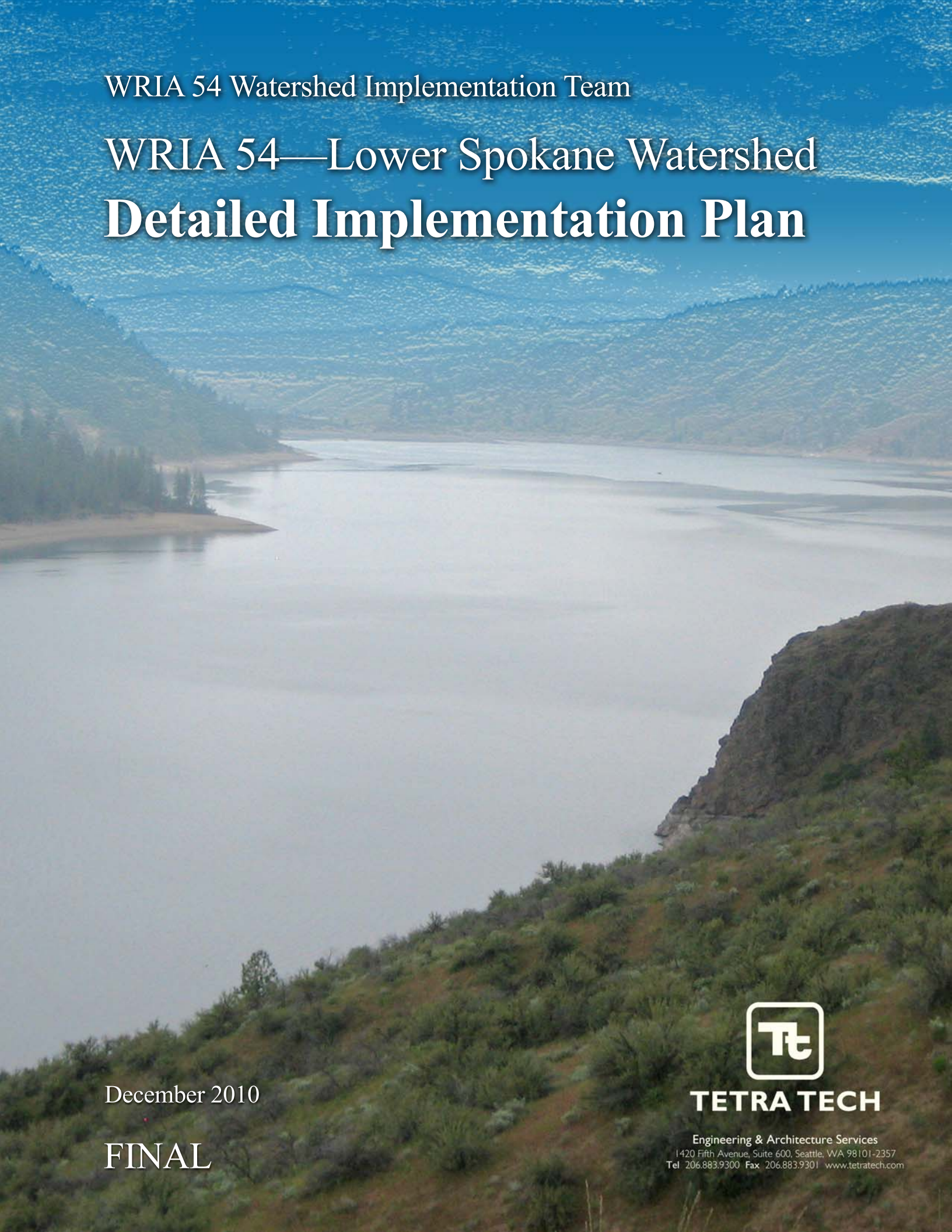
WRIA 54 Watershed Implementation Team

WRIA 54—Lower Spokane Watershed
Detailed Implementation Plan



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WRIA 54 Watershed Implementation Team

WRIA 54—LOWER SPOKANE WATERSHED DETAILED IMPLEMENTATION PLAN

DECEMBER 2010

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Project #135-17247-10001

WRIA 54 Watershed Implementation Team

WRIA 54—Lower Spokane Watershed Detailed Implementation Plan

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EXECUTIVE SUMMARY

The detailed implementation plan for Water Resource Inventory Area (WRIA) 54 (Lower Spokane Watershed) provides a framework for implementing strategies presented in the 2009 *WRIA 54 Watershed Plan* and evaluating their effectiveness. Developing the WRIA 54 Watershed Plan was Phase 3 of the planning process outlined in Washington's 1998 Watershed Planning Act. Implementation of the watershed plan represents Phase 4, the first year of which focused on developing the detailed implementation plan. To prepare the implementation plan, the watershed plan actions were ranked to develop priorities and a schedule for implementation.

STUDY AREA DESCRIPTION

WRIA 54 is one of 62 major watersheds delineated under Washington's Water Resources Management Program. It covers 883 square miles in eastern Washington in the Columbia River Basin. WRIA 54 includes all of the City of Airway Heights and portions of the Cities of Spokane and Medical Lake. Three counties—Spokane, Stevens and Lincoln—occupy land in WRIA 54, as do Fairchild Air Force Base and much of the Spokane Indian Reservation.

The Spokane River is the dominant surface water body in WRIA 54. Numerous tributary streams drain from the high plateau to the south of the river and the highlands north of the river, but Chamokane and Little Chamokane Creeks are the only major tributaries in WRIA 54 that have a year-round surface water flow connection to the Spokane River. The major tributaries Hangman/Latah Creek and the Little Spokane River enter WRIA 54 via their own watersheds, WRIAs 56 and 55 respectively. Principal aquifers in WRIA 54 generally lie within unconsolidated sands and gravels, basalt, and basement rocks.

TECHNICAL ISSUES ADDRESSED BY THE WATERSHED PLAN

The strategies proposed in the WRIA 54 Watershed Plan target specific technical issues affecting the study area that were identified during the planning process. These issues are grouped in the following categories:

- Water Rights Administration (WRA)—The management and processing of legal water rights
- Water Use Efficiency (WUE)—Water conservation and reuse activities
- Water for Future Needs (WFN)—Projecting future needs and making plans to accommodate them
- Water Storage (WS)—Storing water to meet instream and out-of-stream water demand
- Water Quality (WQ)—Addressing current deficiencies and preventing them in the future
- Land Use (LU)—Management of development with consideration of available water supply and water quality impacts
- Technical Investigations (TI)—Technical information and studies needed to adequately resolve issues identified in the watershed plan
- Education (EDU)—Broad dissemination of information related to water resources.

MUNICIPAL WATER SUPPLY AND DEMAND PROJECTIONS

Table ES-1 shows the water rights of each municipal water supplier in WRIA 54, the current water use, the projected use, and the difference between the projected use and existing water rights, as described in

each purveyor's current water system plan. This listing includes systems that meet the current definition of municipal water supplier, as modified by a 2008 court ruling. Privately owned water systems, such as Indian Village Estates, are not included, per the revised definition.

TABLE ES-1.
WRIA 54 INCHOATE WATER RIGHTS

	Water Right		Current Use		Projected Use		Difference Between Water Right and Projected Use	
Water Right #	gallons/ minute	acre-feet/ year	gallons/ minute	acre-feet/ year	gallons/ minute	acre-feet/ year	gallons/ minute	acre-feet/ year
City of Airway Heights					**Projected to 2027**			
Total	**2,315**	**2,326**	2,448	1,378	6,693	2,848	-4,378	-522
Consolidated Support Services[a]					**Projected to 2022**			
Total	**2,550**	**4,000**	1354	519	1625	623	925	3,377
Fairchild Air Force Base					**Projected to 2028**			
Claim 112893	2500	3130.24	2,226	2,085	2,226	2,085	274	2,591
Claim 112895	1000	1545.79	894		894		106	
Claim 112892	1000	1545.79	954	10.28	954	10.28	46	1,535
Spokane County Water District 3, System 9					**Projected to 2027**			
7432-A	275	112	90	13	90	13	185	99
City of Spokane[b]					**Projected to 2027**			
3199-A	25000	20000	25,000	12,615	25,000	14,500	0	5,500
728-A	11000	4080	19,000	4,026	19,000	4,700	12,000	380
503-D	20000	1000						
Stevens County PUD - Lake Spokane					**Projected to 2024**			
Total	**7,942**	**3,037**	6,551	2,175	6,801	2,487	1,141	550
Stevens County PUD - Spokane Lake Park					**Projected to 2024**			
Total	**2,500**	**1,000**	900	102	900	118	1,600	882
Stevens County PUD – River Park Estates					**Projected to 2024**			
G3-27510C	65	48	64	21	65	48	0	0
Stevens County PUD - West Shore					**Projected to 2024**			
Total	**1,100**	**285**	840	201	840	234	260	51

a. Consolidated Support Services provides water to the City of Medical Lake, a portion of which is outside WRIA 54.
b. The City of Spokane service area includes a large area outside of WRIA 54. Only the wells located within WRIA 54 and their associated water rights are listed. This current and projected use may not be located entirely within WRIA 54.

HIGH-PRIORITY PROJECTS

Identification

The first step in the implementation process was to rank the actions and strategies recommended in the Watershed Plan. The resulting list is not intended to indicate relative priority; all recommendations listed are equally considered to be high-priority. The following high-priority recommendations were identified through this process:

- **Recommendation WRA-1**—Recommend that the State Legislature provide more staff and funding to Ecology to process water rights and for compliance activities. The Planning Unit particularly encourages consideration of establishing a regional water master to support, for example, instream flow and adjudication, to enforce against illegal water use, to help process water right applications and transfers, and to provide public education on water rights.
- **Recommendation WRA-3—**Consider prioritizing hydrologic subbasins for Ecology to process water rights applications. Note that all subbasins in a priority area would need to be included and that Ecology has to follow state laws to process water rights in order of application date, but can do so within a subbasin or watershed.
- **Recommendation WRA-4—**Conservancy Boards in Stevens, Spokane and Lincoln Counties should develop and maintain a public database of willing water rights buyers and sellers within their respective Counties. The Conservancy Boards will need to make statements that the extent and validity of water rights in the database are not guaranteed. (This is currently being implemented by the Stevens County Water Conservancy Board.)
- **Recommendation WRA-5—**Recommend that the Spokane Tribe develop a water code for the Spokane Tribe and Reservation, including fee lands.
- **Recommendation WRA-6—**Review, discuss, and recommend improvements to the relinquishment law.
- **Recommendation WUE-2—**Recommend that local governments work toward improved water use efficiency in landscaping and other outdoor water uses.
- **Recommendation WUE-3—**Recommend that counties, cities and water purveyors develop and implement indoor and outdoor water conservation incentives.
- **Recommendation WFN-1**—Consider a regional management and coordination organization for water supply on the West Plains. The West Plains bridges WRIAs 54, 43, 56 and 34, Spokane and Lincoln Counties, and several cities, making a planning/management area specific to the West Plains necessary. This organization should encourage improvement of connectivity between water systems, as allowed by cost and water right constraints.
- **Recommendation WFN-3**—Recommend formation of a Chamokane Basin Watershed Council to resolve water-related issues in the Chamokane Basin. This Watershed Council may consist of, but not be limited to, residents of the Chamokane Basin and the Spokane Tribe. (Note: This early implementation action was not included in the original list, but was already ongoing and considered high priority.)
- **Recommendation WFN-4—**Local governments, the Spokane Tribe, and water purveyors should assess subarea water supply needs, identify appropriate measures from a range of options, and facilitate options that are economically viable and provide long-term sustainability.
- **Recommendation WFN-5—**Establish a program to collect data and evaluate where permit-exempt wells are a concern. Develop management options for problem areas. Affected local

governments and Ecology should provide technical support and funding; counties, purveyors, Ecology and Regional Health District should coordinate. Program components could include:

  - Conduct buildout analysis for subbasins and study areas according to current zoning and projected water needs
  - Develop water supply and demand forecasts for subbasins and study areas, including extending water service into these areas from existing water purveyors
  - Consider protecting areas of strained water resources through critical areas ordinance or water supply overlay zones if alternate water supply is not feasible.

- **Recommendation WFN-7—**The state Legislature should amend current law to allow water banking throughout the state.
- **Recommendation WS-3—**Promote and support water storage projects initiated by individual entities throughout the watershed to meet instream flows and to provide water for residents, business and projected growth in Spokane, Lincoln and Stevens Counties and the Spokane Indian Reservation. Several projects have been identified in the Chamokane Creek watershed.
- **Recommendation WQ-1—**Implement the monitoring described in the Quality Assurance Project Plan for the Nine Mile Area Non-Point Source Monitoring Study (Tetra Tech, 2009) and proceed with a study to monitor and assess non-point sources from the surface water and groundwater that drain directly to Lake Spokane.
- **Recommendation LU-6—**Recommend that counties, purveyors and Ecology collaborate to develop flexible local guidelines for demonstration of water supply availability and sustainability. Methods may include but are not limited to hydrogeologic investigation and characterization reports.

  Recommendation LU-7—Recommend that Ecology provide technical assistance and funding for ongoing support in the implementation of guidelines developed in Recommendation LU-6 to demonstrate sufficient water availability and sustainability for proposed and existing uses for comprehensive plan amendments and associated zoning changes.

  Recommendation LU-8—Recommend that Spokane County require applicants to demonstrate sufficient water availability and sustainability for proposed and existing uses for comprehensive plan amendments and associated zoning changes.

  Note: The three recommendations above were ranked as a group.

- **Recommendation LU-11—**Evaluate methodologies and the review process used to determine water availability for proposed development projects, in order to better determine that permitted projects have a viable water supply.
- **Recommendation LU-12—**Recommend Spokane County add the following condition for the approval of a final plat: "Prior to filing the final plat, the applicant will demonstrate provision of adequate potable water supply by providing one of the following:
  - A letter from a water purveyor stating they will serve the proposed subdivision. If a plat is not developed for a specified amount of time, this commitment may need to be reconfirmed.
  - A copy of a water right permit from the Department of Ecology with adequate quantity to serve the proposed subdivision.
  - A plan to supply the proposed subdivision within the groundwater exemption specified in RCW 90.54.050 that complies with the 1997 Attorney General Opinion, Washington

State Supreme Court Decision Department of Ecology vs. Campbell and Gwinn, LLC and Washington State Department of Health guidelines for residential water use."

- **Recommendation TI-1—**Basalt Aquifer Groundwater Study—The Columbia River Basalt Group aquifers that underlie the West Plains area are used for water supply. Groundwater levels have declined in some areas, indicating the groundwater resource is potentially strained. These aquifers (there are at least three distinct aquifers within this) are not well understood. Elsewhere in the Pacific Northwest, basalt aquifers are used extensively for water supply, indicating that a better understanding of the Columbia River Basalt Group aquifers in the West Plains area would be beneficial to understand how this resource can be used in a sustainable way.
- **Recommendation TI-2—**Identification of Areas of Strained Water Resources—Identifying potential and existing areas of strained water resources, where water supply is not currently available to meet growing water demand for out-of-stream water needs, is a major data need for WRIA 54. Stevens, Lincoln and Spokane Counties all have begun developing more proactive methodologies to identifying these areas within their jurisdictions, and enacting programs to address the challenges associated with these areas. Development of methodologies to accurately identify areas of strained water resources and tools to manage land use needs associated with these areas. Elements of this work may include the following:
  - Conduct buildout analysis for subbasins and study areas according to current zoning and projected water needs. Note that Ecology guidance suggests using 20-year projections from the state Office of Financial Management for setting instream flows and allocating water for future out-of-stream uses.
  - Develop water supply and demand forecasts for subbasins and study areas.
  - Compile well information, including number, location, construction specifications, and use.
  - Develop estimates for actual water use.
  - Hydrogeologic study to understand the available water resources.
  - Compile complaint database information.
  - Work with area residents to understand their needs so practical solutions can be found.
- **Recommendation TI-3—**Develop Water Supply and Demand Forecast for Prioritized Areas
  - Utilize growth projections, zoning, building/permit activity
  - Relate to parcel data, water service areas
  - Identify existing water sources and capacity
  - Determine unit water needs and conservation/infrastructure assumptions.
- **Recommendation EDU-2—**Conduct a water resources education needs assessment in WRIA 54.

Detailed Development

High-priority projects were categorized according to the following schedule:

- Early implementation actions—project work is already underway or completed
- Immediate-term action—will be implemented within 1 to 2 years (by the end of 2012). In some cases, planning is already underway for these projects

- Medium-term actions—planned for implementation in the 3- to 5-year timeframe
- Long-term actions—planned for implementation beyond five years.

All but one of the high-priority projects (WRA-3, Prioritizing subbasins for water right processing) were further developed for implementation. No WIT members expressed interest in leading implementation of WRA-3 at this time. The highest level of detail was developed for immediate-term actions, with the intention of developing a similar level of detail for medium-term projects during the first implementation plan update in 2012.

HIGH-PRIORITY PROJECT SUMMARIES

Tables ES-2 and ES-3 summarize the action plans for the early-action and immediate-term projects, respectively. Detailed development of implementation details for recommendations identified to begin in the medium and long-term—Recommendation EDU-2 (Water Resources Needs Assessment) and WFN-4 (Assess and Plan for Subarea Water Needs)—were deferred.

IMPLEMENTATION SCHEDULE

Table ES-4 summarizes the recommended schedule for implementing the WRIA 54 recommendations. The detailed implementation plan will be reviewed bi-annually throughout Phase 4. As part of the review, projects and progress will be re-evaluated, and actions will be added, removed or revised as needed.

WRIA 54 GOVERNANCE

Spokane County will continue to serve as lead agency for grant administration, coordination, and contracting throughout Phase 4. The WRIA 54 Planning Unit has served as the planning team throughout Phases 1 through 3 of the watershed planning process, and has now renamed itself the Watershed Implementation Team to be consistent with other Spokane River WRIAs. Membership has not changed. Beyond Phase 4, the Watershed Implementation Team may consider transforming to a different governance structure such as a watershed management partnership or nonprofit corporation.

Much of the direct project work during Phase 4 is likely to be done or directed by subregion or topic-specific subcommittees, such as a West Plains hydrogeology work group, or the Chamokane Watershed Council. The WIT will coordinate this work with adjacent WRIAs whenever possible and appropriate, as there are many areas of overlapping priorities and projects in the region.

TABLE ES-2.
ACTION PLAN FOR EARLY IMPLEMENTATION PROJECTS

Project	Project Team	Approach and Action Items
WRA-4 (Public database for water rights buyers/sellers)	Spokane County (lead), Stevens County (participant)	Stevens County Conservancy Board has an established program that could be a model for the Spokane County Conservancy Board. Spokane County will provide information about the program to the Spokane County Conservancy Board, including the water rights trust program.
WFN-7 (Water banking)	—	Senate Bill 5583, passed by the state Legislature in 2009 (RCW 90.42), addresses this recommendation.
WFN-3 (Chamokane Watershed Council)	Stevens County Conservation District (lead)	Regular meetings are held to provide information and technical assistance to residents. Emphasis is currently on implementing the water quality improvement and stream restoration projects recommended in the Chamokane Watershed Plan. The group plans to form a Council to work on long-term subbasin water concerns and issues.
TI-3 (Water supply and demand forecast)	Spokane County (lead); Stevens County, City of Spokane (participant)	This is an ongoing project for the Spokane County region, with demand forecast model and baseline forecast completed on June 30, 2010. Many Spokane County water purveyors are participating through an advisory committee.

