

State of Washington
AMENDED
REPORT OF EXAMINATION
FOR WATER RIGHT APPLICATION

PRIORITY DATE October 27, 2010	WATER RIGHT NUMBER G4-35432
MAILING ADDRESS LAND LLOYD DEVELOPMENT PO BOX 3889 FEDERAL WAY WA 98063-3889	SITE ADDRESS (IF DIFFERENT) WESTSIDE RD CLE ELUM WA 98922

Quantity Authorized for Withdrawal or Diversion		
WITHDRAWAL OR DIVERSION RATE	UNITS	ANNUAL QUANTITY (AC-FT/YR)
215	GPM	14.06

Purpose						
PURPOSE	WITHDRAWAL OR DIVERSION RATE			ANNUAL QUANTITY (AC-FT/YR)		PERIOD OF USE (mm/dd)
	ADDITIVE	NON-ADDITIVE	UNITS	ADDITIVE	NON-ADDITIVE	
Multiple Domestic Use for 34 units	215		GPM	13.33		01/01 - 12/31
Irrigation of 0.39 acres		215	GPM	0.73		05/01 - 9/30

IRRIGATED ACRES		PUBLIC WATER SYSTEM INFORMATION			
ADDITIVE	NON-ADDITIVE	WATER SYSTEM ID		CONNECTIONS	
0.39		AA478	AC404	8	Undetermined

Source Limitations – Lower Alluvial Source (14 Units)				
SOURCE FACILITY/DEVICE	A S*	WITHDRAWAL OR DIVERSION RATE	ANNUAL QUANTITY (ac-ft/yr)	PERIOD OF USE (mm/dd)
Lower Well		45 GPM	5.79	01/01 - 12/31

Source Limitations – Bedrock Source (8 Units)				
SOURCE FACILITY/DEVICE	A S*	WITHDRAWAL OR DIVERSION RATE	ANNUAL QUANTITY (ac-ft/yr)	PERIOD OF USE (mm/dd)
Clear View Well(s)		45 GPM	1.65	01/01 - 12/31
Single Domestic Well		15 GPM	0.83	01/01 - 12/31
Reserve Well(s)	S	45 GPM	0.83	01/01 - 12/31

Source Limitations – Upper Alluvial Source (12 Units)				
SOURCE FACILITY/DEVICE	A S*	WITHDRAWAL OR DIVERSION RATE	ANNUAL QUANTITY (ac-ft/yr)	PERIOD OF USE (mm/dd)
Upper Well		65 GPM	4.96	01/01 - 12/31

Source Locations								
SOURCE FACILITY/DEVICE	PARCEL	WELL TAG	TWP	RNG	SEC	QQ Q	LATITUDE	LONGITUDE
Lower Well	14811	ACE569	19N	14E	02	NENE	47.1739	-121.0509
Upper Well	18104	ACE570	19N	14E	02	SENW	47.1689	-121.0602
Single Domestic Well	15904	ACE571	19N	14E	02	NWNE	47.1746	-121.0578
Clear View Well(s)	11884		19N	14E	01	NWSW		
Reserve Well(s)			19N	14E	02	SENE		

Datum: NAD83/WGS84

Places of Use (See Attached Map)

PARCELS (NOT LISTED FOR SERVICE AREAS)

Multiple parcels

LEGAL DESCRIPTION OF AUTHORIZED PLACE OF USE

POU A (Lower Alluvial Source):

The portion of Section 2, T. 19 N., R. 14 E.W.M and Section 35, T. 20 N., R. 14 E.W.M described as follows: Commencing at a point which is 925 feet East of the North $\frac{1}{4}$ of Section 2, the True Point of Beginning for this description; thence South $10^{\circ}58'52''$ East 36 feet; thence South $2^{\circ}46'12''$ West 873 feet; thence South $3^{\circ}36'35''$ West 531 feet; thence South $88^{\circ}33'45''$ East 330 Feet; thence South $0^{\circ}43'51''$ East 1226 feet; thence South $88^{\circ}50'46''$ East 86 feet; thence North $37^{\circ}55'2''$ East 958 feet; thence South $70^{\circ}20'16''$ East 766 Feet; thence North $0^{\circ}20'15''$ West 1624 feet; thence North $64^{\circ}56'17''$ West 1266 feet; thence North $46^{\circ}41'30''$ West 252 feet; thence South $82^{\circ}1'8''$ West 353 feet; thence South $10^{\circ}16'8''$ East 77 feet to the True Point of Beginning.

