DEPARTMENT OF ECOLOGY
State of Washington

State of Washington
REPORT OF EXAMINATION
FOR WATER RIGHT CHANGE

Added Points of Withdrawal

PRIORITY DATE
September 4, 1980

WATER RIGHT NUMBER
G3-26657C, together with Report of Examination dated March 23, 1998

MAILING ADDRESS
City of Airway Heights
1208 South Lundstrom
Airway Heights, Washington 99001-9000

Total Quantity Authorized for Withdrawal or Diversion

WITHDRAWAL OR DIVERSION RATE	UNITS	ANNUAL QUANTITY (AF/YR)
500	GPM	800

Purpose

PURPOSE	WITHDRAWAL OR DIVERSION RATE ADDITIVE	WITHDRAWAL OR DIVERSION RATE NON-ADDITIVE	UNITS	ANNUAL QUANTITY (AF/YR) ADDITIVE	ANNUAL QUANTITY (AF/YR) NON-ADDITIVE	PERIOD OF USE (mm/dd)
Municipal Supply	500		GPM	800		01/01 - 12/31

IRRIGATED ACRES ADDITIVE	IRRIGATED ACRES NON-ADDITIVE	PUBLIC WATER SYSTEM INFORMATION WATER SYSTEM ID	PUBLIC WATER SYSTEM INFORMATION CONNECTIONS
		00650	1801

The total withdrawal under Ground Water Certificate Nos. 6321-A, G3-23465C, G3-26657C, G3-27427C, G3-29249(A) and G3-29249(B), shall not exceed 2315 gallons per minute and 2328 acre-feet per year.

Source Limitations

SOURCE FACILITY/DEVICE	WITHDRAWAL OR DIVERSION RATE	ANNUAL QUANTITY (AF/YR)	PERIOD OF USE (mm/dd)
WELL 9 (Parkwest)			
	400 GPM	400	01/01/2012 - 12/31/2012
	400 GPM	200	01/01/2013 - 06/30/2013

Effective July 1, 2013, the City shall cease all pumping from the Park West Well (Well 9), except as detailed in the Agreed Order Docket No. 8703, dated September 8, 2011.

Source Location

COUNTY	WATERBODY	TRIBUTARY TO	WATER RESOURCE INVENTORY AREA
SPOKANE	GROUNDWATER		34-PALOUSE
SPOKANE	GROUNDWATER		54-LOWER SPOKANE

SOURCE FACILITY/DEVICE	PARCEL	WELL TAG	TWP	RNG	SEC	QQ Q	LATITUDE	LONGITUDE
Well 1	15264.0006	AGG 477	25N	41E	26	SE¼SE¼	47.6296	-117.5851
Well 3	15261.1507		25N	41E	26	SE¼NE¼	47.6361	-117.5832
Well 4	15264.0006	AGG 479	25N	41E	26	SE¼SE¼	47.6301	-117.5852
Well 5	15253.0115	ABR 585	25N	41E	25	SE¼SW¼	47.6287	-117.5746
Well 7	15362.0009	AGG 478	25N	41E	36	NW¼NW¼	47.6278	-117.5820
Well 9 (Parkwest)	14025.9003	AGG 475	24N	41E	02	NE¼SW¼	47.6000	-117.6018
Well 10	15252.0113	AKA 185	25N	41E	25	SE¼NW¼	47.6370	-117.5745

Datum: NAD83/WGS84

Well 1: 450 feet north and 600 feet west from the SE corner of Section 26
Well 3: 200 feet north and 175 feet west from the E¼ corner of Section 26
Well 4: 1950 feet south and 685 feet west from the E¼ corner of Section 26
Well 5: 50 feet north and 800 feet west from the S¼ corner of Section 25
Well 7: 30 feet south and 50 feet east from the NW corner of Section 36
Well 9: 2100 feet north and 1500 feet east from the SW corner of Section 2
Well 10: 640 feet north and 786 feet west from the center of Section 25

Propose to add up to seven wells (to be referenced as Wells 11-17) within the following legal descriptions:

Well Site	25N	41E	13	NW¼NE¼
Well Site	25N	41E	23	NW¼NE¼
Well Site	25N	41E	23	SW¼NW¼
Well Site	25N	41E	22	NE¼SE¼
Well Site	25N	41E	26	NW¼NW¼
Well Site	25N	41E	26	SE¼NW¼
Well Site	25N	41E	26	NE¼SW¼
Well Site	25N	41E	26	NW¼SE¼
Well Site	25N	41E	26	SE¼SE¼

Place of Use (See Attached Map)

PARCELS (NOT LISTED FOR SERVICE AREAS)

N/A

LEGAL DESCRIPTION OF AUTHORIZED PLACE OF USE

The place of use (POU) of this water right is the service area described in the most recent Water System Plan/Small Water System Management Program approved by the Washington State Department of Health, so long as the water system is and remains in compliance with the criteria in RCW 90.03.386(2). RCW 90.03.386 may have the effect of revising the place of use of this water right.

Proposed Works

Fourteen (14) wells, pumps and pressure distribution system

Development Schedule

BEGIN PROJECT	COMPLETE PROJECT	PUT WATER TO FULL USE
Started	July 1, 2013	July 1, 2022

Measurement of Water Use

How often must water use be measured?	Weekly
How often must water use data be reported to Ecology?	January 31st of each calendar year
Other measurements required.	See Provisions below for details

Provisions

Well, Well Log and Well Construction Standards
All wells constructed in the state shall meet the "Minimum Standards for the Construction and Maintenance of Wells" (WAC 173-160) and "Water Well Construction" (RCW 18.104). In general, wells shall be located at least 100 feet from sources of contamination and at least 1,000 feet from the boundary of a solid waste landfill. Any well which is unusable, abandoned, or is an environmental, safety, or public health hazard shall be decommissioned.

All wells shall be tagged with a Department of Ecology unique well identification number. If you have an existing well and it does not have a tag, please contact the well-drilling coordinator at the regional Department of Ecology office issuing this decision. This tag shall remain attached to the well. If you are required to submit water measuring reports, reference this tag number.

A completed well report of the well(s) shall be submitted by the driller to the Department of Ecology within 30 days of completing this well. All pump test data for this well shall be submitted to the Department as it is obtained.

Required installation and maintenance of an access port as described in WAC 173-160- 291(3).

Original Well No. 2, located in Tract 59, Plat of Hazelwood Irrigated Farms No. 2, within the SE¼NW¼ of Section 25, Township 25 N., Range 41 E.W.M., shall be properly decommissioned in accordance with WAC 173-160.

