



WATERSHED PLAN

WRIA 40A (SQUILCHUCK/STEMILT)

FINAL – MAY, 2007



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Prepared for
WRIA 40A – SQUILCHUCK/STEMILT PLANNING UNIT

Lead Agency: CHELAN COUNTY NATURAL RESOURCES
DEPARTMENT
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1.0 INTRODUCTION

1.1 Characteristics of WRIA 40A

The area occupied by Water Resource Inventory Area (WRIA) 40A (also referred in this report as the “watershed,” “basin”, “WRIA” or “management area”) comprises over 49,000 acres (76.6 square miles). WRIA 40A is bounded by the Columbia River to the north, sub-basins of the Wenatchee and Columbia Rivers to the west (Mission Creek, Number 2 Canyon, Dry Gulch), Naneum Ridge to the south and Jumpoff Ridge to the east. The two primary streams in WRIA 40A, Squilchuck and Stemilt Creeks, are tributaries to the Columbia River. The management area consists of four sub-basins: Stemilt (21,430 acres); Squilchuck (17,600 acres); Malaga (8,490 acres); and Wenatchee Heights (2,200 acres) (**Figure 1**). Approximately 8 percent of WRIA 40A lies within Kittitas County and the remainder lies in Chelan County.

WRIA 40A is the smallest of all WRIsAs in the state and; by comparison, is 5 percent of the total area of the Wenatchee River Watershed (WRIA 45). However, the average population density of WRIA 40A (50 per square mile) exceeds that of WRIA 45 (39 per square mile). Eighty percent of the water used in WRIA 40A households originates in the watershed.

Elevation in WRIA 40A ranges from 605 feet at the Columbia River to 6,887 feet at Mission Peak. Dominant landforms consist of high ridges and steep slopes that surround large basins, knobs and depressions, deeply incised channels, gravel terraces and the Wenatchee Heights mesa. Average annual precipitation ranges from 8 inches in the lower elevations to 32 inches in the highest elevations, and promotes shrub-steppe and sub-alpine forest vegetation, respectively. Winters are moderately cold with snow occurring at all elevations. Most precipitation above 3,000 feet is from snow (USFS, 1998). Summers are hot and dry.

The 2000 Washington State Census data indicate a population of 3,770 for WRIA 40A. Most residents work outside of WRIA 40A in metropolitan Wenatchee and East Wenatchee (Douglas County). The Malaga sub-basin has the highest population density, followed by the Squilchuck, Stemilt and Wenatchee Heights sub-basins. Commercial agriculture and commercial forestry are the predominant land use in the basin. Tree fruit crops dominate agricultural areas and cherry is the most common crop. This area is regarded as having some of the finest cherry-growing land in the world. Residential use is heaviest in the lower elevations near the Columbia River. Industrial use mostly occurs in the Malaga sub-basin, near the Columbia River. Recreational use is concentrated in the higher elevations. Hunting, snow-mobiling, hiking, biking, fishing and skiing are all popular activities. Skiing alone draws nearly 100,000 annual visitors to Mission Ridge Ski Area (USFS, 1998). Underground gold mining and hydroelectric power generation occurred along the lower Squilchuck Creek during the early 1900s.

Most of the water in the basin originates as snow that melts off by mid-summer. Summer stream flow is low and useable groundwater resources are limited by geologic conditions. An elaborate irrigation infrastructure dating to the 1870s was created to sustain tree crops

that require water through the entire dry summer. To meet demand, water is diverted from streams to off-channel reservoirs and is also pumped into the basin from the Columbia River.

1.2 Water Resources Management Background

In 1971, the Washington State Legislature adopted Chapter 90.54, Revised Code of Washington (RCW), known as the Water Resources Act of 1971. That legislation established important fundamentals regarding water resources management in Washington State. This included authorizing the Department of Ecology (Ecology) to “develop and implement” a “comprehensive state water resources program which will provide a process for making decisions on future water resource allocation and use.” It also gave Ecology the authority to develop the program in segments so that the agency could address critical problem areas (Chapter 90.54.040(1) RCW).

In response to this legislation, Ecology embarked on what was called the Basin Management Program. In 1976, Ecology adopted Chapter 173-500, Washington Administrative Code (WAC) which divided the State into 62 Water Resource Inventory Areas (WRIAs) for planning purposes. This regulation established the guidelines for development of the statewide water resources management program and said that the program shall, where appropriate:

1. Identify and foster development of water resource projects;
2. Declare preferences or priorities of use by categories;
3. Set forth stream closed to further appropriations;
4. Establish flows in perennial streams of the state in amounts necessary to provide for preservation of wildlife, fish, scenic, aesthetic, and other environmental values, and navigational values;
5. Allocate quantities for beneficial use;
6. Reserve water for future beneficial use;
7. Withdraw waters from additional appropriation when sufficient information or data are lacking for the making of sound decisions;
8. Establish criteria for limit beyond which further appropriation will not be made;
9. Designate areas within the state to be used for management purposes; and
10. Be guided by the declaration of fundamentals contained in Chapter 90.54.020 RCW (see next page).

General declaration of fundamentals for utilization and management of waters of the state. (RCW 90.54.020)

(1) Uses of water for domestic, stock watering, industrial, commercial, agricultural, irrigation, hydroelectric power production, mining, fish and wildlife maintenance and enhancement, recreational, and thermal power production purposes, and preservation of environmental and aesthetic values, and all other uses compatible with the enjoyment of the public waters of the state, are declared to be beneficial.

(2) Allocation of waters among potential uses and users shall be based generally on the securing of the maximum net benefits for the people of the state. Maximum net benefits shall constitute total benefits less costs including opportunities lost.

(3) The quality of the natural environment shall be protected and, where possible, enhanced as follows:

(a) Perennial rivers and streams of the state shall be retained with base flows necessary to provide for preservation of wildlife, fish, scenic, aesthetic and other environmental values, and navigational values. Lakes and ponds shall be retained substantially in their natural condition. Withdrawals of water which would conflict therewith shall be authorized only in those situations where it is clear that overriding considerations of the public interest will be served.

(b) Waters of the state shall be of high quality. Regardless of the quality of the waters of the state, all wastes and other materials and substances proposed for entry into said waters shall be provided with all known, available, and reasonable methods of treatment prior to entry. Notwithstanding that standards of quality established for the waters of the state would not be violated, wastes and other materials and substances shall not be allowed to enter such waters which will reduce the existing quality thereof, except in those situations where it is clear that overriding considerations of the public interest will be served. Technology-based effluent limitations or standards for discharges for municipal water treatment plants located on the Chehalis, Columbia, Cowlitz, Lewis, or Skagit river shall be adjusted to reflect credit for substances removed from the plant intake water if:

(i) The municipality demonstrates that the intake water is drawn from the same body of water into which the discharge is made; and

(ii) The municipality demonstrates that no violation of receiving water quality standards or appreciable environmental degradation will result.

(4) The development of multipurpose water storage facilities shall be a high priority for programs of water allocation, planning, management, and efficiency. The department, other state agencies, local governments, and planning units formed under *section 107 or 108 of this act shall evaluate the potential for the development of new storage projects and the benefits and effects of storage in reducing damage to stream banks and property, increasing the use of land, providing water for municipal, industrial, agricultural, power generation, and other beneficial uses, and improving stream flow regimes for fisheries and other instream uses.

(5) Adequate and safe supplies of water shall be preserved and protected in potable condition to satisfy human domestic needs.

(6) Multiple-purpose impoundment structures are to be preferred over single-purpose structures. Due regard shall be given to means and methods for protection of fishery resources in the planning for and construction of water impoundment structures and other artificial obstructions.

(7) Federal, state, and local governments, individuals, corporations, groups and other entities shall be encouraged to carry out practices of conservation as they relate to the use of the waters of the state. In addition to traditional development approaches, improved water use efficiency and conservation shall be emphasized in the management of the state's water resources and in some cases will be a potential new source of water with which to meet future needs throughout the state.

(8) Development of water supply systems, whether publicly or privately owned, which provide water to the public generally in regional areas within the state shall be encouraged. Development of water supply systems for multiple domestic use which will not serve the public generally shall be discouraged where water supplies are available from water systems serving the public.

(9) Full recognition shall be given in the administration of water allocation and use programs to the natural interrelationships of surface and ground waters.

(10) Expressions of the public interest will be sought at all stages of water planning and allocation discussions.

(11) Water management programs, including but not limited to, water quality, flood control, drainage, erosion control and storm runoff are deemed to be in the public interest.

Ecology developed basin management programs in several watersheds in Washington State, including the Okanogan, Methow, Chehalis, Little Spokane and Colville river basins. These plans were developed by Ecology with the assistance of a local advisory committee consisting of a variety of water resource interests, Indian tribes and local governments. While these advisory committees were similar in membership to the Planning Units under the watershed planning act, the plans were primarily developed under State leadership.

After several years, it became apparent that the development of these programs was proceeding at a rate that was not keeping pace with the development pressures on water resources across the State. At that time, Ecology created the Instream Resources Protection Program; which was a similar program with a more narrow focus, i.e. the establishment of instream flows to prevent the further erosion of instream values. The idea behind this program was to establish the needed protection of instream flows and then revisit the watersheds to develop the other parts of the comprehensive management program for that area.

Under this program, several instream resource protection programs were adopted, including programs for virtually all of the Central Puget Sound basins.

1.3 Washington Watershed Planning

In 1998, the Legislature adopted the Watershed Management Act (Act) codified as Chapter 90.82 RCW. (See **Appendix A**). In that Act, the Legislature made the following finding.

The legislature finds that the local development of watershed plans for managing water resources and for protecting existing water rights is vital to both state and local interests. The local development of these plans serves vital local interests by placing it in the hands of people: Who have the greatest knowledge of both the resources and the aspirations of those who live and work in the watershed; and who have the greatest stake in the proper, long-term management of the resources. The development of such plans serves the state's vital interests by ensuring that the state's water resources are used wisely, by protecting existing water rights, by protecting instream flows for fish, and by providing for the economic well-being of the state's citizenry and communities. Therefore, the legislature believes it necessary for units of local government throughout the state to engage in the orderly development of these watershed plans.

While the plans developed under the Act are quite similar to the plans envisioned under the original basin management program, watershed plans are developed at the local level by residents of the area with involvement by the State, rather than being developed by the State with involvement of the local residents.

Watershed planning under the Act may be initiated only with the concurrence of: (a) all counties within the WRIA; (b) the largest city or town within the WRIA, unless the WRIA does not contain a city or town; and (c) the water supply utility obtaining the largest quantity of water from the WRIA (Chapter 90.82.060(2) RCW).

1.4 WRIA 40A Creation and Funding

Like the Basin Management Programs and the subsequent Instream Resources Protection Programs, watershed planning is to be conducted using the boundaries of the WRIsAs established by Chapter 173-500 WAC discussed in **Section 1.2**. The legislature made a special provision relating to WRIA 40A as follows.

WRIA 40 shall be divided such that the portion of the WRIA located entirely within the Stemilt and Squilchuck subbasins shall be considered WRIA 40a and the remaining portion shall be 40b. Planning may be conducted separately for WRIA 40a and WRIA 40b (Chapter 90.82.060(2) RCW).

1.4.1 The WRIA 40A Watershed Planning Process

Four Phases of Watershed Planning

The Watershed Planning Process established by the Act includes the following four phases.

Phase 1: The organization phase, in which the initiating governments establish a Planning Unit and determine the scope of the planning to be conducted. This includes the establishment of procedures to be employed during the planning process. These procedures are included in **Appendix B**.

Phase 2: The watershed assessment phase. The detailed requirements of this phase are discussed in **Section 2.1**. Water quantity elements are required. Water quality, instream flow, habitat and water storage elements are optional. The purpose of the assessment work is to enhance local knowledge about water resource issues and concerns, and to develop the tools necessary to support decision-making regarding management recommendations to address the concerns.

RH2 Engineering, Inc. (RH2) was retained to prepare the water quantity and multi-purpose storage technical assessments.

During the water quantity assessment work, it became clear that the Malaga sub-basin should be included in the WRIA 40A planning area for both hydrologic and practical reasons. The staff of RH2 and Chelan County presented the reasoning behind inclusion of the sub-basin and proposed to permanently include it in WRIA 40A at the Planning Unit meeting on March 15, 2007. No objections were raised by Planning Unit members and the Malaga sub-basin was incorporated into the WRIA 40A study area.

Also, it should be noted that although about 8 percent of the WRIA lies in Kittitas County, the watershed drains into Chelan County; therefore, Kittitas County opted not to participate in watershed planning.

Phase 3: In the watershed planning phase, the watershed plan is developed and recommendations are made for actions by local, state and federal agencies, tribes, private property owners, private organizations and individual citizens, including a recommended list of strategies and projects that would further the purpose of the plan (See Chapter 90.82.040(2)(ii) RCW).

RH2 was retained to prepare the WRIA 40A watershed plan.

Phase 4: The fourth phase is the implementation phase. Within one year of the adoption of the watershed plan, the Planning Unit must complete a detailed implementation plan which is a condition of receiving grants for the second and all subsequent years of the phase four grant (See Chapter 90.82.043 RCW).

Assuming approval of a grant application for Phase 4, the dollar amounts potentially available to WRIA 40A are shown in **Table 1**.

Table 1
Potential Phase 4 Implementation Funding

| Potential Phase 4 Implementation Funding | |
|-------------------------------------------------|-----------------------------------------------------|
| Year | Available Funding (10 percent local match required) |
| 1 | \$25,000 |
| 2 | \$25,000 |
| 3 | \$25,000 |
| 4 | \$12,500 |
| 5 | \$12,500 |
| TOTAL | \$100,000 |

The amount of funding available in Phase 4 is not significant in terms of funding for specific projects. In the first year of Phase 4, the Planning Unit is required to develop a detailed implementation plan for WRIA 40A. A 10 percent local match is required; however, County staff time and other local time spent (such as for Planning Unit members) qualifies for this match.

The funds provided in Phase 4 can be used to develop a detailed implementation plan and can serve as “seed money” for receiving additional funding under various grant and loan programs to implement the recommendations of the watershed plan. Many funding sources favorably view an approved watershed plan and the inclusion of a project in the detailed implementation plan during the selection process.

Lead Agency

Chelan County initiated watershed planning for WRIA 40A in conjunction with the City of Wenatchee and the Stemilt Irrigation District. Therefore, the County, the City and the District are the Initiating Governments for the WRIA 40A watershed planning effort. Chelan County Natural Resources Department (CCNRD) is the lead agency with

responsibilities of coordinating staff support of the County and other local governments and the administration of State watershed planning assistance grants.

Planning Unit Membership and Procedures

The following are members of the WRIA 40A Planning Unit.