POU B (Bedrock Source):

The Eastern 722 feet of the North $\frac{1}{2}$ NW $\frac{1}{4}$, except 1.72 acres within Parcel ID 555434; that portion of the West $\frac{1}{2}$ of the NE $\frac{1}{4}$ lying westerly of the following described line: Commencing at a point which is 925 feet East of the North $\frac{1}{4}$ of Section 2, thence South $10^{\circ}58'52''$ East 36 feet; thence South $2^{\circ}46'12''$ West 873 feet; thence South $3^{\circ}36'35''$ West 531 feet; thence South $88^{\circ}33'45''$ East 330 Feet; thence South $0^{\circ}43'51''$ East 1226 feet and the termination of this line. Also, that portion of the South $\frac{1}{2}$ of the SE $\frac{1}{4}$ NE $\frac{1}{4}$ described as follows: Commencing at the SW $\frac{1}{4}$ corner of the SE $\frac{1}{4}$ NE $\frac{1}{4}$, thence North $37^{\circ}55'2''$ East 958 feet; thence South $70^{\circ}20'16''$ East 766 Feet; thence South $0^{\circ}1'39''$ West 533; thence North $88^{\circ}28'$ West 1310 feet to point of beginning. All lying within Section 2, T. 19 N., R. 14 E.W.M. Also, that portion of the SE $\frac{1}{4}$ NW $\frac{1}{4}$ lying within Parcel ID 515434. Also, that portion of the West $\frac{1}{2}$ of Section 1, T. 19 N., R. 14 E.W.M., described as follows: Commencing at a point North $1^{\circ}32'22''$ East 1344 feet from the SW $\frac{1}{4}$ of Section 1; thence North $1^{\circ}7'17''$ East 1350 feet; thence South $89^{\circ}54'21''$ East 590 Feet; thence South $0^{\circ}19'59''$ East 1342 feet; thence South $89^{\circ}23'50''$ West 625 feet to the point of beginning. Also, that portion of the SW $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 35, T. 20 N., R. 14 E.W.M. lying southerly of Westside Road and westerly of a line described as commencing at a point which is 925 feet East of the North $\frac{1}{4}$ of Section 2, thence North $10^{\circ}16'8''$ West 77 feet and the termination of this line.

POU C (Upper Alluvial Source):

The South $\frac{1}{2}$ NW $\frac{1}{4}$; the East 463 Feet of the West 1710 Feet of the North $\frac{1}{2}$ of the SW $\frac{1}{4}$ of Section 2 lying northerly of Fowler Creek Road and Fowler Creek; that portion of the SE $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 3, T. 19 N., R. 14 E.W.M., lying easterly of Fowler Creek Road and Fowler Creek all within T. 19 N., R. 14 E.W.M.,

Excepting there from any portion lying within the southern portions of Parcel IDs 33318, 33319, 33321. Also, excepting there from any portion lying within the western edge of Parcel ID 12097.

Proposed Works

Lower Well: a well, 86 feet deep with a 6-inch casing and a 3 HP pump, serving a residential water system (AC404).

Upper Well: a well, 122 feet deep with a 6-inch casing and a 3 HP pump, serving a residential water system (AA478).

Single Domestic Well: a well, 305 feet deep with a 6-inch casing, currently w/out a pump.

Clear View Well: to be drilled.

Reserve Well: to be drilled.

Development Schedule

BEGIN PROJECT

NA

COMPLETE PROJECT

October 1, 2016

PUT WATER TO FULL USE

October 1, 2021

Measurement of Water Use

How often must water use be measured?

Monthly

How often must water use data be reported to Ecology?

Annually (Jan 31)

What volume should be reported?

Total Monthly Volume

Provisions

Wells, Well Logs and Well Construction Standards

1. The subject application requests to use groundwater from three distinct sources/aquifers: 1) Lower Alluvial source, 2. Bedrock/phyllite source, and 3) Upper Alluvial source. Water Right Permits may not authorize more than one source. Therefore, wells shall be constructed as to tap only the source identified on the Permit. In other words, a combination of bedrock and alluvial sources is not authorized under one Permit.
2. Wells shall not be dually completed into, or 'tap', both the unconsolidated material and bedrock.
3. All wells constructed in the state shall meet the construction requirements of WAC 173-160 titled "Minimum Standards for the Construction and Maintenance of Wells" and RCW 18.104 titled "Water Well Construction". Any well which 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 shall be decommissioned.
4. 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.
5. Installation and maintenance of an access port as described in WAC 173-160- 291(3) is required.

Measurements, Monitoring, Metering and Reporting

6. An approved measuring device shall 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.
7. Ecology is requiring the recording and reporting of meter data as described above to collect seasonal information for water resource planning and compliance.
8. Recorded water use data shall be submitted via the Internet. To set up an Internet reporting account, contact the Central Regional Office. If you do not have Internet access, you can still submit hard copies by contacting the Central Regional Office for forms to submit your water use data.
9. WAC 173-173 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.