Municipal Supply and Public Water Systems
Prior to any new construction or alterations of a public water supply system, the State Board of Health rules require public water supply owners to obtain written approval from the Office of Drinking Water of the Washington State Department of Health. Please contact the Office of Drinking Water prior to beginning (or modifying) your project at DOH/Division of Environmental Health, 16201 E. Indiana Avenue, Suite 1500, Spokane Valley, WA 99216, (509) 329-2100.

If the criteria in RCW 90.03.386(2) are not met and a Water System Plan/Small Water System Management Program was approved after September 9, 2003, the place of use of this water right reverts to the service area described in that document. If the criteria in RCW 90.03.386(2) are not met and no Water System Plan/Small Water System Management Program has been approved after September 9, 2003, the place of use reverts to the last place of use described by The Department of Ecology in a water right authorization.

Measurements, Monitoring, Metering and Reporting
An approved measuring device must be installed and maintained for each of the sources identified by this water right in accordance with the rule "Requirements for Measuring and Reporting Water Use",

WAC 173-173, which describes the requirements for data accuracy, device installation and operation, and information reporting. It also allows a water user to petition the Department of Ecology for modifications to some of the requirements.

Well water use data shall be recorded weekly and maintained by the city for a minimum of three years. The weekly maximum rate of withdrawal, the annual total volume, and the hourly water level readings shall be submitted to Ecology by January 31st of each calendar year.

Recorded water use data shall be submitted via the Internet. To set up an Internet reporting account, contact the Regional Office. If you do not have Internet access, you can still submit hard copies by contacting the Regional Office for forms to submit your water use data.

Easement and Right-of-Way
The water source and/or water transmission facilities are not wholly located upon land owned by the applicant. Issuance of a water right change authorization by this department does not convey a right of access to, or other right to use, land which the applicant does not legally possess. Obtaining such a right is a private matter between applicant and owner of that land.

Water Use Efficiency
Use of water under this authorization will be contingent upon the water right holder's maintenance of efficient water delivery systems and use of up-to-date water conservation practices consistent with established regulation requirements and facility capabilities.

Proof of Appropriation
The water right holder must file the notice of Proof of Appropriation of water (under which the certificate of water right is issued) when the permanent distribution system has been constructed and the quantity of water required by the project has been put to full beneficial use. The certificate will reflect the extent of the project perfected within the limitations of the water right. Elements of a proof inspection may include, as appropriate, the source(s), system instantaneous capacity, beneficial use(s), annual quantity, place of use, and satisfaction of provisions.

Schedule and Inspections
Department of Ecology personnel, upon presentation of proper credentials, will have access at reasonable times, to the project location, and to inspect at reasonable times, records of water use, wells, diversions, measuring devices and associated distribution systems for compliance with water law.

General
The total withdrawal under Ground Water Certificate Nos. 6321-A, G3-23465C, G3-26657C, G3-27427C, G3-29249(A) and G3-29249(B), shall not exceed 2315 gallons per minute and 2328 acre-feet per year.

If at any time proposed well Nos. 11-17 impair an existing water right, which includes exempt wells, water use from that source well will be reduced or mitigated until that impairment is ended.

Agreed Order Docket No. 8703
This change authorization shall be subject to all requirements and restrictions of the Agreed Order Docket No. 8703, dated September 8, 2011.

Effective July 1, 2013, the City shall cease all pumping from the Park West Well (Now referred to as Well 9), except as detailed in the Agreed Order Docket No. 8703, dated September 8, 2011.

Findings of Facts
Upon reviewing the investigator's report, I find all facts, relevant and material to the subject application, have been thoroughly investigated. Furthermore, I concur with the investigator that water is available from the source in question; that there will be no impairment of existing rights; that the purpose(s) of use are beneficial; and that there will be no detriment to the public interest.

Therefore, I ORDER approval of Application for change to Ground Water Certificate No. G3-26657C, subject to existing rights and the provisions specified above.

Your Right To Appeal

You have a right to appeal this Order to the Pollution Control Hearing Board (PCHB) within 30 days of the date of receipt of this Order. The appeal process is governed by Chapter 43.21B RCW and Chapter 371-08 WAC. "Date of receipt" is defined in RCW 43.21B.001(2).

To appeal you must do the following within 30 days of the date of receipt of the Order.

File your appeal and a copy of this Order with the PCHB (see addresses below). Filing means actual receipt by the PCHB during regular business hours.

- Serve a copy of your appeal and this Order on Ecology in paper form - by mail or in person. (See addresses below.) E-mail is not accepted.

- You must also comply with other applicable requirements in Chapter 43.21B RCW and Chapter 371-08 WAC.

Street Addresses	Mailing Addresses
Department of Ecology Attn: Appeals Processing Desk 300 Desmond Drive SE Lacey, WA 98503	**Department of Ecology** Attn: Appeals Processing Desk PO Box 47608 Olympia, WA 98504-7608
Pollution Control Hearings Board 1111 Israel Road SW Ste 301 Tumwater, WA 98501	**Pollution Control Hearings Board** PO Box 40903 Olympia, WA 98504-0903

Signed at Spokane, Washington, this 30th day of May, 2012.

Keith L. Stoffel, Section Manager

For additional information visit the Environmental Hearings Office Website: http://www.eho.wa.gov. To find laws and agency rules visit the Washington State Legislature Website: http://www1.leg.wa.gov/CodeReviser.

INVESTIGATOR'S REPORT
Dan Tolleson, Department of Ecology
Water Right Control Number CG3-26657C@2
Ground Water Certificate No. G3-26657C

BACKGROUND

Description and Purpose of Proposed Change

An application for change/transfer was submitted by the City of Airway Heights (City), Washington, to Ecology on January 25, 2012. The city proposes to add a total of eight wells (one existing well and to construct up to seven additional wells, within nine identified areas) as granted under Ground Water Certificate No. G3-26657C, together with Report of Examination dated March 23, 1998.

Attributes of the Existing Water Right and Proposed Change

	Authorized	Proposed
Name	Airway Heights City	Airway Heights City
Priority Date	9/4/1980	
Change Application Date		01/25/2012
Instantaneous Rate	500 gpm	500 gpm
Annual Quantity	800 af/yr	800 af/yr
Sources	6 Wells	14 Wells
Purpose(s) of Use	Municipal Supply	Municipal supply
Period of Use	continuously	continuously
Place(s) of Use	Area served by the City of Airway Heights	Area served by the City of Airway Heights

Legal Requirements for Proposed Change

The following is a list of requirements that must be met prior to authorizing the proposed change.

Public Notice

RCW 90.03.280 requires that notice of a water right application be published once a week, for two consecutive weeks, in a newspaper of general circulation in the county or counties where the water is to be stored, diverted and used. Notice of this application was published in the Cheney Free Press during the weeks of March 29th and April 5th, 2012.

