Scope of Work: WRIA 54 Phase II Data Collection and Assessment Program

The Lower Spokane River

Phase II Scope of Work

TASK 1.0 Planning Unit Facilitation and Administration

Purpose:

The purpose of Task 1 is to ensure that the work conducted here meets the intent of the Watershed Planning Act and satisfies the contractual agreement between Spokane County (County) and the Washington Department of Ecology (Ecology).

Two primary activities are involved in meeting this task. First, the members of the Planning Unit need both organizational and administrative support. Second, the contractual agreement requires that the County demonstrate fiscal accountability and produce specific deliverables as identified in the grant agreement. During Phase I, Spokane County staff worked with the developing Planning Unit by providing both administrative support and committee leadership and facilitation. As the work on developing the Watershed Plan for WRIA 54 moves into Phase II, the leadership and facilitation function needs to move to a more Planning Unit based leadership position. It is anticipated that this will occur through the hiring of a professional facilitator. Planning Unit members will need to step into leadership roles to ensure the County and the State agencies assisting the work of the Planning Unit provide appropriate administrative, and technical support.

As the Lead Agency, Spokane County is responsible for maintaining appropriate financial records and supplying deliverables per the grant agreement. County staff will be assigned to the appropriate tasks to support the required work.

Subtask 1.1 Phase II Responsibilities of Planning Unit

A. Review Operating Procedures and Code of Conduct developed and approved in Phase I for any new members (See the MOA for WRIA 54).

B. Identify process by which Planning Unit members assume responsibility to lead tasks as they are identified and approved by the Planning Unit.

C. Develop a Planning Unit Meeting Schedule.

Subtask 1.2 Contract with Facilitator for the Planning Unit

A. Contract with facilitator for Phase II. The Lead Agency will use Department of Ecology and Spokane County approved Request for Proposal (RFP) procedures to select a facilitator.

Subtask 1.3 Program Administration, Contracting, Reporting, and Fiscal Management

A. Spokane County, as Lead Agency, shall be responsible for developing Requests for Qualifications and/or Requests for Proposals, contract agreements and other documents used to hire outside technical contractors to support the program. Selection committees used to hire technical consultants or other technical support staff shall include at a minimum representation from Spokane County and representation from at least one other Initiating Government and one "at large" member of the Planning Unit.

B. Spokane County, with the assistance of the Initiating Governments, will draft an annual budget for the Local Watershed Planning program and submit it to the Planning Unit for review.

Deliverable: Annual Budget for Planning Unit review.

C. Spokane County will prepare quarterly progress reports and Payment Requests expenditures for review by the Department of Ecology.

Deliverable: Quarterly Progress Reports and Payment Requests submittal to Ecology.

Deliverable: Completion Report submittal to Ecology with final Payment Request.

Subtask 1.4 Public Meetings

A. Schedule and conduct at least two public meetings to present to the public Phase II assessment results. Meetings will be held to acquaint the public with a progress report on the assessment findings in the summer or fall of 2006, and to report on the final outcome of Phase II spring or summer 2007. All meetings will provide an opportunity for public comment on the draft assessment report.

Deliverable: Hold two public meetings for public review of Phase II assessment results.

TASK 2.0 Develop Current Water Use Estimates for Residential, Commercial, Industrial and Agricultural Activities

Purpose:

The purpose of this Task is to estimate actual water use in the basin to meet the requirements of Chapter 90.82RCW. Under a separate section of the work plan the question of "water use" needs for instream beneficial uses is considered.

For water users with adequate records, annual water use will be the accumulation of twelve (12) monthly values. "Extreme" water use will be evaluated for the highest mean monthly pumping (probably July or August) and for the highest seven-day period.

Water use information gathered for this task should be sorted by geographic location, for example, by river mile and distance from the stream mouth. This will allow the creation and use of a GIS model to aid in making projections of future use and to examine the potential impact of withdrawal on stream flow.

Subtask 2.1 Collect Water Withdrawal Data from Area Purveyors.

A. Collect monthly (where available) water consumption data from the water purveyors. Obtain water connection *(equivalent residential units (ERU))* numbers for appropriate time periods (Account for change in the number of ERUs).

- Residential in house use
- Residential irrigation
- Commercial - industrial use
- Agricultural irrigation
- Unmetered uses and leakage.

B. For purveyors that meter water at the point of service, calculate seasonal water use on a residential unit basis. Separate water use statistics into residential in-house and residential irrigation components.

