FINAL
Meeting Summary
WRIA 54 - Lower Spokane River Watershed
July 26, 2006

Location: Airway Heights Community Center, Airway Heights, WA.

Planning Unit members and guests recorded on the sign-in sheet were:

Bill Rickard, City of Spokane	Rob Lindsay, Spokane County
Keith Holliday, WA State Dept. of Ecology	Bill Gilmour, Spokane County
Doris Dietrich, Landowner	Robin Paeper, Spokane County
Hank Nelson, Avista Corporation	Dick Price, Stevens PUD
Brian Crossley, Spokane Tribe	Jim DeGraffenreid, Lincoln County Planning
Jerry Warner, Palisades Neighborhood	Reanette Boese, Spokane County
Stan Miller, Citizen	Charlie Peterson, Spokane County Conservation District
Bea Lackaff, Citizen	Craig Volosing, Landowner
Dan Myers, GeoEngineers	Jon Rudders, GeoEngineers
Cynthia Carlstad, Tetra Tech/KCM	Bart Haggin, Lands Council

Wes McCart, Landowner, Stevens County Farm Bureau and Stevens County Water Conservancy Board
John Patrouch, Northwest Whitewater Assoc. / Spokane Canoe and Kayak Club

Call to Order
Bill Gilmour opened the meeting at 10:05 am. Attendees introduced themselves and the interest / organization they represent. Bill requested that each attendee complete the sign-in sheet. Rob Lindsay proposed that the group review and approve the June 28, 2006 WRIA 54 meeting summary at the August meeting. Those present agreed.

Public Comment
Keith asked if the instream flow work on the tributaries has been scheduled. Rob said yes and that this will be discussed later in the meeting.

Phase 2 Data Compilation and Assessment Presentation by Cynthia Carlstad (TetraTech/KCM) and Spokane County Staff
Cynthia distributed copies of the draft report entitled, "Water Resources Inventory Area 54 (Lower Spokane) Technical Assessment". Additional copies will be available from Spokane County. Cynthia walked the group through the document. The text is organized based on the scope of work in the contract between the TetraTech/KCM team and Spokane County. The introductory page outlines the review time for the report. Currently, the draft report review period will close on October 27, 2006 (two days after the October WRIA 54 Planning Unit meeting). The text is organized as follows:

- Chapter 1: Introduction.
- Chapter 2: Watershed Characteristics (i.e., the physical attributes of the watershed such as geology, soils and climate).
- Chapter 3: Water Rights and Use (which will be discussed in detail today).
- Chapter 4: Water Balance (which has been presented by Cynthia and Jon at previous meetings).
- Chapter 5: Future Water Demand.
- Chapter 6: Water Quality (Cynthia noted that the Planning Unit can apply for an additional $100,000 to do more detailed water quality work and that this chapter is a brief summary of existing information and processes).
- Chapter 7: Conclusions

Cynthia noted that a CD should be attached to the cover of the report and it contains a pdf version of the report and the appendices. The appendices include all the supporting information. Cynthia noted that this is the draft report. The discussion and comment period for the draft will extend until October 27, 2006. Comments should be directed to Spokane County. If anyone wants to submit comments using "track changes" within the electronic file, please ask Cynthia for an MS Word copy of the document. Rob requested that individuals write their name on their draft report copy if they submit hard copy comments on their copy of the draft report. Cynthia anticipates that the report will be finalized in November.

Cynthia asked the group to refer to the water rights and use discussion package for the remainder of the meeting's presentation. The purpose of the presentation will be to overview the information and to give the group an opportunity to ask questions. Cynthia noted that it is important that the group understand the water rights and use information, how it is derived and the associated uncertainty. Much of the data for this component of the technical assessment was compiled by Spokane County staff (primarily Reanette Boese with assistance from Bill and Rob). Cynthia feels that the data is of high quality. The results of the water rights and water use assessments will be addressed at a following meeting.

WATER RIGHTS

For the purposes of the Technical Assessment, Cynthia defined Water Rights as the water that is potentially legally allocated (or committed). This quantity usually differs from actual water use for a couple of reasons. First, municipal water providers are currently able to hold inchoate water rights – these water rights include an inchoate or unused portion to allow room for municipalities to grow. Second, most water rights on record have not been verified as actually being in use, and those that are in use may not be being used to the full authorized quantities. Duplication and incorrect records are also common in the water rights database, particularly for water right claims.