WRIA 40A Planning Unit

- Beehive Irrigation District
- Chelan County
- Chelan County Conservation District
- Chelan Douglas Health District
- Citizens
- City of Wenatchee
- Galler Ditch Company
- Highline Ditch Company
- KB Alloys, Inc.
- Lake Cortez Water Association
- Lockwood-Canady Irrigation Company
- Lower Stemilt Irrigation District
- Malaga-Colockum Community Council
- Squilchuck/Miller Water Users Corporation
- Malaga Water District
- Squilchuck Water Users Association
- Stemilt Irrigation District
- Stemilt Project
- Three Lakes Maintenance Corporation
- Washington Growers Clearinghouse
- Washington State Caucus (Ecology, Fish & Wildlife, and DNR)
- Wenatchee Heights Reclamation District
- Yakama Nation

During Phase 1, the Planning Unit established operating procedures (**Appendix B**) to address how interested parties may become a member of the Planning Unit, the loss of voting authority for members who do not actively participate in the process and the decision-making process. The decision-making process includes the following definition of consensus for decision-making.

“I can live with the decision and accept it, even though it may not be exactly what I want.”

In the event that full consensus is not reached, Chapter 90.82.130(1)(a) RCW states that:

Upon completing its proposed watershed plan, the planning unit may approve the proposal by consensus of all of the members of the planning unit or by consensus among the members of the planning unit appointed to represent units of government and a majority vote of the nongovernmental members of the planning unit.

Technical Subcommittee

The Planning Unit created a technical subcommittee to work with RH2 and provide local information and review of the technical elements of the water quantity assessment and the storage assessment. RH2 was assigned the lead role in developing the water quantity assessment, the storage assessment, and the watershed planning document.

The members of the technical subcommittee are listed in **Table 2**.

Table 2
Technical Subcommittee Membership

| Last | First | Organization |
|-------------|--------------|--------------------------------------------|
| Berdan | Greg | Wenatchee Heights Reclamation District |
| Duncan | Lee | Chelan County Natural Resources Department |
| Gardner | Herb | Malaga Water District |
| Garvey | Charles | Malaga-Colockum Community Council |
| Gutzwiler | Jerry | Highline Ditch Company |
| Holland | David | Ecology |
| King | Jeanne | King Farms |
| Mathison | Tom | Stemilt Irrigation District |
| Mathison | Lorraine | Stemilt Irrigation District |
| Mathison | Aaron | Lower Stemilt Irrigation District |
| Mrachek | Mike | Stemilt Irrigation District |
| Noyd | Daryl | Citizen |
| Rolfs | Mike | Beehive Irrigation District |

Columbia River Water Management Program

House Bill 2860 established the need for a Columbia River Basin Water Management Program (CRWMP) and directed Ecology to aggressively pursue development of water supplies to benefit both instream and out-of-stream uses through storage, conservation and voluntary regional water management agreements. This bill was codified as Chapter 90.90 RCW, Columbia River Basin Water Supply.

The CRWMP has begun developing policies to implement the legislation, and will promote storage and water use projects that may benefit both the conditions and water use in Columbia River and adjoining watersheds in which projects are constructed. The CRWMP may have additional technical and economic resources for watershed planning in WRIA 40A where storage and infrastructure projects may benefit CRWMP objectives (See: <http://www.ecy.wa.gov/programs/wr/cwp/crwmp.html>).

2.0 PHASE 2 TECHNICAL ASSESSMENTS

2.1 PHASE 2 ASSESSMENT OBJECTIVES

The Watershed Planning Act requires that the Planning Unit conduct a water quantity assessment to examine water supply and use and develop strategies for future use. The Planning Unit may apply for funding to conduct additional technical assessments of water quality, instream flows, habitat and/or multi-purpose water storage.

The WRIA 40A Planning Unit elected to conduct the required water quantity assessment and the optional multi-purpose water storage assessment. They elected not to conduct the optional water quality, instream flow and habitat assessments.

Chapter 90.82.070 RCW addresses the requirements of the water quantity assessment and states.

(1) *The assessment shall include:*

- (a) *An estimate of the surface and ground water present in the management area;*
- (b) *An estimate of the surface and ground water available in the management area, taking into account seasonal and other variations;*
- (c) *An estimate of the water in the management area represented by claims in the water rights claims registry, water use permits, certificated rights, existing minimum instream flow rules, federally reserved rights, and any other rights to water;*
- (d) *An estimate of the surface and ground water actually being used in the management area;*
- (e) *An estimate of the water needed for future use in the management area;*
- (f) *An identification of the location of areas where aquifers are known to recharge surface bodies of water and areas known to provide for the recharge of aquifers from the surface; and*
- (g) *An estimate of the surface and ground water available for further appropriation, taking into account the minimum instream flows adopted by rule or to be adopted by rule under this chapter for streams in the management area including the data necessary to evaluate necessary flows for fish.*

(2) *Strategies for increasing water supplies in the management area, which may include, but are not limited to, increasing water supplies through water conservation, water reuse, the use of reclaimed water, voluntary water transfers, aquifer recharge and recovery, additional water allocations, or additional water storage and water storage enhancements. The objective of these strategies is to supply water in sufficient quantities to satisfy the minimum instream flows for fish and to provide water for future out-of-stream uses for water identified in subsection (1)(e) and (g) of this section and to ensure that adequate water supplies are available for agriculture, energy production, and population and economic growth under the requirements of the state's growth management act, Chapter [36.70A](#) RCW. These strategies, in and of themselves, shall*

not be construed to confer new water rights. The watershed plan must address the strategies required under this subsection.

(3) The assessment may include the identification of potential site locations for water storage projects. The potential site locations may be for either large or small projects and cover the full range of possible alternatives. The possible alternatives include off-channel storage, underground storage, the enlargement or enhancement of existing storage, and on-channel storage.

The legislature elected to include the following statement of their intent regarding water storage projects.

The legislature recognizes the potential for additional water storage as a solution to the water supply needs of the state. Last year the legislature created a task force to examine the role of increased water storage in providing water supplies to meet the needs of fish, population growth, and economic development, and to enhance the protection of people's lives and their property and the protection of aquatic habitat through flood control facilities. One solution discussed by the task force to address the state's water supply problem is to store water when there is excess runoff and stream flow, and deliver or release it during the low flow period when it is needed. The task force discussed the need for assessments of potential site locations for water storage projects. The legislature intends this act to assist in obtaining the assessments relating to water storage.

The Legislature stated the following as the purpose of the Act.

The purpose of this chapter is to develop a more thorough and cooperative method of determining what the current water resource situation is in each water resource inventory area of the state and to provide local citizens with the maximum possible input concerning their goals and objectives for water resources management and development (Chapter 90.82.005 RCW).

Perhaps the most significant goal of the watershed assessment is to provide the most thorough understanding possible of the current water resources situation in WRIA 40A, consistent with the Legislature's direction. A thorough and accurate understanding of the water resource situation provides a strong foundation for any future efforts related to water resource management, whether it is to guide additional studies or to obtain funding for a needed water resources project.

A primary objective of the watershed assessment is to summarize the distribution and use of the water resources of WRIA 40A and to identify the significant gaps in the understanding of water resources in the watershed. The quantity assessment report identifies and clearly states data gaps and methods used to estimate water distribution or use. For example, sparse and infrequent stream flow measurement data in WRIA 40A lead to runoff estimates based on flow records in other watersheds with similar physical characteristics. The quantity assessment recommendations identified methods and rationale to improve water quantity data for the watershed.

As stated previously, the Legislature identified several required elements of the watershed assessment. These include the evaluation of “strategies for increasing water supplies in the management area, which may include, but are not limited to, increasing water supplies through water conservation, water reuse, the use of reclaimed water, voluntary water transfers, aquifer recharge and recovery, additional water allocations, or additional water storage and water storage enhancements.”

In order to evaluate each of these strategies, a thorough understanding of the water resources of a given area is essential. For example, Planning Unit members expressed a great deal of interest in improving the quantity and reliability of water storage in WRIA 40A, which is also one of the strategies identified in the Watershed Planning Act. However, it is likely that, before providing funding for feasibility studies, design or construction of additional water storage facilities, the funding entity would require assurance that the value of storage improvements was supported by water quantity assessment data. Funding entities would require assurance of the legal availability and technical feasibility to deliver water to new storage sites. Further questions would include the following. Is there a suitable site for the storage of the water? Can the water be stored and used without impairing existing water right holders? Is the development of new storage the best alternative of the strategies evaluated? Would it make more sense, for example, to focus on water conservation or reuse? The water quantity assessment is designed to answer such questions and provide a technically sound foundation for future water resource management decisions in WRIA 40A.

The WRIA 40A Water Quantity and Multi-Purpose Water Storage Assessments are summarized in **Section 2.2** and **Section 2.3**.

2.2 Water Quantity Assessment (Summary)

The Water Quantity Assessment Report is included as **Appendix D** of this plan. An assessment of water quantity is a required component of watershed planning under Chapter 90.82 RCW. The water quantity assessment of a management area must include:

- An estimate of the amount of water present, taking into account seasonal variations;
- An estimate of the amount of water currently being used;
- An estimate of the amount of water allocated by rights to water including instream flow rules;
- An estimate of future water demands;
- An estimate of the amount of water available for further appropriation;
- The identification of areas where groundwater is known to recharge and where it contributes to surface water bodies.

2.2.1 Methods

The WRIA 40A Water Quantity Assessment (**Appendix D**) addressed each of the required elements listed above. This was accomplished through close coordination and information sharing among RH2 Engineering, CCNRD and members of the Planning Unit and Technical Subcommittee. Stream flow data are an important factor used to estimate runoff in water quantity estimates for many watersheds. A challenge confronting this team was the lack of historic continuous stream flow data for streams in WRIA 40A. Existing stream flow data are too sporadic or located too high in the basin for estimating basin-wide runoff. A detailed water balance was developed to overcome the deficiency of stream flow data.

The water balance fulfilled requirements for estimating the quantity of water present and the quantity of water used. The water balance used existing information to estimate water input and losses to the basin. Sources of water input include precipitation and imported water from outside the basin. Sources of water loss include natural evapotranspiration, deep recharge to groundwater that discharges to the Columbia River and consumptive loss from irrigation, domestic and industrial uses. The difference between estimated input and output variables was attributed to runoff. The water balance was estimated for natural and developed conditions and average, dry/warm and wet/cool years. Under natural conditions during an average climatic year, runoff estimated using this method is consistent with available measured stream flow data.

The amount of water allocated by rights was quantified through analysis of water rights data obtained from Ecology, including water rights permits, certificates and claims. These data were mapped in Geographic Information Systems (GIS) to visually examine the disposition of points of diversion and place of use.

Two analyses formed the basis of the estimate for future water demands. CCNRD used census data to conduct a spatial analysis of current and projected population in the management area. Additionally, RH2 examined the potential for expansion of irrigated lands.

The amount of water available for further appropriation was estimated by subtracting estimated runoff and available groundwater quantities from water allocated through rights.

Groundwater resources, including potential aquifers and volumes, water bearing regions, recharge areas and gaining/losing stream reaches were assessed by examining well log, topographic and geologic information.

2.2.2 Results

The Water Quantity Assessment comprises the first comprehensive characterization of water resources in WRIA 40A. The Water Quantity Assessment report presented the following findings and recommendations that relate to water storage, as detailed below.

Findings

- Preliminary water balance estimates indicate that most of the physically available water (runoff of precipitation, shallow groundwater, imported water) entering WRIA 40A is withdrawn or diverted for beneficial uses.
- A portion of winter and spring runoff, return flow from irrigation and base flow may be available for diversion to new or additional storage.
- The lack of stream flow and groundwater data is responsible for large variation in water balance estimates. The availability of water for new storage is uncertain and will require additional data and analysis to quantify.
- Irrigation water use is very efficient and incremental improvements in irrigation efficiency are unlikely to significantly increase water availability in the basin.
- Commercial and industrial water is a minor component of the water balance; increased efficiency or reuse of commercial and industrial water is unlikely to significantly increase water availability in the basin.
- Much of the domestic water used in WRIA 40A returns as groundwater storage and base flow, and domestic consumption is a minor component of water balance.
- The current estimated population of 3,770 is projected to increase to 5,130 by 2025.
- Converting the use of water from irrigation to domestic could substantially affect the availability of water as the consumptive loss of domestic water is low relative to total water present. Water imported for domestic use increases water availability in WRIA 40A by contributing to return flow in groundwater and streams.
- Annual water rights are about 50 percent greater than the estimated quantity of physically available water. Water diverted for new storage may potentially impair senior rights and/or require mitigation of impacts to senior rights.
- The Washington State Caucus and the Yakama Nation have agreed upon the following statement regarding federally reserved water rights in WRIA 40A:

"WRIA 40A is within the Ceded Area of the Yakama Nation as defined in the Treaty of 1855. Within the Ceded Area the Yakama Nation explicitly reserved the right to take fish at all usual and accustomed places.

The Yakama Nation asserts Treaty Water Rights to instream flow to support fish and other aquatic life at its usual and accustomed fishing areas under its 1855 treaty.

These are federally reserved water rights, but have not been quantified.

In the Yakima basin, where the Yakama Nation's instream flow water rights have been adjudicated, the courts have held that the right to fish at a U&A fishing area comes with a water right for water to support all life history stages of fish and other aquatic life at those U&A fishing places, including flow in areas upstream from the U&A's.

The State of Washington has not adopted minimum instream flows within WRIA 40A, and the scope of this watershed planning effort does not address the optional instream flow element, and this Plan does not define, quantify, abrogate or diminish the Treaty Rights of the Yakama Nation and the Nation reserves the right to make all arguments and defenses otherwise available to it."

Recommendations

- Monitor stream flow and groundwater levels to update water balance estimates of the quantities of runoff, recharge, water use and return flow.
- Document water diversion, storage and actual water use to update water balance estimates and increase the benefits of new storage opportunities.
- Resolve the discrepancies between diversion points recorded by Ecology and observed by Washington Department of Fish and Wildlife (WDFW, 2006) to update the estimate of total water diverted and total water available.

2.3 Multi-Purpose Water Storage Assessment (Summary)

The Multi-Purpose Water Storage Assessment Report is included as **Appendix E** of this plan. References to tables in this Section refer to the tables in the Multi-Purpose Water Storage Assessment Report. The Multi-Purpose Storage Assessment identified and evaluated opportunities to improve the beneficial use and/or increase the amount and/or reliability of water used in storage projects in WRIA 40A. The potential opportunities included improving irrigation infrastructure operations and efficiency and increasing above- and below-ground storage capacity.

2.3.1 Methods

The Assessment first compiled information regarding the irrigation system infrastructure and operations in WRIA 40A. There are approximately 35 active and inactive storage reservoirs in WRIA 40A.. These reservoirs are privately owned by individuals and eight irrigation districts. There are approximately 27 active reservoirs with a combined capacity of 3,300 acre-feet (af), and 8 inactive reservoirs with a combined capacity of about 135 af. The total capacity of all active and inactive reservoirs is nearly 3,500 af of water, which is lower than the estimated 5,460 af of water imported from outside the watershed and substantially lower than the 19,430 af of water used for irrigation. Conveyance systems include approximately 314,000 feet of tight pipelines and 37,100 feet of open ditches. Private irrigators operate an estimated 30,000

feet of conveyance systems, including nearly 13,000 feet associated with the H&H Reservoir.

