



State of Washington  
REPORT OF EXAMINATION  
FOR WATER RIGHT APPLICATION

PRIORITY DATE  
June 18, 2013

WATER RIGHT NUMBER  
G4-35630(A)

MAILING ADDRESS  
SUNCADIA ENVIRONMENTAL COMPANY LLC  
4244 BULLFROG RD., STE 1  
CLE ELUM, WA 98922

SITE ADDRESS (IF DIFFERENT)  
UNKNOWN

**Quantity Authorized for Withdrawal or Diversion**

WITHDRAWAL RATE	UNITS	ANNUAL QUANTITY (AF/YR)
89.6*	GPM	8.274

\* Total withdrawals (authorized under Groundwater Application No. G4-35630(A) and G4-35630(B)) from all sources must not exceed the total quantity authorized for withdrawal listed above.

**Purpose**

PURPOSE	WITHDRAWAL OR DIVERSION RATE			ANNUAL QUANTITY (AF/YR)		PERIOD OF USE (mm/dd)
	ADDITIVE	NON-ADDITIVE	UNITS	ADDITIVE	NON-ADDITIVE	
Domestic Multiple (Up to 20 residences)	89.6		GPM	7.841	0	01/01 - 12/31
Irrigation of lawn & garden (500 sq. ft. each for 20 residences)		89.6	GPM	0.433	0	06/01 - 09/30

**REMARKS:**

Up to 15 wells may be constructed to supply up to the above-described combined maximum-water quantities and uses.

IRRIGATED ACRES		PUBLIC WATER SYSTEM INFORMATION	
ADDITIVE	NON-ADDITIVE	WATER SYSTEM ID	CONNECTIONS
0.230	0	N/A	N/A

(500 sq. ft. of irrigation per residence for 20 residences)

**Source Location**

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

Up to 15 wells within the Unconsolidated Sediments (UNC) aquifer within the Tillman Creek subbasin, located:

Within Section 33, T. 20 N., R. 15 E.W.M. , AND

Within Sections 4, 8, 9, and 17, T. 19 N., R. 15 E.W.M., (excluding Parcel No. 951166) ALL within Kittitas County, Washington.

**Place of Use (See Attached Map)**

PARCELS (NOT LISTED FOR SERVICE AREAS)

N/A

LEGAL DESCRIPTION OF AUTHORIZED PLACE OF USE

**Combined Place-of-Use for G4-35630(A) and G4-35630(B):**

Within Section 33, T. 20 N., R. 15 E.W.M.;

**AND**

Within Sections 4, 8, 9, and 17, T. 19 N., R. 15 E.W.M. ALL within Kittitas County, Washington.

**Proposed Works**

The proposed works includes up to 15 wells, supplying up to 89.6 gallons per minute (gpm) of water for domestic supply for up to 20 residences, using an average of 350 gallons per residence per day for continuous year-round use and for seasonal irrigation of incidental lawn and garden for up to 500 square-feet per residence for a total of 0.230 irrigated acres. The wells and places of use will be within the place-of-use (POU) described above.

The POU is owned by multiple landowners. The applicant’s intention is to obtain groundwater right permits, which would allow the applicant to convey an interest in the permits to property owners, concurrent with conveyance of the mitigation certificate within the area.

A mix of public water systems and individual systems will be developed.

Domestic wastewater will be discharged to individual or group on-site septic systems, pursuant to the requirements described in WAC 173-539A-050(2)(e).

**Development Schedule**

BEGIN PROJECT	COMPLETE PROJECT	PUT WATER TO FULL USE
December 31, 2014	December 31, 2029	December 31, 2031

In determining the timeframe of the above Development Schedule, that is the amount of time for the applicant to implement the authorized use of water, a reasonable and just time was considered and allowed under the existing conditions to begin and to complete construction of the project. Sufficient

time was also awarded in order for the applicant to collect water-use data and to put the water to full beneficial use. The Development Schedule reflects consideration of the cost and magnitude of the project and the potential engineering and physical features typically to be encountered.

**Measurement of Water Use**

How often must water use be measured?	Weekly
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)

**Provisions**

**A. Wells, Well Logs, and Well Construction Standards**

1. The subject wells are authorized for groundwater withdrawal from the Unconsolidated Sediments (UNC) aquifer within the Tillman Creek subbasin.
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 Central 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.
4. Installation and maintenance of an access port as described in WAC 173-160-291(3) is required on all proposed, undrilled wells.
5. In addition to the required access port, the applicant shall install and maintain, in operating condition, an airline and pressure gage on all proposed, undrilled wells. The pressure gage shall be equipped with a standard tire valve and placed in a location accessible to Ecology personnel. The airline shall extend from land surface to the top of the pump bowls and the total airline length shall be reported to the Ecology upon completion of the pump system.
6. It is recommended that new wells constructed under this authorization observe a minimum 50-foot setback from property boundaries to minimize potential for well interference.
7. 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 shall be recorded **weekly** and maintained by each property owner for a minimum of five years. The maximum, individual and combined rates of withdrawal and the annual individual and combined total volume for each residence shall be submitted to Ecology by January 31<sup>st</sup> 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 the 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. Department of Health Requirements**

