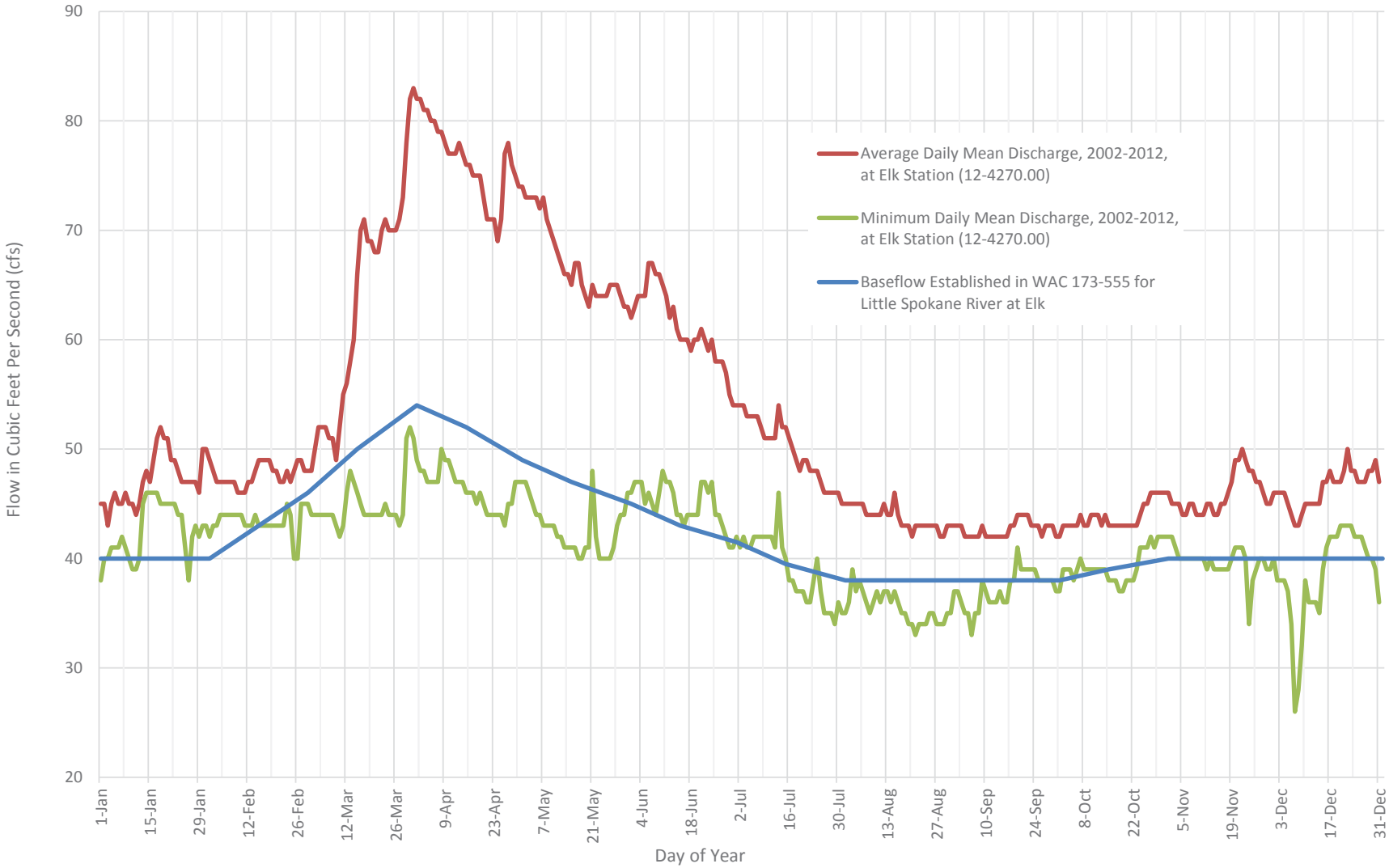
Gage Locations for Establishment of Baseflows Under WAC 173-555

WRIA 55, Washington

Aspect CONSULTING	SEP-2014	BY: PPW	FIGURE NO. 1
	PROJECT NO. 140129	REV BY: ---	

Basemap Layer Credits || Sources: Esri, DeLorme, NAVTEQ, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), and the GIS User Community

