File NR: G4-35552
WR Doc ID: 5198701

DEPARTMENT OF ECOLOGY
State of Washington

State of Washington
REPORT OF EXAMINATION
FOR WATER RIGHT APPLICATION

PRIORITY DATE
March 8, 2012

WATER RIGHT NUMBER
G4-35552

MAILING ADDRESS
EDWARD A. & TERRI L. PHILLIPS
25927 232ND CT SE
MAPLE VALLEY WA 98038-4711

SITE ADDRESS (IF DIFFERENT)
UNKNOWN

Quantity Authorized for Withdrawal or Diversion

WITHDRAWAL OR DIVERSION RATE	UNITS	ANNUAL QUANTITY (AF/YR)
4.48	GPM	0.414

Purpose

	WITHDRAWAL OR DIVERSION RATE			ANNUAL QUANTITY (AF/YR)		PERIOD OF USE (mm/dd)
PURPOSE	ADDITIVE	NON-ADDITIVE	UNITS	ADDITIVE	NON-ADDITIVE	
Domestic Single	4.48		GPM	0.392		01/01 - 12/31
Irrigation		4.48	GPM	0.022		06/01 - 09/30

IRRIGATED ACRES		PUBLIC WATER SYSTEM INFORMATION	
ADDITIVE	NON-ADDITIVE	WATER SYSTEM ID	CONNECTIONS
0.011	0	N/A	N/A

Source Location

COUNTY	WATERBODY	TRIBUTARY TO	WATER RESOURCE INVENTORY AREA
KITTITAS	GROUNDWATER		39-UPPER YAKIMA

SOURCE FACILITY/DEVICE	PARCEL	WELL TAG	TWP	RNG	SEC	Q	LATITUDE	LONGITUDE
1 Well	951613	N/A	19N	15E	09	NW	N/A	N/A

Place of Use (See Attached Map)

PARCEL
951613

LEGAL DESCRIPTION OF AUTHORIZED PLACE OF USE

Lot 5, **BIRDSONG MEADOWS PLAT**, in the county of Kittitas, state of Washington, as per plat thereof recorded in Book 10 of Plats, pages 160 and 161, records of said county.

FILE COPY

Proposed Works

The location of the proposed well is to be determined within Parcel No. 951613.

Domestic wastewater will be discharged to an individual on-site septic system, pursuant to the Declaration of Covenant signed January 17, 2012, by subject applicant.

Development Schedule

BEGIN PROJECT	COMPLETE PROJECT	PUT WATER TO FULL USE
December 31, 2015	October 31, 2021	October 31, 2023

Measurement of Water Use

How often must water use be measured?	Monthly
How often must water use data be reported to Ecology?	Annually (Jan 31)
What volume should be reported?	Total Annual Volume
What rate should be reported?	Annual Peak Rate of Withdrawal (gpm)

*Bi-weekly means every two weeks

Provisions

A. Wells, Well Logs and Well Construction Standards

1. The subject well is authorized for groundwater withdrawal from the unconfined (UNC) aquifer within the Tillman Creek Basin.
2. 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.
3. All wells shall be tagged with a Department of Ecology (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 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.
4. Installation and maintenance of an access port as described in WAC 173-160- 291(3) is required.
5. 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.

B. Measurements, Monitoring, Metering and Reporting

1. An approved measuring device shall be installed and maintained for each of the sources identified by this water right in accordance with the rule "Requirements for Measuring and Reporting Water Use," WAC 173-173.

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

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

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

C. Water Level Measurements

1. In order to maintain a sustainable supply of water and ensure that your water source is not impaired by future withdrawals, static water levels **should** be measured and recorded monthly using a consistent methodology. 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 level data **should** 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.

D. Water Use Efficiency

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

E. Proof of Appropriation

1. Final beneficial use calculations, either independently or combined, shall be determined during the investigation at the Proof of Appropriation stage.

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

F. Schedule and Inspections

1. 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.