1. Prior to any new construction or alterations of a public water supply system, the State Board of Health rules require public water supply owners to obtain written approval from the Office of Drinking Water of the Washington State Department of Health. Please contact the Office of Drinking Water prior to beginning (or modifying) your project at:

DOH/Division of Environmental Health  
16201 E. Indiana Avenue, Suite 1500  
Spokane Valley, WA 99216  
(509) 329-2100

**E. Easement and Right-of-Way**

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

**F. 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.

**G. Proof of Appropriation**

1. 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.

**H. 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.

**I. 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. Total residential connections authorized between Groundwater Application Nos. G4-35630(A) and G4-35630(B) shall not cumulatively exceed 20 in number between both applications.
3. In sum, between G4-35630(A) and G4-35630(B), the total withdrawal of water from 2 groundwater bodies (UN and BR aquifers) shall not exceed the quantities authorized for the Suncadia Water Exchange: up to 15 wells, up to 89.6 gpm of water, for domestic supply for up to 20 homes, including up to 500 square-feet of irrigation per residence for a total of 0.230 acre of residential irrigation.
4. You (applicant) will record with the Kittitas County Auditor a property covenant requiring the applicant to maintain the "flow augmentation" facility in perpetuity.
5. You (applicant) will pay the combined sum of **\$1,109.57**, between Groundwater Application No. G4-35630(A) and G4-35630(B), which represents a proportionate amount of the payment due and owing to the United States Bureau of Reclamation for storage and delivery of water under Paragraph 15(a) of the Water Storage and Exchange Contract No. 09XX101700, (Storage Contract) between the United States Bureau of Reclamation and the State of Washington

Department of Ecology, Yakima Project, Washington, dated January 29, 2009.<sup>1</sup> The consumptive use of 1.441 acre-feet from September 1<sup>st</sup> through March 31<sup>st</sup> is subject to the terms and conditions in the Storage Contract.

6. Each permitted landowner 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 each of the authorized parcels within the described place of use.
7. Each permitted landowner 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.
8. 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.
9. The applicant and each landowner (mitigation credit purchaser) shall submit an assignment form to the Ecology describing the specific interest of the mitigation credit purchaser in this permit.

### 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. G4-35630(A), subject to existing rights and the provisions specified above.

### Your Right To Appeal

You have a right to appeal this Order to the Pollution Control 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.

---

<sup>1</sup> "Long-Term Water Storage and Exchange Agreement between the U.S. Bureau of Reclamation and the State of Washington, Department of Ecology" (Contract No. 09XX101700).

**ADDRESS AND LOCATION INFORMATION**

Street Addresses	Mailing Addresses
<b>Department of Ecology</b> Attn: Appeals Processing Desk 300 Desmond Drive SE Lacey, WA 98503	<b>Department of Ecology</b> Attn: Appeals Processing Desk PO Box 47608 Olympia, WA 98504-7608
<b>Pollution Control Hearings Board</b> 1111 Israel RD SW Ste 301 Tumwater, WA 98501	<b>Pollution Control Hearings Board</b> 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.leq.wa.gov/CodeReviser>

Signed at Yakima, Washington, this 11 day of August, 2014.

Robert F. Barwin, WR Acting Section Mgr by  
Sage Pm

Robert F. Barwin, Acting Section Manager  
Water Resources Program/Central Regional Office

If you need this document in a format for the visually impaired, 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 No. G4-35630(A).

### *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**

<b>Applicant Name</b>	Suncadia Environmental Company LLC
<b>Date of Application</b>	June 18, 2013
<b>Place of Use</b>	Tillman Creek subbasin within Section 33, T. 20 N., R. 15 E.W.M. and within Sections 4, 8, 9, and 17, T. 19 N., R. 15 E.W.M., Kittitas County.

County	Waterbody	Tributary To	WRIA
Kittitas	Groundwater		39-Upper Yakima

Purpose	Rate	Unit	Ac-ft/yr	Begin Season	End Season
Domestic Multiple	150	GPM	5.881	01/01	12/31
Irrigation	150	GPM	0.325	04/01	10/31

Source Name	Parcel	Well Tag	Twp	Rng	Sec	QQ Q	Latitude	Longitude
Up To 15 Wells			20N	15E	33	SESW	N/A	N/A
			19N	15E	04	NENW		
			19N	15E	08	NW		
			19N	15E	09	NW		
			19N	15E	17	NW		

GPM = Gallons per minute; Ac-ft/yr = Acre-feet per year; Sec. = Section; QQ Q = Quarter-quarter of a section; Twp=Township; Rng=Range.