C. Use above information to separate water consumption from purveyors that do not meter water at the point of service into the above categories.

In performing this calculation take into account the tendency for users who have unmetered service to use more water. The excess water use concept needs to be verified by comparison of local data for metered and unmetered providers. May be able to compensate by assuming a baseline in-house use and attributing excess to irrigation.

Subtask 2.2 Collect Water Withdrawal Data from Commercial / Industrial Users for their own wells or surface water source.

A. Contact large commercial / industrial users for monthly water withdrawals, discharge to the Waste Water Treatment Plant, discharge to rivers, and irrigation use. Separate into ground water and surface water sources. Users contacted should include, but are not limited to the following:

- Fairchild Air Force Base
- Avista

A. Identify small commercial / industrial users and estimate water use. Recognize that this may not be a quantity of water significant to the overall water balance in the study area (Deliverable due 02/06).

Subtask 2.3 Collect Well and Surface Water Withdrawal Data from Agricultural Users.

A. Collect information on the number and location of irrigated acres. Use crop type, soil type, and location to estimate the annual average application rates. Separate irrigation water use into ground water and surface water sources.

B. Collect data on average annual livestock and water use.

C. Users and information centers contacted should include, but are not limited to the following:

- Hutterian Community
- County Conservation Districts
- Cattleman's Association
- Washington Association of Wheat Growers

Subtask 2.4 Estimate Water Withdrawals from Wells with Domestic Exempt Status and Group B water systems.

A. Evaluate the number of households using domestic exempt wells and Group B systems (by subtracting the number of residential connections provided by the water purveyors from the number of houses in Spokane County, Spokane Tribal Reservation, Stevens County, Lincoln County and Spokane County Assessor's records).

B. Use household water use from subtask 3.1 to estimate monthly household water use and residential irrigation (it may be necessary to increase the irrigation values because of lot size, depending on the precipitation of the area).

C. Estimate stock watering values for small acreage animal owners.

Subtask 2.5 Estimate Recharge to the System and Discharge out of the System From Used Water.

A. Collect water quantity inflow data from the City of Spokane Advanced Waste Water Treatment Plant. Separate into residential, commercial / industrial, and stormwater values.

B. Estimate recharge from residential and agricultural irrigation.

C. Determine the number of households using septic systems and estimate recharge from septic systems.

TASK 3.0 Water Rights and Claims

Purpose:

The purpose of this task is to evaluate, to the degree possible, the amount of water currently allocated for use in WRIA 54. The assessment will attempt to estimate maximum pumping rate, average pumping rate and total withdrawals allowed on a monthly basis for each of the subbasins in the study area.

The large number of wells installed under the "Groundwater exemption" provisions of state law in some subbasins create a special problem. Developing an acceptable method for converting these "water rights" to use rates will be a significant part of this task.

While there are formal processes for perfecting water rights and reallocating water among water rights holders in over appropriated basins, none of these can be completed in a time frame useful for this study. Therefore, task activities include reviewing existing "paper" on rights and claims, make assumptions about those documents, state those assumptions and perform the needed calculations to estimate the impact of withdrawals per the existing water rights on water resources. The calculations will be made to "bracket" the central value with a range that has a high probability of containing the water uses that would be allowed given the execution of formal water rights processes.

Due to the nature of this data spreadsheet models and Geographic Information System presentation of the data will be the key element of output.

Sub—Task 3.1 Evaluate Existing Water Rights

A. Summarize both instantaneous pumping and annual use values for current water rights.

B. Create a spreadsheet showing likely water right use by month. Water use information from subtask 2.1 can be used to estimate monthly probable use amounts. Irrigation rights (only good for six (6) months of the year) should be allocated in the months they are most likely used.

C. Include subbasin information in the spreadsheet. Total data by subbasin.

Subtask 3.2 Evaluate Existing Water Use Claims

A. Accumulate and tabulate data on water use claims.

B. Develop and use some method for evaluating the validity of the claim. Create a spreadsheet showing likely water claim use by month. Water use information from subtask 5.1 can be used to estimate monthly probable use amounts. Irrigation claims (only good for six (6) months of the year) should be allocated in the months they are most likely used.

C. Include subbasin information in the spreadsheet. Total data by subbasin.

Subtask 3.3 Estimate "Rights" associated with Domestic Exempt Wells

A. Multiply the number of domestic exempt wells determined in subtask 3.4 by 5,000 gallons per day to estimate the water "rights" associated with domestic exempt wells. Assess the rationality of using the 5,000-gallon per day maximum for areas where it is seldom possible to pump that high a quantity in one day.