G. General Conditions

1. This authorization shall in no way excuse the permittee from compliance with any federal, state, or local statutes, ordinances, permits, or regulations including those required and administered by other programs of Ecology.
2. You (applicant) will record with the Kittitas County Auditor a property covenant requiring the applicant to maintain the "flow augmentation" facility in perpetuity.
3. Water cannot be put to beneficial use until the "flow augmentation" facility is permitted, constructed, and operational. Proof of operation of the facility must be submitted in writing to Ecology.
4. You (applicant) will pay the sum of **$57.02**, which represents a proportionate amount of the payment due and owing to the United States for storage and delivery of water under Paragraph 15(a) of Water Storage and Exchange Contract No. 09XX101700, between the Bureau of Reclamation and the State of Washington Department of Ecology, Yakima Project, Washington, dated January 29, 2009.[1] The consumptive use of 0.072 acre-feet from September 1 through March 31 is subject to the terms and conditions in the Water Storage and Exchange Contract No. 09XX101700.
5. You (applicant) will record with the Kittitas County Auditor a property covenant as required under WAC 173-539A-050 that restricts or prohibits trees or shrubs over a septic drain field on Parcel 951613.
6. You (applicant) will record with the Kittitas County Auditor an appropriate conveyance instrument under which the applicant obtains an interest in Trust Water Right No. S4-05259CTCL@2sb7 to offset consumptive use.
7. Any valid priority calls against the source Trust Water Right No. S4-05259CTCL@2sb7, based on local limitations in water availability, will result in temporary curtailment of the use of water under the permit until the priority call for water ends.

Findings of Facts

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

Therefore, I ORDER approval of Application No. G4-35552, subject to existing rights and the provisions specified above.

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

Your Right To Appeal

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

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

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

- Serve a copy of your appeal and this Order on Ecology in paper form - by mail or in person. (See addresses below.) E-mail is not accepted.
- You must also comply with other applicable requirements in Chapter 43.21B RCW and Chapter 371-08 WAC.

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

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

Signed at Yakima, Washington, this 25 day of July, 2013.

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

If you need this document in an alternate format, please call the Water Resources Program at 509-575-2490. Persons with hearing loss can call 711 for Washington Relay Service. Persons with a speech disability can call 877-833-6341.

BACKGROUND

This report serves as the written findings of fact concerning Water Right Application Number G4-35552.

Priority Processing

This application is being priority processed because it qualified under the criteria under which an application may be processed prior to competing applications (WAC 173-152).

Table 1: Summary of "Requested" Water Right

Applicant Name	Edward & Terri Phillips
Date of Application	March 8, 2012
Place of Use	Lot 5, BIRDSONG MEADOWS PLAT, in the county of Kittitas, state of Washington, as per recorded in Book 10 of Plats, pages 160 and 161, records of said county. (Parcel No. 951613.)

County	Waterbody	Tributary To	WRIA
Kittitas	Groundwater		39-Upper Yakima

Purpose	Rate	Unit	Acre-feet/yr	Begin Season	End Season
Domestic Single	10	GPM	0.392	01/01	12/31
Irrigation	10	GPM	0.022	06/01	09/30

Source	Parcel	Well Tag	Twp	Rng	Sec	QQ Q	Latitude	Longitude
1 Well	951613	N/A	19N	15E	09	NW	N/A	N/A

CFS = Cubic Feet per Second; Ac-ft/yr = Acre-feet per year; Sec. = Section; QQ Q = Quarter-quarter of a section; WRIA = Water Resource Inventory Area; E.W.M. = East of the Willamette Meridian; Datum: NAD83/WGS84.

Legal Requirements for Approval of Appropriation of Water

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

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

Because the applicant intends to mitigate for consumptive use under the requested appropriation through the purchase of Upper Kittitas mitigation credits from the Suncadia Water Exchange, this proposal is considered water-budget-neutral pursuant to WAC 173-539A. An additional element offered for this project will be the "Tillman Creek flow augmentation" project due to the presence of critical habitat for priority fish species in the Tillman water shed.

Consultation with the Department of Fish and Wildlife
Ecology consulted with Washington Department of Fish and wildlife (WDFW) and received comments regarding critical habitat and presence in lower Tillman Creek. Additionally, Ecology's Water Storage and Exchange Contract No. 09XX101700, provides that if a proposed water exchange does not meet certain conditions established in the contract, then supplemental ESA consultation is required.

Supplemental consultation was required for this application for the following reasons:

- The proposed consumptive use cannot be mitigated from an upstream source.
- The total hydrologic impact from current diversions and potential additional consumptive use may exceed 1% of critical low flow in Tillman Creek, where salmon, steelhead, and bull trout are present, and surrounding habitat may support the northern spotted owl.

The United States Bureau of Reclamation with concurrences from WDFW and Wildlife Service and National Marine Fisheries Service determined the proposed project, with the consideration of both the offered mitigation and the supplemental environmental project may affect but is not likely to adversely affect:

1. Steelhead critical habitat in Tillman Creek and the mainstem Yakima River.[2]
2. Steelhead in the Yakima River or Tillman Creek.[3]
3. Bull trout in Tillman Creek.[4]
4. Northern spotted owl.[5]

WDFW participated in the selection and subsequent review of the supplemental environmental project.