Next, the Assessment compiled the efficiency of current storage infrastructure to consider the potential benefits for updating reservoirs, conveyance and system operations.

2.3.2 Results

Twelve irrigation water purveyors and numerous private irrigators divert, store and/or use water in WRIA 40A. This includes one private irrigator, H&H Reservoir. Of the five water purveyors in the Squilchuck sub-basin, the Squilchuck Water Users Association and Squilchuck-Miller Water Users Corporation allocate deeded water rights only; the Highline Ditch Company provides conveyance only; the Lower Squilchuck Irrigation District diverts and distributes water from Squilchuck Creek and the Columbia River without relying on storage; and the Beehive Irrigation District, which diverts water from Squilchuck and Lake creeks to provide storage for irrigation use in late summer and fall, does not convey the water to users. Water from these purveyors is used only in the Squilchuck sub-basin. The H&H Reservoir diverts water from outside of WRIA 40A for storage and use in the Squilchuck sub-basin. Of the irrigation water purveyors in the Stemilt sub-basin, only the Lockwood-Canady Irrigation Company does not operate a storage facility. Water from the Stemilt sub-basin is used in the Stemilt, Malaga and Wenatchee Heights sub-basins.

The Assessment estimated that approximately 1,888 af of water stored per year seeps from active reservoirs in WRIA 40A, over half of the 3,500 af of total storage capacity in the watershed. Total free water evaporation from reservoir surfaces was estimated to be 652 acre-feet per year (afy). The total loss from leakage of water in ditches is estimated to be 204 afy, and the total evaporation loss from ditches is 98 afy. The estimated leakage from approximately 314,000 feet of pipelines is 790 afy. Finally, if micro heads were used in 100 percent of orchards, actual irrigation use during an average use year would decrease by about 800 af. The combined estimated total loss is approximately 20 percent of the total estimate irrigation water use (19,430 afy) for WRIA 40A (**Appendix D**). The quantity of estimated loss and its proportion to irrigation use confirms that significant opportunities exist to minimize storage system loss in WRIA 40A.

The study identified water storage improvement options and compiled criteria that would affect the feasibility of implementing these options in WRIA 40A.

The following summarizes the most significant storage improvement opportunities in WRIA 40A and were recommended for consideration and inclusion in the Multi-Purpose Storage Assessment.

Improve Diversion, Storage and Conveyance Monitoring. Improving the existing monitoring system through construction of weirs, gauges, and piezometers to quantify storage diversion, volume, use and loss is the first recommendation to improve the

understanding of storage operations in WRIA 40A and to confirm the requirements and benefits of storage improvements.

Improve Storage and Conveyance Efficiency. Minimizing the loss of physically available water from active, leaking ditches, pipelines and reservoirs represents the “low hanging fruit” for storage improvement opportunities in WRIA 40A. Little or no permitting is required, few impacts would result, no changes in water rights or operations are necessary, and the benefit of increased availability of water in the watershed is important. The combined leakage from ditches and active reservoirs is approximately 1,800 af per year. An additional 100 af may be saved by replacing ditches with pipelines and avoiding evaporative losses.

Rehabilitate Inactive Reservoirs. Restoring the 8 inactive reservoirs and bringing them into Dam Safety compliance with liners to prevent leakage would create 120 af of new storage. Of course, availability of fill rights for these reservoirs would have to be addressed as some have been transferred to other facilities. Reservoir reactivation will likely require less permitting and analysis than a new reservoir site, because the land was historically converted and used for water storage.

Modify Storage Operations. Lining reservoirs will also create a new opportunity to store water over the winter or use surplus water as recharge to increase base flow. This approach would include discussions with and approval by Ecology’s Dam Safety Office. Use of these improved or reactivated reservoirs may require new water rights through transfer or purchase.

Extending or shifting the period of reservoir filling will increase the reliability of water diversion. The Planning Unit may consider forming a subcommittee to evaluate expansion of the fill period and identify potential impacts to other water users, and then propose a plan that addresses these concerns. A plan that was supported by all stakeholders would then be submitted to Ecology along with the necessary water right change applications.

These projects should be assessed to determine their compatibility with the Columbia River Water Management Program (CRWMP).

Construct New Reservoirs. Thirteen potential new reservoir sites with more than 1,000 af of storage capacity were identified during discussions with the technical subcommittee. This represents approximately 30 percent of total active storage capacity.

Collaboration with WDFW. The Planning Unit should meet with the Department of Fish and Wildlife to discuss mutual project objectives and to collaborate during scoping and evaluation of proposed projects. Both parties would benefit from additional monitoring and assessment of stream flow and modification of diversions that improve fish habitat. The WDFW prepared a Draft WRIA 40A Fish Passage Diversion and Screening Inventory (2006) that should be used to coordinate diversion structure improvements with WDFW objectives.

3.0 SUMMARY OF RECOMMENDED ACTIONS

Preliminary objectives for desired future conditions in WRIA 40A were developed during Phase 1 of the watershed planning process in 2005. These objectives were organized by sub-basin (**Appendix C**). In May and June 2006, during Phase 2 of the watershed planning process, a ranking of the desired future conditions was developed during Planning Unit meetings. Redundant and geographically specific objectives were consolidated. The items were ranked by each participating member according to their level of importance, with rankings of: very, somewhat, moderately, slightly and not important. Several new objectives were added by participants. This ranking summary is included in **Appendix C**.

3.1 Desired Future Conditions

At the February 2007 Planning Unit meeting, Planning Unit members suggested revisions to the ranking based, in part, on the information obtained during the development of the Water Quantity Assessment Report, the Multi-Purpose Water Storage Assessment Report and the preliminary draft of the Watershed Plan. As a result, the following list of desired future conditions for WRIA 40A was approved by the Planning Unit and are listed in the general order of ranking by the Planning Unit.

1. Perform emergency infrastructure repairs to ensure continued system operation.
2. Upgrade existing water reservoir storage and irrigation water distribution systems for water conservation and continued safety protection (fire suppression water). The availability of fire suppression water protects the watershed and natural resources within the WRIA. If this area were to experience a catastrophic wildfire, it would drastically impact the water balance in the area because of changes to runoff and evapotranspiration that would occur.
3. Implement cost-effective new water storage projects in both the Stemilt and Squilchuck creek watersheds to sustain flow during the agricultural water use period and the fall low flow period.
4. Obtain needed data to enhance the water balance developed by RH2 as part of the watershed planning effort and consider the water balance in all decisions related to water supply in the WRIA 40A study area.
5. Evaluate artificial snow-making and reservoir construction at the Mission Ridge Winter Sports Area to determine opportunities for enhancing water delivery in terms of timing and flow in the Squilchuck Creek watershed.

6. Where feasible, transfer existing interruptible Columbia River water rights to non-interruptible sources. Coordinate with the Department of Ecology's CRWMP to ensure this issue is adequately addressed in that effort.
7. Where feasible, provide domestic water from the regional water supply to support future residential and industrial development in WRIA 40A.
8. Work with CCNRD and other State and local agencies to protect identified wetland, riparian and ground water recharge areas.

The rationale for these desired future conditions are found in the Water Quantity Assessment and the Multi-Purpose Storage Assessment, and are further detailed in following sections of this Watershed Plan.

3.2 Additional Water Resource Issues

Several additional water resources-related issues were identified during the development of the watershed plan and include:

- The need for adequate water supplies (including storage) to provide reliable supplies for existing out-of-stream (domestic, agriculture, municipal, commercial, industrial and fire suppression) needs;
- The need for adequate water supplies (including storage) for future uses of water in the watershed, including domestic, agriculture, municipal, commercial, industrial;
- The need to coordinate land use and water resource decisions in the watershed to ensure that such issues are addressed in a comprehensive and holistic manner;
- The need for better hydrologic data to refine the water balance calculations performed in the Water Quantity Assessment; and
- The need to increase water use efficiency through a variety of measures such as the lining of reservoirs and replacing open ditches with pipe.

3.3 Watershed Plan Recommendations

The recommendations included in this Section of this document are based on the results of the technical assessments (**Sections 2.2 and 2.3**) and the desired future conditions (**Section 3.1**). The recommendations include a number of actions or opportunities that have been identified to carry out those recommendations. These identified opportunities will be further evaluated in Phase 4 (implementation) and prioritized based on their feasibility to achieve the desired future conditions in WRIA 40A.

The Phase 1 discussions and the Phase 2 assessment work led to the development of three principal recommendations, which are listed in the general order of the Planning Unit's priority:

- A. Increase the availability of water, the reliability of the water supply, and/or increase water use efficiency.**
- B. Improve the management of water and related land resources in WRIA 40A.**
- C. Improve the understanding of the hydrology of WRIA 40A.**

These recommendations are general in nature and include the specific project opportunities that were identified in the Water Quantity Assessment Report and the Multi-Purpose Storage Assessment Report (**Appendices D and E**). The specific project opportunities and activities will be evaluated and prioritized as part of the Phase 4 implementation plan following adoption of the watershed plan. The specific opportunities identified in the Water Quantity Assessment Report and Multi-Purpose Storage Assessment Report are not all-inclusive. Additional specific project opportunities may be considered by the Planning Unit during Phase 4 provided that they meet Watershed Plan Recommendations A through C, as described in this section.

The following opportunities for carrying out each of the principal recommendations were not prioritized and appear in random order.

Recommendation A. Increase the availability of water, the reliability of the water supply, and/or increase water use efficiency.

This element includes actions to expand, improve, replace and/or maintain the existing water resources infrastructure.

Opportunity A.1: Improve the existing infrastructure to minimize the loss of water.

This opportunity includes securing funding and implementing needed system improvements to minimize water losses due to leakage from existing and active facilities, estimated at approximately 1,800 af of water per year. This opportunity also includes obtaining funding and implementing a program to replace existing unlined ditches with pipelines to reduce seepage and evaporative losses, estimated at approximately 100 af of water per year. Actions under this category should be coordinated with Ecology to determine whether proposed system improvements are eligible for assistance under the Department of Ecology's Columbia River Management Plan. Opportunities for actions under this category include, but are not limited to, specific projects identified in the Multi-Purpose Storage Assessment.

General categories of projects under this opportunity are intended to:

- Reduce conveyance losses (lining ditches, replacing ditches with pipe);
- Reduce reservoir losses (lining reservoirs and ponds);
- Improve diversion structures;
- Improve monitoring of flows (upgrade or improve flow weirs at diversions, inlets, and outlets);
- Increase the use of more efficient sprinklers;
- Implement water reuse at industrial facilities; and
- Replace leaking pipelines and pipelines having high potential for failure.

Opportunity A.2: Improve reliability of water supplies.

This opportunity consists of several elements to pursue various water management techniques to increase the reliability of existing water supplies, including: replacing interruptible rights with non-interruptible water rights; modifying the timing of fill of the reservoirs; increasing the sharing of storage and interties between existing facilities; transferring surplus water to lined reservoirs for storage over the winter months; increasing snow-making capabilities at the Mission Ridge ski area; ensuring reservoirs are in compliance with Dam Safety requirements to enable uninterrupted reservoir operation; and ensuring the continued recharge of ground water aquifers, including those in the Malaga area (see Opportunity A.6).

Reliability may improve through collaboration with the Department of Ecology on water management projects that evaluate the feasibility of modifications to existing reservoir permits to increase or shift the period for filling reservoirs to take better advantage of the variation in natural runoff conditions. Some projects pursued under this opportunity may be eligible for assistance under the Department of Ecology's CRWMP.

Opportunity A.3: Expand existing storage capacity.

The expansion of storage capacity involves changes to both existing, active and inactive storage facilities. For active facilities, this may include structural modifications as well as the removal of silt from existing reservoirs. For inactive facilities, this includes the evaluation of the feasibility of repair and reactivation of those facilities. This may include structural modification of the existing reservoirs as well as the installation of new linings to achieve compliance with Dam Safety requirements.

Opportunity A.4: Evaluate 14 new potential above-ground irrigation water storage sites for further feasibility analysis.

The Multi-Purpose Storage Assessment identified 14 new potential reservoir sites. These sites would provide more than 1,000 acre-feet of storage, which represents approximately 30 percent of the total active storage capacity in WRIA 40A. The

opportunity includes working with Ecology to determine whether further evaluation of any of these projects would be eligible for assistance under the Department of Ecology's CRWMP. Opportunities for actions under this category include, but are not limited to, specific projects identified in the Multi-Purpose Storage Assessment.

Opportunity A.5: Evaluate the feasibility of new potential below-ground irrigation water storage known as Aquifer Storage and Recovery (ASR).

The Planning Unit recognized the challenges of successfully implementing innovative water management methods, such as ASR, to increase the quantity and/or availability of water. The opportunity is considered low priority unless and until ASR techniques may arise that are suited to the watershed.

Opportunity A.6: Enhance groundwater recharge and baseflow.

The interaction between surface and ground water in WRIA 40A is complicated by a number of factors, including complex local geology. Various water management strategies and projects should be evaluated, in part, on how they might impact this interaction with the goal of ensuring that the recharge of the ground water aquifer is maintained and, where possible, enhanced to ensure a reliable supply of high quality ground water in locations such as the Malaga area. Opportunities for actions under this category include, but are not limited to, specific projects identified in the Water Quantity Assessment Report.

Opportunity A.7: Evaluate the feasibility of constructing new domestic water supply reservoirs.

New domestic water supply reservoirs will be needed to satisfy future demands. For example, Malaga Water District has indicated the need for up to six new domestic supply reservoirs.

Opportunity A.8: Evaluate the feasibility of creating domestic water interties to increase the reliability of the drinking water supply.

Interties between public water systems will ensure greater access to reliable water sources with lower maintenance costs. For example, Malaga Water District could serve ground water to Stemilt Irrigation District that currently supplies surface water to 55 residences for domestic purposes.

Recommendation B. Improve the management of water and related land resources in WRIA 40A.

Opportunity B.1: Encourage cooperative relationships between Washington Department of Natural Resources (DNR) and local Irrigation Districts to identify and record required easements.

Identify and record required easements for all irrigation-related facilities, including access in Sections 16, 20, 22, and 28 in Township 21 North, Range 20 East prior to the land exchange proposed by DNR to ensure long term management of the Irrigation Districts' infrastructure and access needs.

Opportunity B.2: Work with Chelan County Natural Resources Department and other local governments to ensure the full consideration of the water resources implications associated with future land use decisions in WRIA 40A.