TASK 4.0 Develop Estimates of Instream Flow Needs

Purpose:

In this task, estimates of the minimum flow required for maintaining the vitality of the Lower Spokane River will be developed. A thorough, science-based review of instream flows needed to maintain water quality and trout rearing habitat will be a component of the set of information relied upon for evaluating the availability of water for other uses. Waste assimilation capacity needed to keep the river in compliance with water quality criteria for current point and non-point discharges will be key factors used to evaluate water quality flow needs. In so far as assistance from the state Departments of Ecology and Fish and Wildlife is available to support the work, the free flowing reaches will provide the basis for making a recommendation for in-stream flows to Ecology for fish habitat requirements.

In addition to these instream uses, there are a number of locations on the Lower Spokane River that receive heavy non-fishing based recreational uses. These uses include; swimming boating, canoeing, kayaking, and rafting. While these uses are more flexible in their flow requirements, there are still flow and quality considerations that should be included in this evaluation.

Subtask 4.1 Instream Flow Need for Aquatic Biota

A. Collaborate with Ecology and Washington Department of Fish and Wildlife to identify an appropriate method for identifying instream needs for the Lower Spokane River.

   Additionally, evaluate the tributaries (i.e., Deep Creek and Coulee Creek) for further evaluation, especially those tributaries that have potential fisheries.

Subtask 4.2 Instream Flow Needs for Water Quality Management

A. Review existing water quality modeling of the impact of the City's Advanced Wastewater Treatment Plant and other existing and proposed discharges on water quality. Use these models to evaluate the treatment cost/benefit that would accrue from having a minimum flow controlled at levels consistent with optimum aquatic habitat maintenance.

B. Explore local and regional literature for existing models to evaluate the effect of increased minimum flows on the impact of non-point source contamination.

C. Evaluate the effects of flow on dissolved oxygen and temperature in the Lakes (long Lake, Little Falls pool, and the Spokane area of Lake Roosevelt).

Subtask 4.3 Instream Flow Needs for Other Uses

Power production at the several dams in the study area is an important element in the overall scheme of water management. There is some evidence that the currently measured, late summer, minimum flows are caused by artificially retaining water in upstream lakes.

A. Prioritize instream flow needs of all uses and develop a single instream requirement or instream flow range(s) (possibly based on or related to the seasons).

B. Review water use capability of the regions' hydropower production facilities and incorporate the positive and negative impacts accrued from increased power production during low flow periods and the concomitant increase in minimum flow.

C. Incorporate information regarding the Spokane River hydrograph and current minimum flows to changes in Lake Coeur d'Alene levels (storage).

D. Evaluate the opportunities for other in stream recreational uses, *e.g.* boating, rafting, *etc*., under current minimum flow conditions and the changes in those opportunities under an increased or decreased minimum flow requirement.

Deliverable: Final Report on Lower Spokane River Instream Flow Assessment

Subtask 4.4 Instream Flow Assessment and Augmentation Possibilities

The purpose of this subtask is to use an order of magnitude estimate of the current flow and desired flow values to produce an order of magnitude estimate and identify potential sources of water to meet the short term, low flow augmentation needs.

A. The existing observed low flow conditions are likely contributory to at least some of the water quality problems in these streams. Develop estimates of flow that support all instream and out of stream uses, develop flow augmentation scenarios.

B. Identify and evaluate potential sources of water for instream flow augmentation. Include at a minimum intrabasin transfer of water or pumping rights, strategic placement of waste water or other discharges, seasonal changes in groundwater pumping location to minimize impact on

stream flow, artificial recharge of groundwater during spring runoff and seasonal draw down of Lake Coeur d'Alene.

TASK 5.0 Develop a Generalized Water Balance for WRIA 54

Purpose:

The purpose of the Data Collection and Assessment Phase of this study is to establish a water balance and to meet the legislative requirements of the Watershed Planning Act for the Lower Spokane River watershed. The legislation establishing Local Watershed Planning as a watershed management option recognized the water balance as a useful model for making water resources management decisions. The detail of the water balance needs to be great enough to assure all parties that the water "availability" reported by the assessment is appropriate for planning future water use. The water balance to be produced under this task will rely mostly on existing data. Driving the decision to rely primarily on existing data is the large amount of existing data available and the limited funding available for doing new work.