Public Notice
RCW 90.03.280 requires that notice of a water right application be published once a week, for two consecutive weeks, in a newspaper of general circulation in the county or counties where the water is to be stored, diverted, and used. Notice of this application was published in The Ellensburg Daily Record on April 10th and April 17th, 2012. No comments or protests were received by Ecology during the 30-day comment period.

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

(a) It is a surface water right application for more than 1 cubic foot per second (cfs), unless that project is for agricultural irrigation, in which case the threshold is increased to 50 cfs, so long as that irrigation project will not receive public subsidies.

(b) It is a groundwater right application for more than 2,250 gallons per minute (gpm).

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[2] "Biological Assessment of Potential Effects to Middle Columbia River Steelhead from Implementation of a Water Bank Program in the Tillman Subbasin Under a Long-Term Storage and Delivery Agreement," Bureau of Reclamation, Yakima, Wa., February 19, 2013, p. 24.
[3] Ibid., p. 23.
[4] Supplement to: "Biological Assessment of Potential Effects to Middle Columbia River Steelhead from Implementation of a Water Bank Program in the Tillman Subbasin Under a Long-Term Storage and Delivery Agreement," Bureau of Reclamation, Yakima, Wa., February 19, 2013, p. 8.
[5] Ibid., p. 9.

(c) It is an application that, in combination with other water right applications for the same project, collectively exceed the amounts above.

(d) It is a part of a larger proposal that is subject to SEPA for other reasons (e.g., the need to obtain other permits that are not exempt from SEPA).

(e) It is part of a series of exempt actions that, together, trigger the need to do a threshold determination, as defined under WAC 197-11-305.

Because this application does not meet any of these conditions for Water Resources, it is categorically exempt from SEPA and a threshold determination is not required.

INVESTIGATION

Site Visit

A site visit was performed on May 1, 2012, by Candis Graff and Anna Hoselton from Ecology. Jessica Kuchan, representative for the applicant, was also present. Area geology was noted, GPS coordinates were recorded, and photographs were taken.

Proposed Use and Basis of Water Demand

The December 2009 Water System Design Manual[6] (WSDM) by the 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 246-290-221(3)(a) and Section 5.2.3.
3. The criteria presented in Chapter 5.

According to the WSDM, for new systems or water systems that have no source meter records, information can be obtained from analogous water systems or from information presented in Appendix D in order to estimate Average Daily Demand (ADD) and Maximum Daily Demand (MDD) for residential connections (WAC 246-290-221(3)).[7] Analogous water systems are defined in Section 5.2.3 of the WSDM as systems with similar characteristics such as but not limited to: demographics, housing size, lot sizes, climate, conservation practices, use restrictions, soils and landscaping, and maintenance practices. As such, a reasonable level for a MDD for internal uses can be established at 350 gallons per day (gpd) per Equivalent Residential Unit (ERU).

The MDD values are set at 350 gpd/ERU, which is consistent with the WSDM. Under WAC 173-539A, 30% of domestic in-house use on a septic system is assumed to be consumptively used and 90% of outdoor domestic use is assumed to be consumptive.

[6] Department of Health, "Water System Design Manual," Olympia, Wa., 2009, pp. 27-32, www.doh.wa.gov/chp/dw/Publications/331-123.pdf, accessed on April 24, 2012.
[7] Ibid., p. 28.

Monthly and annual use at full build-out of the project were calculated based on the proposed 1 ERU, DOH's MDD, Ecology's Guidance Document 1210, Determining Irrigation Efficiency and Consumptive Use, the Washington Irrigation Guide (WIG) for outdoor water use, and the assumptions found in WAC 173-539A. A crop irrigation requirement (CIR) for grass in the Cle Elum area of 18.11 inches was estimated using the WIG. Assuming the outdoor use is 90% consumptive, consistent with WAC 173-539A, and applying the WIG's CIR, the outdoor water requirement for 500 square feet (0.011 acre) of grass is 0.019 ac-ft/yr. The calculated consumptive use and total water-use calculations considered factors specified in WAC 173-539A and are summarized in **Table 2** and **Table 3** below.

Table 2: *Estimated Total Consumptive Use

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Total Use (acre-feet)	.033	.030	.033	.032	.033	.036	.041	.039	.036	.033	.032	.033	.414
Total Consumptive (acre-feet)	.010	.009	.010	.010	.010	.013	.017	.015	.013	.010	.010	.010	.137

*Quantities are rounded.