State Environmental Policy Act (SEPA)

A water right application is subject to a SEPA threshold determination (i.e., an evaluation whether there are likely to be significant adverse environmental impacts) if any one of the following conditions are met.

- It is a surface water right application for more than 1 cubic foot per second, unless that project is for agricultural irrigation, in which case the threshold is increased to 50 cubic feet per second, so long as that irrigation project will not receive public subsidies;
- It is a groundwater right application for more than 2,250 gallons per minute;
- It is an application that, in combination with other water right applications for the same project, collectively exceed the amounts above;
- It is a part of a larger proposal that is subject to SEPA for other reasons (e.g., the need to obtain other permits that are not exempt from SEPA);
- It is part of a series of exempt actions that, together, trigger the need to do a threshold determination, as defined under WAC 197-11-305.

Because this application, in combination with other applications, would entail the withdrawal of more than 2,250 gallons per minute, it is subject to SEPA.

A final Determination of Non-Significance was issued by the City of Airway Heights on February 9, 2012, stating that no environmental impact statement is required.

Water Resources Statutes and Case Law

RCW 90.03.380(1) states that a water right that has been put to beneficial use may be changed. The point of diversion, place of use, and purpose of use may be changed if it would not result in harm or injury to other water rights.

The Washington Supreme Court has held that Ecology, when processing an application for change to a water right, is required to make a tentative determination of extent and validity of the claim or right. This is necessary to establish whether the claim or right is eligible for change. *R .D. Merrill v. PCHB* and *Okanogan Wilderness League v. Town of Twisp.*

RCW 90.44.100 allows Ecology to amend a ground water permit to (1) allow the user to construct a replacement or additional well at a new location outside of the location of the original well, or to (2) change the manner or place of use of the water, if:

(a) The additional or replacement well taps the same body of public ground water as the original well. RCW 90.44.100(2)(a),
(b) Where a replacement well is approved, the user must discontinue use of the original well and properly decommission the original well. RCW 90.44.100(2)(b),
(c) Where an additional well is constructed, the user may continue to use the original well, but the combined total withdrawal from all wells shall not enlarge the right conveyed by the original permit or certificate. RCW 90.44.100(2)(c),
(d) Other existing rights shall not be impaired. RCW 90.44.100(2)(d).

When changing or adding points of withdrawal to groundwater rights (RCW 90.44.100), or when consolidating exempt wells with an existing permit or certificate (RCW 90.44.105), the wells must draw from the *same body of public groundwater*. Indicators that wells tap the *same body of public groundwater* include:

(a) Hydraulic connectivity.
(b) Common recharge (catchment) area.
(c) Common flow regime.
(d) Geologic materials that allow for storage and flow, with recognizable boundaries or effective barriers to flow.

RCW 90.03.386(2) states that a municipal water supplier may change its service area through the water system plan approval process. As long as the municipal water supplier is in compliance with the approved plan, the place of use for the water right is the service area of the plan.

INVESTIGATION

In considering the proposed change application, the investigation included, but was not limited to, research and review of: (1) appropriate rules and statutes; (2) other water rights, claims, and applications in the vicinity; (3) USGS topographic maps and air photographs; (4) wells, well sites and place of use; (5) Agreed Order Docket No. 8703, dated September 8, 2011; (6) appropriate geological/hydrogeological reports); (7) Water System Plan; (8) Report of Exam for Ground Water Certificate No. G3-26657C dated March 23, 1998; and (9) discussions with Department of Ecology regional program staff.

A field investigation was conducted, by Dan Tolleson with Gene St. Godard on November 14, 2011. A second field investigation pertaining to the newly proposed well sites was conducted by Dan Tolleson on March 8, 2012. This project is for the City of Airway Heights, which lies within WRIA Nos. 34, 54 and 56, in an area commonly referred to as the West Plains.

History of Water Use

The City of Airway Heights, incorporated in 1955, is located just to the northeast of Fairchild Air Force Base. This city has experienced steady growth, mostly due to its proximity to the base, with significant growth over the last decade. During this time, they have acquired four water rights for municipal use and an industrial permit that has been divided into two portions, with one portion conformed to municipal supply and the other in the process of being developed as industrial supply.

The City of Airway Heights and Ecology entered into Agreed Order Docket No. 8703, dated September 11, 2011 to settle disputed matters between them. The Agreed Order in essence requires the City of Airway Heights to incrementally reduce pumping of the Parkwest Well each year until July 1, 2013, when pumping will cease. During this reduction in use period, The City of Airway Heights will develop new sources to replace the Parkwest well. This development of new sources has resulted in this and other change applications.

The City of Airway Heights has filed change applications concurrently under Ground Water Right Nos. 6321-A, G3-23465C, G3-26657C, G3-27427C, G3-29249(A) and G3-29249(B). Each application will have decisions based on its own respective findings.

Discrepancy in Well Numbering

Over the years, this water system has undergone many changes, which have lead to discrepancies in the numbering of the source wells. The following is a table of what the well numbers were and how they will be numbered for future identification.

Well Number Cross-Reference Table

Well Numbers according to Ecology Documents, issued prior to 12/21/2011	Well Numbers used by the City	Well Numbers according to Department of Health	Well Numbers to be used for future identification
Well No. 1	Well No. 1	SO1	Well No. 1
Well No. 2* (original well-abandoned)	Well No. 2	SO2	n/a
Well No. 2* (replacement of original Well No. 2)	Well No. 8	SO10	Well No. 10
Well No. 3	Well No. 3	SO3	Well No. 3
Well No. 4	Well No. 4	SO4	Well No. 4
Well No. 5	Well No. 5	SO5	Well No. 5
Well No. 6**	n/a	n/a	n/a
Well No. 7	Well No. 7	SO7	Well No. 7
Well No. 8 (Parkwest)***	Parkwest Well	SO9	Well No. 9

*Original Well No. 2 (the original source for Water Right G3-23465C) was abandoned and replaced with a well that was referred to as replacement Well No. 2 in Ecology records, but was called Well No. 8 by the City. The City has requested that all well numbers coincide with the Health Department Number, which for this source is SO10 or now Well No. 10.

**DOH considers SO6 to be the intertie between Airway Heights and Spokane; the original Well No. 6 has long since been decommissioned.

***The Parkwest well, which is referred to as Well No. 8 in Ecology Documents including the Agreed *Order Docket No. 8703, dated September 8, 2011,* is referenced as SO9 by the Health Department. The City has requested that all well numbers coincide with the Health Department Number, so this source will now be called Well No. 9.