The Water Balance developed for use here will be developed to "model" the flow in the Lower Spokane River at key points of interest. The water balance will consider the following elements:

- *Stream flow of the River at defined boundaries.*
- *Interchanges between the River and underlying ground water*
- *Direct recharge to ground water from precipitation*
- *Recharge to ground water and stream flow from adjacent drainages*
- *Recharge to ground water from irrigation*
- *Water withdrawals for domestic supply, industrial use and irrigation.*
- *Evapotranspiration*
- *Groundwater entering and exiting the basin*

Subtask 5.1 Delineation of Watershed Boundaries Used for Water Balance Calculations

A. Identify a system of basins and subbasins that define the total recharge system for both stream flow and groundwater within the study area.

The Spokane Valley – Rathdrum Prairie Aquifer (Aquifer) underlies several WRIAs and requires a comprehensive and inclusive water balance approach. The approach will include a water balance between WRIAs 55, 57, and 54.

B. Assess and collect available GIS mapping for the identified basins and subbasins.

For several water balance components the desired approach to water balance modeling is to evaluate water flux within a defined geographic area and use GIS techniques to "sum" the fluxes. The viability of this approach will depend on the level of availability of suitable map coverage.

Subtask 5.2 Delineation of Ground Water Units in Study Area

A. Using existing studies as a starting point, delineate important, discrete ground water units. Important units are those that directly interact with the Lower Spokane River or are hydraulically connected to known ground water units or streams that do.

It is anticipated that ground water units that meet the criteria above are currently identified or at least partially identified in existing work. Identifying ground water units is deemed important as a separate subtask since most water withdrawn for human use is from ground water. Subbasin water balances on ground water units may simplify overall modeling by showing areas where there would be no net flux into the regional system due to water use and the sustained yield rate.

B. Assess and collect available GIS mapping for the identified ground water units. Prepare maps for conversion to GIS coverages for those ground water areas not currently mapped.

C. Incorporate the findings of the ongoing Bi-State Study of the Spokane Valley – Rathdrum Prairie Aquifer (WDOE, IDWR and USGS).

Subtask 5.3 Establish Flow Conditions for the Lower Spokane River.

This subtask will produce information on the "boundary flow conditions" for the Lower Spokane River. Due to the interconnected surface and groundwater resources, the boundaries are difficult to define and may need to include adjoining WRIAs 55, 56 and 57 to utilize existing information.

The second major component of this subtask is to identify and quantify gaining and losing reaches in the Lower Spokane River. This information will help evaluate the effect of ground water pumping on surface water flow. It will also help identify sources and sinks of water that may be useful for establishing flow augmentation strategies.

A. Determine if the accuracy of the existing data is adequate for making future water use policy decisions. Identify existing flow measurement data sources and tabulate incidental data. Include at a minimum.

- City of Spokane Advanced Wastewater Treatment Plant discharges
- Gauging station data from USGS operated sites
- Gauging station data from SCC operated sites
- Hydroelectric Development (HED) flow data from Nine Mile, Long Lake, and Little Falls HEDs.
- Basin flow information from existing data on file in the Spokane County storm water and watershed basin plans.

B. Compile a report based on the data in (A) above on the effect of ground water - surface water interactions on the "mass balance" of water in the WRIA. Identify data shortfalls.

C. Use existing data and on going studies to identify gaining and losing reaches of the Lower Spokane River within the study area.

D. Identify stream reaches on the Lower Spokane River important for aquatic biota.

Subtask 5.4 Estimate Ground Water Recharge and Stream Flow Augmentation From Peripheral Drainages

For subbasins where flow estimates have not been made, the Unit Flow method, applying data from the areas identified as having good data, could be used to produce estimates.

A. Identify subbasins with at least seasonal surface flow. Delineate subdrainage boundaries and calculate land areas.

B. Evaluate which basins provide flows large enough or variable enough that they need to be directly measured. A first approximation of flow in unmeasured basins will use the Unit Discharge Method. Basins that produce a predetermined fraction of basin flow will be selected for investigation.

C. Compare historic data and current study data generation efforts with /or measure flows on critical basins.

D. Estimate groundwater recharge and stream flow from the delineated peripheral basins.

Subtask 5.5 Estimate Direct Recharge from Precipitation

A. Identify weather data sources.

B. Identify different models that predict runoff and infiltration. These may include; Idaho Department of Environmental Quality (DEQ) Land Application Study, Inland Empire Paper's tree farm study, the State of Washington Irrigation Guide, Department of Agriculture, and the Natural Resources Conservation Service.

