

## **Other Management Recommendations**

### **Agriculture Water Reclamation and Reuse**

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#### **Recommendation**

Investigate water reclamation and reuse opportunities: irrigation as a substitute for existing water usage, and stream augmentation for Fishtrap, Bertrand, and Dakota Creeks.

#### **Proponents**

- Whatcom County Agricultural Preservation Committee
- WSU Cooperative Extension, Whatcom County
- Washington Water Research Center
- Public Utility District No.1
- Lummi Nation

#### **Location/Site Description**

Irrigated agriculture, specific location to be determined

#### **Purpose/Objectives**

Maintain irrigated agricultural land use. Provide additional water for non-irrigation needs by substituting wastewater for existing irrigation water usage. Provide water for stream augmentation for Fishtrap, Bertrand, and Dakota Creeks.

Appropriate segments of community will:

- Understand and comply with regulatory constraints of water reclamation and reuse
- Understand and adopt agricultural management practices for reclaimed and reused wastewater
- Understand and consider feasibility of water reclamation and reuse (economic, agronomic, regulatory, public health protection)

#### **Issues Addressed**

- Competition for water resources

- Preservation of agriculture as a desired land use
- Reuse of water resource
- Stream augmentation

**Information Goals**

- Educate audiences about water reclamation and reuse regulations
- Educate audiences about water reclamation and reuse technologies
- Educate audiences about agricultural irrigation use practices with wastewater

**Performance Goals**

- Completion of wastewater source survey and prioritization
- Completion of water reuse for irrigation purposes feasibility study
- Irrigation water reuse demonstration (assuming supportive feasibility study)

**Implementation Plans/General Schedule**

- Identify and categorize wastewater sources that have reclamation or reuse potential
- Identify possible water reclamation and reuse sites that are proximate to sources
- Identity demonstration project partners and opportunities, and funding sources
- Conduct feasibility study
- If appropriate, pursue demonstration project

**Budget/Resource Requirements**

<b>Task</b>	<b>Schedule</b>	<b>Lead</b>	<b>Resource Needs</b>
Wastewater source survey	Summer 2004	WCAPC	In Kind & Budget Request TBD
Irrigation water reuse feasibility study	Winter 2004	WSU Coop Ext.	In Kind & Budget Request TBD
Water Reclamation/Reuse education	Winter 2004	WSU Coop Ext	In Kind & Budget Request TBD

### **Roles and Responsibilities of Implementing Parties**

Project roles are identified in the previous table. The roles and responsibilities associated with a demonstration project will be included in the feasibility study report along with budget and scope estimates.

### **Monitoring and Adaptive Management**

The monitoring and adaptive management will entail monitoring of the water used and the water reclaimed and the extent to which the reclaimed water is used to quantify the effectiveness of the project. The associated monitoring will be defined as part of the feasibility study and the pilot demonstration project.

### **Relationship to Other Programs**

Other recommended WRIA 1 Watershed Management Programs that are related to the Agriculture Water Reclamation and Reuse project include: Water Use Efficiency, Water Use Tracking, Comprehensive Irrigation District Management Program, Instream Flow Selection and Adoption Action Plan, Natural Resource Policy Integration.

## **Other Management Recommendations**

### **Deep Aquifer Supply and/or Storage**

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#### **Recommendation**

Deep Aquifer Supply and/or Storage

#### **Location/ Site Description**

WRIA-wide but the most likely focus will be Western Lowlands from Sumas Mountain to the coast

#### **Purpose/Objectives**

- Explore the feasibility of deep water aquifer as new long term water supply and/or for storage
- Compile information on deep water well drilling that has occurred
- Compile known information about water quality and water quantity at depths
- Compile what is known about recharge to the deep aquifer (lateral component, vertical percolation)
- Identify potential challenges specific to and associated with use of deep-water aquifers

#### **Issues Addressed**

The program is designed to address two issues:

- Water supply limitations
- Potentially reducing impacts to instream flows (e.g., if there are water supplies available from deep aquifers that have less impact on streamflows than shallow aquifers, opening up a variety of management possibilities)

#### **Information Goals**

The program is designed to:

- Compile deep water aquifer information

- Determine data needs to pursue further analysis of deep water aquifers as potential sources of new supply or storage
- Identify challenges and opportunities associated with the continued pursuit of using deep aquifers as a source of supply or storage

### **Performance Goals**

The performance benchmark for this program is a written report summarizing the findings.

### **Implementation Plans/General Schedule**

Deep aquifers have been identified as one of the management options that should be considered as a potential source of additional water supplies or for storage opportunities within WRIA 1. There have been a number of studies and projects within the WRIA aimed at exploring deep water aquifers as a potential source of supply but there is no document that summarizes the findings including what is known (and not known) about water quality and water quantity at depth, and the source of recharge for these aquifers. This type of information will be needed to fully evaluate the feasibility of using deep-water aquifers as a source of supply or storage. The purpose of this project is to provide such a report along with a summary of the potential challenges that would have to be addressed associated with the use of these aquifers.

### **Budget/Resource Requirements**

To be determined

### **Roles and Responsibilities of Implementing Parties**

A lead for this project is needed. The lead's first task would be to identify a strategy and associated resources required to implement the project.

### **Monitoring and Adaptive Management**

Not applicable.

### **Relationship to Other Programs**

This project would build on work conducted through other programs and studies.

## **Other Recommendations**

### **Evaluate Feasibility of Importation from Skagit River Basin**

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#### **Recommendation**

Evaluate the Feasibility of Importation of Water from the Skagit River Basin, including Ross Lake and Baker Lake

#### **Location/ Site Description**

Ross Lake, Baker Lake, or lower Skagit River area

#### **Purpose/Objectives**

The Skagit River has been suggested as a potential source of water for Whatcom County and WRIA 1 at various times and is included as a possible management option in the WRIA 1 Management Option Catalog. Potential sources include water from Ross Lake or from Baker Lake, a tributary to the Skagit River. Imported Skagit River water could also be purchased from the Skagit PUD and brought by pipeline from the current pipe in the Lake Samish/Alger area.

The purpose of this feasibility evaluation is to determine whether importation of Skagit River water is a viable management option for consideration now or in the future in terms of legal, environmental, economic, and/or political constraints.