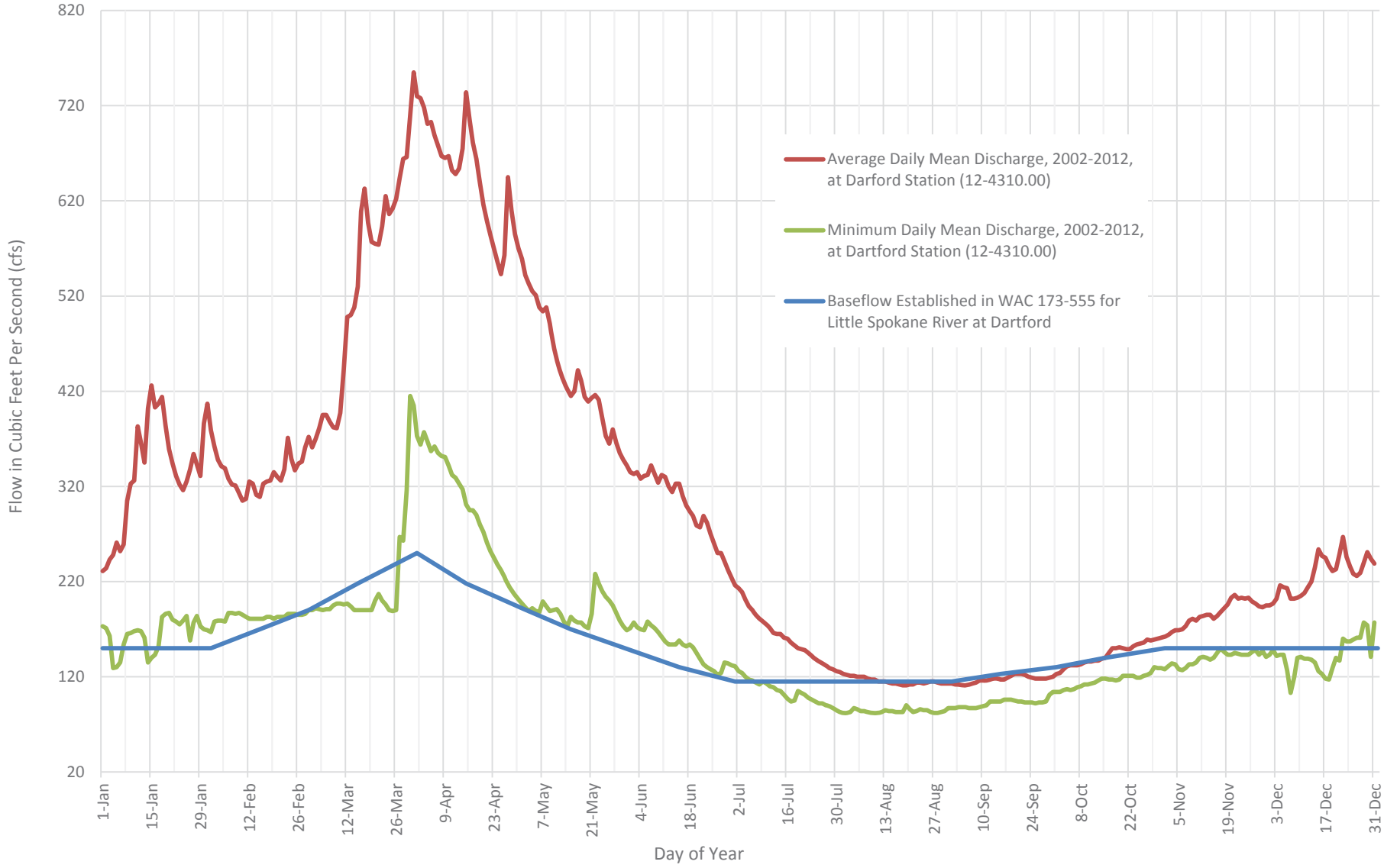
GIS Path: T:\projects_8\LittleSpokaneWaterBanking_140129\Delivered\Fig1_Control_Stations.mxd || Coordinate System: NAD 1983 StatePlane Washington North FIPS 4601 Feet || Date Saved: 9/30/2014 || User: pwittman || Print Date: 9/30/2014