TABLE ES-3.
ACTION PLAN FOR IMMEDIATE-TERM PROJECTS

Project	Project Team	Approach and Action Items
WFN-1 (West Plains water supply coordination)	City of Airway Heights (lead), Spokane County, Palisades Neighborhood Organization, City of Spokane, Ecology (participants)	The City of Airway Heights will convene a forum similar to when Ecology gathered water purveyors together to discuss a cooperative effort to provide water for West Plains water needs. This forum could play an advisory role to elected leaders who have the authority to enter into agreements and commitments regarding water supply. This effort would include WRIAs 34, 56, and 43. Although the coordination role for a WRIA 54 group is uncertain, given that coordination is provided under the Coordinated Water System Plan, in the immediate term the group will explore where the needs and interests of participants lie.
TI-1 (West Plains hydrogeology study)	Airway Heights, Spokane County (leads); Palisades Neighborhood Organization, Spokane County Conservation District, Bob Derkey, EWU (participants)	Spokane County convened a technical work group to develop a project plan (see Appendix B). The project plan builds upon previous and ongoing hydrogeologic studies, which include the exempt well study, geophysics study, and mapping work. The City of Airway Heights is pursuing grant funding for a larger basalt aquifer study; if that study is funded it may fulfill many aspects of the needed work. The approach envisioned by the technical work group is for individual participants to undertake discrete elements of the project plan in a coordinated fashion. Immediate actions include developing a hydrogeologic database and constructing monitoring wells. External funding will be needed to support these efforts.

TABLE ES-3 (continued).
ACTION PLAN FOR IMMEDIATE-TERM PROJECTS

Project	Project Team	Approach and Action Items
WQ-1 (Lake Spokane Nonpoint Source)	Spokane County, Spokane Tribe (boat, equipment, and staff), Stevens County CD, Stevens County P.U.D., Ecology, Avista. (all participants)	The original wording for this recommendation may no longer be appropriate given the subsequent progress on establishing and implementing a dissolved oxygen TMDL for the Spokane River (Ecology, 2007). The monitoring need has shifted to more broadly addressing nonpoint sources. Given that, individual monitoring efforts focused on nonpoint source characterization and reduction represent the best approach for implementing this recommendation. Current efforts include the following: • Ecology has initiated a 2010 and 2011 nutrient monitoring program on Lake Spokane with assistance from Avista. • Spokane County is conducting the Bi-State Nonpoint Source Phosphorus Study, which includes monitoring in Deep and Coulee Creeks. Stevens County Conservation District applied for, but did not receive, grant funding for nonpoint source work in the Suncrest area. Funding for this effort could be sought again.
WUE-2, WUE-3 (Water conservation)	City of Airway Heights, Spokane County, Stevens County P.U.D., City of Spokane (participants)	Actions will be implemented by individual entities; the City of Airway Heights will have water use efficiency programs associated with the new water reclamation facility. The Regional Water Conservation Council is the preferred forum to coordinate these efforts and share information among WRIA 54 and other participating entities. Annually, review progress and lessons learned from individual efforts, and identify further future actions.
LU-12 (Plat approval conditions)	Spokane County (lead); Palisades Neighborhood Organization (participant)	Internal Spokane County action. Spokane County Water Resources staff will work directly with Development Services staff
LU-6, LU-7, LU-8, LU-11 (Local government guidelines for determining sustainable water availability)	Spokane County (lead); Palisades Neighborhood Organization, Stevens County, Stevens P.U.D., Ecology, City of Spokane (participants)	Spokane County intends to develop a work plan and seek funding, possibly through a Watershed Plan Supplemental Grant. While the recommendation specifies that this work be done for the Spokane County region, others voiced interest in including all counties if they want to participate. Stevens County is currently developing overlay zones for water availability. If there is interest from others, Spokane County will convene an advisory committee to participate in the project. Topics to be addressed include hydrogeologic study guidelines, what constitutes acceptable methodologies, and ordinance language.

TABLE ES-3 (continued).
ACTION PLAN FOR IMMEDIATE-TERM PROJECTS

Project	Project Team	Approach and Action Items
TI-2, WFN-5 (Managing areas of strained water resources)	Spokane County (lead), City of Spokane (participant), Spokane Tribe (lead for on-reservation)	This project relates to several other projects intended for earlier implementation (water supply and demand study, West Plains hydrogeology study, West Plains regional coordination, sustainable water availability guidelines). Also, the U.S. Geological Survey Chamokane groundwater study will increase knowledge about the potential impacts of groundwater use on stream flow. It is likely that through one of those projects, the need for an evaluation of permit-exempt well use or strain on the water resource for a specific area will be highlighted. It is also possible that concern about a specific area will arise, either through an increase in development activity where municipal water purveyors cannot easily provide service, or from increased complaint activity associated with declining groundwater levels in domestic wells.
WS-3 (Water storage projects)	Spokane Tribe (lead for on-reservation), Stevens County Conservation District (participant, already working in Chamokane Creek and desire to expand to Suncrest area in 3-5 year timeframe), Stevens County P.U.D. (participant for 6-10 year timeframe), City of Spokane (participant)	Project ideas may be submitted by individual entities. Stevens County Conservation District may play a coordinating, vetting and technical assistance role, particularly in the Chamokane watershed. Some interest expressed in submitting grant applications for specific projects in the Chamokane watershed.
WRA-6 (Relinquishment law)	Stevens County P.U.D. (lead); Spokane County, Avista, City of Spokane (participants)	Stevens County P.U.D. will coordinate development of an issue paper regarding this topic. This issue paper will be provided to Ecology, and possibly to the state legislature. Additional steps may include coordinating with others statewide, and testifying to the state legislature.
WRA-5 (Spokane Tribe water code)	Spokane Tribe (lead)	Independent Spokane Tribe project
WRA-1 (Water Resources Funding and water master)	Stevens County P.U.D.(lead); Avista, Spokane County, Ecology (participants)	The initial focus for this effort will be exploring establishment of a water master. Funding for this position would need to be requested and authorized in Ecology's 2011-2013 general budget. Stevens County P.U.D. sent a letter to Ecology requesting a water master for WRIAs 54, 55, 57 and 59. Spokane County followed up with a support letter on the request to Ecology. The water master's function would be active water management, which may include active oversight and enforcement of water law and water rights, coordinating and adjusting water delivery to adapt to current conditions and need, issuing temporary permits, and education. Continue working with Ecology, regional WRIA groups, and possibly the state Legislature to establish this position. Explore funding partnerships and a smaller water master scope if necessary.

TABLE ES-4.
RECOMMENDED IMPLEMENTATION SCHEDULE

		Immediate		Medium	Long-Term
	Early Action	Year 1	Year 2	Years 3 – 5	Year 6 & Beyond
WRA-4: Public Database for Water Rights Buyers/Sellers	X	X	X	X	X
WFN-7: Water Banking	X				
WFN-3: Chamokane Basin Watershed Council	X	X	X	X	X
TI-3: Water Supply and Demand Forecast	X	X	X	X	X
WFN-1: West Plains Water Supply Coordination		X	X	X	X
TI-1: West Plains Hydrogeology Study		X	X		
WQ-1: Lake Spokane Nonpoint Source		X	X	X	X
WUE-2, WUE-3: Water Conservation		X	X	X	X
LU-12: Plat Approval Conditions		X			
LU-6, LU-7, LU-8, LU-11: Local Government Guidelines for Determining Sustainable Water Availability		X	X		
TI-2, WFN-5: Managing Areas of Strained Water Resources		X	X	X	X
WS-3: Water Storage Projects		X	X	X	X
WRA-6: Relinquishment Law		X	X		
WRA-5: Spokane Tribe Water Code		X	X		
WRA-1: Water Resources Funding and Water Master		X	X		
EDU-2: Education Needs Assessment				X	
WFN-4: Subarea Water Needs Assessment					X
WRA-2: Ecology Updates on Water Rights Activities					X
WRA-3: Prioritize Subbasins for Water Right Applications					X
WUE-1: Coordination of Efficiency/Conservation Measures					X
WUE-4: Involvement in Water Supplier Goal Setting					X
WUE-5: Water Conservation and Reclaimed Water Use					X
WFN-2: Spokane Reservation Water Plan and Improvements					X
WFN-4: Assess Subarea Water Supply Needs					X
WFN-6: Water Rights Trusts, Banking and Water Leasing					X
WS-1: Evaluate Aquifer Storage and Recovery					X
WS-2: Promote Connectivity of West Plains Area					X
WQ-3: Updates on TMDL Progress					X
WQ-4: Paleochannel Water Quality Monitoring Study					X
WQ-7: Wetland Delineations					X

TABLE ES-4 (continued).
RECOMMENDED IMPLEMENTATION SCHEDULE

		Immediate		Medium	Long-Term
	Early Action	Year 1	Year 2	Years 3 – 5	Year 6 & Beyond
LU-2: Water Plan and Land Use Plan Consistency					X
LU-3: Include Water Availability in Long-Range Planning					X
LU-4, LU-5: Identify Areas of Strained Water Resources					X
LU-9: Regional Water Supply Availability Studies					X
LU-10: Comprehensive Plan Water Resource Policies					X
LU-13: Modify Subdivision Exemption Requirements					X
LU-16: Lake Spokane Beaver Study					X
TI-4: Tributary Stream Flow Monitoring					X
TI-5: Stream Flow Gauge Below Nine Mile Dam					X
TI-6: Local Funding for Water Resources Staff					X
TI-7: Ambient Groundwater Monitoring					X
EDU-4: State Funding for Education and Outreach					X

CHAPTER 1.
INTRODUCTION AND BACKGROUND

Water Resource Inventory Area (WRIA) 54 is the designation for planning purposes of the Lower Spokane River watershed, under Washington's Water Resources Management Program. In 2009, the WRIA 54 Planning Unit—a working group representing state and local governments, organizations and private interests—developed the WRIA 54 Watershed Plan (Tetra Tech et al., 2009). The Watershed Plan provided a comprehensive review of water resources in the watershed and outlined strategies for ensuring the ongoing sufficiency of water quantity, water quality and instream flows.

This detailed implementation plan provides a framework for implementing the strategies presented in the WRIA 54 Watershed Plan.

PURPOSE OF THE DETAILED IMPLEMENTATION PLAN

Developing the WRIA 54 Watershed Plan was Phase 3 of the planning process outlined in Washington's 1998 Watershed Planning Act. Participants have now moved into Phase 4, which is the implementation of the Watershed Plan's recommended strategies.

The WRIA 54 Detailed Implementation Plan provides a clear plan for implementing the Watershed Plan strategies and evaluating their effectiveness. It meets state requirements for detailed implementation plans presented in the Revised Code of Washington (RCW 90.82.043 and RCW 90.82.048; see Appendix A).

Watershed Implementation Team (WIT) Participation in Detailed Implementation Plan Development

The following WIT members actively participated in developing the Detailed Implementation Plan:

- Stevens County
- Spokane County
- City of Spokane
- City of Airway Heights
- Spokane Tribe of Indians
- Stevens County P.U.D. #1
- Washington Department of Ecology
- Fairchild Air Force Base
- Indian Village Estates Water Association
- Stevens County Conservation District
- Spokane County Conservation District
- Stevens County Farm Bureau
- Avista
- Spokane Association of Realtors
- Lands Council
- Lake Spokane Park Homeowners Association
- Palisades Neighborhood
- Stevens County Water Conservancy Board

STUDY AREA OVERVIEW

WRIA 54 is one of 62 major watersheds in Washington delineated under the Water Resources Management Program. It covers 883 square miles in eastern Washington in the portion of the Columbia River Basin where the basin begins to rise to meet the Rocky Mountains. This area transitions from the desert-like conditions of the Columbia Basin to the forested mountains of northern Idaho (NOAA, 2006).

WRIA 54 includes all of the City of Airway Heights, as well as portions of the Cities of Spokane and Medical Lake. Three counties—Spokane, Stevens and Lincoln—occupy land in WRIA 54, as do Fairchild Air Force Base and much of the Spokane Indian Reservation (see Figure 1-1). The area supports an extensive agricultural industry, particularly in the region south of the Spokane River. In the northern part of the watershed, agricultural lands predominate in the valleys, with evergreen trees, shrubs and grasslands in the upland areas.

WRIA 54 is bordered by the Middle Lake Roosevelt Watershed (WRIA 58) and the Colville Watershed (WRIA 59) to the north, the Little Spokane Watershed (WRIA 55) and the Middle Spokane Watershed (WRIA 57) to the east, the Hangman Watershed (WRIA 56), the Palouse Watershed (WRIA 34), and the Upper Crab/Wilson Watershed (WRIA 43) to the south, and the Lower Lake Roosevelt Watershed (WRIA 53) to the west.

Surface Waters

In WRIA 54 there are approximately 3,000 miles of rivers and streams draining the landscape, many of which are intermittent, that is, not having continuous year-round flow. Perennial water bodies, such as the Spokane River, gain flow from groundwater along certain reaches, providing a continuous base flow.

The Spokane River is the dominant surface water body in WRIA 54. It winds from east to west through the watershed, its flow slowed by three dams along the way (Nine Mile, Long Lake, and Little Falls Dams). Because of the dams, much of this section of the Spokane River is more lake-like than river-like. The largest of the reservoirs formed by the dams is Lake Spokane (also known as Long Lake). Grand Coulee Dam on the Columbia River forms Lake Roosevelt, which seasonally backs water up into the lower 29 miles of the Spokane River.

Numerous tributary streams drain from the high plateau to the south of the river (Deep, Coulee, Spring, Mill, Pitney, and Harker Creeks) and the highlands north of the river (Chamokane, Little Chamokane, Blue, Orzada, and Sand Creeks), but Chamokane and Little Chamokane Creeks are the only major tributaries in WRIA 54 that have a year-round surface water flow connection to the Spokane River. The major tributaries Hangman/Latah Creek and the Little Spokane River enter WRIA 54 via their own watersheds, WRIAs 56 and 55, respectively. Figure 1-1 shows the subbasin boundaries for each major tributary.

Aquifers

Principal aquifers in WRIA 54 generally lie within unconsolidated sands and gravels, basalt, and basement rocks. The unconsolidated and basalt aquifers are the most suitable for extracting groundwater of sufficient quantity for municipal distribution systems. The following are the primary known aquifers in WRIA 54 (see Figure 1-2):

Figure 1-1
WRIA 54
Vicinity and Subbasins

Legend

- Subbasin Boundary
- WRIA54 Boundary
- County Boundary
- Major Road
- Stream
- Waterbody
- Unincorporated Community
- Jurisdiction
- Spokane Indian Reservation

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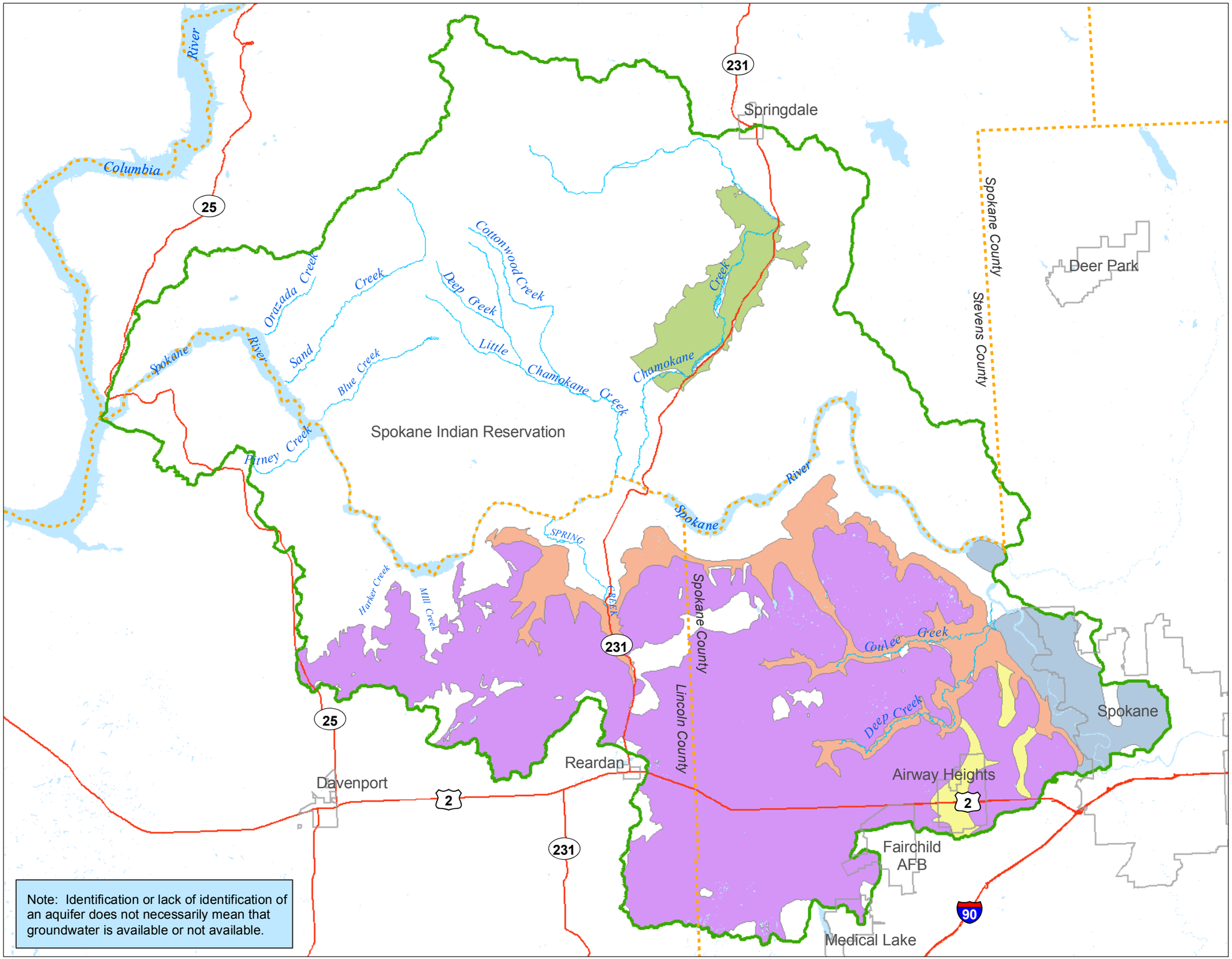
Miles

TETRA TECH

1420 Fifth Avenue, Suite 600
Seattle, Washington 98101
Tel 206.883.9300 Fax 206.883.9301

Figure 1-2
WRIA 54
Primary Known Aquifers



Legend

- Major Road
- County Boundary
- Stream
- WRIA54 Boundary
- Jurisdiction
- Waterbody

Aquifer Name

- Chamokane Valley Aquifer
- Grande Ronde Basalt Aquifer
- Paleochannel Aquifer
- Spokane ValleyRathdrum Aquifer
- Wanapum Basalt Aquifer

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- Chamokane Basin Aquifer
- Grande Ronde Basalt Formation Aquifer
- Paleochannel Aquifer
- Spokane Valley/Rathdrum Prairie Aquifer
- Wanapum Basalt Formation Aquifer

TECHNICAL ISSUES ADDRESSED BY THE WATERSHED PLAN

The strategies proposed in the WRIA 54 Watershed Plan target specific technical issues affecting the study area that were identified during the planning process. These issues are categorized as follows:

- Water Rights Administration:
  - The ability to manage WRIA 54 water resources effectively is limited by uncertainties about how much water is allocated through water-right permits, certificates and claims, inchoate water rights, as well as unquantified federal/tribal reserved rights.
  - The timeline for processing new water rights is unreasonably long.
  - The relinquishment rule is a disincentive for water conservation.
  - Illegal unpermitted water use is an issue in WRIA 54, although the magnitude and location of illegal water use is uncertain.
  - The Spokane Tribe does not currently have a water code to formally guide appropriation of water for the Spokane Reservation.
- Water Use Efficiency:
  - There is still much improvement that can be made regarding water conservation.
  - There are a number of ongoing or planned water reclamation and reuse programs in WRIA 54 and in adjacent WRIAs.

- Water for Future Needs:
  - Water demand is expected to increase significantly for residential domestic and other municipal needs in two areas—the West Plains and along the Spokane River downstream from the City of Spokane. In other parts of the WRIA, the challenges associated with meeting future water demand revolve primarily around limited water availability.
  - Wells used under the permit exemption have the potential to strain water resources and impair other water users in areas with sensitive aquifer systems because limited assessments have been completed on their impact to water resources and other water users.
- Water Storage—Water storage projects are a significant component of the strategies in the Watershed Plan for meeting instream and out-of-stream water demand. However,

environmental concerns have reduced the ease of constructing new dam and reservoir projects, leading water-resource professionals to seek alternatives that have less environmental impact.