Table 3: *Domestic Water Use

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Indoor (gpd)	350	350	350	350	350	350	350	350	350	350	350	350
Outdoor (gpd)	0	0	0	0	0	43	82	60	45	0	0	0
Total (gpd)	350	350	350	350	350	393	432	410	395	350	350	350

*Quantities are rounded.

Other Rights Appurtenant to the Place of Use

No existing water rights were found appurtenant to the proposed place-of-use (POU). Other ground water and/or surface water rights in the vicinity are summarized in **Table 5** in Attachment 2.

Impairment Considerations

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

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

- Interrupt or interfere with the flow of water allocated by rule, water rights, or Court Decree to instream flows.
- Degrade the water quality of the source to the point that the water is unsuitable for beneficial use by existing users (e.g., via sea water intrusion).

Water Availability, Planned Mitigation, and Water Duty

For water to be available for appropriation, it must be both physically available (for example, productivity of the aquifer) and legally available (for example, closure of basins to further appropriations).

Water Availability

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

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

Based on the hydrogeologic setting described below, groundwater is physically available for the project due to the in-basin mitigation offered and the use of the "storage" contract.

Hydrologic/Hydrogeologic Evaluation

To meet the expectations of both the applicant and other water right holders ("no impairment") competing for the same source of water, it is necessary to consider the hydrologic effects between older systems and the new system. Through this analysis, an understanding can be gained of the potential for the addition in POW and the water delivery system to affect other water right holders. Finally, a conclusion whether impairment would occur and what conditions might prevent it can then be formulated.

The following hydrologic/hydrogeologic sections were prepared in a technical memorandum dated January 15, 2013, and January 24, 2013, by hydrogeologist, Anna Hoselton, and seeks to address, by way of discussion, analysis, and evaluation, physical availability, and potential for impairment to existing water users.

Water Availability Background
In mid 2010, Ecology's CRO WR Program was tasked with processing the first of many requests for Determination of Water Budget Neutrality pursuant to WAC 173-539A for new water uses in Upper Kittitas County (UKC). Along with the domestic requests under the groundwater permit exemption, applications for mitigated water right permits for wells to serve various proposed projects were also being processed. WAC 173-539A(4)(a) requires Ecology to review the application or request to withdraw groundwater to ensure groundwater is available from the aquifer without detriment or injury to existing rights considering the mitigation offered. While mitigation allows Ecology to resolve the question of water availability for the mainstem Yakima River and its associated senior surface water right holders, **it does not resolve unknowns regarding local water availability or the local groundwater body or bodies**. In an effort to provide technical staff and management with an interim approach to address current water availability questions while the UKC awaits results from the currently in-progress study efforts by the USGS, the following discussion is offered.

Existing Well Details (Hoselton, January 24, 2013)
Table 4 below, lists some of the attributes of the existing wells proposed to be used under the subject applications. The existing wells are all interpreted to withdraw water from the Tillman Creek UNC aquifer identified in the January 15th, 2013, Draft Report titled "Tillman Creek Basin Reference Report (Inclusive of the small un-named basin adjacent and west of the Tillman Creek Watershed boundaries).

Table 4

POW Unique ID	Name on Well Log	Well Completion Date	Well Casing Diameter Inches	Well Depth Feet	Static Water Level Feet	Estimated Yield GPM	Casing Depth Feet	Casing/Liner perforated interval in ft	Interpreted Groundwater Unit
AKW676	Deer Valley LLC	9/2/2005	6	220	186	15-17	220	N/A	UNC
APF767	Dan Dunckley	9/17/2007	6	311	280	5	309	N/A	UNC
AKW643	Jim Beck	10/27/2005	6	208	165	4-5	134	168 to 208	UNC
APG937	Darren Buck	6/12/2006	6	293	180	2	168	170 to 293	UNC
APG917	Mark Wald	7/18/2006	6	170	130	10	163	N/A	UNC

Water Availability Discussion (Hoselton, January 15, 2013)
The current investigation seeks to determine if water rights that will be or have been mitigated for the capture of groundwater that would otherwise support baseflow discharge to the mainstem Yakima River in consideration of and for the protection of existing senior surface water right holders can be issued. However, local water availability from groundwater and local surface water features near the point of the requested groundwater withdrawals is less clear.

Attempting to resolve the local physical availability question, a simplified water balance describing the inflows and outflows of water for the UNC aquifer in both the Tillman Creek Basin and the un-named basin were constructed and considered using the process described below:

- Study area basin boundaries were delineated.
- Total outcrop area of the unconsolidated sediment units (UNC) were collectively calculated and compared to the total outcrop area of all bedrock outcrops within the study area to determine if it was reasonable to treat the bedrock units separately.