Established Baseflows vs. Gage Data (2002-2012)
Little Spokane River at Elk

WRIA 55, Washington

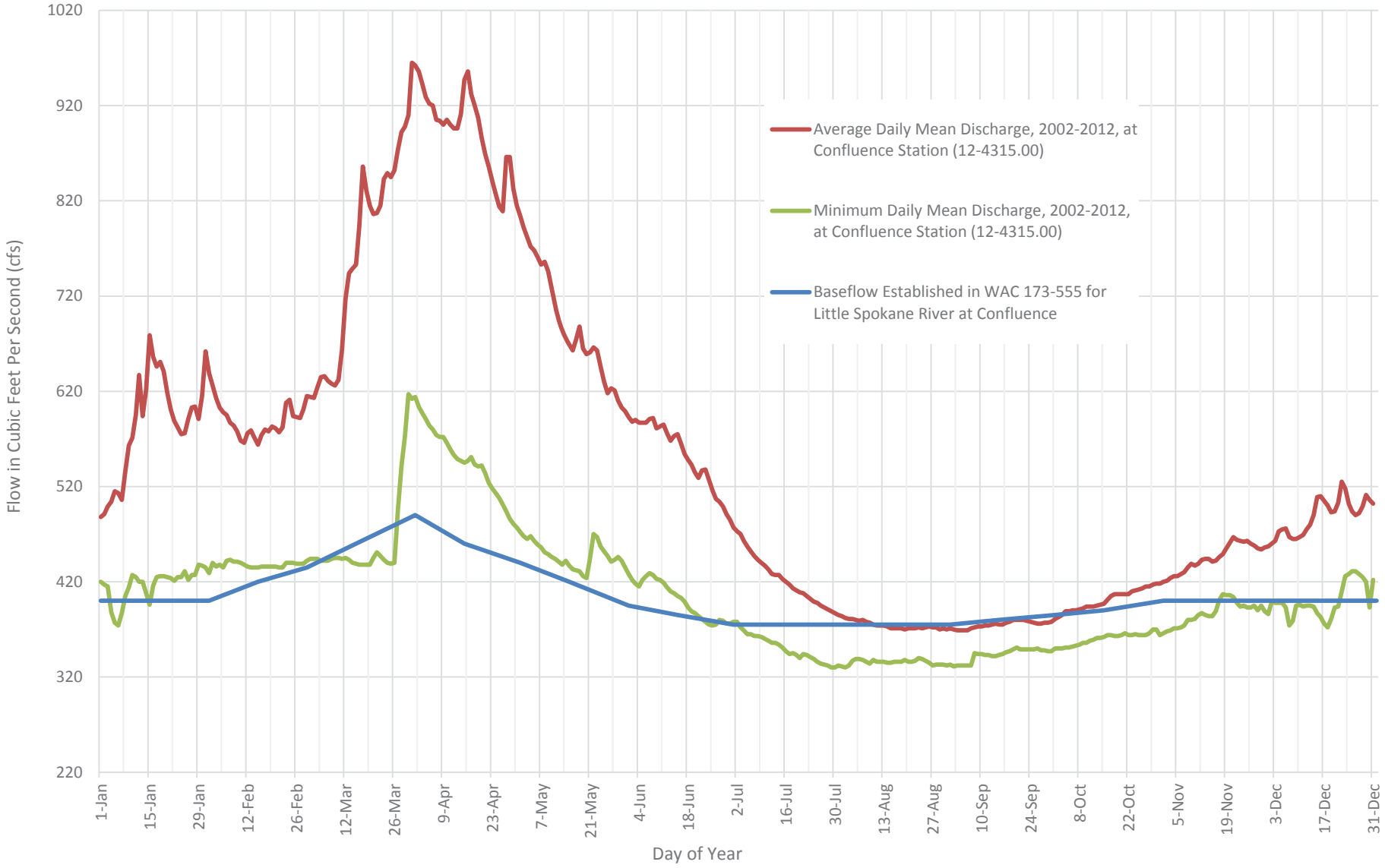
Aspect CONSULTING	SEP-2014	BY: PPW	FIGURE NO. 2
	PROJECT NO. 140129	REVISED BY: ---	



Established Baseflows vs. Gage Data (2002-2012)
Little Spokane River at Dartford

WRIA 55, Washington

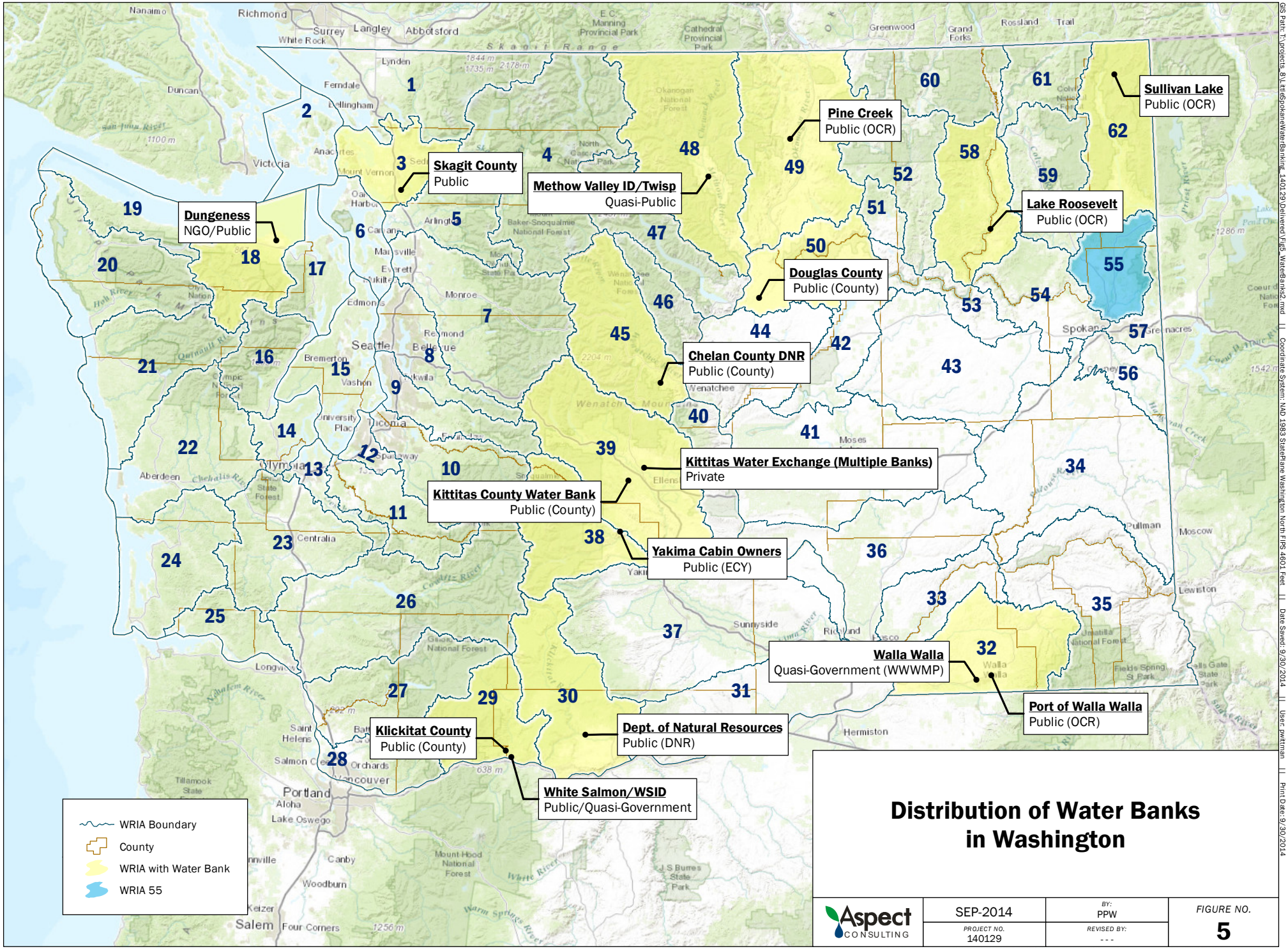
Aspect CONSULTING	SEP-2014	BY: PPW	FIGURE NO. 3
	PROJECT NO. 140129	REVISED BY: ---	