Cynthia noted that there are basically three types of water rights:

- Claims
- Permits and Certificates
- Permit-Exempt uses (e.g., small uses such as residential use)

Claims

The first type of potential water right is a water right claim. A water right claim is simply an assertion (or claim) to use of water dating back to before the surface or groundwater codes were established. Most water right claims have not been investigated by Ecology, and the agency has not issued any authorization to use the claimed water. The claims registry has been opened three separate times in Washington to allow those using water prior to the establishment of the Water Code (1917 for surface water and 1945 for groundwater) to "claim" their right to use water. Although the claim to water should only have been filed once, many people filed their claims each time the registry was opened and, in some cases, claims have been filed incorrectly. As a result, the record of claims is usually a poor representation of actual valid water rights. However, the only way to verify the accuracy of claims is through a court decision (i.e. an adjudication). There are about 1,700 water right claims in WRIA 54. In this assessment, we can only make an estimate of how much water is committed through these 1,700 claims.

As an example, in the 1980s the water right holders on Deadman Creek petitioned for an adjudication of surface water rights. Reanette the results of the adjudication and found the following:

- 43.5% of the old claims and certificates were validated in the adjudication;
- 27.5% of the instantaneous rights (i.e., Qi) were validated;
- 33.7% of irrigated acres were validated; and,
- 39.8% of the annual water use (i.e., Qa) was validated.

For the water rights assessment, Reanette obtained the Water Rights Application Tracking System (WRATS) data from the Washington State Department of Ecology. Reanette directed the group to review the table in the handout that provides an example of what Ecology's water rights database looks like for claims. The data is divided into the following columns:

1. File# - is the number under which Ecology files the information.
2. TRS - is the township, range and section (i.e. location of the water right).
3. Person - is the name of the person who filed the claim.
4. Stat - documents the status of the right (e.g., A = active).
5. Doc - describes the document used to file (e.g., for claims, L = claim long form and S = claim short form).
6. Purpose - describes the purpose of use (e.g., ST = stock, DG = domestic, IR = irrigation).
7. Ir Acres - quantifies the number of acres irrigated.
8. UOM - describes the Unit of Measure (e.g., GPM = gallons per minute for groundwater, CFS = cubic feet per second for surface water).
9. 1stSrc - describes the source of the water (e.g., well, spring or stream).

To determine the potential number of duplicate claims, claims with the same name and the same purpose of use that are located in the same location (i.e., township, range and section) were assessed as possible duplicate claim applications.

To quantify claims, assumptions on water use are made based on the purpose. These are defined on the next sheet of the handout as 2 AF/yr for DG, 1 AF/yr for ST, 16 AF/yr for IR with no acres defined and, 4 AF/yr per acre if acres are defined. Reanette was asked why she used 16 AF/yr. She responded that it seems like an appropriate number and is supported by John Covert with the Washington State Department of Ecology. Bill Gilmour noted that the Hutterian Brethren use about 2.3 AF/acre/yr for a water duty on average in their irrigation operations. Discussion followed and it was decided that 4 AF/acre/yr is an appropriate number to use to estimate water allocated by claims. Reanette then walked the group through the claims analysis process that involved sorting the claims by section, purpose etc..

Cynthia noted that if we assume that about half of the claims are valid, the 1,700 claims in WRIA 54 may represent about 850 senior water rights, most of which appear to be quite small.

Permits, Certificates, Change Applications and New Applications

The second type of potential water right is a water right permit or certificate. In this case, an applicant requests authorization to use water. Ecology conducts an investigation and issues a permit to authorize use of the water. Once the water is put to use, Ecology will convert the permit to a certificate, an authorization to use the water. The information in Ecology's WRATs database is much more detailed and accurate for water right permits, certificates, change applications and new applications, but there are still some duplicates and errors. Reanette directed the group to the table in the water rights and use discussion packet that provides an example print out for the water rights certificates (qryAllCerts). The data is divided into the following columns:

1. Doc – describes is the right is a certificate (Cert) or permit etc.
2. Purpose – describes what the water is used for (e.g., CI – Commercial / Industrial; DM or DG – Domestic use). In the database, the certificates do not have more than one use. In many cases, water use that is now municipal (i.e., MU) is still listed in the database as domestic.
3. TRS – is the township, range and section (i.e. location of the withdrawal for the water right).
4. Person - is the name of the person who filed the right. This does not change when the water right changes owner so it can be hard to track a water right using the name on the right. In most cases, the water right is associated with the land on which the water is withdrawn and used - unless the land and water right are separated and a change or transfer is filed with Ecology.
5. File# - is Ecology's unique number with G = groundwater and S = surface water.