On August 15, 2013, the applicant amended the original application to change the following parameters:

**Table 2: Summary of "Amended Requested" Water Right**

<b>Date of Amendment</b>	August 15, 2013
<b>Number of residential connections</b>	20
<b>Amended Instantaneous rate</b>	200 gallons per minute (GPM)
<b>Amended annual water duty</b>	8.274 af/yr (7.841 DM, 0.433 IR)
<b>Amended number of irrigable acres</b>	0.230

Subsequently, Ecology recognized that the nature of the request under the original Application No. G4-35630 represented two groundwater bodies as interpreted in earlier permitting efforts by Ecology's technical staff.<sup>2</sup> The applicant's representative was notified of Ecology's intent to divide the originally submitted application into two applications, Application Nos. G4-35630(A) and G4-35630(B) to reflect the two different groundwater bodies identified during the earlier investigations, and the representative concurred. The proposed total-water-use information contained within the original application No. G4-35630 will not be exceeded by the A and B portions combined.

### Legal Requirements for Approval of Appropriation of Water

The POU for the subject permit application, G4-35630(A), is located wholly within the area covered by the Upper Kittitas Groundwater Rule, WAC 173-539A and the permit application is subject to the provisions of this rule, which provides that all new groundwater withdrawals in the area must be water-budget-neutral. A water-budget-neutral project is defined in rule as "... an appropriation or project where withdrawals of groundwater of the state are proposed in exchange for discharge of water from other water rights that are placed into the Trust Water Right Program (TWRP) where such discharge is at least equivalent to the amount of consumptive use."

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, determination 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.

### *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 Daily Record, Ellensburg, Washington on August 17<sup>th</sup> and 24<sup>th</sup>, 2013. No protests to the application were received by Ecology.

### *Consultation with the Department of Fish and Wildlife*

The Department must give notice to the Department of Fish and Wildlife of applications to divert, withdraw, or store water. Ecology presented the original proposal and Ecology's amended, split applications to the Water Transfer Working Group (WTWG) participants on January 6, 2013, seeking discussion, comments, and concerns from the group. The group gave the proposal a positive recommendation.

Ecology also consulted with the Washington Department of Fish and Wildlife (WDFW) and received comments regarding critical habitat and presence in lower Tillman Creek. Additionally, Ecology's

---

<sup>2</sup> Anna Hoselton, "Tillman Creek Basin Reference Report: Inclusive of the small un-named basin adjacent and west of the Tillman Creek Watershed boundaries," Department of Ecology, Yakima, Wa., January 15, 2013, pp. 5-8.

Storage Contract provides that if a proposed water exchange does not meet certain conditions intended to prevent or avoid incidental take of an ESA-listed species, then supplemental ESA consultation is required to determine if the Storage Contract can be used for the proposed exchange.

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.<sup>3</sup>
2. Steelhead in the Yakima River or Tillman Creek.<sup>4</sup>
3. Bull trout in Tillman Creek.<sup>5</sup>
4. Northern spotted owl.<sup>6</sup>

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

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

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

- (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).
- (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).

---

<sup>3</sup> "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," United States Bureau of Reclamation, Yakima, Wa., February 19, 2013, p. 24.

<sup>4</sup> Ibid., p. 23.

<sup>5</sup> 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," United States Bureau of Reclamation, Yakima, Wa., February 19, 2013, p. 8.

<sup>6</sup> Ibid., p. 9.

- (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**

---

### **Proposed Use and Basis of Water Demand**

---

The Tillman Creek subbasin is located within the upper Kittitas Basin and is subject to the provisions of WAC 173-539A. No new groundwater use within the Tillman Creek subbasin is allowed unless the consumptive use associated with the new groundwater withdrawal is fully mitigated by a pre-May 10, 1905,-priority existing water right.

Once all the mitigation credit transactions are complete, the Suncadia water bank will provide mitigation required by WAC 173-539A for up to 20 residences within the portion of the Tillman Creek subbasin shown on the POU map (ATTACHMENT 1). A combination of individual and small public-water-supply systems are expected to serve the 20 anticipated residences.

Through Groundwater Application Nos. G4-35630(A) and G4-35630(B), Suncadia Environmental Company, LLC is seeking authorization to withdraw groundwater on behalf of prospective mitigation credit buyers. The proposed POU is owned by numerous, private landowners. The applications propose new uses of groundwater that would be made water-budget-neutral by assigning a portion of Suncadia's October 30, 1884, Trust Water Right S4-05259CTCL@2sb7 to the project from the TWRP.

