April 21, 2022

Washington State Department of Ecology
Attention Ben Carr
1250 West Alder Street
Union Gap, WA 98903

ROD-ROE for applications: KITT-20-6 for David and Michelle Coburn and Aaron and Stephanie Royer

Dear Ben:

Enclosed you will find the original Records of Decision and Reports of Examination for a Change/Transfer of Water Right for David and Michelle Coburn and Aaron and Stephanie Royer for filing. The board at its April 19, 2022, board meeting signed these original documents. There were not any public comments received and a copy of the affidavit of publication is attached to the ROE. Please contact me with any questions you may have.

Sincerely,

Chery Byers
Clerk of the Board
Application for Change/Transfer
Record of Decision

Applicant Name: David & Michelle Coburn
Application Number: Kitt-20-060

This record of decision was made by a majority of the board at an open public meeting of the Kititas County Water Conservancy Board held on (date meeting was held) 4-19-2022. The undersigned board commissioners certify that they each understand the board is responsible "to ensure that all relevant issues identified during its evaluation of the application, or which are raised by any commenting party during the board's evaluation process, are thoroughly evaluated and discussed in the board's deliberations. These discussions must be fully documented in the report of examination." [WAC 173-153-130(5)] The undersigned therefore, certifies that each commissioner, having reviewed the report of examination, knows and understands the content of the report.

☑️ Approval: The (board name) Water Conservancy Board hereby grants conditional approval for the water right transfer described and conditioned within the report of examination on (date report of exam was signed) 4-19-2022 and submits this record of decision and report of examination to the Department of Ecology for final review.

☐ Denial: The (board name) Water Conservancy Board hereby denies conditional approval for the water right transfer as described within the report of examination on (date report of exam was signed) and submits this record of decision to the Department of Ecology for final review.

Signed:

Water Conservancy Board Name: Kittitas County
Chair Name: Mark Crowley
Signatures: [Signature]
(choose one) ☑️ Approve ☐ Deny ☐ Abstain ☒ Recuse ☐ Other (please explain)

Water Conservancy Board Name: Kittitas County
Title: Board Member Name: Jeff Raap
Signatures: [Signature]
(choose one) ☐ Approve ☐ Deny ☐ Abstain ☒ Recuse ☐ Other (please explain) Absent

Water Conservancy Board Name: Kittitas County
Title: Board Member Name: Theo Leonard
Signatures: [Signature]
(choose one) ☐ Approve ☐ Deny ☐ Abstain ☒ Recuse ☐ Other (please explain) no longer on board

Water Conservancy Board Name: Kittitas County
Title: Board Member Name: Robbie Saltz
Signatures: [Signature]
(choose one) ☑️ Approve ☐ Deny ☐ Abstain ☒ Recuse ☐ Other (please explain)

Water Conservancy Board Name: Kittitas County
Title: Board Member Name: [Name]
Signatures: [Signature]
(choose one) ☐ Approve ☐ Deny ☐ Abstain ☒ Recuse ☐ Other (please explain)

Mailed with all related documents to the Dept of Ecology (send to the Regional office below), and any other interested parties.

ECY 040-105 (05/14) If you need this document in a format for the visually impaired, call Water Resources Program at 360-407-6872. Persons with hearing loss can call 711 for Washington Relay Service. Persons with a speech disability can call 877-833-6341.
Board Name: Kittitas County Water Conservancy Board

WATER CONSERVANCY BOARD
Application for Change/Transfer
OF A RIGHT TO THE BENEFICIAL USE OF THE PUBLIC WATERS OF
THE STATE OF WASHINGTON

REPORT OF EXAMINATION

NOTE TO APPLICANT: Pursuant to WAC 173-153-130(8), the applicant is not permitted to proceed to act on the proposal until Ecology makes a final decision affirming, in whole or in part, the board’s recommendation. It is advised that the applicant not proceed until the appeal period of Ecology’s decision is complete.

NOTE TO AUTHOR: Read the instructions for completing a water conservancy board report of examination. Use the Tab key to move through the form or with your mouse, select the fields to enter information.

[ ] Surface Water
[ ] Ground Water

Date Application Received 12/15/2020

Water Right Document Number (i.e., claim, permit, certificate, etc.) S4-84238-J

Water Right Priority Date June 30, 1889

Board-Assigned Change Application Number Kitt-20-06

Name: David & Michelle Coburn; Aaron & Stephanie Royer

Phone: 253-797-9986; 509-899-4197

Email: mcoburn68@gmail.com; aaron@gowrs.com

Address (street): 17828 SE 259th St; 1790 Berry Rd Covington; Ellensburg

City: Covington; Ellensburg

State: WA

Zip: 98042; 98926

Changes Proposed:
[ ] Change purpose
[ ] Add purpose
[ ] Add irrigated acres
[ ] Change point of diversion/withdrawal
[ ] Add point of diversion/withdrawal
[ ] Change place of use
[ ] Other (Temporary, Trust, Interests, etc.)

SEPA:
The board has reviewed the provisions of the State Environmental Policy Act of 1971, Chapter 43.21C RCW and the SEPA rules, chapter 197-11 WAC and has determined the application is: [ ] Exempt [ ] Not Exempt

BACKGROUND AND DECISION SUMMARY
Please include a map(s) reflecting all referenced existing and proposed point(s) of diversion or withdrawal and place(s) of use (RCW 90.03.260(7); WAC 173-153-070 (6)(c).

<table>
<thead>
<tr>
<th>Maximum cub ft/second</th>
<th>1.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum acre-ft/yr</td>
<td>54</td>
</tr>
<tr>
<td>Describe Type(s) of use, and period(s) of use</td>
<td>irrigation of 9 acres</td>
</tr>
</tbody>
</table>

Source: Yakima River via Tjossem Ditch

At a Point Located:
Parcel No. 508933

Township N. 17 Range 18 WRIA 39

LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS USED
Type detailed legal description of the place of use: The south 495 feet of the NW1/4SE1/4 of Section 13, T. 17 N., R. 18 E.W.M., lying east of Bull Road and north of Tjossem Road, EXCEPT that portion described as follows: Beginning at a point on the east boundary line of said quarter/quarter section which is 30 feet north of the center of the SE1/4 of said section and on the north boundary line of the right of way of the Tjossem County Road; thence N 0° 45' W along the east boundary of said quarter/quarter section 455 feet; thence N 88° 35' W 287 feet; thence S 0° 45' E 355 feet; thence S 88° 33' E 117 feet; thence S 0° 45' E 100 feet; thence S 88° 33' E along the north boundary of said Tjossem Road 170 feet to the point of beginning.

<table>
<thead>
<tr>
<th>Parcel no.</th>
<th>898733, 806336</th>
<th>¼ NW</th>
<th>¼ SE</th>
<th>Section</th>
<th>13</th>
</tr>
</thead>
<tbody>
<tr>
<td>Township N.</td>
<td>17</td>
<td>Range 18</td>
<td>WRIA 39</td>
<td>County</td>
<td>Kittitas</td>
</tr>
</tbody>
</table>

### Proposed Use

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**irrigation of 9 acres (3.5 acres on 898733, 5.5 acres on 806336), April 15 through October 15**

**2 Groundwater Wells in continuity with Yakima River**

Tributary of (if surface water) n/a

### LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS USED

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### Board's Decision on the Application

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### Description of Proposed Works

Description of water diversion/withdrawal, conveyance, and distribution system: The change of water right certificate number S4-84238-J will transfer the point of diversion from the Yakima River via the Tjossem Ditch to two groundwater irrigation wells, with one well located on each parcel within the existing place of use.

### Development Schedule

| Begin project by this date (At least 75 days after Board’s ROD issuance): | December 31, 2022 |

Complete project by this date: December 31, 2023
Complete change & put water to full use by this date: December 31, 2024
NOTE TO AUTHOR: This form reflects the minimum regulatory requirements as required in WAC 173-153-130(6). In accordance with WAC 173-153-130(5), "It is the responsibility of the water conservancy board to ensure that all relevant issues identified during its evaluation of the application, or which are raised by any commenting party during the board's evaluation process, are thoroughly evaluated and discussed in the board's deliberations. These discussions must be fully documented in the report of examination."

Completion solely of the minimum regulatory requirements may not constitute a fully documented decision.

BACKGROUND [See WAC 173-153-130(6)(a)]

On Month December, day 15, year 2020.

Name of applicant: David & Michelle Coburn; Aaron & Stephanie Royer of City: Covington; Ellensburg State: WA filed an application for change (to do what e.g., POU, POD, POW, etc) Point of diversion under (Water right number, e.g., certificate, permit, claim, superseding document #, cert of change #): S4-84238-J. The application was accepted at an open public meeting on Month: December, day: 15, year: 2020, and the board assigned application number(XXXX-YR-###): Kitt-20-06.

Attributes of the water right as currently documented

Name on certificate, claim, permit: Brian Norelius

Water right document number (e.g., cert #, claim #, permit #, superseding document #): S4-84238-J

As modified by certificate of change number: N/A

Priority date, first use Date of priority or claimed date water was originally first put to beneficial use: June 30, 1889

Water quantities: Qi (Instant qty): 1.0 Qa (Annual qty): 54 acre ft./year

Source (well, river, etc): Yakima River

Point of diversion/withdrawal (Distance from 1/4, Section, Township, Range EWM): 300 feet north and 1200 feet east from the southwest corner of Section 11, being within the SW1/4SW1/4 of Section 11 T. 17 N., R 18 E.W.M.