- Finding the bedrock outcrops represents approximately 11% of the un-named basin and 35% of the Tillman Creek basin it was decided to evaluate the bedrock separate from the UNC unit.

Based on the hydrogeologic setting, well data, and the simplified water balances, groundwater is physically available within the study area UNC aquifer. Groundwater captured by wells in the study area is most likely to reduce the groundwater baseflow (BF) and Surface Runoff (SRO) components of the above balances. Water availability, however, also includes policy, management and legal considerations and is ultimately a permitting/management decision that is, only in part, based on the above information and that below.

Effect of Groundwater Withdrawals on Surface Water and Springs (Hoselton, January 15, 2013)
As noted in the "Availability" section above, the UNC aquifer in both the Tillman Creek basin and the un-named basin are generally unconfined groundwater aquifers sometimes also referred to as the water table. In unconfined aquifers, groundwater discharges to the land surface where the land surface is intersected by the water table. Where, when and how much groundwater is discharged tends to be a function of timing of recharge, volume of recharge, the geometry and hydraulic characteristics of the unconfined flow system, and may occur as perennial or ephemeral discharge.

As groundwater is removed from the unconfined system by wells, discharge of the groundwater to wells, also known as "capture," reduces the amount of groundwater formerly available to all parts of a basin's water budget. As a result, groundwater pumping is expected to reduce groundwater discharge to area springs, to Tillman Creek and its tributaries, and to the un-named basin's drainage.

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

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

Planned Mitigation
WAC 173-539A provides the following exception to the withdrawal of unappropriated groundwater:

1. Uses for a structure for which a building permit is granted and the building permit application vested prior to July 16, 2009.
2. Uses determined to be water-budget-neutral pursuant to WAC 173-539A-050, which provides that water-budget-neutral projects may be approved. A water-budget-neutral project is one that is mitigated by a pre-1905 water right held by Ecology within the TWRP.

The applicant has entered into a contract with Suncadia for a beneficial interest in a 0.161 ac-ft/yr portion of Trust Water Right No. S4-05259CTCL@2sb7. Suncadia also implemented a supplemental environmental project within the lower reach of Tillman Creek that improves flow and improves critical passage and rearing habitat for salmon, steelhead, and bull trout. This supplemental project addresses potential flow-related impacts to Tillman Creek by redirecting up to 3 cfs from an unnamed stream into Tillman Creek.

Water Duty

In planning a community development, source capacity must be recognized. The total daily source capacity, in conjunction with storage designed to accommodate peak-use periods, must be able to reliably provide sufficient water to meet the MDD for the water system. Reliability and sustainability must also be considered when planning for a water system. Lacking metered water-use records, Ecology referred to and relied upon the Court's decision for surface water use in the Yakima River Basin Water Rights Adjudication: Report of Referee, Subbasin No. 7 to obtain water-duty calculations. Ecology concurs with the Court's decision of 0.01 cfs or 4.48 gallons per minute (gpm) of maximum duty of water in Subbasin No. 7 for the purpose of a single domestic supply with a small lawn and garden.

Impairment, Qualifying Works, and Interference

There are three concepts that are important when considering whether a withdrawal of water from a well would impair another existing water right. The concepts are defined as follows:

Impairment is an adverse impact on the physical availability of water for a beneficial use that is entitled to protection.

Qualifying ground water withdrawal facilities are defined as those wells which in the opinion of the Department are adequately constructed. An adequately constructed well is one that:

(a) is constructed in compliance with well construction requirements;

(b) fully penetrates the saturated thickness of an aquifer or withdraws water from a reasonable and feasible pumping lift (WAC 173-150);

(c) has withdrawal facilities capable of accommodating a reasonable variation in seasonal pumping water levels; and

(d) the withdrawal facilities and pumping facilities are properly sized to match the ability of the aquifer to produce water.

Well interference is the overlap of the cones of depression for two or more wells. Well interference reduces the water available to the individual wells and may occur when several wells penetrate and withdraw groundwater from the same aquifer. Each pumping well creates a drawdown cone. When several wells pump from the same aquifer, well density, aquifer characteristics, and pumping demand may result in individual drawdown cones that intersect and form a composite drawdown cone.

General Impairment Discussion (Hoselton, January 24, 2013)

The additional withdrawal of 0.414 ac-ft/yr at the existing well under the subject application referenced above is not anticipated to interfere with the ability of existing nearby well owners to fully utilize their well(s).

