



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

REPORT OF EXAMINATION
To Appropriate Public Waters of the State of Washington

APPLICATION DATE	APPLICATION NO.
June 5, 2009	G4-35246

NAME		
Misty Mountain LLC and Stuart Vista LLC		
ADDRESS/STREET	CITY/STATE	ZIP CODE
206 West First Street	Cle Elum, WA	98922-1108

PUBLIC WATERS TO BE APPROPRIATED

SOURCE		
Up to four wells		
TRIBUTARY OF (IF SURFACE WATERS)		
MAXIMUM CUBIC FEET PER SECOND	MAXIMUM GALLONS PER MINUTE	MAXIMUM ACRE- FEET PER YEAR
	40	4.4

QUANTITY, TYPE OF USE, PERIOD OF USE
40 gallons per minute, 2.2 acre-feet per year for year-round multiple domestic supply for up to 13 homes; and 2.2 acre-feet per year for the irrigation of 0.87 acres from May 1 through September 30.

LOCATION OF DIVERSION/WITHDRAWAL

APPROXIMATE LOCATION OF DIVERSION—WITHDRAWAL					
2,020 feet North and 1,450 feet East from the SW corner of Section 9, T. 19 N., R. 15 E.W.M. – Well ID ALN804. Up to three other well locations to be determined (within the NE ¹ / ₄ SW ¹ / ₄ and SE ¹ / ₄ NW ¹ / ₄ of Section 9).					
LOCATED WITHIN (SMALLEST LEGAL SUBDIVISION)	SECTION	TOWNSHIP	RANGE	WRIA	COUNTY
NE ¹ / ₄ SW ¹ / ₄ SE ¹ / ₄ NW ¹ / ₄	9	19 N.	15 E.W.M.	39	Kittitas
PARCEL NUMBER	LATITUDE	LONGITUDE	DATUM		

LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS TO BE USED

[Attachment 1 shows location of the authorized place of use and point(s) of diversion or withdrawal.]

Parcel 8 of that certain Survey as recorded September 30, 2004, in Book 30 of Surveys, page 147 through 149, under Auditor's File No. 200409300027, records of Kittitas County, Washington; being a portion of Lot 4-B, SP2003-02 TILLMAN CREEK LARGE LOT SUBDIVISION, in the County of Kittitas, State of Washington, as per plat thereof in Book 8 of Plats, page 233 and 234, records of said County.

Parcel 13 of that certain Survey as recorded September 30, 2004 in Book 30 of Surveys, pages 147 through 149, under Auditor's File No. 200409300027, records of Kittitas County, Washington; being a portion of Lots 4-A, 4-B and 4-C, SP2003-02 TILLMAN CREEK LARGE LOT SUBDIVISION, in the County of Kittitas, State of Washington, as per plat thereof in Book 8 of Plats, page 233 and 234, records of said County.

Parcel 19 of that certain Survey as recorded September 30, 2004, in Book 30 of Surveys, page 147, under Auditor's File No. 200409300027, records of Kittitas County, Washington; being a portion of Lots 4-A, 4-B and 4-D, SP-2003-02 TILLMAN CREEK LARGE LOT SUBDIVISION, in the County of Kittitas, State of Washington, as per plat thereof recorded in Book 8 of Plats, page 233 and 234, records of said County.

Parcel 21 of that certain Survey as recorded September 30, 2004, in Book 30 of Surveys, page 147, under Auditor's File No. 200409300027, records of Kittitas County, Washington; being a portion of Lots 4-A, 4-B and 3-D, SP-2003-02 TILLMAN CREEK LARGE LOT SUBDIVISION, in the County of Kittitas, State of Washington, as per plat thereof recorded in Book 8 of Plats, page 233 and 234, records of said County.

LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS TO BE USED

Continued:

A sixty foot (60') easement for ingress, egress and utilities over and under that existing road as delineated on that certain Survey as recorded September 30, 2004, in Book 30 of Surveys, Pages 147 through 149, under Auditor's File No. 200409300027, records of Kittitas County, Washington; being a portion of Sections 4 and 9, Township 19 North, Range 15 East, W.M., in the County of Kittitas, State of Washington; and a sixty foot (60') easement for ingress, egress and utilities over and under those certain easements as conveyed by instruments recorded November 15, 2004 under Auditor's File No. 200111150031, 200411150032, 200411150033, and recorded February 18, 2005 under Auditor's File No. 200502180022, all being in a portion of Section 4, Township 19 North, Range 15 East, W.M., in the County of Kittitas, State of Washington.

DESCRIPTION OF PROPOSED WORKS

One existing well (Ecology Well ID ALN804) was drilled in August 2007. Up to three additional wells will be completed in the same ground water source. Water from these wells will be used for domestic supply for a planned 13 unit residential development. The proposed domestic use will be regulated as a Group B, community public water system by the Washington State Department of Health. Domestic wastewater will be discharged to an onsite, engineered community drain field.

DEVELOPMENT SCHEDULE

BEGIN PROJECT BY THIS DATE	COMPLETE PROJECT BY THIS DATE	WATER PUT TO FULL USE BY THIS DATE
December 31, 2011	December 31, 2021	December 31, 2025

PROVISIONS

Wells

- The water supply wells shall be drilled and completed into the unconsolidated alluvial material which may include the fractured top of the underlying bedrock. Water supply wells shall not be dually completed into the alluvial and bedrock aquifers. Use of a combination of wells completed in both alluvium and bedrock is not authorized.
- 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.
- 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.
- Flowing wells shall be constructed and equipped with valves to ensure that the flow of water can be completely stopped when not in use. Likewise, the well shall be continuously maintained to prevent the waste of water through leaky casings, pipes, fittings, valves, or pumps -- either above or below land surface.
- 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.
- Required installation and maintenance of an access port as described in WAC 173-160- 291(3).
- 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 bi-annually (May and September), using a consistent methodology. Data for the previous year shall be submitted by January 31 to the Department of Ecology.

- 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.

Metering and Reporting

- An approved measuring device shall be installed and maintained for each of the sources authorized by this water right in accordance with the rule "Requirements for Measuring and Reporting Water Use", WAC 173-173.
- Water use data shall be recorded weekly and maintained by the property owner for a minimum of five years. The maximum monthly rate of diversion/withdrawal and the monthly total volume shall be submitted to the Department of Ecology by January 31st of each calendar year.

General

- 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 and associated distribution systems for compliance with water law.
- The water right holder shall file the notice of Proof of Appropriation of water (under which the permit 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. A 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.
- 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 the Department of Ecology 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.
- Use of water under this authorization shall 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.
- Water use under this authorization is contingent upon the conveyance of an equal (2.63 acre-feet per year) or greater amount of consumptive use from a suitable instream flow right (see trust water right agreement) to the Washington State Trust Water Right Program.
- Use of water under this authorization shall be contingent upon the Department of Ecology's written approval of and the permit holders compliance with a storage and release plan consistent with the offered mitigation, which addresses the anticipated impacts to Tillman Creek (July 1- March 31) and Yakima River (October 1 - March 31) associated with withdrawals under this authorization.
- If the aforementioned storage and release plan is not implemented consistent with the mitigation offered, all outdoor use shall no longer be authorized until such time that Ecology issues a letter stating that mitigation has been sufficiently reinstated.
- Per WAC 173-539A, consumptive use authorized under this permit is water budget neutral. Consumptive use quantities (total withdrawal minus return flow) shall be fully offset by debit of an equal consumptive use quantity of seasonal irrigation water rights placed into permanent trust in the Washington State Trust Water Right Program by Northland Resources LLC.
- Ecology is approving up to 13 connections as a maximum. The permittee recognizes that the Washington State Department of Health (DOH) may limit the connections to less than requested because the estimated indoor water use is not consistent with the DOH Water System Design Manual which recommends a minimum of 200 gpd for indoor use. If DOH requires greater than the 150 gpd per connection as proposed, the permittee may choose to reduce the number of connections and/or acres of irrigation to accommodate this greater minimum daily demand.

FINDINGS OF FACT AND ORDER

Upon reviewing the investigator’s report, I find all facts, relevant and material to the subject application, have been thoroughly investigated. Furthermore, I find the appropriation of water as recommended is physically and legally available, is a beneficial use, and will not impair existing rights, and is not detrimental to the public interest.

Therefore, I ORDER the approval of Application No. G4-35246 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
<p>Department of Ecology Attn: Appeals Processing Desk 300 Desmond Drive SE Lacey WA 98503</p> <p>Pollution Control Hearings Board 1111 Israel Road SW, Ste 301 Tumwater WA 98501</p>	<p>Department of Ecology Attn: Appeals Processing Desk PO Box 47608 Olympia WA 98504-7608</p> <p>Pollution Control Hearings Board PO Box 40903 Olympia WA 98504-0903</p>

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 _____ day of _____ 2010.

Mark Schuppe, Section Manager
Water Resources Program
Central Regional Office

INVESTIGATOR'S REPORT

BACKGROUND

Project Description

On June 5, 2009, Misty Mountain LLC, of Cle Elum, 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 application number G4-35246. The applicant requested authorization for an instantaneous withdrawal (Qi) of 250 gallons per minute (gpm) and an annual withdrawal volume (Qa) of 3.7 acre-feet per year (ac-ft/yr) for multiple domestic supply for a planned 12 unit residential development, referred to as Fircrest.

In a memorandum to Ecology dated October 19, 2009, the applicant requested the Qa be increased to 11 ac-ft/yr to supply 27 residential units. The purpose of the requested change to the application was to provide service to additional residential units at the planned Tillman Heights development, owned by Misty Mountain, LLC, and the planned Tillman 19 development, owed by Stuart Vista LLC. The size of the developments has since been reduced, with current plans calling for a total of 13 residential units at the properties owned by Misty Mountain LLC and Stuart Vista LLC.

The applicant intends to mitigate for consumptive use under the requested appropriation through creation of a water banking program, referred to as the Northland Water Exchange. The Northland Water Exchange will be established by transferring into the Washington State Trust Water Right Program (TWRP) water rights that divert water from the Yakima River or its tributaries and have a pre-1905 priority date (Trust Water Rights). The Trust Water Rights will be maintained in trust to mitigate for new out-of-priority water right permits, including the subject application. Specific terms of the Northland Water Exchange are described in Attachment 2 – Trust Water Right Agreement between Northland Resources, LLC, and the State of Washington, Department of Ecology.

Table 1
Summary of Application No. G4-35246

<i>Attributes</i>	<i>Proposed (as published in the Public Notice)</i>
Applicant	Misty Mountain LLC
Date of Application	June 5, 2009
Instantaneous Quantity	250 gpm
Annual Quantity	11 ac-ft/yr
Source	One or more wells
Point of Withdrawal	SE ¹ / ₄ NW ¹ / ₄ and NE ¹ / ₄ SW ¹ / ₄ of Section 9, T. 19 N., R. 15 E.W.M.
Purpose of Use	Multiple domestic
Period of Use	Year-round
Place of Use	As described on page 1 of this Report of Examination

Legal Requirements for Application Processing

The following requirements must be met prior to processing a water right application:

- **Public Notice**

Notice of the application was published in the *Daily Record* of Ellensburg, Washington, on October 24 and 31, 2009. No comments or protests were received by Ecology during the 30-day comment period.

- **State Environmental Policy Act (SEPA)**

On June 8, 2006, Kittitas County (SEPA lead agency) issued a Mitigated Determination of Non-Significance (MDNS) for the Tillman Heights (P-06-16) Performance Based Cluster Plat. On May 30, 2008, Kittitas County issued a MDNS for the Fircrest (P-07-27) Performance Based Cluster Plat. These decisions were made after review of completed environmental checklists and other information on file with the lead agency. Kittitas County determined certain mitigation measures or conditions were necessary in order issue Determinations of Non-Significance. Conditions relevant to this water right application include providing water service through a public water system approved by Department of Health and compliance with Ecology rules and regulation for groundwater withdrawals. These conditions were considered and incorporated into this report.

- **Water Resources Statutes and Case Law**

Chapters and 90.44 RCW, specifically 90.44.060 authorizes the appropriation of public groundwater for beneficial use, and chapter 90.03 describes the process for obtaining water rights. RCW 90.42.100(2)(c) authorizes Ecology to issue new water rights using the Trust Water Right Program for water banking purposes. In addition, this application qualifies for expedited processing under WAC 173-539A-060(2).

INVESTIGATION

Site Visit

A site visit was performed by Kurt Walker from the Department of Ecology on July 22, 2010, and was attended by Sean Northrop of Northland Resources Inc.

Domestic Water Use

The proposed Fircrest development does not currently have a Group B water system plan. However, the applicant has presented water demand estimates by month (see Table 2). Average daily demand (ADD) for indoor water use purposes is estimated at 150 gallons per day (gpd) per equivalent residential unit (ERU). Outdoor water use is expected to primarily consist of lawn and garden irrigation, and is estimated using methods and assumptions found in Ecology's GUID 1210, *Determining Irrigation Efficiency and Consumptive Use*¹, and WAC 173-539A.

The 2009, *Water System Design Manual*² (WSDM) by the Washington State Department of Health (DOH) contains guidance for establishing water demands. The suggested methods (in order of preference) include:

1. Metered water-production and use records.
2. Comparable metered water-production and use data from analogous water systems.
See WAC 246-290-2321(3)(a) and Section 5.2.3
3. The criteria presented in this chapter.

Analogous water systems are defined in Section 5.2.3 of the WSDM as systems with similar characteristics such as: demographics, housing size, income levels, lot sizes, climate, water pricing structure, conservation practices, use restrictions, soils and landscaping, and maintenance practices.

There is no water use for the proposed development to review, and records for qualifying analogous systems are not available. Currently, the proposed water demand estimates for indoor use are not consistent with the WSDM. As a result, Ecology's connection approval (13 units) is an upper limit and is contingent upon DOH's approval of a Group B water system which remains within the other limitations of this permit (i.e. Qi, Qa, irrigated acres, etc.). DOH has full discretion and authority to limit the number of connections to less than the proposed 13 units.

¹ Ecology's GUID 1210, *Determining Irrigation Efficiency and Consumptive Use*
<http://www.ecy.wa.gov/programs/wr/rules/images/pdf/guid1210.pdf>

² Department of Health's *Water System Design Manual* <http://www.doh.wa.gov/ehp/dw/Publications/331-123.pdf>

Table 2
Domestic Water Use

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Indoor (gpd per ERU)	150	150	150	150	150	150	150	150	150	150	150	150
Outdoor (gpd per ERU)	0	0	0	0	70	380	540	480	320	0	0	0
Total (gpd per ERU)	150	150	150	150	220	530	690	630	470	150	150	150

Monthly and annual total and consumptive use at full build-out of the project were calculated based on the planned 13 ERUs, the indoor and outdoor water use per ERU in Table 3, and the consumptive use factors specified in the *Upper Kittitas Emergency Groundwater Rule* (WAC 173-539A). Under WAC 173-539A, 30 percent of domestic indoor use discharged to a septic system is assumed to be consumptively used and 90 percent of outdoor domestic use is assumed to be consumptively used. Calculated total and consumptive use are summarized in Table 3.

Table 3
Estimated Total and Consumptive Use at Full Build-Out

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Total (acre-feet)	0.19	0.17	0.19	0.18	0.27	0.63	0.85	0.78	0.56	0.19	0.18	0.19	4.4
Consumptive (acre-feet)	0.06	0.05	0.06	0.05	0.13	0.46	0.66	0.59	0.40	0.06	0.05	0.06	2.6

The applicant proposes to use 150 gpd per ERU as the basis for the developments irrigation. Ecology's Guidance Document 1210, *Determining Irrigation Efficiency and Consumptive Use*, was used in part to calculate the area that could be irrigated using 150 gpd per ERU. An average outdoor use of 150 gpd per ERU year-round is equal to about 0.17 ac-ft/yr per ERU per year. A crop irrigation requirement for grass in the Cle Elum area of 24 inches was estimated using the ASCE-Penman Monteith method. Assuming the outdoor use is 90 percent consumptive, consistent with the assumptions in WAC 173-539A, and applying the ASCE-Penman Monteith CIR, the proposed outdoor use is sufficient to irrigate approximately 2,900 square feet of grass per ERU or 0.87 acres for the entire Fircrest Development.

Hydrologic/Hydrogeologic Evaluation

The project site is located on the north flank of South Cle Elum Ridge. A drainage that forms the eastern branch of Tillman Creek, a tributary to the Yakima River, runs through the property. Surficial geology at the property is mapped as landslide deposits (Tabor, et al., 1982), described as poorly sorted mud to boulder-size materials. The landslide deposits likely overlie unconsolidated alluvial fan deposits, described as poorly sorted boulder gravel to gravelly sand. These unconsolidated deposits overlie bedrock consisting of Darrington phyllite; sandstone, shale, and conglomerate of the Manastash Formation; or Columbia River Basalt flows.