Purpose of use: Irrigation and stock water Number of Acres if Irrigation: 9.0

Period of use: April 15 through October 15

Place of use: The south 495 feet of the NW1/4SE1/4 of Section 13, T. 17 N., R. 18 E.W.M., lying east of Bull Road and north of Tjossem Road, EXCEPT that portion described as follows: Beginning at a point on the east boundary line of said quarter/quarter section which is 30 feet north of the center of the SE1/4 of said section and on the north boundary line of the right of way of the Tjossem County Road; thence N 0°45' W along the east boundary of said quarter/quarter section 455 feet; thence N 88°35' W 287 feet; thence S 0°45' E 355 feet; thence S 88°33' E 117 feet; thence S 0°45' E 100 feet; thence S 88°33' E along the north boundary of said Tjossem Road 170 feet to the point of beginning.

Existing provisions (family farm act, interruptable, etc.): None

Tentative determination of the water right

The tentative determination is provided on the front page of this report.

History of water use

Describe the historical water use information that was considered by the board:

In the April 17, 2006 Conditional Final Order for Subbasin No. 09 (Wilson-Naneum subbasin) the Superior Court of the State of Washington for Yakima County, in the case of State of Washington, Department of Ecology v. James J. Acquavella, et al., County Case No. 77-2-01484-5 ("the Yakima Adjudication Court"), confirmed Court Claim No. 01575 to Brian Norelius with a June 30, 1889 priority date. The Claim's maximum instantaneous quantity (Qi) was 1.0 cubic foot per second (cfs) from April 15 through October 15 for irrigation and stockwater. The Claim's annual quantity (Qa) was 54 acre-feet per year (ac-ft/yr) for the irrigation of 9.0 acres and stockwater.
On May 9, 2019 the Water Right was made final through the Final Decree made by the Yakima Adjudication Court. A final certificate, number 54-84238-J (“the Water Right”) was recorded with Kittitas County on September 3, 2019. The certificate was recorded in the original claimant’s name but current property ownership within the authorized place of use (POU) is different from the original claimant.

The Water Right is appurtenant to Kittitas County Parcel Nos. 898733 (4.0 acres) and 806336 (6.3 acres) that total 10.3 acres. Michelle Coburn owns Parcel 898733. In 1992, the parcel transferred from Brian Norelius (Water Right listed claimant) to Roxanne Roten. The parcel then transferred from Roxanne Roten to Coburn (current owner) in 2019. Aaron and Stephanie Royer own Parcel 806336. This parcel transferred from Brian Norelius to Donald Anderson (1993) then to Gary Hinkle et ux (1998) then to Gary Hinkle (2003) then to Gary and Andra Hinkle (2015) then to the Royers (2019).

The Water Right was historically diverted from the Yakima River at the Tjossem Ditch point of diversion (POD). This POD was common to at least 12 water rights that were conveyed together through the Tjossem Ditch. Water was available during the irrigation season; however, changes to land ownership and ditch management limited the quantity of water available from the ditch. By early September, water users had to rely on other water sources (e.g. shallow wells recharged by water during the irrigation season).

Once diverted from the Yakima River, the Water Right flowed through sections of open and piped ditch. From the POD, the water (for all rights) flowed through earthen ditch for approximately one mile to a fish screen. After passing through the fish screen, the ditch bifurcated into two channels/pathways. The “western” pathway delivered two water rights to a single landowner to the south of the bifurcation. The “eastern” pathway carried the remaining rights and split several times to deliver water to individual water users both to the south and east of the initial bifurcation.

The Water Right followed the eastern pathway, which also bifurcated to deliver water to the various water users. To begin this pathway, a single, earthen ditch carried all water about one-quarter mile to the south and east of the fish screen. At that point, a lateral diverged to the south and carried water to three water right holders. The original ditch continued to the east and delivered water to at least three water users (the Water Right included). The original ditch carried water a total of about three-tenths of a mile from the fish screen before it passed under Canyon Road.

The ditch carrying the Water Right passed under Canyon Road and entered a pipeline. This pipeline conveyed the water under Mill Pond Manor Mobile Home park, over Wilson Creek, and finally under Berry Road. On the eastern side of Berry Road the water entered a concrete lined open ditch that conveyed water further to the east. This concrete ditch is on the northern edge of the Coburn and Royer parcels. The concrete lined open ditch ends at the Coburn parcel.

The water delivered was subject to variations during the irrigation season. Anecdotal evidence suggested the pipe under Mill Pond Manor was historically pressurized with a pump to help deliver water, but this practice seems to have ceased in the early 2010’s and resulted in reduced flow that may have limited the amount of water available.

Water use was historically possible throughout the entire irrigation season. More recently, water users modified their water use because the pipeline was no longer pressurized and the instantaneous water delivery decreased from April to September. Then, in early September through the end of the irrigation season, other water right records indicate significant reductions in the amount diverted from the Tjossem POD. For the September through October 15 timeframe, and at times earlier in the irrigation season, the water users had to utilize shallow wells on their property to meet water demands.

Water was used for irrigation in two different ways. First, water was used from the concrete lined ditch to flood and sub-irrigate areas. This practice varied depending on how much water was coming through the pipeline. The acreage that was flood irrigated varied on an annual basis. Second, water from the ditch was allowed to infiltrate shallow wells and then pumped from the wells into pressurized sprinkler systems. This practice allowed the water users to use more of their water and allowed for irrigation where flood irrigation waters did not reach. The water
right was confirmed for stockwater; however, there is no evidence of livestock within the place of use (POU). A project vicinity and location map is shown in Attachment 1.

**Previous changes**
Describe any previous change decisions associated with the water right:

None

**SEPA**
The board has reviewed the proposed project in its entirety (Provide a detailed explanation of how the board complied with the State Environmental Policy Act):

A water right application is subject to a SEPA threshold determination if any of the following conditions are met.

a) It is a surface water right application for more than 1 cubic foot per second (cfs), unless the 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);

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.

The proposed changes to the subject water right do not meet or exceed any of the above thresholds. As such, the project is not subject to a SEPA threshold determination.

**Other**
Provide any other pertinent information relative to the background of this water right:

The change of this Water Right is part of a larger project to retire the Tjossem Ditch to recover Yakima Basin fish, restore the floodplain functions, and simplify flood water management. The Tjossem Ditch point of diversion is located on land owned by the US Bureau of Reclamation ("USBR").

The Tjossem Ditch headworks are located in a side-channel of the Yakima River at approximately river mile 150.5. These headworks have been the authorized point of diversion (POD) for at least 7 different water users with numerous water rights. Historically, the headworks diverted 10 cubic-feet-per-second (cfs) or more into a two-plus mile-long earthen ditch network that conveyed water for irrigation and stockwatering across Yakima River floodplain to reach all of the authorized places of use (POU) for Tjossem Ditch water rights holders. Due to a minimally functional fish screen and bypass, fish that entered the Tjossem Ditch have been likely to become trapped and cut-off from an easy return to the river. The lack of a functioning fish bypass at the fish screen, which is located nearly a mile from the headworks, compounds the situation and effectively sentences fish that enter the Tjossem Ditch to death.
The Tjossem Ditch crosses property owned by multiple landowners. The USBR owns the property on which the headgate is located, and about a mile of open ditch “downstream” from the headgate. This property, locally known as the Schaake Property, is integral to the USBR’s Yakima Project operations and the Yakima Basin Integrated Plan because it provides a unique opportunity to restore significant Yakima River floodplain acreage (see https://www.usbr.gov/pn/programs/yrbwep/phase2/schaake/index.html). Retirement of the Tjossem Ditch and removal of the headgate and other infrastructure is necessary to complete the environmental restoration of the Schaake Property.

To achieve the environmental restoration goals for the Schaake Property and to eliminate the challenges that the Tjossem Ditch creates for fish in this reach of the Yakima River, TU developed an approach to retire the Tjossem Ditch and associated infrastructure while also allowing the continued use of irrigation water by water right owners that historically used the Tjossem Ditch as a point of diversion and conveyance system. TU presented landowners with either an acquisition of the right (to transfer to the State’s Trust Water Right Program) or a conversion from a surface water diversion to a groundwater withdraw. Six water rights were transferred by way of acquisitions. Two of those rights (S4-84250-J and S4-84251-J) were acquired with Streamflow Restoration funding to serve as mitigation for Kittitas County and also to provide mitigation needed to ensure that all the water rights associated with the Tjossem Ditch are transferred successfully and to ensure closure of the ditch.

The information or conclusions in this section were authored and/or developed by (Name of Person): Erin Eaton, Trout Unlimited

COMMENT AND PROTESTS [See WAC 173-153-130(6)(b)]

Public notice of the application was given in the (Name of Publication(s): The Daily Record on Dates Published: 1/14/2021 and 1/21/21 as well as 2/24/22 and 3/03/22). Protest period ended on (end date of protest period): __

There were #_ _ or no _ _ protests received during the 30 day protest period. In addition, no _ _ or # _ _ oral and written comments were received at an open public meeting of the board or other means as designated by the board.

Date (protest/comment received): __

This was recognized by the board as a □ Protest □ Comment

Name/address of protestor/commenter: __

Issue (describe issues raised): __

Board’s analysis (board’s response to the protest/comment): __

NOTE to author: Repeat this table as necessary to describe each protest or comment (attach a separate sheet if needed)

Other

Provide any other pertinent information relative to the comments and protests receive:

The information or conclusions in this section were authored and/or developed by (Name of Person): Erin Eaton, Trout Unlimited

INVESTIGATION [See WAC 173-153-130(6)(c)]

The following information was obtained from a site inspection conducted by (person(s)): Erin Eaton and Justin Bezold on (date of field exam): 1/22/2021 , technical reports, research of department records (list other references, if any) and conversations with the applicant and/or other interested parties.