Water Level Measurements

10. In order to maintain a sustainable supply of water, pumping must be managed so that static water levels do not progressively decline from year to year. Static water level is defined as the water level in a well when no pumping is occurring and the water level has fully recovered from previous pumping. Static water levels shall be measured and recorded monthly in Upper Perched Aquifer and Bedrock Aquifer, and bi-annually (May and September) in the Lower Alluvial Aquifer, using a consistent methodology. Data for the previous year shall be submitted by January 31 to the Department of Ecology, Central Regional Office. Address: 15 W. Yakima Ave., Yakima WA 98902.
11. Static water level data shall be submitted in digital format and shall include the following elements:
 - Unique Well ID Number
 - Measurement date and time
 - Measurement method (air line, electric tape, pressure transducer, etc.)
 - Measurement accuracy (to nearest foot, tenth of foot, etc.)
 - Description of the measuring point (top of casing, sounding tube, etc.)
 - Measuring point elevation above or below land surface to the nearest 0.1 foot
 - Land surface elevation at the well head to the nearest foot.
 - Static water level below measuring point to the nearest 0.1 foot.

Mitigation Offered

12. Water use under this authorization is contingent upon the conveyance of an equal (4.66 acre-feet per year) or greater amount of consumptive use from a suitable instream flow right (see Land Lloyd / Ecology Trust Water Right Agreement) to the Water State Trust Water Right Program.
13. Any valid priority calls against the source Trust Water Right No. CS4-00714sb2, based on local limitations in water availability, will result in temporary curtailment of the use of water under the permit until the priority call for water ends.
14. The applicant will pay to Ecology the sum of \$1,623.12 which represents a proportionate amount of the payment due and owing to the United States for storage and deliver of water under paragraph 15(a) of the Water Storage and Exchange Contract No. 09XX101700, between the Bureau of Reclamation and the State of Washington Department of Ecology, Yakima Project, Washington, dated January 29, 2009^[1]. The consumptive use of 1.99 acre-feet from October 1 through March 31 is subject to the terms and conditions in the Water Storage and Exchange Contract No. 09XX101700.
15. The applicant(s) will record with the Kittitas County Auditor a property covenant as required under WAC 173-539A-050 that restricts or prohibits trees or shrubs over a septic drain field on all applicable parcels within the authorized places of use.

^[1] "Long-Term Water Storage and Exchange Agreement between the U.S. and the State of Washington, Department of Ecology" (Contract No. 09XX101700). http://www.ecy.wa.gov/programs/wr/cro/images/pdfs/exchangecontract_012909.pdf, accessed on August 22, 2011.

Department of Health Requirements

- 16. 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.

Easement and Right-of-Way

- 17. The water source and/or water transmission facilities are not wholly located upon land owned by the applicant. Issuance of a water right 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

- 18. The water right holder is required to maintain efficient water delivery systems and use of up-to-date water conservation practices consistent with RCW 90.03.005.

Proof of Appropriation

- 19. The water right holder shall 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 Permit. 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

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

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 sources 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 No. G4-35432, subject to existing rights and the provisions specified above.

YOUR RIGHT TO APPEAL

You have a right to appeal this decision to the Pollution Control Hearing Board (PCHB) within 30 days of the date of receipt of this decision. 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 this decision:

- File your appeal and a copy of this decision 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 decision 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.

ADDRESS AND LOCATION INFORMATION

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

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://www.leg.wa.gov/CodeReviser>

Signed at Yakima, Washington, this 11 day of JUNE 2012.



Mark Kemner, LHG, Section Manager
Water Resources Program/CRO

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>.

BACKGROUND

Priority Processing

This application is being priority processed because it qualifies under the criteria found in the Upper Kittitas Groundwater Rule WAC 173-539A-060, which provides that certain applications may be processed prior to competing applications.

Project Description

On October 27, 2010, Land Lloyd Development Inc of Federal Way, Washington, (the applicant) filed an application with the Washington State Department of Ecology (Ecology) for a water right permit to appropriate public groundwater. The application was assigned control number G4-35432. The applicant requested authorization for an instantaneous withdrawal (Qi) of 215 gallons per minute (gpm) and an annual withdrawal volume (Qa) of 10 to 12 acre-feet per year (ac-ft/yr) for multiple domestic supply of 34 residential connections.

In an email to Ecology on December 28, 2011, the applicant requested to amend the original application to increase the Qa to 15.0 ac-ft/yr and include 500 ft² of lawn and/or garden irrigation to each of the 34 proposed residential connections. Additionally, the email clarified the location of the 'single exempt' well to the quarter-quarter section, and identified which lots would be served by each groundwater source.

The applicant has offered mitigation for the subject application in the form of instream flow rights through the creation of the Land Lloyd water bank. Specific terms and use of the Land Lloyd water bank are described in Attachment 4 – Trust Water Right Agreement between Land Lloyd Development Inc. and Ecology.