#### **Issues Addressed**

- Legal right to the water being provided
- Infrastructure costs to get the water to WRIA 1
- Impairment of any existing water rights
- Availability of suitable rights of way to move the water to WRIA 1

#### **Information Goals**

To identify the feasibility of importing water from the Skagit in terms of legal, environmental, economic, and political constraints. The immediate information goals would focus on work conducted by Ecology staff as described below.

#### **Performance Goals**

Complete initial evaluation by Ecology staff.

**Implementation Plans/General Schedule**

The estimated amount of time that would be required to conduct the feasibility evaluation is one month.

**Budget/Resource Requirements**

No additional resources would be requested beyond Ecology staff time.

**Roles and Responsibilities of Implementing Parties**

Ecology staff will conduct the initial evaluation in terms of the water rights analysis and general analysis of the potential hurdles that would need to be overcome. WRIA 1 Project staff would review Ecology's evaluation and determine a further course of action, if any.

**Monitoring and Adaptive Management**

Not applicable at the feasibility stage.

**Relationship to Other Programs**

## Other Management Recommendations

### Feasibility Trans-Basin Importation from British Columbia

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#### Recommendation

Feasibility Trans-Basin Importation from British Columbia

#### Location/ Site Description

The feasibility analysis will consider border-town receivers such as Sumas and Blaine as well as municipalities more distant from the border.

#### Purpose/Objectives

Transferring water from one surface water basin to another is a common occurrence in WRIA 1 as exemplified by two of the major water users<sup>1</sup> and numerous smaller users. It has also been recommended in the Coordinated Water Supply Plan as an approach that could be used to meet regional needs. Typically, interbasin water transfers are limited to those within the WRIA but an additional option that is listed in the management option catalog is the potential to transfer water from the British Columbia to WRIA 1.

The purpose of the program is to conduct a feasibility analysis to better understand the issues associated with importing water from British Columbia. The analysis will help clarify why the option has not been pursued to date and to document the challenges that would need to be considered by anyone contemplating it in the future. Objectives include:

- Identify regulations (local, state, provincial, federal) applicable to construction and operation of a cross-border water pipeline
- Identify legal and political context of importation of water from Canada to US (NAFTA, etc.)
- Analysis of the regulations and legal/political information
- Evaluation of the feasibility of importing water in the near- and long-term.

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<sup>1</sup> The City of Bellingham obtains a portion of its water from the Middle Fork of the Nooksack and it is transferred from there for use in coastal drainages. The PUD obtains water from the mainstem of the Nooksack and a portion of the water is used to supply customers in coastal drainages at Cherry Point.

### **Issues Addressed**

This project is a feasibility evaluation and would not address any of the WRIA 1 water resource issues unless it was supported for further action. Potential issues that it may address if it were pursued further are:

- Water supply limitations for municipal and/or industrial use
- If importation resulted in a reduction in use of existing surface or groundwater supplies in WRIA 1, possible improvements could be achieved related to instream flows, fish habitat, and water quality.

### **Information Goals**

The program would provide information on the issues associated with importing water from British Columbia.

### **Performance Goals**

Written report summarizing findings

### **Implementation Plans/General Schedule**

Initial work to summarize information obtained by the City of Sumas would be completed in the first quarter after Plan adoption.

### **Budget/Resource Requirements**

\$5,000 and in-kind labor

### **Roles and Responsibilities of Implementing Parties**

David Davidson (Small cities caucus) will conduct initial work summarizing information that the City of Sumas has on this topic.

### **Monitoring and Adaptive Management**

Not applicable

### **Relationship to Other Programs**

The Management Option Catalogue will be updated with the information obtained through this feasibility analysis.

## **Other Management Recommendations**

### **Plan for Establishing, Funding, and Staffing a Water Rights Information Assistance Center**

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#### **Recommendation**

Plan for establishing, funding, and staffing a Water Rights Information Assistance Center within the Department of Ecology Bellingham Field Office.

#### **Proponents**

A Water Rights Information Assistance Center is a recommendation in the Water Rights Review Stage 2 Report (PUD, 2003).

#### **Location/Site Description**

The Water Rights Information Assistance Center (Center) will serve residents throughout WRIA 1. The Center should be centrally located to serve the likely users in the agricultural land and non-government water system operator community. Although the recommendation is to locate the Center central to all of WRIA 1, it is acknowledged that due to resource constraints the Center may be located within the Bellingham office.

#### **Purpose/Objectives**

The recommendation is to create a plan for establishing a Water Rights Information Assistance Center to provide water rights information and evaluations. The first step in creating a plan is to complete a needs assessment with the focus of the assessment being on surveys and/or interviews with likely users. The needs assessment will result in a report that documents likely users of the Center, specific tasks that will be performed by Center staff, budget, funding source, and schedule for implementing. The purpose of the Water Rights Information Assistance Center would be to assist the public in completing Washington State Department of Ecology change forms, new applications, and other water right documents. The Center will also assist the public in understanding, protecting, and complying with their water rights.

#### **Issues Addressed**

Issues that may be addressed by establishing a Water Rights Information Assistance Center include:

- Assistance with water right compliance

- Potential assistance with or contributing to the sorting and/or updating of water rights database for WRIA 1
- Outreach to individuals in need of technical assistance or that require an understanding of water right applications, transfers, and compliance issues
- Potential identification of individuals needing transfers or who are willing to transfer a water right
- Provide linkages to future local or state water banking or water marketing programs

**Information Goals**

Implementing the recommendation to plan for and then to establish a WRIA 1 Water Rights Information Assistance Center may provide information in the following area:

- Level of political and community support to provide funding to assist individuals in addressing water right issues.

**Performance Goals**

Written report on the outcomes of the needs assessment of likely users of the Water Rights Assistance Center. The report will include recommendations for pursuing the Center, responsibilities, and/or tasks, budget, funding source, and schedule for implementing.

**Implementation Plans/General Schedule**

Task	Schedule	Responsible Entity(s)	Budget Need
Conduct needs assessment of likely users.	Jan-March 2005	TBD	TBD
Written report on outcomes of needs assessment, staffing, budget, funding, and implementation schedule	June 2005	TBD	TBD

**Budget/Resource Requirements**

- Needs assessment budget: TBD
- Preparation and distribution of written report: TBD

### **Roles and Responsibilities of Implementing Parties**

The lead(s) for conducting the needs assessment and preparing the written report describing the outcome have not been identified. The lead for implementing a Water Rights Assistance Center is the Washington State Department of Ecology.