Established Baseflows vs. Gage Data (2002-2012)
Little Spokane River at Confluence

WRIA 55, Washington

Aspect CONSULTING	SEP-2014	BY: PPW	FIGURE NO. 4
	PROJECT NO. 140129	REVISED BY: ---	

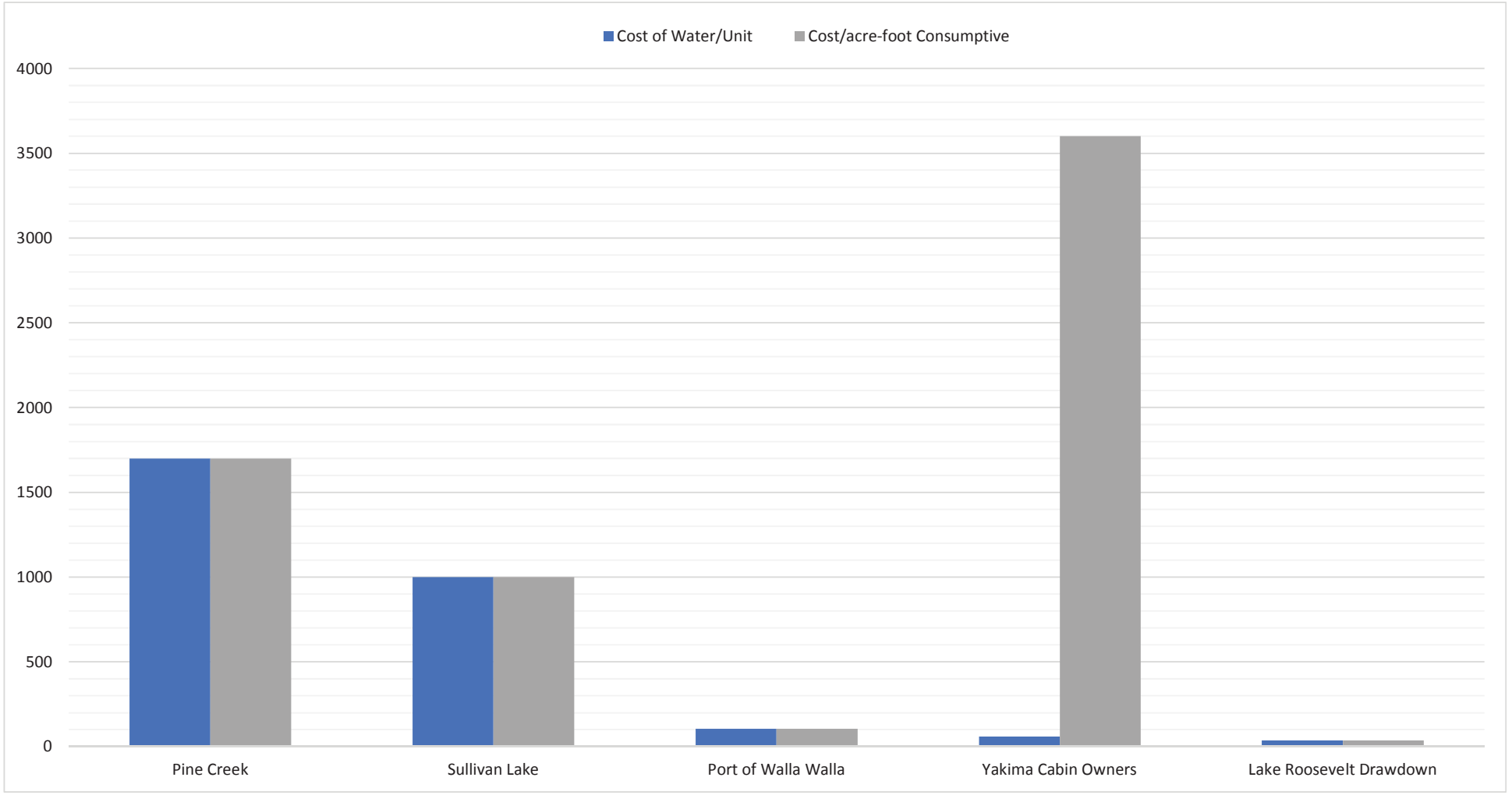


Distribution of Water Banks in Washington

Aspect Consulting	SEP-2014	BY: PPW	FIGURE NO. 5
	PROJECT NO. 140129	REVISED BY: ---	