Attributes of Existing and Proposed Wells with Updated Numbers

The city proposes to retain its existing wells and add up to eight additional sources. They propose to add the Parkwest Well (Well 9) which is currently integrated into the system and authorized under G3-29249(A) and G3-29249(B). In addition, they propose to add up to seven new wells within nine identified areas. The total number of new wells and their locations will be determined by the production of said wells and the practicality of acquisition of each parcel.

Existing Authorized Sources of Withdrawal (RETAINED WELLS)

Source Name	Parcel	Well Tag	Twp	Rng	Sec	QQ Q	Latitude	Longitude
Well 1 (SO1)	15264.0006	AGG 477	25N	41E	26	SE¼SE¼	47.6296	-117.5851
Well 3 (SO3)	15261.1507		25N	41E	26	SE¼NE¼	47.6361	-117.5832
Well 4 (SO4)	15264.0006	AGG 479	25N	41E	26	SE¼SE¼	47.6301	-117.5852
Well 5 (SO5)	15253.0115	ABR 585	25N	41E	25	SE¼SW¼	47.6287	-117.5746
Well 7 (SO7)	15362.0009	AGG 478	25N	41E	36	NW¼NW¼	47.6278	-117.5820
Well 10 (SO10)	15252.0113	AKA 185	25N	41E	25	SE¼NW¼	47.6370	-117.5745

Proposed Additional Source of Withdrawal (CONSTRUCTED)

Source Name	Parcel	Well Tag	Twp	Rng	Sec	QQ Q	Latitude	Longitude
Well 9 (SO9)*	14025.9003	AGG 475	24N	41E	02	NE¼SW¼	47.6000	-117.6018

*see *Agreed Order Docket No. 8703, dated September 8, 2011 for additional restrictions*

Proposed Additional Sources of Withdrawal (NOT CONSTRUCTED)

Propose to add up to seven wells total (Referenced as Wells 11-17)	Twp	Range	Sec	QQ Q
Proposed Well Site(s) - up to three wells	25N	41E	13	NW¼NE¼
Proposed Well Site(s) - up to three wells	25N	41E	23	NW¼NE¼
Proposed Well Site(s) - up to three wells	25N	41E	23	SW¼NW¼
Proposed Well Site(s) - up to three wells	25N	41E	22	NE¼SE¼
Proposed Well Site(s) - up to three wells	25N	41E	26	NW¼NW¼
Proposed Well Site(s) - up to three wells	25N	41E	26	SE¼NW¼
Proposed Well Site(s) - up to three wells	25N	41E	26	NE¼SW¼
Proposed Well Site(s) - up to three wells	25N	41E	26	NW¼SE¼
Proposed Well Site(s) - up to three wells	25N	41E	26	SE¼SE¼

Extent of Beneficial Use

Ground Water Certificate No. G3-26657C, together with Report of Exam dated March 23, 1998, issued for 500 gallons per minute, 800-acre-feet per year for municipal supply. This water right was issued as a primary water right being additive in both instantaneous and annual quantities to Airway Heights portfolio of water rights. In the last twenty years, the population has increased from approximately 2000 to 6100 residents, resulting in significant increases in water use. In 1998, Ground Water Certificate Nos. 6321-A, G3-23465C, G3-26657C and G3-27427C, were integrated, by authorizing the same place of use and wells. During this time water was also being supplied by the City of Spokane through an intertie. Water meter records are unavailable for this period of time, but it is estimated that approximately half of their existing water rights were put to beneficial use. In 2002, the city acquired

the Parkwest permit (G3-29249P) to cover their industrial supply needs. During the last ten years, water use from the Parkwest permit was ramped up, which in turn caused the existing municipal rights to maintain a steady rate of use, leaving the inchoate portions of the rights about the same. Since they all share the same sources, it is impossible to determine what right or rights have the inchoate portion. The current total inchoate water under Ground Water Certificate Nos. 6321-A, G3-23465C, G3-26657C and G3-27427C is approximately 500-acre-feet. The maximum instantaneous quantity has been put to full beneficial use.

Production Data from all Sources

Year	City wells w/o Parkwest	Parkwest Well	Intertie (Spokane)	Total
2000	651.8	0	42.9	694.7
2001	639.7	0	59.8	699.5
2002	556.5	296.7	55.6	908.8
2003	530.9	621	86.6	1238.5
2004	601.2	562.4	75.3	1238.9
2005	544.0	466.0	165.9	1175.9
2006	459.1	509.1	343.0	1311.2
2007	480.9	364.3	532.8	1378.0
2008	470.8	837.4	79.1	1387.3
2009	458.2	884.8	142.9	1485.9
2010	536.5	703.4	106.8	1346.7

Production in acre-feet

The City of Airway Heights qualifies as a "municipal water supplier" as defined under RCW 90.03.015(3) and has used water for municipal supply purposes under this certificate within the authorized place of use. Based on the water use data, the city has not perfected its full allocation of water, leaving inchoate (or unused) water rights available for future use. The inchoate water availability is consistent with the municipal legislation (SHB 1338) passed in 2003. This law became effective September 9, 2003 and allowed municipal water suppliers to grow into the remaining quantities of these "pumps and pipes" certificates. The remaining unused portion of this right allows for certainty for future growth by municipal water suppliers. RCW 90.03.330(3) indicates that such water rights remain in good standing.

Water right holders must still meet other requirements in the Water Code such as due diligence in project development to keep these rights in good standing. The Department recognizes that cities often grow at uneven rates, and need to be able to serve their growing populations. The actual use of water over time fluctuates due to many factors, which include but are not limited to year-to-year weather patterns, conservation measures, water price and general changes in water use practices. Over time, the population within the area of the city has grown, often at considerable rates. Significant work has been conducted to upgrade the infrastructure of their system and promote conservation with their water users. This continuing upgrade and growth of their system is due diligence of the project.

Proposed Use

Airway Heights proposes to add up to eight wells to Ground Water Certificate No. G3-26657C. The Parkwest Well (Well 9) which is currently integrated into the system is proposed to be added as a source for this right. In addition, the city proposes to construct up to seven additional wells, within nine identified areas. The city proposes to only construct the minimum number of wells required to achieve the desired quantity of water.

The six existing wells under this water right are the municipal source wells for the City of Airway Heights and are proposed to be retained. Well Nos. 1, 4 and 10 are primary production wells for the city system. Well No. 7 is only used as an emergency backup since production is limited and extensive pumping will cause the well to go dry. Well No. 3 is only used to fill water trucks at the city yard since it has limited capacity and Well No. 5 is offline since it has effectively gone dry. Well No. 9 the Parkwest well, will be added as a primary source, but will be incrementally reduced until July 1, 2013. After that date, it will be an emergency supply well, unless the aquifer recovers, in accordance with Agreed Order Docket No. 8703. Well Nos. 11-17, are proposed to be new primary sources for the system. The total number of new wells will depend on the production of said wells.