6. Stat - is the status of the right (e.g., A = active).
7. Priority Dt – tells us how senior the water right is.
8. Qi – is the instantaneous amount of water the right allows to be diverted / pumped.
9. UOM - describes the Unit of Measure (e.g., GPM = gallons per minute for groundwater, CFS = cubic feet per second for surface water).
10. Qa – is the annual amount of water the right allows to be diverted / pumped (usually in acre-feet/yr). In most cases, the Qi noted on the water right is much larger than the actual Qa used. For irrigation water rights, the Qi on the water right tends to be close to the actual Qa used.
11. Ir Acres – is the number of acres irrigated.
12. 1stSrc – is the source of the water (e.g., well, spring, creek)

Analysis of WRATS indicates that there are about 380 permits / certificated water rights in WRIA 54. For this study we have assumed that all permits are identical to certificates and represent water that has been, or will be put to beneficial use.

Q: Keith asked if the County had looked for points of diversion outside WRIA 54 that claimed to divert water from within WRIA 54.
A: Reanette said no and that she just used the database that was provided by Ecology for water rights within WRIA 54. Keith said that it would be important to go back and check this as he had encountered this situation in WRIA 43, related to a water right held by the Bureau of Reclamation.

Bill confirmed with Cynthia and Reanette that the water rights analysis assumes that all claims, permits and certificates are withdrawn and used. It does not assume that a percentage of claims are not valid. So this analysis represents a "worst case" in terms of the amount of water obligated by water rights.

Q: If a water right originally used for domestic use and stock watering that is associated with a homestead is purchased along with the land by a developer and the land is divided into smaller ranchettes, what happens to this water right that is now planned to supply a number of domestic uses?
A: Assuming that the water right is valid, it is likely that the purpose of use would need to be changed. If additional water is needed to supply the ranchettes, the developer would need to apply for new water rights.

Cynthia noted that land use is changing in WRIA 54. As long as the water is being used for agricultural purposes and the water right is valid, if land use changes from agricultural to suburban, the water right can be changed to the new purpose of use.

Q: Are water rights relinquished?
A: Bill reminded the group of Victoria Leuba's talk on water rights at the April, 2006 meeting. At the talk, Victoria noted that relinquishment tends to occur when water rights are changed or transferred and Ecology has an opportunity to reevaluate water use.

Bill asked the group if it would be acceptable to continue with this meeting agenda item and shorten the remaining agenda items. Those present agreed.

Permit-Exempt Wells

Reanette directed the group to page 2 of the water rights and use discussion package for an overview of permit-exempt wells. Permit-exempt wells are wells that can be used (in accordance with the Water Code) without having to apply for a water right. Permit-exempt wells are intended for single homes and selected small water uses such as: livestock (no per day limit); non-commercial lawn or garden of up to ½ acre; single home or group home (with a limit of up to 5,000 gallons per day); and, industrial / commercial uses (up to 5,000 gallons per day). The Washington State Department of Health (WDOH) considers that about 800 gallons per day of water is typically needed by one household. Therefore one permit-exempt well could supply up to six households but the six households combined should only have ½ acre of lawn or garden. However, different Counties allow

different levels of use per household. For example, Lincoln County allows 1,250 gallons per day per household – so that only four houses can be served by one permit-exempt well.

Using a population-based assessment and subtracting out the areas that are served by public water systems, it is estimated that approximately 3,600 permit-exempt wells serve households in WRIA 54.

Tribal Water Rights

Brian Crossley noted that the Spokane Tribes' water rights are not addressed. For example, the tribe holds an adjudicated water right in the Chamokane watershed and there is a minimum flow agreement for Little Falls Dam. Reanette said that tribal water rights are not included in the WRATS database. Jim Lyerla (with Ecology) is the Watermaster for Chamokane and could provide information on tribal water rights. Brian said that this information needs to be mentioned in the report although not quantified.