Proposed project plans and specifications

Describe proposed use of water to include # of connections, method of irrigation, type of crop, commercial use, etc. Also describe any issues related to development, such as the proposed development schedule and an analysis of the effect of the proposed transfer on other water rights, pending change applications & instream flows established under state law.

This project will transfer the Water Right point of diversion from a point on the eastern bank of the Yakima River to two wells to be located within the existing place of use. The wells will supply the water to be applied by each landowner. Water user-specific irrigation methods will be determined by each water user. The project will allow for a single connection at each well head for non-commercial water use for irrigation of respective acreage. Irrigation on both parcels is planned to be sprinklers. However, as a failsafe, the respective Qi will be available from each well to allow each landowner the ability to flood irrigate if the sprinkler system fails but the well still functions.

The proposed change to this Water Right is part of a larger effort to retire the Tjossem Ditch. The proposed use of the water is irrigation of 9 acres, split proportionally between Royer (5.5 acres) and Coburn (3.5 acres). The water will be withdrawn from new groundwater wells that will replace the surface water diversion. TU is working with the landowners to design groundwater withdraw and pressurized irrigation systems to ensure the wells will meet the demand. The water quantities withdrawn under this right will be limited to the maximum valid instantaneous (Qi) and annual (Qa) quantities from either well. The system design is ongoing with mid-2022 expected completion.

This change will have no impact on any Yakima Basin surface water rights. Additionally, there is no net change to streamflow expected. Ecology will allocate 42.60 ac-ft from its instream flow and mitigation water right S4-84250-J (CS4-00497sb9) so the transferring water right is not diminished.

Other water rights appurtenant to the property (if applicable)

Describe any other water rights or other water uses associated with both the current and proposed place of use and an explanation of how those other rights or uses will be exercised in conjunction with the right proposed to be transferred.

None

Public Interest (groundwater only)

The proposed transfer is subject to RCW 90.44.100 and therefore, cannot be detrimental to the public interest, including impacts on any watershed planning activities. Provide an analysis of the transfer as to whether it is detrimental to the public interest, including impacts on any watershed planning activity. Public interest is not considered if the proposed water right is authorized under RCW 90.03.380 exclusively.

The Public Interest was considered and the proposed transfer is not detrimental to the public interest. Moreover, the proposed transfer aligns with the goals of the Yakima Basin Integrated Plan—a significant watershed planning activity. The proposed water right change and subsequent water use helps advance the Schraake property restoration objectives (USBOR project) by closing the Tjossem Ditch. This result advances the goals of the Yakima Basin Integrated Plan. Fish, resident and anadromous salmonids and non-salmonids, will no longer be subject to mortality associated with the Tjossem Ditch.

The proposed transfer adds points of withdraw from groundwater to a surface water right. The wells will supply the water to be applied by each landowner. The project will allow for a single, metered connection at each well head for non-commercial water use for irrigation of their respective acreages. The proposed wells will draw
from groundwater that is hydraulically connected to the Yakima River, which is the source for the surface water right.

This change will not impact any Yakima Basin surface water rights. Additionally, there is no net detrimental change to streamflow expected. Ecology will allocate 42.60 ac-ft from its instream flow and mitigation water right S4-84250-J (CS4-00497sb9) so the transferring water right is not diminished.

**Tentative Determination**

In order to make a water right change decision, the Board must make a tentative determination on the validity and extent of the right. The Board has made the tentative determination as displayed upon the first page of this report. There are several circumstances that can cause the board’s tentative determination to differ from the stated extent of the water right within water right documentation. Water right documents attempt to define a maximum limitation to a water right, rather than the actual extent to which a water right has been developed and maintained through historic beneficial use. Additionally, except for a sufficient cause pursuant to RCW 90.14.140, water rights, in whole or in part, not put to a beneficial use for five consecutive years since 1967 may be subject to relinquishment under Chapter 90.14.130 through 90.14.180 RCW. Water rights may additionally be lost through abandonment. The Board’s tentative determination was based upon the following findings. Describe any information indicating that an existing water right or portion of a water right has been relinquished or abandoned due to nonuse and the basis for the determination.

The Board’s tentative determination is based upon the following findings: (1) this is a legally valid claim established through the Acquavella Adjudication; (2) the CFO provided the valid parameters for use of the water right; (3) in September 2019, the WA Department of Ecology issued a certificate for the same water quantities as established in the 2006 CFO; and (4) water was used to irrigate the POU during the irrigation season (April 15 – October 15). Aerial photos indicate there was beneficial use at least 1 in every 5 years since 2006. Therefore, the water right is valid and eligible for change.

Beneficial use supported by aerial images showed irrigated acreage that varied. Aerial photos show water was beneficially used to irrigate as follows (approx.): 3.9 acres in 2009, 2.7 acres in 2011, 3.2 acres in 2013, 2.2 acres in 2015, and 1.9 acres in 2017. The five year period from 2017 – 2021 is the smallest amount of irrigated acreage. The 1.9 acres is approximately 21.11% of the allowable 9 acres within the place of use.

Water was typically available from the ditch and/or wells from April 15 through October 15, though no evidence is available to support irrigation in April. For April, weather conditions and soil moisture precluded the actively irrigate beyond the natural levels. As such, the April 15 – May 1 timeframe meets a sufficient cause for use.

Based on the tentative determination of the Water Right discussed above, 11.4 ac-ft/yr and 0.211 cfs is available for change to groundwater withdrawal for irrigation per the following calculations:

(a) 1.9 acres/9 acres = 21.1111% of total acreage;
(b) 21.1111% * 54 ac-ft/yr = 11.399994 ac-ft/yr (decimal rounded to 11.4);
(c) 21.1111% * 1.0 cfs = 0.2111 cfs

Beneficial use on the Coburn and Royer parcels accounts for approximately 25.74% (0.489 acres) and 74.26% (1.411 acres) of the total acreage, respectively. The Coburn parcel accounts for 2.934 ac-ft/yr and the Royer parcel accounts for 8.466 ac-ft/yr.

Evidence of stock water use was not available. As such, stock water is subject to relinquishment through non-use and lack of sufficient causes for non-use to prevent relinquishment.

The adjudication awarded 54 acre-feet/year for the irrigation of 9 acres and stock water. As mentioned previously, Ecology will allocate water from S4-84250-J (CS4-00497sb9) to credit the water amounts subject to relinquishment. Of the 54 total ac-ft/yr, 11.4 ac-ft/yr is available from the Water Right and 42.6 ac-ft/yr is to be allocated from S4-84250-J (CS4-00497sb9) to make the right whole. Quantities from S4-84250-J must also be identified as consumptive or non-consumptive to properly account and track the needed water.
Ecology's Guidance Document, GUID-1210, Determining Irrigation Efficiency and Consumptive Use provides the methodology for calculating the relative water amounts required for irrigation. It is noted that area fields are relatively coarse-grained, requiring a higher water duty to meet the Crop Irrigation Requirement (CIR), resulting in lower than average application efficiency.

Here, cherry trees with cover was used for 7.1 acres to determine the Crop Irrigation Requirement (CIR) of 39.66 inches (3.315 ac-ft/yr) based on an Ellensburg, WA location. The application efficiency (Ea) of 70% was used with an additional percent total evaporated of 5%. These values correspond to a solid-set overtree sprinkler system. These values were used to calculate the total consumptive acre-feet needed as 23.49 ac-ft/yr. An additional 14.11 ac-ft/yr are needed to reach 42.6 total ac-ft/yr.

Based on the application that stated the Coburn parcel will irrigate 3.5 acres and the Royer parcel will irrigate 5.5 acres, the Water Right amounts are as follows: the Coburn parcel will receive 2.934 ac-ft/yr and Royer parcel will receive 8.466 ac-ft/yr, for a total of 11.4 ac-ft/yr.

Water (42.6 ac-ft/yr) from S4-84250-J (CS4-00497sb9) will be provided and is to be allocated as follows: the Coburn parcel will receive 18.067 ac-ft/yr (12.083 ac-ft/yr consumptive) and the Royer parcel will receive 24.533 ac-ft/yr (16.407 ac-ft/yr consumptive). These quantities were calculated from the total consumptive and non-consumptive values that were multiplied by the relative acreage percentages of the total needed (7.1 acres worth of water from S4-84250-J) and associated with the parcels. For Royer this was 57.59% (4.089 acres) and Coburn this was 42.41% (3.011 acres).

Ecology's Water Resource Program Policy for Conducting Tentative Determination of Water Rights (POL-1120) states that, "[i]n some situations, changes to historic uses associated with water rights have been made in the diversion or use of water without first obtaining authorization for the changes pursuant to chapters 90.03 and 90.44 RCW. Such unauthorized changes to existing water rights are commonly referred to as "defacto, or after-the-fact changes." Here, the POD listed on the Water Right is located on the eastern bank of the Yakima River. This POD (and related conveyance system) insufficiently delivered water to the POU and created issues with water availability. As such, two shallow groundwater wells and pumps were installed within the POU to provide water for irrigation for part of the period of use. In this instance, the use of water from the shallow wells (same source as surface POD, see below) in addition to surface water diversion at the adjudicated POD satisfies the beneficial use requirement. The requested change of the Water Right's POD may be considered a recognizable defacto change.