The applicant and each landowner intending to develop a domestic water supply or use water within an existing system (i.e. each landowner who purchases a mitigation certificate from the applicant) will jointly sign and submit an "Assignment of Application or Permit to Appropriate or Store Water" form to Ecology. Ecology will, once the well that serves the residence or development is complete, analyze the well-construction details and assign the well to the appropriate one of the two new groundwater permits, according to the body of public groundwater the well is completed and withdrawing water from.

WAC 173-539A-050 provides that a new use of groundwater can be approved if the consumptive use loss associated with a new groundwater use is offset by an equal or greater amount of a pre-1905 water right held by Ecology in the TWRP. The estimated consumptive use water requirement for the 20 proposed residences within the Tillman Creek subbasin is as follows:

- Each residence will use an average of 350 gallons per day (gpd) of water for continuous domestic supply, year-round (365) days. Thirty percent (30%) of this water, or 2.742 acre-feet per year (af/yr) will be consumptively-used (CU) water.
- Total annual domestic demand for 20 residences or connections is 7.841 af/yr for continuous, year-round domestic supply.
- Each residence will use groundwater to irrigate up to 500 square feet of lawn and garden, resulting in 20 residences irrigating 0.230 acre.

- Crop irrigation water requirement (CIR) in the Tillman Creek subbasin for grass is estimated to be 18.11 inches annually using the Washington Irrigation Guide (WIG). Considering each irrigation system will operate with 80% efficiency, the total irrigation water requirement (TIR) is 0.433 af/yr. Ninety percent (90%) of this water, or 0.390, is considered to be consumptively-used (CU) water.
- The total annual groundwater withdrawal for the 20 residences or connections is 7.841 af/yr for continuous, year-round domestic supply, plus 0.433 af/yr for irrigation of 0.230 acre from June 1<sup>st</sup> through September 30<sup>th</sup> each year, for a total annual withdrawal of 8.274 af/yr.
- Of the total annual withdrawal, the consumptive amount is 2.742 af/yr. This calculation is the sum of 2.352 af/yr for continuous, year-round domestic supply (20 connections), plus 0.390 af/yr for irrigation supply (0.230 acre).

### Other Rights Appurtenant to the Place of Use

A mix of existing surface and groundwater rights are appurtenant to the lands within the proposed POU for Groundwater Application Nos. G4-35630(A) and G4-35630(B) (See ATTACHMENT 3).

### Impairment Considerations

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

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

## Water Availability

---

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

### *Physical Availability*

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

- Volume of water represented by senior water rights, including federal or tribal reserved rights or claims.
- Water right claims registered under RCW 90.14.
- Ground water uses established in accordance with RCW 90.44, 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, well data, and the simplified water balances, groundwater is physically available within the Tillman basin.

### *Hydrologic/Hydrogeologic Analysis*

The Ecology report, Tillman Creek Basin Reference Report: Inclusive of the Small Un-named Basin Adjacent and West of the Tillman Creek Watershed Boundaries dated January 15, 2013, analyzes the study area in detail. A subsequent Ecology report, Technical Memorandum, dated November 14, 2013, applies specifically to Groundwater Application Nos. G4-35630(A) and G4-35630(B) and address physical water availability and the potential for impairment to existing water users from groundwater withdrawals. These reports provide the basis for conclusions related to physical availability and impairments given below. Both reports in their entirety may be reviewed upon request.

### *Groundwater Availability (UNC)*

Based on the hydrogeologic setting, observations and interpretation of data from existing wells, and simplified water balances, groundwater is physically available within the Tillman Basin from the UNC unit.

### *General Impairment Groundwater (UNC and BR)*

Numerous drawdown simulations in addition to multiple previous analyses of wells constructed into the UNC aquifer and into the BR aquifer within the Tillman Basin indicate that the present well density and aquifer characteristics will limit potential for interference between wells. Consequently the additional withdrawal of a maximum of 8.274 af/yr distributed between up to 15 existing and/or proposed wells under the two subject applications (A and B) is not anticipated to interfere with the ability of existing nearby well owners to fully utilize their well(s).

### *General Impairment Surface Water (UNC and BR)*

As groundwater is removed from the unconfined UNC or from the underlying BR unit by wells and consumptively used, the amount of groundwater available to all parts of the basin's water budget is reduced. Consequently, the proposed groundwater pumping is expected to reduce groundwater discharge to area springs, to Tillman Creek and its tributaries. Therefore, existing adjudicated Water Right Claim No. 05216 POD located on Kittitas County Parcel No. 951166 at an elevation of approximately 2,470 ft mean sea level should be considered potentially vulnerable and Parcel No. 951166 will be excluded from authorization for groundwater withdrawals under this permit.