- Water Quality:
  - Water quality deficiencies related to total dissolved gas have been recorded in the Spokane River and Lake Spokane.
  - Historical mining activities in Idaho have resulted in elevated levels of dissolved metals such as lead, zinc and cadmium in Spokane River water, including in WRIA 54.
  - All reaches of the Spokane River have been found to have polychlorinated biphenyls (PCBs) well above the National Toxics Rule criterion.

  - Water quality deficiencies related to dissolved oxygen have been recorded in the Spokane River below Long Lake and Little Falls Dams.
  - Water quality deficiencies related to temperature, turbidity, pH and fecal coliform have been recorded in the Little Spokane River, a major tributary to WRIA 54.
  - Water quality deficiencies related to ammonia, dissolved oxygen, temperature, turbidity, pH and fecal coliform have been recorded in Latah Creek, a major tributary to WRIA 54.
  - Seepage from former uranium mines has affected water quality, most notably in Blue Creek.
  - Trichloroethylene (TCE), perchlorate, and N-nitrosodimethylamine (NDMA) have been detected in several West Plains wells. This is a unique combination of chemicals associated with rocket motor facilities.
  - Reports of arsenic in groundwater wells are known to exist in the Chamokane Valley of WRIA 54.
  - Monitoring of tributaries on the Spokane Indian Reservation indicates issues with flow, temperature, and sediment.
  - Non-point source pollution contributes to the low oxygen condition of the Spokane River and Lake Spokane.
- Land Use:
  - Processes could be modified to improve the connection between land use planning and water system planning so that future land uses and available water supply are better coordinated.
  - Local governments must make determinations of adequate water supplies when reviewing development applications, but this does not necessarily imply water availability for the long term.

  - Land development in urban areas has resulted in creation of impervious surfaces and production of stormwater; along shorelines, development may result in loss of habitat and increased water temperatures if riparian vegetation is removed; land clearing for construction can result in discharge of turbid water to surface water; septic systems and runoff from fertilizer-treated lawns can adversely impact water quality; and, improper timber stand management can have impacts on runoff timing and water quality.
  - Conversion of agricultural land to developed land is occurring in WRIA 54, primarily along the margins of urban areas.
  - Public access to water needs to be available for recreation.
  - Beavers have caused damage to trees and landscaping in some areas of WRIA 54.
- Technical Investigations—Technical information and studies are needed to adequately resolve many of the water quantity, instream flow, and water quality issues identified in the watershed plan. These data needs include monitoring (e.g., stream flow and dedicated groundwater monitoring in principal water-bearing zones) and analytical studies (e.g., hydrogeology characterization or water demand forecast).
- Education:
  - There is a lack of staff and funding for educational programs.
  - Most water resources education for kindergarten through Grade 12 occurs at the initiative of individual teachers.
  - There is a need for a consistent message related to water resources education.
  - Public education is needed about specific topics, such as conservation, water rights, septic systems, hazardous materials, and habitat issues

WRIA 54 PLANNING PROCESS

Phase 1 Organization

The first phase of watershed planning as outlined in Washington's 1998 Watershed Planning Act is to organize a planning unit. As lead agency, Spokane County applied for and received a Phase 1 organizational grant to initiate watershed planning for WRIA 54. In 2003, Spokane County organized the required initiating agencies within WRIA 54 into a formal Planning Unit:

- All counties within WRIA 54 (Spokane County, Stevens County, and Lincoln County)
- Cities and towns within WRIA 54 (Spokane, Medical Lake, and Airway Heights)
- Military bases within WRIA 54 (Fairchild Air Force Base)
- Tribes with reservation land in WRIA 54 (Spokane Tribe of Indians).

The initiating agencies compiled a list of potential members representing a diverse group of interests: private citizens committed to the watershed planning process; property owners; property owners associations; agricultural groups; businesses; environmental groups; stakeholder organizations; the initiating agencies themselves; other local agencies; state and federal regulatory agencies; and special districts. Once assembled, the planning unit developed the following mission statement:

> *The WRIA 54 Planning Unit will create a living watershed management plan providing implementation strategies to manage water resources while improving water quality. The plan will support economic well-being, and, protect and enhance the environment through collaborative citizen, business, and government partnerships.*

Phase 2 Assessments

Phase 2 of the watershed planning process is to assess existing conditions and water resources. The WRIA 54 Phase 2 consisted of conducting the following assessments:

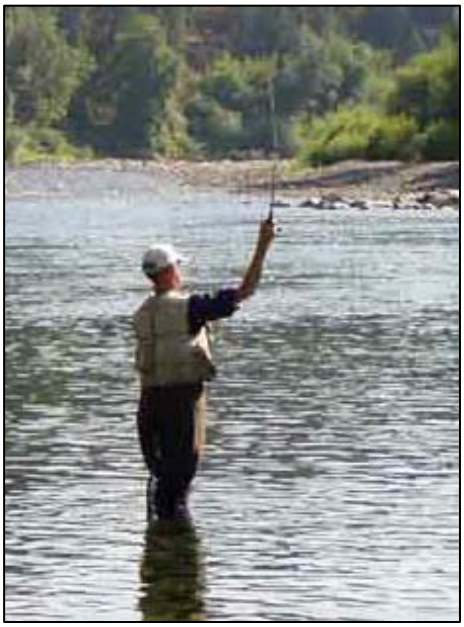
- The *Phase 2 Level 1 Assessment* (Tetra Tech et al., 2007) pulled together available water resources data including water rights, water use, water quantity and future water demand.
- The *Supplemental Water Quality Assessment* (Tetra Tech, 2009a) pulled together available water quality data.
- The *Quality Assurance Project Plans* are monitoring plans for the West Plains and Lake Spokane areas of WRIA 54 (Tetra Tech, 2009; Tetra Tech and GeoEngineers, 2009.)
- The *Instream Flow Study* is a technical field and modeling study to identify instream flow habitat needs (EES Consulting, 2007). PHABSIM habitat modeling was completed for the main stem Spokane River, while toe-width method evaluation was completed for Deep, Coulee, Spring and Little Chamokane Creeks.
- The *Multipurpose Water Storage Assessment* is a survey of water storage opportunities in WRIA 54 (Tetra Tech and GeoEngineers, 2007).

Phase 3 Watershed Plan Development

Developing a watershed plan is the third phase of the watershed planning process. The Planning Unit formed work groups to focus on key technical issues. For each category of issues, work groups defined a scope, developed goals, identified specific issues, considered available data and options, and articulated preferred solutions and recommendations. After the work groups completed their individual efforts, their products were consolidated into the technical issue chapters contained in the WRIA 54 Watershed Plan.

The Watershed Plan outlines actions to ensure that WRIA 54 has sufficient water for agricultural, commercial, industrial and residential use, as well as instream flow requirements. The actions laid out in the Watershed Plan are presented as obligations and recommendations, which apply to participating agencies as follows:

- **Obligations**—Actions voluntarily accepted as obligations by state and county government are binding. Other organizations that voluntarily accept obligations must implement the obligation if they have the resources to do so.
- **Recommendations**—Recommendations are not binding, but in volunteering to take on a recommendation, entities must consider the timelines and resources they will need.



In addition to obligations and recommendations, the Watershed Plan includes statements of support or position, in which the Planning Unit agreed to a formal statement even though no specific action is called for. Statements of support or position do not need to be prioritized, as they do not include any action.

The Watershed Plan was adopted by Spokane, Lincoln and Stevens Counties on October 22, 2009.

Phase 4 Implementation

Implementation of the watershed plan occurs in Phase 4 of the watershed planning process, with the first year focused on developing the detailed implementation plan. WRIA 54 received a state grant to help fund the first year of Phase 4 activities for WRIA 54; this grant was initiated on October 22, 2009. During Phase 4, the WRIA 54 Planning Unit has transitioned to the WRIA 54 Watershed Implementation Team (WIT) to reflect its transition from planning to implementing. Membership has not changed; a complete list of members is shown in Appendix C. This detailed implementation plan was approved by WIT consensus on November 17 and December 14, 2010.

To prepare the detailed implementation plan, the Watershed Implementation Team ranked the watershed plan actions to develop priorities and a schedule for implementation. The rankings were used to establish tiers to guide implementation priorities. Participating WIT members volunteered to lead selected high priority projects, and in some cases project teams formed to begin fleshing out project details.

Several early implementation projects are already underway, and the WIT has begun organizing to implement additional high priority watershed plan projects. Implementation projects will continue throughout the remaining years of Phase 4.

RELATIONSHIP TO OTHER PLANS AND PROCESSES

The WRIA 54 Watershed Plan is just one of many water and natural resource-focused activities that are ongoing in the greater Spokane River watershed. Table 1-1 summarizes major activities conducted in areas surrounding WRIA 54 and their significance for implementing the WRIA 54 Watershed Plan.

TABLE 1-1.
OVERLAPPING AND ADJACENT MANAGEMENT ACTIVITIES

Description	Entity Lead	Relationship to WRIA 54
Implementation of Watershed Plans in WRIAs 55/57 (Middle and Little Spokane), 56 (Latah Creek), 59 (Colville), 43 (Upper Crab/Wilson), and 34 (Palouse).		
Analogous to WRIA 54 Watershed Plan, these contain recommendations for water quantity, water quality, and instream flow.	Spokane County Conservation District; Spokane, Lincoln, Palouse, Stevens Counties; Watershed Implementation Teams	Where Spokane River watershed-wide recommendations are implemented, there is a need for coordination. Also, downstream impacts should be considered.
Idaho Water Rights Adjudication		
Northern Idaho adjudication is currently underway. For detailed information and updates, refer to: http://www.idwr.idaho.gov/WaterManagement/NorthIdAdju/default.htm	Idaho Department of Water Resources	This adjudication will provide more certainty about how much water is allocated on the Idaho side of the border. Water rights in Washington have not yet been adjudicated, leaving uncertainty as to actual allocation.
Spokane River Basin Water Rights Adjudication (Washington)		
Water right adjudication scheduled to begin in 2012, pending funding. For detailed information and updates, refer to: http://www.ecy.wa.gov/programs/wr/rights/adjhome.html	Washington Department of Ecology	This project should enable refinement of estimates for appropriated water.
Idaho Comprehensive Aquifer Management Planning		
The Idaho Water Resource Board is developing the Rathdrum Prairie (RP) Comprehensive Management Plan (CAMP). The objective of the Plan will be to address water supply and demand needs over the next 50 years. The specific goals of the RP CAMP are to: • Provide reliable sources of water, projecting 50 years in to the future • Develop strategies to avoid conflicts over water resources • Prioritize future state investments in water • Bridge the gaps between future water needs and supply For detailed information and updates, refer to: http://www.idwr.idaho.gov/waterboard/WaterPlanning/CAMP/RP_CAMP/RathdrumCAMP.htm	Idaho Dept. of Water Resources	May provide technical data for shared watersheds. Could impact water resources on Washington side of border

TABLE 1-1 (continued).
OVERLAPPING AND ADJACENT MANAGEMENT ACTIVITIES

Description	Entity Lead	Relationship to WRIA 54 Planning
Columbia River Management Program		
Legislatively mandated program 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. The bill also created a Columbia River Basin development account. For detailed information and updates, refer to: http://www.ecy.wa.gov/programs/wr/cwp/crwmp.html	Washington Department of Ecology, Office of the Columbia River	Potential funding for WRIA 54 water management implementation projects. Other management activities and programs may overlap with WRIA 54.
Group A Water System Plans		
These plans include water system descriptions, basic planning data and water demand forecasting, system analysis, conservation program, water right analysis, system reliability, interties, source water protection, operations and maintenance, design and construction standards, improvement program, financial program.	Group A Water Purveyors as required by the Washington Department of Health	Water system planning done by water purveyors is integral to water management.
Spokane Tribe Integrated Resource Management Plan- Spokane Tribe-		
Land use planning and water resource data and management objectives	Spokane Tribe	Regulates land use on the Spokane Reservation
Total Maximum Daily Load (TMDL) Plans (Water Cleanup Plans)		
Regulatory plans to address water quality impairments. Refer to the following website for current status: http://www.ecy.wa.gov/programs/wq/tmdl/index.html	Washington Department of Ecology	Elements may overlap with WRIA 54 recommendations.
Bi-State Nonpoint Source Phosphorus Study		
Characterization of nonpoint source phosphorus pollution in the areas of Idaho and Washington that drain to the Spokane River.	Spokane County	Sampling in Deep/Coulee Creek, phosphorus loading and base flow estimates for Lake Spokane
Spokane River Forum		
Established in 2008 with a mission to enhance the value of the Spokane River by increasing and deepening public awareness, engagement and interaction with the river's environmental, cultural and economic resources.	Spokane River Forum Board of Directors	Opportunity to collaborate and enhance public education and outreach
FERC Hydroelectric License		
Federal license required for operation of hydroelectric projects. New license requires extensive studies, monitoring and active management.	Avista Utilities	Dam operations at Post Falls, Upper Falls, Monroe Street, Nine Mile, and Long Lake
Coeur d'Alene River Basin Superfund Record of Decision		
30-year cleanup plan for contamination associated with historical mining in the Coeur d'Alene River basin.	Environmental Protection Agency	Lake Coeur d'Alene is the headwaters of the Spokane River.

TABLE 1-1 (continued).
OVERLAPPING AND ADJACENT MANAGEMENT ACTIVITIES

Description	Entity Lead	Relationship to WRIA 54 Planning
National Pollutant Discharge Elimination System (NPDES) Phase II Stormwater Permit		
Requires stormwater program to reduce quality and quantity impacts to the environment from stormwater runoff	City of Spokane and Spokane County	NPDES Phase II will support WRIA 54 Watershed Plan water quality recommendations.
Shoreline Master Program		
Regulates development and land uses along major shorelines	City of Spokane; Spokane, Stevens, Lincoln Counties	All Shoreline Master Programs will support WRIA 54 Watershed Plan recommendations
Critical Areas Ordinances		
Regulates allowable activities within and adjacent to designated critical areas (i.e. steep slopes etc.)	Counties and cities	Relates to water quality and instream flow.
Chamokane Creek Watershed Plan		
Water quality and riparian assessment-focused plan, identifies restoration and corrective action projects to address identified problems	Stevens County Conservation District	WRIA 54 Plan recommends implementation of Chamokane Creek Watershed Plan.
Chamokane Creek Watershed Needs Assessment		
EPA Tribal 319-compliant nonpoint source assessment watershed-based plan.	Spokane Tribe/Stevens County Conservation District	Supports several WRIA 54 recommendations; fulfills prerequisite for EPA funding for implementation.
Natural Resource Conservation Plans		
Focus on land and resource management, providing assessment, technical assistance, monitoring and restoration support	Stevens, Lincoln, and Spokane County Conservation Districts	Implementation will support WRIA 54 watershed plan recommendations

PUBLIC OUTREACH

Throughout the planning process, Spokane County in its lead agency role, and the Planning Unit/WIT have promoted public awareness and participation in WRIA 54:

- Early in the process, two public meetings were held to gather input and volunteers for Planning Unit membership and scope for the data compilation and assessment work.
- Spokane County staff made presentations to stakeholder groups to educate the public on what is happening with watershed planning in the Lower Spokane River watershed, to recruit volunteers to be Planning Unit members, and to gather information on water resource issues.
- Special public meetings were held to present the results of the Phase 2 Level 1 Technical Assessment, Instream Flow Study, and Multipurpose Water Storage Assessment.
- In addition to regular Planning Unit communication, a letter was sent to all stakeholder groups identified during Phase 1 and 2 to notify them that the Planning Unit was beginning Phase 3 and encouraged them to participate in the development of the watershed plan.

- Prior to watershed plan adoption, separate presentations were provided to Stevens, Lincoln, and Spokane County Boards of County Commissioners.
- A joint public hearing was held with the three Boards of County Commissioners during which the watershed plan was formally adopted by each county.
- Notice of Phase 4 initiation was provided to a broad distribution list.

CHAPTER 2.
IMPLEMENTATION APPROACH

The WRIA 54 WIT intends to implement its watershed plan through focused efforts on high priority recommendations, using the following approach:

- Prioritize watershed plan recommendations and identify high priority projects
- Identify project leads, form project teams when appropriate, and develop project details, including a schedule and milestones
- Seek funding when necessary, identify and develop partnerships to leverage work efforts, and implement high priority projects
- Review accomplishments and update the detailed implementation work plan as appropriate.

PRIORITIZATION OF WATERSHED PLAN RECOMMENDATIONS

As an early task in Phase 4, the WIT established priority rankings for the actions laid out in the watershed plan. This section describes the process used for prioritization and presents the results.

Prioritization Process

The WIT allocated much of its first three meetings in Year 1 of Phase 4 to prioritizing recommendations and obligations. The following parameters guided the prioritization process:

- Keep the process as simple as possible.
- Reflect individual member priorities as well as the Watershed Plan mission statement.
- Quantify, or at least clearly describe, the rationale for priorities.
- Emphasize group dialogue.
- Recognize the impact of the recession, which makes future implementation funding tenuous.

Definition
Priority: In this report, "priority" is an indication of the *sequence* in which actions should be implemented. Highest priority items should be implemented soonest. Priority does not indicate *importance;* all recommendations and obligations from the Watershed Plan are considered to be of equal importance.

Recommendation Categories

In order to ensure a balanced selection of high-priority actions, the WIT chose to divide the recommendations and obligations into categories and assign priority rankings within each category. Four approaches were considered for the assignment of categories.

- **Define categories by Watershed Plan technical issue**—These are the categories used for the Watershed Plan. The plan's chapters are organized based on these issues.
- **Define categories by geographic area**—Grouping recommendations by geographic area did not work well, as most recommendations would fall into the "all WRIA" category.
- **Define categories by lead entity—**This approach would group recommendation by the project lead entity as identified in the Watershed Plan. Using project lead categories would help ensure a balanced distribution of workload for implementation.

- **Define categories by capital/operational funding—**Using this classification would help sort the recommendations for funding opportunities under Watershed Planning grants.

The WIT decided to prioritize by the technical issues outlined in the Watershed Plan. This approach provided consistency with the Watershed Plan and resulted in a good balance of project leads and geography. The categories are as follows:

- Water rights administration
- Water use efficiency
- Water for future needs
- Water storage
- Water quality
- Land use
- Technical investigations
- Education.

First-Pass Ranking and Pilot Exercise

As the first step in the prioritization process, 11 WIT members individually conducted two exercises:

- Each of the 11 assigned rankings to all recommendations within each technical issue category, based on their own subjective sense of the appropriate priority sequence within that category. Rankings were strict numerical sequences; i.e., if a category includes six recommendations, then the recommendation that an individual participant believed should occur first was given a "1" and the recommendation that should occur last was given a "6," with the other recommendations listed sequentially in between.
- As a pilot exercise, each of the 11 used a scoring system to rate the recommendations in one technical issue category (water use efficiency). For each recommendation in that category, reviewers assigned a score of 1 (worst) to 5 (best) for each of five criteria (short-term benefit, long-term benefit, regional compatibility, number of people benefitted, and cost), for a total possible score of 25 points per recommendation. Recommendations in the category were then ranked based on their numerical scores.

The WIT gathered to discuss the results of this first-step exercise. The group consensus was that subjective ranking within each technical issue category was a good approach. Feedback from the pilot rating exercise indicated that this approach was onerous and did not provide better results, so it was not used further.

To further refine the prioritization, the WIT asked participating evaluators to continue the ranking process, in two steps:

- Redo the subjective ranking of all recommendations in each category, taking into consideration the funding complications associated with the ongoing economic recession.
- Identify five projects, among the total list of 57 recommendations, that the individual participant considers to be the highest-priority projects.

Second-Pass Ranking and High-Priority Ratings

Twelve WIT members completed the second round of project ranking, and their results were compiled for review at a WIT meeting. Discussion at the meeting addressed whether any of the rankings needed to be adjusted based on logical problems (e.g., ranking Project A higher than Project B if Project A cannot be begun until Project B is completed) or based on any individual member's special knowledge of a recommendation and the need for it.