### **Monitoring and Adaptive Management**

- Completion of the written report on the need for and support of a Water Rights Assistance Center. If a need for the Center is identified, the written report will describe an effectiveness monitoring program.

### **Relationship to Other Programs**

This effort is related to the following proposed WRIA 1 programs: Water Use Tracking, ISF Selection and Adoption Action Plan, and Compliance.

## **Other Management Recommendations**

### **Review of Water Banking and Water Marketing as a Water Resources Management Tool**

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#### **Recommendation**

Conduct a comprehensive review of different approaches to creating a water bank and water market. Information gathered as part of the review should include identifying the various kinds of banks and water markets, their purposes, their advantages and disadvantages, and their effectiveness in achieving their goals. The review should result in a list of options that can be further evaluated for their feasibility as a water resource management tool in WRIA 1.

#### **Location/Site Description**

The review is being conducted for future application of water banking and water marketing WRIA-wide but primarily in the western lowlands of Whatcom County. The review will focus on regional examples but will include examples from other locations when appropriate.

#### **Purpose/Objectives**

The purpose of this recommendation is to identify the different approaches and purposes of water banks and water markets and their potential effectiveness as a water management tool for use in WRIA 1. Information from the completed review will be used to conduct further evaluations for feasibility of water banking and water marketing in WRIA 1, which may require the assistance of economic consultants.

#### **Issues Addressed**

Issues that may be addressed by water banks or water markets may include:

- Potential for providing more certainty for water users
- Encouraging conservation of existing water
- Removing the disincentive of relinquishment of unused water for water put in a water bank
- Potential for increasing stream flows with water from a water bank or through the use of a water market
- Potential improvement to fish habitat resulting from increased stream flows

#### **Information Goals**

Initially, a comprehensive review of the potential value of water banking and water marketing as a water resource management tool will provide information on approaches for water banks and markets in WRIA 1. After completing the review, identified options will be further

evaluated to determine the extent to which they can provide increased flexibility of water use in WRIA 1 and how they will help achieve instream flows. Information gained through the comprehensive review will also be used to update the WRIA 1 Management Options Catalog.

### **Performance Goals**

Note that the performance goals listed below are specific to the recommendation of conducting a comprehensive review and evaluating water banking and water marketing options for use in WRIA 1. Any pursuit of options will require that performance goals be established specific to the option being considered.

1. Completion of a written review of water banking and water marketing options that includes information on the various kinds of water banks, their purposes, their advantages and disadvantages, and their effectiveness in achieving their goals.
2. Completed evaluation of options identified in the written report (Performance Goal #1) including budgets, schedules, staff resource requirements, and any legislative changes required to implement the options along with a recommendation for a preferred option.
3. Community and financial support to pursue the preferred option.

### **Implementation Plans/General Schedule**

WRIA 1 Project staff will take the lead on completing the comprehensive review of options for water banking and marketing with technical assistance provided by Washington State Department of Ecology (Ecology). The comprehensive review will build on work completed to date including Ecology's review of water banking approaches west of the Mississippi River and the Roundtable Associates review of options for the Yakima Basin. A report summarizing the review findings will be submitted to WRIA 1 participants prior to proceeding with an evaluation of the findings. The written report will include a budget estimate and scope outlining the process for proceeding with the evaluation.

Schedule:

Initiate	Complete	Task	Responsible Parties
June 2004 (or upon approval by WRIA 1 participants)	3 months after initiation	Complete review of water banking and marketing options including identifying the various kinds of banks, their purposes, their advantages and disadvantages, and their effectiveness in achieving their goals	WRIA 1 Project Staff and Washington State Department of Ecology
September 2004 (or upon acceptance of completed report of options)	6 months after initiation	Pursue evaluation of water banking and marketing options for WRIA 1 as outlined in the findings report submitted under the task described above.	To be determined.

**Budget/Resource Requirements**

The estimate for resource requirements is limited to the completing the initial review, preparing the report, and estimating the scope and budget for the evaluation.

Staff Resources:

1. WRIA 1 Project Staff and/or WWU CEBR - 0.125 FTE (assumes approximately 20 hours per week for 13 weeks)
2. Washington State Department of Ecology Staff - 0.02 FTE (assumes approximately 40 hours over 13 week period)
3. Report copying and distribution will be the responsibility of the WRIA 1 Joint Board.

**Roles and Responsibilities of Implementing Parties**

WRIA 1 Project Staff – WRIA 1 Project Staff will complete the review of water banking and marketing approaches with the assistance of the Washington State Department of Ecology staff and others such as Western Washington University, Center for Business and Economic Research. The work will build on efforts completed by Ecology that included evaluating water banks west of the Mississippi and work completed by the Roundtable Associates for the Yakima Basin.

Washington State Department of Ecology (Ecology) – Initially, Ecology will provide a report of findings from the State’s evaluation of water banks west of the Mississippi River to the WRIA 1 Project Staff. Ecology also has a technical advisory committee evaluating the creation of a water bank in the Yakima Basin and will provide information from that effort as it becomes available. Further technical assistance will be provided by Ecology in terms of reviewing specific water banking and marketing proposals, the related water rights, and any needed changes.

### **Monitoring and Adaptive Management**

The comprehensive review step of this recommendation will include information on the effectiveness of various water bank and water market approaches. The evaluation step that follows the completed review will need to include effectiveness monitoring and adaptive management recommendations specific to each option that is evaluated. It is likely to also involve contracting with an economic analyst.

### **Relationship to Other Programs**

Whatcom Conservancy Board – If water banking and marketing options are pursued in WRIA 1, consideration will need to be given to the affected water rights and the process for making the necessary changes. The Whatcom Conservancy Board may be one option for changes that involve applications for changes in place of use or other types of transfers.

Bertrand Watershed Improvement District (WID) – The WRIA 1 effort to review water banking and marketing options will need to be coordinated with the Bertrand WID to ensure that there is not a duplication of efforts. It is assumed that if the Bertrand WID pursues a similar task as part of their efforts to develop a comprehensive irrigation plan, their focus will be specific to the Bertrand WID. The WRIA 1 effort will expand on the work of the Bertrand WID. The staff of the WID and WRIA 1 projects should collaborate on the scope and approach for completing the review of water bank options and subsequently the evaluation of feasible options.