Attributes of Proposal

Table 1 Application Summary

Name	Land Lloyd Development Inc
Priority Date	October 27, 2010
Instantaneous Rate	215 gallons per minute
Annual Quantity	15.0 acre-feet per year
Purposes of Use	Domestic Multiple (34 Units) Irrigation (0.39 acres)
Periods of Use	Domestic: Continuously Irrigation: May 1 – September 30
Places of Use	See Attachment 2

Table 2 Geographic Setting

County	Waterbody	Tributary To	WRIA
KITTITAS	GROUNDWATER	--	39-UPPER YAKIMA

Table 3 Proposed Sources of Withdrawal or Diversion

Source Name	Parcel	WellTag	Twp	Rng	Sec	QQ Q	Latitude	Longitude
Lower Well	14811	ACE569	19N	14E	02	NE NE	47.1739	-121.0509
Upper Well	18104	ACE570	19N	14E	02	SE NW	47.1689	-121.0602
Single Domestic Well	15904	ACE571	19N	14E	02	NE NW	47.1746	-121.0578
Clear View Well(s)	11884	--	19N	14E	01	NW SW	--	--
Reserve Well(s)	--	--	19N	14E	02	SE NE	--	--

Legal Requirements for Approval of Appropriation of Water

Chapters 90.03 and 90.44 RCW authorize the appropriation of public water for beneficial use and describe the process for obtaining water rights. Laws governing the water right permitting process are contained in RCW 90.03.250 through 90.03.340 and RCW 90.44.050. In accordance with RCW 90.03.290, determinations must be made on the following four criteria in order for an application for water rights to be approved:

- Water must be available, physically and legally.
- There must be no impairment of existing water rights.
- The water use must be beneficial.
- The water use must not be detrimental to the public interest.

This report serves as the written findings of fact concerning all things investigated regarding Water Right Application No. G4-35432.

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 diverted and used. Notice of the amended application was published in *The Daily Record* during the weeks of January 6, 2012, and January 13, 2012.

Consultation with the Department of Fish and Wildlife

The Department must give notice to the Department of Fish and Wildlife of applications to divert, withdraw or store water (RCW 77.57.020).

State Environmental Policy Act (SEPA)

On September 13, 2004, Washington State Department of Natural Resources issued a Determination of Nonsignificance on File No. 04-091301 regarding timber harvest and conversion of forest land to residential lots by Land Lloyd Development Inc for the subject area.

INVESTIGATION

Site Visit

A site visit was performed by Kurt Walker from the Department of Ecology on December 6, 2011, and was attended by Robert (Bob) Couper and Robert Lloyd of Land Lloyd Development Inc.

Proposed Use and Basis of Water Demand

The subject application requests the use of groundwater to serve up to 34 residential units and irrigate up to 0.39 acres through a mix of Group B Water Systems and individual or shared wells. The applicant has proposed to provide each residential unit with 350 gallons per day (gpd) for indoor domestic uses and sufficient water to irrigate 500 square feet of lawn and/or garden.

An indoor residential water use of 350 gpd per day equates to an annual use of 0.39 ac-ft per residential unit. Annual water use for the 34-unit project equates to 13.33 ac-ft for indoor use.

Outdoor water use, irrigation of 0.39 acres (500 ft² per lot), was calculated through application of Ecology's Guidance Document 1210, *Determining Irrigation Efficiency and Consumptive Use*, in conjunction with the Washington Irrigation Guide (WIG). According to the WIG, pasture/turf in the Cle Elum area has a crop irrigation requirement (CIR) of 18.11 inches/year (USDA, 1985). The total irrigation requirement can be calculated by dividing the CIR by the Irrigation efficiency (Ea).

Formula 1

$$CIR \div Ea = \text{Irrigation Requirement}$$

Calculation 1 – Irrigation Requirement

$$18.11 \text{ inches per acre} \div 80\% = 22.64 \text{ inches per acre or } 1.89 \text{ acre – feet (ac-ft) per acre}$$

Calculation 2 – Proposed Irrigation Water Use

$$1.89 \text{ (ac-ft) per acre} \times 0.39 \text{ acres} = 0.73 \text{ ac-ft}$$

Indoor and outdoor consumptive use quantities were calculated in part by applying the values found in the Upper Kittitas Groundwater Rule (WAC 173-539A). Under the Rule, 30% of indoor domestic use which discharges to a septic system is assumed to be consumptively used, and 90% of outdoor domestic use, including lawn and garden, is assumed to be consumptively used. Total use and consumptive uses are summarized in Table 4 below.

Table 4 – Total and Consumptive Water Use

<i>Use</i>	<i>Total Use (ac-ft)</i>	<i>Consumptive Use (ac-ft)</i>
¹ Indoor Domestic	13.33	4.00
² Lawn and Garden	0.73	0.66
Total	14.06	4.66

¹ Based on 350 gallons per day per residential unit.

² Based on 500 ft² of lawn and garden irrigation per ERU.