Geologic, Hydrogeologic, or other scientific investigations (if applicable)

Describe the results of any geologic, hydrogeologic, or other scientific investigations that were considered by the board and how this information contributed to the board's conclusions.

Based on the review of existing documentation and the site-specific conceptual model presented in the technical memorandum, it was concluded that the existing point of diversion for Tjossem Ditch and the proposed points of withdrawal are completed in the same source of water. All wells will be completed in the sedimentary deposits, which are hydraulically connected, receive recharge from the same catchment, and share a common flow regime as the Yakima River. In addition, no barriers to groundwater flow are locally present.

Water is physically available based on stable groundwater levels over time in a highly transmissive aquifer that is in hydraulic continuity with the adjacent gaining reach of the Yakima River. Similarly, water is legally available because no increase in water right quantities or irrigated acreage is requested under the proposed changes.

The calculated interference drawdown due to the proposed changes are estimated to be approximately 0.5 and 1.3 feet in the nearest wells. The resulting drawdown is a small percentage of the approximately 90 feet of available drawdown. This is a conservative analysis not accounting for the partially penetrating wells and qualifying withdrawal facilities standard as defined by WAC 173-150-030. It is therefore concluded that that
although pumping interference effects are likely, no impairment of existing groundwater rights—either permit or permit-exempt wells—will occur in the sedimentary aquifer will full use of the requested quantity from the proposed wells.

The project will eliminate the historic Tjossem Ditch diversion on the Yakima River. Tjossem Ditch is highly inefficient method of diverting, conveying, and delivering irrigation water to the existing users. In addition, the diversion leads to the entrainment and stranding of wild and native fish species.

Finally, the proposed changes are water budget neutral to Total Water Supply Available (TWSA) in the Yakima River basin. In addition, the Bureau of Reclamation will manage water supplies to meet in-time all instream flow targets on the main-stem Yakima, including the Yakima River Basin Enhancement Project (YRBWEP) and the State's Trust Water Right Program (TWRP) instream flow target water and any reach-specific target flows based on System Operation Advisory Committee (SOAC) recommendations. Therefore, no impairment of instream flows will occur. All withdrawal quantities will be metered to prevent any enlargement of the subject water rights.

Other
Provide any other pertinent information relative to the investigation of this application.

n/a

The information or conclusions in this section were authored and/or developed by (Name of Person): Justin Bezold, Trout Unlimited

CONCLUSIONS [See WAC 173-153-130(6)(d)]

Tentative determination (validity and extent of the right)
Describe whether, and to what extent, a valid water right exists.

The Water Right is valid and eligible for change as described previously. The period of use is valid and eligible for change without reduction. Beneficial use supported by aerial images showed irrigated acreage of approximately 1.9 acres, approximately 21.11% of the allowable 9 acres within the place of use.

Based on the application that stated the Coburn parcel will receive 3.5 acres of irrigation and the Royer parcel will receive 5.5 acres. The Coburn parcel will receive 2.934 ac-ft/yr (0.05434 cfs) from the Water Right, and Royer parcel will receive 8.466 ac-ft/yr (0.156771 cfs) from the Water Right.

Water from S4-84250-J (CS4-00497sb9) is allocated as follows: the Coburn parcel will receive 0.334568 cfs and 18.067 ac-ft/yr (12.083 ac-ft/yr consumptive) and the Royer parcel will receive 0.454321 cfs and 24.533 ac-ft/yr (16.407 ac-ft/yr consumptive).

Evidence of stockwater use was not available. As such, stockwater is subject to relinquishment through non-use and lack of sufficient causes for non-use to prevent relinquishment.

Relinquishment or abandonment concerns
Describe any relinquishment or abandonment of the water right associated with the water right transfer application as discussed in the investigation section of this report.

In order to make a water right change decision, Ecology must make a tentative determination on the extent and validity of the right. Under RCW 90.14.160 any portion of a water right or water right claim not exercised for a period of five successive years, without sufficient cause, shall be relinquished and revert to the state.
Ecology’s Water Resources Program Policy 1120 (POL 1120) Conducting Tentative Determinations provides guidance on Ecology’s methods for making a tentative determination of a water right during a review of change applications. Reviewing multiple sources of water use data is preferred to determine historic water use. Additionally, Ecology’s policy provides for evaluating the periods of beneficial use since the last time Ecology fully evaluated the right, which in this instance is the date of the Conditional Final Order—April 17, 2006—when the Acquavella Adjudication Court confirmed the rights’ traits.

The Board’s tentative determination described above identifies at least 1.9 acres of irrigation within the Place of Use through surface water diversion from the Yakima River and from shallow wells that meets the beneficial use requirements.

Water was typically available and used, or subject to a sufficient cause for non-use from April 15 through October 15. The period of use is not subject to any diminishment.

Based on the tentative determination of the Water Right discussed above, approx. 11.4 ac-ft/yr at 0.2111 cfs is available for change to a groundwater point of withdrawal for irrigation.

Evidence of stockwater use was not available. As such, stockwater is subject to relinquishment through non-use and lack of sufficient causes for non-use to prevent relinquishment.

Hydraulic analysis

Describe the result, as adopted by the board, of any hydraulic analysis done related to the proposed water right transfer.

TU submitted to the Board a technical report, included as Attachment 2, describing hydrogeologic conditions near the existing point of diversion and the proposed points of withdrawal, evaluating the same body of public groundwater, legal and physical water availability of water in the aquifer, and the potential for impairment of other water rights or permit exempt wells (Aspect, 2021). A summary of findings contained in that report is summarized below.

Based on the review of existing documentation and the site-specific conceptual model presented in the technical memorandum, it was concluded that the existing point of diversion for Tjossem Ditch and the proposed points of withdrawal are completed in the same source of water. All wells will be completed in the sedimentary deposits, which are hydraulically connected, receive recharge from the same catchment, and share a common flow regime as the Yakima River. In addition, no barriers to groundwater flow are locally present.

Consideration of comments and protests

Discuss the board’s conclusions of issues raised by any comments and protests received.

Public notice of the application was given in the Daily Record of Ellensburg, Washington on January 14 and January 21, 2021. The protest period ended on February 20, 2021. An amended public notice was given in the Daily Record of Ellensburg, WA on February 24, 2022 and March 3, 2022. The protest period ended on April 2, 2022. Copies of the Public Notices and Affidavits of Publication are included as Attachment 2. There were no protests received during the 30 day protest period. Additionally, no oral and written comments were received at an open public meeting of the Board held on February 16, 2021 and March 15, 2022 or other means as designated by the Board.

On April 12, 2021, the Board sent notifications to all interested parties, including: Ecology, United States Department of Fish and Wildlife, Washington State Department of Fish and Wildlife (WDFW), Confederated Tribes and Bands of the Yakama Nation, and Washington State Department of Archeology and Historic Preservation.

Impairment

Describe how or if the transfer proposal will impair existing rights of others.
As presently used, this water right irrigates acreage from a groundwater well. As proposed, the landowner will continue to irrigate from a groundwater well. Based on historic use and water availability in this area (reliable availability subject to conveyance issues), this change will not impair any existing water rights.

**Public Interest**

If the proposed transfer is authorized pursuant to RCW 90.44.100, describe whether it is detrimental to the public interest. Public interest shall not be considered if the proposed transfer is authorized pursuant to RCW 90.03.380 exclusively.

The proposed change moves the point of diversion for a surface water right to two points of withdrawal from groundwater wells, which requires consideration of the public interest. Described above, the Public Interest was considered and the proposed change is in the Public Interest and there is no detriment to the Public Interest. The proposed wells are closely connected to the Yakima River and will not impair existing rights of others, nor will the proposed wells have an impact on streamflows in area waters. Moreover, the proposed water change and water use helps advance the Schnake property restoration and advance the goals of the Yakima Basin Integrated Plan. The proposed change will benefit the Public Interest.

**Other**

The board also considered the previous provisions associated with the water right as identified in the background section of this report when making its decision. Provide any other pertinent information relative to the board’s conclusions.

**DECISION** [See WAC 173-153-130(6)(e)]

Provide a complete description of the board’s decision, fully and comprehensively addressing the entire application proposal.

After review of the evidence, the author makes the determination that water right S4-84238-J represents a valid right eligible for change from surface water diversion to groundwater withdrawal that will not impair existing water users. The Board recommends the request for change of S4-84238-J to be approved in the amounts as follows:

The Coburn parcel will receive 3.5 acres of irrigation and the Royer parcel will receive 5.5 acres. The Coburn parcel will receive 2.934 ac-ft/yr (0.05434 cfs) from the Water Right, and Royer parcel will receive 8.466 ac-ft/yr (0.156771 cfs) from the Water Right.

Water from S4-84250-J (CS4-00497sb9) is allocated as follows: the Coburn parcel will receive 0.334568 cfs and 18.067 ac-ft/yr (12.083 ac-ft/yr consumptive) and the Royer parcel will receive 0.454321 cfs and 24.533 ac-ft/yr (16.407 ac-ft/yr consumptive).

The stockwater component is subject to relinquishment due to non-use and lack of sufficient cause for non-use.

Provide any other pertinent information relative to the board’s decision.

**PROVISIONS** [See WAC 173-153-130(6)(f)]
Conditions and limitations

Identify any conditions and limitations recommended as part of an approved transfer, and/or any other corrective action necessary to maintain the water use in compliance with state laws and regulations.