WRIA 1 Instream Flow Selection and Adoption Action Plan (ISF Action Plan) – The WRIA 1 ISF Action Plan proposes to address instream flows on a drainage and WRIA-wide level. The recommendation to provide a review and evaluation of water banking and water marketing options as a tool to manage water resources will provide supporting information to WRIA 1

participants as they proceed with identifying management strategies as part of the ISF Action Plan.

Washington Water Rights Acquisition Program<sup>2</sup> - The Washington Water Rights Acquisition Program is a voluntary program that offers monetary compensation to water-right holders who are willing to revert all or a portion of their water right back to the state to benefit salmon. The program provides water right holders the opportunity to sell, lease, or donate their water where low stream flows limit fish survival. The water that is obtained through the program is returned to the stream or river from which it was originally withdrawn. The focus of the state program is on increasing stream flows in 16 basins across the state that are experiencing chronic water shortages, one of which is the Nooksack Basin. The WRIA 1 Review of Water Banking as a Water Resource Management Tool will build on and support the existing state Water Rights Acquisition Program.

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<sup>2</sup> Information on the Washington Water Acquisition Program obtained from Washington Water Acquisition Program home page < <http://www.ecy.wa.gov/programs/wr/instream-flows/wacq.html> > and *Frequently Asked Question- Washington Water Acquisition Program*, Publication #02-11-013 Was

## Other Management Recommendations

### Summary of Process and Challenges Associated with Water Transfers

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#### **Recommendation**

Summary of Process and Challenges Associated with Water Transfers

#### **Location/Site Description**

The feasibility analysis will consider border-town receivers such as Sumas and Blaine as well as municipalities more distant from the border.

#### **Purpose/Objectives**

In order to meet current and future supply needs throughout WRIA 1 it is highly likely that it may be necessary to transfer water from one area to another. This could apply to a number of scenarios such as:

- Taking water from an existing source of supply and area(s) of use and moving all or part of it to another location
- Taking water from a new source of supply either within or outside of WRIA 1 and moving it to a location within WRIA 1 (e.g., British Columbia, Skagit River System, deep aquifer)

There are a number of local and state requirements that affect the ability to successfully transfer water. Examples of such requirements include:

- Ecology water right considerations (e.g., place of use, point of withdrawal, time of year, etc.)
- Washington State Department of Health considerations (e.g., plans described in water system plans)
- Local policies, regulations, other considerations (e.g., growth management and comprehensive plans, the Coordinated Water System Plan, SEPA, contracts, etc.)
- Other economic, legal, political, environmental considerations (e.g., Endangered Species Act, Clean Water Act, etc.)

There is not a document that describes the requirements, including the constraints placed on transfers. Providing a clear description of the requirements and constraints will enable decision-makers to have a more realistic picture of the opportunities possible through transfers to meet current and future instream and out-of-stream needs. It would also enable them to determine if changes may be needed to current requirements.

*Note: The document is intended to cover the major requirements/constraints and include references for where to go for additional information because it will not be possible to cover all situations.*

The purpose of this recommendation is to summarize the requirements and constraints associated with water transfers so that they can be considered as efforts are made to meet current and future water supply needs.

### **Issues Addressed**

Issues that may be addressed by this recommendation include:

- Maximizing available water supplies for consumptive needs
- Supplementing existing supplies with new sources
- Increasing potential for greater certainty for water users
- Supplementing water supplies needed for instream resource needs
- Increasing potential to improve fish habitat resulting from increased stream flows

### **Information Goals**

The action will help provide a better understanding among decision-makers and project participants regarding the feasibility of meeting current and future supply needs via water transfers. Information gained through the comprehensive review will also be used to update the WRIA 1 Management Options Catalog.

### **Performance Goals**

Successful completion of this action will result in a written report describing:

- The requirements associated with water transfers
- Constraints that may exist
- References regarding where to go for additional information

### **Implementation Plans/General Schedule**

WRIA 1 Project staff will conduct the work associated with this recommendation with assistance from local, state, and tribal participants and others as necessary. A report summarizing the review findings will be submitted to WRIA 1 participants upon completion at which point they may want recommend actions to address potential constraints identified.

### **Budget/Resource Requirements**

The estimate for resource requirements is limited to completing the review, and preparing the report.

Staff Resources:

1. WRIA 1 Project Staff - 0.125 FTE (assumes approximately 30 hours per month for 9 months)
2. Report copying and distribution will be the responsibility of the WRIA 1 Joint Board.

### **Roles and Responsibilities of Implementing Parties**

WRIA 1 Project Staff – WRIA 1 Project Staff will complete the review and write the report. Relevant local, state, tribal, and other entities will provide information as requested by WRIA 1 Project Staff.

### **Monitoring and Adaptive Management**

Not applicable.

### **Relationship to Other Programs**

As noted previously, transferring water from one area to another requires compliance with a number of difference programs, policies, and requirements. Examples include the Coordinated Water System Plan, Growth Management/Comprehensive Plans, Water System Plans, contracts, Ecology water rights permitting, and tribal considerations. This project will not change any of these requirements but may highlight areas where changes will be recommended in the future.

The recommended WRIA 1 Watershed Management Plan programs that will need to be considered and/or coordinated with this recommendation are as follows: Water Use Efficiency, Instream Flow Selection and Adoption Action Plan, Comprehensive Irrigation District Management Plan, Water Use Tracking, and Water Rights Information Assistance Center.

## WRIA-Wide Program

### Water Use Tracking Program

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**Program Name-** WRIA 1 Water Use Tracking Program

**Background** – The Washington State Department of Ecology (Ecology) has approximately 8,000 state water right records for WRIA 1. These include water right applications for new water, applications for changes to existing water rights, water right permits, water right certificates, and water right claims, with the latter accounting for approximately 4,800 records. The current backlog of pending state water rights is approximately 1,000, with about 930 being new applications and the remainder being for changes to existing water rights. A significant number of these applications are for existing uses, many of which have existed for 10 years or more.