Summary of Well Status

Source	Wells Status	Meter Status	Notes
Well No. 1	Online	Operational	Primary production well
Well No. 3	Online	Operational	Non-potable, used to fill water trucks
Well No. 4	Online	Operational	Primary production well
Well No. 5	Offline	Installed	Well has gone dry
Well No. 7	Online	Operational	Emergency backup, limited production
Well No. 9	Online	Operational	Primary production well*
Well No. 10	Online	Operational	Primary production well
Well Nos. 11-17	Not constructed	Required	Proposed Primary Production Wells

*see *Agreed Order Docket No. 8703, dated September 8, 2011 for additional restrictions*

Any well that is unusable, abandoned, or whose use has been permanently discontinued, or which is in such disrepair that its continued use is impractical or is an environmental, safety or public health hazard must be properly decommissioned in accordance with WAC 173-160. The city has abandoned original Well No. 2, located in the SE¼NW¼ of Section 25, Township 25 N., Range 41 E.W.M., which will need to be properly decommissioned.

Airway Heights is actively pursuing a Reclaimed Water Project. The city has indicated that Well Nos. 11-17, proposed under this change may also be used as recovery wells for a Reclaimed Water Project.

Several of the proposed well sites are near the Craig Road landfill and a gravel quarry. In accordance with WAC 173-160, wells shall not be located within certain minimum distances of potential sources of contamination. These minimum distances shall comply with local health regulations, as appropriate. In general, wells shall be located at least 100 feet from sources of contamination. Wells shall not be located within 1,000 feet of the boundary of a solid waste landfill.

Measuring and Reporting Water Use

RCW 90.03.360 requires that the owner of any water diversion maintain substantial controlling works and a measuring device. It must be constructed and maintained to permit accurate measurement and practical regulation of the flow of water diverted. Technical requirements for the measuring and reporting of water use are described in WAC 173-173. This decision contains provisions requiring the measuring and reporting of the quantities of water withdrawn or diverted.

Well Tags

WAC 173-160 contains requirements for well drillers, system operators and/or owners to tag new and existing wells with identification tags supplied by Ecology. The well identification program creates a standard system to identify all newly constructed or existing wells, so that property owners and various agencies can readily share well data. In addition, Ecology field staff use the well tag to identify the well. Accordingly, this decision contains provisions requiring each well to be tagged with a unique identification number.

Summary of Water Rights

The interrelationship between the Airway Heights portfolio of water rights is outlined in the following paragraph and table below. Water Right Nos. 6321-A, G3-23465C, G3-26657C and G3-29249(A) are primary additive water rights for municipal supply. Water Right No. G3-27427 is issued as non-additive regarding instantaneous quantities and additive regarding annual quantities, for municipal supply. Ground Water Permit No. G3-29249(B) is an inchoate industrial supply permit in good standing available for development.

Water Rights

Certificate No.	Priority Date	Use	Instantaneous Quantity	Annual Quantity
6321-A	6/21/1968	Municipal supply	350 gpm	224 af/y
G3-23465C	6/27/1974	Municipal supply	65 gpm	2 af/y
G3-26657C	9/4/1980	Municipal supply	500 gpm	800 af/y
G3-27427C	12/21/1982	Municipal supply	*(65) gpm	102 af/y
G3-29249P(A)	8/4/1992	Municipal supply	761 gpm	652.5 af/y
G3-29249P(B)	8/4/1992	Industrial supply	639 gpm	547.5 af/y
TOTAL			**2,315 gpm**	**2,328 af/y**

*non-additive

Other Rights and Water Sources Appurtenant to the Place of Use

A review of Ecology records was conducted for existing water rights, permits, and claims within the Airway Heights project area. The search focused primarily on Sections 13-14, 22-27, 35, and 36 within Township 25 North, Range 41 E.W.M and Sections 19 and 30 within Township 25 North, Range 42 E.W.M. The review of Ecology records shows 63 Certificates and Claims within the Area served by the City of Airway Heights. Most of these are small withdrawals of less than 50 gallons per minute and are

primarily used for irrigation and domestic supply. There are 12 Certificates and Claims that authorized between 51-100 gallons per minute and four Certificates and Claims that authorize between 101-145 gallons per minute. In addition, one irrigation water right authorized 900 gallons per minute. It appears that current water use under many of these rights and claims is limited. These rights are separate systems that are not connected to the City of Airway Heights system.

The majority of water rights and claims, within the vicinity of Airway Heights have priority dates that are generally senior to the bulk of the water rights held by Airway Heights. This includes a large number of exempt wells.

Water Right Claim No. 152959, claims 400 gallons per minute for community domestic supply under the name of Airway Heights Town Hall. The claimed place of use is in the Third addition of Airway Heights. The claimed source is Airway Heights City Well No. 3. Airway Heights municipal water right No. G3-26657C was issued with a provision that it would be less any water pumped under this claim. This claim may not be valid since Airway Heights was not incorporated until 1955.

Airway Heights has an intertie agreement with the City of Spokane which provides 1500 gallons per minute of water when required. The maximum physical capacity of the intertie is significantly more than currently used.

The extent and validity of the above listed water rights, claims and exempt wells are not determined in this report.

Hydrologic/Hydrogeologic Evaluation

Applications for change of water right permits and certificates are governed by RCW 90.44.100, which states in part: the holder of a valid right to withdraw public ground waters may, without losing his priority of right, construct wells at a new location in substitution for, or in addition to, those at the original location, or he may change the manner or the place of use of the water. Such amendment shall be issued by the Department only on the conditions that: (1) the additional or substitute well or wells shall tap the same body of public ground water as the original well or wells, (2) use of the original well or wells shall be discontinued upon construction of the substitute well or wells, (3) the construction of an additional well or wells shall not enlarge the right conveyed by the original permit or certificate, and (4) other existing rights shall not be impaired. The Department may specify an approved manner of construction and shall require a showing of compliance with the terms of the amendment.

The following hydrogeologic analysis was written by John Covert, Senior Hydrogeologist in the Water Resources Program Technical Unit in Ecology's Eastern Regional office.

Groundwater flow in the Airway Heights portion of the West Plains is from SSW to NNE with aquifers recharging along the margins of the basement outcrops which are exposed along a line that runs east-west through the Four Lakes exit area of I-90. Groundwater discharges to springs and seeps tributary to the Deep Creek/Coulee Creek drainages and/or into the Spokane River which forms the northern boundary of the West Plains.