Basemap Layer Credits || Sources: Esri, DeLorme, NAVTEQ, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), and the GIS User Community

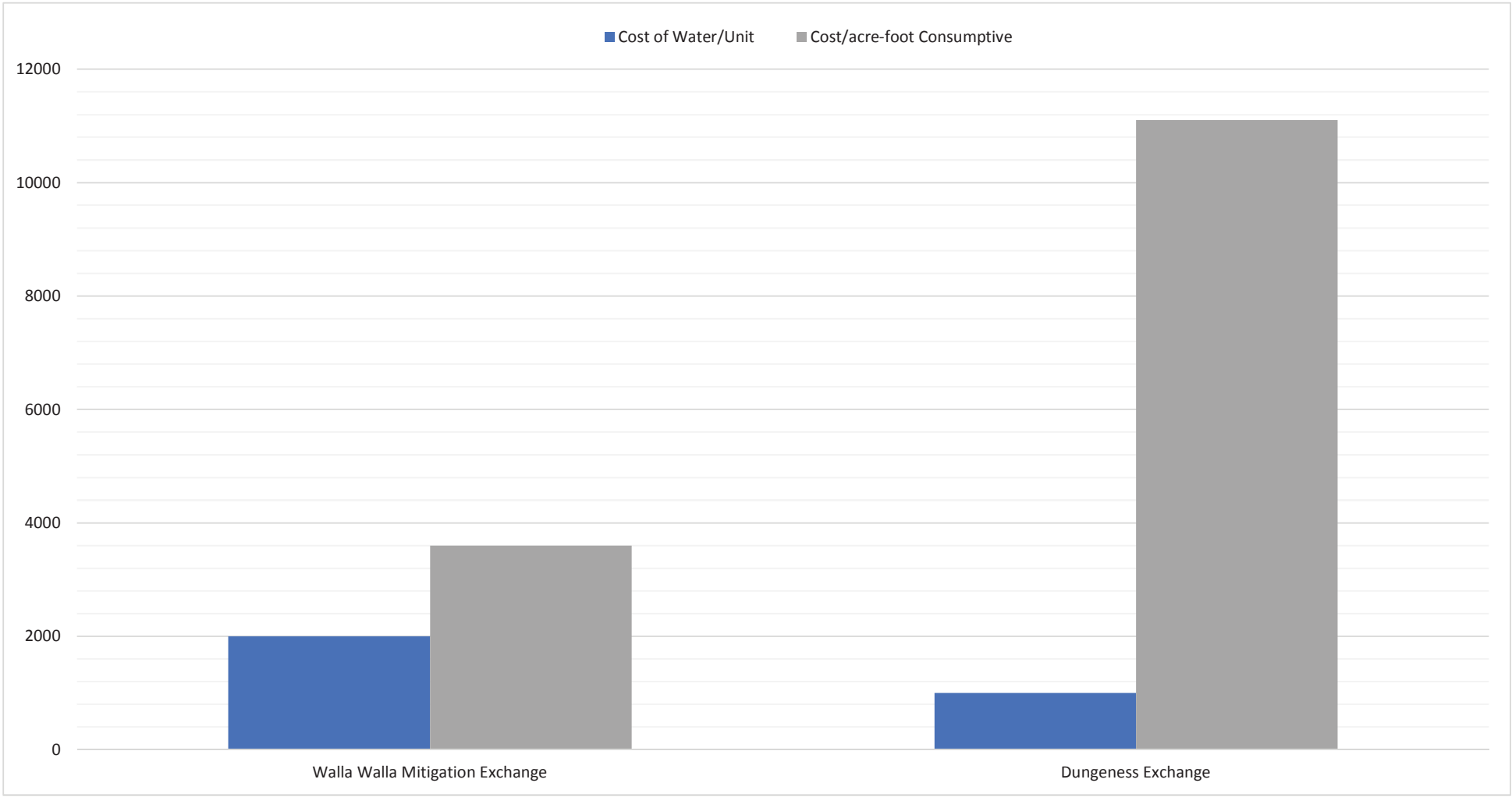
GIS Path: T:\projects_8\Little%20Spokane\WaterBanking_140129\Delivered\Fig5_WaterBanks2.mxd || Coordinate System: NAD 1983 StatePlane Washington North FIPS 4601 Feet || Date Saved: 9/30/2014 || User: pwittman || Print Date: 9/30/2014