Under current laws and regulations, many areas in WRIA 1 are closed to new water rights and instream flows are established on the major streams and tributaries. The instream flows constitute state water rights with priority dates of 1986 so that subsequent rights are not allowed to impair those flows and are, therefore, subject to curtailment to protect those instream flows, some of which are frequently not attained. These restrictions, coupled with a number of court decisions over the last few years, result in the fact that most of the existing backlog of pending applications would be denied if Ecology were to process them today.

In evaluating water right applications, Ecology must address four statutory tests: Is the proposed use a beneficial use as defined by statute? Is water physically available for the proposed use? Can the water use be approved without impairment of any existing water rights (including state, federal, and Tribal water rights)? And, is the proposed water use not detrimental to the public welfare? If Ecology can answer all of these questions in the affirmative, a state water right permit is issued.

In answering the water availability and water right impairment questions, Ecology needs to identify all legal water uses in the area that could be impaired by the issuance of a permit. Ecology attempts to compare the available supply with the current demand for water. If water right totals are used, the results can be misleading. Ecology prefers to use actual water use data because the result is more reliable. This task is complicated by the fact that federal and Tribal water rights, that generally have senior priority dates, have not yet been quantified in WRIA 1.

Under long-standing principles of Washington water law, the measure of a water right is the quantity applied to beneficial use, under the terms and conditions of a water right. In fact, a

state water right is only created upon the actual application of water to beneficial use. The quantity of water continually applied to beneficial use is the basis for quantification of the right. In the case of so-called vested rights (for uses that existed prior to the surface water code of 1917 or the ground water code of 1945), the measure of such rights is also based on the quantity of water historically applied to beneficial use. Claims for rights that were created prior to the permit system are subject to the water code and require evidence that the right was legally created under the common law or statutory notice requirements, and perfected by the beneficial use of water. The law also states that waters not put to beneficial use may be relinquished back to the state, generally after five or more consecutive years of nonuse. This is described in Chapter 90.14 RCW.

Because the measure of the water right is the quantity of water put to beneficial use, the paper water right record is not an accurate indication of the quantity of water actually being used in WRIA 1 for a number of reasons including: .

1. Some water right holders may no longer be using their water right at all or may only be using part of the water quantity listed on their water right and may not, in fact, have the legal right to any unused water;
2. Some users may be using more than that to which they are legally entitled;
3. Some users may be using water without a legal water right to do so;
4. Some legal uses, such as those from wells that are exempt from permitting under Chapter 90.44 RCW, are using water in quantities not to exceed 5,000 gallons per day but, without water use data, there is no way of knowing how much they are actually using. In many cases, their actual use is probably closer to 1,000 gallons per day given that a typical residence is generally assumed to use about 800 gallons per day on peak use days.

In order to effectively manage the water resources of WRIA 1 and for Ecology to be able to make decisions on pending water right applications, Ecology must determine whether water is available for the new appropriation. In order to do so, Ecology needs the best possible estimate of actual water use. Accurate information about water use and water rights is essential to the effective management of the resource and is a critical component required for any future water market in which willing buyers and sellers can buy and sell water rights. It is also critical for real estate transactions that occur absent a water market. Without this information, the seller cannot be certain what they are selling and the buyer cannot be certain about what they are buying. The result of this lack of certainty is artificial prices that do not

reflect the true value of the water right and may, in fact, prevent the transaction from occurring at all.

Under Washington water law, the adjudication process is the sole means of determining the existence, amount, and priorities of existing rights. There are members of the WRIA 1 Staff Team that believe it is highly likely that a general adjudication of water rights will be conducted in WRIA 1 in the future. It is believed that this will be necessary for the following reasons:

First, there is a need for certainty about water use and rights in order to effectively manage the water resources in WRIA 1 in the face of continued growth and development. This certainty is necessary for a number of reasons, including the effective operation of a water marketing system and for ensuring that property buyers and sellers have an accurate understanding of the nature and extent of any water rights attached to properties which are being bought and sold. Because of the high value that water brings to a parcel of land, it is critical that both buyers and sellers have the same understanding and that there is a basis in law for that understanding.

Second, tribal efforts to quantify tribal claims to water, including treaty-based rights to instream flows related to salmon in WRIA 1, may result in the establishment of a senior water right for this purpose and for the purpose of the reservation(s). Under the principle of first in time is first in right embodied in water law, this could result in some form of regulation of all other water rights which will be junior to the tribal rights. In order to regulate water users to protect the rights of more senior water right holders, Ecology would need to understand the rights of all water users in the watershed. This would include a determination of which of the nearly 5,000 water right claims in WRIA 1 represent a valid vested water right and which do not. This can only be determined through water rights adjudication.

A related issue is that under current legal practices water users with no water right documents are generally excluded from the adjudication process and in WRIA 1, the WRIA 1 Agricultural Caucus has estimated that 60 percent of their members do not have water rights for their existing agricultural operations. This has led to an agreement by WRIA 1 participants that unpermitted water users need to have a meaningful way to participate in efforts to negotiate a settlement of water rights conflicts. One way this will happen under this proposal is that unpermitted water users will be invited to the table for the local drainage scale flow negotiations described in the WRIA 1 Instream Flow Action Plan (Appendix A). Ways will be sought for the unpermitted users, in exchange for taking immediate actions to help flows and salmon habitat, to continue participation through the adjudication process. Agreements supporting their participation will be one outcome of the local flow negotiation

process described in ISF Selection and Adoption Action Plan (ISF Action Plan). If this process is successful, local support will be available for any required legislative changes.

Members of the WRIA 1 Staff Team believe it is in the best interests of all residents of WRIA 1 to begin now to develop certainty regarding water use to begin the transition to an era of improved water management and to be prepared should an adjudication emerge from either the tribal efforts to quantify and establish a water right for fishery and reservation purposes or from the need for certainty regarding water rights.

**Purpose-** The purpose of the WRIA 1 Water Use Tracking Program is to establish a local framework and process that empowers participants of the WRIA 1 Project to solve problems associated with administration of water rights, current water rights enforcement policy, setting and meeting instream flows, and to prepare for the potential of a general adjudication of water rights in WRIA 1. The Water Use Tracking Program is intended to achieve the following goals within 10 years of its implementation:

- Have a management system that is capable of processing typical water right applications and changes within a reasonable time frame, with a target of an average of 90 days.
- Have a system to track and monitor water use
- Have the data available to support the proposed management option of a market for water rights should one be developed (refer to WRIA 1 Other Recommendation – Review of Water Banking and Water Marketing as a Water Resource Management Tool).
- Have cleaned up the existing records and clarify use (i.e., who has what) to facilitate, among other things, property transactions that accurately reflect the water rights associated with those properties.
- Have improved flows, salmon habitat and other environmental values through agreements built on trust, positive actions, an open process, and predictable outcomes.
- Have prepared for a general adjudication of water rights in the coming years, including seeking legislative changes to the existing adjudication process and other agreed to legislative changes to better reflect the needs of WRIA 1 as they are defined.