The principal aquifer in the region is contained within the Columbia Plateau Basalt flows of the Wanapum and Grande Ronde formations. Regionally, these basalt flows erupted over a 10 million year period beginning approximately 16 million years ago. Each individual flow is typically 50 to 100 feet

thick. Water migrates laterally through the high permeability interflow zones which are located at the intersection of the top of the underlying basalt flow and the bottom of the overlying basalt flow. The dense, basalt flow interiors typically display vertical hydraulic conductivity values that are orders of magnitude lower than the much higher conductivities of the interflow zones.

12,000 years ago, during the Missoula Flood episodes, paleo channels were incised into the upper most basalt flows as glacial melt water rushed through the area following ice dam failure. These erosional channels were subsequently filled with unconsolidated sands and gravels. Wells drilled into these paleo channels can produce significant quantities of water from unconfined aquifers.

Detailed well mapping and water level monitoring in the Craig Road Landfill area, which identifies the presence of a paleo channel, demonstrate that the basalt aquifers discharge water into and source the paleo channel sediments. Airway Heights' Wells 1 and 4 are completed within unconsolidated sands and gravels of one of these paleo channels. The remainder of Airway Heights' wells (Wells 3, 5, 7, 9, and 10) are completed within the Columbia Plateau basalts. As such, the wells associated with this water right change application are producing from the same body of public groundwater.

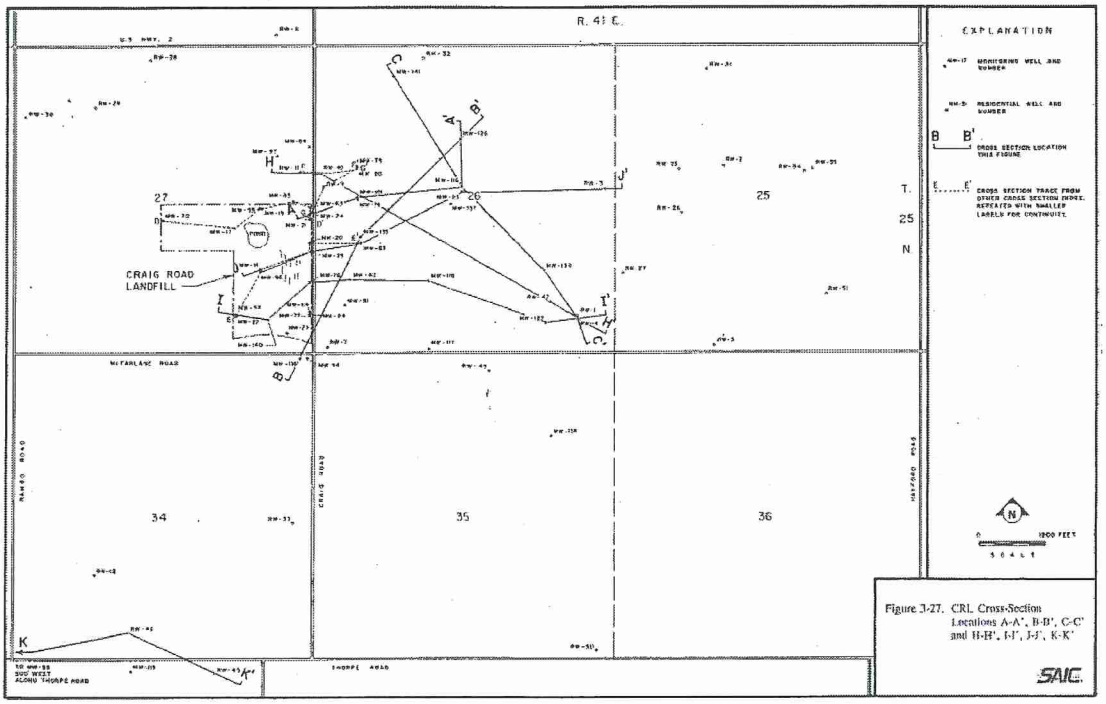

Figure 3-27. CRL Cross-Section Locations A-A', B-B', C-C' and H-H', I-I', J-J', K-K'

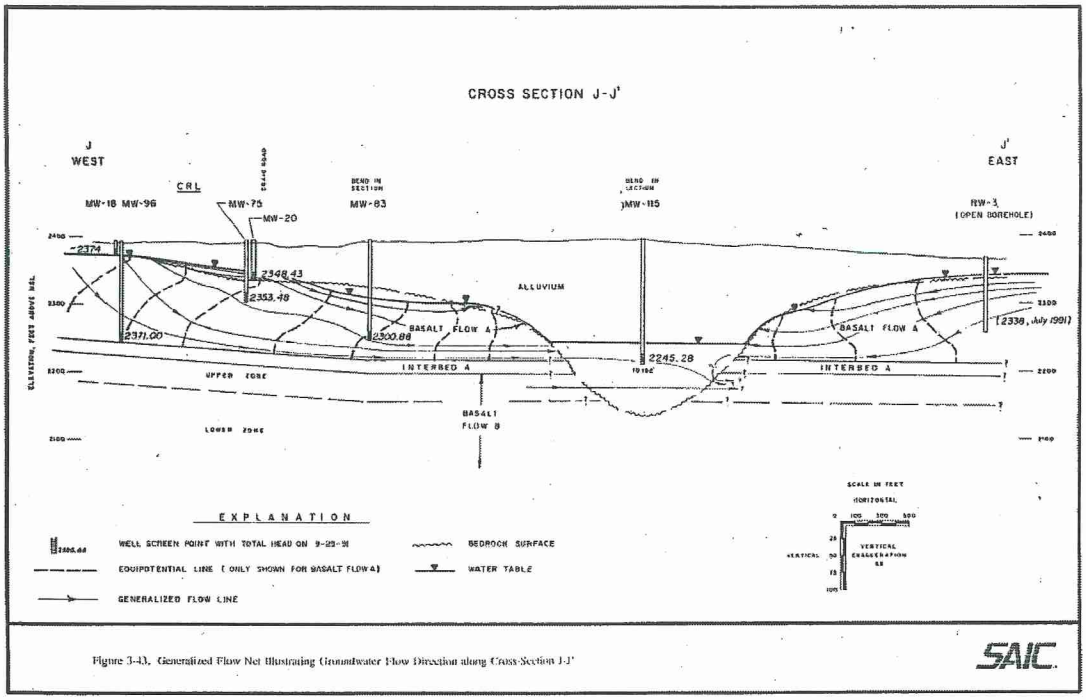

Figure 3-43. Generalized Flow Net Illustrating Groundwater Flow Direction along Cross-Section J-J'

SAIC

Figures 3-27 and 3-43 come from SAIC Remedial Investigation Report, Craig Road Landfill, 1992.