Beneficial Use

The proposed uses of water for single domestic and irrigation are defined in statute as beneficial uses (RCW 90.54.020(1)).

Public Interest Considerations

When investigating a water right application, Ecology is required to consider whether the proposal is detrimental to the public interest. Ecology must consider how the proposal will affect an array of factors such as wildlife habitat, recreation, water quality, and human health. The environmental resources and other natural values associated with the area were taken into account during the consideration of this application.

Consideration of Protests and Comments
No protests were filed against this application.

Conclusions

In conclusion,

- Water is physically available at the quantities sufficient to meet project demand. When combined with the proposed mitigation measures, water is legally available under the provisions of WAC 173-539A.
- RCW 90.54.020 recognizes domestic and irrigation uses as beneficial uses of water.
- Approval of the proposed appropriation will not result in impairment of existing water rights.
- Approval of the proposed appropriation is not detrimental to the public interest.

RECOMMENDATIONS

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

Purpose of Use and Authorized Quantities

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

- 4.48 gallons per minute (gpm).
- 0.414 acre-feet per year (0.392 ac-ft/yr for single domestic and 0.022 ac-ft/yr for irrigation).
- Continuous indoor single domestic for 1 residence.
- Seasonal irrigation of up to 0.011 acre of lawn and garden from June 1 through September 30 annually.

Point of Withdrawal

1 proposed well in Section 9 being within the NW¼, Section 9, Township 19 North, Range 15 E.W.M., Kittitas County. Exact location to be determined.

Place of Use

As described on Page 1 of this Report of Examination.

Candis/Gray
Report Writer

July 25, 2013
Date

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REPORT OF EXAMINATION

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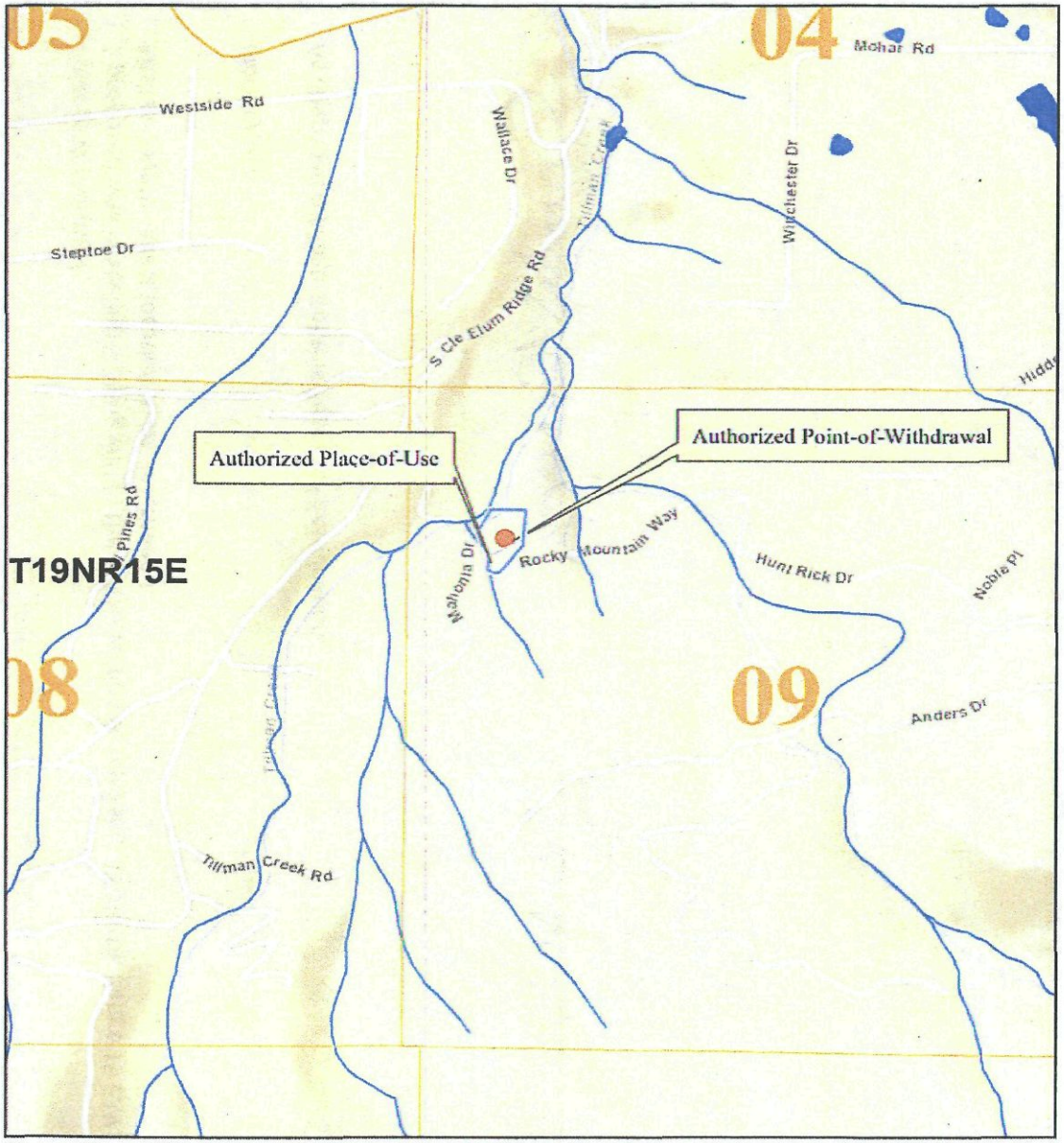
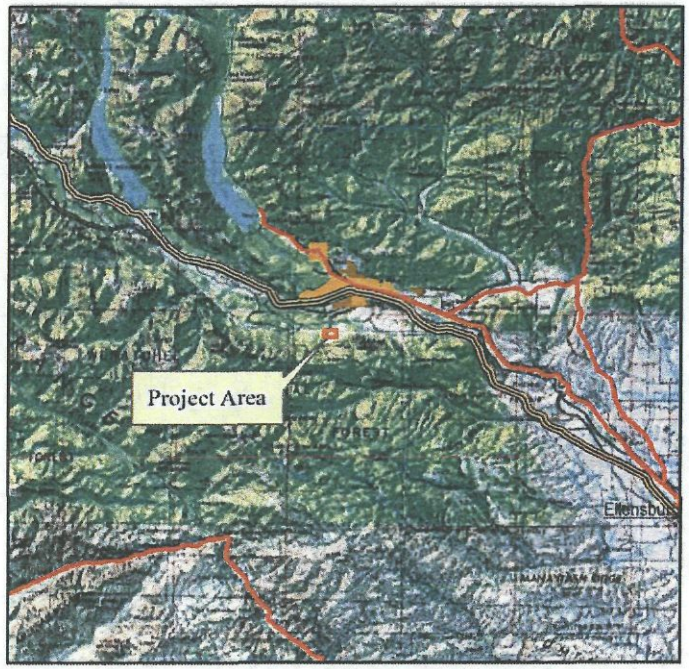
No. G4-35552