For the subjective rankings within technical issue category, the WIT decided to present the final rankings as the average of the values chosen by the 12 participants. All agreed that the priority ranking should not be applied rigidly—i.e. if funding were available for the #3 ranked recommendation, it is okay to skip over #1 and #2.

From the high-priority rating process, 21 recommendations were included in the top-5 list of at least one participant. The WIT decided to identify all these as "high priority projects." This approach is consistent with the guiding parameters to reflect individual priorities that are also consistent with the overall Watershed Plan mission and also indicates common ground among diverse watershed interests.

Prioritization Results

Table 2-1 lists the averaged priority ranking for each recommendation. The results are grouped as they were ranked, within each technical issue category. Lower rank means higher priority.

TABLE 2-1.
PRIORITY RANKING OF WATERSHED PLAN RECOMMENDATIONS

Recommendation	
WATER RIGHTS ADMINISTRATION	Average Priority Rank[a] (1-6)
Recommendation WRA-4—Conservancy Boards in Stevens, Spokane and Lincoln Counties should develop and maintain a public database of willing water rights buyers and sellers within their respective Counties. The Conservancy Boards will need to make statements that the extent and validity of water rights in the database are not guaranteed. (This is currently being implemented by the Stevens County Water Conservancy Board.)	2.5
Recommendation WRA-3—Recommend that the Planning Unit consider prioritizing hydrologic subbasins for Ecology to process water rights applications. Note that all subbasins in a priority area would need to be included and that Ecology has to follow state laws to process water rights in order of application date, but can do so within a subbasin or watershed.	2.6
Recommendation WRA-6—Planning Unit will review, discuss, and recommend improvements to the relinquishment law.	3.5
Recommendation WRA-5—Recommend that the Spokane Tribe develop a water code for the Spokane Tribe and Reservation, including fee lands.	3.5

TABLE 2-1 (continued).
PRIORITY RANKING OF WATERSHED PLAN RECOMMENDATIONS

Recommendation	
WATER RIGHTS ADMINISTRATION (continued)	Average Priority Rank[a] (1-6)
Recommendation WRA-2—Regular updates from Ecology to the Planning Unit regarding water right activity in WRIA 54. This will include water right applications, changes and transfers, and any potential water rights decisions. Planning Unit members or the Planning Unit as a whole may provide input to Ecology through the normal public comment periods associated with these actions.	4.3
Recommendation WRA-1—Recommend that the State Legislature provide more staff and funding to Ecology to process water rights and for compliance activities. The Planning Unit particularly encourages consideration of establishing a regional water master to support, for example, instream flow and adjudication, to enforce against illegal water use, to help process water right applications and transfers, and to provide public education on water rights.	4.5
WATER USE EFFICIENCY	Average Priority Rank[a] (1-5)
Recommendation WUE-2—Recommend that local governments work toward improved water use efficiency in landscaping and other outdoor water uses.	1.8
Recommendation WUE-3—Recommend that counties, cities and water purveyors develop and implement indoor and outdoor water conservation incentives.	2.2
Recommendation WUE-1—Coordinate water use efficiency and conservation measures in WRIA 54 through the existing Regional Water Conservation Collaboration and Spokane County Coordinated Water System Planning.	3.1
Recommendation WUE-4—Recommend that purveyors provide notice to the Planning Unit when they initiate water use efficiency/conservation goal setting.	3.8
Recommendation WUE-5—Additional funding is needed to support implementation of water conservation and reclaimed water use.	4.1
WATER FOR FUTURE NEEDS	Average Priority Rank[a] (1-7)
Recommendation WFN-1—Consider a regional management and coordination organization for water supply on the West Plains. The West Plains bridges WRIAs 54, 43, 56 and 34, Spokane and Lincoln Counties, and several cities, making a planning/management area specific to the West Plains necessary. This organization should encourage improvement of connectivity between water systems, as allowed by cost and water right constraints.	2.8

TABLE 2-1 (continued).
PRIORITY RANKING OF WATERSHED PLAN RECOMMENDATIONS

Recommendation	Average Priority Rank[a] (1-7)
WATER FOR FUTURE NEEDS (continued)	
Recommendation WFN-5—Establish a program to collect data and evaluate where permit-exempt wells are a concern. Develop management options for problem areas. Affected local governments and Ecology should provide technical support and funding; counties, purveyors, Ecology and Regional Health District should coordinate. Program components could include: • Conduct buildout analysis for subbasins and study areas according to current zoning and projected water needs. • Develop water supply and demand forecasts for subbasins and study areas, including extending water service into these areas from existing water purveyors. • Consider protecting areas of strained water resources through critical areas ordinance or water supply overlay zones if alternate water supply is not feasible.	3.1
Recommendation WFN-4—Local governments, the Spokane Tribe, and water purveyors should assess subarea water supply needs, identify appropriate measures from a range of options, and facilitate options that are economically viable and provide long-term sustainability.	3.4
Recommendation WFN-6—WRIA 54 Planning Unit, Ecology, Counties, and Stevens, Spokane and Lincoln County Water Conservancy Boards should explore water rights trusts, banking, water leasing and acquisition as potential solutions to limited availability of new water rights in WRIA 54.	3.8
Recommendation WFN-3—Recommend formation of a Chamokane Basin Watershed Council to resolve water-related issues in the Chamokane Basin. This Watershed Council may consist of, but not be limited to, residents of the Chamokane Basin and the Spokane Tribe.	4.4
Recommendation WFN-7—The state Legislature should amend current law to allow water banking throughout the state. **Note:** Senate Bill 5583 addresses this recommendation.	4.8
Recommendation WFN-2—Complete planning for water usage on the Spokane Reservation and improvements needed for the Spokane Tribe's water systems, including the following: inventory current water use of the Spokane Indian Reservation; and complete improvements needed to the Wellpinit, Ford, and Martha Boardman water systems.	5.0
WATER STORAGE	Average Priority Rank[a] (1-3)
Recommendation WS-3—Promote and support water storage projects initiated by individual entities throughout the watershed to meet instream flows and to provide water for residents, business and projected growth in Spokane, Lincoln and Stevens Counties and the Spokane Indian Reservation. Several projects have been identified in the Chamokane Creek watershed.	1.8

TABLE 2-1 (continued).
PRIORITY RANKING OF WATERSHED PLAN RECOMMENDATIONS

Recommendation	Average Priority Rank[a] (1-7)
WATER STORAGE (continued)	
Recommendation WS-2—Promote the connectivity of the West Plains area so that water can be efficiently distributed where it is needed. Increased connectivity could consist of building more infrastructure for intermittent buying and selling of water or for permanent water rights transfers.	2.0
Recommendation WS-1—Evaluate aquifer storage and recovery (ASR) and enhanced recharge for the West Plains, considering reclaimed water as a priority source but not excluding other water sources.	2.2
WATER QUALITY	Average Priority Rank[a] (1-4)
Recommendation WQ-4—Implement the monitoring program described in the Quality Assurance Project Plan for the Paleochannel Water Quality Monitoring Study (Tetra Tech and GeoEngineers, 2009).	1.7
Recommendation WQ-1—Implement the monitoring described in the Quality Assurance Project Plan for the Nine Mile Area Non-Point Source Monitoring Study (Tetra Tech, 2009) and proceed with a study to monitor and assess non-point sources from the surface water and groundwater that drain directly to Lake Spokane.	1.8
Obligation WQ-3—Ecology will keep the Planning Unit informed about progress on all TMDLs (Water Quality Improvement Plans) in WRIA 54, either through verbal updates at Planning Unit meetings or email updates to those on the email distribution list.	3.1
Recommendation WQ-7—The Planning Unit recommends that local governments retain qualified wetlands scientists to review wetland delineations and administer the wetlands portion of critical areas ordinances.	3.5
LAND USE	Average Priority Rank[a] (1-10)
Rank the following three recommendations as a group:	2.3
Recommendation LU-6—Recommend that counties, purveyors and Ecology collaborate to develop flexible local guidelines for demonstration of water supply availability and sustainability. Methods may include but are not limited to hydrogeologic investigation and characterization reports.	
Recommendation LU-7—Recommend that Ecology provide technical assistance and funding for ongoing support in the implementation of guidelines developed in Recommendation LU-6 to demonstrate sufficient water availability and sustainability for proposed and existing uses for comprehensive plan amendments and associated zoning changes.	
Recommendation LU-8—Recommend that Spokane County require applicants to demonstrate sufficient water availability and sustainability for proposed and existing uses for comprehensive plan amendments and associated zoning changes.	

TABLE 2-1 (continued).
PRIORITY RANKING OF WATERSHED PLAN RECOMMENDATIONS

Recommendation	Average Priority Rank[a] (1-10)
LAND USE (continued)	
Recommendation LU-12—Recommend Spokane County add the following condition for the approval of a final plat: "Prior to filing the final plat, the applicant will demonstrate provision of adequate potable water supply by providing one of the following: • A letter from a water purveyor stating they will serve the proposed subdivision. If a plat is not developed for a specified amount of time, this commitment may need to be reconfirmed. • A copy of a water right permit from the Department of Ecology with adequate quantity to serve the proposed subdivision; • A plan to supply the proposed subdivision within the groundwater exemption specified in RCW 90.54.050 that complies with the 1997 Attorney General Opinion, Washington State Supreme Court Decision Department of Ecology vs. Campbell and Gwinn, LLC and Washington State Department of Health guidelines for residential water use." **Note:** This recommendation is already required in Stevens County	3.9
Rank the following two recommendations as a group: **Recommendation LU-4**—The state should provide technical support and funding to counties and cities to identify areas of strained water resources. **Recommendation LU-5**—Counties and cities should identify and consider adding areas of strained water resources to comprehensive land use plans and development regulations (through for example, a critical areas ordinance or water supply overlay zones).	4.2
Recommendation LU-3—Entities involved in long-range land use planning in WRIA 54 should evaluate the "carrying capacity" of land related to available or proposed water supply to support responsible development consistent with comprehensive planning. If water is not available, there needs to be a plan to provide water to the area. Funding assistance will be necessary to implement this recommendation.	4.8
Recommendation LU-10—Spokane County should identify barriers and plan for the implementation of the Comprehensive Plan goals and policies, which are aimed at securing adequate water quantity for the residents of Spokane County. This will require development of methodologies to accurately evaluate the "carrying capacity" of land related to water supply, and application of these methodologies to ensure responsible development consistent with the Comprehensive Plan. Spokane County and Ecology could collaborate to develop guidelines for demonstration of water supply availability and sustainability. Methods may include but are not limited to hydrogeologic investigation and characterization reports.	5.1
Recommendation LU-11—The Planning Unit recommends an evaluation of methodologies and the review process used to determine water availability for proposed development projects, in order to better determine that permitted projects have a viable water supply.	5.1

TABLE 2-1 (continued).
PRIORITY RANKING OF WATERSHED PLAN RECOMMENDATIONS

Recommendation	
LAND USE (continued)	Average Priority Rank[a] (1-10)
Recommendation LU-13—Recommend that Spokane County add one or more of the following to the requirements for exemption from the subdivision ordinance: • Demonstration of water supply; • Only 3 parcels can be created; • Parcels must be 40 acres or greater; • Public notice of proposed land division.	5.1
Recommendation LU-9—Pursue funding to conduct more regional water supply availability studies through WRIA 54 Watershed Plan implementation.	5.4
Recommendation LU-2—Water system plans and other local land use plans should be consistent. **Note:** This recommendation is already required.	5.8
Recommendation LU-16—A study is recommended to evaluate the land use impacts of beavers on Lake Spokane and to consider relocation of beavers to the properties of willing landowners. This could potentially be coordinated with the Lands Council project to evaluate the role of beavers in providing water storage.	7.6
TECHNICAL INVESTIGATION	Average Priority Rank[a] (1-7)
Recommendation TI-1—Basalt Aquifer Groundwater Study—The Columbia River Basalt Group aquifers that underlie the West Plains area are used for water supply. Groundwater levels have declined in some areas, indicating the groundwater resource is potentially strained. These aquifers (there are at least three distinct aquifers within this) are not well understood. Elsewhere in the Pacific Northwest, basalt aquifers are used extensively for water supply, indicating that a better understanding of the Columbia River Basalt Group aquifers in the West Plains area would be beneficial to understand how this resource can be used in a sustainable way.	2.3

TABLE 2-1 (continued).
PRIORITY RANKING OF WATERSHED PLAN RECOMMENDATIONS

Recommendation	Average Priority Rank[a] (1-7)
TECHNICAL INVESTIGATION (continued)	
Recommendation TI-2—Identification of Areas of Strained Water Resources—Identifying potential and existing areas of strained water resources, where water supply is not currently available to meet growing water demand for out-of-stream water needs, is a major data need for WRIA 54. Stevens, Lincoln and Spokane Counties all have begun developing more proactive methodologies to identifying these areas within their jurisdictions, and enacting programs to address the challenges associated with these areas. The Planning Unit supports development of methodologies to accurately identify areas of strained water resources, and development of tools to manage land use needs associated with these areas. Elements of this work may include the following: • Conduct buildout analysis for subbasins and study areas according to current zoning and projected water needs. Note that Ecology guidance suggests using 20-year projections from the state Office of Financial Management for setting instream flows and allocating water for future out-of-stream uses. • Develop water supply and demand forecasts for subbasins and study areas. • Compile well information, including number, location, construction specifications, and use. • Develop estimates for actual water use • Hydrogeologic study to understand the available water resources • Compile complaint database information • Work with area residents to understand their needs so practical solutions can be found.	2.8
Recommendation TI-3—Develop Water Supply and Demand Forecast for Prioritized Areas • Utilize growth projections, zoning, building/permit activity • Relate to parcel data, water service areas • Identify existing water sources and capacity • Determine unit water needs and conservation/infrastructure assumptions	3.9
Recommendation TI-4—Stream flow monitoring for WRIA 54 tributaries. Establish stream flow monitoring program for WRIA 54 tributaries. Monitoring locations would be determined based on available funding, labor and equipment resources, and the priorities as determined by the Planning Unit at the time of initiating the monitoring program.	3.9
Recommendation TI-5—Evaluate feasibility of establishing a stream flow gauge below Nine Mile Dam. Such a gage was identified as a need by the Spokane River Instream Flow Work Group so that Spokane River flow, including discharge from the Spokane Valley Rathdrum Prairie Aquifer downstream from the 'at Spokane' gage, could be measured directly rather than estimated.	4.1
Recommendation TI-7—Recommend that the Legislature support Ecology's ambient groundwater monitoring program and recommend that Ecology consider the West Plains for an ambient groundwater monitoring program. **Note:** This recommendation could be an element of work within Recommendation TI-1	5.3

TABLE 2-1 (continued).
PRIORITY RANKING OF WATERSHED PLAN RECOMMENDATIONS

Recommendation	Average Priority Rank[a] (1-7)
TECHNICAL INVESTIGATION (continued)	
Recommendation TI-6—Recommend local governments and conservation districts seek to increase funding for water and natural resources staff, in part to carry forth Plan implementation beyond Phase 4 grant funding. Additional staff and/or funding support is needed to implement water resources management projects and programs, and to conduct and supervise technical studies needed for water management.	5.8
EDUCATION	Average Priority Rank[a] (1-2)
Recommendation EDU-2—Conduct a water resources education needs assessment in WRIA 54.	1.6
Recommendation EDU-4—The legislature should provide additional funding for education and outreach staff, such as conservation districts, for efforts in WRIA 54.	1.6

a. Numerical value for each recommendation is the average of the values chosen by the 12 participants. Lower numbers mean a higher rank (or higher priority).

Table 2-2 lists the high-priority recommendations. This list of high priority projects was developed from WIT member input on their top five recommendations from the 57 recommendations in the WRIA 54 Watershed Plan. Twelve members participated. The values in the right column indicate the rank assigned to each recommendation (from 1 to 5 among each participant's top five choices), with 1 being the highest priority for that reviewer. Multiple entries indicate that more than one WIT member listed the recommendation in their top five priority recommendations. Although Table 2-2 is organized to list recommendations with the highest number of scores first, it is not intended to indicate relative priority; all recommendations listed are equally considered to be high-priority.

TABLE 2-2.
HIGH-PRIORITY PROJECTS

Recommendation	Rank Assigned by Individual Scorers[a] (1—5)
WFN-1 West Plains Water Supply Coordination	1, 2, 4, 4
WUE-2 Water Conservation (outdoor)	1, 2, 5, 5
WRA-4 Public Database for Water Rights Buyers/Sellers	1, 2, 2
LU-12 Plat Approval Conditions	1, 3, 4
WQ-1 Lake Spokane Nonpoint Source	1, 3, 5
LU-6, LU-7, LU-8 (ranked as a group) Local Government Guidelines for Determining Sustainable Water Availability (phase 1)	2, 3, 4
WFN-5 Managing Areas of Strained Water Resources (permit-exempt well focus)	2, 4, 5
WRA-3 Prioritize Subbasins for Water Right Applications	3, 5, 5
LU-11 Local Government Guidelines for Determining Sustainable Water Availability (phase 2)	1, 5
TI-1 West Plains Hydrogeology Study	3, 3
TI-2 Managing Areas of Strained Water Resources (develop tools and methodologies)	3, 4
WS-3 Water Storage Projects	4, 4
WRA-6 Relinquishment Law	1
TI-3 Water Supply and Demand Forecast	1
WRA-5 Spokane Tribe Water Code	1
WFN-4 Assess Subarea Water Supply Needs	2
WFN-7 Water Banking	2
EDU-2 Education Needs Assessment	3
WUE-3 Water Conservation (incentives)	5
WRA-1 Water Resources Funding and Water Master	*b*
WFN-3 Chamokane Watershed Council	*c*

a. This list of high priority projects was developed from WIT member input on their top five recommendations from the 57 recommendations in the WRIA 54 Watershed Plan. Twelve members participated. The values in the right column indicate the rank assigned to each recommendation (from 1 to 5 among each participant's top five choices), with 1 being the highest priority for that reviewer. Multiple entries indicate that more than one WIT member listed the recommendation in their top five priority recommendations. The order of the list is not intended to indicate relative priority; all recommendations listed are equally considered to be high-priority.
b. Recommendation WRA-1 was added during subsequent WIT discussion to capture the WIT's support for seeking a regional water master.
c. Recommendation WFN-3 is an ongoing early action item, and therefore also a high priority project.

DETAILED DEVELOPMENT OF HIGH-PRIORITY PROJECTS

After completing the prioritization of watershed plan recommendations, the Watershed Implementation Team developed further implementation details for the high-priority projects listed in Table 2-2. Projects were categorized according to the following schedule:

- Early implementation actions—project work is already underway or completed
- Immediate-term action—will be implemented within 1-2 years. In some cases, planning is already underway for these projects
- Medium-term actions—planned for implementation in the 3- to 5-year timeframe
- Long-term actions—planned for implementation beyond five years.

The process for identifying which recommendations would be implemented first relied on individual input from WIT members, combined with group discussion to guide direction and emphasis for each implementation project.

Starting with the list of 21 high-priority projects, individual members selected projects that they were interested in leading or participating in during the immediate-, medium- and long-term timeframes. Members expressed interest in implementing all but one of the previously identified high-priority projects (WRA-3 Prioritizing Subbasins for Water Right Processing). Members volunteered to participate in various ways, including the following (it is important to note that a willingness to lead or participate in project implementation does not indicate a willingness to provide funding):

- Leading a coordinated effort
- Conducting independent projects within their jurisdiction that align with the recommendation (such as water conservation programs in the City of Airway Heights)
- Conducting independent projects that address a common area of interest (such as nonpoint source reduction efforts around Lake Spokane)
- Sharing equipment.

The approach and participants for each high-priority project were further developed during group discussion at a WIT meeting. This discussion, along with subsequent efforts by some of the project teams, formed the basis for the current implementation details for each project.

In keeping with the philosophy of the group to keep the implementation process flexible and dynamic, the WIT chose to develop the highest level of detail for immediate-term actions, with the intention of developing a similar level of detail for medium-term projects during the first implementation plan update.