Flow gauging data are not available for Tillman Creek. The expected seasonal variability in flows was evaluated based on gauging data from Big Creek, which also drains South Cle Elum Ridge about 7 miles west of Tillman Creek. Gauging data from Big Creek collected by Ecology (gauging station number 39Q060) between February 2005 and February 2009 show a typical snowmelt runoff hydrograph, with a spring freshet beginning in late March or early April. Peak flows occur in late April and May, and then gradually decline from June through the end of summer. Although a smaller drainage area, the occurrence of the spring freshet at Tillman Creek is expected to mirror that observed in Big Creek.

Groundwater at the site is likely recharged primarily by precipitation and snowmelt infiltrating from the higher elevation South Cle Elum Ridge, and infiltration of precipitation and snowmelt falling directly on the site. Groundwater is expected to flow downslope to the north, ultimately discharging to surface water of Tillman Creek and, in turn, the Yakima River.

The applicant has three existing wells within the place of use; however, only one well (Ecology Well ID ALN804) is located within the area included in the public notice for points of withdrawal, and is the only existing well currently proposed to serve the project. The first well (ID APG987), located in the SE¹/₄SW¹/₄ of Section 9, was completed in July 2007 to a depth of 480 feet below ground surface (bgs). The driller's log describes clay with gravel, cobbles, and boulders to a depth of 247 feet bgs overlying phyllite to the total depth of 480 feet bgs. Casing was installed to a depth of 285 feet bgs. The static water level was reported as a depth of 254 feet. An air lift test was performed after well completion, with an estimated yield of approximately 2 to 3 gpm.

The second well (Well ID ALN804), located in the NE $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 9, was completed in August 2007 to a depth of 160 feet bgs. The driller's log describes clay with gravel and boulders and sandy clay to a depth of 31 feet bgs, broken basalt from a 31 to 46 feet bgs, and broken phyllite from 46 feet to the total depth of 160 feet bgs. Casing was installed to a depth of 114 feet bgs, and perforated between depths of 35 and 45 feet bgs. The static water level was reported as a depth of 32 feet. An air lift test was performed after well completion, with an estimated yield of approximately 20 gpm. On August 4, 2010, Ecology requested that the driller of ALN804 (Fogle Pump & Supply) seal the open hole portion of the well past the bottom of the casing to ensure that the well was not dually completed. The work is expected to be completed before or shortly after this report is written.

The third well (Well ID APG967), located in the SE $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 9, was completed in November 2007 to a depth of 385 feet bgs. The driller's log describes clay with gravel and cobbles to a depth of 97 feet bgs, overlying phyllite to the total depth of 385 feet bgs. Casing was installed to a depth of 302 feet bgs. The static water level was reported as a depth of 83 feet. An air lift test was performed after well completion, with an estimated yield of approximately 1 to 1.5 gpm.

The wells completed into phyllite produce relatively low yields (about 1 to 3 gpm). The higher yield from well ALN804 is likely due to this well being completed partially into shallow, fractured basalt. It is assumed that most of the yield from this well is derived from the overlying alluvial material and fractured basalt, rather than the phyllite. Given that the first water bearing zone encountered in well ALN804 fractured basalt immediately underlying unconsolidated deposits, it is likely hydraulically related to the Yakima River.

The Ecology well log database was searched for nearby driller's logs to provide additional information on local hydrogeologic conditions. Seven wells were mapped in quarter-quarter sections adjacent to the property, with depths of completion ranging from 150 to 330 feet bgs. The logs for all but one well (Well ID APG209) indicate completion in what is interpreted to be either Darrington phyllite or the Manastash Formation, with depth to bedrock ranging from a few feet up to about 140 feet. The unconsolidated deposits are typically described as clay with gravel, cobbles, and boulders. The log for well APG209, located in the SE $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 9, describes 298 feet of clay and clay with gravel and boulders overlying sand, which may represent a thick sequence of landslide deposits. Depth to water and yield were reported as 210 feet bgs and 6 gpm, respectively.

Based on the available information, water bearing zones expected to be in hydraulic continuity with surface water are likely limited to unconsolidated alluvial/landslide deposits and the underlying fractured basalt. Most wells in the area are completed in deeper bedrock, and the extent of shallower water bearing zones appears limited. New wells constructed under this authorization shall tap the unconsolidated deposits which may include the fractured top of the basalt bedrock if present.

Planned Mitigation

Northland, Inc. has offered mitigation by the use of the Northland Water Exchange and a conceptual plan for storing and releasing water on-site and off-site to address local impacts to Tillman Creek and the Yakima River.

The Northland Water Exchange has been created by the transfer of pre-1905 water rights to instream flow and water banking purposes through the TWRP. As a result of these transfers, the Exchange represents mitigation credits based on the consumptive use of these water rights on a month-by-month basis. The mitigation credits will be debited to mitigate for consumptive use under the subject application. The Exchange currently has mitigation credits represented by the following approved applications:

- **CS4-02223CTCLsb2@1 (Pasco)**. This application, approved by Ecology on April 19, 2010, permanently changes an unperfected change authorization for year-round domestic supply, seasonal irrigation, and stock watering, to instream flow for water banking purposes. The historic authorized point of diversion is an unnamed spring, tributary to Spex Arth Creek and the Yakima River. Consumptive use recognized under this Trust Water Right is 55 ac-ft/yr.
- **CS4-01676(B)CTCL@1 (Newton)**. This application, approved by Ecology on May 14, 2010, permanently changes the use from seasonal irrigation and stock watering to instream flow for water banking purposes. The historic authorized point of diversion is the Younger Ditch diversion from the Yakima River. Consumptive use recognized under this Trust Water Right is 73.7 ac-ft/yr.
- **CS4-00365CTCLsb5 (Henshaw)**. This application, approved by Ecology on May 24, 2010, permanently changes the use of a portion of Acquavella Adjudicated Court Claim No. 00365 from seasonal irrigation to instream flow for water banking purposes. The historic authorized point of diversion is the Younger Ditch diversion from the Yakima River. Consumptive use recognized under this Trust Water Right is 89 ac-ft/yr.

The current mitigation credits represented by the transfer and change of the above three water rights are as follows by estimated total monthly consumptive use:

Table 4
Available Consumptive Use Mitigation Credits

Water Right	Apr	May	Jun	Jul	Aug	Sep	Annual
Pasco	0.09	4.18	11.5	15.9	14.0	9.22	55
Newton	0	15.7	26.6	31.4	0	0	73.7
Henshaw	0	1.4	17.3	28.6	25.2	16.5	89
Total	0.09	21.28	55.4	75.9	39.2	25.72	217.7

Notes: Pasco water right includes approximately 0.01 ac-ft per month consumptive use mitigation credits from October through March.

Consumptive use mitigation credits under the Newton water right will be used prior to July 29 each year.

The total year round consumptive use associated with the proposed use is 2.63 ac-ft/yr. Table 3 presents the estimated monthly consumptive use for the project. The consumptive use impacts to surface water flows in the Yakima River Basin associated with this application will be mitigated on a month-to-month basis by a combination of assigning consumptive use mitigation from the Northland Water Exchange and providing scheduled releases from storage to address new out-of-season impacts. Specific terms of the Northland Water Exchange, including requirements to provide sufficient storage for release of mitigation water outside the historical irrigation season, are described in Attachment 2.

In addition to use of the Northland Water Exchange, Northland, Inc. has offered mitigation to address the local impacts to Tillman Creek. The following excerpt is taken from a brief report submitted by Aspect on behalf of Northland Inc.

The total year round consumptive use associated with the proposed use is 2.63 ac-ft/yr. Table 3 presents the estimated monthly consumptive use for the project. During the spring freshet (April, May, and June) no mitigation of the combined 0.64 consumptive impacts to surface water flows in Tillman Creek will be performed, as these impacts are not expected to adversely affect aquatic resources. However, the combined 0.64 acre-feet of consumptive use impacts to surface water flows in the Yakima River Basin over this period will be mitigated by assigning consumptive use mitigation from the Northland Water Exchange that will insure the project is water budget neutral with no impact to TWSA. Specific terms of the Northland Water Exchange are described in Attachment 2.

In May and June of each year [a total of] 1.99 acre-feet of water, equal to the July through March consumptive use of the project, will be withdrawn and stored in an on-site pond. From July through March, water will be released from the pond to Tillman Creek at rates equal to the monthly consumptive use listed in Table 3, fully mitigating impacts to surface water flows in Tillman Creek and the Yakima River. As a result of the storage and release mitigation plan, a total of 2.63 acre-feet of mitigation credits will be debited from the Northland Water Exchange between April and June to account for project demand during these months (0.64 acre-feet) and storage for mitigation releases (1.99 acre-feet). Because the July through March project use will be mitigated by the water stored in May and June, no additional debit to the Northland Water Exchange will be needed over this period.

The applicant is aware that separate diversionary permits, reservoir permits, and secondary use permits are necessary components of mitigation offered to address impacts to the Yakima River and Tillman Creek. No uses may commence until such time that Ecology determines in writing that Northland has a storage and release plan which adequately addresses both the impacts to Tillman Creek and the Yakima River.

Impairment Considerations

Groundwater Rights

Ecology's water rights and well log databases were searched to identify nearby groundwater rights or water right permit-exempt wells that could be affected by the proposed groundwater appropriation. Two groundwater certificates (G4-27877CWRIS and G4-01251CWRIS) were identified within one mile of the project. These certificates authorize a combined use of 25 ac-ft/yr for multiple domestic use with points of withdrawal in the SW¹/₄SW¹/₄ of Section 4, Township 19 North, Range 15 E.W.M. The locations of nearby water right permit-exempt wells are discussed above in the Hydrologic/Hydrogeologic Evaluation section. Most wells in the area are completed relatively deep in bedrock, and would be likely not be affected by pumping a well completed in unconsolidated deposits. The closest well completed in unconsolidated deposits is well APG209, located in a parcel adjacent to the north side of the project. Potential effects of the proposed groundwater withdrawal on this well were used to evaluate the potential for groundwater impairment.

The preferred target aquifer for water supply is the unconsolidated landslide/alluvial deposits. The potential effect of pumping a well completed in the unconsolidated deposits on water levels at other nearby wells was evaluated using the Theis nonequilibrium equation and the following parameters. A transmissivity of 50 feet squared per day was estimated based on an assumed 10 foot thickness of the water bearing zone (either fractured bedrock or coarse-grained unconsolidated deposits) and an assumed hydraulic conductivity of 5 feet per day for these materials. A storativity of 0.2 was assumed. A worst case scenario was evaluated assuming pumping of a single well at an instantaneous pumping rate of 40 gpm for 20 days, until the annual quantity of 4.4 acre-feet is exhausted. The exact location of well APG209 relative to potential well locations at the project is not known, so a distance of 250 feet was assumed. Applying the above values, the estimated drawdown at 250 feet from the pumping well after 25 days is 0.4 feet.

Surface Water Rights

No surface water rights were identified as diverting from Tillman Creek down gradient of the Fircrest project well locations (NE $\frac{1}{4}$ SW $\frac{1}{4}$ and SE $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 9). Consumptive use impacts to the mainstem Yakima River associated with the project will be mitigated through use of credits available from transfer of pre-1905 water rights to the TWRP and scheduled surface water releases.

Water Availability

Water availability includes legal availability (e.g., closure of basins to further appropriation) and physical availability (e.g., productivity of the aquifer). Under WAC 173-539A all groundwater in upper Kittitas County, including the project site, was withdrawn from further appropriation, except where the new appropriation is water budget neutral. The rule defines water budget neutral as "...an appropriation or project where withdrawals of ground water of the state are proposed in exchange for discharge of water from other water rights that are placed into the trust water right program where such discharge is at least equivalent to the amount of consumptive use". The appropriation proposed under the subject application will be water budget neutral by dedicating 2.63 ac-ft/yr of consumptive use available from the Northland Water Exchange to mitigation purposes. Month by month mitigation is offered to account for the project's indoor and outdoor uses both during and after the irrigation season (April 1 – September 30). Out-of-irrigation season (October 31 – March 31) uses will be mitigated through an acceptable storage and release program to address out-of-season impacts.

Well ALN804 was estimated to produce 20 gpm at the time of drilling. An off-site well (APG209) completed into unconsolidated alluvial deposits was estimated to produce 6 gpm at the time of drilling. It is expected that a total of four wells completed into the unconsolidated deposits could produce the requested Q_i of 40 gpm.

Public Interest Considerations

When investigating a water right application, Ecology is required to consider whether the change is detrimental to the public interests. Ecology must consider how the change 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 Protests and Comments

No protests or comments were received during the 30-day comment period following publication of the public notice.

CONCLUSIONS

- Water is physically available at quantities sufficient to meet project demand, although multiple wells may be required to achieve the necessary Q_i . When combined with the proposed mitigation measures, water is legally available under the provisions of WAC 173-539A.
- According to RCW 90.54.020 multiple domestic use is considered a beneficial use.
- 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 Application No. G4-35246 be authorized in the amounts and within the limitations listed below and subject to the provisions beginning on Page 2.

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.

- 40 gallons per minute
- 2.2 acre-feet per year-round multiple domestic supply of 13 units
- 2.2 acre-feet per year for irrigation of 0.87 acres from May 1 through September 30

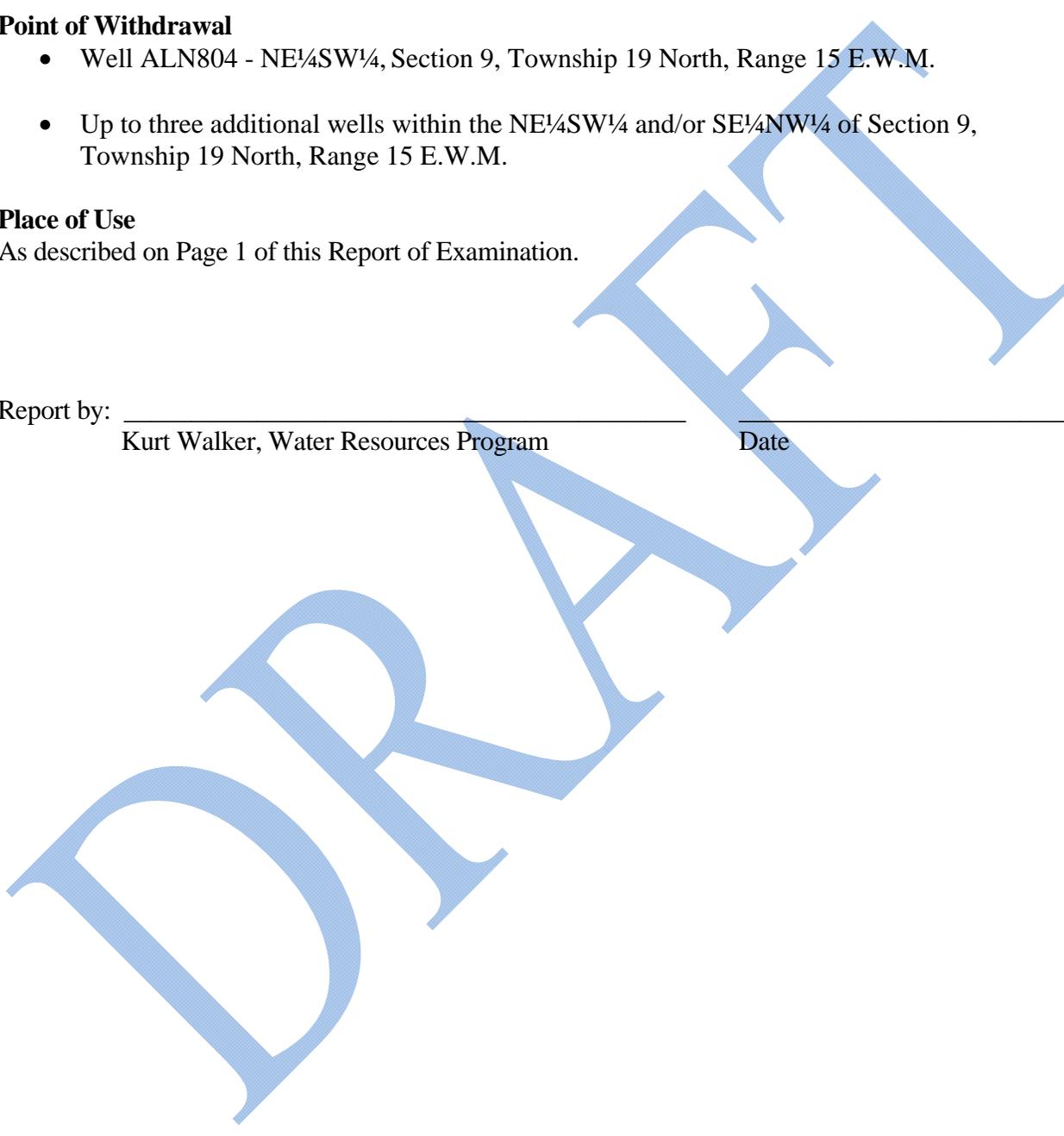
Point of Withdrawal

- Well ALN804 - NE¹/₄SW¹/₄, Section 9, Township 19 North, Range 15 E.W.M.
- Up to three additional wells within the NE¹/₄SW¹/₄ and/or SE¹/₄NW¹/₄ of Section 9, Township 19 North, Range 15 E.W.M.