ATTACHMENT 1

Edward & Terri Phillips
G4-35552
T19N/R15E
WRIA 39 - Kittitas County



Basemap - NAIP 2011 Aerial Photo



Basemap - ESRI US Topographic Maps

Legend

- Authorized Place of Use
- Authorized Point of Withdrawal
- ECY City (unincorp.)
- ECY City (incorp.)
- Townships
- Sections
- ECY WaRivers
- ECY WaHighway

Comment:

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

ATTACHMENT 2

Table 5: Ground Water Rights within 0.5-Mile Radius of Place-of-Use

Control #	Document Type	Qa	Purpose	Source	Priority Date
G4-35472	Pending Permit	0.414	DS, IR	1 Well (AKW-676)	4/27/2011
G4-35484	Pending Permit	0.414	DS, IR	1 Well	4/27/2011
G4-35485	Pending Permit	0.414	DS, IR	1 Well (AKW-676)	4/27/2011
G4-35486	Pending Permit	0.414	DS, IR	1 Well (APG-767)	4/27/2011
G4-35487	Pending Permit	0.414	DS, IR	1 Well	4/27/2011
G4-35488	Pending Permit	0.414	DS, IR	1 Well (APG-961)	4/27/2011
G4-35489	Pending Permit	0.414	DS, IR	1 Well (APG-961)	4/27/2011
G4-35490	Pending Permit	0.414	DS, IR	1 Well (APG-938)	4/27/2011
G4-35491	Pending Permit	0.414	DS, IR	1 Well (AKW-643)	4/27/2011
G4-35492	Pending Permit	0.414	DS, IR	1 Well (APG-938)	4/27/2011
G4-35500	Pending Permit	0.414	DS, IR	1 Well(APG-937)	6/03/2011
G4-35530	Pending Permit	0.414	DS, IR	1 Well (APG-917)	10/12/2011
G4-35574	Pending Permit	0.414	DS, IR	1 Well (BAN-893)	7/12/2012
G4-35579	Pending Permit	0.827	DM, IR	1 Well (APG-961)	8/10/2012
G4-35246P	Permit	1.34	DS, IR	4 Wells	6/05/2009
G4-35483	Pending RDWBN	0.414	DS, IR	1 Well	4/27/2011
G4-35482	Pending RDWBN	0.414	DS, IR	1 Well	4/27/2011
G4-35481	Pending RDWBN	0.414	DS, IR	1 Well (APF-769)	4/27/2011
G4-35308	Pending RDWBN	0.140	DS, IR	1 Well	5/13/2010
G4-35457	Pending RDWBN	0.414	DS, IR	1 Well (ALC-826)	2/07/2011
CS4-05216sb5a	Change App.	724	IR, IF, DM, ST	Iron Mnt. Creek	9/29/2011
G4-01251CWRIS	Certificate	17	DM, IR	1 Well	5/06/1970
G4-27877CWRIS	Certificate	8	DM, IR	1 Well	8/26/1982
S4-83346-J	CFO	2	DS, ST	Unnamed Spring	5/24/1965
S4-83359-J	CFO	1	ST	Unnamed Spring	5/12/1965
S4-83357-J	CFO	3	DS, ST	Unnamed Stream	12/15/1916
S4-83333-J	CFO	4	DG, ST, MP	Unnamed Spring	7/01/1965
S4-35477	New Application	3	IF	Tillman Creek	4/14/2011
S4-28664	New Application	-------	DS, ST	Iron Mnt. Creek	4/05/1965
S4-35476	New Application	3	IF	Tillman Creek	4/14/2011
G4-068269CL[8]	Claim	-------	DG, ST	1 Well	----------
G4-112325CL	Claim	-------	DG, IR, ST	1 Well	6/18/1974
G4-112324CL	Claim	-------	DG, IR, ST	1 Well	6/18/1974

Definitions: WBN=Water Budget Neutral, DM=Domestic Multiple, DS=Domestic Single, IR=Irrigation, DG=Domestic General, ST=Stockwater, IF=Instream Flow, MP=Mink Propagation, and CFO=Conditional Final Order.

[8] The above referenced claims were filed under Claims Registration Act, RCW 90.14. The intent of this act was to document those uses of surface water in existence prior to the adoption of the State Surface Water Code, RCW 90.03, which was adopted in 1917, and those uses of ground water in existence prior to the adoption of the State Ground Water Code, RCW 90.44, which was adopted in 1945. Since each code adoption, the only means of acquiring a water right within the state is by filing for, and receiving, a permit from Ecology or one of its predecessors or by establishing a right under the "exemption" under the Ground Water Code RCW 90.44.050. Ecology recognizes that the final determination of the validity and extent associated with a claim registered in accordance with RCW 90.14 ultimately lies with the Superior Court through the general adjudication process provided for by RCWs 90.03.110 through 90.03.240. Ecology does, however, recognize that water use may or may not be occurring under these claims.

Water Budget Neutral Pending Application Nos. G4-35472, G4-35484, G4-35485, G4-35486, G4-35487, G4-35588, G4-35489, G4-35490, G4-35491, G4-35492, G4-35500, G4-35530, G4-35574, and G4-35579 request withdrawal from eight different, existing, shared wells and three undrilled wells for domestic supply to serve one domestic residence with incidental irrigation.

S4-35476 and S4-35477 are pending Surface Water Permit Applications for instream flows and request to construct a storage pond for flow augmentation in Tillman Creek.

G4-35246P is a newer Water Budget Neutral Permit, authorizing domestic multiple for up to 13 homes and lawn/garden irrigation from up to four wells.

G4-35481, G4-35482, G4-35483, G4-35457, and G4-35308 are pending Applications seeking a request for water budget neutrality determination for single domestic and incidental irrigation.

CS4-05216sb5a is a change application requesting that a portion of 724 ac-ft/yr be applied to instream flows for competitive water banking purposes.

G4-01251CWRIS authorizes supply for up to 17 homes from one well.

S4-83346-J, S4-83359-J, S4-83327-J, and S4-83357-J are Surface Water Adjudicated Certificates as described in the Acquavella Draft Conditional Final Order.

G4-068269CL, G4-112324CL, and G4-112325CL are short-form claims. Their validity is suspect since there is either no reported water duty and the reported dates of first use fall after the adoption of RCW 90.44: *"Regulation of Public Ground Water of 1945."*

G4-27877CWRIS authorizes supply for up to eight homes from one well. Between this well and the well authorized under G4-01251C, a total of 25 ac-ft/yr may be withdrawn.

S4-28664 is an older Surface Water Application, which Ecology is currently unable to process.