Continued participation in the Stemilt Partnership (Partnership), a public-interest and land management group formed in February 2007, will allow the Planning Unit to address and collaborate with the Partnership on issues regarding land ownership changes and land use issues in the Stemilt basin and vicinity. The Partnership is chaired by CCNRD and includes representatives from federal, state and local government agencies, irrigation and domestic water purveyors, fruit growers, the Malaga-Colockum Community Council, conservations groups, real estate agencies and development groups.

Recommendation C. Improve the understanding of the hydrology of WRIA 40A.

The Phase 2 technical assessments highlighted the need to improve understanding of the water budget and water flow in the watershed. While this improved understanding will help build funding and regulatory support for some of the project opportunities, the Planning Unit has expressed concern that additional data collection and study not become the highest priority activity. The following items related to improving the understanding of the basin's hydrology should be conducted in conjunction with work to implement identified high-priority project recommendations. The Planning Unit's preference is for funding to implement projects and to support additional hydrologic studies as necessary for project implementation. The Planning Unit also supports seeking funding for hydrologic studies where the funding is available for the studies but is not available for specific projects and does not compete with projects for available funding.

The Water Quantity Assessment identified a number of areas in which additional data would improve the technical understanding of the hydrology of WRIA 40A and promote better water resources management decisions. Opportunities for action under this general category include, but are not limited to, specific projects

identified in the Water Quantity Assessment and the Multi-Purpose Water Storage Assessment.

Opportunity C.1: Stream gauges.

Stream gauges that measure streamflow in upper and lower Squilchuck and Stemilt Creeks will provide data to improve the understanding of the relationship between precipitation, runoff, irrigation return flow and baseflow. Continuous stream flow data would improve the overall accuracy of the WRIA 40A water balance. Stream flow monitoring stations, in conjunction with the monitoring of stream diversions, would allow better quantification of the exchange between surface water and groundwater. The monitoring would also support the evaluation of the effects of land use on streamflow, stormwater runoff and water quality. Land uses that would affect runoff include forestry, residential and commercial development, re-zoning and irrigation practices. Changes in vegetative cover due to wildfire would likely have substantial impacts on runoff and water quality.

Opportunity C.2: Groundwater elevation monitoring.

Groundwater well elevation monitoring would provide data to quantify seasonal fluctuations in groundwater levels for comparison to precipitation and infiltration groundwater recharge rates. These data would improve the understanding and estimates of aquifers, groundwater recharge, flow, and groundwater availability and would improve the overall accuracy of the WRIA 40A water balance.

Groundwater elevation monitoring within 1 mile of the Columbia River would help delineate the hydraulic boundary between Columbia River and WRIA 40A. This would identify the sources of groundwater and establish the availability of groundwater in the Malaga sub-basin and could help determine project eligibility for the funding under the Department of Ecology's CRWMP.

Opportunity C.3: Weather station(s) at mid-watershed elevations.

Weather stations at mid-watershed elevations to measure precipitation and temperature would improve the understanding of the relationship between elevation and precipitation and support estimates of runoff. Soil moisture can also be measured at a mid-elevation station to evaluate actual crop irrigation requirements at higher elevations. The irrigation demand estimate in the Water Quantity Assessment was based on data from low elevations. Temperature and soil moisture data can also be used to improve the actual evapotranspiration (AET) estimate by using physically based (i.e. Penman-Monteith), instead of empirical, methods. Because they are major components of a water balance, small differences in estimated precipitation and evapotranspiration (the return of moisture to the air through evaporation from earth and vegetative surfaces and transpiration by plants) can cause substantial differences in estimates of runoff and available water. Implementation of this recommendation would provide data to refine the overall

water balance estimates for WRIA 40A and demonstrate the value in improving storage and water use efficiency.

Opportunity C.4: Water resources monitoring.

Improving the monitoring and reporting of water imported into WRIA 40A would refine the estimates of available water and future water demand and refine the overall water balance calculations for WRIA 40A.

Opportunity C.5: Voluntary monitoring and measuring of conveyance flows.

Voluntary monitoring and reporting of storage levels and conveyance flows would improve the understanding of the need for implementation of irrigation storage and conveyance efficiency improvements.

Opportunity C.6: Voluntary stream diversion monitoring and reporting.

Implementation of a voluntary stream diversion monitoring and reporting program to account for out-of-stream water use would improve estimates of available water. Irrigation districts would be eligible to obtain funds to install measuring weirs and use them to make regular inflow/outflow measurements for their own records and to report to CCNRD for further refinement of the WRIA 40A water balance.

Opportunity C.7: Measure commercial/industrial uses of water.

Implementation of a voluntary monitoring and reporting program for commercial and industrial use would result in a more accurate accounting of water use and would improve estimates of the quantity of water for future uses.

Opportunity C.8 Work with Ecology to verify point of withdrawal locations.

Resolving the discrepancies between the number of water right points of diversion shown on the Water Rights Map (**Appendix D**) and those observed by WDFW in the field during the barrier survey (WDFW, 2006) would improve the estimate of total water diversion and water availability.

The Planning Unit will work with the State and make updates if needed.

Opportunity C.9: Chelan County Natural Resources Department pursuit of funding to enhance the understanding of the hydrology of WRIA 40A.

Chelan County Natural Resources Department should identify and pursue funding opportunities to conduct studies aimed at improving the general understanding of the hydrology of WRIA 40A in order to provide a better technical foundation for subsequent water resource management and development projects in the watershed. While it is understood that these are not necessarily to be performed prior to other recommendations, it is important that such studies be undertaken when funds are

available to enhance the overall understanding of the basin's resources and, thereby, provide enhanced technical support for recommended projects.

4.0 STATE ENVIRONMENTAL POLICY ACT (SEPA) GAP ANALYSIS

This Chapter of the WRIA 40A Watershed Plan provides documentation of programmatic State Environmental Policy Act (SEPA) compliance specific to the Water Resource Inventory Area 40A (WRIA 40A) Watershed Plan for adoption of the Plan by Chelan County.

This section provides the following information:

- A description of the process used to evaluate consistency of the WRIA 40A Watershed Plan with the statewide Programmatic Environmental Impact Statement (EIS) for Watershed Planning;
- A summary of the assumptions and judgments used in determining SEPA compliance of WRIA 40A Watershed Plan actions; and,
- Documentation of compliance of each action recommended in the WRIA 40A Watershed Plan with requirements for programmatic, non-project SEPA review.

WRIA 40A Watershed Plan Approach for Programmatic SEPA Compliance

The following options were considered for SEPA compliance in WRIA 40A:

- **Adoption of the statewide programmatic Watershed Planning EIS and Determination of Significance (DS).** This is an option if the statewide programmatic Watershed Planning EIS adequately addresses all probable adverse impacts. The County (as lead SEPA agency) will use all or part of an existing document (the statewide programmatic Watershed Planning EIS) to meet all or part of the proponent's responsibilities under SEPA to prepare an EIS or other environmental document. A Determination of Significance (DS) is a written decision by the lead SEPA agency that the proposal is likely to have a significant adverse environmental impact and therefore an EIS is required (WAC 197-11-310 and WAC 197-11-360).
- **Adoption, DS, and Addendum.** Same as DS option above, with the addition of an addendum which provides local decision makers with additional local information on compliance with the statewide programmatic Watershed Planning EIS.
- **Adoption, DS, and Supplemental EIS.** If the statewide programmatic Watershed Planning EIS addresses some but not all of the probable significant adverse environmental impacts, a supplemental EIS is necessary.
- **Determination of Non-Significance (DNS).** A DNS could be issued if it is determined that there are no probable significant adverse impacts associated

with the recommended actions contained in the WRIA 40A Watershed Plan. In the event that a DNS includes mitigation measures as a result of the process specified in WAC 197-11-350, a **Mitigated Determination of Non-Significance (MDNS)** could be issued.

The qualifications, assumptions, and consistencies analyzed to achieve programmatic SEPA compliance for the WRIA 40A Watershed Plan are included within this section of the Plan (Section 4.0). This section is considered as the addendum to the statewide programmatic Watershed Planning EIS. The purpose of this section is to document the logic used in the SEPA gap analysis and the compliance of each action in the Plan with programmatic SEPA.

After reviewing the WRIA 40A Watershed Plan (Plan), Chelan County (as the lead SEPA agency) has determined they will adopt the statewide programmatic Watershed Planning EIS and issue a determination of significance (DS) to meet its responsibility to prepare a SEPA compliant review of the Plan. Adoption of the statewide programmatic Watershed Planning EIS is addressed with this section of the Plan. After adoption of the statewide programmatic Watershed Planning EIS, there is a seven (7) day waiting period before an action can be taken to approve the Plan (WAC 197-11-630).

SEPA and Watershed Planning

The State Environmental Policy Act (SEPA) (Chapter 43.21C RCW) was enacted by the State legislature to ensure that State and local agencies consider likely environmental consequences of proposed actions during decision-making processes concerning such activities. These consequences are considered during the SEPA review process.

Under SEPA rules, non-project actions are defined as governmental actions involving decisions on policies, plans, and programs. Such actions can include the adoption or amendment of policies, programs, and plans, such as Watershed Plans under Chapter 90.82 RCW. Any non-project action must be reviewed under SEPA unless specifically exempted.

The Washington State Department of Ecology (Ecology) published a Final Environmental Impact Statement for Watershed Planning under Chapter 90.82 RCW in August 2003 (Ecology, 2003). A copy of this statewide programmatic Watershed Planning EIS is available for review at the Chelan County Natural Resource Department offices in Wenatchee, WA and on the internet at <http://www.ecy.wa.gov/biblio/0306013.html>. Actions that could be included in local watershed plans are considered as SEPA “alternatives” in this statewide programmatic Watershed Planning EIS. Probable significant adverse environmental impacts that may be associated with these “alternatives” were also discussed in the statewide programmatic Watershed Planning EIS. If actions in a local watershed plan are consistent with the alternatives listed in the statewide programmatic Watershed Planning EIS, non-project programmatic SEPA requirements can be fulfilled by the statewide programmatic Watershed Planning EIS.

There are two SEPA compliance processes associated with actions in the WRIA 40A Watershed Plan:

- 1) Programmatic coverage of the County Watershed Plan approval process.

Programmatic coverage of the WRIA 40A Watershed Plan is achieved through adoption of the statewide programmatic Watershed Planning EIS and the issuance of a Determination of Significance for the WRIA 40A Watershed Plan.

- 2) Non-programmatic SEPA for specific actions. Some specific project or non-project actions recommended in the WRIA 40A Watershed Plan, such as the initiation of a specific construction or management activity, will go through a separate SEPA review of the individual action itself at the time the action is implemented. The SEPA review completed at the current programmatic, non-project level of the SEPA process is adequate for County approval. Where alternatives in the statewide programmatic Watershed Planning EIS provide coverage for these actions, some of the documentation needed for the project-level SEPA approval process may reference the statewide programmatic Watershed Planning EIS and this section. However, the extent of the project SEPA process needed for each action is dependent entirely upon the nature of the specific action and its potential adverse environmental impacts. In some cases, these individual actions are in their early planning stages and are not sufficiently developed to make a SEPA judgment at the time of plan adoption by the County.

This non-programmatic SEPA review of specific actions is not a prerequisite for the SEPA compliance necessary to achieve County approval of the WRIA 40A Watershed Plan, but will generally be necessary for plan implementation.

In summary, this section of the WRIA 40A Watershed Plan and adoption of the statewide programmatic Watershed Planning EIS fulfills the programmatic SEPA requirements necessary for County approval of the WRIA 40A Watershed Plan. SEPA compliance for individual (project and non-project) actions in the WRIA 40A Watershed Plan may also be granted during this approval process; however, some actions will be required to undergo specific project or non-project level review at the time that the individual action is implemented.

For federal actions, NEPA compliance is required when the action is implemented. However, this compliance is not a prerequisite for approval of the WRIA 40A Watershed Plan by the County, nor is it necessary during the programmatic SEPA review. Additionally, the Watershed Planning Unit cannot obligate a federal agency to implement any actions, but can make recommendations to a federal agency.

SEPA Compliance for the WRIA 40A Watershed Plan

Plan Consistencies with the Statewide Programmatic Watershed Planning EIS

Recommended actions in the WRIA 40A Watershed Plan that are consistent with alternatives described in the statewide programmatic Watershed Planning EIS do not require supplemental information or additional consideration to achieve non-project programmatic SEPA compliance. A SEPA gap analysis was conducted where all alternatives in the statewide programmatic Watershed Planning EIS were reviewed and compared with recommended actions in the WRIA 40A Watershed Plan.

The alternatives from the statewide programmatic Watershed Planning EIS that were applied to the WRIA 40A Watershed Plan are listed below. Further descriptions of these alternatives and potential environmental impacts can be found in the statewide programmatic Watershed Planning EIS.

The following alternatives apply to one or more actions in the WRIA 40A Watershed Plan:

- WP 1 – Develop and implement municipal conservation programs including demand management and operational efficiency measures.
- WP 2 – Develop and implement agricultural water conservation and irrigation efficiency efforts through regional or irrigation district infrastructure improvements.
- WP 3 – Develop and implement on- farm agricultural water conservation and irrigation efficiency efforts.
- WP 4 – Develop and implement industrial conservation measures.
- WP 7 – Request Ecology to transfer existing water rights for out-of-stream beneficial uses acquired through purchase, lease, voluntary methods, or condemnation to other out-of-stream beneficial uses.
- WP 9 – Transfer water through interties of public water systems or irrigation systems.
- WP 19 – Construct and operate new on-channel storage facilities.
- WP 20 – Raise and operate existing on-channel storage facilities.
- WP 21 – Construct and operate new off-channel storage facilities.
- WP 22 – Raise and operate existing off-channel storage facilities.
- WP 23 – Use existing storage facilities for additional beneficial uses.
- WP 24 – Construct and operate artificial recharge/aquifer storage projects.

Other SEPA Assumptions and Qualifications

During the SEPA gap analysis, a number of recommended actions in the WRIA 40A Watershed Plan were found that are not described explicitly by alternatives in the statewide programmatic Watershed Planning EIS. However, it was determined that all of the actions not explicitly covered by the statewide programmatic Watershed Planning EIS either do not have adverse environmental impacts or do not require additional SEPA coverage at the programmatic level based on the qualifications and assumptions listed below. Therefore an additional EIS is not required.

The following are the qualifications and assumptions that are not specifically discussed in the statewide programmatic Watershed Planning EIS that are relevant to the WRIA 40A Watershed Plan:

1. Recommended actions (opportunities) that do not have a foreseeable “adverse environmental impact” do not require a SEPA alternative, or a statement of SEPA compliance. The following types of actions are listed in the WRIA 40A Watershed Plan and are not expected to have an adverse environmental impact:

- Recommendations for a) improving communication between interest/stakeholder groups, government agencies, and/or non-governmental organizations; b) encouraging entities to work together on specific projects; and/or c) encouraging entities to work together to formulate strategies to address specific issues in the watershed (Noted in **Table 3** below as **coordination/collaboration**);
- Recommendations to find funding for new or existing projects (Noted in **Table 3** as **funding**);
- Recommendations for data gathering, research, data management, and/or project planning (Noted in **Table 3** as **study**);
- Recommendations for 1) maintaining, adding, or changing the location of streamflow and groundwater monitoring gages and associated programs; 2) installing water meters; 3) developing a water usage monitoring program; and/or 4) continuing or developing monitoring programs (Noted in the **Table 3** as **monitoring**).