- Parcel No. 95166 is excluded from authorization

### *Legal Availability*

To determine whether water to be 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 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.

On April 7, 2011, Ecology issued a Report of Examination (ROE - CS4-05259CTCL@2sb7) authorizing Suncadia LLC to permanently transfer a total of 195 ac-ft/yr of their October 30, 1884 Yakima River water right to the TWRP for the purpose of instream flow and water banking to offset the consumptive use associated with new groundwater uses in the Yakima Basin. The applicant has entered into a contract with Suncadia for a beneficial interest in 3.222 af/yr portion of Trust Water Right No. S4-05259CTCL@2sb7. Suncadia also implemented a supplemental environment 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 cubic feet per second (cfs) from an unnamed stream into Tillman Creek.

### ***Water Duty***

In planning a development, source capacity must be considered and 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 Maximum Daily Demand (MDD) for the water system. Reliability and sustainability must also be considered when planning for a water system. Lacking metered water-use records, Ecology relied on the Yakima River Basin Water Rights Adjudication: Report of Referee, Subbasin No. 5 for the purpose of domestic supply, each with a small lawn and garden (under ½ acre), to set the water duty at 0.01 cfs or 4.48 gpm.

### ***Beneficial Use***

---

The proposed uses of water for multiple domestic and incidental 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 proposed application relies on mitigation in the form of a water right held in trust by the Department of Ecology. When the consumptive portion of the instream flow trust water right is not being used for mitigation, the unused quantity may be added to target flows at Parker Dam and continue to the confluence of the Yakima and Columbia Rivers.

### ***Consideration of Protests and Comments***

No protests were filed against this application.

### ***Conclusions***

---

In conclusion,

- Water is physically and legally available for this appropriation.
- The proposed uses are beneficial uses of water.
- The proposed uses are not contrary to the public interest.
- The proposed uses will not cause detriment or injury to existing rights.

### **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:

*Limits and Purpose*

- 89.6 gallons per minute (gpm).
- 8.274 acre-feet per year (7.841 af/yr for multiple domestic, and 0.433 af/yr for irrigation).
- Continuous indoor multiple domestic for up to 20 residences.
- Seasonal irrigation of up to 0.230 acre of lawn and garden from June 1<sup>st</sup> through September 30<sup>th</sup> annually.

*Points of Withdrawal*

Up to 15 individual or small-group domestic supply wells within the UNC aquifer within the Tillman Creek subbasin, supplying up to 20 residences, to be developed within the sections listed below:

Within Section 33, T. 20 N., R. 15 E.W.M., **AND**

Within Sections 4, 8, 9, and 17, T. 19 N., R. 15 E.W.M., (excluding Parcel No. 951166) ALL within Kittitas County, Washington.

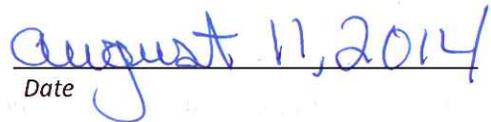
*Place of Use*

Within the Tillman Creek subbasin, located:

Within Section 33, T. 20 N., R. 15 E.W.M., **AND**

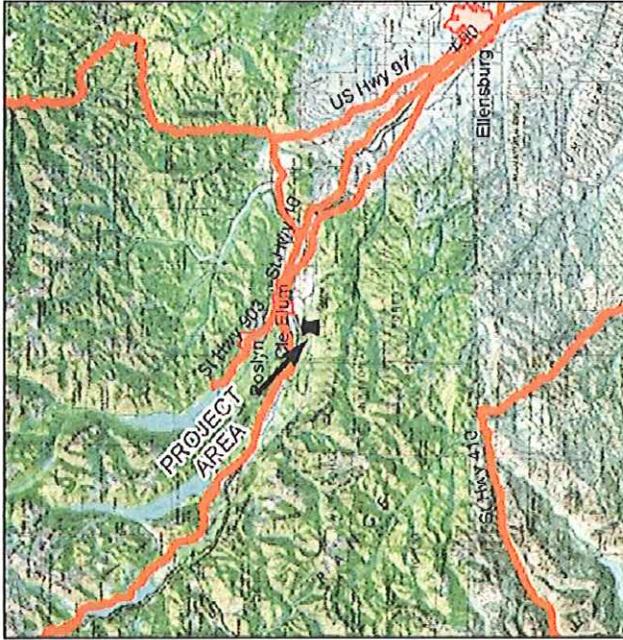
Within Sections 4, 8, 9, and 17, T. 19 N., R. 15 E.W.M., ALL within Kittitas County, Washington.