Port of Walla Walla is based on an annual lease rate under a 10 year service contract at a rate of $105/acre-foot. Lake Roosevelt Drawdown is based on an annual lease rate under a 20 year service contract at a rate of $35/acre-foot with an inflationary adjustment based on review by US Bureau of Reclamation.

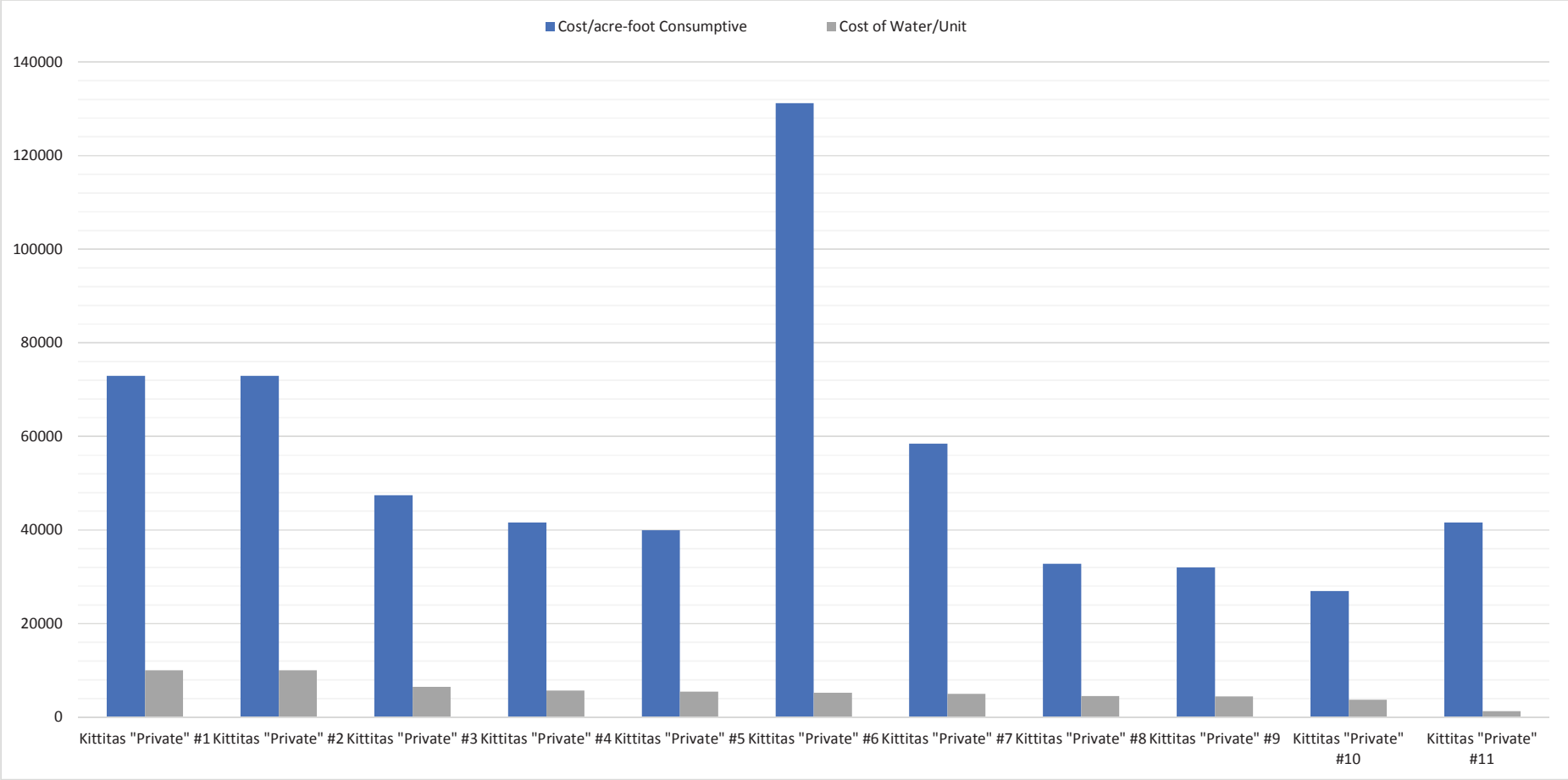
Public Water Bank Unit Cost and Cost of Water/Acre-foot Consumptive Pricing Variability