2. For elements of some recommended actions (opportunities), information is insufficient to make a SEPA determination. Constraints on making a judgment include limited budget, time and existing information in the management area, such as stream flow records. A SEPA judgment for opportunities that fall into this category should be conducted on a project specific basis. Opportunities having these elements are denoted with an asterisk in **Table 3**. It is anticipated that increased data collection within the basin will assist in making these judgments. A supplemental EIS may be required. To the extent that some opportunities and elements of opportunities are not covered by the Watershed Planning EIS, they should be evaluated against other EISs, such as the Columbia River Basin Water Management Program or those relating to the Dam Safety Office.

WRIA 40A Watershed Plan SEPA Compliance Table

Each action in the WRIA 40A Watershed Plan was evaluated against the statewide programmatic Watershed Planning EIS alternative or other analysis criteria used to achieve non-project programmatic SEPA compliance (Table 3). The table includes a SEPA analysis of the recommended actions (opportunities) presented in Section 3 of this plan. The table is included within the text so that Chelan County can use this section of the Plan as supporting information to adopt the statewide programmatic Watershed Planning EIS and issue a determination of significance (DS) to meet its responsibility to prepare a SEPA compliant review of the Plan.

In some cases, more than one Watershed Planning alternative or a combination of qualifications and assumptions and alternatives are consistent with one action. Where combinations of alternatives and/or qualifications or assumptions are used, evidence for SEPA compliance is more robust.

Table 3. Results of Gap Analysis: WRIA 40A Watershed Plan and the Watershed Planning EIS

| Recommended Action (Opportunities) | SEPA Analysis |
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| <p><u>Opportunity A.1: Improve the existing infrastructure to minimize the loss of water.</u> This opportunity includes securing funding and implementing needed system improvements to minimize water losses due to leakage from existing and active facilities, estimated at approximately 1,800 acre-feet of water per year (afy). This opportunity also includes obtaining funding and implementing a program to replace existing unlined ditches with pipelines to reduce seepage and evaporative losses, estimated at approximately 100 af of water per year. Actions under this category should be coordinated with Ecology to determine whether proposed system improvements are eligible for assistance under the Department of Ecology’s Columbia River Management Plan. Opportunities for actions under this category include, but are not limited to, specific projects identified in the Multi-Purpose Storage Assessment.</p> <p>General categories of projects under this opportunity are intended to:</p> <ul style="list-style-type: none"> • Reduce conveyance losses (lining ditches, replacing ditches with pipe); • Reduce reservoir losses (lining reservoirs and ponds); • Improve diversion structures; • Improve monitoring of flows (upgrade or improve flow weirs at diversions, inlets, and outlets); • Increase the use of more efficient sprinklers; • Implement water reuse at industrial facilities; and • Replace leaking pipelines and pipelines having high potential for failure. | <p>WP 1, WP 2, WP 3, WP 4</p> |

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| <p><u>Opportunity A.2: Improve reliability of water supplies.</u> This opportunity consists of several elements to pursue various water management techniques to increase the reliability of existing water supplies, including: replacing interruptible rights with non-interruptible water rights; modifying the timing of fill of the reservoirs; increasing the sharing of storage and interties between existing facilities; transferring surplus water to lined reservoirs for storage over the winter months; increasing snow-making capabilities at the Mission Ridge ski area; ensuring reservoirs are in compliance with Dam Safety requirements to enable uninterrupted reservoir operation; and ensuring the continued recharge of ground water aquifers, including those in the Malaga area (see Opportunity A.6).</p> <p>Reliability may improve through collaboration with the Department of Ecology on water management projects that evaluate the feasibility of modifications to existing reservoir permits to increase or shift the period for filling reservoirs to take better advantage of the variation in natural runoff conditions. Some projects pursued under this opportunity may be eligible for assistance under the Department of Ecology’s CRWMP.</p> | <p>WP 7, WP 9 *</p> |
| <p><u>Opportunity A.3: Expand existing storage capacity.</u> The expansion of storage capacity involves changes to both existing, active and inactive storage facilities. For active facilities, this may include structural modifications as well as the removal of silt from existing reservoirs. For inactive facilities, this includes the evaluation of the feasibility of repair and reactivation of those facilities. This may include structural modification of the existing reservoirs as well as the installation of new linings to achieve compliance with Dam Safety requirements.</p> | <p>WP 19, WP 20, WP 22, WP 23</p> |
| <p><u>Opportunity A.4: Evaluate 14 new potential above-ground irrigation water storage sites for further feasibility analysis.</u> The Multi-Purpose Storage Assessment identified 14 new potential reservoir sites. These sites would provide more than 1,000 acre-feet of storage, which represents approximately 30 percent of the total active storage capacity in WRIA 40A. The opportunity includes working with Ecology to determine whether further evaluation of any of these projects would be eligible for assistance under the Department of Ecology’s CRWMP. Opportunities for actions under this category include, but are not limited to, specific projects identified in the Multi-Purpose Storage Assessment.</p> | <p>WP 19, WP 21, WP 23 *</p> |
| <p><u>Opportunity A.5: Evaluate the feasibility of new potential below-ground irrigation water storage known as Aquifer Storage and Recovery (ASR).</u> The Planning Unit recognized the challenges of successfully implementing innovative water management methods, such as ASR, to increase the quantity and/or availability of water. The opportunity is considered low priority unless and until ASR techniques may arise that are suited to the watershed</p> | <p>WP 24, Study</p> |
| <p><u>Opportunity A.6: Enhance groundwater recharge and baseflow.</u> The interaction between surface and ground water in WRIA 40A is complicated by a number of factors, including complex local geology. Various water management strategies and projects should be evaluated, in part, on how they might impact this interaction with the goal of ensuring that the recharge of the ground water aquifer is maintained and, where possible, enhanced to ensure a reliable supply of high quality ground water in locations such as the Malaga area. Opportunities for actions under this category include, but are not limited to, specific projects identified in the Water Quantity Assessment Report.</p> | <p>WP 24, Study</p> |
| <p><u>Opportunity A.7: Evaluate the feasibility of constructing new domestic water supply reservoirs.</u> New domestic water supply reservoirs will be needed to satisfy future demands. For example, Malaga Water District has indicated the need for up to six new domestic supply reservoirs.</p> | <p>WP 19, WP 21 *</p> |
| <p><u>Opportunity A.8: Evaluate the feasibility of creating domestic water interties to increase the reliability of the drinking water supply.</u> Interties between public water systems will ensure greater access to reliable water sources with lower maintenance costs. For example, Malaga Water District could serve ground water to Stemilt I.D. that currently supplies surface water to 55 residences for domestic purposes.</p> | <p>WP 9</p> |

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| <p><u>Opportunity B.1: Encourage cooperative relationships between Washington Department of Natural Resources (DNR) and local Irrigation Districts to identify and record required easements.</u> Identify and record required easements for all irrigation-related facilities, including access in Sections 16, 20, 22, and 28 in Township 21 North, Range 20 East prior to the land exchange proposed by DNR to ensure long term management of the Irrigation Districts' infrastructure and access needs.</p> | <p>Coordination, Collaboration</p> |
| <p><u>Opportunity B.2: Work with Chelan County Natural Resources Department and other local governments to ensure the full consideration of the water resources implications associated with future land use decisions in WRIA 40A.</u> Continued participation in the Stemilt Partnership (Partnership), a public-interest and land management group formed in February 2007, will allow the Planning Unit to address and collaborate with the Partnership on issues regarding land ownership changes and land use issues in the Stemilt basin and vicinity. The Partnership is chaired by CCNRD and includes representatives from federal, state and local government agencies, irrigation and domestic water purveyors, fruit growers, the Malaga-Colockum Community Council, conservations groups, real estate agencies and development groups.</p> | <p>Coordination, Collaboration</p> |
| <p><u>Opportunity C.1: Stream gauges.</u> Stream gauges that measure streamflow in upper and lower Squilchuck and Stemilt Creeks will provide data to improve the understanding of the relationship between precipitation, runoff, irrigation return flow and baseflow. Continuous stream flow data would improve the overall accuracy of the WRIA 40A water balance. Stream flow monitoring stations, in conjunction with the monitoring of stream diversions, would allow better quantification of the exchange between surface water and groundwater. The monitoring would also support the evaluation of the effects of land use on streamflow, stormwater runoff and water quality. Land uses that would affect runoff include forestry, residential and commercial development, re-zoning and irrigation practices. Changes in vegetative cover due to wildfire would likely have substantial impacts on runoff and water quality.</p> | <p>Monitoring, Study</p> |
| <p><u>Opportunity C.2: Groundwater elevation monitoring.</u> Groundwater well elevation monitoring would provide data to quantify seasonal fluctuations in groundwater levels for comparison to precipitation and infiltration groundwater recharge rates. These data would improve the understanding and estimates of aquifers, groundwater recharge, flow, and groundwater availability and would improve the overall accuracy of the WRIA 40A water balance. Groundwater elevation monitoring within 1 mile of the Columbia River would help delineate the hydraulic boundary between Columbia River and WRIA 40A. This would identify the sources of groundwater and establish the availability of groundwater in the Malaga sub-basin and could help determine project eligibility for the funding under the Department of Ecology's CRWMP.</p> | <p>Monitoring</p> |
| <p><u>Opportunity C.3: Weather station(s) at mid-watershed elevations.</u> Weather stations at mid-watershed elevations to measure precipitation and temperature would improve the understanding of the relationship between elevation and precipitation and support estimates of runoff. Soil moisture can also be measured at a mid-elevation station to evaluate actual crop irrigation requirements at higher elevations. The irrigation demand estimate in the Water Quantity Assessment was based on data from low elevations. Temperature and soil moisture data can also be used to improve the actual evapotranspiration (AET) estimate by using physically based (i.e. Penman-Monteith), instead of empirical, methods. Because they are major components of a water balance, small differences in estimated precipitation and evapotranspiration (the return of moisture to the air through evaporation from earth and vegetative surfaces and transpiration by plants) can cause substantial differences in estimates of runoff and available water. Implementation of this recommendation would provide data to refine the overall water balance estimates for WRIA 40A and demonstrate the value in improving storage and water use efficiency.</p> | <p>Monitoring, Study</p> |

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| <p><u>Opportunity C.4: Water resources monitoring.</u> Improving the monitoring and reporting of water imported into WRIA 40A would refine the estimates of available water and future water demand and refine the overall water balance calculations for WRIA 40A.</p> | <p>WP 1, WP 2, Monitoring</p> |
| <p><u>Opportunity C.5: Voluntary monitoring and measuring of conveyance flows.</u> Voluntary monitoring and reporting of storage levels and conveyance flows would improve the understanding of the need for implementation of irrigation storage and conveyance efficiency improvements.</p> | <p>WP 2, Monitoring</p> |
| <p><u>Opportunity C.6: Voluntary stream diversion monitoring and reporting.</u> Implementation of a voluntary stream diversion monitoring and reporting program to account for out-of-stream water use would improve estimates of available water. Irrigation districts would be eligible to obtain funds to install measuring weirs and use them to make regular inflow/outflow measurements for their own records and to report to CCNRD for further refinement of the WRIA 40A water balance.</p> | <p>WP 2, Monitoring</p> |
| <p><u>Opportunity C.7: Measure commercial/industrial uses of water.</u> Implementation of a voluntary monitoring and reporting program for commercial and industrial use would result in a more accurate accounting of water use and would improve estimates of the quantity of water for future uses.</p> | <p>WP 1, WP 2, Monitoring</p> |
| <p><u>Opportunity C.8 Work with Ecology to verify point of withdrawal locations.</u> Resolving the discrepancies between the number of water right points of diversion shown on the Water Rights Map (Appendix D) and those observed by WDFW in the field during the barrier survey (WDFW, 2006) would improve the estimate of total water diversion and water availability. The Planning Unit will work with the State and make updates if needed.</p> | <p>Coordination, Collaboration</p> |
| <p><u>Opportunity C.9: Chelan County Natural Resources Department pursuit of funding to enhance the understanding of the hydrology of WRIA 40A.</u> Chelan County Natural Resources Department should identify and pursue funding opportunities to conduct studies aimed at improving the general understanding of the hydrology of WRIA 40A in order to provide a better technical foundation for subsequent water resource management and development projects in the watershed. While it is understood that these are not necessarily to be performed prior to other recommendations, it is important that such studies be undertaken when funds are available to enhance the overall understanding of the basin's resources and, thereby, provide enhanced technical support for recommended projects.</p> | <p>Funding, Study</p> |

**For some elements of recommended actions (opportunities), information is insufficient to make a SEPA determination.*

Summary

This section of the WRIA 40A Watershed Management Plan provides documentation of compliance of the WRIA 40A Plan with statewide programmatic SEPA requirements. This chapter is to be attached to the Determination of Significance filed for the Plan adoption action by Chelan County and provides local information relevant to the WRIA 40A Plan that is not explicitly included in the statewide programmatic Watershed Planning EIS (Ecology, 2003).

5.0 REFERENCES

Chapter 36.70A, RCW Growth Management- Planning by Selected Counties and Cities, Washington State Legislature, Olympia, Washington.

Chapter 90.54, RCW Water Resources Act of 1971, Revised Code of Washington, Washington State Legislature, Olympia, Washington.

Chapter 90.82, RCW Watershed Planning, Revised Code of Washington, Washington State Legislature, Olympia, Washington.

Chapter 90.90, RCW Columbia River Basin Water Supply, Washington State Legislature, Olympia, Washington

Chapter 173-500, WAC Water Resources Management Program Established Pursuant to the Water Resources Act of 1971, Washington State Legislature, Olympia, Washington.

Washington State Department of Fish and Wildlife, WRIA 40 Diversion Screening and Fish Passage Inventory Report, online, November 16, 2006,
http://wdfw.wa.gov/hab/tapps/tapps_prods.htm

United States Forest Service, Squilchuck Watershed Assessment, United States Department of Agriculture Forest Service, Leavenworth Ranger District, Wenatchee National Forest, Chelan County, Washington, 1998.