STATEMENTS OF SUPPORT AND POSITION

In addition to its defined recommendations, the WRIA 54 Watershed Plan presents statements of support and position representing Planning Unit conclusions that do not define specific implementable actions. Statements of support and position are included in this implementation plan so that entities may refer to them in support of funding applications. The statements of support and position are as follows:

- WUE-6—Support continued funding for County Conservation Districts and Natural Resources Conservation Service work with agricultural irrigators to assess and improve water use efficiency.
- WUE-7—Support development of and coordinate with surrounding WRIAs for use of reclaimed water

- LU-1—The Washington Utilities Coordinating Council has initiated a review of the Coordinated Water System Plan and determined not to conduct a complete update at this time. If an update is initiated, the Planning Unit supports addressing such issues as: use of consistent population estimates; consistency with approved Comprehensive Plans; improvements to the way commitments to provide water are managed for plats that may not develop for several years, planning to provide water for current and future needs on the West Plains; evaluation of transferring water from the Spokane Valley-Rathdrum Prairie Aquifer to the West Plains; sharing, leasing and acquisition of water rights; sharing of water system plans with adjacent purveyors; water-right transfers; connectivity; infrastructure improvements; and conservation.
- LU-14—The Planning Unit recommends support for sustainable agriculture (including forestry).
- LU-15—Support efforts to provide public access to water-related recreation areas.
- ISF-1—The Spokane River Instream Flow Work Group's memorandum, provided in Appendix B of the WRIA 54 Watershed Plan, documents the WRIA 54 Planning Unit's position regarding instream flow for the main stem Spokane River above Nine Mile Dam, with the one addition of requesting that the option of a water right reservation be considered from the "West Arm" of the Spokane Valley-Rathdrum Prairie Aquifer.

  Prior to Ecology undertaking rule-making for this reach, the Planning Unit would like a broader community-based process that incorporates the flexibility needed to meet the varied water needs of the region and presents a complete set of the information that was developed through the Watershed planning process. This is likely to require a minimum two-year effort. If Ecology is prepared to support this effort, the Planning Unit urges Ecology to initiate this work as soon as possible.
- ISF-2—The Planning Unit chose not to recommend a control point at Little Falls at this time.
- WQ-2—Support monitoring efforts undertaken by individual entities, regional groups or the Planning Unit.
- WQ-5—The Planning Unit will support non-point source assessments, monitoring, and reduction efforts, including non-point source reduction efforts recommended in the Chamokane Creek Watershed Plan.
- WQ-6—The Planning Unit recommends implementation of the existing City and County stormwater management plans and development of stormwater programs where none currently exists in the WRIA.
- TI-8—Support Collection of Water Resources Data—Continued data collection is essential to building the knowledge base necessary for informed water resources management.
- EDU-1—Water resources education programs in WRIA 54 should contribute information to and support E3 Washington (an educational program of the Environmental Education Association of Washington).
- EDU-3—Include funding for education and outreach (staff and materials) within grant applications where applicable.
- EDU-5—Ecology should make education and outreach a priority.
- EDU-6—Encourage local governments to hire or retain education and outreach staff.

CHAPTER 3.
EARLY ACTION AND IMMEDIATE-TERM PROJECT SUMMARIES

STRATEGIES TO PROVIDE SUFFICIENT WATER

RCW 90.82.043 requires that detailed implementation plans present strategies to provide sufficient water for production agriculture, commercial, industrial and residential use, and instream flows. Implementation plans must present timelines for achieving these strategies and set milestones for measuring progress. This requirement is met by the following high-priority projects:

- Recommendation WRA-4: Public Database for Water Rights Buyers/Sellers—This recommendation facilitates local buying and selling of water rights to help ensure adequate supplies to meet changing demand.
- Recommendation WFN-7: Water Banking—This recommendation facilitates fair and efficient reallocation of water from one beneficial use to another, to offset impacts related to future development and the issuance of new water rights.
- Recommendation TI-3: Water Supply and Demand Forecast—This recommendation provides essential information for determining water needs and availability.
- Recommendation WFN-1: West Plains Water Supply Coordination—This recommendation should encourage improvement of connectivity between water systems, as allowed by cost and water right constraints.
- Recommendation TI-1: West Plains Hydrogeology Study—This recommendation would provide a better understanding of the basalt aquifers in the West Plains area, which would be beneficial to understanding how this resource can be used in a sustainable way.
- Recommendations WUE-2, WUE-3: Water Conservation—Water conservation helps to ensure adequate water supply for all uses.
- Recommendation LU-12: Plat Approval Conditions—This recommendation will help prevent development for which sufficient water supply is not available.
- Recommendations LU-6, LU-7, LU-8, LU-11: Local Government Guidelines for Determining Sustainable Water Availability—This recommendation will help prevent development for which sufficient water supply is not available.
- Recommendations TI-2, WFN-5: Managing Areas of Strained Water Resources—This recommendation provides essential information for determining water needs and availability.
- Recommendations WS-3: Water Storage Project—This recommendation will encourage projects to help ensure future water supply availability.
- Recommendation WFN-3: Chamokane Basin Watershed Council—This recommendation provides a subbasin-based forum to actively manage water resources.

PROJECT SUMMARIES

Project summaries and action plans for each early action and immediate-term project are provided in the summary sheets on the following pages. The WIT chose to defer developing details regarding the one medium-term high-priority project and one long-term high-priority project at this time because action will not be taken on these projects for several years. Those projects are still included in the implementation schedule presented in Chapter 4.

The project summaries are references for project description, status, and implementation schedule. They include the following elements:

- Description and watershed plan reference—Recommendation text from the watershed plan, watershed plan page reference
- Implementation information—Project team, approach, schedule, funding, permits and agreements needed, overlaps or potential inconsistencies with other projects, and availability of a project plan (detailed scope of work).

Recommendation WRA-4:	**Public Database for Water Rights Buyers/Sellers**
Watershed Plan Reference:	**p. 4-5**

Description:

Conservancy Boards in Stevens, Spokane, and Lincoln Counties should develop and maintain a public database of willing water rights buyers and sellers within their respective counties. The Conservancy Boards will need to make statements about the extent and validity of water rights in order of application date, but can do so within a subbasin or watershed.

Implementation Category:	Early Action (ongoing)
Project Team:	Spokane County (lead), Stevens County (participant)

Approach and Action Items:

Stevens County Conservancy Board has an established program that could be a model for the Spokane County Conservancy Board. Spokane County will provide information about the program to the Spokane County Conservancy Board, including the water rights trust program.

	2010	2011				2012		
Schedule:	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Provide information to Spokane County Conservancy Board		X						
Support Conservancy Board as requested in developing database			X	X	X	X	X	X

Agreements, Approvals & Permits:

Water Conservancy Board involvement with water use exchanges is allowed under RCW 90.80.055(1)(c) "A board may establish a water right transfer information exchange through which all or part of a water right may be listed for sale or lease. The board may also accept and post notices in the exchange from persons interested in acquiring or leasing water rights from willing sellers." The Water Conservancy Board's authorities are defined in RCW 90.80.

Eliminating Duplication and Inconsistencies:	No duplication or inconsistency with existing programs.
Funding Approach and Resources:	Spokane County Conservancy Board will need additional funding if it chooses to implement this project. Possible funding sources include grants or increasing the fees from water right transfers to fund maintenance of the database. Cost category: Low (Less than $20,000 annually)
Project Plan Completed?	No.

Recommendation WFN-7: Water Banking	
Watershed Plan Reference:	**p. 6-9**
Description: The state Legislature should amend current law to allow water banking throughout the state.	
Implementation Category:	Early Action (completed)
Project Team:	
Approach and Action Items: No action needed	
Schedule: Completed by state Legislature in 2009 (RCW 90.42) with the following statement of intent: Findings -- Intent -- 2009 c 283: "The legislature finds that many watershed groups and programs, including but not limited to watershed planning units operating under chapter 90.82 RCW, have proposed or considered using the state trust water rights program for water banking purposes to meet vital instream and out-of-stream needs within a watershed or region. The legislature also finds that water banking can: Provide critical tools to make water supplies available when and where needed during times of drought; improve stream flows and preserve instream values during fish critical periods; reduce water transaction costs, time, and risk to purchasers; facilitate fair and efficient reallocation of water from one beneficial use to another; provide water supplies to offset impacts related to future development and the issuance of new water rights; and facilitate water agreements that protect upstream community values while retaining flexibility to meet critical downstream water needs in times of scarcity. The legislature therefore declares that the intent of this act is to provide clear authority for water banking throughout the state and to improve the effectiveness of the state trust water rights program." [2009 c 283 § 1.]	
Agreements, Approvals & Permits: Water banking is governed by RCW 90.42.	
Eliminating Duplication and Inconsistencies:	No duplication or inconsistency with existing programs. A relationship may exist with WRA-4 whereby the database of willing water rights buyers and sellers could evolve into establishment of a water bank
Funding Approach and Resources:	No funding needed at this time.
Project Plan Completed?	No

Recommendation TI-3:	**Water Supply and Demand Forecast**
Watershed Plan Reference:	**p. 11-6**

Description:

Develop Water Supply and Demand Forecast for Prioritized Areas
- Utilize growth projections, zoning, building/permit activity
- Relate to parcel data, water service areas
- Identify existing water sources and capacity
- Determine unit water needs and conservation/infrastructure assumptions

Implementation Category:	Early Action (ongoing)
Project Team:	Spokane County (lead), Stevens County, City of Spokane (participant)

Approach and Action Items:

This is an ongoing project for the Spokane County region, with demand forecast model and baseline forecast completed on June 30, 2010. Many Spokane County water purveyors are participating through an advisory committee.

	2010	2011				2012		
Schedule:	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Fine-tune demand model	X	X						

Agreements, Approvals & Permits:

None needed

Eliminating Duplication and Inconsistencies:	Overlap exists with public water supply coordinated water system planning and with Department of Ecology water availability determinations. WIT activities should be closely coordinated with these related programs.
Funding Approach and Resources:	Supplemental funding will be needed. The most likely source is watershed planning supplemental grants. Cost category: Medium ($20,000-$80,000) for subsequent phases.
Project Plan Completed?	No.

Recommendation WFN-3:	**Chamokane Watershed Council**
Watershed Plan Reference:	**p. 6-7**

Description:
Formation of a Chamokane Basin Watershed Council to resolve water-related issues in the Chamokane Basin. This Watershed Council may consist of, but not be limited to, residents of the Chamokane Basin and the Spokane Tribe.

Implementation Category:	Early Action (ongoing)
Project Team:	Stevens County Conservation District (lead)

Approach and Action Items:

Citizen advisory meetings are held regularly with good participation from the community. Focus is on water quality and land management needs identified in the Chamokane Watershed Plan and Chamokane Watershed Needs Assessment. Stevens County Conservation District will work toward establishing the Watershed Council.

	2010	2011				2012		
Schedule:	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Informational/educational community meetings	X	X	X	X	X	X	X	X
Establish Watershed Council		X						

Agreements, Approvals & Permits:

None needed

Eliminating Duplication and Inconsistencies:	No duplication or inconsistencies. There is significant overlap in the needs and interests of involved parties; this forum assists with eliminating possible duplicative efforts.
Funding Approach and Resources:	Supplemental funding will be needed. The most likely source is watershed council, Ecology centennial clean water fund/Section 319, watershed planning supplemental grants, EPA (e.g. through Spokane Tribe). Cost category: Low ($15,000 $20,000 annually)
Project Plan Completed?	No.

Recommendation WFN-1:	**West Plains Water Supply Coordination**
Watershed Plan Reference:	**p. 6-7**

Description:

Consider a regional management and coordination organization for water supply on the West Plains. The West Plains bridges WRIAs 54, 43, 56 and 34, Spokane and Lincoln Counties, and several cities, making a planning/management area specific to the West Plains necessary. This organization should encourage improvement of connectivity between water systems, as allowed by cost and water right constraints.

Implementation Category:	Immediate Term (within 1-2 years)
Project Team:	City of Airway Heights (lead), Spokane County, Palisades Neighborhood Organization, City of Spokane, Ecology (participants)

Approach and Action Items:

The City of Airway Heights will convene a forum similar to when Ecology gathered water purveyors together to discuss a cooperative effort to provide water for West Plains water needs. This forum could play an advisory role to elected leaders who have the authority to enter into agreements and commitments regarding water supply. This effort would include WRIAs 34, 56, and 43. Although the coordination role for a WRIA 54 group is uncertain, given that coordination is provided under the Coordinated Water System Plan, in the immediate term the group will explore where the needs and interests of participants lie.

	2010	2011				2012		
Schedule:	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Convene West Plains forum		X						
Determine role and function of forum			X					

Agreements, Approvals & Permits:

None needed

Eliminating Duplication and Inconsistencies:	Overlap exists with public water supply coordinated water system planning, individual water system planning, and Department of Ecology water availability determinations. WIT activities should be closely coordinated with these related programs.
Funding Approach and Resources:	Supplemental funding may be needed to support the work efforts of the regional coordination organization and potential necessary analytical or design projects Cost category: Low ($15,000 - $50,000 annually) to support coordination activities; cost for possible technical projects to support range from low to very high.
Project Plan Completed?	No.

Recommendation TI-1:	**West Plains Hydrogeology Study**
Watershed Plan Reference:	**p. 11-5**

Description:

Basalt Aquifer Groundwater Study—The Columbia River Basalt Group aquifers that underlie the West Plains area are used for water supply. Groundwater levels have declined in some areas, indicating the groundwater resource is potentially strained. These aquifers (there are at least three distinct aquifers within this) are not well understood. Elsewhere in the Pacific Northwest, basalt aquifers are used extensively for water supply, indicating that a better understanding of the Columbia River Basalt Group aquifers in the West Plains area would be beneficial to understand how this resource can be used in a sustainable way.

Implementation Category:	Immediate Term (within 1-2 years)
Project Team:	Airway Heights, Spokane County (leads); Palisades Neighborhood Organization, Spokane County Conservation District, Bob Derkey, EWU, City of Spokane (participants)

Approach and Action Items:

Spokane County convened a technical work group to develop a project plan (see Appendix B). The project plan builds upon previous and ongoing hydrogeologic studies, which include the exempt well study, geophysics study, and mapping work. The City of Airway Heights is pursuing grant funding for a larger basalt aquifer study; if that study is funded it may fulfill many aspects of the needed work.

The approach envisioned by the technical work group is for individual participants to undertake discrete elements of the project plan in a coordinated fashion. Immediate actions include developing a hydrogeologic database and constructing monitoring wells. External funding will be needed to support these efforts.

	2010	2011				2012		
Schedule:	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Develop study plan and seek funding	X							
Install monitoring well(s)			X					
Conduct groundwater age-dating								
Develop hydrogeologic database	X	X						
Develop hydrogeologic characterization			X	X				
Coordinate elements done by individual entities	X	X	X	X	X	X	X	X

Agreements, Approvals & Permits:

Well construction regulations apply to monitoring well construction and maintenance (Chapter 18.104 RCW, Chapter 173-160 WAC). Access agreements will be necessary for field work.

Eliminating Duplication and Inconsistencies:	Technical work elements will be coordinated through a technical work group to ensure that individual efforts contribute to the overall goals of the recommendation.
Funding Approach and Resources:	Supplemental funding, probably in the form of grants, will be needed to support project implementation. Cost category: Medium to high ($20,000 - $300,000 for discrete phases)
Project Plan Completed?	Yes, see Appendix B.

Recommendation WQ-1:	**Lake Spokane Nonpoint Source**
Watershed Plan Reference:	**p. 10-2**

Description:

Implement the monitoring described in the Quality Assurance Project Plan for the Nine Mile Area Non-Point Source Monitoring Study (Tetra Tech, 2009) and proceed with a study to monitor and assess non-point sources from the surface water and groundwater that drain directly to Lake Spokane.

Implementation Category:	Immediate Term (within 1-2 years)
Project Team:	Spokane County, Spokane Tribe (boat, equipment, and staff), Stevens County CD, Stevens County P.U.D., Ecology, Avista. (all participants)

Approach and Action Items:

The original wording for this recommendation may no longer be appropriate given the subsequent progress on establishing and implementing a dissolved oxygen TMDL for the Spokane River (Ecology, 2010). The monitoring need has shifted to more broadly addressing nonpoint sources. Given that, individual monitoring efforts focused on nonpoint source characterization and reduction represent the best approach for implementing this recommendation. Current efforts include the following:

- Ecology has initiated a 2010 and 2011 nutrient monitoring program on Lake Spokane with assistance from Avista.
- Spokane County is conducting the Bi-State Nonpoint Source Phosphorus Study, which includes monitoring in Deep and Coulee Creeks.

Stevens County Conservation District applied for, but did not receive, grant funding for nonpoint source work in the Suncrest area. Funding for this effort could be sought again.

	2010	2011				2012		
Schedule:	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Surface water monitoring in Lake Spokane	X	X	X	X	X			
Obtain funding for Suncrest NPS characterization/education	X							

Agreements, Approvals & Permits:

An Ecology-approved Quality Assurance Project Plan is required for any monitoring. Well construction regulations apply to any monitoring well construction and maintenance (Chapter 18.104 RCW, Chapter 173-160 WAC). Access agreements will be necessary for field work.

Eliminating Duplication and Inconsistencies:	There are other efforts underway by other entities. Any implementation efforts should be coordinated with those groups.
Funding Approach and Resources:	Supplemental funding, probably in the form of grants, will be needed to support project implementation. Cost category: Low to high. Discrete components may range in cost from $10,000 to $500,000. May be implemented in phases.
Project Plan Completed?	No.

Recommendations WUE-2, WUE-3: Water Conservation

Watershed Plan Reference: **p. 5-3**

Description:

Recommendation WUE-2—Recommend that local governments work toward improved water use efficiency in landscaping and other outdoor water uses.

Recommendation WUE-3—Recommend that counties, cities and water purveyors develop and implement indoor and outdoor water conservation incentives.

Implementation Category: Immediate Term (within 1-2 years)

Project Team: City of Airway Heights, Spokane County, Stevens County P.U.D., City of Spokane (participants)

Approach and Action Items:

Actions will be implemented by individual entities; the City of Airway Heights will have water use efficiency programs associated with the new water reclamation facility. The Regional Water Conservation Council is the preferred forum to coordinate these efforts and share information among WRIA 54 and other participating entities. Annually, the WIT will review progress and lessons learned from individual efforts, and identify further future actions.

	2010	2011				2012		
Schedule:	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Conservation programs	X	X	X	X	X	X	X	X
WIT annual review				X				

Agreements, Approvals & Permits:

Local governments and water purveyors are required to promote and implement water conservation measures under WAC 246-290.

Eliminating Duplication and Inconsistencies: Educational efforts will be coordinated through the Regional Water Conservation Collaboration to avoid duplication and inconsistencies.

Funding Approach and Resources: Local governments and purveyors may seek grant funding to support discrete programs and projects.

Cost category: Low to high (individual projects may range for $10,000 to $1 million.

Project Plan Completed? No.

Recommendation LU-12:	**Plat Approval Conditions**
Watershed Plan Reference:	**p. 8-7**

Description:

Recommend Spokane County add the following condition for the approval of a final plat: "Prior to filing the final plat, the applicant will demonstrate provision of adequate potable water supply by providing one of the following:

- A letter from a water purveyor stating they will serve the proposed subdivision. If a plat is not developed for a specified amount of time, this commitment may need to be reconfirmed.
- A copy of a water right permit from the Department of Ecology with adequate quantity to serve the proposed subdivision.
- A plan to supply the proposed subdivision within the groundwater exemption specified in RCW 90.54.050 that complies with the 1997 Attorney General Opinion, Washington State Supreme Court Decision Department of Ecology vs. Campbell and Gwinn, LLC and Washington State Department of Health guidelines for residential water use."

Implementation Category:	Immediate Term (within 1-2 years)
Project Team:	Spokane County (lead); Palisades Neighborhood Organization (participant)

Approach and Action Items:

Internal Spokane County action. Spokane County Water Resources staff will work directly with Development Services staff

	2010	2011				2012		
Schedule:	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Draft plat approval language			X					
Approval and implementation				X	X			

Agreements, Approvals & Permits:

Approvals required within Spokane County: Development Services staff, Board of Commissioner approval.