C. Assess whether the Mike SHE Model used in WRIA 44/57 can be used for this purpose.

D. Identify major categories for different crops, native plant cover, and various land uses and give typical ranges of evaporation and transpiration for those categories. Determine if more than one type of model should be used to accommodate these different land use categories.

E. Calculate the evaporation from known reservoirs and include in the results in the water balance calculations.

F. Develop GIS map coverages for evapotranspiration water loss.

Subtask 5.6 Evaluate the Impact of Irrigation on Ground Water (both extraction from groundwater and recharge of groundwater)

In this subtask, both agricultural and residential yard irrigation will be evaluated. Water use for agricultural irrigation will be based on water rights documents. Actual use will be reviewed in some test cases. When specific water use information is not available, irrigation use will be calculated by assuming that winter water use reflects "in house or base flow" use with any excess over the winter use pumped during other seasons is used for irrigation.

A. Estimate agricultural irrigation water use from water rights and claims and apply appropriate evapotranspiration and runoff factors to determine ground water recharge and stream flow augmentation from irrigation.

B. Form a model of water use for residential and commercial irrigation based on seasonal variation in water use (see Task 3) and apply appropriate evapotranspiration and runoff factors to evaluate ground water recharge from irrigation.

C. Evaluate the amount of consumptive loss from irrigation. Evaluate if it is significant.

D. Evaluate what percentage of purveyor-supplied water from outside of WRIA 54 may recharge ground water within WRIA 54.

Subtask 5.7 Consider the Impact of Other Uses on Groundwater

Subtask 5.8 Evaluate the Potential for Using Numerical Modeling in the Study

A. Evaluate existing numerical models of the Spokane River and Spokane Valley- Rathdrum Prairie Aquifer System to evaluate how well measured flow and modeled estimates of flow compare. Evaluate if modeling with the existing tools would be helpful in future water resource management in the Lower Spokane River Watershed (i.e., MIKE SHE Model or the USGS MODFLOW Model being constructed for the Bi-State Aquifer Study).

B. Evaluate the availability of data for developing numerical models of the groundwater – surface water interactions in the Lower Spokane River Watershed.

C. Where appropriate, incorporate numerical modeling of the groundwater and surface water system into the water balance developed in Task 2 and into other tasks as appropriate.

D. Assess the costs needed to develop any new data needed to implement a modeling program.

Subtask 5.9 Data Collection and Model Development

A. If modeling is deemed appropriate or necessary for long-term water resources management in WRIA 54, collect data and develop the appropriate model(s).

TASK 6.0 Estimation of Future Water Needs

Purpose:

Task 5 will focus on predicting water needs for projected growth per Chapter 90.82 RCW. Predictions will be based on population changes consistent with the Growth Management Act planning allocations of population to the County, towns and cities in the study area.

Projections will be made without the implementation of water conservation plans in place. The projected needs from this task will be combined with instream flow requirements determined in Task 4 to determine the geographic and temporal extent of the low flow shortages in the study area.

Subtask 6.1 Estimate Future Water Use Needs

A. Estimate the impact of human population growth and commercial/industrial development in the year 2025 on WRIA 54 water resources demand.

B. Estimate potential for water conservation, reuse and reclamation savings and factor it into the impact of human population growth in the year 2025.

C. Estimate the impact of utilizing inchoate (currently unused portion of water right) water rights on WRIA 54 water resources.

Sub—Task 6.2 Water Conservation Impacts on Water Use

A. Estimate potential water savings of purveyors by finding out what they are already doing to conserve water and what they could be doing (i.e. leak detection, metering, conservation rate structures).

B. Estimate water conservation impacts of automatic sprinkler systems and alternative landscaping practices on future irrigation water use.

Deliverable: Phase II Data Compilation and Assessment Report (June 30, 2007).

TASK 7.0 Water Quality

Purpose:

In the absence of additional funding, the water quality evaluation section of this planning effort is limited to those water quality elements that are directly affected by flow. Fortunately, there is a great deal of existing water quality data available for the study area and there are several major water quality studies under way. The large amount of data being collected will need to be evaluated in light of some of the objectives of watershed planning.

Subtask 7.1 Compile and Review Existing Data

A. Compile existing water quality data from local, state, tribal, and federal sources. Include the USGS "Retrospective Study," part of the Rocky Mountain National Water Quality Assessment of regional water quality.