Proof of Appropriation - Consistent with the development schedule given in this report (unless extended by Ecology), the water right holder must file a Notice of Proof of Appropriation (PA) of Water with Ecology. The PA documents the project is complete and all the water needed has been put to full beneficial use (perfected). In order to verify the extent of water use under this permit, an inspection of water use is typically required, known as a “proof exam”. After filing the PA, the water right holder’s next step is to hire a Certified Water Rights Examiner (CWRE) to conduct this proof exam. A list of CWREs is provided to the water right holder upon filing the PA with Ecology. The final water right document, a water right certificate, then may issue based upon the findings of the CWRE. Statutory county and state filing fees may apply prior to certificate issuance.

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.

An approved measuring device must be installed and maintained for each of the sources identified by this water right in accordance with the rule "Requirements for Measuring and Reporting Water Use", WAC 173-173, which describes the requirements for data accuracy, device installation and operation, and information reporting. It also allows a water user to petition the Department of Ecology for modifications to some of the requirements.

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.

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).

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

All wells under this authorization shall be completed into the composite “sediment aquifer” of the Lower Kittitas Valley.

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.

Water associated with the source mitigating water rights is provided solely for use on the respective parcels identified herein. That use cannot be transferred to any other purpose or place of use. If the water is abandoned or relinquished by non-use on the parcels, then that water reverts to Ecology’s Trust Water right S4-84250-1 (change application number CS4-00497sb9).

Mitigation (if applicable)

Describe any requirement to mitigate adverse effects of the project. Mitigation may be proposed by the applicant or the board and be required in the board’s decision.
Construction Schedule

Provide a schedule for development and completion of the water right transfer, if approved in part or in whole that includes a definite date for completion of the transfer and application of the water to an authorized beneficial use.

**The current shallow well does not provide reliable and dependable water. Therefore, a new reliable well will be installed with the decommissioning of the old shallow well. The anticipated well installation is for fall 2021 dependent on contractor availability, no later than March 31, 2022.**

Other

Provide any other pertinent information relative to provisions

Not applicable

The information or conclusions in this section were authored and/or developed by (Name of Person): Mark Crowley

The undersigned board commissioner certifies that he/she understands the board is responsible “to ensure that all relevant issues identified during its evaluation of the application, or which are raised by any commenting party during the board’s evaluation process, are thoroughly evaluated and discussed in the board’s deliberations. These discussions must be fully documented in the report of examination.” [WAC 173-153-130(5)] The undersigned therefore, certifies that he/she, having reviewed the report of examination, knows and understands the content of this report and concurs with the report’s conclusions.

Signed at Ellensburg Washington

This 19 day of April, 2022

Date (Day) (Month) (Year)

Name of Board Representative: Mark Crowley

Name of Water Conservancy Board: Kittitas County Water Conservancy Bd

Signature: Mark Crowley
Existing and Proposed POD/POW and POU for KITT-20-06 (re: S4-84238-J)

Tjossem POD (existing)
Tjossem Ditch (approx.)
PLSS
Yakima River
Wilson Creek

Approx. location of well on Parcel 898733 (Coburn).
Approx. location of well on Parcel 806336 (Royer).

Trout Unlimited provides this map 'as-is' and without warranty or guarantee of any kind. Basemap is 2015 NAIP compressed county mosaic.
AFFIDAVIT OF PUBLICATION

State of Washington, County of Kittitas, ss: The undersigned being first duly sworn on oath, deposes and says: That he/she is the representative of The Daily Record, a daily newspaper. That said newspaper is a legal newspaper and has been approved as a legal newspaper by order of the superior court in the County in which it is published and it is now and has been for more than six months prior to the date of the publications hereinafter referred to, published in the English language continually as a newspaper in Ellensburg, Kittitas County, Washington, and it is now and during all of said time printed in an true copy of

TROUT UNLIMITED

WATER RIGHTS KITT-20-06

is published in regular issues (and not in supplement form) of said newspaper once a week for a period of 2 consecutive week(s), commencing on the following days.

01/14/2021 01/21/2021

All dates inclusive and that such newspaper were regularly distributed to its subscribers during all of said period. That the full amount of the fee charged for the foregoing publication is the sum of $12.09 the rate of $12.75 per column inch for each insertion.

Subscribed to me this _____ day of _____ in the year of 20__.

Printed Name

Notary Public in and for
The State of Washington
(SEAL)
AFFIDAVIT OF PUBLICATION

State of Washington, County of Kittitas, ss: The undersigned being first duly sworn on oath, deposes and says: That he/she is the representative of The Daily Record, a daily newspaper. That said newspaper is a legal newspaper and has been approved as a legal newspaper by order of the superior court in the County in which it is published and it is now and has been for more than six months prior to the date of the publications hereinafter referred to, published in the English language continually as a newspaper in Ellensburg, Kittitas County, Washington, and it is now and during all of said time printed in an true copy of

TROUT UNLIMITED
WATER RIGHTS S4-84238-J/KITT-20-06

is published in regular issues (and not in supplement form) of said newspaper once a week for a period of 2 consecutive week(s), commencing on the following days.

02/24/22, 03/03/22

All dates inclusive and that such newspaper were regularly distributed to its subscribers during all of said period. That the full amount of the fee charged for the foregoing publication is the sum of $580.84 the rate of $13.25 per column inch for each insertion.

Subscribed to me this date: 03/03/22

Printed Name
Notary Public in and for The State of Washington (SEAL)
PUBLISH: Daily Record, Monday, February 27, 2023, and March 20, 2023
MEMORANDUM

Project No.: 200382

April 20, 2021

To: Erin Eaton, Trout Unlimited

From: Tyson D. Carlson, LHG
Sr. Associate Hydrogeologist
tcarlson@aspectconsulting.com

Jason M. Shira, LHG
Senior Hydrogeologist
jshira@aspectconsulting.com

Silas Sleeper
Staff Scientist
ssleeper@aspectconsulting.com

Re: Hydrogeologic Investigation - Tjossem Ditch
Water Right Change Nos. CS4-84225-J and CS4-84238-J

This memorandum presents the findings of Aspect Consulting, LLC’s (Aspect) hydrogeologic investigation completed in support of Trout Unlimited’s (TU) two water right change applications (CS4-84225-J and CS4-84238-J). TU filed change applications on both water rights through Kittitas County Water Conservancy Board (WCB). The applications were accepted at an open public WCB meeting on December 24, 2020, and were assigned Control Nos. KITT-20-07 and KITT-20-06, respectively. The change applications request a change to the point of diversion (POD) of the two surface water rights to groundwater points of withdrawal (POW).

Aspect completed a site-specific hydrogeologic investigation using a multiple-line-of-evidence approach that used the best available data describing the hydrogeology of the area. The objective of this investigation is to determine if the existing authorized POD (Tjossem Ditch) and the proposed...
well location(s) are in the same source of water, the legal and physical water availability of water in the proposed groundwater aquifer, and whether local impairment of water rights would occur.

**Summary of Findings**

Based on review of the information provided below, we observe the following:

- The existing POD authorized under water rights S4-84225-J and S4-84238-J is the Yakima River at the head of the Tjossem Ditch. The proposed POW are located along Tjossem Ditch less than 0.8 miles east of the Yakima River.

- Review of studies (Vaccaro, 2011) indicate that the adjacent reach of the Yakima River is gaining at a rate between approximately 7 and 20 cubic feet per second (cfs) per mile. The gaining nature of the reach is reflective of the contribution of groundwater from the surrounding sedimentary deposits. This study’s findings indicate that the hydraulic continuity between shallow groundwater and surface water in the Yakima River is high.

- The proposed POW will be located in NW1/4, SE1/4 of Section 13 and NW1/4, NE1/4 of Section 24 of Township 17 North, Range 18 East Willamette Meridian (E.W.M), and likely completed within the top 200 feet of sedimentary deposits of the Ellensburg Formation aquifer.

- Ecology Policy 2010, *Defining and Delineation of Water Sources*, provides guidance for determining the source of water (including same body of public groundwater) for water resources permitting decisions. All wells will be completed in the sedimentary deposits above the Grande Ronde Basalts, which are hydraulically connected, receive recharge from the same catchment, and share a common flow regime as the Yakima River. In addition, no barriers to groundwater flow are locally present. We conclude that groundwater and surface water in the adjacent reach of the Yakima River are in the same source of water.

- Water is physically available based on stable groundwater levels over time in a highly transmissive aquifer that is in hydraulic continuity with the adjacent gaining reach of the Yakima River. Similarly, water is legally available because no increase in water right quantities or irrigated acreage is requested under the proposed changes.

- The calculated interference drawdown due to the proposed changes are conservatively estimated to be approximately 0.5 and 1.3 feet in the nearest wells. The resulting drawdown is a small percentage of the approximately 90 feet of available drawdown. We conclude that although pumping interference effects are likely, no impairment of existing groundwater rights – either permit or permit-exempt wells – will occur in the sedimentary aquifer with full use of the requested quantity from the proposed POWs.

- The project will eliminate the historic Tjossem Ditch diversion on the Yakima River. Tjossem Ditch is a highly inefficient method of diverting, conveying, and delivering irrigation water to the existing users. In addition, the diversion leads to the entrapment and stranding of wild and native fish species. Based on this information and pending consultation with the basin stakeholders and the Water Transfer Working Group (WTWG), no impairment of ESA-listed fish species will occur as a result of the proposed changes.
MEMORANDUM

April 20, 2021  Project No.: 200382

- The proposed changes are water budget neutral to Total Water Supply Available (TWSA) in the Yakima River basin. The Bureau of Reclamation will manage water supplies to meet in-time all instream flow targets on the mainstem Yakima, including the Yakima River Basin Enhancement Project (YRBWEP) and the State’s Trust Water Right Program (TWRP) instream flow target water and any reach-specific target flows based on System Operation Advisory Committee (SOAC) recommendations. Therefore, no impairment of instream flows will occur.