Place of Use

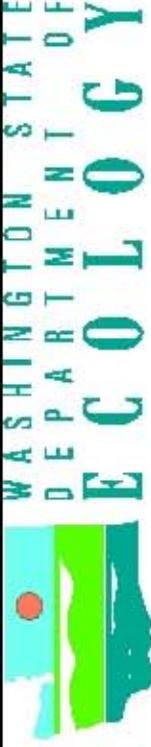
As described on Page 1 of this Report of Examination.

Report by: _____ Date _____
 Kurt Walker, Water Resources Program



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.

Attachment 1

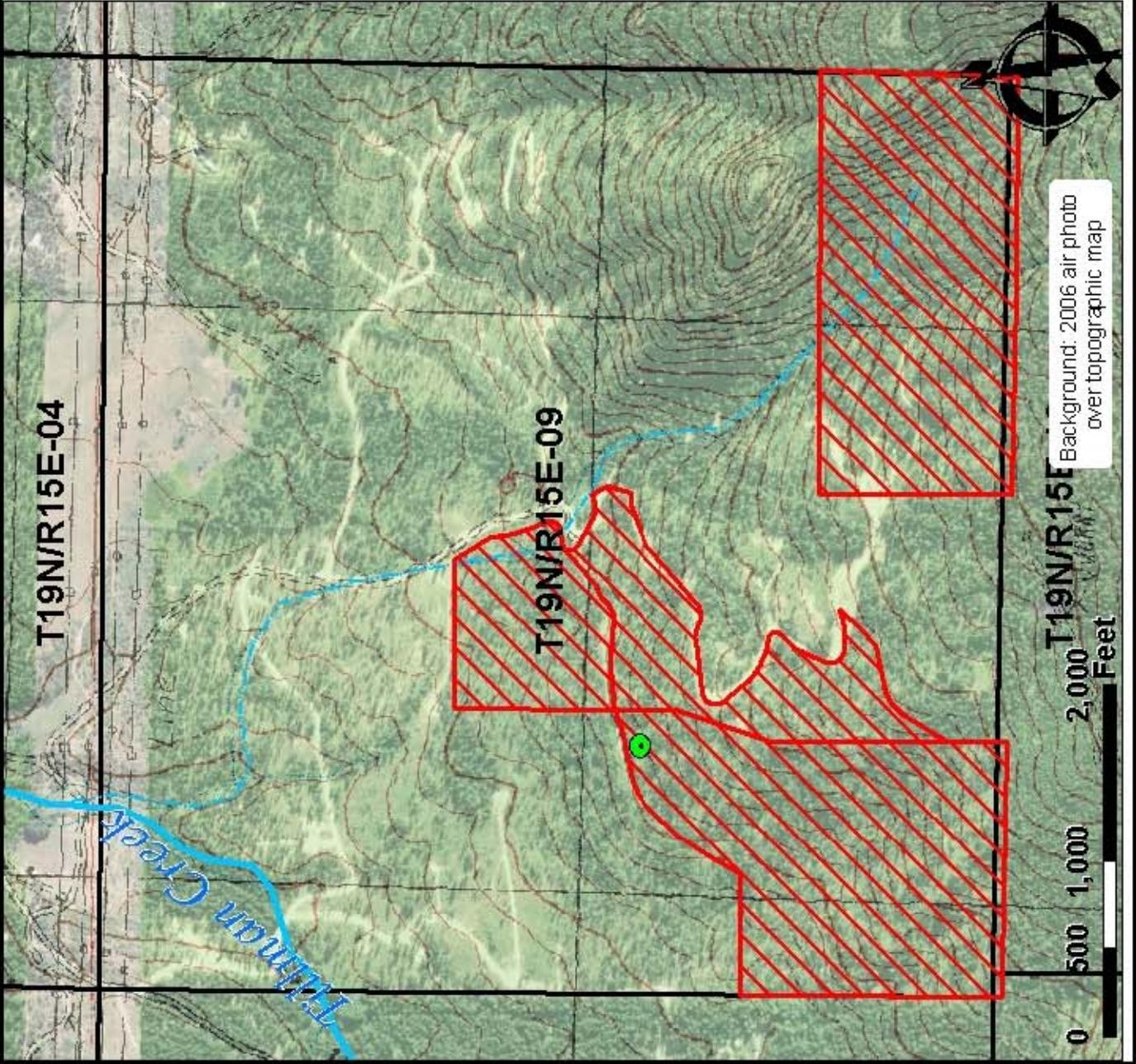


Misty Mountain LLC
aka Fircrest G4-35246



Legend

- Existing Well
- Sections
- Place of Use
- City
- Major Roads
- Surface Waters



Attachment 2

Trust Water Right Agreement
First Amendment to Trust Water Right Agreement
Second Amendment to Trust Water Right Agreement

TRUST WATER RIGHT AGREEMENT

This Trust Water Agreement (“Agreement”) is entered into by and between the State of Washington, Department of Ecology (“Ecology”) and Northland Resources, LLC a Washington limited liability company doing business as Sapphire Skies (“Sapphire Skies”), each of which are also referred to individually as a “Party” and collectively as “Parties”, pursuant to Chapters 90.38 and 90.42 RCW.

RECITALS

A. Sapphire Skies manages several LLCs, which collectively are referred to as “Sapphire Skies” for the purposes of this Agreement. Sapphire Skies desires to create the “Sapphire Skies Water Exchange” (“the Exchange”) by utilizing the State Trust Water Right Program (“TWRP”) to change existing water rights that divert water from the Yakima River and its tributaries and have a priority date prior to 1905 to instream flow and water banking. The Exchange will be defined as a bank of “Mitigation Credits” that will be determined by Ecology based on the consumptive quantities in acre feet of the water rights changed through the TWRP.

B. Sapphire Skies has filed applications to change existing water rights to instream flow and water banking for the Exchange, and may apply to change additional water rights in the future to be placed into the Exchange. These applications and approvals are listed and described in Attachment A, which list may from time to time be amended with the consent of both Parties if and when additional applications are filed and approvals granted.

C. The Exchange shall be available to offset impacts to senior water rights and to comply with the rules and regulations of Ecology, including the protection of Total Water Supply Available (“TWSA”) under chapter 173-539A WAC for out-of-priority water right permits and for requests for water budget neutral permit exempt ground water rights for domestic projects (“Water Rights”).

D. Sapphire Skies has filed applications and requests with Ecology for Water Rights, which are listed and described in Attachment B, that may from time to time be amended with the consent of both Parties if and when additional applications are filed and any approvals granted.

E. Sapphire Skies desires to have the water rights that are approved by Ecology for change for instream flows and water banking purposes and placed into the Exchange (“Instream Flow Rights”) to become effective as State Trust Water Rights and owned by the State at such time and for such quantity that water applied to actual beneficial use under the Water Rights. It is intended that a process be implemented for the Instream Flow Rights to become effective as State Trust Water Rights. In this process, Sapphire Skies will on a semi-annual basis notify Ecology in writing as to the quantity of water that will be applied to actual beneficial use under the Water Rights within six to twelve months of providing the notification, and with such notification include the necessary documentation conveying the said Instream Flow Right, or portion thereof, to the State. Until the Instream Flow Rights or portion thereof become effective as a Trust Water Right, Sapphire Skies shall own and control the Instream Flow Rights and will

have the ability to assign and lease the Mitigation Credits as well as withdraw the Instream Flow Rights from the Exchange.

F. Sapphire Skies and Ecology desire to memorialize the Exchange and provide for management and placement of the Mitigation Credits in the Exchange as necessary to mitigate for the Water Rights, and to provide Ecology the authority to assign some or all of the total quantity of the Mitigation Credits to the Water Rights.

AGREEMENT

In consideration of the mutual covenants set forth herein, the Parties agree as follows:

A. Conveyance

1. Applications have been filed to change the following water rights, that are more fully described in Attachment A, to instream flow and water banking through the TWRP for the Exchange, subject to the terms of this Agreement. At such time that these water right applications are approved but prior to the rights becoming effective as State Trust Water Rights, they will be used for instream flow purposes and referred to as Instream Flow Rights:

a. Meadow Springs, LLC, the Pasco water right, *Acquavella* Court Claim No. 02223; Water Right Claim No. 118160, as changed, Application No. CS4-02223CTCL (KITT-05-05).

b. Green Canyon LLC, the Newton water right, *Acquavella* Court Claim No. 02222, Water right Claim No. 01676. *See specific allocation and availability of the Newton water as Exhibit 3 to Attachment A.*

c. Green Canyon LLC, the Henshaw water right, *Acquavella* Court Claim No. 00365.

The Newton water right is under contract for purchase by Green Canyon LLC, and Newton has also signed the application. The Henshaw water right is under contract for purchase by Green Canyon LLC, and Henshaw has also signed the application.

2. Conditions of Conveyance

a. Ecology has determined the Mitigation Credits represented by consumptive use of the Instream Flow Rights for the Exchange as listed in paragraph A.1 above. Ecology will determine the Mitigation Credits represented by consumptive use of additional water rights, other than those in A.1. above, that may be approved by Ecology for instream flow purposes, which shall be listed and described in Attachment A as revised.

b. Sapphire Skies shall select in priority those Water Rights that will seek Mitigation Credits from the Sapphire Skies Water Exchange.

c. The Instream Flow Rights identified in paragraph A.1 above, and listed in Attachment A are intended to provide Mitigation Credits for both in-time mitigation during the "summer" mitigation period, a/k/a irrigation season, and a "winter" mitigation period as provided in paragraph B.3 below. At such time that Ecology approves an application for a Water Right, it shall quantify the necessary mitigation and Mitigation Credits, considering the consumptive impacts of each approved Water Right, and taking into consideration the consumptive use of the septic water systems and municipal treatment systems which are at a minimum those as set forth in chapter 173-539A WAC.

d. The Instream Flow Rights will not be effective as State Trust Water Rights and owned by the State until such time and only in such quantities that serve as Mitigation Credits for actual use of water by a project authorized under the Water Right approved for said project.

e. To implement the term 2(d) above, on or before July 31st and December 31st of each year, Sapphire Skies shall notify Ecology in writing of the quantities of water to be applied to actual beneficial use under specific Water Rights within the following six to 12 months. The notification shall designate the Instream Flow Right to be used for the mitigation, and include a statement of conveyance or deed of the Instream Flow Right, or portion thereof, to the State for the quantity of water that will be applied to actual use within the stated period of time. Ecology will issue a Trust Water Right for the quantity of water that is provided in the notices.

f. Until the Instream Flow Rights or portion thereof, are conveyed by the notice requirement in term 2.e. above, Sapphire Skies shall retain ownership and control of the Instream Flow Rights including: (1) the right to request that Ecology withdraw the approval of the Instream Flow Right and the water, less any portion already conveyed under term 2.e. above, to allow the water right to be used for the original use under the water right, or for other purposes as may be approved by Ecology, and (2) the right to assign the Mitigation Credits that Ecology approves as available in the Exchange for other purposes.

g. The commencement of construction of residences under a Water Right shall not be authorized, and Sapphire Skies shall not initiate commencement of construction of residences under a Water Right until such time that the Mitigation Credits under the Instream Flow Rights are available in the Exchange as mitigation for the full Water Right authorized for the project.

h. If an authorized quantity in a Water Right is not fully applied to actual use for any reason at the time of completion of the project, the remaining available Mitigation Credits under the Instream Flow Rights committed to the

Water Right under term 2.g above shall be available for assignment and lease for other uses to be proposed by Sapphire Skies, as provided in paragraph A.2.d above subject to Ecology approval as may be required under law.

i. In regard to New Water Right application for the City Heights Project application number G4-35273, Ecology recognizes that this application or any permit issued from said application may be assigned in whole or in phases to the City of Cle Elum, should the City approve the City Heights project under the City's jurisdiction. The assignment to the City of Cle Elum will be based on a water supply agreement Sapphire Skies will execute for water delivery from the City's water system. Sapphire Skies may assign incremental portions of the City Heights water right to the City for the development phases.

j. Until the Instream Flow Rights are effective as Trust Water Rights as provided in paragraphs 2.d and 2.e above, the Instream Flow Rights shall remain in the Exchange for instream and water banking purpose, except as provided in paragraphs 2.f. and 2.h.

k. Nothing in this Agreement forecloses Sapphire Skies from either assigning and transferring Mitigation Credits to other parties as mitigation for new water rights, or requesting Ecology to assign and commit Mitigation Credits to "exempt permit" ground water uses, including water budget neutral projects under chapter 173-539A WAC.

l. The Exchange shall be maintained and available for the transfer through the TWRP of additional water rights not otherwise referenced herein. Sapphire Skies, in its sole discretion and as it determines necessary for mitigation of any other new water rights, may apply for a change of purpose of use through the application process followed for the Pasco, Henshaw, and Newton Trust Water Rights as provided herein.

B. Storage

1. Sapphire Skies shall provide necessary mitigation for Water Rights year round including, as necessary, storing water during the irrigation season or other acceptable means that shall be mitigated with the Mitigation Credits.

2. Ecology shall determine the winter mitigation and potential storage quantity for each Water Right at such time the Water Right is approved. Ecology shall provide a reasonable diligence schedule in each Water Right to obtain approvals and construct necessary storage prior to actual use of water under the Water Right.

3. Storage shall be released as necessary during the "winter" mitigation period for mitigation of the consumptive use of the Water Rights in the winter (winter is defined as October 1 to April 1). Storage shall also be available

for release in August and September if necessary when the U.S. Bureau of Reclamation is releasing water (“post reservoir control”) and Mitigation Credits are not available.

C. Acceptance

1. Upon approval of the applications to change the water rights identified in paragraph A.1 and Attachment A, the Instream Flow Rights and corresponding Mitigation Credits will be accepted by Ecology for the creation of the Sapphire Skies Water Exchange, and Ecology agrees to administer that portion of the Mitigation Credits necessary for approved Water Rights subject to the terms of this Agreement.

2. As provided in paragraph A.2.a above, Ecology shall determine the Mitigation Credits available under each Instream Flow Right that is now and in the future conveyed to the Exchange. Ecology has now determined the Mitigation Credits provided by the Pasco, Newton, and Henshaw Trust Water Rights. *See Attachment A.*

D. Amendments

The parties may amend this agreement upon written agreement signed by the parties.

E. Notice Provisions

All notices required pursuant to this Agreement shall be sent or hand delivered to the following, with evidence of delivery provided:

To Sapphire Skies:

Sapphire Skies
Attn: David Blanchard
206 W. 1st St.
Cle Elum, WA 98922

With a copy to:

Tom McDonald
Cascadia Law Group PLLC
606 Columbia Street NW, Suite 212
Olympia, WA 98501

To Ecology:

Department of Ecology
Attn: Mark C. Schuppe
15 W. Yakima Ave., Suite 200
Yakima, WA 98902-3452

DATED this 13 day of May, 2010.

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

SAPPHIRE SKIES RESOURCES

By: Mark C. Schuyler

By:

By: _____

DATED this 13 day of MAY, 2010.

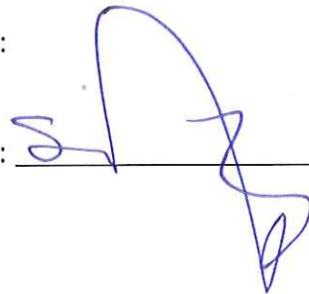
STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

By: _____

SAPPHIRE SKIES

By:

By: _____

A handwritten signature in blue ink is written over a horizontal line. The signature is stylized and appears to consist of several loops and curves, possibly representing the initials 'S.S.' or a similar monogram.

ATTACHMENT A

[List of applications to change existing water rights to Instream Flow Rights]

Meadow Springs, LLC, the Pasco water right, *Acquavella* Court Claim No. 02223; Water Right Claim No. 118160, as changed, Application No. CS4-02223CTCL (KITT-05-05).