Eliminating Duplication and Inconsistencies:	None. Implementing this recommendation is intended to eliminate an inconsistency in land use decisions by requiring adequate assurance of water availability for a proposed development project.
Funding Approach and Resources:	Spokane County in-kind labor will fund this project. Cost category: Low ($8,000 to $12,000)
Project Plan Completed?	No.

Recommendations LU-6, LU-7, LU-8, LU-11:	**Local Government Guidelines for Determining Sustainable Water Availability**
Watershed Plan Reference:	**p. 8-5, 8-7**

Description:

Recommendation LU-6—Recommend that counties, purveyors and Ecology collaborate to develop flexible local guidelines for demonstration of water supply availability and sustainability. Methods may include but are not limited to hydrogeologic investigation and characterization reports.

Recommendation LU-7—Recommend that Ecology provide technical assistance and funding for ongoing support in the implementation of guidelines developed in Recommendation LU-6 to demonstrate sufficient water availability and sustainability for proposed and existing uses for comprehensive plan amendments and associated zoning changes.

Recommendation LU-8—Recommend that Spokane County require applicants to demonstrate sufficient water availability and sustainability for proposed and existing uses for comprehensive plan amendments and associated zoning changes.

Recommendation LU-11—The Planning Unit recommends an evaluation of methodologies and the review process used to determine water availability for proposed development projects, in order to better determine that permitted projects have a viable water supply.

Implementation Category:	Immediate Term (within 1-2 years)
Project Team:	Spokane County (lead); Palisades Neighborhood Organization, Stevens County, Stevens P.U.D., Ecology, City of Spokane (participants)

Approach and Action Items:

Spokane County intends to develop a work plan and seek funding, possibly through a Watershed Plan Supplemental Grant. While the recommendation specifies that this work be done for the Spokane County region, others voiced interest in including all counties if they want to participate. Stevens County is currently developing overlay zones for water availability. If there is interest from others, Spokane County will convene an advisory committee to participate in the project. Topics to be addressed include hydrogeologic study guidelines, what constitutes acceptable methodologies, and ordinance language.

	2010	2011				2012		
Schedule:	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Develop work plan and seek funding	X							
(if funded) Form advisory committee		X						
Evaluate potential model guidelines from elsewhere		X						
Develop criteria			X					
Evaluate available methodologies				X				
Develop draft standards				X	X			
Pilot test draft standards						X		
Finalize standards							X	

Agreements, Approvals & Permits:

Approvals required within Spokane County: Development Services staff, Board of Commissioner approval.

Recommendations LU-6, LU-7, LU-8, LU-11:	Local Government Guidelines for Determining Sustainable Water Availability
Eliminating Duplication and Inconsistencies:	While no formal approval is required from the Department of Ecology, it is important that Ecology concur that the methodologies and standards are in alignment with the agency's policies to avoid inconsistencies related to water rights and permit-exempt wells.
Funding Approach and Resources:	Supplemental grant funding will be needed. Watershed Planning Phase 4 and Supplemental grants will be targeted. Cost category: Medium ($75,000 to $150,000)
Project Plan Completed?	Yes, see Appendix B.

Recommendations TI-2, WFN-5: Managing Areas of Strained Water Resources

Watershed Plan Reference: pp. 6-8, 11-5, 11-6

Description:

Recommendation TI-2—Identification of Areas of Strained Water Resources—Identifying potential and existing areas of strained water resources, where water supply is not currently available to meet growing water demand for out-of-stream water needs, is a major data need for WRIA 54. Stevens, Lincoln and Spokane Counties all have begun developing more proactive methodologies to identifying these areas within their jurisdictions, and enacting programs to address the challenges associated with these areas. The Planning Unit supports development of methodologies to accurately identify areas of strained water resources, and development of tools to manage land use needs associated with these areas.

Recommendation WFN-5—Establish a program to collect data and evaluate where permit-exempt wells are a concern. Develop management options for problem areas. Affected local governments and Ecology should provide technical support and funding; counties, purveyors, Ecology and Regional Health District should coordinate.

Implementation Category: Immediate Term (within 1-2 years)

Project Team: Spokane County (lead), City of Spokane (participant); Spokane Tribe (lead for on-reservation)

Approach and Action Items:

This project relates to several other projects intended for earlier implementation (water supply and demand study, West Plains hydrogeology study, West Plains regional coordination, sustainable water availability guidelines). Also, the U.S. Geological Survey Chamokane groundwater study will increase knowledge about the potential impacts of groundwater use on stream flow. It is likely that through one of those projects, the need for an evaluation of permit-exempt well use or strain on the water resource for a specific area will be highlighted. It is also possible that concern about a specific area will arise, either through an increase in development activity where municipal water purveyors cannot easily provide service, or from increased complaint activity associated with declining groundwater levels in domestic wells.

	2010	2011				2012		
Schedule:	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Review need for initiating work related to these recommendations.				X				X

Agreements, Approvals & Permits:

None needed

Eliminating Duplication and Inconsistencies: None identified

Funding Approach and Resources: Supplemental grant funding will be needed if a project is initiated. Watershed Planning Phase 4 and Supplemental grants would likely be targeted for this purpose.

Cost category: Medium ($50,000 to $100,000) depending on nature of technical evaluation and duration of process to develop planning and regulatory tools and protocols. May be phased to address specific areas within WRIA 54.

Project Plan Completed? No.

Recommendations WS-3:	**Water Storage Projects**
Watershed Plan Reference:	**p. 7-4**

Description:

Promote and support water storage projects initiated by individual entities throughout the watershed to meet instream flows and to provide water for residents, business and projected growth in Spokane, Lincoln and Stevens Counties and the Spokane Indian Reservation.

Implementation Category:	Immediate Term (within 1-2 years)
Project Team:	Spokane Tribe (lead for on-reservation), Stevens County Conservation District (participant, already working in Chamokane Creek and desire to expand to Suncrest area in 3-5 year timeframe), City of Spokane (participant), Stevens County P.U.D. (participant for 6-10 year timeframe)

Approach and Action Items:

Project ideas may be submitted by individual entities. Stevens County Conservation District may play a coordinating, vetting and technical assistance role, particularly in the Chamokane watershed. Some interest expressed in submitting grant applications for specific projects in the Chamokane watershed.

	2010	2011				2012		
Schedule:	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Review individual proposals for water storage projects, and consider WIT support	X	X	X	X	X	X	X	X

Agreements, Approvals & Permits:

Individual storage projects may be subject to requirements for the following:

- Water rights (RCW 90.03, RCW 90.44)
- Dam safety review (RCW 90.03.350, Chapter 173-175 WAC)
- Environmental review (RCW 43.21C, Chapter 197-11 WAC)
- Underground injection control (Chapter 173-218 WAC)
- Water quality standards (Chapter 173-200 WAC (groundwater), Chapter 173-201 WAC (surface water))
- Reclaimed water rule (Chapter 173-219 WAC, under development)

Eliminating Duplication and Inconsistencies:	None identified
Funding Approach and Resources:	Supplemental grant funding may be needed. Watershed Planning Phase 4 and Supplemental grants, Centennial Clean Water Fund grants, and Clean Water Act Section 319 grants would likely be targeted for this purpose. Cost category: Low to high ($10,000 to $1+ million). Low cost range would address nonstructural storage projects such as water right leases. High cost range would address significant structural storage projects.
Project Plan Completed?	No.

Recommendation WRA-6:	**Relinquishment Law**
Watershed Plan Reference:	**p. 4-5**
Description: Planning Unit will review, discuss, and recommend improvements to the relinquishment law.	
Implementation Category:	Immediate Term (within 1-2 years)
Project Team:	Stevens County P.U.D. (lead); Spokane County, Avista, City of Spokane (participants)

Approach and Action Items:

Stevens County P.U.D. will coordinate development of an issue paper regarding this topic. This issue paper will be provided to Ecology, and possibly to the state legislature. Additional steps may include coordinating with others statewide, and testifying to the state legislature.

	2010	2011				2012		
Schedule:	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Develop issue paper and provide to Ecology and legislature			X	X				
Follow-up actions					X	X	X	

Agreements, Approvals & Permits:

Legislative action will be required to amend the relinquishment law.

Eliminating Duplication and Inconsistencies:	Problems with the relinquishment law have been identified by water users and watershed groups throughout the state. To eliminate duplication and inconsistencies, a coordinated effort would be most effective.
Funding Approach and Resources:	Development of issue paper will be funded through in-kind contributions from WIT members. Further actions may required supplemental funding, potentially from Watershed Planning Phase 4 funds. Cost category: Low (Less than $10,000)
Project Plan Completed?	No.

Recommendations WRA-5:	**Spokane Tribe Water Code**
Watershed Plan Reference:	**p. 4-5**

Description:

Recommend that the Spokane Tribe develop a water code for the Spokane Tribe and Reservation, including fee lands.

Implementation Category:	Immediate Term (within 1-2 years)
Project Team:	Spokane Tribe (lead)

Approach and Action Items:

Independent Spokane Tribe project

	2010	2011				2012		
Schedule:	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Draft water code			X	X				
Approval and implementation					X	X	X	

Agreements, Approvals & Permits:

Tribal council approval will be required.

Eliminating Duplication and Inconsistencies:	None identified. There is some relationship with tribal reserved water rights and the Chamokane Creek federal adjudication.
Funding Approach and Resources:	Supplemental funding will be required. The following sources will be targeted: EPA, BIA Cost category: Low ($10,000 - $50,000, depending on level of complexity and duration of development process)
Project Plan Completed?	No.

Recommendations WRA-1: Water Resources Funding and Water Master

Watershed Plan Reference: **p. 4-5**

Description:

Recommend that the State Legislature provide more staff and funding to the Washington Department of Ecology to process water rights and for compliance activities. The Planning Unit particularly encourages consideration of establishing a regional water master.

Implementation Category: Immediate Term (within 1-2 years)

Project Team: Stevens County P.U.D.(lead); Avista, Spokane County, Ecology (participants)

Approach and Action Items:

The initial focus for this effort will be exploring establishment of a water master. Funding for this position would need to be requested and authorized in Ecology's 2011-2013 general budget. Stevens County P.U.D. sent a letter to Ecology requesting a water master for WRIAs 54, 55, 57 and 59. Spokane County followed up with a support letter on the request to Ecology. The water master's function would be active water management, which may include active oversight and enforcement of water law and water rights, coordinating and adjusting water delivery to adapt to current conditions and need, issuing temporary permits, and education. The WRIA 54 WIT plans to continue working with Ecology, regional WRIA groups, and possibly the state Legislature to establish this position. They will explore funding partnerships and a smaller water master scope if necessary.

	2010	2011				2012		
Schedule:	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Work with Ecology and others in the region to obtain funding and define water master scope	X	X	X	X	X	X	X	X
(if funded) Implement water master position						X	X	X

Agreements, Approvals & Permits:

Legislative action is needed to establish and fund this position.

Eliminating Duplication and Inconsistencies: None identified. This position would enhance and contribute to the effectiveness of existing water management programs and activities.

Funding Approach and Resources: Supplemental funding will be required. A direct legislative appropriation for this position is sought.

Cost category: Medium ($100,000 to 200,000 annually)

Project Plan Completed? No.

CHAPTER 4.
IMPLEMENTATION SCHEDULE

SUMMARY OF RECOMMENDED PROJECT TIMEFRAMES

Table 4-1 summarizes the recommended schedule for implementing all WRIA 54 recommendations.

TABLE 4-1.
RECOMMENDED IMPLEMENTATION SCHEDULE

		Immediate		Medium	Long-Term
	Early Action	Year 1	Year 2	Years 3 – 5	Year 6 & Beyond
WRA-4: Public Database for Water Rights Buyers/Sellers	X	X	X	X	X
WFN-7: Water Banking	X				
WFN-3: Chamokane Basin Watershed Council	X	X	X	X	X
TI-3: Water Supply and Demand Forecast	X	X	X	X	X
WFN-1: West Plains Water Supply Coordination		X	X	X	X
TI-1: West Plains Hydrogeology Study		X	X		
WQ-1: Lake Spokane Nonpoint Source		X	X	X	X
WUE-2, WUE-3: Water Conservation		X	X	X	X
LU-12: Plat Approval Conditions		X			
LU-6, LU-7, LU-8, LU-11: Local Government Guidelines for Determining Sustainable Water Availability		X	X		
TI-2, WFN-5: Managing Areas of Strained Water Resources		X	X	X	X
WS-3: Water Storage Projects		X	X	X	X
WRA-6: Relinquishment Law		X	X		
WRA-5: Spokane Tribe Water Code		X	X		
WRA-1: Water Resources Funding and Water Master		X	X		
EDU-2: Education Needs Assessment				X	
WFN-4: Subarea Water Needs Assessment					X
WRA-2: Ecology Updates on Water Rights Activities					X
WRA-3: Prioritize Subbasins for Water Right Applications					X
WUE-1: Coordination of Efficiency/Conservation Measures					X
WUE-4: Involvement in Water Supplier Goal Setting					X
WUE-5: Water Conservation and Reclaimed Water Use					X
WFN-2: Spokane Reservation Water Plan and Improvements					X

TABLE 4-1 (continued).
RECOMMENDED IMPLEMENTATION SCHEDULE

		Immediate		Medium	Long-Term
	Early Action	Year 1	Year 2	Years 3 – 5	Year 6 & Beyond
WFN-4: Assess Subarea Water Supply Needs					X
WFN-6: Water Rights Trusts, Banking and Water Leasing					X
WS-1: Evaluate Aquifer Storage and Recovery					X
WS-2: Promote Connectivity of West Plains Area					X
WQ-3: Updates on TMDL Progress					X
WQ-4: Paleochannel Water Quality Monitoring Study					X
WQ-7: Wetland Delineations					X
LU-2: Water Plan and Land Use Plan Consistency					X
LU-3: Include Water Availability in Long-Range Planning					X
LU-4, LU-5: Identify Areas of Strained Water Resources					X
LU-9: Regional Water Supply Availability Studies					X
LU-10: Comprehensive Plan Water Resource Policies					X
LU-13: Modify Subdivision Exemption Requirements					X
LU-16: Lake Spokane Beaver Study					X
TI-4: Tributary Stream Flow Monitoring					X
TI-5: Stream Flow Gauge Below Nine Mile Dam					X
TI-6: Local Funding for Water Resources Staff					X
TI-7: Ambient Groundwater Monitoring					X
EDU-4: State Funding for Education and Outreach					X

SCHEDULE FOR REVIEWING DETAILED IMPLEMENTATION PLAN

This detailed implementation plan is scheduled to be reviewed every two years by the WIT throughout Phase 4, beginning in 2012. As part of the biannual review, the WIT will re-evaluate projects as needed and identify which projects to submit for funding based on the funding opportunities available for that year. In addition, the WIT may add new actions and remove or revise irrelevant or duplicative actions. The following activities are recommended as part of review process:

- Review the medium-term and long-term high priority actions and attempt to establish timelines. If changes are made, these should be included in updates of the detailed implementation plan.
- Review actions that require funding to identify any actions that may need to move to a different schedule.
- Review funding opportunities.

- Review the information in the project summary sheets for immediate-term projects (Chapter 3) to verify that it accurately reflects the status of each action. The project summary sheets should be updated with the following information:
  - Implementation Status: Complete, ongoing, funded.
  - Funding status: Specific information regarding actions taken to obtain funding (e.g., submitted project proposal in 2010).
  - Institutional knowledge: Additional information that describes the background and purpose of the action to aid implementation.
  - Other considerations: Other information that would be useful to know to implement the action. This can include information regarding related actions undertaken by other entities that could be used to eliminate duplication and inconsistencies.

Separate from reviewing the detailed implementation plan, the WIT will prepare a biannual report that summarizes accomplishments and lessons learned to document completed projects and activities.

CHAPTER 5.
PLANNED FUTURE USE
OF INCHOATE MUNICIPAL WATER RIGHTS

This chapter addresses requirements in RCW 90.82.048 related to inchoate municipal water rights (the portions of municipal rights that are not currently used but are available for use as the municipality grows). The law requires that detailed implementation plans address the planned future use of these rights, "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." The law requires Planning Units to ask inchoate water right holders to participate in defining implementation timelines and milestones.

A legal case concerning the 2003 Municipal Water Law, with potential reductions for municipal inchoate water rights, is currently before the Washington State Supreme Court (Lummi Indian Nation, et al. v. State of Washington). The purveyors listed in Table 5-1 have, consistent with State requirements, completed water system comprehensive plans that address the future use of existing inchoate right when such exists. The inchoate right in these plans is consistently anticipated to be used in meeting future demand. The City of Spokane currently has the largest amount of inchoate right but is also the largest contributor of water to other systems in the region who are limited in available water and/or right. Analysis of inchoate right use to meet future needs is summarized from the system plans in Table 5-1. However, it is important to recognize that an instream flow rule has not been established for the Spokane River, and purveyor inchoate rights for future use are uncertain. The current ongoing appeal to the 2003 Municipal Water Law makes planning for growth even more difficult.

It is important to note that inchoate water rights merely provide an estimate of the quantity of permitted water rights for municipal water users. Possessing inchoate water rights does not guarantee that the water will be available. If a watershed has been over-appropriated, holders of inchoate water rights may find that the stream or aquifer does not have sufficient water. Furthermore, inchoate water rights do not indicate whether the water is accessible by a system of wells, pumps, and pipes that can withdraw the quantity granted in the water right. Water quality and potability are also not considered in inchoate water rights. Additionally, inchoate water rights may not indicate where water is actually being used through inter-ties or other agreements to provide water outside a service area. The WRIA 54 inchoate water rights inventory was completed in two steps.

- Water suppliers that meet the definition of a municipal water supplier and are located within WRIA 54 were identified.
- The Washington State Department of Health approved water system plan of each identified municipal water supplier was reviewed to determine its current and forecasted water rights status.

It is also important to note that the definition of a municipal water supplier has changed since the passage of RCW 90.82.048. As a result of a decision made in King County Superior Court on June 11, 2008 the Department of Ecology now considers municipal water suppliers to be cities and towns, counties, public utility districts, water and/or sewer districts and in some cases irrigation districts, port districts, and certain institutions (e.g. prisons, public hospitals, public colleges and universities, etc). Accordingly, this inventory is limited to those organizations. This definition excludes privately owned water purveyors, such as Indian Village Estates Water Association.

Table 5-1 shows the water rights of each municipal water supplier within WRIA 54, the current use, the projected use, and the difference between the projected use and existing water rights, as described in each purveyor's current approved water system plan. Because purveyors are not all on the same schedule for updating their water system plans, the projected future use dates are different, ranging from the years 2022 to 2028. For the purposes of this compilation, the current use, projected use, and additional available water right are not associated with a particular water right unless the water system plan specifies an association.