Group B Water Systems

The Washington State Department of Health (DOH) has conditionally approved the use of two public water systems by the applicant within the subject lands. Fowler Ridge (DOH System ID: AA478 D) utilizes the "upper well" (AEC570) and is approved for 8 connections. Fowler Creek (DOH System ID: AC404 G) utilizes the "lower well" (AEC569) and currently has an 'undetermined' amount of 'approved connections' according to the DOH Water Facilities Inventory Form.

Individual or Shared Wells

Individual or shared wells may be used on lots which are not served by existing or future public water systems. Individual or shared wells must be completed in accordance with well construction provisions, and combined withdrawals must not exceed the quantities listed by source on pages 1 and 2 of this report.

Other Rights Appurtenant to the Place of Use

Acquavella Court Claim No. 00714 and Water Right Change Application CS4-00714sb2 (both owned by Land Lloyd Development Inc), overlap the subject POU. Court Claim 00714 authorizes up to 0.2 cfs and 30.0 ac-ft/yr for the irrigation of 10 acres and 1.3 cfs for conveyance. CS4-00714sb2 proposes to cease all diversions under Court Claim No. 00714 and change the purpose of use from irrigation to instream flow. This change to instream flow is being offered as mitigation for the subject application and Water Right Permit Application No. G4-35529 through the management of a Trust Water Right Agreement (TWRA). See Attachment 4 for TWRA.

Hydrogeologic Analysis

A hydrogeologic analysis was prepared by Kurt Walker to identify groundwater sources, supply information regarding groundwater availability, and assess the potential impacts associated with groundwater withdraws under Water Right Application G4-35432.

Existing literature, including geologic maps, geologic unit descriptions, area well logs, topographic maps, air photos, geomorphic features, and site observations were used to characterize the hydrogeologic conditions of the site. There are three distinct groundwater sources within the project area (see Figure 1 below). For purposes of this report the author has tentatively assigned names to these sources as follows: Bedrock (BS), Lower Alluvial (LAS), and Upper Alluvial (UAS).

Figure 1 — Groundwater Sources

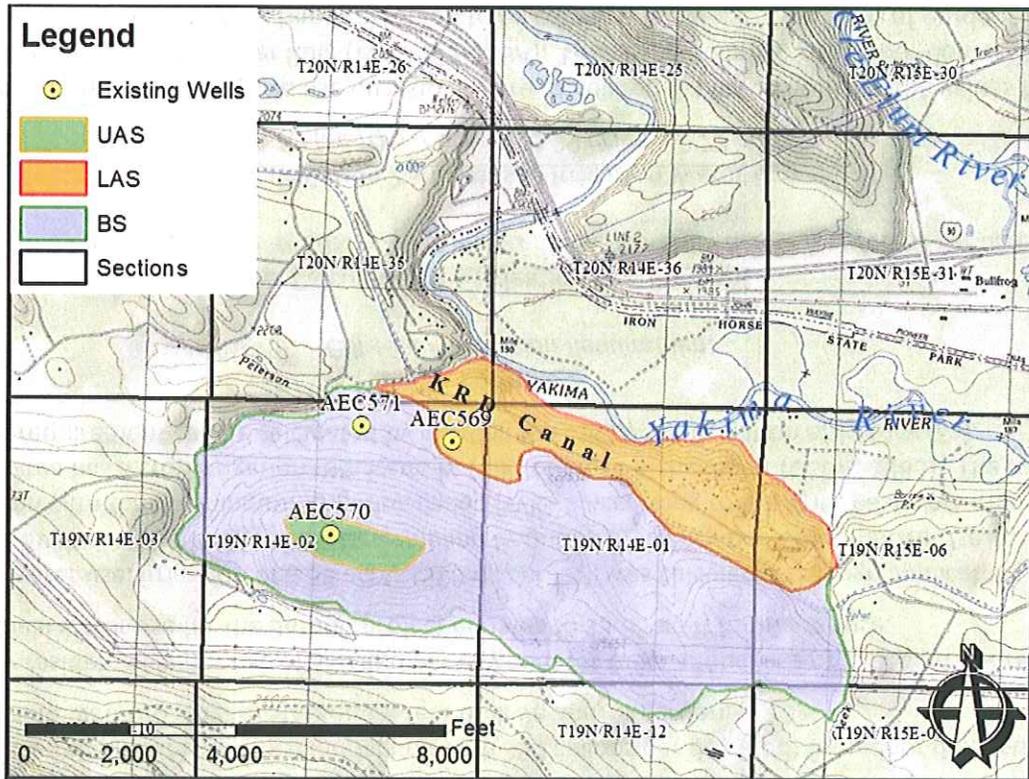


Figure 3: Areal extent of groundwater sources over USGS topographic contour map.