**Location-** WRIA-wide

**Issue-** There are information/data gaps in the existing databases in WRIA 1 making it difficult to understand the extent of all of the issues related to water quantity and water quality

in the basin. This lack of understanding contributes to the challenges of resolving water use management issues in WRIA 1 including inefficiency in processing water right applications and changes, enforcement and/or compliance actions, and managing stream flows for instream and out of stream uses. As a result, there is a need in WRIA 1 to collectively develop and reach agreements on the local policies that will help WRIA 1 water users manage water in a manner that is both beneficial and efficient.

A management option addressing a water rights market as a management tool has been proposed as part of this WRIA 1 Watershed Management Plan. To expect to have a functional market for water rights requires having a functional tracking system that can provide assurance to the market that what is being bought and sold is valid. This will ultimately require cleaning up the current documents and subjecting rights being used to review.

**Design Information** The WRIA 1 Water Use Tracking Program is designed around the basic premise that, collectively, the WRIA 1 population will use water in ways that ensure there will always be enough water available to meet daily needs. To accomplish this, policies will need to be developed that 1) direct monitoring and reporting of water use, water quantity, and water quality on an individual use basis; 2) create a fee structure that supports management of the data collection, compliance needs, and enforcement procedures; and 3) create and implement agreements related to solutions for maintaining water supplies and instream flows in the form of agreements negotiated in the framework of the local instream flow negotiations leading to Federal/Tribal/State settlement of claims and a general stream adjudication.

To achieve the intended program goals listed in the purpose statement, the WRIA 1 Water Use Tracking Program was designed around four distinct elements: 1) Water Use Registration and Reporting; 2) a WRIA 1 Water Committee<sup>3</sup>; 3) a WRIA 1 water master, and 4) agreements negotiated during implementation of the ISF Action Plan. Each of the elements is described below along with their specific objectives.

#### Element 1 – Water Use Registration and Reporting

##### Purpose:

The purpose of Water Use Registration and Reporting as part of the WRIA 1 Water Use Tracking Program is to continue building a database that provides reliable information on water use for making crucial water resource management decisions and to provide data for water users to document the extent of their beneficial use in an adjudication. Currently, the

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<sup>3</sup> The term “water committee” is a place holder for a representative process that includes entities identified in the WRIA 1 Implementation Strategy (Section 4 of the WRIA 1 Phase 1 Watershed Management Plan). Element 2 of the Water Use Tracking proposal further discusses the “water committee” composition and responsibilities.

database is not adequate to provide information on how much, where, when, and for what purpose water is being used. Obtaining additional data on water use is essential to achieving both the short and long term goals of the WRIA 1 Water Use Tracking Program. Collecting fees as part of the registration and reporting element is critical to funding implementation of the WRIA 1 Water Use Tracking Program and its success.

Objectives and related tasks to achieve objectives:

1. Implement a water use registration system that requires the registration of the source of water for each parcel. The source could include claims, permits, certificates, applications, exempt wells, and /or public or private water systems. Implement as part of the water use registration system a fee and annual reporting of water use. (This fee should be distributed equitably through the basin including exempt wells and the unpermitted users. It is recognized that there may need to be enabling legislation for fees.) This collection of an annual water registration fee will fund data analysis, a complaint forum regarding agreements and water use, education, and enforcement.

Task 1: Implement a water user fee that applies to anyone with a parcel that uses water. This water use fee would be collected along with the property tax payment for the water user and would include a fixed fee per parcel (or per ownership) (<\$10) and a volume fee with a minimum covering the first 100 acre-feet and a small fee (<\$0.25) per acre-foot above that based on metered use or claimed annual capacity as indicated on their water use documents. Exempt wells and residential users would only be charged a fixed fee per parcel. The revenues collected through this process would go to the Whatcom County treasury and would be earmarked for use on activities related to the implementation of the WRIA 1 Water Use Tracking Program, including funding this data collection and analysis.

Task 2: Based on the registration and reporting, the WRIA 1 Project Implementation Team will provide an annual report to the local WRIA 1 planning process regarding estimated monthly water use and the amount of revenue generated for implementation of the program. After the first five years, the water use reporting requirements will require incorporation of actual use data rather than estimated use.

Task 3: Water users that are required to have water rights but are without valid claims, permits, or certificates will be expected to file applications within two years of the beginning of reporting. This will assure the planning process of good data on future water use needs.

Task 4: Based on reporting of water use, the WRIA 1 Working Group will make recommendations to the WRIA 1 participants for changes to the water rights enforcement and management elements of the plan. The WRIA 1 planning process may, in turn, make recommendations to Ecology or other appropriate governments or agencies related to water rights enforcement and management elements of the plan.

2. To use the registration system to help clean up the existing records and make possible the possibility of a functional market for water rights the following steps will be taken.

Task 1: Compile and analyze the data from the mandatory registration process for holders of water right, certificates, claims, and permits. This will identify possible non-reporters and will help in the identification of water right claims, permits, and certificates that are no longer in use.

Task 2: The first year of the registration process the “Water Committee” and water master will work together to increase public understanding of the adopted WRIA 1 Watershed Management Plan, the water resource-related issues in WRIA 1, and the Water Use Tracking program including the water registration system.

Task 3: At the end of the second year of the registration system, the water master will begin comparing registered paperwork against Ecology’s files of claims, certificates, and permits. Completing this task will result in identification of the non-registered water users. The identified non-registered water users will be contacted by the water master and, if they are using water on their property, will be encouraged to register. The claims, permits, and certificates for which no current water use can be identified will be assumed eligible for relinquishment and will be provided to Ecology for potential relinquishment pursuant to the existing laws related to relinquishment. (Note: this process provides several opportunities for due process and the relinquishment order is an action that can be appealed by the holder of the water right that is being relinquished)

Task 4: The permits and certificates that are not identified with a water use will be processed through the relinquishment process by Ecology. This will go a long ways toward cleaning up the records for the administration of water rights.