See attached Exhibit 1, Report of Examination dated April 19, 2010.

Green Canyon, LLC, the Henshaw water right, *Acquavella* Court Claim No. 00365.

See attached Exhibit 2, undated draft Report of Examination.

Green Canyon, LLC, the Newton water right, *Acquavella* Court Claim No. 02222, Water Right Claim No. 01676.

See attached Exhibit 3, Report of Examination dated May 14, 2016 and specific allocation and availability of the Newton water right in attached Newton Trust Water Right Conditions.

ATTACHMENT A – EXHIBIT 1

**MEADOW SPRINGS, LLC (PASCO WATER RIGHT)
REPORT OF EXAMINATION DATED APRIL 19, 2010**



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

**TRUST WATER RIGHT
REPORT OF EXAMINATION**

Change of Purpose of Use to Instream Flow and Water Banking
WRTS File No.: CS4-02223CTCLsb2@1

PRIORITY DATE	CLAIM NO.	PERMIT NO.	CERTIFICATE NO.
July 31, 1903	CS4-02223CTCL	N/A	N/A

NAME OF PARTY CONVEYING RIGHT TO TRUST WATER RIGHTS PROGRAM		
Meadow Springs, L.L.C.		
ADDRESS/STREET	CITY/STATE	ZIP CODE
206 West First Street	Cle Elum, WA	98922

TRUST WATER RIGHT ATTRIBUTES

SOURCE		
Unnamed Spring ¹		
TRIBUTARY OF (IF SURFACE WATERS)		
Spex Arth Creek and the Yakima River		
MAXIMUM CUBIC FEET PER SECOND	MAXIMUM GALLONS PER MINUTE	MAXIMUM ACRE FEET PER YEAR
1.01		101

QUANTITY, TYPE OF USE, PERIOD OF USE

0.99 cubic feet per second, 99 acre feet per year for the purpose of instream flow and water banking from April 15 through September 30.

0.02 cubic feet per second, 2 acre-feet per year for the purpose of instream flow and water banking year round.

Instream Flow in Secondary Reach

	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Avg. Qi (cfs)	0.0*	0.0*	0.0*	0.0*	0.07	0.19	0.26	0.23	0.15	0.0*	0.0*	0.0*	---
Qa (ac-ft)	0.01	0.01	0.01	0.09	4.18	11.5	15.9	14.0	9.22	0.01	0.01	0.01	55.0

*Approximately 0.0002 cubic feet per second.

HISTORIC POINT OF DIVERSION OR WITHDRAWAL

APPROXIMATE LOCATION OF HISTORIC DIVERSION / WITHDRAWAL

800 feet north and 100 feet west from the southeast corner of Section 2, T. 19 N., R. 14 E.W.M.

LOCATED WITHIN (SMALLEST LEGAL SUBDIVISION)	SECTION	TOWNSHIP	RANGE E.W.M.	WRIA	COUNTY
SE¼SE¼	2	19 N.	14 E.W.M.	39	Kittitas
PARCEL NUMBER	LATITUDE	LONGITUDE		DATUM	
18199	47.164	-121.049		NAD 27	

AFFECTED REACHES -- DESCRIPTION OF PLACE OF USE

[See Attachment 1 for map of the trust water right location]

PLACE OF USE: Unnamed Stream, Spex Arth Creek, and the Yakima River.

Primary Reach: Begins at a point approximately 800 feet north and 100 feet west from the southeast corner of Section 2, T. 19 N., R. 14 E.W.M.

Secondary Reach: Begins at a point on an Unnamed Stream approximately 2,390 feet west and 250 feet south of the NE¼ of Section 12, T. 19 N., R. 14 E.W.M., and ends at the confluence of the Yakima River and the Columbia River.

TRUST WATER RIGHT TERM

BEGIN DATE	END DATE
Permanent	N/A

PROVISIONS

Provisions related to the Trust Water Right:

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 wells or diversions and associated distribution systems for compliance with water law.

Northland Resources, Inc. is responsible for the following provision: Northland shall measure and record the discharge of the unnamed spring noted in Acquavella Court Claim 02223, for the purpose of demonstrating that said unnamed spring provides flow in quantities that equal or exceed the monthly instantaneous quantities necessary to satisfy the purposes identified in this Change Authorization. For the purposes of this provision, 'monthly instantaneous quantities necessary to satisfy the purposes identified in this change authorization' are as follows:

Month	April	May	June	July	August	September
Avg. Qi (cubic feet per second)	0.003	0.130	0.375	0.501	0.441	0.299

The study shall consist of: Measuring and recording flow from the unnamed spring noted in Acquavella Court Claim 02223 for an irrigation season. An approved measuring device shall be installed and maintained for the said source in accordance with the rule "Requirements for Measuring and Reporting Water Use", WAC 173-173. The measuring device and installation shall be approved by the Department of Ecology prior to recording. Flow data shall be recorded once a month during the irrigation season (April 15 through September 30). Flow measurements shall be recorded at least 14 days apart. Flow data shall be made available to the Department of Ecology upon request. Upon completion of the study, the Department of Ecology shall review the results and determine the extent to which this Trust Water Right may serve as mitigation in a water bank for purposes of offsetting new uses. In the event that direct measurements show that discharge from the spring equals or exceeds the instantaneous quantity noted above, continued monitoring of spring discharge will not be required. In the event that direct measurements do not show that discharge from the spring equals or exceed the instantaneous quantity noted above, Northland Resources shall perform this measurement and recording study the following irrigation season.

All of the cultivated land irrigated under Acquavella Court Claim No. 02223 (approximately 34 acres) must remain fallow. In this case, fallowing means to leave unseeded, unplowed, uncultivated, or for the purpose of growing or harvesting a crop. If the subject land is not left fallow, this trust water right cannot be protected and will fail to serve as mitigation for new uses.

Future stock water or domestic use under this Change Authorization No. CS4-02223CTCL or Acquavella Court Claim No. 02223 is not authorized.

FINDINGS OF FACT AND ORDER

Upon reviewing the investigator's report, I find all facts relevant and material to the subject application have been thoroughly investigated. Furthermore, I find the change of water right as recommended will not be detrimental to existing rights or detrimental to the public interest.

Therefore, I ORDER the requested change of place and purpose of use under Trust Water Right Application No. CS4 02223CTCLsb2@1, be approved subject to existing rights and the provisions specified above.

This decision may be appealed pursuant to RCW 34.05.514(3), RCW 90.03.210(2), and Pretrial Order No. 12 entered in *State of Washington, Department of Ecology v. James Acquavella, et al.*, Yakima County Superior Court No. 77-2-01484-5 (the general adjudication of surface water rights in the Yakima River Basin). The person to whom this decision is issued, if he or she wishes to file an appeal, must file the Notice of Appeal with the Yakima County Superior Court **within thirty (30) days of receipt of this decision**. Appeals must be filed with the Superior Court Clerk's Office, Yakima County Superior Court, 128 North 2nd Street, Yakima, WA 98901, RE: Yakima River Adjudication. Appeals must be served in accordance with Pretrial Order No. 12, Section III ("Appeals Procedures"). The content of the Notice of Appeal must conform to RCW 34.05.546. Specifically, the Notice of Appeal must include:

The name and mailing address of the appellant;
Name and address of the appellant's attorney, if any;
The name and address of the Department of Ecology;
The specific application number of the decision being appealed;
A copy of the decision;
A brief explanation of Ecology's decision;
Identification of persons who were parties in any adjudicative proceedings that led to Ecology's decision;
Facts that demonstrate the appellant is entitled to obtain judicial review;
The appellant's reasons for believing that relief should be granted; and
A request for relief, specifying the type and extent of relief requested.

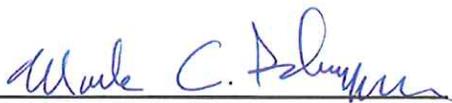
The "parties of record" who must be served with copies of the Notice of Appeal under RCW 34.05.542(3) are limited to the applicant of the decision subject to appeal, Ecology and the Office of the Attorney General.

All others receiving notice of this decision, who wish to file an appeal, must file the appeal with the Yakima County Superior Court within thirty (30) days of the date the Order was mailed. The appeal must be filed in the same manner as described above.

You have a right to appeal this ORDER. To appeal this you must:

- File your appeal with the Pollution Control Hearings Board within 30 days of the "date of receipt" of this document. Filing means actual receipt by the Board during regular office hours
- Serve your appeal on the Department of Ecology within 30 days of the "date of receipt" of this document. Service may be accomplished by any of the procedures identified in WAC 371-08-305(10). "Date of receipt" is defined at RCW 43.21B.001(2).

Signed at Yakima, Washington, this 19th day of April 2010.



Mark Schuppe, Section Manager
Water Resources Program
Central Region Office

BACKGROUND

Description and Purpose of Proposed Change

A declaration from Emil Pasco (Court Claim No. 02223 of the Acquavella Adjudication) was confirmed a right for 0.98 cubic feet per second (cfs) and 98 acre-feet per year (ac-ft/yr) from an unnamed spring for the irrigation of 49 acres, 0.02 cfs and 2 ac-ft/yr for domestic supply, and 0.01 cfs and 1.0 ac-ft/yr for stock water pursuant to the Conditional Final Order issued by Yakima Superior Court on February 13, 1997.

On May 17, 2005, Scatter Creek Resources, L.L.C., under the control of Northland Resources, Inc., submitted an Application for Change with the Kittitas County Conservancy Board (the Board) to change Court Claim No. 02223. The Department of Ecology (Ecology) assigned the Change Application an identifying number of CS4-02223CTCL. The applicant proposed to change the purpose of use, place of use, period of use, and point of diversion of Court Claim No. 02223. The Board conditionally approved the change on January 5, 2006. Ecology modified the Board's decision on March 24, 2006. Ecology affirmed the Board's tentative determination of 98 acre-feet for irrigation and 101 acre-feet total. However, Ecology's modification reduced the Board's tentative determination of irrigation to 34 acres. Ecology added a provision to the Board's decision including; "Consumptive use under this water right shall not exceed 55 acre-feet." Ecology further limited the season of use to "April 15 to September 30 until a Mitigation Plan for out-of-season impact has been approved by Ecology, the Bureau of Reclamation, and the Department of Health". The Board's Record of Decision and Ecology's modification were given much weight during the consideration of the current Application for Change No. CS4-02223CTCLsb2@1.

On July 16, 2009, Dave Blanchard of Northland Resources, Inc., and Meadow Springs, L.L.C. applied to place Change Authorization No. CS4-02223CTCL into the State Trust Water Right Program. The application was assigned the identifying number CS4-02223CTCLsb2@1. This application along with four other Trust Water Right Applications (Nos. CS4-01676(B)CTCL@1, CS4-00365CTCLsb5, CS4-01296CTCLsb5@1(A), CS4-01296CTCLsb5@1(B)) were submitted by Northland Resources, Inc. and associated L.L.C.'s for the purposes of water banking in order to offset the consumptive use associated with new groundwater use proposals.

Attributes of Water Right Change Authorization No. CS4-02223CTCL and Proposed Change

Table 1
Summary of Existing Attributes and Proposed Changes to
Water Right Change Authorization No. CS4-02223CTCL

Attributes	Documented	Proposed
Name	Meadow Springs L.L.C.	N/A
Priority Date Date of Application for Change	Priority Date – July 31, 1903	Application Date – July 16, 2009
Instantaneous Quantity	1.01 cfs	1.01 cfs In Trust
Annual Quantity	101 ac-ft/yr	101 ac-ft/yr In Trust
Source ¹	Well	In Trust
Point of Withdrawal	Approximately 2,240 feet east and 1,025 feet south of the NW¼ of Section 12 T. 19 N., R. 14 E.W.M.	In Trust
Purpose of Use	Municipal Supply	In Trust

¹ The source approved under Change Authorization No. CS4-02223CTCL has not been used, therefore, the source and location confirmed under Acquavella Court Claim 02223 will be the basis of this Trust Water Right.

Period of Use	April 15 through September 30	In Trust
Place of Use	<p>S$\frac{1}{2}$SW$\frac{1}{4}$ of Section 1, T. 19 N., R 14 E.W.M. EXCEPT: Right-of-way for Pasco County Road, being described as that portion conveyed to Kittitas County for Pasco Road cul-de-sac by deed recorded September 26, 1994, in Volume 358, Page 1993, under Auditor's File No. 575350, and amended by deed recorded January 9, 1997, under Auditor's File No. 199701090017; and parcels Nos. 19-14-12000- 0003, 19-14-0100-0005, 19-14-0100-0006, 19-14- 12000-0016 within Section 12; and the E$\frac{1}{2}$SE$\frac{1}{4}$ of Section 1, (parcel No. 19-14-01054-0003), ALL within T. 19 N., R 14 E.W.M.</p>	In Trust – See page 1 for POU description

Legal Requirements for Proposed Change

The following is a list of requirements that must be met prior to authorizing the proposed change in CS4-01676(B)CTCL.

- **Public Notice**
Notice was published by the applicant in *The Daily Record* of Ellensburg for two consecutive weeks, commencing on October 24, 2009, and October 31, 2009.
- **State Environmental Policy Act (SEPA)**
On October 30, 2009, Kittitas County (SEPA lead agency) issued a Mitigated Determination of Non-Significance for the Meadow Springs (LP-07-00015), Starlite Heights (LP-07-00016), and Tamarack Ridge (LP-07-00018) Performance Based Cluster Plats. This decision was made after review of a completed environmental checklist and other information on file with the lead agency. Kittitas County determined that certain mitigation measures or conditions were necessary in order issue a Determination of Non-Significance. Those conditions related to: cultural resources and historic preservation, stormwater, transportation, lights and aesthetics, wetlands and wildlife, and noise. No appeals were filed in protest of this decision.
- **Water Resources Statutes and Case Law**
 - RCW 90.03.380(5)(b) states that applications relating to existing surface or ground water rights may be processed and decisions on them rendered independently of processing and rendering decisions on pending applications for new water rights within the same source of supply without regard to the date of filing of the pending applications for new water rights.
 - RCW 90.38.040(1) states that all trust water rights acquired by the department shall be placed in the Yakima River Basin trust water rights program to be managed by the department. The department shall issue a water right certificate in the name of the state of Washington for each trust water right it acquires.
 - RCW 90.42.100(1) states that the department is authorized to use the trust water rights program in the Yakima River basin for water banking purposes.
 - RCW 90.42.100(2)(a) states that water banking may be used to mitigate for any beneficial use under chapter 90.03, 90.44, or 90.54 RCW, consistent with any terms and conditions established by the transferor, except that return flows from water rights authorized in whole or in part for any purpose shall remain available as part of the Yakima basin's total water supply available and to satisfy existing rights for other downstream uses and users.
 - RCW 90.42.100(2)(b) states that water banking may be used to transfer water rights to and from the trust water rights program.

INVESTIGATION

The water right change investigation was conducted by Kurt Walker, an Ecology Permit Writer. A site investigation was conducted on September 8, 2009, and was attended by Joseph Morrice of Aspect Consulting. Additional information regarding the use of water was obtained through:

- Ecology Records including documents from Change Application No. CS4-02223CTCL.
- Documentation submitted by the applicant, their consultants (Aspect Consulting and Washington Rivers Conservancy), and their attorney (Tom McDonald) including:
 - Project overview Memorandum by Aspect Consulting dated June 1, 2009.

- Technical Memorandum regarding Evapotranspiration by Aspect Consulting dated July 29, 2009.
- Conversations with:
 - Joseph Morrice.
 - Timothy Flynn.
 - Lisa Pelly.
- Review of digitized topographic maps and aerial photographs.
- Yakima County Superior Court *Reports of Referee* on the Yakima River Basin Water Rights Adjudication for Subbasin No. 2 (Easton).

History of Water Use

Court Claim No. 02223 from the Acquavella Adjudication is appurtenant to the Meadow Springs, L.L.C. land. The unnamed spring noted in Court Claim No. 02223 has been used for irrigation, domestic supply, and stock water. The *Report of Referee* for Subbasin No. 2 notes that at the time of the evidentiary hearing, approximately 49 acres of hay and pasture were being flood irrigated from an unnamed spring and up to 25 head of cattle were being raised on the property.

See Background section above for Court Awards.

The spring does not appear to have a distinct point from which water is expressed, but rather a broad area of discharge or seepage. Seepage is controlled and managed for irrigation by means of a series of open ditches which distribute water easterly along the southern boundary of the cultivated land. To irrigate the land, the ditches are temporarily dammed causing sheet flow across the field. Limited furrowing is utilized to regulate the application of water once a ditch overflows. The terrain of the irrigated ground is characterized by irregular to flat topography which slopes general to the north and northeast. As a result, the irrigation efficiency is very low (approximately 50%), but within the range typical of flood irrigation.