Appendix A
The Watershed Planning Act
Chapter 90.82 RCW

Chapter 90.82 RCW

Watershed planning (formerly water resource management)

Chapter Listing

RCW Sections

- [90.82.005](#) Purpose.
- [90.82.010](#) Finding.
- [90.82.020](#) Definitions.
- [90.82.030](#) Principles.
- [90.82.040](#) WRIA planning units -- Watershed planning grants -- Eligibility criteria -- Administrative costs.
- [90.82.043](#) Implementation plan.
- [90.82.048](#) Implementation plan -- Timelines and milestones.
- [90.82.050](#) Limitations on liability.
- [90.82.060](#) Initiation of watershed planning -- Scope of planning -- Technical assistance from state agencies.
- [90.82.070](#) Water quantity component.
- [90.82.080](#) Instream flow component -- Rules -- Report.
- [90.82.085](#) Instream flows -- Assessing and setting or amending.
- [90.82.090](#) Water quality component.
- [90.82.100](#) Habitat component.
- [90.82.110](#) Identification of projects and activities.
- [90.82.120](#) Plan parameters.
- [90.82.130](#) Plan approval -- Public notice and hearing -- Revisions.
- [90.82.140](#) Use of monitoring recommendations in RCW 77.85.210.
- [90.82.900](#) Part headings not law -- 1997 c 442.
- [90.82.901](#) Severability -- 1997 c 442.
- [90.82.902](#) Captions not law -- 1998 c 247.

90.82.005

Purpose.

The purpose of this chapter is to develop a more thorough and cooperative method of determining what the current water resource situation is in each water resource inventory area of the state and to provide local citizens with the maximum possible input concerning their goals and objectives for water resource management and development.

It is necessary for the legislature to establish processes and policies that will result in providing state agencies with more specific guidance to manage the water resources of the state consistent with

current law and direction provided by local entities and citizens through the process established in accordance with this chapter.

[1997 c 442 § 101.]

90.82.010 Finding.

The legislature finds that the local development of watershed plans for managing water resources and for protecting existing water rights is vital to both state and local interests. The local development of these plans serves vital local interests by placing it in the hands of people: Who have the greatest knowledge of both the resources and the aspirations of those who live and work in the watershed; and who have the greatest stake in the proper, long-term management of the resources. The development of such plans serves the state's vital interests by ensuring that the state's water resources are used wisely, by protecting existing water rights, by protecting instream flows for fish, and by providing for the economic well-being of the state's citizenry and communities. Therefore, the legislature believes it necessary for units of local government throughout the state to engage in the orderly development of these watershed plans.

[1997 c 442 § 102.]

90.82.020 Definitions.

Unless the context clearly requires otherwise, the definitions in this section apply throughout this chapter.

- (1) "Department" means the department of ecology.
- (2) "Implementing rules" for a WRIA plan are the rules needed to give force and effect to the parts of the plan that create rights or obligations for any party including a state agency or that establish water management policy.
- (3) "Minimum instream flow" means a minimum flow under chapter 90.03 or 90.22 RCW or a base flow under chapter 90.54 RCW.
- (4) "WRIA" means a water resource inventory area established in chapter 173-500 WAC as it existed on January 1, 1997.
- (5) "Water supply utility" means a water, combined water-sewer, irrigation, reclamation, or public utility district that provides water to persons or other water users within the district or a division or unit responsible for administering a publicly governed water supply system on behalf of a county.
- (6) "WRIA plan" or "plan" means the product of the planning unit including any rules adopted in conjunction with the product of the planning unit.

[1997 c 442 § 103.]

90.82.030 Principles.

In order to have the best possible program for appropriating and administering water use in the state, the legislature establishes the following principles and criteria to carry out the purpose and intent of chapter 442, Laws of 1997.

(1) All WRIA planning units established under this chapter shall develop a process to assure that water resource user interests and directly involved interest groups at the local level have the opportunity, in a fair and equitable manner, to give input and direction to the process.

(2) If a planning unit requests technical assistance from a state agency as part of its planning activities under this chapter and the assistance is with regard to a subject matter over which the agency has jurisdiction, the state agency shall provide the technical assistance to the planning unit.

(3) Plans developed under chapter 442, Laws of 1997 shall be consistent with and not duplicative of efforts already under way in a WRIA, including but not limited to watershed analysis conducted under state forest practices statutes and rules.

[1997 c 442 § 104.]

90.82.040 WRIA planning units — Watershed planning grants — Eligibility criteria — Administrative costs.

(1) Once a WRIA planning unit has been initiated under RCW [90.82.060](#) and a lead agency has been designated, it shall notify the department and may apply to the department for funding assistance for conducting the planning and implementation. Funds shall be provided from and to the extent of appropriations made by the legislature to the department expressly for this purpose.

(2)(a) Each planning unit that has complied with subsection (1) of this section is eligible to receive watershed planning grants in the following amounts for the first three phases of watershed planning and phase four watershed plan implementation:

(i) Initiating governments may apply for an initial organizing grant of up to fifty thousand dollars for a single WRIA or up to seventy-five thousand dollars for a multi-WRIA management area in accordance with RCW [90.82.060](#)(4);

(ii)(A) A planning unit may apply for up to two hundred thousand dollars for each WRIA in the management area for conducting watershed assessments in accordance with RCW [90.82.070](#), except that a planning unit that chooses to conduct a detailed assessment or studies under (a)(ii)(B) of this subsection or whose initiating governments choose or have chosen to include an instream flow or water quality component in accordance with RCW [90.82.080](#) or [90.82.090](#) may apply for up to one hundred thousand additional dollars for each instream flow and up to one hundred thousand additional dollars for each water quality component included for each WRIA to conduct an assessment on that optional component and for each WRIA in which the assessments or studies under (a)(ii)(B) of this subsection are conducted.

(B) A planning unit may elect to apply for up to one hundred thousand additional dollars to conduct a detailed assessment of multipurpose water storage opportunities or for studies of specific multipurpose storage projects which opportunities or projects are consistent with and support the other elements of the planning unit's watershed plan developed under this chapter; and

(iii) A planning unit may apply for up to two hundred fifty thousand dollars for each WRIA in the management area for developing a watershed plan and making recommendations for actions by local, state, and federal agencies, tribes, private property owners, private organizations, and individual

citizens, including a recommended list of strategies and projects that would further the purpose of the plan in accordance with RCW [90.82.060](#) through [90.82.100](#).

(b) A planning unit may request a different amount for phase two or phase three of watershed planning than is specified in (a) of this subsection, provided that the total amount of funds awarded do not exceed the maximum amount the planning unit is eligible for under (a) of this subsection. The department shall approve such an alternative allocation of funds if the planning unit identifies how the proposed alternative will meet the goals of this chapter and provides a proposed timeline for the completion of planning. However, the up to one hundred thousand additional dollars in funding for instream flow and water quality components and for water storage assessments or studies that a planning unit may apply for under (a)(ii)(A) of this subsection may be used only for those instream flow, water quality, and water storage purposes.

(c) By December 1, 2001, or within one year of initiating phase one of watershed planning, whichever occurs later, the initiating governments for each planning unit must inform the department whether they intend to have the planning unit establish or amend instream flows as part of its planning process. If they elect to have the planning unit establish or amend instream flows, the planning unit is eligible to receive one hundred thousand dollars for that purpose in accordance with (a)(ii) of this subsection. If the initiating governments for a planning unit elect not to establish or amend instream flows as part of the unit's planning process, the department shall retain one hundred thousand dollars to carry out an assessment to support establishment of instream flows and to establish such flows in accordance with RCW 90.54.020(3)(a) and chapter 90.22 RCW. The department shall not use these funds to amend an existing instream flow unless requested to do so by the initiating governments for a planning unit.

(d) In administering funds appropriated for supplemental funding for optional plan components under (a)(ii) of this subsection, the department shall give priority in granting the available funds to proposals for setting or amending instream flows.

(e) A planning unit may apply for a matching grant for phase four watershed plan implementation following approval under the provisions of RCW [90.82.130](#). A match of ten percent is required and may include financial contributions or in-kind goods and services directly related to coordination and oversight functions. The match can be provided by the planning unit or by the combined commitments from federal agencies, tribal governments, local governments, special districts, or other local organizations. The phase four grant may be up to one hundred thousand dollars for each planning unit for each of the first three years of implementation. At the end of the three-year period, a two-year extension may be available for up to fifty thousand dollars each year. For planning units that cover more than one WRIA, additional matching funds of up to twenty-five thousand dollars may be available for each additional WRIA per year for the first three years of implementation, and up to twelve thousand five hundred dollars per WRIA per year for each of the fourth and fifth years.

(3)(a) The department shall use the eligibility criteria in this subsection (3) instead of rules, policies, or guidelines when evaluating grant applications at each stage of the grants program.

(b) In reviewing grant applications under this subsection (3), the department shall evaluate whether:

(i) The planning unit meets all of the requirements of this chapter;

(ii) The application demonstrates a need for state planning funds to accomplish the objectives of the planning process; and

(iii) The application and supporting information evidences a readiness to proceed.

(c) In ranking grant applications submitted at each stage of the grants program, the department shall give preference to applications in the following order of priority:

(i) Applications from existing planning groups that have been in existence for at least one year;

(ii) Applications that address protection and enhancement of fish habitat in watersheds that have aquatic fish species listed or proposed to be listed as endangered or threatened under the federal endangered species act, 16 U.S.C. Sec. 1531 et seq. and for which there is evidence of an inability to supply adequate water for population and economic growth from:

- (A) First, multi-WRIA planning; and
- (B) Second, single WRIA planning;
- (iii) Applications that address protection and enhancement of fish habitat in watersheds or for which there is evidence of an inability to supply adequate water for population and economic growth from:
 - (A) First, multi-WRIA planning; and
 - (B) Second, single WRIA planning.
- (d) Except for phase four watershed plan implementation, the department may not impose any local matching fund requirement as a condition for grant eligibility or as a preference for receiving a grant.
- (4) The department may retain up to one percent of funds allocated under this section to defray administrative costs.
- (5) Planning under this chapter should be completed as expeditiously as possible, with the focus being on local stakeholders cooperating to meet local needs.
- (6) Funding provided under this section shall be considered a contractual obligation against the moneys appropriated for this purpose.

[2003 1st sp.s. c 4 § 2; 2001 c 237 § 2; 1998 c 247 § 1; 1997 c 442 § 105.]

Notes:

Findings -- 2003 1st sp.s. c 4: "The legislature declares and reaffirms that a core principle embodied in chapter 90.82 RCW is that state agencies must work cooperatively with local citizens in a process of planning for future uses of water by giving local citizens and the governments closest to them the ability to determine the management of water in the WRIA or WRIsAs being planned.

The legislature further finds that this process of local planning must have all the tools necessary to accomplish this task and that it is essential for the legislature to provide a clear statutory process for implementation so that the locally developed plan will be the adopted and implemented plan to the greatest extent possible." [2003 1st sp.s. c 4 § 1.]

Finding -- Intent -- 2001 c 237: "The legislature is committed to meeting the needs of a growing population and a healthy economy statewide; to meeting the needs of fish and healthy watersheds statewide; and to advancing these two principles together, in increments over time.

The legislature finds that improved management of the state's water resources, clarifying the authorities, requirements, and timelines for establishing instream flows, providing timely decisions on water transfers, clarifying the authority of water conservancy boards, and enhancing the flexibility of our water management system to meet both environmental and economic goals are important steps to providing a better future for our state.

The need for these improvements is particularly urgent as we are faced with drought conditions. The failure to act now will only increase the potential negative effects on both the economy and the environment, including fisheries resources.

Deliberative action over several legislative sessions and interim periods between sessions will be required to address the long-term goal of improving the responsiveness of the state water code to meet the diverse water needs of the state's citizenry. It is the intent of the legislature to begin this work now by providing tools to enable the state to respond to imminent drought conditions and other immediate problems relating to water resources management. It is also the legislature's intent to lay the groundwork for future legislation for addressing the state's long-term water problems." [2001 c 237 § 1.]

Severability -- 2001 c 237: "If any provision of this act or its application to any person or circumstance is held invalid, the remainder of the act or the application of the provision to other persons or circumstances is not affected." [2001 c 237 § 33.]

Effective date -- 2001 c 237: "This act is necessary for the immediate preservation of the public peace, health, or safety, or support of the state government and its existing public institutions, and takes effect immediately [May 10, 2001]." [2001 c 237 § 34.]

Intent -- 2001 c 237: See note following RCW 90.66.065.

90.82.043 Implementation plan.

(1) Within one year of accepting funding under RCW [90.82.040\(2\)\(e\)](#), the planning unit must complete a detailed implementation plan. Submittal of a detailed implementation plan to the department is a condition of receiving grants for the second and all subsequent years of the phase four grant.

(2) Each implementation plan must contain strategies to provide sufficient water for: (a) Production agriculture; (b) commercial, industrial, and residential use; and (c) instream flows. Each implementation plan must contain timelines to achieve these strategies and interim milestones to measure progress.

(3) The implementation plan must clearly define coordination and oversight responsibilities; any needed interlocal agreements, rules, or ordinances; any needed state or local administrative approvals and permits that must be secured; and specific funding mechanisms.

(4) In developing the implementation plan, the planning unit must consult with other entities planning in the watershed management area and identify and seek to eliminate any activities or policies that are duplicative or inconsistent.

(5) By December 1, 2003, and by December 1st of each subsequent year, the director of the department shall report to the appropriate legislative standing committees regarding statutory changes necessary to enable state agency approval or permit decision making needed to implement a plan approved under this chapter.

[2003 1st sp.s. c 4 § 3.]

Notes:

Findings -- 2003 1st sp.s. c 4: See note following RCW [90.82.040](#).

90.82.048 Implementation plan — Timelines and milestones.

(1) The timelines and interim milestones in a detailed implementation plan required by RCW [90.82.043](#) must address the planned future use of existing water rights for municipal water supply purposes, as defined in RCW 90.03.015, that are inchoate, including how these rights will be used to meet the projected future needs identified in the watershed plan, and how the use of these rights will be addressed when implementing instream flow strategies identified in the watershed plan.

(2) The watershed planning unit or other authorized lead agency shall ensure that holders of water rights for municipal water supply purposes not currently in use are asked to participate in defining the timelines and interim milestones to be included in the detailed implementation plan.

(3) The department of health shall annually compile a list of water system plans and plan updates to be reviewed by the department during the coming year and shall consult with the departments of

community, trade, and economic development, ecology, and fish and wildlife to: (a) Identify watersheds where further coordination is needed between water system planning and local watershed planning under this chapter; and (b) develop a work plan for conducting the necessary coordination.

[2003 1st sp.s. c 5 § 9.]

Notes:

Severability -- 2003 1st sp.s. c 5: See note following RCW 90.03.015.

90.82.050

Limitations on liability.

(1) This chapter shall not be construed as creating a new cause of action against the state or any county, city, town, water supply utility, conservation district, or planning unit.

(2) Notwithstanding RCW 4.92.090, 4.96.010, and 64.40.020, no claim for damages may be filed against the state or any county, city, town, water supply utility, tribal governments, conservation district, or planning unit that or member of a planning unit who participates in a WRIA planning unit for performing responsibilities under this chapter.