Executive Summary from the hydrogeologic analysis,

The site area lies within a geologically complex setting of the Upper Yakima River Basin. Tectonic forces have folded and faulted the bedrock, and multiple glacial periods have reshaped the topography and redistributed large volumes of rock and sediment. When saturated, the bedrock and sediments contain useable quantities of groundwater. The subject application proposes to use multiple wells to tap three distinct groundwater sources within a 285-acre place of use. The groundwater sources are primarily recharged by precipitation, and most of the groundwater discharge comes by the way of pumping for existing domestic purposes. Groundwater is expected to be physically available in the quantities requested. Additionally, the proposed uses are not expected to result in adverse impacts to existing groundwater users.

For full hydrogeologic analysis, see Attachment 3.

Impairment Considerations

Impairment is an adverse impact on the physical availability of water for a beneficial use that is entitled to protection. A water right application may not be approved if it would:

- Interrupt or interfere with the availability of water to an adequately constructed groundwater withdrawal facility of an existing right. An adequately constructed groundwater withdrawal facility is one that (a) is constructed in compliance with well construction requirements and (b) fully penetrates the saturated zone of an aquifer or withdraws water from a reasonable and feasible pumping lift.
- Interrupt or interfere with the availability of water at the authorized point of diversion of a surface water right. A surface water right conditioned with instream flows may be impaired if a proposed use or change would cause the flow of the stream to fall to or below the instream flow more frequently or for a longer duration than was previously the case.
- Interrupt or interfere with the flow of water allocated by rule, water rights, or court decree to instream flows.
- Degrade the water quality of the source to the point that the water is unsuitable for beneficial use by existing users.

Impairment, Qualifying Ground Water Withdrawal Facilities, and Well Interference

Impairment of Groundwater Rights

Ecology's water rights and well log databases were searched to identify nearby groundwater rights and groundwater users which may be affected by the proposed groundwater appropriations. A hydrogeologic assessment of the site was performed in part to address the potential for impairment of existing groundwater rights. The hydrogeologic report finds that adverse impacts due to withdrawals under the subject application are not likely. However, recommendations are made to limit the risk of adverse impacts to existing uses including; establishing well setbacks for future wells drilled into the Bedrock source and requiring bi-annual groundwater level monitoring in the Bedrock source and Upper Alluvial Source. See Attachment 3 for full hydrogeologic assessment of individual sources and impairment potential associated with each source.

Impairment of Surface Water Rights

While there are multiple surface water rights identified down gradient of the proposed points of withdrawal, no surface water users are expected to be severally impacted under this authorization. Additionally, the applicant has offered mitigation in the form of instream flow to offset the consumptive use impacts associated with the withdrawals. See No. CS4-00714sb2 and Department of Ecology & Land Lloyd Inc. Trust Water Right Agreement (Attachment 4) for details.

Water Availability

For water to be available for appropriation, it must be both physically and legally available.

Physical availability

For water to be physically available for appropriation there must be ground or surface water present in quantities and quality and on a sufficiently frequent basis to provide a reasonably reliable source for the requested beneficial use or uses. In addition, the following local factors are considered:

- The volume of water represented by senior water rights, including federal or tribal reserved rights or claims;
- Water right claims registered under Chapter 90.14 RCW
- Ground water uses established in accordance with Chapter 90.44 RCW, including those that are exempt from the requirement to obtain a permit; and
- The potential riparian water rights, including non-diversionary stock water.
- The lack of data indicating water usage can also be a consideration in determining water availability, if the department cannot ascertain the extent to which existing rights are consistently utilized and cannot affirmatively find that water is available for further appropriation.

Physical availability is more specifically addressed in the hydrogeologic analysis, see Attachment 4.

Legal availability

To determine whether water is legally available for appropriation, the following factors are considered:

- Regional water management plans – which may specifically close certain water bodies to further appropriation.
- Existing rights – which may already appropriate physically available water.
- Fisheries and other instream uses (e.g., recreation and navigation). Instream needs, including instream and base flows set by regulation. Water may not be available for out of stream uses where further reducing the flow level of surface water would be detrimental to existing fishery resources.
- The Department may deny an application for a new appropriation in a drainage where adjudicated rights exceed the average low flow supply, even if the prior rights are not presently being exercised. Water would not become available for appropriation until existing rights are relinquished for non-use by state proceedings.

Beneficial Use

The use of water for multiple domestic and irrigation purposes are defined in statute as a beneficial uses (RCW 90.54.020(1)).

Public Interest Considerations

When investigating a groundwater right application, Ecology is required to consider whether the proposed use is detrimental to the public interests. Ecology must consider how the proposed use(s) will affect an array of factors such as wildlife habitat, recreation, water quality, and human health. The environmental amenities and values associated with the area were taken into account during the consideration of this application.

Consideration of Protest and Comments

No protests were filed against this application.

CONCLUSIONS

- Water is physically available in quantities sufficient to meet project demand, although multiple wells may be required to achieve the necessary Qi.
- Water is legally available under the provisions of WAC 173-539, when combined with the proposed mitigation measures.
- According to RCW 90.54.020, multiple domestic use and irrigation are considered beneficial uses.
- Approval of the proposed appropriation, when combined with the proposed mitigation measures, will not result in impairment of existing water right holders.
- Approval of the proposed appropriation, when combined with the proposed mitigation measures, is not detrimental to the public interest.