Impairment Considerations

"Impair" or "impairment" means to 1) adversely impact the physical availability of water for a beneficial use that is entitled to protection, not including earlier filed applications (HB 1832); and/or 2) to prevent the beneficial use of the water to which one is entitled; and/or 3) to adversely affect the flow of a surface water course at a time when the flows are at or below instream flow levels established by rule (POL-1200); and/or 4) degrade the quality of the source to the point that water is unsuitable for use by existing water right holders (WAC 173-150). Demonstration of impairment would require evidence of a substantial and lasting or frequent impact reflecting such conditions.

In response to continued impairment complaints, Ecology conducted a hydrogeologic review of pumping groundwater from the West Plains aquifers, as well as impacts caused by the City's pumping of the Parkwest well. A report dated October 2, 2009, concludes that aquifers on the West Plains have experienced significant declines in water levels in recent years, and that the most pronounced declines are occurring in the vicinity of Craig Road and SR 902. The report also concludes that pumping the Parkwest well is a significant contributor to mining of the aquifer in that area.

These issues resulted in Agreed Order Docket No. 8703, which essentially requires water use at the Parkwest well site to incrementally be reduced and cease by July 1, 2013. Water use at this site can only resume if water levels in the aquifer recover or there is an emergent need. This restriction will also apply to this water right, since it is a proposed source under this application. It is anticipated that these restrictions will remove the further negative impact and potential impairment.

The authorized and the wells proposed for construction withdraw water from the same source according to the Hydrogeologic Evaluation. No significant increases in authorized pumping rates are proposed and no additional water will be withdrawn under this change beyond what is authorized. The declines observed in some of the long-term monitoring wells are occurring at multiple locations throughout the West Plains area. The applicant needs to be cognizant of the impacts their new wells may cause to existing, senior rights. In 2006, the Spokane Tribe of Indians drilled a test well in the NW¼SE¼ of Section 22, T25N R41E, just one 40 acre parcel west of one of the Applicant's proposed locations. They were looking for significant quantities of water for a project they were considering. This test well did not produce water at a viable rate and the well was decommissioned. It is possible that the aquifer mining that lead to the restrictions on the Parkwest well will develop at other locations as new parts of the West Plains aquifer system come under stress. The Applicant will have to collect head data on a daily basis for any of the new wells they develop under this change application. This data will be submitted to Ecology in an approved electronic format on an annual basis.

Airway Height's portfolio of water rights consists of five municipal Certificates and an industrial supply Permit, all of which are in good standing. Each of the water rights were issued in accordance with the water law of the time, which found water was physically and legally available for appropriation. However, since the time the water rights were issued, it has been documented that water levels in the West Plains are declining in many areas. The bulk of Airway Heights' water right portfolio is junior to many of the other water rights in the area. If regulation becomes necessary due to continued declines, many of Airway Height water rights could be subject to curtailment to satisfy senior water rights. It is expected that the proposed additional wells will help alleviate this issue by adding new pumping centers that will spread out the withdrawal within the aquifer and help stabilize the source. If at any time a proposed well impairs an existing water right, which includes exempt wells, water use from that source well will be reduced or mitigated until impairment is ended. Provided the restriction list above and the requirements for well construction are followed, it is not anticipated that this change will cause any impartment to existing water rights.

Public Interest Considerations

Prior to this application, there was a significant public expression of concern regarding use of the Parkwest well. In response to these concerns, Ecology and Airway Heights have signed Agreed Order Docket No. 8703. This order essentially requires water use at the Parkwest well site to incrementally be reduced and cease by July 1, 2013. Water use at this site can only resume if water levels in the aquifer recover or there is an emergent need. This change application was specifically generated from this Agreed Order, which required the City to find new sources.

There has been no public expression of protest or concern regarding this specific proposal, and no findings through this investigation indicate that there would be any detrimental impact to the public welfare through issuance of the proposed change.

Consideration of Protests and Comments

No formal protests were filed against this application. However, prior to this application several public comments were received from senior water right-holders and others expressing concern regarding

potential impairment of existing water rights. These concerns were directed specifically at the use of the Parkwest Well.

In response to these concerns, Ecology gathered data about the aquifer and worked with Airway Heights to resolve the issues. This resulted in Agreed Order Docket No. 8703, which essentially requires water use at the Parkwest well site to incrementally be reduced and cease by July 1, 2013. Water use at this site can only resume if water levels in the aquifer recover or there is an emergent need.

Conclusions

In accordance with Chapters 90.03 and 90.44, approval of this application to add eight wells as granted under Ground Water Certificate No. G3-26657C will not enlarge the quantity of water historically authorized, nor will it impair existing rights or be detrimental to the public welfare provided the terms and conditions above are followed.

The amount of water recommended is a maximum limit that shall not be exceeded, and the water user may only use that amount of water within the specified limit that is reasonable and beneficial. This authorization does not increase in any way the original amounts authorized by the Certificate.

RECOMMENDATIONS

Based on the above investigation and conclusions, I recommend that the request for change to add eight wells to Ground Water Certificate No. G3-26657C be approved in the amounts and within the limitations listed below and subject to the provisions beginning on Page 2, and following.

Purpose of Use and Authorized Quantities

The amount of water recommended is a maximum limit and the water user may only use that amount of water within the specified limit that is reasonable and beneficial:

500 gallons per minute
800 acre-feet per year
Municipal Supply

Points of Withdrawal

- Well 1) SE¼SE¼, Section 26, Township 25 North, Range 41E W.W.M.
- Well 3) SE¼ NE¼, Section 26, Township 25 North, Range 41E W.W.M.
- Well 4) SE¼SE¼, Section 26, Township 25 North, Range 41E W.W.M.
- Well 5) SE¼ SW¼, Section 25, Township 25 North, Range 41E W.W.M.
- Well 7) NW¼NW¼, Section 36, Township 25 North, Range 41E W.W.M.
- Well 9) NE¼SW¼, Section 2, Township 24 North, Range 41E W.W.M. (see *Agreed Order Docket No. 8703, dated September 8, 2011 for restrictions*)
- Well 10) SE¼ NW¼, Section 25, Township 25 North, Range 41E W.W.M.
- Wells 11-17 (Seven wells, within the following legal descriptions):

	TWP	RNG	SEC	QQ Q
Well Site	25N	41E	13	NW¼NE¼
Well Site	25N	41E	23	NW¼NE¼
Well Site	25N	41E	23	SW¼NW¼
Well Site	25N	41E	22	NE¼SE¼
Well Site	25N	41E	26	NW¼NW¼
Well Site	25N	41E	26	SE¼NW¼
Well Site	25N	41E	26	NE¼SW¼
Well Site	25N	41E	26	NW¼SE¼
Well Site	25N	41E	26	SE¼SE¼

Place of Use

The place of use (POU) of this water right is the service area described in the most recent Water System Plan/Small Water System Management Program approved by the Washington State Department of Health, so long as the water system is and remains in compliance with the criteria in RCW 90.03.386(2). RCW 90.03.386 may have the effect of revising the place of use of this water right.