  
Candis L. Graff  
Permit Writer

  
Date

*If you need this document in a format for the visually impaired, 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.*

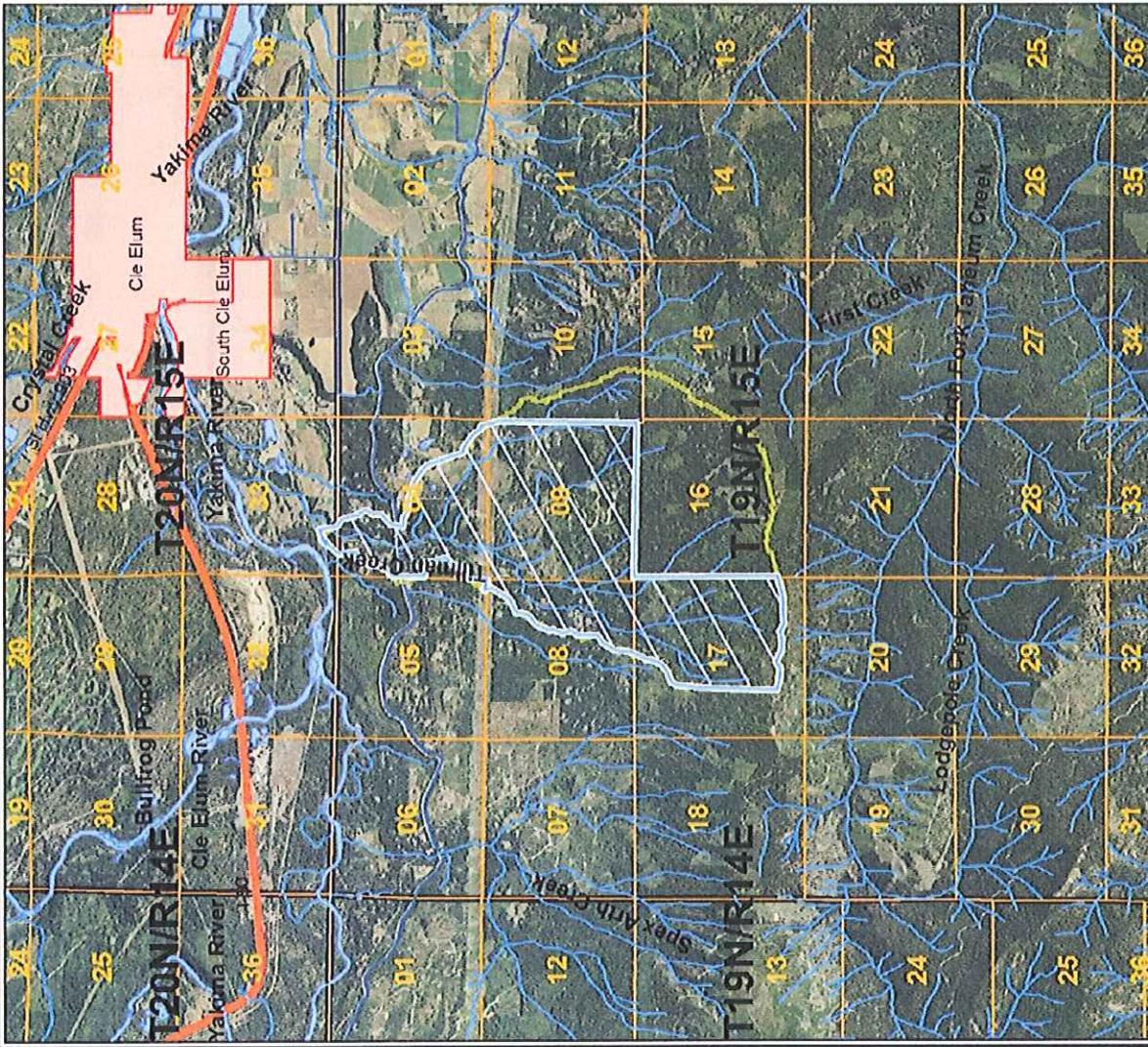
SUNCADIA ENVIRONMENTAL COMPANY, LLC  
 G4-35630(A)  
 PLACE-OF-USE in the Tillman Creek Subbasin  
 WRIA 39 - Kittitas County



Basemap - (ESRI US Topographic Maps)

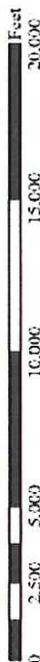
**Legend**

-  Tillman Subbasin Boundary
-  City
-  Water Bodies
-  Township/Range
-  Authorized Place of Use
-  Major Highways
-  Sections