While cattle have always been allowed to drink freely from open ditches, the method of domestic supply delivery under this right has changed over time. Initially, water used for domestic purposes was hauled by hand because gravity flow delivery was not possible. Sometime after the Pasco family purchased the property, a pump house was built and a pump installed to deliver water from the spring directly to the house as it is today.

On May 17, 2005, Scatter Creek Resources, L.L.C., under the control of Northland Resources, Inc., submitted an Application for Change (CS4-02223CTCL) with the Kittitas County Conservancy Board (Board) to change the purpose of use, place of use, period of use, and point of diversion of Court Claim No. 02223. The Board conditionally approved the change on January 5, 2006 and Ecology modified the Board's decision on March 24, 2006. See Background section above for water right attributes and limitations associated with Change Authorization No. CS4-02223CTCL.

See Attached Map (Attachment 1) for POU and POW locations

To this day, water has not been used from the new point of withdrawal or for municipal purposes to which it was changed. However, it appears that water has been used from the historic point of diversion for irrigation. Because no additional information was presented regarding the use of water under this right for domestic supply or stock water, the amount authorized under the Board's modified decision will be relied upon for consideration of this change application.

Future Land Use

If this Change Application is approved, the land historically irrigated under Court Claim No. 02223 will likely be fallowed as provisioned. The subject field is described and delineated by Environmental Science Associates Adolfsen (Adolfsen) as a Category II wetland (Adolfsen, 2007.) During a 2007 field investigation, Adolfsen scientists noted that the subject wetland soils were saturated within 12 inches of the soil surface throughout the field. It appears that a variety of natural and planted vegetation utilize this seasonally high water table. Because the spring authorized under Court Claim No. 02223 currently flows across the subject field through natural and unnatural means (ditches and rills), cultivation of the land historically irrigated under Court Claim No. 02223 must remain fallow to assure that water placed into the Trust Water Rights Program is not appropriated and available for the purposes of water banking in order to offset the consumptive use associated with new groundwater use. If the land is not fallowed, the trust water right cannot be protected and it will fail to serve as mitigation for new uses.

Proposed Use

The applicant proposes to change CS4-02223CTCL to trust for the purposes of instream flow and water banking in order to offset the consumptive use associated with new groundwater uses consistent with Chapter 173-539A WAC (November 25, 2009).

Other Rights Appurtenant to the Place of Use

A review of Ecology's records and database did not reveal any other rights or claims which are appurtenant to the subject property.

Trust Water Right Calculations

Water has been used on the subject property for irrigation, domestic purposes, and stock water under Court Claim No. 02223. While the Board's 2006 modified decision authorized a change in purpose and point of withdrawal, actual water use has not changed. Therefore, the trust water right calculations will be based on recent uses and Ecology's modification of the Board's 2006 decision. In that decision, Ecology affirmed a tentative determination of 0.98 cfs and 98 acre-feet for irrigation from April 15 to September 30, 0.02 cfs and 2 acre-feet for year round domestic supply, and 0.01 cfs and 1 acre-feet for stock water from April 15 to September 30.

In general, water used for irrigation is typically not constantly diverted over the irrigation period. Water use often begins at a lower rate during the beginning of the growing season, ramps up during the warmer part of the season and decreases again in the later part of the season. Irrigation may also be interrupted during repairs and modifications to the irrigation system, or to dry and harvest crops.

Water use on the Meadow Springs land has not been directly measured. In the absence of direct water use records, Ecology uses various methods to estimate the amount of water used and consumed. One source of information frequently used by Ecology to estimate water used for irrigation is the Natural Resources Conservation Service's *Washington Irrigation Guide* (WIG). The WIG data show the estimated average amount of water required by the crop, crop irrigation requirement (CIR), in addition to the existing moisture in the root zone under average climatic conditions.

The WIG data and Ecology's Guidance Document GUID 1210, *Determining Irrigation Efficiency and Consumptive Use*, were used to determine irrigation efficiency (Ea), total irrigation requirement (TIR), and the consumptive use (CU) associated with irrigation on the Pasco property. The WIG CIR value of 18.11 inches per acre of pasture and Ecology's affirmed 98 ac-ft/yr for the irrigation of 34 acres. This represents an Ea of 52% which is reasonable for flood irrigation. Given the local growing conditions and method of application, evaporative losses were estimated at five percent of the TIR. For 34 acres, the total CU associated with irrigation under this right is estimated at 53.8 ac-ft/yr. The remaining portion of used water which is not consumed is considered to be return flow.

Ecology affirmed the Board's tentative determination of two ac-ft for year round domestic supply and one acre-foot for stock water from April 15 to September 30. These values were used in conjunction with Ecology's determination that the total consumptive use under this right has been limited to 55.0 ac-ft/yr (leaving 46 acre-feet as non-consumptive). As a result, collective CU associated with year round domestic use and seasonal stock water appropriation is estimated to 1.2 acre-feet.

Trust Water Place of Use

Ecology typically manages its trust water rights by defining a primary and a secondary reach. The primary reach is the length of stream between the historic point of diversion and where any of the water diverted, but not consumed, returns to the stream. The secondary reach begins at the downstream end of the primary reach and is defined as that length of stream which benefits from a reduction in consumptive use.

The primary reach under this application begins from the historic authorized point of diversion being approximately 800 feet north and 100 feet west from the southeast corner of Section 2, T. 19 N., R. 14 E.W.M. The entire court awarded amounts (1.01 cfs and 101 ac-ft/yr) are being placed into trust and those quantities will benefit the primary reach for the times to which they were prescribed.

The secondary reach begins on an unnamed perennial stream at a point just down gradient from the eastern extent of historic irrigation approximately 2,390 feet west and 250 feet south of the NE¼ of Section 12, T. 19 N., R. 14 E.W.M. This unnamed stream flows into Spex Arth Creek which is a tributary of the Yakima River. The consumptive use associated with this right is eligible for protection as a trust water right in the secondary reach as described in Table 2 below.

However, this water right is proposed to be changed to instream flow and water banking. As such, this trust water right is intended to serve as mitigation for new water rights from surface water sources and/or sources hydraulically related to the Yakima River consistent with Chapter 173-539A WAC. These new appropriations, if approved, will be water budget neutral with respect to the "total water supply available," but the trusting of this right may not derive a specific reach benefit eligible for protection after the new appropriation(s) are authorized.

Table 2
Instream Flow in Secondary Reach

	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Avg. Qi (cfs)	0.0*	0.0*	0.0*	0.0*	0.07	0.19	0.26	0.23	0.15	0.0*	0.0*	0.0*	---
Qa (ac-ft)	0.01	0.01	0.01	0.09	4.18	11.5	15.9	14.0	9.22	0.01	0.01	0.01	55.0

*Approximately 0.0002 cfs.

Trust Water Management

CS4-02223CTCL is proposed to be changed to instream flow and water banking. As such, the consumptive portion of water placed into trust may be available as mitigation to address the issue of impairment with respect to the consumptive use associated with new out-of-priority water rights as allowable under Chapter 173-539A WAC.

Impairment Considerations

Under RCW 90.38.040(5)(a), a trust water right may be exercised only if Ecology first determines that the authorization will not impair or injure any other water right. An attempt was made to identify any third parties who may be potentially affected by an approval of this change application.

Public Interest Considerations

When investigating a change application, Ecology is required to consider whether the change is detrimental to the public interests. Ecology must consider how the change 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 change application.

Consideration of Protests and Comments

No protest or comments related to this change application were received for consideration.

CONCLUSIONS

- Change Authorization No. CS4-02223CTCL is appurtenant to the subject property, the subject land has been historically irrigated, stock have historically used the water allocation for that purpose and domestic water has been appropriated – all from the unnamed spring confirmed in Acquavella Court Claim No. 02223.
- The author makes a tentative determination that Change Authorization No. CS4-02223CTCL represents a valid right to divert water from a well in quantities up to 1.01 cfs and 101 ac-ft/yr for the purpose of municipal supply, from April 15 through September 30.
- No water rights will be impaired or injured by no longer diverting 1.01 cfs from the unnamed spring confirmed under Acquavella Court Claim 02223.
- Changing the purpose of this water right to instream flow and water banking are not contrary to the public interest.

RECOMMENDATIONS

Based on the above investigation and conclusions, I recommend that the request for change to Change Application No. CS4-02223CTCL be approved in the amounts and within the limitations listed below and subject to the provisions listed above.

Place of Use:

Unnamed Stream

Trust Water Right Attributes:

Primary Reach:

0.99 cfs, 99 ac-ft/yr from April 15 to September 30 for instream flow purposes in the primary reach.

0.02 cfs, 2 ac-ft/yr for year round instream flow purposes in the primary reach.

The primary reach begins at a point approximately 800 feet north and 100 feet west from the southeast corner of Section 2, T. 19 N., R. 14 E.W.M.

Secondary Reach:

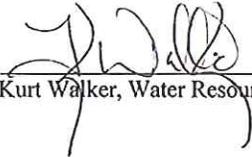
55.0 ac-ft/yr for instream flow purposes in the secondary reach as follows:

	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Avg. Qi (cfs)	0.0*	0.0*	0.0*	0.0*	0.07	0.19	0.26	0.23	0.15	0.0*	0.0*	0.0*	---
Qa (acre-feet)	0.01	0.01	0.01	0.09	4.18	11.5	15.9	14.0	9.22	0.01	0.01	0.01	55.0

*Approximately 0.0002 cfs.

The secondary reach begins at a point on an unnamed stream approximately 2,390 feet west and 250 feet south of the NE $\frac{1}{4}$ of Section 12, T. 19 N., R. 14 E.W.M., and ends at the confluence of the Yakima River and the Columbia River.

Report by:

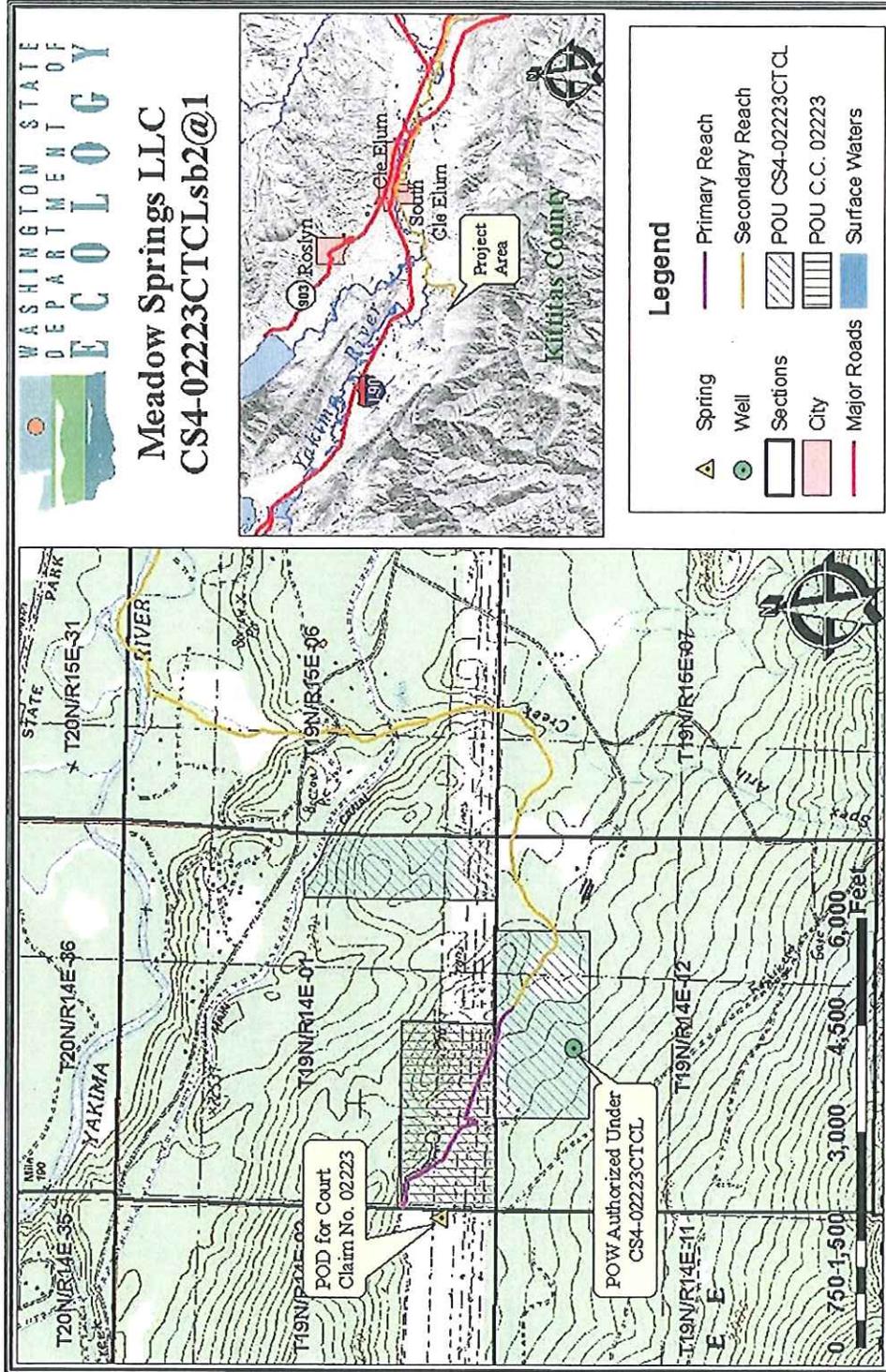

Kurt Walker, Water Resources Program

4-19-10
Date

REFERENCES

- ESA Adolfson, 2007. Technical Report: Meadow Springs, Starlite Estates, and Tamarack Ridge Wetland Report.
- Morrice, J. and Flynn, T. 2009. Technical Memorandum regarding Calculation of Evapotranspiration Rates and Crop Irrigation Requirements, Project No. 070207.
- Morrice, J. and Flynn, T. 2009. Technical Memorandum regarding Current and Proposed Water Use Estimates Northland Resources, L.L.C. Development Projects, Project No. 070207.
- Natural Resources Conservation Service, 1997. *Washington Irrigation Guide. Appendix B: Climatic Station for Consumptive Use (WA 210-VI-WAIG)*.
- State of Washington, Department of Ecology v. Acquavella, et al., Yakima County Superior Court Case No. 77-2-01484-5, Reports of Referee Subbasin No. 2 (Easton).

Attachment 1



ATTACHMENT A – EXHIBIT 2

**GREEN CANYON, LLC (HENSHAW WATER RIGHT)
DRAFT REPORT OF EXAMINATION (UNDATED)**



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

**TRUST WATER RIGHT
REPORT OF EXAMINATION**
Change of Purpose of Use to Instream Flow and Water Banking
WRTS File No.: CS4-00365CTCLsb5

PRIORITY DATE	CLAIM NO	PERMIT NO.	CERTIFICATE NO
June 5, 1886	Acquavella Court Claim No. 00365	N/A	N/A

NAME OF PARTY CONVEYING RIGHT TO TRUST WATER RIGHTS PROGRAM		
Green Canyon LLC		
ADDRESS/STREET	CITY/STATE	ZIP CODE
206 West First Street	Cle Elum, WA	98922-1108

TRUST WATER RIGHT ATTRIBUTES		
SOURCE		
Yakima River		
TRIBUTARY OF (IF SURFACE WATERS)		
N/A		
MAXIMUM CUBIC FEET PER SECOND	MAXIMUM GALLONS PER MINUTE	MAXIMUM ACRE FEET PER YEAR
0.67	N/A	120.9

QUANTITY, TYPE OF USE, PERIOD OF USE

Primary Reach*
0.67 cubic feet per second (cfs), 120.9 acre-feet per year (ac-ft/yr) for the purpose of instream flow and water banking from April 20 through September 30.

Secondary Reach*

Instream Flow in Secondary Reach						
	May	June	July	August	Sept.	Total
Avg. Qi (cfs)	0.02	0.29	0.47	0.41	0.28	---
Qa (ac-ft)	1.4	17.2	28.7	25.2	16.5	89.0

*Only the portion of the right which is not being used as mitigation will be eligible for protection.