Supporting data and analyses for these findings are presented in the sections below.

Project Description

The goal of the project is to eliminate the historic Tjossem Ditch and associated diversion on the Yakima River. Tjossem Ditch is a highly inefficient method of diverting, conveying, and delivering irrigation water to the nine existing users. In addition, the diversion leads to the entrainment and stranding of wild and native fish species. The U.S. Bureau of Reclamation and Kittitas County are actively restoring floodplain functions and improving flood risk management in this reach through several projects. TU filed two Change Applications through WCB requesting to change the POW of two Tjossem Ditch surface water rights (S4-84225-J and S4-84238-J) to groundwater as the first step in multiple changes necessary to meet overall project goals.

The Tjossem Ditch surface water rights are located approximately 0.75 miles east of the Yakima River in Kittitas County, Washington (Figure 1). The cumulative annual quantity of the surface water rights to groundwater rights change is 62 acre-feet per year (ac-ft/yr) for the irrigation of 11 acres. Details of each respective water right are presented in Table 1.

<table>
<thead>
<tr>
<th>Water Right No.</th>
<th>Property Owner</th>
<th>POU (Parcel No.)</th>
<th>QI (cfs)</th>
<th>Qi (gpm)</th>
<th>Qa (ac-ft/yr)</th>
<th>Irrigated Area</th>
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</thead>
<tbody>
<tr>
<td>S4-84225-J</td>
<td>Redberg</td>
<td>768933</td>
<td>0.06</td>
<td>26.93</td>
<td>8.0</td>
<td>2 acres</td>
</tr>
<tr>
<td>S4-84238-J</td>
<td>Coburn</td>
<td>898733</td>
<td>0.39</td>
<td>175.0</td>
<td>21.0</td>
<td>3.5 acres</td>
</tr>
<tr>
<td>S4-84238-J</td>
<td>Royer</td>
<td>806336</td>
<td>0.61</td>
<td>273.8</td>
<td>33.0</td>
<td>5.5 acres</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>1.06</td>
<td>475.76</td>
<td>62</td>
<td>11 acres</td>
</tr>
</tbody>
</table>

1 The POU for Water Right S4-84238-J is owned by two different landowners. David and Michelle Coburn own 3.5 acres and Aaron and Stephanie Royer own 5.5 acres within the authorized POU.

Site Location

The project area is located 2 miles southeast of the City of Ellensburg, adjacent to Canyon Road within Sections 13 and 24 of Township 17 North, Range 18 E.W.M. The project area occupies 11 acres over three parcels approximately 0.75 miles east of the Yakima River. In addition to the Yakima River to the west, multiple groundwater-supported ponds are located throughout the project vicinity. The three subject properties are located on the east side of Canyon Road near the historic Tjossem Ditch alignment. Proposed well locations are strategically located to fit into the existing irrigation infrastructure as shown on Figure 1.
Preliminary well design includes 6-inch-diameter well casing and telescoping screen assembly appropriately sized for the aquifer graduation. Anticipated depths are discussed below, with actual depths being determined in the field during drilling based on site-specific conditions. Additional well design is pending development of project contract bid documents, with final design being determined by the selected contractor.

**Hydrogeologic Investigation**

Structural setting, geologic history, and occurrence of groundwater provide the basis for our interpretation of local hydrogeology and groundwater occurrence. The hydraulic continuity between the Yakima River and proposed POWs was evaluated, as well as potential impairment to existing water rights (claims permits and certificates), permit-exempt groundwater users, and surface water rights. A description of the geologic setting and stratigraphic units of the area are discussed below.

**Regional Geology**

The project area is located within the interior of Kittitas Valley, where geologic characteristics are largely results from regional tectonic processes. Kittitas Valley lies within the Yakima Fold and Thrust Belt (YFTB), a broad region of east-west compression and clockwise plate rotation that has created a number of northwest- and west-trending anticlines and thrust faults, and northwest-trending regional strike slip faults. Kittitas Valley is a syncline (upward fold) confined by adjacent anticlines (downward folds) to the SW (Manastash Ridge) and to the NE (Naneum Ridge). A series of smaller, generally northwest-trending anticlines and synclines, and the high-angle faults commonly associated with the anticlines, are present between these broader anticlinal mountain and valley forming folds.

Regional bedrock is dominated by the Columbia River Basalt Group (CRBG), a series of stacked basalt flows and sedimentary interbeds that were deposited between 17 and 3 million year ago. Tectonic processes, including folding, subsidence, and uplift, have resulted today in the form of prominent anticlines and synclines. These processes began prior to placement of the CRBG and strongly impacted the nature of the basalt flows that compose the CRBG as well as the sediments that were deposited between the basalt flows.

Tectonic processes created depositional basins (synclinal low areas) that captured sediments carried in by shallow lakes and streams. The project area is located within the interior of a major depositional basin (the Kittitas Valley syncline). The geology of the project area is dominated by sedimentary deposits that are over 500 feet thick (Jones and Vaccaro, 2008). Multiple studies have subdivided these sedimentary deposits into three distinct hydrogeologic units: alluvial, unconsolidated, and consolidated. The largest unit of the three in both depth and lateral extent is the consolidated unit, which is also known as the Ellensburg Formation.

**Site Hydrostratigraphic Units**

Surficial geology was mapped by Tabor et al. (1982). Geologic unit and structural data were used to develop the subsurface interpretation (Tabor et al., 1982; Jones et al., 2006; Vaccaro et al., 2009). These references indicate that there are four principal geologic units at the project area. From younger to older, these are: recent alluvium; Thorp Gravel; Ellensburg Formation and the CRBG which consists of basalt flows and sedimentary interbeds as shown on Figure 2.
The target aquifer for project wells is the sand and gravel layers within the Ellensburg Formation. The characteristics and distribution of each unit included in the unconsolidated and consolidated aquifers are described as:

- **Recent Alluvium (Unit 1)** – This is a mixture of sand to boulders with beds of fine sediment. The recent alluvium unit is known to be approximately 20 to 40 feet thick within the project area. The aquifer is believed to be unconfined with primary water-bearing unit zones associated with layers of coarse sand and gravel. Hydraulic conductivities of this unit range from $3.5 \times 10^{-1}$ to 2 cm/s with an upper average of $2.8 \times 10^{-1}$ cm/s (Vaccaro et al., 2009); the range is due to variation in grain-size distribution.

- **Thorp Gravel (Unit 2)** – This older Yakima River Valley filling sequence consists of weakly clay- and hematite-cemented cobble to gravel conglomerate with siltstone and sandstone interbeds that was deposited in the Kittitas Valley after the CRBG basalt flows. The Thorp Gravel is generally described as "cemented gravel" or "clay and gravel" in local well logs. Aquifer properties of this unit are variable, forming aquitards or aquifers. Thorp Gravels have two distinct facies: mainstem gravels consisting of silicic to volcanic rocks, and sidestream gravels consisting primarily of basalt clasts. The Thorp Gravel is a target aquifer for low demand domestic water use and is likely not suitable for irrigation water supply in the area due to the inferred thinness (low transmissivity) of the deposit.

Based on review of local well logs, the Thorp Gravel extends to an estimated depth of about 30 to 70 feet below ground surface (bgs); however, differentiation between the Thorp Gravel and Ellensburg Formation is often difficult based on local driller logs.

- **Ellensburg Formation (Unit 3)** – The Ellensburg Formation in the Kittitas Basin is largely the result of deposition of volcanoclastic sediment from nearby domal volcanoes. The deposits are composed of intercalated conglomerates, sandstones, and siltstones. These sediments often occur as stratigraphic sequences alternating between laterally extensive depositional sheets of hyperconcentrated flood flow deposits to reworked sediments that are moderately sorted bedded and crossbedded (Waitt, 1979). The Ellensburg Formation is the thickest sedimentary deposit in the project area and the predominant source of groundwater. This is likely the target aquifer for the new POWs.

As mentioned above, the Ellensburg Formation consists of alternating sedimentary deposits that extend down to a total depth of approximately 500 feet bgs. Several well logs indicate that a sand and gravel layer located at the top of this sequence is a productive aquifer unit that is used by numerous domestic wells in the area. This sand and gravel layer typically extends from 50 to 85 feet bgs. The specific capacity (SC), based on air test data, is approximately 0.5 gallons per minute (gpm) per foot of drawdown. Based on the empirical equation $SC = Transmissivity/2000$ (Driscoll, 1986), the transmissivity of the lower sand and gravel unit is estimated to be approximately 970 ft²/day. With a saturated thickness of 35 feet, the hydraulic conductivity (K) of this material is estimated to be 28 ft/day.

Due to the unknowns associated with air tests, this is considered a conservative estimate and the actual hydraulic conductivity is likely larger and more in line with literature values,
which estimate a hydraulic conductivity of 53 feet/day (Vaccaro et al., 2009). Although this hydraulic conductivity is a conservative estimate, it is still relatively high for unconsolidated materials and falls within the expected range for clean sand (Freeze and Cherry, 1979).