[1997 c 442 § 106.]

90.82.060

Initiation of watershed planning — Scope of planning — Technical assistance from state agencies.

(1) Planning conducted under this chapter must provide for a process to allow the local citizens within a WRIA or multi-WRIA area to join together in an effort to: (a) Assess the status of the water resources of their WRIA or multi-WRIA area; and (b) determine how best to manage the water resources of the WRIA or multi-WRIA area to balance the competing resource demands for that area within the parameters under RCW [90.82.120](#).

(2) Watershed planning under this chapter may be initiated for a WRIA only with the concurrence of: (a) All counties within the WRIA; (b) the largest city or town within the WRIA unless the WRIA does not contain a city or town; and (c) the water supply utility obtaining the largest quantity of water from the WRIA or, for a WRIA with lands within the Columbia Basin project, the water supply utility obtaining from the Columbia Basin project the largest quantity of water for the WRIA. To apply for a grant for organizing the planning unit as provided for under RCW [90.82.040](#)(2)(a), these entities shall designate the entity that will serve as the lead agency for the planning effort and indicate how the planning unit will be staffed. For purposes of this chapter, WRIA 40 shall be divided such that the portion of the WRIA located entirely within the Stemilt and Squilchuck subbasins shall be considered WRIA 40a and the remaining portion shall be considered WRIA 40b. Planning may be conducted separately for WRIA 40a and 40b. WRIA 40a shall be eligible for one-fourth of the funding available for a single WRIA, and WRIA 40b shall be eligible for three-fourths of the funding available for a single WRIA.

(3) Watershed planning under this chapter may be initiated for a multi-WRIA area only with the concurrence of: (a) All counties within the multi-WRIA area; (b) the largest city or town in each WRIA unless the WRIA does not contain a city or town; and (c) the water supply utility obtaining the largest quantity of water in each WRIA.

(4) If entities in subsection (2) or (3) of this section decide jointly and unanimously to proceed, they shall invite all tribes with reservation lands within the management area.

(5) The entities in subsection (2) or (3) of this section, including the tribes if they affirmatively accept the invitation, constitute the initiating governments for the purposes of this section.

(6) The organizing grant shall be used to organize the planning unit and to determine the scope of the planning to be conducted. In determining the scope of the planning activities, consideration shall be given to all existing plans and related planning activities. The scope of planning must include water quantity elements as provided in RCW [90.82.070](#), and may include water quality elements as contained in RCW [90.82.090](#), habitat elements as contained in RCW [90.82.100](#), and instream flow elements as contained in RCW [90.82.080](#). The initiating governments shall work with state government, other local governments within the management area, and affected tribal governments, in developing a planning process. The initiating governments may hold public meetings as deemed necessary to develop a proposed scope of work and a proposed composition of the planning unit. In developing a proposed composition of the planning unit, the initiating governments shall provide for representation of a wide range of water resource interests.

(7) Each state agency with regulatory or other interests in the WRIA or multi-WRIA area to be planned shall assist the local citizens in the planning effort to the greatest extent practicable, recognizing any fiscal limitations. In providing such technical assistance and to facilitate representation on the planning unit, state agencies may organize and agree upon their representation on the planning unit. Such technical assistance must only be at the request of and to the extent desired by the planning unit conducting such planning. The number of state agency representatives on the planning unit shall be determined by the initiating governments in consultation with the governor's office.

(8) As used in this section, "lead agency" means the entity that coordinates staff support of its own or of other local governments and receives grants for developing a watershed plan.

[2003 c 328 § 1; 2001 c 229 § 1; 1998 c 247 § 2.]

90.82.070

Water quantity component.

Watershed planning under this chapter shall address water quantity in the management area by undertaking an assessment of water supply and use in the management area and developing strategies for future use.

- (1) The assessment shall include:
 - (a) An estimate of the surface and ground water present in the management area;
 - (b) An estimate of the surface and ground water available in the management area, taking into account seasonal and other variations;
 - (c) An estimate of the water in the management area represented by claims in the water rights claims registry, water use permits, certificated rights, existing minimum instream flow rules, federally reserved rights, and any other rights to water;
 - (d) An estimate of the surface and ground water actually being used in the management area;
 - (e) An estimate of the water needed in the future for use in the management area;
 - (f) An identification of the location of areas where aquifers are known to recharge surface bodies of water and areas known to provide for the recharge of aquifers from the surface; and
 - (g) An estimate of the surface and ground water available for further appropriation, taking into account the minimum instream flows adopted by rule or to be adopted by rule under this chapter for streams in the management area including the data necessary to evaluate necessary flows for fish.
- (2) Strategies for increasing water supplies in the management area, which may include, but are not

limited to, increasing water supplies through water conservation, water reuse, the use of reclaimed water, voluntary water transfers, aquifer recharge and recovery, additional water allocations, or additional water storage and water storage enhancements. The objective of these strategies is to supply water in sufficient quantities to satisfy the minimum instream flows for fish and to provide water for future out-of-stream uses for water identified in subsection (1)(e) and (g) of this section and to ensure that adequate water supplies are available for agriculture, energy production, and population and economic growth under the requirements of the state's growth management act, chapter 36.70A RCW. These strategies, in and of themselves, shall not be construed to confer new water rights. The watershed plan must address the strategies required under this subsection.

(3) The assessment may include the identification of potential site locations for water storage projects. The potential site locations may be for either large or small projects and cover the full range of possible alternatives. The possible alternatives include off-channel storage, underground storage, the enlargement or enhancement of existing storage, and on-channel storage.

[2001 2nd sp.s. c 19 § 2; 1998 c 247 § 3.]

Notes:

Intent -- 2001 2nd sp.s. c 19: "The legislature recognizes the potential for additional water storage as a solution to the water supply needs of the state. Last year the legislature created a task force to examine the role of increased water storage in providing water supplies to meet the needs of fish, population growth, and economic development, and to enhance the protection of people's lives and their property and the protection of aquatic habitat through flood control facilities. One solution discussed by the task force to address the state's water supply problem is to store water when there is excess runoff and stream flow, and deliver or release it during the low flow period when it is needed. The task force discussed the need for assessments of potential site locations for water storage projects. The legislature intends this act to assist in obtaining the assessments relating to water storage." [2001 2nd sp.s. c 19 § 1.]

90.82.080

Instream flow component — Rules — Report.

(1)(a) If the initiating governments choose, by majority vote, to include an instream flow component, it shall be accomplished in the following manner:

(i) If minimum instream flows have already been adopted by rule for a stream within the management area, unless the members of the local governments and tribes on the planning unit by a recorded unanimous vote request the department to modify those flows, the minimum instream flows shall not be modified under this chapter. If the members of local governments and tribes request the planning unit to modify instream flows and unanimous approval of the decision to modify such flow is not achieved, then the instream flows shall not be modified under this section;

(ii) If minimum stream flows have not been adopted by rule for a stream within the management area, setting the minimum instream flows shall be a collaborative effort between the department and members of the planning unit. The department must attempt to achieve consensus and approval among the members of the planning unit regarding the minimum flows to be adopted by the department. Approval is achieved if all government members and tribes that have been invited and accepted on the planning unit present for a recorded vote unanimously vote to support the proposed minimum instream flows, and all nongovernmental members of the planning unit present for the recorded vote, by a majority, vote to support the proposed minimum instream flows.

(b) The department shall undertake rule making to adopt flows under (a) of this subsection. The department may adopt the rules either by the regular rules adoption process provided in chapter 34.05 RCW, the expedited rules adoption process as set forth in RCW 34.05.353, or through a rules adoption process that uses public hearings and notice provided by the county legislative authority to the greatest extent possible. Such rules do not constitute significant legislative rules as defined in RCW 34.05.328, and do not require the preparation of small business economic impact statements.

(c) If approval is not achieved within four years of the date the planning unit first receives funds from the department for conducting watershed assessments under RCW [90.82.040](#), the department may promptly initiate rule making under chapter 34.05 RCW to establish flows for those streams and shall have two additional years to establish the instream flows for those streams for which approval is not achieved.

(2)(a) Notwithstanding RCW 90.03.345, minimum instream flows set under this section for rivers or streams that do not have existing minimum instream flow levels set by rule of the department shall have a priority date of two years after funding is first received from the department under RCW [90.82.040](#), unless determined otherwise by a unanimous vote of the members of the planning unit but in no instance may it be later than the effective date of the rule adopting such flow.

(b) Any increase to an existing minimum instream flow set by rule of the department shall have a priority date of two years after funding is first received for planning in the WRIA or multi-WRIA area from the department under RCW [90.82.040](#) and the priority date of the portion of the minimum instream flow previously established by rule shall retain its priority date as established under RCW 90.03.345.

(c) Any existing minimum instream flow set by rule of the department that is reduced shall retain its original date of priority as established by RCW 90.03.345 for the revised amount of the minimum instream flow level.

(3) Before setting minimum instream flows under this section, the department shall engage in government-to-government consultation with affected tribes in the management area regarding the setting of such flows.

(4) Nothing in this chapter either: (a) Affects the department's authority to establish flow requirements or other conditions under RCW 90.48.260 or the federal clean water act (33 U.S.C. Sec. 1251 et seq.) for the licensing or relicensing of a hydroelectric power project under the federal power act (16 U.S.C. Sec. 791 et seq.); or (b) affects or impairs existing instream flow requirements and other conditions in a current license for a hydroelectric power project licensed under the federal power act.

(5) If the planning unit is unable to obtain unanimity under subsection (1) of this section, the department may adopt rules setting such flows.

(6) The department shall report annually to the appropriate legislative standing committees on the progress of instream flows being set under this chapter, as well as progress toward setting instream flows in those watersheds not being planned under this chapter. The report shall be made by December 1, 2003, and by December 1st of each subsequent year.

[2003 1st sp.s. c 4 § 4; 1998 c 247 § 4.]

Notes:

Findings -- 2003 1st sp.s. c 4: See note following RCW [90.82.040](#).

90.82.085

Instream flows — Assessing and setting or amending.

By October 1, 2001, the department of ecology shall complete a final nonproject environmental impact statement that evaluates stream flows to meet the alternative goals of maintaining, preserving, or enhancing instream resources and the technically defensible methodologies for determining these stream flows. Planning units and state agencies assessing and setting or amending instream flows must, as a minimum, consider the goals and methodologies addressed in the nonproject environmental impact statement. A planning unit or state agency may assess, set, or amend instream flows in a manner that varies from the final nonproject environmental impact statement if consistent with applicable instream flow laws.

[2001 c 237 § 3.]

Notes:

Finding -- Intent -- Severability -- Effective date -- 2001 c 237: See notes following RCW [90.82.040](#).

Intent -- 2001 c 237: See note following RCW 90.66.065.

90.82.090

Water quality component.

If the initiating governments choose to include a water quality component, the watershed plan shall include the following elements:

(1) An examination based on existing studies conducted by federal, state, and local agencies of the degree to which legally established water quality standards are being met in the management area;

(2) An examination based on existing studies conducted by federal, state, and local agencies of the causes of water quality violations in the management area, including an examination of information regarding pollutants, point and nonpoint sources of pollution, and pollution-carrying capacities of water bodies in the management area. The analysis shall take into account seasonal stream flow or level variations, natural events, and pollution from natural sources that occurs independent of human activities;

(3) An examination of the legally established characteristic uses of each of the nonmarine bodies of water in the management area;

(4) An examination of any total maximum daily load established for nonmarine bodies of water in the management area, unless a total maximum daily load process has begun in the management area as of the date the watershed planning process is initiated under RCW [90.82.060](#);

(5) An examination of existing data related to the impact of fresh water on marine water quality;

(6) A recommended approach for implementing the total maximum daily load established for achieving compliance with water quality standards for the nonmarine bodies of water in the management area, unless a total maximum daily load process has begun in the management area as of the date the watershed planning process is initiated under RCW [90.82.060](#); and

(7) Recommended means of monitoring by appropriate government agencies whether actions taken to implement the approach to bring about improvements in water quality are sufficient to achieve compliance with water quality standards.

This chapter does not obligate the state to undertake analysis or to develop strategies required under the federal clean water act (33 U.S.C. Sec. 1251 et seq.). This chapter does not authorize any planning unit, lead agency, or local government to adopt water quality standards or total maximum daily loads under the federal clean water act.

[1998 c 247 § 5.]

90.82.100 Habitat component.

If the initiating governments choose to include a habitat component, the watershed plan shall be coordinated or developed to protect or enhance fish habitat in the management area. Such planning must rely on existing laws, rules, or ordinances created for the purpose of protecting, restoring, or enhancing fish habitat, including the shoreline management act, chapter 90.58 RCW, the growth management act, chapter 36.70A RCW, and the forest practices act, chapter 76.09 RCW. Planning established under this section shall be integrated with strategies developed under other processes to respond to potential and actual listings of salmon and other fish species as being threatened or endangered under the federal endangered species act, 16 U.S.C. Sec. 1531 et seq. Where habitat restoration activities are being developed under chapter 246, Laws of 1998, such activities shall be relied on as the primary nonregulatory habitat component for fish habitat under this chapter.

[1998 c 247 § 6.]

90.82.110 Identification of projects and activities.

The planning unit shall review historical data such as fish runs, weather patterns, land use patterns, seasonal flows, and geographic characteristics of the management area, and also review the planning, projects, and activities that have already been completed regarding natural resource management or enhancement in the management area and the products or status of those that have been initiated but not completed for such management in the management area, and incorporate their products as appropriate so as not to duplicate the work already performed or underway.

The planning group is encouraged to identify projects and activities that are likely to serve both short-term and long-term management goals and that warrant immediate financial assistance from the state, federal, or local government. If there are multiple projects, the planning group shall give consideration to ranking projects that have the greatest benefit and schedule those projects that should be implemented first.

[1998 c 247 § 7.]

90.82.120 Plan parameters.

(1) Watershed planning developed and approved under this chapter shall not contain provisions that:

- (a) Are in conflict with existing state statutes, federal laws, or tribal treaty rights;
- (b) impair or diminish in any manner an existing water right evidenced by a claim filed in the water rights claims registry established under chapter 90.14 RCW or a water right certificate or permit;
- (c) require a modification in the basic operations of a federal reclamation project with a water right the priority date of which is before June 11, 1998, or alter in any manner whatsoever the quantity of water available under the water right for the reclamation project, whether the project has or has not been completed before June 11, 1998;
- (d) affect or interfere with an ongoing general adjudication of water rights;
- (e) modify or require the modification of any waste discharge permit issued under chapter 90.48 RCW;
- (f) modify or require the modification of activities or actions taken or intended to be taken under a habitat restoration work schedule developed under chapter 246, Laws of 1998; or
- (g) modify or require the modification of activities or actions taken to protect or enhance fish habitat if the activities or actions are: (i) Part of an approved habitat conservation plan and an incidental take permit, an incidental take statement, a management or recovery plan, or other cooperative or conservation agreement entered into with a federal or state fish and wildlife protection agency under its statutory authority for fish and wildlife

protection that addresses the affected habitat; or (ii) part of a water quality program adopted by an irrigation district under chapter 87.03 RCW or a board of joint control under chapter 87.80 RCW. This subsection (1)(g) applies as long as the activities or actions continue to be taken in accordance with the plan, agreement, permit, or statement. Any assessment conducted under RCW [90.82.070](#), [90.82.090](#), or [90.82.100](#) shall take into consideration such activities and actions and those taken under the forest practices rules, including watershed analysis adopted under the forest practices act, chapter 76.09 RCW.