HISTORIC POINT OF DIVERSION OR WITHDRAWAL					
APPROXIMATE LOCATION OF HISTORIC DIVERSION					
750 feet south and 1,150 feet east from the north quarter corner of Section 35, T. 20 N., R. 15 E.W.M.					
LOCATED WITHIN (SMALLEST LEGAL SUBDIVISION)	SECTION	TOWNSHIP	RANGE	WRIA	COUNTY
SE¼NW¼NE¼	35	20 N.	15 E.W.M.	39	Kittitas
PARCEL NUMBER	LATITUDE	LONGITUDE		DATUM	
754735	-120.93	47.19		NAD 27	

AFFECTED REACHES -- DESCRIPTION OF PLACE OF USE
[See Attachment 1 for map of the trust water right location]

PLACE OF USE: Yakima River

Primary Reach: Begins at a point approximately 750 feet south and 1,150 feet east from the north quarter corner of Section 35, T. 20 N., R. 15 E.W.M. (approximately Yakima River Mile 181.5).

Secondary Reach: Begins at a point approximately 1,550 feet north and 740 feet west from the SE¼ of Section 31, T. 20 N., R. 16 E.W.M. (approximately Yakima River Mile 179).

TRUST WATER RIGHT TERM	
BEGIN DATE	END DATE
Permanent	N/A

**PORTION OF WATER RIGHT
NOT PLACED INTO TRUST
WRTS File No.: CS4-00365CTCLsb5**

PRIORITY DATE	CLAIM NO.	PERMIT NO.	CERTIFICATE NO.
June 5, 1886	Acquavella Court Claim No. 00365	N/A	N/A

NAME Estate of Hazel and Bernard Henshaw		
ADDRESS/STREET PO Box 234	CITY/STATE Cle Elum	ZIP CODE 98922

WATER RIGHT ATTRIBUTES

SOURCE Yakima River		
TRIBUTARY OF (IF SURFACE WATERS) N/A		
MAXIMUM CUBIC FEET PER SECOND 0.85	MAXIMUM GALLONS PER MINUTE N/A	MAXIMUM ACRE FEET PER YEAR 48.34
QUANTITY, TYPE OF USE, PERIOD OF USE 48.1 acre-feet for irrigation of 15.5 acres from April 20 through September 30. 0.24 acre-feet for stock water from April 20 through September 30.		

LOCATION OF DIVERSION/WITHDRAWAL

APPROXIMATE LOCATION OF DIVERSION—WITHDRAWAL 750 feet south and 1,150 feet east from the north quarter corner of Section 35, T. 20 N., R. 15 E.W.M.					
LOCATED WITHIN (SMALLEST LEGAL SUBDIVISION) SE¼NW¼NE¼	SECTION 35	TOWNSHIP 20 N.	RANGE [E. or W.] W.M. 15 E.W.M.	WRIA 39	COUNTY Kittitas
PARCEL NUMBER 754735	LATITUDE -120.93	LONGITUDE 47.19	DATUM NAD 27		

RECORDED PLATTED PROPERTY

LOT	BLOCK	OF (GIVE NAME OF PLAT OR ADDITION)

LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS USED
[See Attachment 2 for a map of the place of use and point(s) of diversion or withdrawal]

PLACE OF USE
S½S½ of Government Lot 3, Government Lot 4 and the SE¼SW¼ EXCEPT the SE¼SE¼SW¼, All in Section 30, T. 20 N., R. 16 E.W.M.

DESCRIPTION OF WATER SYSTEM

The Henshaw land is supplied water through the Younger Ditch, which flows approximately one mile from the Yakima River to the subject property. Water is pumped from Younger Ditch with either a 10 horsepower (HP) or 15 HP pump which is located near the western and eastern boundaries of place of use (POU).

Approximately 13 acres of pasture and alfalfa is irrigated with a mixture of wheel lines, solid-set, and big gun sprinklers. Approximately 2 acres of lawn and garden are irrigated with domestic sprinklers.

The Henshaw stock drink directly from Younger Ditch or a small pond which is open to the ditch during the authorized season. The stock drink from troughs filled with well water during when the ditch is not in operation.

DEVELOPMENT SCHEDULE

BEGIN PROJECT BY THIS DATE N/A	COMPLETE PROJECT BY THIS DATE N/A	WATER PUT TO FULL USE BY THIS DATE N/A
-----------------------------------	--------------------------------------	---

PROVISIONS

Provisions related to the Trust Water Right

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 wells or diversions and associated distribution systems for compliance with water law.

Provisions Related to the Portion of the Water Right Not Placed Into Trust

Water use confirmed under Court Claim No. 00365 shall be reduced to 0.83 cfs and 48.1 ac-ft/yr for the irrigation of 15.5 acres and 0.02 cfs and 0.24 ac-ft/yr for stock water, all from April 20 through September 20.

The remainder of Court Claim No. 00365 shall comply with the *Order Requiring Metering Measuring, and Reporting Requirements, All Subbasins (1-31) in Benton, Kittitas, and Yakima Counties* entered September 15, 2005, in the Yakima Adjudication. A copy of the order is included with hard copies. The order may be viewed at the following web site: <http://www.ecy.wa.gov/programs/wr/measuring/images/pdf/order772014845.pdf>.

Water use data shall be recorded monthly and maintained by the property owner for a minimum of five years. The maximum rate of diversion/withdrawal and the annual total volume shall be submitted to the Department of Ecology by January 31st of each calendar year.

Department of Ecology personnel, upon presentation of proper credentials, shall have access at reasonable times, to the records of water use that are kept to meet the above provisions, and to inspect at reasonable times any measuring device used to meet the above provisions.

The intake(s) shall be screened in accordance with Department of Fish and Wildlife screening criteria (pursuant to RCW 77.57.010, RCW 77.57.070, and RCW 77.57.040). Contact the Department of Fish and Wildlife, 600 Capitol Way N, Olympia, WA 98501-1091. Attention: Habitat Program. Phone (360) 902-2534 if you have questions about screening criteria. <http://www.wdfw.wa.gov/reg/regions.htm>

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 wells or diversions and associated distribution systems for compliance with water law.

FINDINGS OF FACT AND ORDER

Upon reviewing the investigator's report, I find all facts relevant and material to the subject application have been thoroughly investigated. Furthermore, I find the change of water right as recommended will not be detrimental to existing rights or detrimental to the public interest.

Therefore, I ORDER the requested change of place and purpose of use under Trust Water Right Application No. CS4-00365CTCLsb5, be approved subject to existing rights and the provisions specified above.

This Decision may be appealed pursuant to RCW 34.05.514(3), RCW 90.03.210(2), and Pretrial Order No. 12 entered in *State of Washington, Department of Ecology v. James Acquavella, et al.*, Yakima County Superior Court No. 77-2-01484-5 (the general adjudication of surface water rights in the Yakima River Basin). The person to whom this Decision is issued, if he or she wishes to file an appeal, must file the notice of appeal with the Yakima County Superior Court **within thirty (30) days of receipt of this Decision**. Appeals must be filed with the Superior Court Clerk's Office, Yakima County Superior Court, 128 North 2nd Street, Yakima WA 98901, RE: Yakima River Adjudication. Appeals must be served in accordance with Pretrial Order No. 12, Section III ("Appeals Procedures"). The content of the notice of appeal must conform to RCW 34.05.546. Specifically, the notice of appeal must include:

- The name and mailing address of the appellant;
- Name and address of the appellant's attorney, if any;
- The name and address of the Department of Ecology;
- The specific application number of the decision being appealed;
- A copy of the decision;
- A brief explanation of Ecology's decision;
- Identification of persons who were parties in any adjudicative proceedings that led to Ecology's decision;
- Facts that demonstrate the appellant is entitled to obtain judicial review;
- The appellant's reasons for believing that relief should be granted; and
- A request for relief, specifying the type and extent of relief requested.

The "parties of record" who must be served with copies of the notice of appeal under RCW 34.05.542(3) are limited to the applicant of the decision subject to appeal, Ecology and the Office of the Attorney General.

All others receiving notice of this Decision, who wish to file an appeal, must file the appeal with the Yakima County Superior Court within **thirty (30) days of the date the Order was mailed**. The appeal must be filed in the same manner as described above.

Mark Schuppe, Section Manager
Water Resources Program/CRO

DRAFT

BACKGROUND

Description and Purpose of Proposed Change

On July 16, 2009, Dave Blanchard of Northland Resources and Green Canyon LLC, applied to place a portion of Court Claim No. 00365 into the State Trust Water Right Program. This application along with four other Trust Water Right Applications (CS4-02223CTCLsb2@1, CS4-01676(B)CTCL@1, CS4-01296CTCsb5@1(A), CS4-01296CTCLsb5@1(B)) were submitted by Northland Resources and associated LLC's for the purposes of water banking in order to offset the consumptive use associated with new groundwater uses.

Attributes of the Court Claim No. 00365 and Proposed Change

Table 1
Summary of Existing Attributes and Proposed Changes to Water Right No. CS4-00365CTCLsb5

Attributes	Documented	Proposed
Name	The Estate of Hazel and Bernard Henshaw	N/A
Priority Date Date of Application for Change	Priority Date - June 5, 1886	Application Date - July 16, 2009
Instantaneous Quantity	1.5 cfs for irrigation 0.02 cfs for stock water 0.3 cfs for conveyance loss	0.67 cfs In Trust 0.83 for irrigation 0.02 cfs for stock water 0.3 cfs for conveyance loss
Annual Quantity	450 acre-feet for irrigation 3 acre-feet for stock water	120.9 acre-feet In trust 48.1 acre-feet for irrigation 0.24 acre-feet for stock water
Source	Yakima River	No Change
Point of Diversion/Withdrawal	750 feet south and 1,150 feet east from the north quarter corner of Section 35, T. 20 N., R. 15 E.W.M.	No Change
Purpose of Use	Irrigation of 75 acres Stock water	In Trust Irrigation of 15.5 acres Stock water
Period of Use	April 20 through September 30	No Change
Place of Use	S½S½ of Government Lot 3, Government Lot 4 and the SE¼SW¼ EXCEPT the SE¼SE¼SW¼, All in Section 30, T. 20 N., R. 16 E.W.M.	Trust Portion: See Primary and Secondary Reach descriptions on page 1 Non-Trust Portion: No Change

Legal Requirements for Proposed Change

The following is a list of requirements that must be met prior to authorizing the proposed change in Water Right Change Application No. CS4-00365CTCL.

- Public Notice**
Notice was published by the applicant in *The Daily Record* of Ellensburg for two consecutive weeks, commencing on October 24, 2009, and October 31, 2009.
- State Environmental Policy Act (SEPA)**
This application is categorically exempt from the provisions of the SEPA, due to the fact that the water quantities proposed for change are proposed for less than 1.0 cfs. While the projects relying on this Trust Water Right Application are not exempt from SEPA, Ecology may proceed with exempt aspects of the proposals so long as the requirements of WAC 197-11-070 are met. Those requirements being: the agency actions will not have an adverse environmental impact; or, if such action would not limit the choice for reasonable alternatives. Issuing this trust water right will not result in an adverse environmental impact and will not limit the choice for reasonable alternatives.

- **Water Resources Statutes and Case Law**
 - RCW 90.03.380(5)(b) states that applications relating to existing surface or ground water rights may be processed and decisions on them rendered independently of processing and rendering decisions on pending applications for new water rights within the same source of supply without regard to the date of filing of the pending applications for new water rights.
 - RCW 90.38.040(1) states that all trust water rights acquired by the Department of Ecology (Ecology) shall be placed in the Yakima River Basin Trust Water Right Program to be managed by Ecology. Ecology shall issue a Certificate of Water Right in the name of the state of Washington for each trust water right it acquires.
 - RCW 90.42.100(1) states that Ecology is authorized to use the Trust Water Right Program in the Yakima River basin for water banking purposes.
 - RCW 90.42.100(2)(a) states that water banking may be used to mitigate for any beneficial use under chapter 90.03, 90.44, or 90.54 RCW, consistent with any terms and conditions established by the transferor, except that return flows from water rights authorized in whole or in part for any purpose shall remain available as part of the Yakima basin's total water supply available and to satisfy existing rights for other downstream uses and users.
 - RCW 90.42.100(2)(b) states that water banking may be used to transfer water rights to and from the Trust Water Right Program.

INVESTIGATION

The water right change investigation was conducted by Kurt Walker, Ecology Permit Writer. A site investigation was made on September 8, 2009, and was attended by Joseph Morrice of Aspect Consulting. Additional information regarding the use of water was obtained through:

- Documentation submitted by the applicant, their consultants, and their attorney including:
 - Project overview Memorandum by Aspect Consulting dated June 1, 2009.
 - Technical Memorandum regarding Evapotranspiration by Aspect Consulting dated July 29, 2009.
 - Power records.
- Conversations with:
 - Bernard Henshaw.
 - Joseph Morrice.
 - Timothy Flynn.
 - Lisa Pelly.
- Review of digitized topographic maps and aerial photographs.
- Yakima County Superior Court *Reports of Referee* on the Yakima River Basin Water Rights Adjudication for Subbasin No. 5 (Elk Heights).

History of Water Use

Court Claim No. 00365 of the Acquavella Adjudication is appurtenant to the Henshaw property. Under Court Claim No. 00365, Mr. Henshaw is authorized to use water from the Younger Ditch which flows approximately one and a half miles from a diversion on the Yakima River to the subject property. Water diverted under the Henshaw right is pumped from two separate locations and is used to serve two primary irrigation systems; one north of the ditch and one south of the ditch. In the fall of 2005, Mr. Henshaw sold a portion of his land which was previously irrigated through the North system. Mr. Henshaw included 6.5 ac-ft/yr of consumptive use as part of the land sale. The 2005 irrigation season represents the highest irrigation use (57.7 acres) in the last five years and will be relied upon for making a tentative determination of the extent and validity of the right. This amount will be reduced by 6.5 ac-ft/yr to account for the sale of water in 2005.

See Attached Map (Attachment 1) for POU and POD locations.

The Henshaw irrigation system is composed of the North and South irrigation systems, movable big guns, and domestic irrigation. The North and South irrigation systems were used to irrigate roughly 45 acres (see detailed description below). Tripod mounted big guns are reported to be used on approximately 10 acres of land which do not have permanent delivery lines. The two domestic residences irrigate approximately two acres total with a variety of small sprinklers.

The North system delivers water to approximately 29 acres of irrigated alfalfa. The delivery system consisted of four wheel lines with 4-inch-diameter irrigation and conveyance pipe. The wheel lines were constructed with 40-foot pipe sections, with one impact sprinkler (5/32" or 9/64" nozzle size, depending on soil drainage) per section. A total of about 50 impact sprinklers are associated with these wheel lines. The North system also includes a number of higher capacity sprinklers, with a reported flow rate of 30 gallons per minute (gpm). The North system is served by a single 15 HP centrifugal pump (reported capacity of 400 gpm) with a dedicated power drop which is located on the western property boundary.

The South system delivers water to approximately 16 acres of irrigated pasture and alfalfa. The South system consists of a single wheel line with 4-inch-diameter irrigation and conveyance pipe, big gun sprinklers, and solid set impact sprinklers. The wheel line is constructed with thirty-two 40-foot pipe sections, with one impact sprinkler (9/32", 5/32", or 9/64" nozzle size, depending on soil drainage) per section. The nozzle size of the big guns is up to 0.8". The South can be served by either a 10 HP or 15 HP centrifugal pumps (maximum reported capacity of 400 gpm) which are located near the eastern property boundary.

Mr. Henshaw raises cattle on the property, and they drink directly from Younger Ditch or a small pond which is open to the ditch. The cattle drink from troughs filled with well water when the ditch is not in operation.

Ecology can change a water right to the extent which it has been put to beneficial use (RCW 90.03.380), so long as no period of five successive years of non-use has occurred without sufficient cause (RCW 90.14.140-180). Pursuant to the Conditional Final Order dated February 8, 2001 for Subbasin 5 of the , Court Claim No. 00365 was confirmed a right to divert up to 1.5 cfs and 450 ac-ft/yr for the irrigation of 75 acres, and 0.02 cfs and 3 acre-feet for stock water. However, the greatest land use within the last five years (2005) amounted to less than the full court award. The two pump stations can deliver the full authorized instantaneous quantity (1.5 cfs), and 2005 power records show that approximately 178 acre-feet of water was pumped for the purpose of irrigation. The sale of water in 2005 of 6.5 acre-feet of consumptive use equates to approximately 8.8 ac-ft/yr of annual use. 8.8 acre-feet equates to approximately 2.8 acres of irrigation under this right (see Table 2).