RECOMMENDATIONS

Based on the above investigation and conclusions, I recommend that this request for a water right be approved in the amounts and within the limitations listed below and subject to the provisions listed above.

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:

- 215 gpm as follow: 45 gpm for the Lower Alluvial Source, 105 gpm for the Bedrock Source, and 65 gpm from the Upper Alluvial Source.
- 14.06 ac-ft/yr as follows: 5.79 ac-ft/yr from the Lower Alluvial Source, 3.31 ac-ft/yr from the Bedrock Source, and 4.96 ac-ft/yr from the Upper Alluvial Source.
- Domestic Use for 34 units, continuously as follows: 14 - Lower Alluvial Source, 8 - Bedrock Source, and 12 - Upper Alluvial Source.
- Irrigation of 0.39 acres (500 ft² for each domestic unit), from May 1 – Sept. 30.

Points of Withdrawal

Source Name	Parcel	WellTag	Twp	Rng	Sec	QQ Q	Latitude	Longitude
Lower Well	14811	ACE569	19N	14E	02	NE NE	47.1739	-121.0509
Upper Well	18104	ACE570	19N	14E	02	SE NW	47.1689	-121.0602
Single Domestic Well	15904	ACE571	19N	14E	02	NE NW	47.1746	-121.0578
Clear View Well(s)	11884	--	19N	14E	01	NW SW	--	--
Reserve Well(s)	--	--	19N	14E	02	SE NE	--	--

Places of Use

As described in Attachment 2.


Kurt Walker, Report Writer

6-11-12
Date

If you need this publication in an alternate format, please call Water Resources Program at (360) 407-6600. Persons with hearing loss can call 711 for Washington Relay Service. Persons with a speech disability can call 877-833-6341.

Selected References

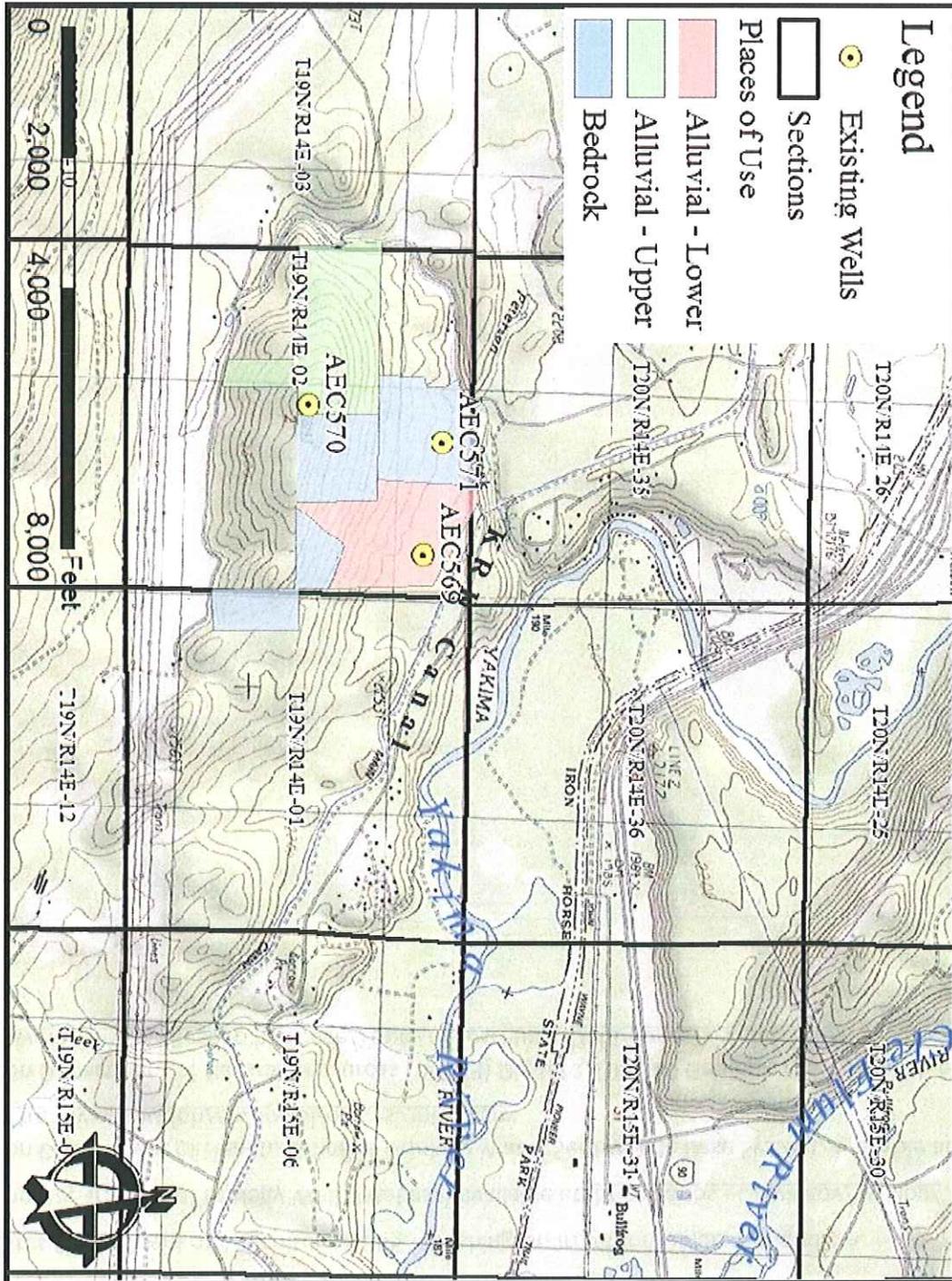
United States Department of Agriculture, 1985. Washington Irrigation Guide, Appendix A.