(2) Watershed planning developed and approved under this chapter shall not change existing local ordinances or existing state rules or permits, but may contain recommendations for changing such ordinances or rules.

(3) Notwithstanding any other provision of this chapter, watershed planning shall take into account forest practices rules under the forest practices act, chapter 76.09 RCW, and shall not create any obligations or restrictions on forest practices additional to or inconsistent with the forest practices act and its implementing rules, whether watershed planning is approved by the counties or the department.

[1998 c 247 § 8.]

90.82.130

Plan approval — Public notice and hearing — Revisions.

(1)(a) Upon completing its proposed watershed plan, the planning unit may approve the proposal by consensus of all of the members of the planning unit or by consensus among the members of the planning unit appointed to represent units of government and a majority vote of the nongovernmental members of the planning unit.

(b) If the proposal is approved by the planning unit, the unit shall submit the proposal to the counties with territory within the management area. If the planning unit has received funding beyond the initial organizing grant under RCW [90.82.040](#), such a proposal approved by the planning unit shall be submitted to the counties within four years of the date that funds beyond the initial funding are first drawn upon by the planning unit.

(c) If the watershed plan is not approved by the planning unit, the planning unit may submit the components of the plan for which agreement is achieved using the procedure under (a) of this subsection, or the planning unit may terminate the planning process.

(2)(a) With the exception of a county legislative authority that chooses to opt out of watershed planning as provided in (c) of this subsection, the legislative authority of each of the counties with territory in the management area shall provide public notice of and conduct at least one public hearing on the proposed watershed plan submitted under this section. After the public hearings, the legislative authorities of these counties shall convene in joint session to consider the proposal. The counties may approve or reject the proposed watershed plan for the management area, but may not amend it. Approval of such a proposal shall be made by a majority vote of the members of each of the counties with territory in the management area.

(b) If a proposed watershed plan is not approved, it shall be returned to the planning unit with recommendations for revisions. Approval of such a revised proposal by the planning unit and the counties shall be made in the same manner provided for the original watershed plan. If approval of the revised plan is not achieved, the process shall terminate.

(c) A county legislative authority may choose to opt out of watershed planning under this chapter and the public hearing processes under (a) and (b) of this subsection if the county's affected territory within a particular management area is: (i) Less than five percent of the total territory within the management area; or (ii) five percent or more of the total territory within the management area and all other initiating governments within the management area consent. A county meeting these conditions and choosing to opt out shall notify the department and the other initiating governments of that choice prior to commencement of plan adoption under the provisions of (a) of this subsection. A county

choosing to opt out under the provisions of this section shall not be bound by obligations contained in the watershed plan adopted for that management area under this chapter. Even if a county chooses to opt out under the provisions of this section, the other counties within a management area may adopt a proposed watershed plan as provided in this chapter.

(3) The planning unit shall not add an element to its watershed plan that creates an obligation unless each of the governments to be obligated has at least one representative on the planning unit and the respective members appointed to represent those governments agree to adding the element that creates the obligation. A member's agreeing to add an element shall be evidenced by a recorded vote of all members of the planning unit in which the members record support for adding the element. If the watershed plan is approved under subsections (1) and (2) of this section and the plan creates obligations: (a) For agencies of state government, the agencies shall adopt by rule the obligations of both state and county governments and rules implementing the state obligations, or, with the consent of the planning unit, may adopt policies, procedures, or agreements related to the obligations or implementation of the obligations in addition to or in lieu of rules. The obligations on state agencies are binding upon adoption of the obligations, and the agencies shall take other actions to fulfill their obligations as soon as possible, and should annually review implementation needs with respect to budget and staffing; (b) for counties, the obligations are binding on the counties and the counties shall adopt any necessary implementing ordinances and take other actions to fulfill their obligations as soon as possible, and should annually review implementation needs with respect to budget and staffing; or (c) for an organization voluntarily accepting an obligation, the organization must adopt policies, procedures, agreements, rules, or ordinances to implement the plan, and should annually review implementation needs with respect to budget and staffing.

(4) After a plan is adopted in accordance with subsection (3) of this section, and if the department participated in the planning process, the plan shall be deemed to satisfy the watershed planning authority of the department with respect to the components included under the provisions of RCW [90.82.070](#) through [90.82.100](#) for the watershed or watersheds included in the plan. The department shall use the plan as the framework for making future water resource decisions for the planned watershed or watersheds. Additionally, the department shall rely upon the plan as a primary consideration in determining the public interest related to such decisions.

(5) Once a WRIA plan has been approved under subsection (2) of this section for a watershed, the department may develop and adopt modifications to the plan or obligations imposed by the plan only through a form of negotiated rule making that uses the same processes that applied in that watershed for developing the plan.

(6) As used in this section, "obligation" means any action required as a result of this chapter that imposes upon a tribal government, county government, or state government, either: A fiscal impact; a redeployment of resources; or a change of existing policy.

[2003 1st sp.s. c 4 § 5; 2001 c 237 § 4; 1998 c 247 § 9.]

Notes:

Findings -- 2003 1st sp.s. c 4: See note following RCW [90.82.040](#).

Finding -- Intent -- Severability--Effective date -- 2001 c 237: See notes following RCW [90.82.040](#).

Intent -- 2001 c 237: See note following RCW 90.66.065.

90.82.140

Use of monitoring recommendations in RCW 77.85.210.

In conducting assessments and other studies that include monitoring components or recommendations, the department and planning units shall implement the monitoring recommendations developed under *RCW 77.85.210.

[2001 c 298 § 2.]

Notes:

***Reviser's note:** RCW 77.85.210 was repealed by 2005 c 309 § 10.

Finding -- Intent -- 2001 c 298: "The legislature finds that a comprehensive program of monitoring is fundamental to making sound public policy and programmatic decisions regarding salmon recovery and watershed health. Monitoring provides accountability for results of management actions and provides the data upon which an adaptive management framework can lead to improvement of strategies and programs. Monitoring is also a required element of any salmon recovery plan submitted to the federal government for approval. While numerous agencies and citizen organizations are engaged in monitoring a wide range of salmon recovery and watershed health parameters, there is a greater need for coordination of monitoring efforts, for using limited monitoring resources to obtain information most useful for achieving relevant local, state, and federal requirements regarding watershed health and salmon recovery, and for making the information more accessible to those agencies and organizations implementing watershed health programs and projects. Regarding salmon recovery monitoring, the state independent science panel has concluded that many programs already monitor indicators relevant to salmonids, but the efforts are largely uncoordinated or unlinked among programs, have different objectives, use different indicators, lack support for sharing data, and lack shared statistical designs to address specific issues raised by listing of salmonid species under the federal endangered species act.

Therefore, it is the intent of the legislature to encourage the refocusing of existing agency monitoring activities necessary to implement a comprehensive watershed health monitoring program, with a focus on salmon recovery. The program should: Be based on a framework of greater coordination of existing monitoring activities; require monitoring activities most relevant to adopted local, state, and federal watershed health objectives; and facilitate the exchange of monitoring information with agencies and organizations carrying out watershed health, salmon recovery, and water resources management planning and programs." [2001 c 298 § 1.]

90.82.900
Part headings not law — 1997 c 442.

As used in this act, part headings constitute no part of the law.

[1997 c 442 § 803.]

90.82.901
Severability — 1997 c 442.

If any provision of this act or its application to any person or circumstance is held invalid, the remainder of the act or the application of the provision to other persons or circumstances is not affected.

[1997 c 442 § 805.]

90.82.902
Captions not law — 1998 c 247.

As used in this act, captions constitute no part of the law.

Appendix B
WRIA 40A
Planning Unit
Operating Procedures

WRIA 40A (Squilchuck/Stemilt) Watershed Planning Unit Operating Procedures

Membership: Formal membership on this Planning Unit is defined in Table 1. Membership entitles each member agency/entity to voting status. The implementing and non-implementing members are also specified in Table 1.

Lead Agency: Chelan County is the lead agency as designated by the three initiating governments (City of Wenatchee, Chelan County, and the Stemilt Irrigation District). Lead agency responsibilities include grant administration, overall facilitation of the planning process, and responsibilities outlined in these operating procedures and other Planning Unit documents.

New Participants: It is anticipated that additional interested parties may request to participate in the planning process. The following protocol addresses interested parties who would like to become formal members and acquire voting status:

- (1) Interested parties must attend one meeting and show good faith effort in obtaining relevant material and background information from planning unit members or the lead agency. The lead agency will determine whether good faith effort has been made.
- (2) After satisfying (1) above, existing members of the Planning Unit will vote to allow new membership.

Note that any interested parties are welcome to attend meetings and provide comment.

Loss of Voting Authority: There are concerns that a member agency/entity may not attend meetings on a regular basis or at all, but will return to the process toward the end when decisions are being made regarding final plan recommendations. The following protocol addresses loss of voting authority for members who do not actively participate:

- (1) Formal members with voting status are expected to attempt to attend meetings on a regular basis or make a good faith effort to obtain relevant material and background information from other members of the Planning Unit who have attended meetings or the lead agency. Determining that these criteria have been met is the responsibility of the lead agency.
- (2) If the lead agency determines that a member entity/agency has not made a good faith effort to attend or stay informed then existing members of the Planning Unit (not including the member in question) will vote to determine if that member should lose voting authority.

Decision Process/Voting: A consensus vote will be attempted for all decisions made by this body.

The formal decision process for **all** decisions made by the Planning Unit is defined as follows:

Consensus of all Planning Unit members or consensus among implementing members with majority vote among non-implementing members. Each member (as listed in Table 1) is entitled to one vote.

For decisions that apply to approval of final plan recommendations **at least 51% of the Planning Unit members must be present for the vote.** In these cases (votes addressing final plan recommendations), the plan to vote will be announced one meeting prior to the meeting when the vote will occur. Votes can be cast absentee through the lead agency **prior** to the actual date of the vote.

Note that there will be decision making actions throughout the process. The only decisions that require 51% of the Planning Unit members to be involved and a prior meeting notice are those votes associated with approval of final plan recommendations.

Consensus

Entire group reaches a decision that everyone understands, can support and is willing to implement. If this agreement cannot be reached within the time allowed, a fallback decision-making option is used (fallback must be clear at the outset of the process). In this case, fallback may be the decision not to make certain plan recommendations.

The Planning Unit will use the following definition of consensus:

“I can live with the decision and accept it, even though it may not be exactly what I want.”

Technical Subcommittee

A technical subcommittee may be formed by the Planning Unit to develop and research issues for the Planning Unit. The technical subcommittee will make recommendations based on its work to the Planning Unit for the Planning Unit to consider.

| <u>Implementing Members</u> | <u>Non-implementing Members</u> |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Beehive-Squilchuck Irrigation District (Squilchuck Water Users Association, Beehive Irrigation District) Lower Squilchuck Irrigation District Upper Stemilt Irrigation District Lower Stemilt Irrigation District Wenatchee Heights Reclamation District Malaga Water District Lockwood Irrigation Company Galler Ditch Company Lake Cortez Water Association Three Lakes Maintenance Corporation Private landowners Chelan County City of Wenatchee Chelan County Public Utility District Chelan County Conservation District Chelan Douglas Health District Washington State Caucus (Ecology, Fish and Wildlife, DNR) Yakama Nation US Forest Service US Fish and Wildlife Service US Bureau of Land Management NOAA – Fisheries</p> | <p>Malaga-Colockum Community Council Chelan-Douglas Farm Bureau Washington Growers Clearinghouse Washington State Horticultural Association Longview Fibre NCW Audubon Citizens/Landowners/Water Users North Central Washington Association of Realtors North Central Washington Home Builders Association Center for Environmental Law and Policy Washington Environmental Council</p> <p>Note: This list has been modified during the course of the planning process. Final Planning Unit membership is depicted in Section 1.4.1 of the Watershed Plan</p> |

Appendix C

Ranking of Desired Future Conditions

| Ranking of Desired Future Conditions for WRIA 40A Developed During Phase 1 * RESULTS FROM six RESPONSES DURING KICKOFF MEETING 03 MAY 06 and one from 22 JUN 06 meeting | Level of Importance (number of responses) | | | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|----------|------------|----------|-----|
| | Very | Somewhat | Moderately | Slightly | Not |
| Completed irrigation district comprehensive use plans. | 2 | 2 | | | |
| Completed comprehensive water balance documentation for the WRIA. | 2 | 2 | 1 | | |
| Additional water reservoir storage completed in both Stemilt and Squilchuck Creek Watersheds to sustain flow during agricultural water use periods and fall low flow periods. | 5 | 1 | | | |
| Upgraded existing water reservoir storage and irrigation water distribution systems for water conservation and continued safety protection. | 5 | 1 | | | |
| Existing interruptible water rights transferred to non-interruptible water rights for waters now being used from the Columbia River. | 3 | | 1 | | |
| Ground water recharge areas recognize and protected. | 2 | | 2 | | |
| Artificial snow-making activities including reservoir construction at the Mission Ridge Winter Sports Area evaluated to determine opportunities for enhancing water delivery quantity and timing of flow in the Squilchuck Creek watershed. | 3 | 1 | 2 | | |
| Boundary definition for existing irrigation districts are completed within Inventory Area. | | 1 | 3 | | |
| Delivery of domestic water from the regional water supply considered for support of future residential and industrial growth within the Inventory Area. | 2 | 1 | | | 1 |
| Viability and function of wetlands and riparian areas are protected. | 2 | | 1 | 1 | |
| Add: Protection of all watershed areas from residential/commercial development | 1 | | | | |
| Add: More storage for irrigation | 1 | | | | |
| Add: Diversion of Squilchuck and lake Creek to Beehive | 1 | | | | |
| Add: Pipe from Beehive Reservoir to Squilchuck Creek | 1 | | | | |
| Add: Extend Beehive fill period. Fill time for Mission Ridge Winter Sports Area conflicts with fill time for Beehive. | | | | | |
| Add: Upgrade collection system for reservoir systems i.e. diversion/collection structures at Squilchuck and Lake Creek and replace leaky concrete pipeline from Mission Ridge to Beehive | | | | | |
| Add: Upgrade distribution system from Beehive Reservoir to Squilchuck Creek. | | | | | |