Table 2
Water Use associated with Irrigation

Water Use	Total Use (acre-feet)	Consumptive Use (acre-feet)	Irrigation (acres)
Use in 2005	178.0	131.0	57.7
Sold in 2005	8.8	6.5	2.8
Change to Trust	120.9	89.0	39.2
Remaining in Irrigation	48.1	35.5	15.5

An estimate of stock water use is based on a water demand requirement listed in the Washington State Department of Health Water System Design Manual (DOH, 2001). The listed stock water requirement for cattle is 12 gallons per days per head. Based on 40 cattle for a period of use from April 20 through September 30 (164 days), the annual stock water use is estimated at 0.24 ac-ft/yr. As a result, Ecology recognizes 1.5 cfs and 169.2 ac-ft/yr for the irrigation of 54.9 acres, and 0.02 cfs and 0.24 ac-ft/yr for stock water as the extent of the right and as the quantities available for change.

Proposed Use

The applicant proposes to change a portion of Court Claim No. 00365 to trust for the purposes of instream flow and water banking in order to offset the consumptive use associated with new groundwater uses.

Other Rights Appurtenant to the Place of Use

A review of Ecology's records and database did not reveal any other rights or claims which are appurtenant to the Henshaw property.

Trust Water Right Calculations

Water used for irrigation is not constantly diverted over the irrigation period. Water use often begins at a lower rate during the beginning of the growing season, ramps up during the warmer part of the season and decreases again in the later part of the season. Irrigation may also be interrupted while moving sprinklers, or to dry and harvest crops.

In the absence of direct water use records, Ecology uses various methods to estimate the amount of water used and consumed. One source of information frequently use by Ecology is the WIG. The WIG data show the estimated average amount of water required by the crop or crop irrigation requirement (CIR) in addition to the existing moisture in the root zone under average climatic conditions. The WIG is currently being updated by Washington State University (WSU) to include additional climatic stations, up to date estimates of evapotranspiration (ET). For purposes of this change application, CIR values for alfalfa in the Cle Elum area were calculated using the American Society of Civil Engineers (ASCE) Penman-Monteith method and available climate data. The ASCE Penman-Monteith method is one of the methods currently being used by WSU to estimate monthly CIR values.

Ecology's Guidance Document GUID 1210, *Determining Irrigation Efficiency and Consumptive Use*, was used to determine irrigation efficiency (Ea) and consumptive use (CU). The CIR was estimated at 23.55 inches (1.96 ac-ft/yr) using the ASCE Penman-Monteith and local climatic data. Given the local growing conditions and main method of application, impact sprinklers on a wheel line, evaporative losses are estimated at ten percent of the total irrigation requirement (TIR). TIR is assumed to equal the 2005 estimated use value of 178 acre-feet. Applying these values to the equation $CU = [(TIR \times Evap) + CIR]$, the CU associated with the irrigation of 57.7 acres equates to 131.0 ac-ft/yr.

In 2005, Mr. Henshaw sold 6.5 ac-ft/yr of consumptive use from Court Claim No. 00365. Of the 124.5 acre-feet of consumptive use remaining from the irrigation portion of the right, 89.0 acre-feet is proposed to be changed while 35.5 acre-feet will remain in irrigation.

The CU for the portion of Court Claim No. 00365 being placed into the State Trust Water Right Program (TWRP) is shown on Table 3 in instantaneous and annual quantities by month. The portion of used water which is not consumed is considered to be return flow.

Instream Flow in Table 3
Secondary Reach

	May	June	July	August	Sept.	Total
Avg. Qi (cfs)	0.02	0.29	0.47	0.41	0.28	---
Qa (acre-feet)	1.4	17.2	28.7	25.2	16.5	89.0

Water Not Placed in Trust

The remaining portion of Court Claim No. 00365 which has not been sold and is not placed in trust will continue to be exercised within the court awarded season of use and POU. Considering the 2005 CU and irrigated acres listed above, 131 acre-feet and 57.7 acres respectively, Mr. Henshaw will be able to irrigate 15.5 acres total after the change (see Equation 1). The maximum annual diversion (Qa) is limited to 48.1 acre-feet (see Equation 2). The maximum instantaneous rate of diversion (Qi) is limited to 0.83 cfs for irrigation. This amount equates to the remainder of the amount necessary to satisfy the average Qi associated with the peak TIR related to the water use placed in trust (see Equation 3). In addition to irrigation, Mr. Henshaw is authorized to divert 0.02 cfs and 0.24 ac-ft/yr for of stock water.

Equation 1. Remaining Consumptive Use and Irrigation

$$131 \text{ acre-feet} \div 57.7 \text{ acres} = 2.3 \text{ acre-feet per acre}$$

Thus,

$$CU = 35.5 \text{ acre-feet} \div 2.3 \text{ acre-feet per acre} = 15.5 \text{ acres}$$

Equation 2. Maximum Qa

$$178 \text{ acre-feet} \div 57.7 \text{ acres} = 3.1 \text{ acre-feet per acre}$$

Thus,

$$Qa = 3.1 \text{ acre-feet per acre} \times 15.5 \text{ acres} = 48.1 \text{ ac-ft/yr}$$

Equation 3. Maximum Qi

Peak TIR by month is July (41.3 acre-feet)

31 days in July

1 cfs = 1.9834 acre-feet per day

Results in,

Avg. Qi to meet peak TIR = 41.3 acre-feet ÷ 31 days ÷ 1.9834 acre-feet per day = 0.67 cfs

Thus,

Qi = 1.5 cfs – 0.67 cfs = **0.83 cfs**

Trust Water Place of Use

Ecology typically manages its trust water rights by defining a primary and a secondary reach. The primary reach is the length of the river between the historic point of diversion and where any of the water diverted, but not consumed, returns to the river. The secondary reach begins at the downstream end of the primary reach and is defined as that length of river which benefits from a reduction in consumptive use.

However, this water right is being changed from irrigation to instream flow and water banking. As such, this trust water right will serve as mitigation for new water rights from surface water sources and/or sources hydraulically related to the Yakima River. These new appropriations will be water budget neutral with respect to the “total water supply available,” but the trusting of this right will not derive a specific reach benefit eligible for protection after the new appropriations are authorized.

Trust Water Management

Court Claim No. 00365 is being changed to instream flow and water banking. As a condition of placing this water right into the TRWP, the consumptive portion of water placed into trust may be available as mitigation to address the issue of impairment with respect to new out-of-priority water rights consistent with WAC 173-539A.

Impairment Considerations

Under RCW 90.38.040(5)(a), a trust water right may be exercised only if Ecology first determines that the authorization will not impair or injure any other water right. An attempt was made to identify any third parties who may be potentially affected by an approval of this application. Ecology sent a notice containing pertinent information to all appropriate state agencies, potentially affected local governments and federally recognized tribal governments, and other interested parties. Ecology did not receive any comments regarding the issue of impairment from any third party.

Public Interest Considerations

When investigating a change application, Ecology is required to consider whether the change is detrimental to the public interests. Ecology must consider how the change 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 change application.

Consideration of Protests and Comments

No protest or comments were received for consideration.

CONCLUSIONS

Court Claim No. 00365 is appurtenant to the subject property. The author makes a tentative determination that Court Claim No. 00365 represents a valid right to divert water from the Yakima River in quantities up to 1.5 cfs and 169.24 acre-feet for the irrigation of 54.9 acres, and 0.02 cfs and 0.24 acre-feet for stock water, both from April 20 through September 30.

Approval of this water right change request as provisioned will not enlarge the water right or impair existing water rights.

RECOMMENDATIONS

Based on the above investigation and conclusions, I recommend the request for change to Court Claim No. 00365 be approved in the amounts and within the limitations listed below and subject to the provisions listed in the Report of Examination.

Trust Water Right Attributes

Primary Reach*

0.67 cfs (cfs), 120.9 ac-ft/yr for the purpose of instream flow and water banking from April 20 through September 30.

Secondary Reach*

Table 2
Instream Flow in Secondary Reach

	May	June	July	August	Sept.	Total
Avg. Qi (cfs)	0.02	0.29	0.47	0.41	0.28	---
Qa (acre-feet)	1.4	17.2	28.7	25.2	16.5	89.0

*Only the portion of the right which is not being used as mitigation will be eligible for protection.

Attributes the Portion Not Placed in Trust

0.83 cfs, 48.1 ac-ft/yr for the irrigation of 15.5 acres from April 20 to September 30.

0.02 cfs, 0.24 ac-ft/yr for stock water from April 20 to September 30.

Point of Diversion

750 feet south and 1,150 feet east from the north quarter corner of Section 35, T. 20 N., R. 15 E.W.M.

Place of Use

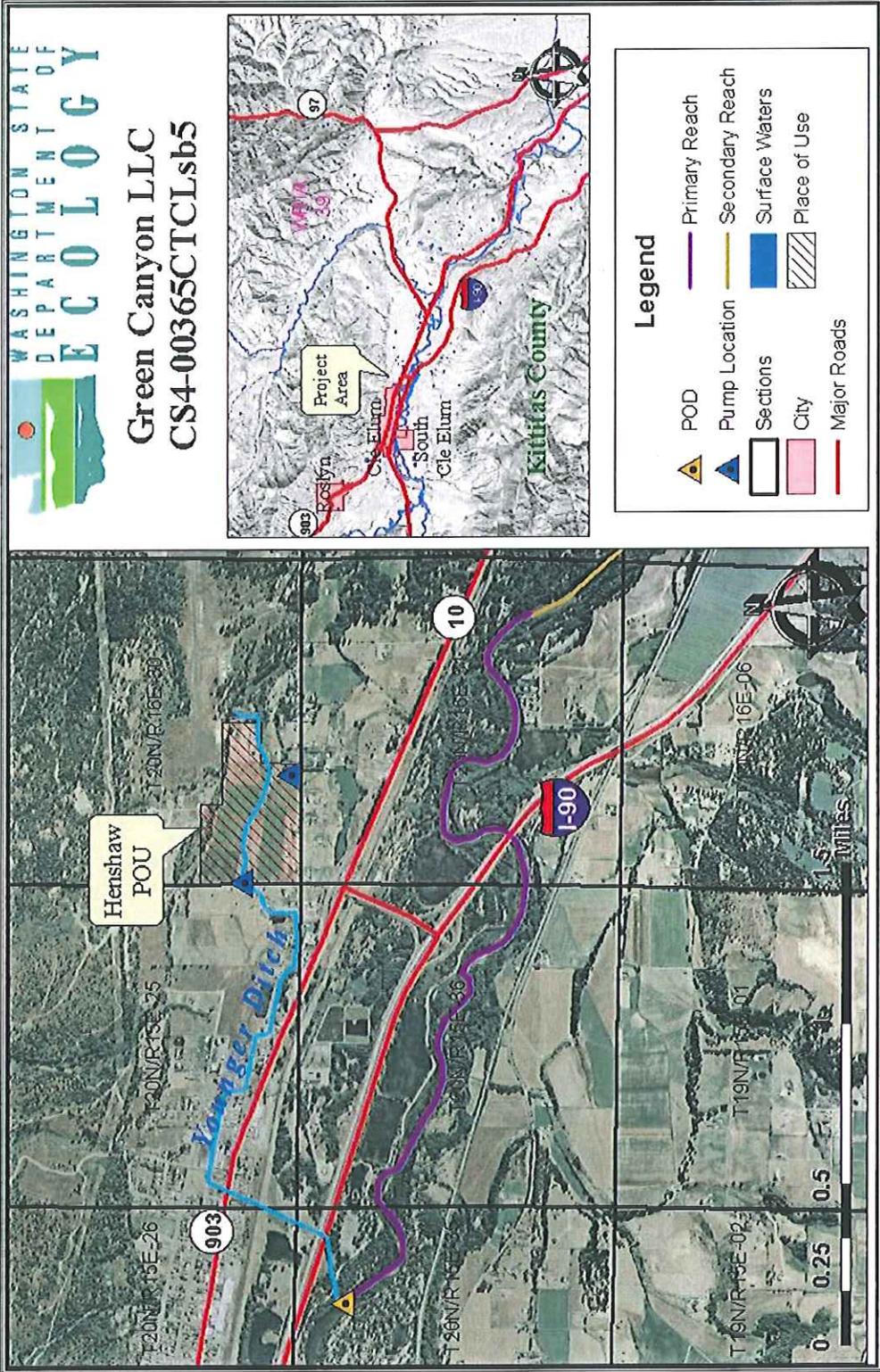
S½S½ of Government Lot 3, Government Lot 4 and the SE¼SW¼ EXCEPT the SE¼SE¼SW¼, All in Section 30, T. 20 N., R. 16 E.W.M.

Report by: _____ Date _____
Kurt Walker
Water Resources Program

REFERENCES

- Morrice, J. and Flynn, T. 2009. Technical Memorandum regarding Calculation of Evapotranspiration Rates and Crop Irrigation Requirements, Project No. 070207.
- Morrice, J. and Flynn, T. 2009. Technical Memorandum regarding Current and Proposed Water Use Estimates Northland Resources, L.L.C. Development Projects, Project No. 070207.
- Natural Resources Conservation Service, 1997. *Washington Irrigation Guide. Appendix B: Climatic Station for Consumptive Use (WA 210-VI-WAIG)*.
- United States Geologic Survey, 1995. Provisional data of Livestock (stock) water use, by County, for Washington 1995. Available on line at: <http://wa.water.usgs.gov/data/wuse/main.cnty.95.txt>
- State of Washington, Department of Ecology v. Acquavella, et al., Yakima County Superior Court Case No. 77-2-01484-5, Reports of Referee Subbasin No. 5 (Elk Heights).
- Washington State Department of Health, 2001. Water System Design Manual, Chapter 5, Water Demand Requirements. Available on line at: <http://www.doh.wa.gov/ehp/dw/Publications/331-123.pdf>

Attachment 1



Newton Trust Water Right Conditions

The Newton water right has a pre-1905 priority date authorizing diversion from Younger Ditch off of the Yakima River for irrigation between May 1 and September 15. Newton was first perfected from the Teanaway River. In the Acquavella adjudication the right was confirmed for 195 afy for irrigation and 0.495 acre feet for stock water, with a condition to be regulated to protect senior water rights on the Teanaway River when water is not available at the historical point of diversion for the class 16 right.

Ecology has placed into trust the Newton water right for the Northland Water Exchange. Recognizing that the Newton's Yakima diversion is subject to curtailment in the event that flows in the Teanaway River are insufficient to satisfy senior downstream Teanaway water right diversions, a potential regulation date has been determined based on the conservative assumptions that all downstream Teanaway senior water rights are valid and are calling every year for water and without taking into account return flows from upstream diversions. There is a maximum total of 37 cfs of authorized diversions associated with 90 senior water rights downstream of the nearest active stream gage control point (United States Bureau of Reclamation Teanaway River at Forks gauge). Approximately 19 cfs of authorized diversions are associated with 41 senior water right located downstream of the historic Newton diversion. On average, flows at the control point drop below 37 cfs on July 29th, which marks the average date on which the Newton right could be curtailed.¹

Approximately 43.6 acre-feet of consumptive use is associated with exercise of the Newton right in an average year through July 29th. The remaining 30.1 acre-feet of consumptive use is associated with exercise of this right after July 29th. Newton irrigation system has the capacity to deliver the full Qa of 120 afy prior to the regulation date and within the maximum instantaneous quantity limitation (Qi) of the water right². Based on the capacity of the system and the calculation of the potential date of any regulation, the total annual consumptive use of 73.7 afy associated with the Newton right will be appropriated within a period of use limited from May 1st through July 29th.

The mitigation monthly acre feet credits in the Northland Water Exchange will therefore be as follows:

May	15.7
June	26.5
July	31.5
Aug.	0
Sept.	0
Oct.	0
73.7 afy	

¹ Daily flow data for the Teanaway River at Forks gage over the period of 1984 through 2008 were acquired from the US Bureau of Reclamation. These data were used to develop an average daily hydrograph. Based on the average hydrograph, flows in the Teanaway River at Forks drop below the 37 cfs threshold on average on July 29th. This date was used to define use of the Newton water right that, on average, is not subject to regulation from use that is subject to regulation.

² The Newton irrigation system consists of two wheel lines with 4-inch diameter irrigation pipe and a 6-inch diameter conveyance pipe. The wheel lines are constructed with 40-foot pipe sections, with one impact sprinkler (3/16" nozzle size) per section. One wheel line has 26 nozzles and the other has 28 nozzles. The wheel lines are served by a single 15 horsepower pump. Based on these data, the physical capacity of the Newton irrigation system is estimated to be about 370 gallons per minute (gpm). The maximum instantaneous quantity (Qi) authorized under the Newton right is 0.7 cfs or 314 gpm. Assuming continuous operation at 0.7 cfs from May 1st through July 29th (90 days) the Newton system is capable of producing 125 acre-feet. Therefore the Newton irrigation system can deliver the total annual use quantity of 120 afy (including the 73.7 afy of consumptive use) prior to the average potential regulation date, and within the 0.7 cfs Qi constraint of the water right.