- **Columbia River Basalt Group** – The CRBG is the basement unit. It is located over 500 feet below the project area and is composed of two major basalt formations: the Wanapum Basalt Formation and the Grande Ronde Basalt Formation. These units are composed of multiple basalt flows and intervening Ellensburg Formation sedimentary interbeds. The hard basalt units without fractures generally form aquitards. Aquifers generally occur at flow contacts and fractured zones. Sedimentary interbeds can range from aquitards where clayey or shaley, to aquifers where sandy or gravelly. Summary estimates of hydraulic conductivities in the Yakima River Basin aquifer system found a median range – at basalt flow contacts and fractured zones – of $10^{-5}$ cm/s (Vaccaro et al., 2009).

Based on our review of well logs, typical well construction in the project vicinity was between 65 and 160 feet deep and produced approximately 20 to 80 gpm. Higher well yields are possible but may need to penetrate deeper water-bearing zones of the Ellensburg Formation (Unit 3) aquifer. Well logs document that the water table is approximately the same elevation as the adjacent reach of the Yakima River, at approximately 4 to 8 feet bgs. 

Well logs consistently agree on a general stratigraphic sequence from top to bottom (Table 2). There are two main sand and gravel units within the top 100 feet of the sedimentary deposits. All the wells in the project area are for domestic water supply and are completed in the lower sand and gravel unit due to potential water quality concerns.

The objective of this project is to provide irrigation water supply. Unit 1 sand and gravel may provide a sufficient supply of water for water right S4-84225-J. The larger water right (S4-84238-J) may require Unit 3 sand and gravel.

<table>
<thead>
<tr>
<th>Table 2. General Stratigraphy in Project Area Based on Local Well Log Review</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unit Description</strong></td>
</tr>
<tr>
<td>Topsoil</td>
</tr>
<tr>
<td>Sand and Gravel (Unit 1)</td>
</tr>
<tr>
<td>Cemented Gravel/ Clay (Unit 2)</td>
</tr>
<tr>
<td>Sand and Gravel (Unit 3)</td>
</tr>
</tbody>
</table>

**Hydrogeologic Conceptual Model**

Our understanding of the regional geology is combined with knowledge of local hydrology in development of a hydrogeologic conceptual model describing the occurrence and movement of groundwater in the project area. Given the heterogeneous characteristics of the aquifers, local variability of groundwater movement is difficult to characterize. Additionally, many aquifer
features and properties are approximated from literature and thus do not represent local conditions. However, many key features of the groundwater flow system can be described with relative confidence.

Groundwater generally flows parallel to local topography, originating at the topographic highs (Manastash Ridge and Naneum Ridge) and flowing downwards towards the Yakima River. The Yakima River Canyon acts as a choke point for both groundwater and surface water within Kittitas Valley, resulting in the gaining reaches that surrounds the mouth of the canyon. Consequently, groundwater movement within the project area is believed to flow northeast to southwest towards and down the Yakima River. Recharge within the surficial aquifer occurs primarily by way of agricultural return flow and streamflow losses. Additional recharge mechanisms include direct precipitation and ditch/canal leakage.

**Same Source of Water**
Ecology Policy 2010 provides guidance for determining the source of water (including same body of public groundwater) for water-resources permitting decisions. In evaluation changes to groundwater rights, the intent of the same body of public groundwater test is to preserve the priority system among rights within the same source of water and ensuring reliability of water supply during times of shortage.

The *Technical Considerations* section of Ecology Policy 2010 defines a source of water as a body or bodies of water which:

- Are hydraulically connected
- Share a common catchment area
- Share a common flow regime
- Are isolated from other sources by the presence of effective barriers to hydraulic flow

The existing POD authorized under water rights S4-84225-J and S4-84238-J is the Yakima River at the head of the Tjossem Ditch. The proposed POWs are located less than 0.8 miles from the main stem of the Yakima River. In addition, groundwater in the sedimentary deposits is documented as in high continuity with the adjacent reach of the Yakima River. Seepage investigations presented in Vaccaro (2011) shows that the adjacent reach of the Yakima River is a heavily gaining reach (Figure 3). Vaccaro (2011) attributes this gaining reach to the structural makeup of Kittitas Valley, which drives all groundwater within the basin-fill deposits to the entrance of the Yakima River Canyon.

The existing POD and the proposed POWs receive recharge from upland areas of the Kittitas Valley within the Yakima River Basin, and therefore share a common catchment area and flow regime. There are no known barriers to lateral groundwater flow between the proposed POD and the Yakima River. All the points of diversion and/or withdrawal are therefore hydraulically connected, receive recharge from the same catchment area, share a common flow regime, and have no barriers to hydraulic flow. Per Ecology Policy 2010, the existing POD and the proposed POW share the same source. This is consistent with how Ecology typically administratively manages.
groundwater and surface water rights in the sediments above the basement basalt and the adjacent reaches(s) of the Yakima River as a single source of water.

**Physical and Legal Availability of Water**

This section presents the basis for both physical and legal water availability tests. Physical availability of groundwater relies on the hydrogeologic description above, along with direct evidence of water availability from nearby well logs and available well tests. Similar to the approach above, well logs were used to record groundwater levels over time. Groundwater levels in adjacent well logs throughout time are stable and are generally less than 10 feet bgs (Attachment 1). This data is supported by the multiple surface water bodies within the vicinity of the project area, which are reflective of shallow groundwater levels.

The Yakima River is in continuity with the target aquifer and would serve as a recharge boundary, if needed. However, because of the heavily gaining nature of the adjacent reach, groundwater flow within the project area likely only flows in one direction (towards the Yakima River). The stable groundwater elevations and gaining nature of the Yakima River indicate that there is sufficient supply of water for the proposed POWs. No increase in water right quantities or irrigated acreage is requested under the proposed changes. Therefore, under the water management regime of the Yakima Basin and is water budget neutral to Total Water Supply Available.

**Impairment Analysis**

RCW 90.03.290 and RCW 90.44.060 require a determination that a water right change will not impair existing rights. There are three proposed POWs associated with this project (Figure 1). Two points of withdrawal are associated with S4-84238-J (referred to as the Royer Well and the Coburn Well) and one POW is associated with S4-84225-J (referred to as the Redberg Well.)

The nearest well to the Royer Well is a Group A domestic supply well (Ecology ID No. ACL-323), which lies 680 feet to the southwest. The closest well to the Coburn well is a permit-exempt well (Ecology Report ID No.113856), which lies 500 feet to the southwest. The closest well to the Redberg well is associated with Claim No. G4-055704CL, which authorizes general domestic use, and lies 270 feet to the SW. All three of the referenced wells are regarded as partial penetrating of the sedimentary aquifers and do not meet the qualifying withdrawal facilities standard as defined by WAC 173-150-030. Using the reported aquifer parameters above, the governing Theis Equation (Theis, 1935) was used to conservatively estimate the interference drawdown on neighboring wells from pumping of the proposed wells. Assuming continuous pumping at the proposed POW, we find the following:

- **Royer Well:**
  - **Peak Rate** of 273.8 gpm until the authorized 33 ac-ft are used (27.2 days) results in an interference drawdown of 0.82 ft.
  - **Average Rate** of 41.5 gpm for the length of the irrigation season (180 days) results in an interference drawdown of 0.90 ft.

- **Coburn Well:**
  - **Peak Rate** of 175 gpm until the authorized 21 acre-ft are used (27.2 days) results in an interference drawdown of 1.28 ft.
Trout Unlimited
April 20, 2021

MEMORANDUM
Project No.: 200382

- Average Rate of 26.4 gpm for the length of the irrigation season (180 days) results in an interference drawdown of 0.80 ft.

- Redberg Well
  - Peak Rate of 27 gpm until the authorized 2 ac-ft are used (67.2 days) results in an interference drawdown of 0.91 ft.
  - Average Rate of 10.1 gpm for the length of the irrigation season (180 days) results in an interference drawdown of 0.49 ft.

The proposed water right transfer will be water budget neutral with respect to TWSA as measured at the Parker gage. The closest surface water body listed by the Washington State Department of Fish and Wildlife (WDFW) database to have Endangered Species Act (ESA)-listed species is the Yakima River, located less than 0.6 miles west of the proposed project area. The project will eliminate the historic Tjossem Ditch diversion on the Yakima River. The existing diversion leads to the entrainment and stranding of wild and native fish species.

Based on this information and pending consultation with the basin stakeholders and the WTWG, no impairment of ESA-listed species will occur as a result of this project. The Bureau of Reclamation will manage water supplies to meet in-time all instream flow targets on the mainstem Yakima, including the YRBWEP, the State’s TWRP instream flow target water, and any reach-specific target flows based on SOAC recommendations. Therefore, no impairment of local surface water, instream flows, or ESA-listed species will occur.

References


Theis, C.V., 1935, The relation between the lowering of the piezometric surface and the rate and duration of discharge of a well using ground-water storage, Transactions, American Geophysical Union 16: 519–524.

MEMORANDUM

April 20, 2021

Trout Unlimited


Limitations

Work for this project was performed for Trout Unlimited (Client), and this letter was prepared in accordance with generally accepted professional practices for the nature and conditions of work completed in the same or similar localities, at the time the work was performed. This letter does not represent a legal opinion. No other warranty, expressed or implied, is made.

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Attachments: Figure 1 – Project Vicinity Map
Figure 2 – Surficial Geology Map
Figure 3 – Aquifer Exchanges in the Yakima Basin (2011)
Attachment 1 – Well Logs

V:\200382 TU Tjossen Ditch Improvement\Deliverables\Final HG Memo\HG Memo TU_20210420.docx
FIGURES
Location of stream reaches with gains greater than 7 cubic feet per second per mile, Yakima River basin, Washington.