Task 5: At the end of the fourth year of initiating the registration system, registered users are reminded that the requirement for water use reporting changes from estimated use to actual use in year five.

Task 6: During this time, local negotiations to select and adopt instream flows will be under way. These negotiations, which may occur in the framework of an adjudication, may lead to agreements that will provide water users in a drainage certainty until a general

adjudication for the entire WRIA 1 has been completed, in exchange for increased flows and habitat improvements. Local negotiations may also include agreements to begin an adjudication process for existing claims, certificates, and permits. It is anticipated that the participating affected parties will have agreed to a way for unpermitted users to meaningfully participate in efforts to negotiate recommended flows.

In a water rights adjudication, all those claiming a right to use water from a specific water source are joined in a single action to determine the rights and priorities for the use of water from that source. Claims for existing rights are analyzed as to their current validity and state water rights limited to the extent they are beneficially using water. An adjudication cannot lessen, enlarge, or modify existing water rights. The action is only to confirm the validity and extent of existing rights already established under state law and/or federal law. In contrast as part of a negotiated settlement, new uses or rights could possibly be granted if agreed to by the parties.

Task 7: The expectation is that by year 10 of the Water Use Tracking Program's initiation, all existing water rights will have been adjudicated and all unpermitted users will have applied for a state water right or have secured water rights through a water marketing system. Ultimately, all water uses need to be adjudicated for the reasons stated above. However, due to the complexities of the legal process this could take five to ten years to complete. The purpose of agreements negotiated as part of ISF Action Plan implementation is to achieve habitat improvements and provide certainty for water uses (both instream and out of stream) in the short-term at the drainage scale. This will enhance local cooperation and provide improvements in the situation for all water uses while a WRIA 1 wide resolution of water issues and a Federal/Tribal/ State settlement agreement is finalized.

## Element 2 - WRIA 1 Water Committee

### Purpose:

The Water Committee is a committee of the Water Resource Management Assembly<sup>4</sup> whose efforts are facilitated through the involvement of the WRIA 1 Working Group and the Project Implementation Team. The WRIA 1 Working Group will continue to participate in the Water Use Tracking Program in a manner consistent with their role in the WRIA 1 process, which is to formulate recommendations for consideration by the WRIA 1 Joint Board and the full Water Resource Management Assembly. The Project Implementation Team will perform the administrative functions associated with the Water Use Tracking Program and will support

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<sup>4</sup> Refer to Section 4 of this WRIA 1 Watershed Management Plan for a description of the Water Resource Management Assembly, the Project Implementation Team, and the WRIA 1 Working Group.

the efforts of the Water Committee. The overall purpose of a broad-based Water Committee is to oversee mediation of problems with agreements with water users that may result following the ISF Action Plan negotiation. It will further serve as the focal point for recommendations from interest groups for future water-law and process reforms, which in turn, will be forwarded as recommendations to the appropriate entities with the authority to make the recommended changes. For example, recommended changes to Ecology rules or policy could be forwarded to Ecology for action. Recommended changes to statutes could be forwarded to the Legislature for their consideration. Recommended changes to local ordinances would be forwarded to the County or any other appropriate local governments.

Objectives and related tasks to achieve objectives:

1. Establish a local WRIA 1 Water Committee of interested members of the Water Resource Management Assembly with support from the Project Implementation Team and WRIA 1 Working Group. This cooperative Water Committee structure can provide a public forum and focal point for complaints about water users, review reports from contractors to understand what works, and make recommendations to the WRIA 1 planning process for changes to the Water Use Tracking program and management elements of the WRIA 1 Watershed Management Plan.

Task 1: WRIA 1 participants form a Water Committee to draft, recommend, and pursue the administrative actions needed to achieve the goals of the WRIA 1 Water Use Tracking Program. If necessary the committee should draft, recommend, and pursue the legislation necessary to empower the WRIA 1 planning process with establishing the desired approach.

### Element 3 - WRIA 1 Water Master

Purpose:

The initial purpose of a local water master for WRIA 1 is to increase public understanding of the adopted WRIA 1 Watershed Management Plan, the water resource-related issues in WRIA 1, and the Water Use Tracking Program including the water registration system and may act as Ecology's agent in local flow negotiations, while providing technical assistance to water users on water code compliance. In the future, the water master will become a key player for enforcement of the water code. As stated above, the water master would be created as allowed under existing state law unless changes to existing statutes are successfully pursued.

Objectives and related tasks to achieve objectives:

1. Establish a water master pursuant to RCW 90.03.060-100. This water master will be appointed by Ecology in consultation with the Water Committee (see Element 2 above). Traditionally, a water master is appointed to regulate water use according to existing water rights. In this case, while this is a part of the duties, the water master may also play a significant role in the ISF Action Plan implementation and in public education about water resources. To the extent this is deemed consistent with the existing statutes; statutory changes may not be required. Such details could be embodied in a legal document such as a Memorandum of Agreement between Ecology and one or more governments. To the extent such actions are deemed inconsistent with the existing statute, changes to the statute could be pursued by the WRIA 1 planning effort. As details are developed about the preferred role of a water master, Ecology and the Washington State Office of the Attorney General will be asked whether they believe this proposal would require changes to the statutes as they relate to the duties of a water master.

Task 1: WRIA 1 participants would recommend that a water master be appointed by Ecology. Duties of the WRIA 1 water master will be consistent with those in Chapter 90.03.070 and will be detailed in a Memorandum of Agreement between Ecology and the appropriate governments. If necessary, modifications to the statutes could be pursued and, if enacted, could be incorporated into this approach. Enforcement powers of the WRIA 1 water master will be similar to those in Chapter 90.03.090 with any modifications defined as part of any recommended legislation.

Task 2: Ecology appoints a WRIA 1 water master and a Memorandum of Agreement between Ecology and the appropriate governments would be initiated.

#### Element 4 - Agreements Negotiated During ISF Action Plan Implementation for Immediate Improvements in Instream Flows, Fish Habitat and Conservation

##### Purpose:

The purpose of negotiated agreements coming out of the ISF Action Plan implementation is to make immediate improvements to instream flow, water quality, conservation, reuse, fish habitat, and efficient use of water at the drainage level pending finalization of the basin wide effort.