**Comment:**

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

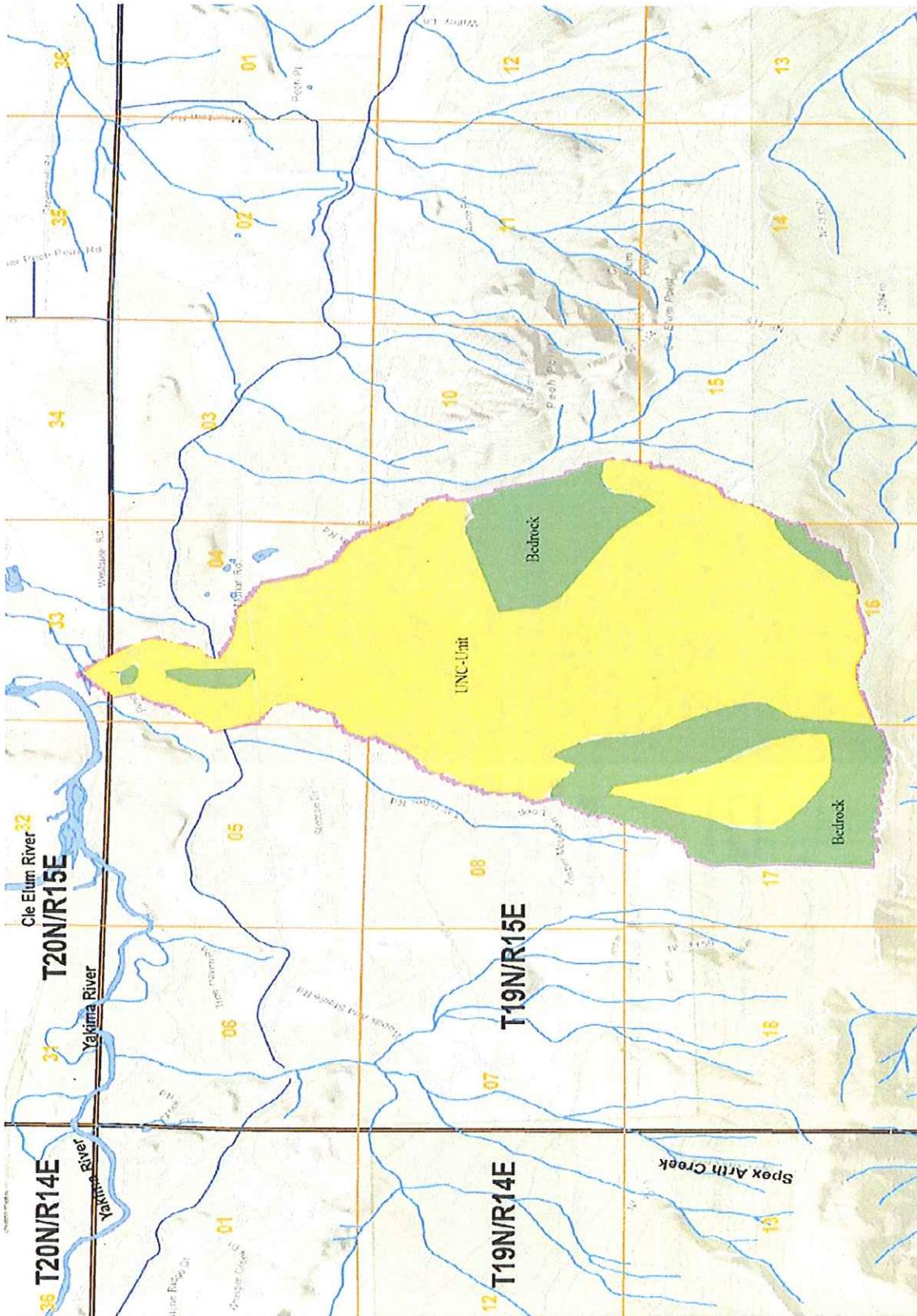


Map Date: 11/6/2015

Basemap - (NAIP 2011 1m color)  
 PREPARED BY  
**ECOLOGY**  
 CONSULTANTS

ATTACHMENT 2

Figure 3: Bedrock and unconsolidated units within Ecology's Tillman Creek subbasin boundary.