Aspect CONSULTING	SEP-2014	BY: PPW	FIGURE NO. 6
	PROJECT NO. 140129	REVISED BY: ---	



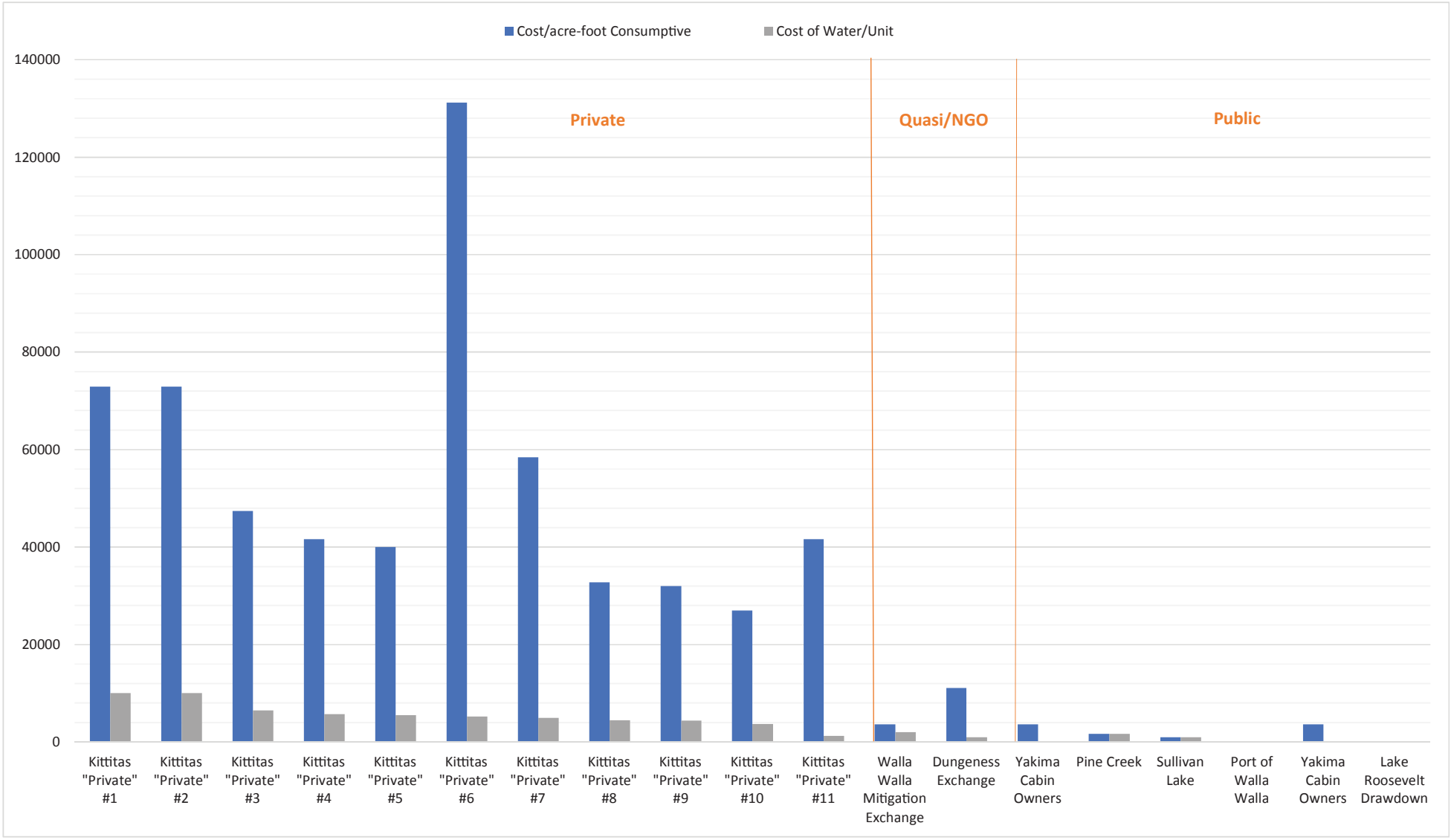
Quasi-Government and NGO Water Bank Unit Cost and Cost of Water/Acre-foot Consumptive Pricing Variability