B. Assess quality-impacted waters listed by Ecology on under Section 303(d) of the Clean Water Act for surface water. Variations in water quality data will be assessed for seasonal influences, flow related changes and input sources. Also, compare listings made by state and/or federal agencies with limited databases with the result that may be derived using the larger database developed in subtask 7.1 (A).

Knowing that many groundwater systems in the region show significant seasonal variation in quality, carefully evaluate sites with limited water quality data before listing them as impaired.

Quality impacted waters on reservation lands will be assessed separately according to Tribal Law.

C. Incorporate results of water quality investigations being conducted by Avista and the Spokane Tribe, and dissolved oxygen and PCB total maximum daily load investigations currently being conducted by Ecology on the Middle and Lower Spokane Rivers.

Subtask 7.2 Identify Flow Related Components of Water Quality

A. For surface water bodies identified in Task 7.1, identify those that may be related to seasonally diminished flows.

B. Develop a flow – quality relationship to help define flow needed to minimize quality problems (dilution is not the solution).

C. Identify quality impacts that groundwater has on flow impaired surface water. Evaluate where groundwater recharge to surface water may increase surface water degradation, i.e., where groundwater quality is more impaired than the surface water it recharges.

D. Evaluate the potential impact of future water use plans on flow related water quality components.

> *Future water use includes any movement of water between basins or the release of impounded waters from upstream reservoirs to augment seasonal low flows (i.e., instream flows in Hangman Creek as determined in the WRIA 56 watershed planning process and/or minimum discharge from Post Falls HED as part of Avista's relicensing process).*
>
> *Future water use needs to include municipal water use derived from the purveyors General Water Plans and similar documents, the County Coordinated Water Supply Plan, potential future Industrial water use as indicated by industry recruiting organizations and Tribal domestic and commercial/industrial future demand projections.*
>
> *Elements to be examined here include the possible effect of increased water use on seasonal low flows and the associated water quality problems; the potential negative quality impacts that might result to either groundwater or surface water as a result of changes in the rate of interchange or the reaches in which interchange occurs caused by future water use; and the potential impacts from increased discharges of treated wastewater or other "return flows" due to future water use.*

Subtask 7.3 Prepare Data Collection and Analysis Plan

The criteria developed here should be applied not only to the data collection identified in Subtask 7, but also in other tasks requiring water quality data collection. This task will include work stemming from recommendations developed in the Phase II Level I data summary. The recommended data collection and assessment plan (DCAP) should closely parallel those procedures used for collection of data for work done prior to Phase II.

A. Identify water quality parameters for which more data is needed. The intent is to focus on the parameters that will be most affected by flow and currently missing in the database. Design a data collection plan for these parameters.

B. Develop a DCAP that allows for the collection of additional data.

C. Assess quality control and quality assurance (QA/QC) procedures implemented during data collection to confirm data validity.

Subtask 7.4 Data Collection, Analysis, and Reporting

A. Compile, assess and interpret the water quality data for presentation as a final report. Present the results of the Phase II Assessment in a draft report for the Planning Unit to review.

Deliverable: Water Quality Final Report (June 30, 2007).

Phase III Scope of Work Watershed Plan Development

The existing and new information will be organized and synthesized for the Planning Unit to review and consider management options in the Lower Spokane River Watershed. The Watershed Plan will contain the technical details and summary of the findings of all the tasks in this project. Recommendations and an implementation matrix follow the technical summary. Combined, the recommendations and implementation matrix explicitly detail what needs to be implemented and by who.

TASK 1.0 Technical Summary

Summarize all of the technical details that are pertinent to water resources in WRIA 54 and present a conceptual hydrologic model for the watershed. The sections of the Washington State RCW that describe the instream flow and water quality watershed plan requirements are Chapter 90.82.080RCW and Chapter 90.82.090RCW, respectively. These sections list what must be included in the watershed plan, if the initiating governments plan to investigate both of these two optional elements.

TASK 2.0 Recommendations

The Planning Unit (or work group) created recommendations on how best to manage the water resources in WRIA 54. The recommendations are organized under general policy statements, similar to broad-based goals, and issues that define the Planning Units intent and identify issues within the watershed.

TASK 3.0 Implementation Matrix

An implementation matrix listing all of the recommendations vertically and either implementing governments or non-legislative agencies horizontally will be prepared for the Planning Unit review and approval. The non-legislative agencies and implementing governments will commit themselves to implement recommendations listed on the matrix.