Rob thanked Brian for pointing this out and noted that this is a draft report. Rob encouraged those present to review the information and let the County know if items are missing or incorrect.

WATER USE

The purpose of this component of the assessment is to estimate how much water is actually being used in WRIA 54. The approach used estimates how much water is used by various water users, including:

- Group A public water systems
- Group B public water systems
- Agricultural uses
- Other uses (primarily industrial)
- Permit-exempt or self supplied systems

Group A Public Water Systems

Cynthia noted that we have good information for this group of users. Reanette obtained the list of Group A water systems from WDOH. Most are community systems. Some are non-community systems such as churches and schools and some are transient systems such as campgrounds. Reanette directed the group to the tables in the water rights and use discussion package entitled, "WRIA 54 Group A domestic water use examples" and "WRIA 54 Group A non-domestic water use examples".

For most of the larger water systems, there is good information on water use. To estimate lawn and garden irrigation, we assume that the average winter time use represents indoor use. Water use above the average winter time use throughout the rest of the year is assumed to be outdoor irrigation. In some cases, where water use data is not available, we used the number of people served and estimated indoor and outdoor water use.

Q: Is there a reason for splitting up indoor and outdoor water use?
A: Yes, because when we start looking at how much water is being returned to the system or evaporated, it is important to understand how much water is used indoors versus outdoors. Bill noted that this is a way to get a better handle on consumptive water use.

Rob clarified that the City of Reardon is not in WRIA 54 but their water supply wells are in WRIA 54.

Group B Public Water Systems

Group B systems have less than 15 connections. For this study it is assumed that all the land area in WRIA 54 outside of the Group A public water system service areas is served by permit-exempt wells. There are no defined service areas for Group B public water systems and therefore this group of community water provider is considered along with the permit-exempt well water use. Non-community Group B users have been contacted to find out their water use – these include some churches, campgrounds, and fire districts.

Q: Is water use information for Group B water systems available from WDOH?
A: No one was sure.

Agricultural Uses

Cynthia noted that there are two primary agricultural water uses: crop irrigation and livestock watering.

For crop irrigation, Cynthia noted that Jon Rudders with GeoEngineers has looked at transpiration by crops using agricultural census data and information on acres actually irrigated (from airphotos) and the types of crops that are grown. Water use is estimated by using a standard irrigation rate for each type of crop.

For the water budget assessment, Jon Rudders looked at potential evapotranspiration (PET) for the area for the various land uses and crop types in WRIA 54 using the Penman Montheith method to estimate PET. Dan Myers with GeoEngineers explained how agricultural irrigation water use was estimated by walking the group through Table 4 of the water rights and use discussion package. Information on irrigated acres in 2002 by County was obtained from the US Department of Agriculture (USDA) census data. To estimate the amount of irrigated acres in WRIA 54, the acres of each crop type by County was multiplied by the County area in WRIA 54 as a ratio of the total number of acres in the County. State information on the amount of water needed for each crop was then obtained. Precipitation was subtracted from this total crop irrigation requirement to estimate the amount of the water needed to irrigate each crop type. Assuming that the irrigation water is applied using a sprinkler system, an irrigation efficiency of 0.75 was used. Using this method, about 25,000 acre-feet of water is estimated to be used on an annual basis in WRIA 54. Information on agricultural irrigation was obtained directly from the Hutterian Brethren for their five operations within WRIA 54 (i.e., the Spokane Reservation, Little Falls, West Plains, Long Lake and Espinola operations).

Cynthia directed the group to the last table in the water rights and use discussion package that summarizes livestock water use. This information was compiled by Bill Gilmour. Bill noted that the amount of water used for livestock watering is difficult to estimate. Ultimately the team decided to use 20 gallons of water per day per head of feed cow which coincides with the information provided by the Stevens County Conservation District. It was also noted the method by which the cows are watered may impact the amount of water that is used. Wes McCart noted that the 20 gallon number is a good number because most of the cows being raised in the WRIA are young animals. Bill noted that poultry, swine, sheep and horses are not included in this water use estimate. Reanette noted that this water use may to some degree be accounted for in the commercial Group B water systems.

Bill noted that the meeting may run five to ten minutes late. The group agreed to keep the meeting going to complete the agenda items.