ATTACHMENT B

*[List of water right applications and requests for determination
of water budget neutrality submitted to Department of Ecology]*

Applications for eight (8) new ground water rights:

Applicant: Misty Mountain LLC
Project Name: Fircrest
No. G4-35246
Description: Appropriation of water from a well or wells in the amount of 250 gallons per minute each year, 11 acre-feet per year for the purpose of continuous multiple domestic supply of a 27-unit residential development. The source of the proposed appropriation is located within the SE $\frac{1}{4}$ NW $\frac{1}{4}$ and NE $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 9, T. 19 N., R. 15 E.W.M., Kittitas County, Washington.

Applicant: Green Canyon LLC
Project Name: Flatwater
No. G4-35247
Description: Appropriation of water from a well or wells in the amount of 250 gallons per minute each year, 11 acre-feet per year for the purpose of continuous multiple domestic supply of an 26-unit residential development. The source of the proposed appropriation is located within the SW $\frac{1}{4}$ of Section 30, T. 20 N., R. 16 E.W.M., Kittitas County, Washington.

Applicant: Iron Snowshoe, LLC
Project Name: Forest Ridge
No. G4-35248
Description: Appropriation from a well or wells in the amount of 250 gallons per minute, 75 acre-feet per year for the purpose of continuous multiple domestic supply of a 190-unit residential development. The source of the proposed appropriation is located within the N $\frac{1}{2}$, N $\frac{1}{2}$ S $\frac{1}{2}$, and SW $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 24, T. 20 N., R. 15 E.W.M. and the SW $\frac{1}{4}$ of Section 30, T. 20 N., R. 16 E.W.M., Kittitas County, Washington.

Applicant: Cool Water LLC, Fortune Creek LLC, and Saddle Ridge LLC
Project Name: Little Creek
No. G4-35249

Description: Appropriation from a well or wells in the amount of 250 gallons per minute each year, 20 acre-feet per year for the purpose of continuous multiple domestic supply of a 50-unit residential development. The source of the proposed appropriation is located within the N½ and the N½ N½SE¼ of Section 33, T. 20 N., R. 14 E.W.M., Kittitas County, Washington.

Applicant: Cool Water LLC and Fortune Creek LLC
Project Name: Woods and Steele
No. G4-35250
Description: Appropriation from a well or wells in the amount of 250 gallons per minute, 26 acre-feet per year, for the purpose of continuous multiple domestic supply of a 65-unit residential development. The source of the proposed appropriation is located within the SW¼ of Section 7, T. 19 N., R. 15 E.W.M., Kittitas County, Washington.

Applicant: Meadow Springs LLC and Stuart Vista LLC
Project Name: Meadow Springs
No. G4-35251
Description: Appropriation from a well or wells in the amount of 250 gallons per minute each year, 53 acre-feet per year, for the purpose of continuous multiple domestic supply of a 135-unit residential development. The source of the proposed appropriation is located within the E½ of Section 1; AND the S½SW¼ of Section 1; AND the NE¼NW¼ and NW¼NE¼ of Section 12; ALL in T. 19 N., R. 14 E.W.M., Kittitas County, Washington.

Applicant: Green Canyon LLC, Cooper Pass LLC, and Highmark Resources LLC
Project Name: City Heights
No. G4-35273
Description: Appropriation from a well or wells in the amount of 1,200 gallons per minute each year, 269 acre-feet per year for the purpose of continuous multiple domestic supply of a 875-unit residential development. The sources of the proposed appropriation are located within the NW¼SW¼ of Section 24, the SW¼SW¼ of Section 24, the SE¼ of Section 25, the NW¼ of Section 25, the N½ of Section 26, the N½ of Section 27, the NE¼SE¼ of Section 27, the SE¼SE¼ of Section 27, and the SW¼SE¼ of Section 30, all in T. 20 N., R. 15 E.W.M., and the SW¼ of Section 30, in T. 20 N., R. 16 E.W.M., Kittitas County, Washington.

Five (5) requests for determination of water budget neutrality:

Applicant: MC Ten, LLC
Project Name: Timber Ridge
Quantities: Annual - 3.7 afy
Consumptive - 2.2 afy

Applicant: Misty Mountain, LLC
Project Name: Tillman Heights
Quantities: Annual - 3.7 afy
Consumptive - 2.2 afy

Applicant: Cooper Pass, LLC
Project Name: Ponderosa Pines
Quantities: Annual - 4.0 afy
Consumptive - 2.4 afy

Applicant: Back Country Resources, LLC
Project Name: Evergreen Park
Quantities: Annual - 3.7 afy
Consumptive - 2.2 afy

Applicant: Northland Investments, Inc.
Project Name: Meadow Ridge
Quantities: Annual - 4.7 afy
Consumptive - 2.8 afy

RECEIVED
JUN 10 2010
DEPARTMENT OF ECOLOGY - CENTRAL REGIONAL OFFICE

FIRST AMENDMENT TO TRUST WATER RIGHT AGREEMENT

This First Amendment to the Trust Water Right Agreement (“Amendment”) is entered into by and between the State of Washington, Department of Ecology (“Ecology”) and Northland Resources, LLC, a Washington limited liability company doing business as Sapphire Skies (“Sapphire Skies”), each of which are also referred to individually as a “Party” and collectively as “Parties”, pursuant to Chapters 90.38 and 90.42 RCW.

RECITALS

- A. The Parties entered into the Trust Water Right Agreement (“Agreement”) on or about May 14, 2010.
- B. The Agreement includes a list and description of applications for permits and requests for water budget neutral projects, collectively referred to as applications. *See Attachment B to the Agreement.*
- C. Sapphire Skies desires to revise the list of allocations.
- D. The Parties desire to more specifically provide for the process and elements of the requests for water budget neutral projects.
- E. The Agreement provides that the Parties may amend the Agreement upon agreement of both Parties in writing.

AMENDMENT

In consideration of the mutual covenants set forth herein, the Parties agree as follows:

- 1. Except as provided herein, the terms of the Agreement remain binding on the Parties. To the extent there is any conflict between the Agreement and this Amendment, the terms of the Amendment shall prevail.
- 2. Attachment B is amended by removing the following requests for the water budget neutral projects:
 - a. Back Country Resources, LLC (for Evergreen Park development), which is now part of Woods and Steele development under application no. G4-35250.
 - b. Misty Mountain LLC (for Tillman Heights development), which is now part of Fircrest development under application no. G4-35246.

c. Stuart Vista, LLC (for the Tillman 19 development), which is now part of Fircrest development under application no. G4-35246.

3. Ecology will make determinations on requests for water budget neutral projects only after making the following findings as provided under the emergency rule, chapter 173-539A WAC:

a. Each request complies with the definition of "Group use".

b. Water Rights must be identified that would be placed into the trust water right program to offset the consumptive use associated with the water budget neutral projects and serve as mitigation for impacts to "total water supply available" ("TWSA").

c. The Water Rights as listed in Attachment A have been approved for change to instream flow and water banking and have been identified as water rights for the trust program to offset consumptive use for impacts to TWSA from new water rights.

4. Determinations for water budget neutral projects will be issued but shall be only effective upon satisfaction of the following requirements:

a. The identified water rights as provided in Paragraph 3.b are final decisions no longer subject to appeal.

b. The Agreement is final no longer subject to appeal.

c. The appropriate amount of the identified water right is conveyed to the state by deed and Ecology issues a Trust Water Right Certificate. See Paragraphs A.2.c. and A.2.d of the Agreement.

d. Notices required under RCW 90.42 will have been completed.

e. The storage of water for non-irrigation season mitigation shall be completed in a reasonable period of time ^{ALCS (S)} ~~approved~~ by Ecology, and shall be completed prior to actual use of water under the determination. See Paragraphs B.2 and B.3 of the Agreement.

f. Nothing herein forecloses or limits Ecology to place additional conditions necessary to comply with the emergency rule.

5. The Parties shall establish an escrow that shall be opened upon the mutual execution of this Amendment and its deposit in the escrow with the determinations as provided in Paragraph 4. The escrow shall close in regard to each determination when the stated requirements in the respective determination are fully satisfied, and thereafter

the determination shall be released from escrow. Upon closing, the escrow agent shall record the deed and the Trust Water Right Certificate with the Kittitas County Auditor.

6. All other terms and conditions in the Agreement remain in full force and effect.

DATED this 2nd day of June, 2010.

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

SAPPHIRE SKIES

By: Mark C. Schuppel By: [Signature]

AMENDED ATTACHMENT B

*[List of water right applications and requests for determination
of water budget neutrality submitted to Department of Ecology]*

Applications for eight (8) new ground water rights:

Applicant: Misty Mountain LLC
Project Name: Fircrest
No. G4-35246
Description: Appropriation of water from a well or wells in the amount of 250 gallons per minute each year, 11 acre-feet per year for the purpose of continuous multiple domestic supply of a 27-unit residential development. The source of the proposed appropriation is located within the SE $\frac{1}{4}$ NW $\frac{1}{4}$ and NE $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 9, T. 19 N., R. 15 E.W.M., Kittitas County, Washington.

Applicant: Green Canyon LLC
Project Name: Flatwater
No. G4-35247
Description: Appropriation of water from a well or wells in the amount of 250 gallons per minute each year, 11 acre-feet per year for the purpose of continuous multiple domestic supply of an 26-unit residential development. The source of the proposed appropriation is located within the SW $\frac{1}{4}$ of Section 30, T. 20 N., R. 16 E.W.M., Kittitas County, Washington.

Applicant: Iron Snowshoe, LLC
Project Name: Forest Ridge
No. G4-35248
Description: Appropriation from a well or wells in the amount of 250 gallons per minute, 75 acre-feet per year for the purpose of continuous multiple domestic supply of a 190-unit residential development. The source of the proposed appropriation is located within the N $\frac{1}{2}$, N $\frac{1}{2}$ S $\frac{1}{2}$, and SW $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 24, T. 20 N., R. 15 E.W.M. and the SW $\frac{1}{4}$ of Section 30, T. 20 N., R. 16 E.W.M., Kittitas County, Washington.

Applicant: Cool Water LLC, Fortune Creek LLC, and Saddle Ridge LLC
Project Name: Little Creek
No. G4-35249

Description: Appropriation from a well or wells in the amount of 250 gallons per minute each year, 20 acre-feet per year for the purpose of continuous multiple domestic supply of a 50-unit residential development. The source of the proposed appropriation is located within the N½ and the N½ N½SE¼ of Section 33, T. 20 N., R. 14 E.W.M., Kittitas County, Washington.

Applicant: Cool Water LLC and Fortune Creek LLC
Project Name: Woods and Steele
No. G4-35250
Description: Appropriation from a well or wells in the amount of 250 gallons per minute, 26 acre-feet per year, for the purpose of continuous multiple domestic supply of a 65-unit residential development. The source of the proposed appropriation is located within the SW¼ of Section 7, T. 19 N., R. 15 E.W.M., Kittitas County, Washington.

Applicant: Meadow Springs LLC and Stuart Vista LLC
Project Name: Meadow Springs
No. G4-35251
Description: Appropriation from a well or wells in the amount of 250 gallons per minute each year, 53 acre-feet per year, for the purpose of continuous multiple domestic supply of a 135-unit residential development. The source of the proposed appropriation is located within the E½ of Section 1; AND the S½SW¼ of Section 1; AND the NE¼NW¼ and NW¼NE¼ of Section 12; ALL in T. 19 N., R. 14 E.W.M., Kittitas County, Washington.

Applicant: Green Canyon LLC, Cooper Pass LLC, and Highmark Resources LLC
Project Name: City Heights
No. G4-35273
Description: Appropriation from a well or wells in the amount of 1,200 gallons per minute each year, 269 acre-feet per year for the purpose of continuous multiple domestic supply of a 875-unit residential development. The sources of the proposed appropriation are located within the NW¼SW¼ of Section 24, the SW¼SW¼ of Section 24, the SE¼ of Section 25, the NW¼ of Section 25, the N½ of Section 26, the N½ of Section 27, the NE¼SE¼ of Section 27, the SE¼SE¼ of Section 27, and the SW¼SE¼ of Section 30, all in T. 20 N., R. 15 E.W.M., and the SW¼ of Section 30, in T. 20 N., R. 16 E.W.M., Kittitas County, Washington.

Three (3) requests for determination of water budget neutrality:

Applicant: MC Ten, LLC
Project Name: Timber Heights
Quantities: Annual – 4.0 afy
Consumptive – 2.4 afy

Applicant: Cooper Pass, LLC
Project Name: Ponderosa Pines
Quantities: Annual – 4.0 afy
Consumptive – 2.4 afy

Applicant: Northland Investments, Inc.
Project Name: Meadow Ridge
Quantities: Annual – 4.7 afy
Consumptive – 2.8 afy

RECEIVED

MAR 15 2010

DEPARTMENT OF ECOLOGY - CENTRAL REGIONAL OFFICE

SECOND AMENDMENT TO TRUST WATER RIGHT AGREEMENT

This Second Amendment to the Trust Water Right Agreement ("Second Amendment") is entered into by and between the State of Washington, Department of Ecology ("Ecology") and Northland Resources, LLC, a Washington limited liability company doing business as Sapphire Skies ("Sapphire Skies"), each of which are also referred to individually as a "Party" and collectively as "Parties", pursuant to Chapters 90.38 and 90.42 RCW.

RECITALS

A. The Parties entered into the Trust Water Right Agreement ("Agreement") on or about May 14, 2010, and a First Amendment To Trust Water Right Agreement ("First Amendment") on or about June 2, 2010.

B. The Agreement includes a list and description of applications for permits and requests for water budget neutral projects, collectively referred to as applications. *See Attachment B to the Agreement, as amended in the First Amendment.*

C. The Parties desire to more specifically provide for the process and elements of the requests for water budget neutral projects.

E. The Agreement provides that the Parties may amend the Agreement upon agreement of both Parties in writing.

AMENDMENT

In consideration of the mutual covenants set forth herein, the Parties agree as follows:

1. Except as provided herein, the terms of the Agreement and First Amendment remain binding on the Parties. To the extent there is any conflict between the Agreement, the First Amendment and this Second Amendment, the terms of the Amendment shall prevail.

2. The determinations for the water budget neutral projects will be based on a maximum standard of 350 gallons per day ("gpd") per connection for indoor water use¹; provided that if Ecology issues such determinations, this allocation of 350 gpd can be reduced and the commitment of mitigation credits in the Sapphire Skies Water Exchange can be credited back to Sapphire Skies based upon the following:

¹ The 350 gpd per connection represents an allocation of 70 or 105 gpd per connection consumptive water use based on the 20% consumptive use for a sanitary sewer system and 30% consumptive use for residential septic system, respectively, under WAC 173-539A-050(3).

- a. Ecology determines in rule or policy a standard other than the 350 gpd/connection for calculating the average indoor water use applicable to single-family residences, and Sapphire Skies elects to use this new standard for water budget neutral projects that Ecology had prior to the new standard determined to be water budget neutral.
- b. Sapphire Skies provides Ecology with three years of monitoring data of indoor water use for the purpose of showing that the actual average indoor water use is less than a 350 average gpd for each of the recording periods specified in WAC 173-539A-070(3). If Sapphire Skies collects and submits water use data then the three years of monitoring shall commence when the first residential unit is occupied in any one of the water budget neutral projects listed in Attachment B, as may be amended in the future, for which a water budget neutral determination has been issued by Ecology. A water use monitoring plan shall be developed by Sapphire Skies and submitted to Ecology for approval prior to commencement of the monitoring program.

3. Any new standard adopted under Paragraph 2.a above shall not apply retroactively to water budget neutral projects that Ecology has already determined to be water budget neutral unless Sapphire Skies chooses to apply that new standard. Otherwise, for all projects not under Paragraph 2.a above, the indoor water use shall be the actual average gallons per day used based on the monitoring data as defined in 2.b above, subject to Ecology approval. For projects already determined to be water budget neutral prior to any new standard under 2.a. above, if Sapphire Skies selects the new standard under 2.a. above, or Ecology approves the monitoring data submitted by Sapphire Skies under 2.b. above, the mitigation credits from the instream flow water rights recognized in the Sapphire Skies Water Exchange for these water budget neutral projects will be credited back to Sapphire Skies Water Exchange based on the difference between the consumptive use of indoor water use calculated at 105 gpd/connection and the consumptive water use calculated at either the new Ecology standard or the monitoring and data collection.

DATED this 2nd day of July, 2010.

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

SAPPHIRE SKIES

By: Mark C. Schuyler

By: [Signature]