Dan Tall 5/24/2012

Dan Tolleson, Report Writer *Date*

Selected References

Agreed Order Docket No. 8703. Agreement between Ecology and the City of Airway Heights regarding Water Right Permit No. G3-29249, September 8, 2011.

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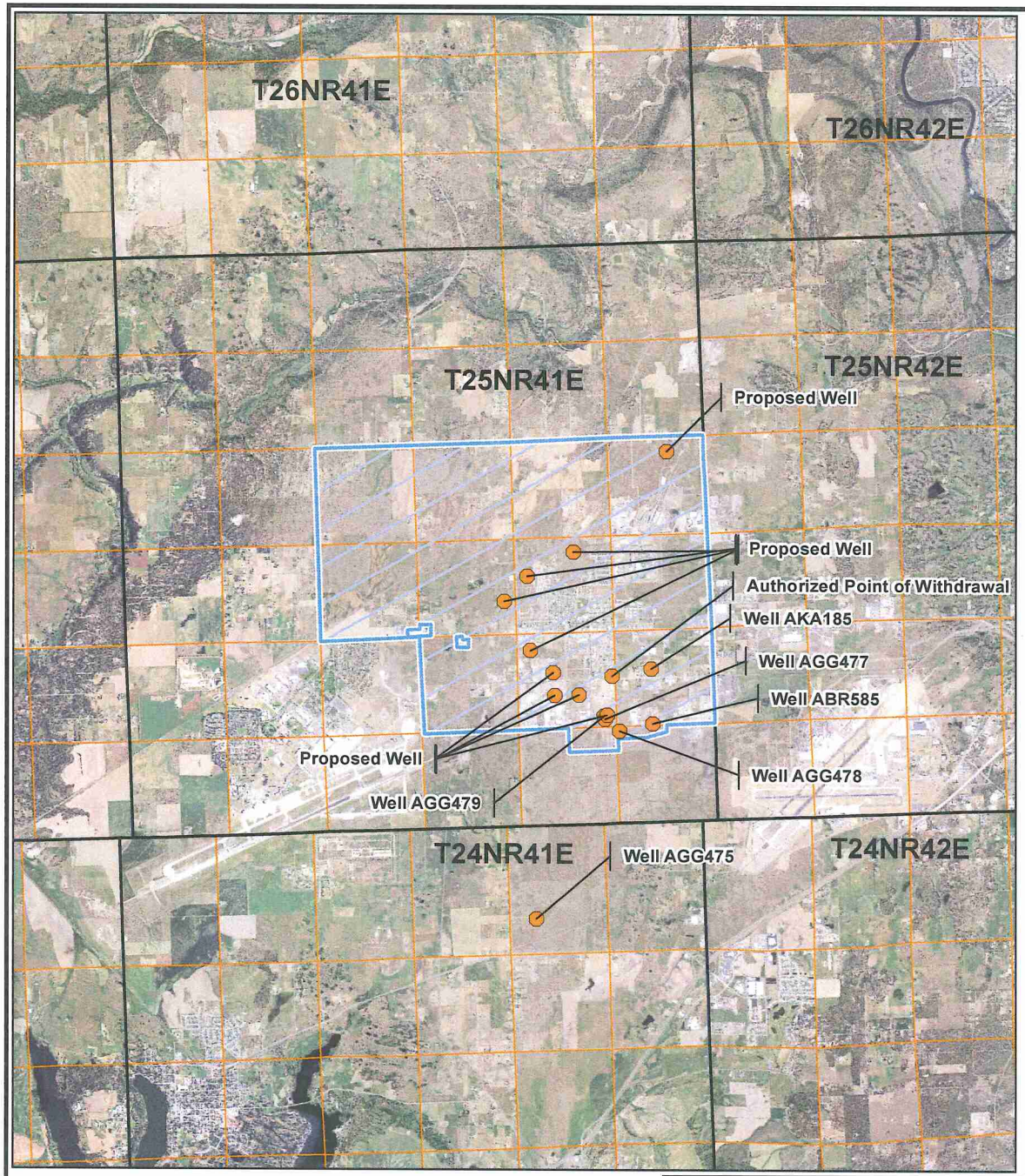
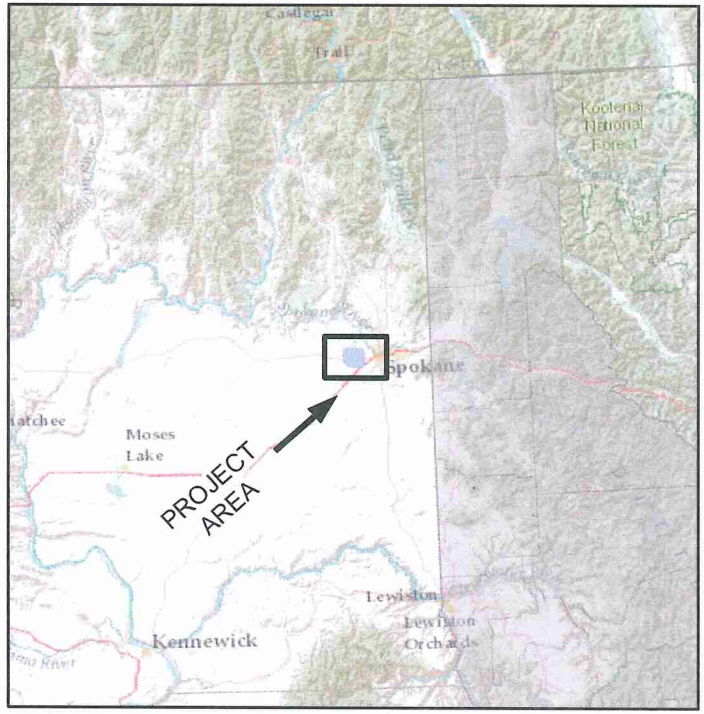
City of Airway Heights
CG3-26657C@2
T25N/R41E





Basemap - (ESRI US Topographic Maps)

Legend

- Authorized Place of Use
- Authorized Point of Withdrawal
- Townships
- Sections

0 4,000 8,000 16,000 24,000 32,000 Feet

Basemap - (NAIP 2011 1m color)

DEPARTMENT OF ECOLOGY State of Washington

Map Date: 5/24/2012

Comment:
Place of use and source locations are as defined within the Report of Examination cover sheet for the document identfied in the header above.

ATTACHMENT 1