TABLE 5-1.
WRIA 54 INCHOATE WATER RIGHTS

	Water Right		Current Use		Projected Use		Difference Between Water Right and Projected Use	
Water Right #	gallons/ minute	acre-feet/ year	gallons/ minute	acre-feet/ year	gallons/ minute	acre-feet/ year	gallons/ minute	acre-feet/ year
City of Airway Heights					**Projected to 2027**			
6321-A	350	224						
G3-26657	500	800						
G3-27427	65	102						
G3-29249P	1400	1200						
Total	**2,315**	**2,326**	2,448	1,378	6,693	2,848	-4,378	-522
Consolidated Support Services[a]					**Projected to 2022**			
3300-A	1,000	1,600						
4404-A	1,000	1,600						
G3-25319C	550	800						
Total	**2,550**	**4,000**	1354	519	1625	623	925	3,377
Fairchild Air Force Base					**Projected to 2028**			
Claim 112893	2500	3130.24	2,226	2,085	2,226	2,085	274	2,591
Claim 112895	1000	1545.79	894		894		106	
Claim 112892	1000	1545.79	954	10.28	954	10.28	46	1,535
Spokane County Water District 3, System 9					**Projected to 2027**			
7432-A	275	112	90	13	90	13	185	99
City of Spokane[b]					**Projected to 2027**			
3199-A	25000	20000	25,000	12,615	25,000	14,500	0	5,500
728-A	11000	4080	19,000	4,026	19,000	4,700	12,000	380
503-D	20000	1000						

TABLE 5-1 (continued).
WRIA 54 INCHOATE WATER RIGHTS

	Water Right		Current Use		Projected Use		Difference Between Water Right and Projected Use	
Water Right #	gallons/ minute	acre-feet/ year	gallons/ minute	acre-feet/ year	gallons/ minute	acre-feet/ year	gallons/ minute	acre-feet/ year
Stevens County PUD - Lake Spokane					**Projected to 2024**			
6560-A	42	5						
G3-00064C	200	7						
G3-24060C	900	267						
G3-24901C	190	207						
G3-25792C	1,375	201						
G3-26469C	0	62						
G3-22824C	300	106						
G3-29322P	2,000	1,200						
G3-29323P	1,000	0						
G3-25481C	330	27						
G3-27491C	70	112						
G3-24992C	135	43						
G3-29326P	400	645						
G3-29580P	1,000	155						
Total	**7,942**	**3,037**	6,551	2,175	6,801	2,487	1,141	550
Stevens County PUD - Spokane Lake Park					**Projected to 2024**			
G3-01587C	500	134						
G3-28672C	1,000	200						
G3-29657P	1,000	666						
Total	**2,500**	**1,000**	900	102	900	118	1,600	882
Stevens County PUD – River Park Estates					**Projected to 2024**			
G3-27510C	65	48	64	21	65	48	0	0
Stevens County PUD - West Shore					**Projected to 2024**			
G3-01414C	500	111						
G3-27994P	600	174						
Total	**1,100**	**285**	840	201	840	234	260	51

a. Consolidated Support Services provides water to the City of Medical Lake, a portion of which is outside WRIA 54.
b. The City of Spokane service area includes a large area outside of WRIA 54. Only the wells located within WRIA 54 and their associated water rights are listed. This current and projected use may not be located entirely within WRIA 54.

CHAPTER 6.
WRIA 54 GOVERNANCE

LEAD AGENCY

RCW 90.82.043 requires that the detailed implementation plan define coordination and oversight responsibilities. During Phases 1 through 3 of WRIA 54 watershed planning, Spokane County has served as lead agency for grant administration, planning unit coordination, and contracting. This responsibility will continue as funding allows through Phase 4.

PLANNING/IMPLEMENTATION TEAM

The WRIA 54 Planning Unit has served as the planning team throughout Phases 1 through 3 of the watershed planning process. As it transitioned into Phase 4 Implementation, the Planning Unit has renamed itself the Watershed Implementation Team to be consistent with other Spokane River WRIAs. Membership has not changed. It is envisioned that this structure will be maintained throughout Phase 4.

Beyond Phase 4, the Watershed Implementation Team may consider transforming to a different governance structure. Two available options include the following:

- Watershed management partnership as authorized under the Interlocal Cooperation Act (RCW 39.34). This model is currently in place in WRIA 59 (Colville) and the Walla Walla Basin (most of WRIA 32).
- Nonprofit corporation, as allowed under RCW 24.03.
- WRIA 54 could combine with one or more adjoining watershed groups.

ROLE OF SUBCOMMITTEES

WRIA 54 is a diverse watershed, comprised of distinct regions. The WIT has used committees before in the planning process and will likely continue to use this structure in the near future under the implementation phase. Implementation team members will likely focus individual efforts on the areas and issues most relevant to them. While the WIT believes it will continue to be important to coordinate as a larger group, many implementation projects may be accomplished primarily through the efforts of subcommittees and individual entities. The following subcommittees/working groups are currently envisioned:

- Spokane River main stem – integrate with WRIAs 55/57 and 56.
- West Plains – establish work group(s) to focus on specific West Plains projects. These will be coordinated with interested participants from WRIAs 34, 43, and potentially 56.
- Chamokane Creek – Stevens County Conservation District has convened a community forum to provide information, education, and technical assistance to residents, as well as implement the Chamokane Watershed Plan and Chamokane Creek Needs Assessment. The Spokane Tribe also supports this effort through discrete project funding and participation. It is envisioned that this group will formalize its status as a Watershed Council.
- Spokane Indian Reservation – The Spokane Tribe will be responsible for implementing recommendations on the Spokane Reservation. This will include coordination with main stem Spokane River and Lake Roosevelt (Columbia River) projects.

Additional subcommittees may form as the WIT continues to implement watershed plan recommendations.

COORDINATION WITH ADJACENT WRIAS

As described above, subcommittees and project teams will coordinate with adjacent WRIAs when appropriate and there is interest. Among adjacent WRIA watershed plans, there is significant overlap in the nature of many recommendations, including the following:

- Water Rights
  - Regional water master
  - More resources for water rights database, water right application processing and enforcement
  - Adjudication
- Water Conservation
  - Regional message
  - Priority in all adjacent plans
- Instream Flow
  - Integrated recommendation for Spokane River
- Water Storage/Recharge/Wetland Restoration
  - Several active implementation projects associated with wetlands
  - Enhanced infiltration (shallow aquifer recharge and aquifer storage and recovery)
- Integrated Land Use and Water Supply Planning
  - Consistency with Comprehensive Plans
  - Criteria for demonstrating water availability
  - Identify and plan for areas of strained water resources
  - Cooperative water supply planning for West Plains area
- Technical Information Needs
  - Hydrogeologic study for West Plains area
  - Stream gauging
  - Improved runoff forecasting/drought planning

Whether as integrated or parallel projects, these areas indicate common interests and needs that could be coordinated for a more regional benefit.

REFERENCES

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Washington Department of Ecology. 2010. Spokane River and Lake Spokane Dissolved Oxygen Total Maximum Daily Load Water Quality Improvement Report (February 2010).

APPENDIX A.
PHASE 4 REQUIREMENTS CHECKLIST

December 2010

APPENDIX A.
PHASE 4 REQUIREMENTS CHECKLIST

RCW Requirement	Compliance
RCW 90.82.043: Implementation plan — Report to the legislature.	
(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.	Submittal of this document fulfills this requirement.
(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.	Compliance with this requirement is outlined at the end of Chapter 3.
(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.	Each of these elements is incorporated in the project summary sheets in Chapters 3 and 6.
(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.	This element is incorporated in the project summary sheets in Chapter 3. WIT participation includes entities involved in related planning and management activities.
RCW 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.	Compliance with this requirement is discussed in Chapter 5.
(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.	Compliance with this requirement is discussed in Chapter 5.

WRIA 54 Watershed Implementation Team

WRIA 54—Lower Spokane Watershed Detailed Implementation Plan

APPENDIX B.
PROJECT PLANS FOR IMMEDIATE-TERM PROJECTS

December 2010

APPENDIX B1.
PROJECT PLAN FOR
WEST PLAINS HYDROGEOLOGIC INVESTIGATIONS

GOAL

Develop an understanding of West Plains groundwater and associated surface water systems so that the resource can be utilized sustainably and managed rationally and effectively, and innovative solutions such as aquifer storage and recovery can be explored.

OBJECTIVES

- Develop a conceptual three dimensional model that depicts significant elements of West Plains geology including basement topography, basalt units, significant aquifers and paleochannels.
- Develop detailed groundwater gradient and flow paths within identified aquifers.
- Investigate physical properties of significant aquifers.
- Investigate aquifer recharge mechanisms including location and magnitude.
- Develop a monitoring network to assess long term trends.
- Investigate the connection of West Plains groundwater systems and associated surface water (Deep Creek, Spokane River, Latah Creek)

PROJECT APPROACH

This project will be implemented as discrete projects that work towards achieving the goals and objectives described above.

West Plains Hydrogeology Project 1—Hydrogeologic Database

Task 1—Water Well Location Data Collection

Collect horizontal location data for water well logs on file with the Washington Department of Ecology. Location data will be collected with a hand held GPS with horizontal accuracy of 20 feet.

Task 2—Water Well Database Development

Develop a database, using the existing water well report on line at Ecology, that includes the Ecology unique well identifier, the horizontal location, lithologic data, static water level, and screened interval for each water well log collected used in Task 1.

Task 3—Water Well Database Analysis

Analyze database to determine the lateral extent and geometry of principal geologic units on the West Plains. Identify areas where there is not sufficient data.

West Plains Hydrogeology Project 2 –Groundwater Elevation Monitoring Network

Task 1—Develop Monitoring Network

Identify existing wells including dedicated monitoring wells, production wells, and domestic wells suitable for monitoring. Contact well owners to obtain permission to monitor their well.

Task 2—Prepare Monitoring Network

Survey all well head locations to be included in the network. Determine which wells will be continuously monitored with a data logger and which wells will be manually measured on a periodic basis. Install data loggers in selected wells.

Task 3—Conduct monitoring

Collect data and calibrate data loggers on a quarterly basis. Conduct a synoptic measurement at all wells during the summer and winter.

Task 4—Data Analysis

Develop groundwater contour maps from the synoptic water level measurement events. Evaluate continuous data to identify the connection of water level response to hydrogeologic changes (increased/decrease withdrawal, recharge events, etc) and patterns of water level changes that indicate a common groundwater body.

West Plains Hydrogeology Project 3 –Monitoring Well Installation

Task 1—Well Location Identification

Utilizing data collected in Projects 1 & 2 identify data gaps that could be filled by drilling and installation of a new monitoring well. Develop a prioritized list of locations.

Task 2—Drilling and Installation of Monitoring Wells

Task 3—Data collection, analysis and monitoring

Collect and analyze appropriate samples during drilling for geochemical analysis. Install data loggers in wells.

West Plains Hydrogeology Project 4—Groundwater Age Dating

This project will be done in conjunction with projects 2 & 3 as appropriate

Task 1—Identify Sample Locations

Identify locations where groundwater samples can be collected that represent one discrete aquifer.

Task 2—Collect and Analyze Samples

Collect samples and submit for age dating analysis

West Plains Hydrogeology Project 5—Limited Gravity Survey

The West Plains Geophysical Orientation Survey conducted by Spokane County identified the gravity as a method to determine the depth to basement. The results did not provide enough confidence to initiate an

area wide survey, but did warrant further pilot testing. This project will be conducted in conjunction with Projects 1 & 2 as appropriate well controls are identified.

Task 1—Identify Locations

Identify locations where the depth to basement is known.

Task 2—Conduct Survey

Conduct a limited gravity survey in the identified locations.

APPENDIX B2.
PROJECT PLAN FOR
DEVELOPING SUBDIVISION STANDARDS

BACKGROUND

This project addresses the following recommendations from the WRIA 54 Watershed Plan:

- **Recommendation LU-6**—Recommend that counties, purveyors and Ecology collaborate to develop flexible local guidelines for demonstration of water supply availability and sustainability. Methods may include but are not limited to hydrogeologic investigation and characterization reports.
- **Recommendation LU-7**—Recommend that Ecology provide technical assistance and funding for ongoing support in the implementation of guidelines developed in Recommendation LU-6 to demonstrate sufficient water availability and sustainability for proposed and existing uses for comprehensive plan amendments and associated zoning changes.
- **Recommendation LU-8**—Recommend that Spokane County require applicants to demonstrate sufficient water availability and sustainability for proposed and existing uses for comprehensive plan amendments and associated zoning changes.

Since the Growth Management Act was enacted in the State of Washington counties have been considering critical areas in their land use planning decisions. Natural features such as wetlands, wildlife habitat, geologically hazardous areas, and critical aquifer recharge areas that are associated with a proposed development project are evaluated and incorporated into the design and decision making process associated with a development. A critical step in this process is the identification, delineation, and assessment of the area of proposed development for these critical areas. This process must be based on sound scientific principles and methodology for effective implementation of critical areas management.

The WRIA 54 Watershed Plan recommends evaluation of development proposals for groundwater availability and sustainability in a similar manner to other critical areas. The foundation for a groundwater availability and sustainability policy is requirements and standards for water availability and sustainability investigations.

PROJECT GOAL

The goal of this project is to develop cost effective, technically sound, and legally defensible requirements and standards for subdivision water availability and sustainability investigations.

PROJECT APPROACH

Task 1: Form Advisory Committee:

Form an advisory committee to develop project objectives, provide input, and review work products.

Task 2: Review similar programs implemented in other jurisdictions:

Research, review and evaluate other groundwater quantity investigation requirements and standards in other jurisdictions throughout the country. The review would include items such as required information,

accepted methodologies, level of professional certification required, exemptions and other special considerations, and the magnitude of additional cost to development.

Task 3: Develop groundwater availability and sustainability policy criteria:

Determine criteria that must be met to achieve groundwater availability and sustainability policy goals. Example criteria include:

- New withdrawals may not adversely impact existing withdrawals in the short and long term;
- Well yield must meet a specified rate over a specified length of time;
- Withdrawals may not impact stream flows more than a defined amount during a defined period of time;
- Cumulative with withdrawals may not exceed recharge for a specified subarea.

Task 4: Determine and evaluate scientific methodologies to evaluate groundwater availability and sustainability criteria:

Identify and evaluate potential methodologies to determine if groundwater resources associated with a development proposal meet the criteria. The evaluation of methodologies would include necessary data, level of confidence, and cost.

Task 5: Develop groundwater availability and sustainability investigation standard:

Utilizing information developed in tasks 2, 3, & 4 develop a groundwater availability and sustainability investigation standard that facilitates evaluation of subdivision and development of land with respect to water supply.

Task 6: Pilot Test:

Retain the services of a qualified professional, other than the project consultant, to conduct a ground water availability and sustainability investigation according to the proposed standard.

APPENDIX B3.
PROJECT PLAN FOR
BRADFORD STORAGE PROJECT

The project plan for the Bradford storage project is presented in this appendix as the information submitted on a Washington Department of Ecology grant application form. Text in gray is the boilerplate content included on the application form. Text in black is the response content provided by the Stevens County Conservation District.

Sponsor/Lead Agency Contact

Stevens County Conservation District, Charlie Kessler, (509) 685-0937 ext. 111

Please check all that apply for your Preliminary Project Proposal:

- ☒ Will be ready to proceed on/soon after July 1, 2011 and will be completed by June 30, 2013
- ☒ Supports an element from an approved watershed plan or a Detailed Implementation Plan
- ☐ (Or, if 'no' to above): Supports an immediate action item as provided for in RCW 90.82.110
- ☐ Supports one or more recommendations from other local, state or federal water related plans
- ☒ Improves the reliability of local water supplies
- ☒ Protects or improves instream flows
- ☐ Achieves water conservation or water use efficiency improvements
- ☒ Integrates actions with local, regional, state or federal water quality or fish recovery plans
- ☒ Is likely to garner financial support from local, state, federal or private partnerships (identify): Washington Conservation Commission, NRCS, USFWS, Spokane Tribe of Indians

Please note: We currently expect a smaller than normal, and needed, Capital Budget appropriation (e.g. *Watershed Plan Implementation and Flow Achievement*) given the pace of economic recovery in our state. Therefore, our priorities may necessarily need to be focused solely on projects that directly help us meet short-term instream flow achievement priorities, such as new pipes and pumps, irrigation efficiency improvements, aquifer recharge projects, or development of water banks or exchanges. Consequently, we don't know at this time if we'll be able to fund new stream gaging projects proposals. However, if you have new stream gaging projects in mind please let us know using this document, so that we can use this kind of information in developing our future statewide stream gaging priorities and activities plan.

When responding to Items 1 to 7 on the following pages, please be as brief and concise as you can be. Our goal is to develop an early and reliable list of Preliminary Project Proposals for our upcoming work with OFM and potentially key Legislative committees and their staff. We will ask for more detail from you when we request you to complete a formal grant application later in 2010. If your plans or proposals change between now and then, don't worry, there are no commitments on anyone's part being requested or made at this time.

1. Briefly describe the need, issue or problem your project proposal will address:

The peak flow in the Chamokane Creek Watershed occurs in April in response to snowmelt and spring runoff. These flows are often significant and can be quite damaging to streambanks and riparian fences. There are decreasing flows in the creek from the end of spring runoff through late August and early September. The extreme low flows from late July through mid-September can have a detrimental effect on all forms of aquatic life. Watershed residents, through the Chamokane Creek Watershed Council developed under Ecology grant #G1000342, have expressed a need for detaining some of the runoff in off-channel storage facilities to reduce runoff impacts and so that the impounded water can be released to augment the summer low flows.

2. Briefly describe how your project proposal will address the above need, issue or problem. Include how it will implement one or more strategies in your watershed plan. (Planning Units in Phase 3 with immediate actions from RCW 90.82.110 may also submit proposals):

Lee and Renee Bradford are landowners in the Camas Valley portion of the Chamokane Creek Watershed (see attached aerial photo). They are willing to allow their land to be used for the construction of a detention storage pond to trap runoff from a seasonal tributary to Chamokane Creek and then slowly release the water to the creek as it is needed in the summer months. The June 2000 Chamokane Creek Watershed Management Plan developed by the Chamokane Creek Watershed Management Committee under Ecology Grant #G9700156 had a goal of investigating ways in which water can be stored during high flow periods and released during low flow periods. The goal of the recommendation was to provide water for downstream areas to augment low flow.

A storage pond will be built in the natural depression that currently carries water during the runoff season. The size of the pond will depend upon the engineering design and the land management objectives of the landowners. Preliminary communication with the Bradfords indicates that they are open as to pond size. A 10 acre pond with an average depth of 8 feet will store approximately 26 million gallons and a 10 acre pond with an average depth of 6 feet will store approximately 19.5 million gallons. .

3. Briefly describe the benefits, results or expected outcomes of your proposal with respect to water resources for people, farms and fish. If you can provide any preliminary, estimated cost/benefit information we'd appreciate that level of detail as well:

If completely filled and completely drained, the larger pond could discharge 2 cubic feet per second (cfs) to the creek for approximately 20 days during the low flow period. These figures will change with pond size, time of discharge, evaporation and duration of filling flows. A discharge of 2 cfs to this portion of Chamokane Creek will greatly enhance the potential for survival for all aquatic organisms in the Camas Valley portion of the creek. One problem identified during the development of the Chamokane Creek Watershed Management Plan was that riparian areas drained rapidly due to incised channels and low flows. The increased flows will also aid in retaining moisture in the riparian area of this reach of the stream, supporting the establishment and growth of riparian vegetation.

If the geologic study and the cultural resource analysis do not find significant road blocks to the project, it is anticipated that the pond could be operational to impound the runoff from the winter of 2011-12 and be

able to augment low flows in Chamokane Creek in the summer of 2012. If these 2 studies do find things that will impede the project, the pond will not be operational until the winter of 2012-13.

4. If not addressed above in #3, please briefly and clearly list your project's specific deliverables:

- Engineering design / geologic analysis for a storage pond
- A cultural resource analysis
- A finished operating pond system

5. NEW FOR 2011-13: If you have one or more high priority projects that will likely require a substantial involvement of Ecology's staff time and resources, BRIEFLY tell us here. In these cases, we may re-direct part of our Operating Budget that we'd normally provide in grants to Lead Agencies, to offset Ecology's costs (the staff effort to implement the project).

For example, if one of your Planning Unit's highest priority needs is something like a 'Water Master for Water Diversion Monitoring' or 'Adopting an Instream Flow/Water Management Rule' we may need to use some of our grant funds to pay for the internal resources to complete the project for you during the 2011-13 biennial period.

There would be no need for additional Ecology staff time for this project.

6. NEW FOR 2011-13: If you are able to reasonably show, estimate or predict how your Preliminary Project Proposal will either sustain one or more existing jobs or create one or more new jobs in the local economies of your watershed please BRIEFLY tell us here.

We aren't requesting a detailed economic analysis supported by lengthy data or statistical reviews, but to the extent you can estimate the local employment benefits of our grant program in relation to improved waters resources management we'd like to hear your thoughts. Please state whether you are talking about existing job sustainability or the creation of new jobs, what sectors they are in, what types of jobs they consist of, and whether you think our grant programs would result in short or long term job creation. If this is a tough one for you, don't worry, you can leave this section blank.