Washington Department of Ecology Well Database, available at: <http://apps.ecy.wa.gov/wellog/>

Washington Department of Health, Office of Drinking Water SENTRY Data Base System, available at: <https://fortress.wa.gov/doh/eh/portal/odw/si/Intro.aspx>

Washington Department of Natural Resources (WDNR) Digital 1:100,000 Geologic Maps, available at: http://www.dnr.wa.gov/ResearchScience/Topics/GeosciencesData/Pages/gis_data.aspx

Attachment 1 -Map



Attachment 2 – Places of Use

POU A (Lower Alluvial Source):

The portion of Section 2, T. 19 N., R. 14 E.W.M and Section 35, T. 20 N., R. 14 E.W.M described as follows: Commencing at a point which is 925 feet East of the North ¼ of Section 2, the True Point of Beginning for this description; thence South 10°58'52" East 36 feet; thence South 2°46'12" West 873 feet; thence South 3°36'35" West 531 feet; thence South 88°33'45" East 330 Feet; thence South 0°43'51" East 1226 feet; thence South 88°50'46" East 86 feet; thence North 37°55'2" East 958 feet; thence South 70°20'16" East 766 Feet; thence North 0°20'15" West 1624 feet; thence North 64°56'17" West 1266 feet; thence North 46°41'30" West 252 feet; thence South 82°1'8" West 353 feet; thence South 10°16'8" East 77 feet to the True Point of Beginning.

POU B (Bedrock Source):

The Eastern 722 feet of the North ½ NW1/4, except 1.72 acres within Parcel ID 555434; that portion of the West 1/2 of the NE1/4 lying westerly of the following described line: Commencing at a point which is 925 feet East of the North ¼ of Section 2, thence South 10°58'52" East 36 feet; thence South 2°46'12" West 873 feet; thence South 3°36'35" West 531 feet; thence South 88°33'45" East 330 Feet; thence South 0°43'51" East 1226 feet and the termination of this line. Also, that portion of the South ½ of the SE1/4NE1/4 described as follows: Commencing at the SW1/4 corner of the SE1/4NE1/4, thence North 37°55'2" East 958 feet; thence South 70°20'16" East 766 Feet; thence South 0°1'39" West 533; thence North 88°28' West 1310 feet to point of beginning. All lying within Section 2, T. 19 N., R. 14 E.W.M. Also, that portion of the SE1/4NW/14 lying within Parcel ID 515434. Also, that portion of the West ½ of Section 1, T. 19 N., R. 14 E, described as follows: Commencing at a point North 1°32'22" East 1344 feet from the SW1/4 of Section 1; Thence North 1°7'17" East 1350 feet; thence South 89°54'21" East 590 Feet; thence South 0°19'59" East 1342 feet; thence South 89°23'50" West 625 feet to the point of beginning. Also, that portion of the SW1/4SE1/4 of Section 35, T. 20 N., R. 14 E.W.M. lying southerly of Westside Road and westerly of a line described as commencing at a point which is 925 feet East of the North ¼ of Section 2, thence North 10°16'8" West 77 feet and the termination of this line.

POU C (Upper Alluvial Source):

The South 1/2NW1/4; the East 463 Feet of the West 1710 Feet of the North ½ of the SW1/4 of Section 2, lying northerly of Fowler Creek Road and Fowler Creek; that portion of the SE1/4NE1/4 of Section 3, T. 19 N., R. 14 E.W.M, lying easterly of Fowler Creek Road and Fowler Creek all within T. 19 N., R. 14 E.W.M.

Excepting there from any portion lying within the southern portions of Parcel IDs 33318, 33319, 33321. Also, **excepting** there from any portion lying within the western edge of Parcel ID 12097.