WRIA 54 Instream Flow (ISF) Assessment Update / Schedule for the ISF Field Trip – Rob Lindsay of Spokane County

Rob Lindsay noted that the Instream Flow field work is currently underway and moving along nicely. Special recognition should be given to Hank Nelson and Avista Utilities and our consultant for coordinating so well. Catching the river at the right time is critical to having a good quality study. The team finished the high flow measurements last month. In the last couple of weeks the team has successfully obtained the mid-flow measurements. The two remaining portions to be completed are the low flow measurements on the Spokane River and the tributary work. The tributary work has been scheduled for the week of August 14, 2006 to coincide with the low flow work on the Spokane River (including the lower portion of WRIA 57 and the sites in WRIA 54). Coordination is ongoing with the Spokane Tribe and the State of Washington to perform the toe-width measurements on the tributaries. The County is also scheduling a field trip to coincide with the collection of the low flow data on the Spokane River.

WRIA 54 Multi-Purpose Storage Work Group Meeting Results – Rob Lindsay of Spokane County
The group met in the afternoon, following the July Steering Committee meeting. The work group members decided unanimously to retain the existing consultant team comprised of Tetra Tech, GeoEngineers, EES Consulting, and Triangle Associates to complete the multi-purpose storage assessment. This grant application will have a fairly general scope comprising four tasks: 1) grant administration by Spokane County; 2) work group and consultant to develop a well defined scope of work; 3) performance of the assessment; and, 4) preparation of a draft report for review and comment, and production of a final report.

The next work group meeting has been scheduled for August 9, 2006, 1 to 3 pm. The County will be presenting the final draft of the grant application for approval by the work group. This application will also be presented to the Steering Committee earlier in the day. Once approved by the Steering Committee and the multi-purpose storage work group, the grant application will be presented to the Planning Unit. It is expected that the grant application will be presented to the Planning Unit at the August 23, 2006 Planning Unit meeting. It is hoped that the consultant will attend the September multi-purpose storage work group meeting to go over the scope and hopefully this will be the last multi-purpose storage work group meeting. Rob encouraged those present to participate in both the multi-purpose storage work group meetings and the Steering Committee meetings if they have not done so already.

WRIA 54 Field Trip Discussions and Schedule
Bill Gilmour made sure that everyone had a copy of the handout that outlines the proposed field trip itinerary. With the help of the Spokane Tribe, Avista, Hutterian Brethren, Bob Derkey of Washington State Department of Natural Resources and our consultant, organization for the trip has come together well.

The highlights of the trip will include:
1. Seeing how low flow measurements are collected;
2. Two stops to learn more about the geology of WRIA 54 (hosted by Bob Derkey);
3. A stop at Chamokane to learn more about the Federal and State investigations to improve understanding of water use and allocation and the degree of interconnection between surface water and groundwater in the Chamokane subbasin;
4. Hank Nelson from Avista will be giving a tour of Long Lake dam; and,
5. Bill Gross from the Hutterian Brethren will be giving a tour of their potato storage and growing operation.

Bill requested a show of hands for those who are interested in attending. The trip will leave at 8:30 am on Tuesday August 15, 2006 from Audubon Park off Northwest Boulevard in Spokane and return to the park between 4:30 to 5 pm. There are 22 free parking spots at this location.

Fourteen people at the meeting said they would attend. Bill asked for any comments on the trip and itinerary to be sent to him directly via email. Spokane County is planning to provide snacks and beverages. Attendees will need to provide their own lunch.

Public Comment
No public comment was received.

General Schedule Announcements
The following meetings are scheduled:
- The next WRIA 54 Steering Committee is scheduled for Wednesday August 9, 2006, 10 am – noon at the Spokane County Public Works Building, Conference Room 4A, 1026 W. Broadway Ave, Spokane, WA 99260. This meeting is open to everyone.
- The next WRIA 54 Multi-Purpose Storage Work Group meeting is scheduled for Wednesday August 9, 2006, 1 – 3 pm at the Spokane County Public Works Building, Conference Room 4A, 1026 W. Broadway Ave, Spokane, WA 99260. This meeting is open to everyone.

- The WRIA 54 ISF field trip is scheduled for August 15 leaving at 8:30 am from Audubon Park in Spokane.

Next Meeting Date and Adjourn
The next Planning Unit meeting is scheduled for August 23, 2006, 6:00 – 8:00 pm at the Lakeside High School library. The library is located opposite the cafeteria.

The meeting was adjourned at 12:10 pm.