**ATTACHMENT 3**

**Table 3: Water Rights Appurtenant to POU**

Control Number	Doc. Type	Purpose	Qa	Source
S4-84638-J	CFO	SR	166,846.00	Yakima River
S4-84639-J	CFO	SR	250,261.00	Kachess River
S4-84640-J	CFO	SR	446,610.00	Yakima River
S4-84641-J	CFO	SR	38,768.00	Bumping River
S4-84642-J	CFO	SR	216,850.00	Tieton River
S4-84643-J	CFO	SR	5,300.00	Tieton River
S4-84644-J	CFO	SR	472.00	Yakima River
S4-84645-J	CFO	SR	2.00	Tieton River
S4-84646-J	CFO	SR	56.00	Yakima River
S4-84647-J	CFO	SR	60.00	Yakima River
S4-84648-J	CFO	SR	408.00	Yakima River
S4-84649-J	CFO	SR	1,265.00	Tieton River
S4-84650-J	CFO	SR	5,120.00	Yakima River
S4-83327-J	CFO	DM, IR, ST	724.00	Iron Mnt. Creek
S4-83357-J	CFO	DS, ST	3.00	Un-named Stream
CS4-05216sb5a(A)	Change/ROE	DM, IR, ST	580.00	Iron Mnt. Creek
CS4-05216sb5a(B)	Change/ROE	IF	120.00	Iron Mnt. Creek
G4-164039CL	Claim	DG, ST	3.00	1 well
G4-068269CL	Claim	DG, ST	unspecified	1 well
G4-27877C	Certificate	DM	8.00	1 well
G4-01251C	Certificate	DM	17.00	1 well
G4-35629	Application	DM, IR	0.828	1 well
G4-35619	Application	DS, IR	0.414	1 well
G4-35603	MP	DS, IR	0.157	1 well
G4-35530	Permit	DS, IR	0.414	1 well
G4-35472	Permit	DS, IR	0.414	1 well
G4-35485	Permit	DS, IR	0.414	1 well
G4-35552	Permit	DS, IR	0.414	1 well
G4-35486	Permit	DS, IR	0.414	1 well
G4-35574	Permit	DS, IR	0.414	1 well
G4-35492	Permit	DS, IR	0.414	1 well
G4-35490	Permit	DS, IR	0.414	1 well
G4-35500	Permit	DS, IR	0.414	1 well
G4-35487	Permit	DS, IR	0.414	1 well
G4-35481	Permit	DS, IR	0.137	1 well
G4-35308	MP	DS, IR	0.137	1 well
G4-35483	Permit	DS, IR	0.137	1 well
G4-35246	Permit	DM, IR	1.34	4 wells
G4-35489	Permit	DS, IR	0.414	1 well
G4-35579	Permit	DM, IR	0.827	1 well
G4-35491	Permit	DS, IR	0.414	1 well
G4-35488	Permit	DS, IR	0.414	1 well

DM=Domestic Multiple, DS=Domestic Single, DG=Domestic General, IR=Irrigation, ST=Stockwater, IF=Instream Flow, SR=Storage, CFO=Conditional Final Order, MP=Mitigated Permit

### ***Surface Water Rights***

Several surface water rights exist within the Tillman Creek subbasins whose authorized place of use encompass a large geographical area that could potentially be affected by the proposed uses of groundwater. They are:

Surface Water Right Nos. S4-84638-J through S4-84650-J, owned by the United States Bureau of Reclamation, authorizes water to be stored for flood control purposes.

Surface Water Right Nos. S4-83327-J and S4-83357-J are owned by Mr. Burchak and are authorized in Subbasin 5 (Elk Heights) for the purposes of irrigation, domestic (3 residences), and stockwater. The described place of use includes the Tillman Creek boundary.

Change ROE Nos. CS4-05216sb5a(A) and CS4-05216sb5a(B) request a change to Mr. Burchak's Surface Water Certificate No. S4-83327-J to add instream flow as an additional purpose. Certificate was split into (A) portion for DM, IR, and ST and (B) portion is for IF as primary.

### ***Ground Water Rights***

Review and analysis of existing authorizations provided the following information about groundwater usage by existing groundwater rights and within the Tillman Creek subbasin:

- Claim Nos. G4-164039CL and G4-068269CL<sup>7</sup> claim water for domestic and stockwater purposes.
- Certificate No. G4-27877C authorizes 8 acre-feet per year (af/yr) for up to 8 homes and G4-01251C authorizes 17 af/yr for up to 17 home sites.
- The City of Cle Elum has submitted an application (G4-35629) for multiple domestic and irrigation uses. Ecology has not processed this request.
- G4-35619 is a pending application for single domestic with incidental lawn and garden irrigation. Mitigation is being offered for consumptive use.
- Mitigated Permit Nos. G4-35603 and G4-35308 authorized individual wells for individual water systems.
- Permit Nos. G4-35530, G4-35472, G4-35485, G4-35552, G4-35486, G4-35574, G4-35492, G4-35490, G4-35500, G4-35487, G4-35481, G4-35483, G4-35489, G4-35491, and G4-35488 authorize single domestic and irrigation uses for 1 residence each.
- Permit Nos. G4-35246 and G4-35579 authorize multiple domestic and irrigation uses.

---

<sup>7</sup>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 be occurring under these claims.