Aspect CONSULTING	SEP-2014	BY: PPW	FIGURE NO. 7
	PROJECT NO. 140129	REVISED BY: ---	



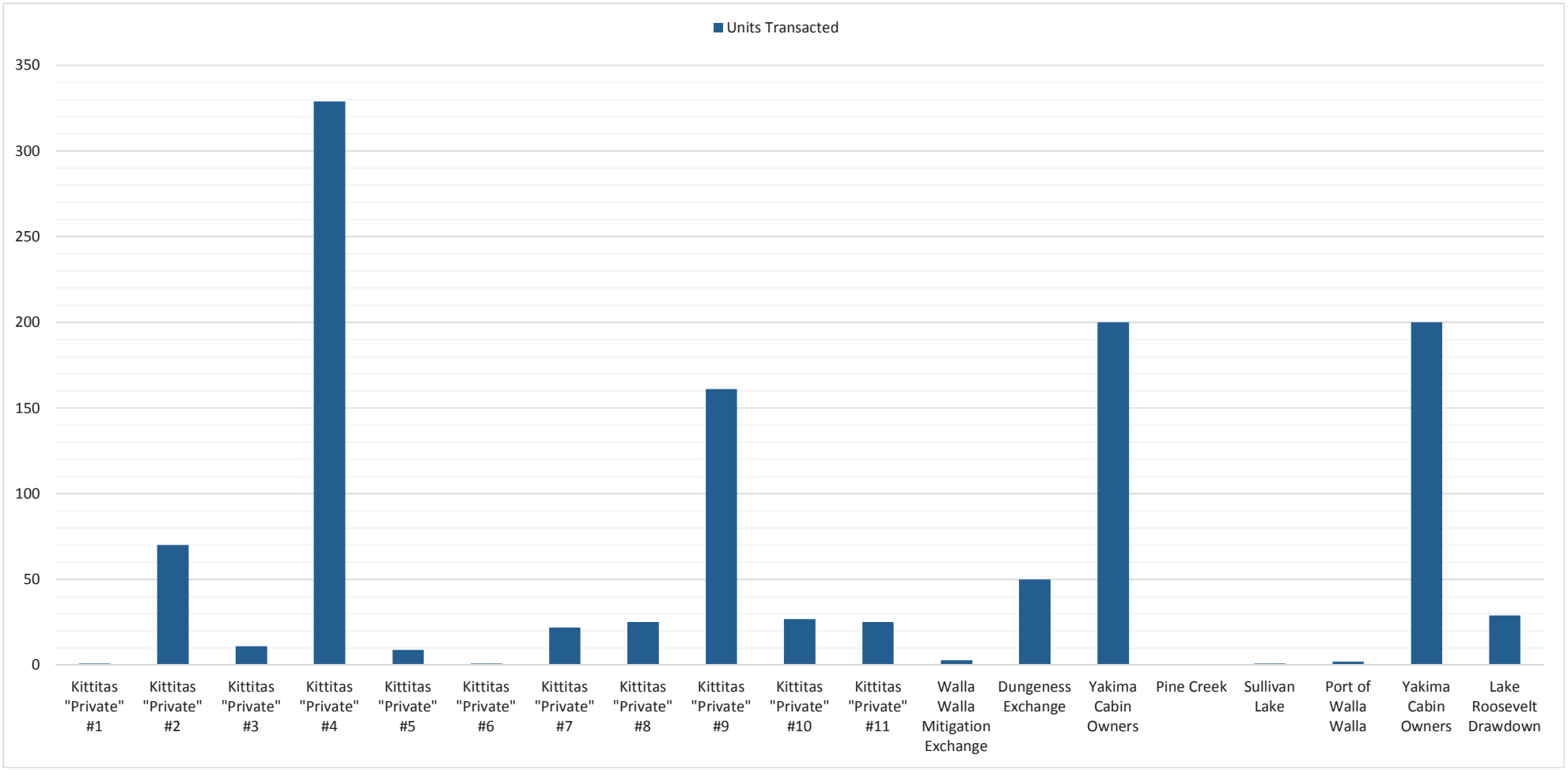
Private Water Bank Unit and Cost of Water/Acre-foot Consumptive Pricing Variability

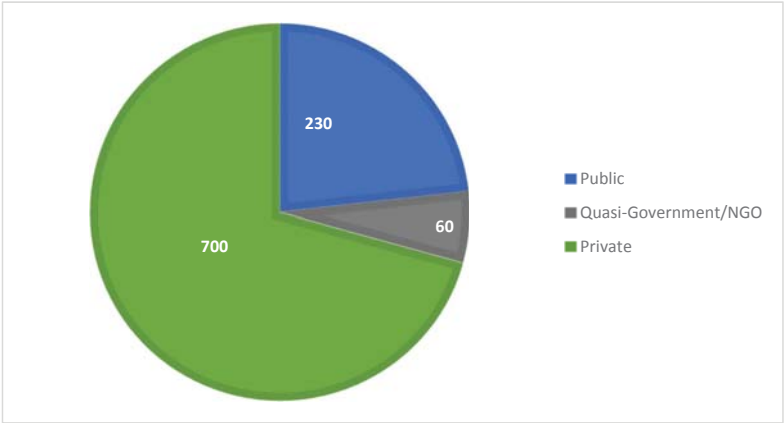
Aspect CONSULTING	SEP-2014	BY: PPW	FIGURE NO. 8
	PROJECT NO. 140129	REVISED BY: ---	



Current Private, Quasi-Government/NGO, and Public Water Bank Pricing

Aspect CONSULTING	SEP-2014	BY: PPW	FIGURE NO. 9
	PROJECT NO. 140129	REVISED BY: ---	





Current Water Bank Market Activity

Aspect CONSULTING	SEP-2014	BY: PPW	FIGURE NO. 10
	PROJECT NO. 140129	REVISED BY: ---	