A Stevens County engineering firm would be sought to develop the project design which would require an geologic analysis of the site. The Stevens County Conservation District currently uses a local firm for engineering designs of streambank stabilization projects and fish barrier replacement projects. The geologic study might have to be contracted to another Stevens County firm. $15,000 will be used for the study and design work

There will the need for a cultural resource analysis conducted on the site prior to excavation commencing. The contractor will have to work closely with the Spokane Tribe of Indians. $15,000 will be used for the cultural resource analysis

A local excavation company would be selected to conduct the actual storage pond construction. The actual cost of the construction will depend upon the results of the studies mentioned above.

7. Fiscal Detail (no detailed budget needed)—Please provide an estimate of LOCAL project costs for each fiscal year. If applicable per #6 above, estimate Ecology total staff time in months for each fiscal year.

	FY12 (Jul 2011 - Jun 2012)	FY 13 (Jul 2012 - Jun 2013)
Estimated Local Project Cost	*$130,000*	
Estimated ECY FTEs in months		

Please limit each preliminary project proposal description to no more than 4 pages. Send your proposals electronically to Bill Zachmann, Watershed Planning and Policy Lead, at bzac461@ecy.wa.gov. Your Watershed Lead must also be copied at the same time to keep them abreast of your ideas. For questions call (360) 407-6548.

For Ecology Internal Office Use Only:

Project Proposal appears to fit Operational Budget Funding criteria: Y/N
Project Proposal appears to fit Capital Budget Funding criteria: Y/N
More information or clarification needed?: Y/N

APPENDIX C. MEMORANDUM OF AGREEMENT TOWARD DEVELOPING A DETAILED IMPLEMENTATION PLAN FOR WRIA 54

December 2010

(v3)

[space reserved for file number]:_____

Attachments:
Appendix A – WIT Membership

MEMORANDUM OF AGREEMENT:
TOWARDS DEVELOPING A DETAILED IMPLEMENTATION PLAN FOR WRIA 54
THE LOWER SPOKANE WATERSHED

WHEREAS, Chapter 90.82 RCW concerning Watershed Planning, provides a collaborative process for participating governmental entities, non-governmental organizations, and other interested parties to have input into the local watershed planning process and

WHEREAS, this Memorandum of Agreement (MOA) seeks to further that statutory process with respect to watershed planning for The Lower Spokane Water Resources Inventory Area (WRIA) 54; and

WHEREAS, the process in ch. 90.82 RCW and this MOA is not intended to formally determine or resolve any legal dispute about water rights under state or federal law. Rather, the process provides an alternative, voluntary process for cooperative planning and managing the use of Washington's water resources; and

WHEREAS, effective watershed planning cannot take place without full participation of government entities, non-governmental organizations, and other interested parties within the WRIA; and

WHEREAS, the WRIA 54 (Lower Spokane) Watershed Plan (ver. 8/5/2009) has been adopted in joint session on October 22, 2009 by the Lincoln County Board of Commissioners, Spokane County Board of Commissioners, and the Stevens County Board of Commissioners.

NOW, THEREFORE, the parties agree as follows:

1.0 Purpose: The purpose of this MOA is to take steps as possible and appropriate under RCW 90.82.030 to involve local water resource users and local interest groups to give input and direction into the watershed planning process. The goal of this collaboration is to reach a collective understanding on the development of a Detailed Implementation Plan identified in RCW 90.82.043 and RCW 90.82.048. REFERENCE:
WRIA 54 (Lower Spokane) Watershed Plan (ver. 8/5/2009).

This MOA is not an Interlocal Cooperation Agreement under ch. 39.34 RCW. Interlocal Cooperation Agreements pursuant to ch. 39.34 RCW are limited to Public Agencies to accomplish governmental purposes and such Interlocal Cooperation Agreements may result from the collaborative process supported in this MOA however.

2.0 Definitions:

"Consensus" means unanimous agreement.

"Detailed Implementation Plan" or "DIP" has the same meaning as used in RCW 90.82.043 and RCW 90.82.048, as the document with the strategies implementing the Plan. [For references to "Plan," see WRIA 54 (Lower Spokane) Watershed Plan below.]

"Implementing Party" is any entity, including but not limited to an Indian Tribe, agreeing to participate and having legal authority to contract to implement elements in the DIP. An Implementing Party may be either an Implementing Government or an Implementing Non-Governmental Member (NGM). These groups are further described:

> "Implementing Governments" are those governmental entities, including Indian Tribes, having a role in Plan implementation as described in the DIP, with legislative and regulatory authority, whose jurisdiction lies wholly or partly within the boundary of WRIA 54, and who are signatories to this MOA. For the purposes of implementing the Plan, Ecology represents only itself. This shall not prevent other State Agencies from joining this MOA by written agreement.
>
> Implementing NGMs are non-governmental persons or entities entering into contractual relationships to implement elements as identified in the Plan. An Implementing NGM need not be a Watershed Implementation Team member.

"Implementation Matrix" is a document showing all recommended elements of an approved WRIA Plan as the final step in plan development and recommendations, as further explained in Section 6.3.

"Implementing rules" has the definition in RCW 90.82.020 (2), which are the rules needed to give force and effect to parts of the Plan that create rights or binds any party, including a state agency, or that establish water management policy.

"Initiating Governments" are those local governments initiating the Watershed planning process as identified in RCW 90.82.060(2) for the area designated by the Washington State Department of Ecology as WRIAS 54, also known as the Lower Spokane Watershed. They continue as Implementing Governments and signatories to this MOA, to wit: Lincoln County, Spokane County, Stevens County, The Spokane Tribe Of Indians, Stevens County PUD #1, and the City of Spokane.

"Lead agency" is that entity that shall convene the Watershed Implementation Team (WIT) and administer the Phase Four Watershed Planning Grant Funds [Ref. RCW 90.82.040(2)]. The Lead agency contracts for services, using funds available under ch. 90.82 RCW or contributed through other sources. The Lead agency has no power to bind another Government without its expressed written consent through its governing body. The Lead agency shall likewise be responsible for application and management of grant funds for purpose of this MOA. Designation of a Lead agency does not limit the option of another Government to apply for and manage grant funds for plan implementation. [Cross reference, RCW 90.82.060 (6)]

"Minimum instream flow" has the definition of RCW 90.82.020 (3).

"Planning Unit" was a committee formed pursuant to Chapter 90.82 RCW by the Initiating Governments to initiate the ch. 90.82 process, which resulted in the adopted WRIA 54 (Lower Spokane) Watershed Plan (the Plan). For the purpose of developing the Detailed Implementation Plan, to implement the WRIA54 (Lower Spokane) Watershed Plan (ver. 8/5/2009), the Planning Unit will be replaced by the Watershed Implementation Team (WIT) as further described below.

"The WRIA 54 (Lower Spokane) Watershed Plan (ver. 8/5/2009)", sometimes also referenced as the "Plan" is defined in RCW 90.82.020 (6) with respect to WRIA 54. It includes any rules adopted in conjunction with the product of the Planning Unit.

"Watershed Implementation Team" (WIT) is the successor of the Planning Unit, formed for the purpose of implementing the WRIA 54 (Lower Spokane) Watershed Plan (ver. 8/5/2009). WIT membership is listed in Appendix A. The list may be amended by its members as provided in Section 5.

"WRIA" is a water resource inventory area, as provided for under RCW 90.82.020 (4). This MOA concerns WRIA 54.

3.0 Governments Scope: Watershed Planning for WRIA 54 includes an opportunity to receive state grant funding, when local match funding can

be met, for Phase Four, Detailed Implementation Plan (DIP) development, as provided for in Chapter 90.82 RCW and RCW 90.82.040.

3.1 The main focus of Phase Four will be planning: 1) who will implement that Plan, 2) how the Plan will be implemented, and 3) the commitment of resources by those implementing entities.

3.2 Approval of the completed DIP shall be by the same formalities as this MOA; by written instrument duly executed in like manner as this MOA.

4.0 Lead Agency: Spokane County is the Lead agency under this MOA. The Lead agency shall administer the grant funds and contract for services to support development of the detailed implementation plan. Project budgets and utilization of consultants shall be agreed upon by the WIT per the process described in section 6.0 of this agreement.

5.0 Watershed Implementation Team (WIT): The WIT is composed of the parties signing this MOA and those members of the WRIA 54 Planning Unit, when the Planning Unit approved the WRIA54 (Lower Spokane) Watershed Plan during the Planning Unit meeting on August 5, 2009, all as listed in Appendix A. Future membership may be amended in accordance with this MOA.

5.1 Parties in Exhibit A have appointed a representative or representatives to the WIT. New non-governmental representation in the WIT may be developed as outlined in Section 5.3. Each member of the WIT is responsible to appoint one primary representative and as many alternates as desired. Alternates may serve in lieu of the primary contact.

5.2 The appointed Representatives of Implementing Governments shall be voting members of the WIT. With respect to NGMs, after a person desiring to participate in the WIT has attended three consecutive regular WIT monthly meetings, the WIT may accept such person as a voting member by a vote of the WIT members pursuant to sec. 6 of this MOA. In voting to accept a WIT candidate, the WIT shall be guided by considerations of assuring that water resource user interests and directly involved local-level interest groups have a fair and equitable opportunity to give input and direction to the process. [Cross reference, RCW 90.82.030 (1)]

5.2.1 An existing NGM representative may be removed from voting status if such person misses three consecutive regular WIT monthly meetings. A motion to remove is introduced at a regular WIT meeting. Thereafter, the Lead agency and/or a

designee shall contact the party in question, no less than 10 business days before the next regular meeting. The majority of the WIT members in attendance at the next regular meeting may then terminate voting membership by majority vote. A removed NGM representative may join again as provided in 5.2.

5.2.2 Where a voting Government representative on the WIT misses three consecutive regular monthly meetings, written notice may be given to said party of intent to remove voting status at least 10 business days before a regular monthly meeting where the question is to be considered. At such meeting, the removal must be approved by a majority of the WIT members in attendance and the appointing Government shall then be given written notice of such action. The removal does not become effective unless the appointing Government fails to appoint or reappoint a representative within sixty (60) days of being notified. The appointing Government can appoint a new representative or reappoint a removed representative with fully restored voting rights at any time thereafter.

5.2.3 Government withdrawal: see section 8.3.

5.3 The WIT may adopt rules for operation, decision-making, and membership to supplement those presented in this MOA but not in conflict with the MOA.

6.0 Process:

6.1 In so far as possible, all decisions of a quorum of the WIT will be by consensus, but the Implementing Governments must reach Consensus, whether or not in attendance at a meeting. In addition, no decision may bind any Implementing Government to an obligation without written approval of its governing body, with the exception of state and federal agencies, whose representatives can agree to obligations. For the purposes of this MOA, "Obligation" is defined in sec. 6.3.4.

6.2 Where Consensus has been reached among Implementing Government representatives, whether or not in attendance, but a consensus cannot be reached among other WIT members after a reasonable amount of time, approval for purposes of participation of such non-government members shall be by majority vote among those non-government members in attendance at a meeting and shall decide the issue for such members. A 'reasonable amount of time' as used in this paragraph is determined by majority vote of all those WIT

members in attendance at the meeting, except that a reasonable amount of time shall not be less than deferring a vote until the next regular meeting following the meeting with the call to vote.

6.3 Implementation Matrix. The Plan included an Implementation Matrix which sets forth Issues and Recommendations. The Detailed Implementation Plan (DIP) shall identify items creating an obligation on the part of any of the Implementing Entities (Governments and NGOs), including their status as lead or cooperating (supporting), as well as level of effort (including cost as available or reasonable estimate).

6.3.1 For the purposes of this MOA, the parties further state their intent that no Implementing Rule, as defined in RCW 90.82.020, shall bind an Implementing Government without its' written consent, approved in the manner described above.

6.3.2 An Implementing Government which accepts and completes an obligation as specified in the DIP shall be regarded as having fulfilled it's responsibilities for these issues, recommendations, and/or strategies under the Watershed Management Plan or other related regulatory requirements during the finite terms specified under the DIP.

6.3.3 NGMs may consent to element(s) of the actions that impose an obligation on such NGMs, if any, by written approval of their governing bodies, with the exception of state and federal agencies, whose representatives can agree to obligations. This shall not preclude any requirement for a contractual agreement for NGM Implementers to utilize funding from an Implementing Government.

6.3.4 "Obligation" means any required action that imposes fiscal impact, a re–deployment of resources or a change of existing policy.

6.4 All technical decisions will be based on best available science. For purposes of Watershed Planning in WRIA 54, the WIT will use the criteria in WAC 365-195-905. For such elements that include implementation by Indian Tribal agencies, best available science criteria may be modified to include best available science determinations by tribal natural resource agencies or departments.

6.5 Technical advisory group(s) and/or work group(s) may be established by the WIT to provide reports and recommendations on specific issues.

7.0 Funding:

7.1 Grant funds, match and staff or other contributed resources may be used for any purpose approved by the Grant Authority and the contributing entities, including the preparation of technical reports for review by the WIT and/or technical committees and/or focus groups as approved by the WIT. The initial budget for Phase Four will also be reviewed and approved by the WIT.

7.2 Participation in the WIT and/or technical committees and/or focus groups by all participants, including officials and staff, shall be contributed time not eligible for reimbursement from grant funding unless expressly approved by Implementing Governments, consistent with the provisions of Chapter 90.82 RCW.

7.3 The Implementing Governments recognize the financial burden watershed planning places on smaller units of government and support their effort to secure outside sources of funding to ensure effective participation by these entities.

8.0 Duration:

8.1 This MOA becomes effective on the date as provided in section 11 and terminates 18 months after such date.

8.1.1 In accordance with RCW 90.82.040(2)(e), a Detailed Implementation Plan shall be approved by the WIT within one year from the date on which Phase Four funds are accepted and utilized by the Lead Agency. Said Detailed Implementation Plan shall then also require additional approval by the governing body of each signatory agency of this agreement, with the exception of state and federal agencies, whose representatives can agree to obligations.

8.1.2 In the event that the WIT has developed and approved a Detailed Implementation Plan, the WIT may continue to operate pending approval by governing bodies as per 8.1.1, above.

8.2 Not withstanding 8.1, by written agreement signed by all parties to this MOA, this MOA may be extended an additional period as agreed, not to exceed two (2) years.

8.3 Any WIT Member may withdraw from this MOA and the planning process at any time. If any member withdraws, that member shall not be deemed a party to any plan elements or agreement produced. Withdrawal must be by written notice to the Lead Agency, effective thirty (30) days after receipt of notice by the Lead Agency. Upon receipt of notice, the Lead Agency shall communicate the same in writing to all signatories within ten (10) days. A withdrawing party shall not be entitled to any refund or withdrawal of funds or resources obligated under this MOU absent consent of the affected signatories. Unobligated funds or resources shall be released to the withdrawing party.

9.0 Modification: This MOA may be modified or amended only by a subsequent written document, signed by all participating parties.

10.0 Preservation of Rights:

10.1 The parties acknowledge that Chapter 90.82 RCW provides that the planning process shall not result in provisions which conflict with federally reserved tribal rights. They agree that tribal participation in this process shall not constitute an admission or agreement by the participating tribe that any estimate of federally reserved tribal rights are binding on it, unless the affected tribe expressly so agrees in writing at the conclusion of the process, and such tribal agreement is approved in writing by the appropriate agency of the United States Government (e.g. Bureau of Indian Affairs).

10. 2 Reports and data from original studies conducted by or on behalf of the WIT are public records pursuant to 40.14.010 RCW (preservation statute).

11.0 Effective Date: This MOA shall become effective and commence upon execution by all parties as listed hereinafter. In the event the Lead Agency determines, after a reasonable effort, that it is not possible to obtain the signatures of all parties listed, it shall communicate the same to the remaining parties in writing. Any group of remaining parties may then agree to continue. After the Lead Agency obtains the written consent of such group, which may be given by the chief executive of a participant, it gives written notice to all the remaining participants. The date of such notice is the commencement date. The deadline for giving this notice is October 22, 2010 unless extended by consent of the participants.

IN WITNESS WHEREOF, we the undersigned have executed this MOA as of the date as indicated.

LINCOLN COUNTY:

By: _____Date: _____
Scott M. Hutsell, Chair

SPOKANE COUNTY:

By: _____ Date: _____
Mark Richard, Chair

STEVENS COUNTY:

By:_____ Date: _____
Larry Guenther, Chair

SPOKANE TRIBE OF INDIANS

By: _____ Date: _____
Gregory Abrahamson, Tribal Chairman

CITY OF SPOKANE:

By: _____ Date: _____
Mary B. Verner, Mayor

STEVENS COUNTY PUD #1:

By: _____Date: _____
C. Lloyd Henry, President

WASHINGTON STATE DEPT. OF ECOLOGY:

By: _____ Date: _____
Grant Pfeifer, Regional Director

CITY OF AIRWAY HEIGHTS:

By: _____ Date: _____
Patrick D. Rushing, Mayor

FAIRCHILD AIR FORCE BASE

By: _____ Date: _____
Ronald R. Daniels, Deputy Base Civil Engineer

SPOKANE COUNTY CONSERVATION DISTRICT:

By: _____ Date: _____
Jerry Scheele, Chair

STEVENS COUNTY CONSERVATION DISTRICT

By: _____ Date: _____
Andy Kroiss, Chair

Approved as to form: _____ Robert G. Beaumier, Jr., Assistant City Attorney City of Spokane	Approved as to form: _____ Ron Arkills, Deputy Prosecuting Attorney Spokane County
Attest: _____ Terri Pfister City Clerk City of Spokane	Attest: _____ Daniela Erickson Clerk of the Board Spokane County
Approved as to form: _____	Approved as to form: _____
Attest: _____	Attest: _____
Approved as to form: _____	Approved as to form: _____
Attest: _____	Attest: _____

Appendix A – WIT Membership

ORGANIZATION / AGENCY / INDIVIDUAL	PRIMARY REPRESENTATIVE(S)	ALTERNATE(S)
Initiating Governments / Implementing Governments		
Spokane County	Rob Lindsay	Mike Hermanson, Reanette Boese
Lincoln County	Jim DeGraffenreid	Courtney Harder
Stevens County	Larry Guenther	Clay White, Merrill Ott
City of Spokane	Lloyd Brewer	Bill Rickard, Doug Greenlund
Spokane Tribe	Brian Crossley	Paul Jurun
Stevens County PUD #1	Dick Price	Larry Isaak, Wade Carpenter, Charisse Willis
WA Department of Ecology	Rusty Post	Sara Hunt
Municipal Governments and Municipal Water Suppliers		
City of Airway Heights	Albert Tripp	Jeff Cochran
Fairchild Airforce Base	William Shelton	
Indian Village Estates Water Association	David Luders	
Agricultural		
Stevens County Conservation District	Charlie Kessler	Dean Hellie
Spokane County Conservation District	Charlie Peterson	Rick Noll
Stevens County Farm Bureau	Wes McCart	
Business, Commercial and Industrial		
Avista	Meghan Lunney	Hank Nelson, Tim Vore
Spokane Assoc of Realtors	Jeanne Barnes	Rob Higgins, Sara Orrange
Spokane Homebuilders		
Spokane Regional Chamber of Commerce	Erin Vincent	
Environmental, Recreation and Public Interest Groups		
Lake Spokane Protection Assoc.	Fran Bessermin	Galen Buterbaugh, Ann Fackenthall, Bill / Gail Madison
Spokane Flyfishers	Judy Kaufman	
Lands Council	Bart Haggin	
Lake Spokane Park Homeowners Assoc.	Jeanne Barnes	Lester Barnes
Northwest Whitewater Assoc. / Spokane Canoe and Kyak Club	John Patrouch	Vic Castleberry, Robbi Castleberry, Terry Miller, Paul Delany
Riverside State Park Advisory	Lynn Wells	
Civic Promotion Groups		
Palisades Neighborhood	Craig Volosing	Jerry Warner

General Citizen / Landowner		
Landowner	Doris Dietrich	
Citizen	Bea Lackaff	
Landowner	Jay Landreth	
Landowner	Wes McCart	
Citizen	Stan Miller	
Landowner	Bruce Smith	Linda Smith
Citizen ??	Joayn Taylor	
Landowner	Guy Tillman	
Landowner	Craig Volosing	