Water users with well-documented beneficial use under the terms of a permit, certificate, claim, or exempt well may elect not to enter into agreements during the flow negotiations. However, these users will still benefit by the registration program, which includes the collection and reporting of water use data as a means of supporting the confirmation of their water rights in an adjudication.

Objectives and related tasks to achieve objectives:

- The drainage level agreements from the ISF Action Plan implementation will be between affected parties. They will allow a water user to use water in a particular way, in accord with environmental or other conditions as specified in the agreement. These terms and conditions will be negotiated and agreed upon by all parties participating in the local flow negotiations.

Task 1: The WRIA 1 water master may participate in ISF Action Plan implementation. The details of the resulting interim agreements will be subject to review in a public meeting once the terms and conditions are decided. The purpose of this meeting is to provide the public with an opportunity to learn about these agreements and what they contain. If a property owner who has an agreement sells his/her property during the term the agreement is transferred to the new owner (i.e., runs with the land).

**Performance Goals**

- 90% of water users reporting estimated water use within two (2) years of initiating the water registration program and 99.9% within 5 years.
- After the beginning of actual use reporting, achieve 90% reporting of actual use within three (3) years and 98% within seven (7) years.
- Adjudication of water rights commences when local negotiations decide but in all cases should be completed by year 15.

**Implementation Plans/General Schedule**

<b>Task</b>	<b>Schedule</b>	<b>Lead</b>	<b>Resource Needs</b>
Define WRIA 1 Water Committee composition	January 2005	PUD/Joint Board	Budget Request/In kind
Recommend administrative and/or legislative actions	TBD	Water Committee	Budget Request
Appoint Water Master	TBD	Water Committee	Budget Request
Initiate Water Use Fee	TBD	Water Master	Budget Request
Initiate Flow Negotiations	September 2004	Instream Flow Working Group	Budget Request

## **Budget/Resource Requirements**

### Budget Estimates

- Define WRIA 1 Water Committee – PUD/Instream Flow Working Group In kind
- WRIA 1 Water Master Position -
- Administrative Support Per Year for WRIA 1 Policy Program -
- Data Collection and Reporting – Funded through a Water Use Fee of \$10 per user plus \$0.25 per acre-foot of claimed annual capacity per water right documents.

## **Roles and Responsibilities of Implementing Parties**

Public Utility District No. 1 of Whatcom County (PUD) – The PUD will take the lead, on behalf of the Joint Board, to define a WRIA 1 Water Committee, which is assumed to be composed of interested and available members of the Water Resource Management Assembly. Once the WRIA 1 Project Implementation Team is in place (WRIA 1 Implementation Structure, Section 4) and is self-supporting, the PUD will defer responsibility of implementing this task to that Team. If a structure is not in place by January 2005 for implementing the WRIA 1 Watershed Management Plan, the PUD will provide an oversight role for purposes of implementing the WRIA 1 Water Use Tracking Program with the primary role of implementation being the responsibility of the WRIA 1 water master and WRIA 1 Water Committee.

## **Monitoring and Adaptive Management**

### Performance Monitoring Approach

- Water Use Fee Implemented by December 2005
- Annual reporting through the Water Committee to include:
  - Negotiated agreement activity per calendar year,
  - Total annual use by basin
  - Percentage of claimed water users with negotiated agreements
  - Percentage of actual water use being reported and incorporated into WRIA 1 water use database

- Revenues generated by the program
- Expansion of WRIA 1 databases with information collected by water users as part of their water contract including but not limited to data related to water quality, instream flows, and habitat.

#### Adaptive Management Approach

The WRIA 1 Water Committee and WRIA 1 water master will identify milestones at which they will evaluate the approach for implementing the WRIA 1 Water Use Tracking Program and make recommendations for changes to the WRIA 1 Water Resource Management Assembly. The likely factors that will influence program implementation are recommendations for and outcomes of state legislative actions, progress of creating Watershed Improvement Districts (WID) in drainages such as Bertrand and Tenmile, and collection of funds through a water user fee. The program will follow the adaptive management protocol established in the WRIA 1 March 2000 Scope of Work Section 2.7.

#### **Relationship to Other Programs**

Comprehensive Irrigation District Management Plan/Watershed Improvement District (CIDMP/WID) – Efforts are underway to create a WID in the Bertrand and Tenmile watersheds. As proposed, the WIDs have technical and policy goals consistent with the overall WRIA 1 project goals. The formation of a WRIA 1 Water Committee and the efforts of the WRIA 1 water master will need to take into consideration the progress of the WIDs as the Water Committee and water master proceed with meeting the objectives of the WRIA 1 Water Use Tracking Program. The WIDs and the implementers of the WRIA 1 Water Use Tracking program will mutually support each other's program goals including the joint data collection needs and, in particular, creating and populating a water use database. The WRIA 1 water master will also focus initial efforts for creating voluntary water contracts in the Bertrand and Tenmile watersheds in an effort to support the WIDs.

Water Conservancy Board – In 1997, through Chapter 90.80 RCW, the Washington State Legislature authorized creation of local conservancy boards to assist the Washington State Department of Ecology (Ecology) with the backlog of water right change applications. Ecology then undertook rulemaking relative to the formation and operation of conservancy boards and in November 1999, Chapter 173-153 WAC was adopted. Amendments to both the statute and the rule were made in 2001. A conservancy board is authorized to change or transfer water rights that have been perfected and are documented by a state issued water right certificate or permit. The authority is limited to that granted within RCW 90.03.380, 90.03.390, and 90.44.100. In Whatcom County, the Whatcom Conservancy Board was

established in December 1999. The WRIA 1 Water Use Tracking Program does not duplicate or conflict with the activities or authorities of the existing Whatcom Conservancy Board. Rather, it is anticipated that the Water Use Tracking Program will increase exposure of the Whatcom Conservancy Board and its authorities to individuals with applications for water right transfers.

WRIA 1 Instream Flow Selection and Adoption Action Plan (ISF Action Plan)– The local drainage scale flow negotiations anticipated under the ISF Action Plan are the forum from which agreements with water users for immediate flow and habitat improvements will come. Further the triggering of possible local and ultimate general stream adjudications will be determined during the local flow negotiations. This makes a significant link between the ISF Action Plan and this program.