Source:
ATTACHMENT 1

Well Logs
WATER WELL REPORT

STATE OF WASHINGTON

1) OWNER Name: D.Y.K. ANDY
Address: 7261 THORP RD
ELLENSBURG WA 98926

2) LOCATION OF WELL: County: KITITAS
(2a) STREET ADDRESS OF WELL (or nearest address)

3) PROPOSED USE: DOMESTIC

4) TYPE OF WORK: Owner's Number of well
If more than one

5) DIMENSIONS: Diameter of well 6 inches
Drilled 83 ft Depth of completed well 81 ft

6) CONSTRUCTION DETAILS: Casing installed 6 " Dia from 42 ft to 81 ft
WELDED " Dia from ft to ft
" Dia from ft to ft
Perforations NO
Type of perforator used
SIZE of perforations in by in
perforations from ft to ft
perforations from ft to ft
perforations from ft to ft

Screens NO
Manufacturer's Name
Type
Diam slot size from ft to ft
Diam slot size from ft to ft

Gravel packed NO
Size of gravel
Gravel placed from ft to ft

Surface seal YES To what depth? 18 ft
Material used in seal BENTONITE
Did any strata contain unusable water? NO
Type of water? Depth of strata ft
Method of sealing strata off OVERBORE

7) PUMP: Manufacturer's Name
Type

8) WATER LEVELS: Land surface elevation above mean sea level ft
Static level 22 ft below top of well Date 08/11/95
Artesian Pressure lbs per square inch Date
Artesian water controlled by

9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? NO If yes by whom?
Yield gal/min with ft drawdown after hrs

Recovery data
Time Water Level Time Water Level Time Water Level
Date of test / /

10) WELL LOG:
Formation Describe by color character size of material and structure and show thickness of aquifers and the kind and nature of the material in each stratum penetrated with at least one entry for each change in formation

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>FROM</th>
<th>TO</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOIL LOAM</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>LOAM LARGE COBBLES</td>
<td>5</td>
<td>11</td>
</tr>
<tr>
<td>COBBLES AND GRAVEL</td>
<td>11</td>
<td>36</td>
</tr>
<tr>
<td>SAND GRAVEL COBBLES</td>
<td>36</td>
<td>54</td>
</tr>
<tr>
<td>SAND TRAVEL CLAY</td>
<td>54</td>
<td>57</td>
</tr>
<tr>
<td>TAN CLAY</td>
<td>57</td>
<td>59</td>
</tr>
<tr>
<td>SAND LARGE GRAVEL</td>
<td>59</td>
<td>73</td>
</tr>
<tr>
<td>COARSE SAND</td>
<td>73</td>
<td>78</td>
</tr>
<tr>
<td>SAND AND GRAVEL</td>
<td>78</td>
<td>81</td>
</tr>
</tbody>
</table>

WELL CONSTRUCTOR CERTIFICATION
I constructed and/or accept responsibility for construction of this well and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief

NAME: PONDEROSA DRILLING
(Person firm or corporation) (Type or print)

ADDRESS: E. GOTO BROADWAY

[SIGNED] ________ License No. 2600

Contractor's Registration No: PO ND 91-240JE Date 08/11/95

Received

APR 25 2022
Dept. of Ecology
Central Regional Office
**WATER WELL REPORT**

**STATE OF WASHINGTON**

**OWNER**
Name: Andy Dyk  
Address: 7241 Thorp Highway, Ellensburg, WA 98926

**LOCATION OF WELL**
County: Kittitas  
SW 1/4, SW 1/4 Sec 13 T 17 N R 18

(3) **PROPOSED USE**
- [ ] Domestic  
- [ ] Irrigation  
- [ ] Industrial  
- [ ] Municipal  
- [ ] Test Well  
- [ ] Other

(4) **TYPE OF WORK**
- [ ] New well  
- [ ] Method Dug  
- [ ] Bored  
- [ ] Drilled  
- [ ] Reconditioned  
- [ ] Rotary  
- [ ] Jetted

(5) **DIMENSIONS**
- Diameter of well: _______ inches
- Depth of completed well: _______ ft

(6) **CONSTRUCTION DETAILS**

<table>
<thead>
<tr>
<th>Casing installed</th>
<th>Diam from _______ ft to _______ ft</th>
</tr>
</thead>
<tbody>
<tr>
<td>Welded</td>
<td>Diam from _______ ft to _______ ft</td>
</tr>
<tr>
<td>Threaded</td>
<td>Diam from _______ ft to _______ ft</td>
</tr>
</tbody>
</table>

Perforations
- [ ] Yes  
- [ ] No

- [ ] No

| Screens | [ ] Yes  
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>[ ] Model No</td>
</tr>
</tbody>
</table>

| Diameter at well | _______ inches |

Gravel packed
- [ ] Yes  
- [ ] No

| Size of gravel | _______ ft |

Gravel placed from
- [ ] _______ ft to _______ ft

Surface seal
- [ ] Yes  
- [ ] No

| To what depth? | _______ ft |

Did any strata contain unusable water?
- [ ] Yes  
- [ ] No

| Type of water | _______ ft |

Method of sealing strata off
- [ ] _______ ft

(7) **PUMP**

- [ ] Manufacturer's Name
- [ ] Type
- [ ] H P

(8) **WATER LEVELS**

| Land surface elevation above mean sea level | _______ ft |

| Static level | _______ ft below top of well |

| Artesian pressure | _______ lbs per square inch |

| Artesian water is controlled by | _______ ft |

(9) **WELL TESTS**

| Drawdown | _______ ft |

| Was a pump test made? | [ ] Yes  
- [ ] No

| Yield | _______ gal/mm with _______ ft drawn down after _______ hrs |

| Recovery date (time taken as zero when pump turned on) (water level measured from well top to water level) |

<table>
<thead>
<tr>
<th>Time</th>
<th>Water Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>Water Level</td>
</tr>
<tr>
<td>Time</td>
<td>Water Level</td>
</tr>
</tbody>
</table>

| Date of test | _______ |

| Bail test | _______ gal/mm with _______ ft drawn down after _______ hrs |

| Art test | _______ gal/mm with stem set at _______ ft for _______ hrs |

| Artesian flow | _______ gpm |

| Temperature of water | _______ |

Was a chemical analysis made?
- [ ] Yes  
- [ ] No

(10) **WELL LOG or ABANDONMENT PROCEDURE DESCRIPTION**

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>FROM</th>
<th>TO</th>
</tr>
</thead>
</table>

Abandon Well
Back Fill W/ Bentonite

**WELL CONSTRUCTOR CERTIFICATION**

I hereby certify that the well was properly constructed and/or accept responsibility for the construction of this well and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

**NAME**: Ponderosa Drilling  
**Address**: 704 River Rd, Yakima, WA 98901  
**Reg#**: 42147  
**Date**: 21 Aug 1995  
**License**: 2060  
**Contractor**: Dave Ricardo
WATER WELL REPORT
STATE OF WASHINGTON

OWNER Name: Andy Dyk
Address: 7241 Thorp Highway, Ellensburg, WA 98926

(2) LOCATION OF WELL
County: Kittitas
SW 1/4 SW 1/4 Sec. 13, T.17 N R.18 WM

(2a) STREET ADDRESS OF WELL
(Or nearest address)

(3) PROPOSED USE
Domestic □ Industrial □ Municipal □
Irrigation □ Test Well □ Other □

(4) TYPE OF WORK
Abandoned □ New well □ Method Dug □ Bored □
Deepened □ Driven □ Rotated □ Jetted □
Recorded □

(5) DIMENSIONS
Diameter of well __________ inches
Depth of completed well __________ ft

(6) CONSTRUCTION DETAILS
Casing Installed __________ ft
Diam from __________ ft to __________ ft
Welded __________ ft
Linor Installed __________ ft
Threaded __________ ft

Perforations
Yes □ No □
Type of perforator used

Gravel packed __________ ft
Gravel placed from __________ ft to __________ ft

Surface seal
Yes □ No □
To what depth? __________ ft

Material used in seal
Perforations from __________ ft to __________ ft
Material below strata controlled by __________ ft

Screens
Yes □ No □

Pump Manufacturer's Name

(7) PUMP

(8) WATER LEVELS
Land surface elevation above mean sea level __________ ft
Static level __________ ft below top of well Date __________
Artesian pressure __________ lbs per square inch Date __________
Artesian water is controlled by __________ (Cap valve etc)

(9) WELL TESTS
Drawdown is amount water level is lowered below static level
Was a pump test made? Yes □ No □ If yes by whom?
Yield __________ gal/min with __________ ft drawdown after __________ hrs

Recovery data (time taken as zero when pump turned off) (water levels measured from well top to water level)

Date of test

Boiler test __________ gal/min with __________ ft drawdown after __________ hrs
Arttest __________ gal/min with stem set at __________ ft for __________ hrs
Artesian flow __________ gal/min Date __________
Temperature of water __________ Was a chemical analysis made? Yes □ No □

(10) WELL LOG or ABANDONMENT PROCEDURE DESCRIPTION

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>FROM</th>
<th>TO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soil Loam</td>
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<td>4</td>
</tr>
<tr>
<td>Loam Cobbles</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>Cobble Gravels</td>
<td>7</td>
<td>38</td>
</tr>
<tr>
<td>Sand to Gravels</td>
<td>38</td>
<td>57</td>
</tr>
<tr>
<td>Clay - Gravels Tan</td>
<td>57</td>
<td>83</td>
</tr>
<tr>
<td>Cemented Gravels</td>
<td>83</td>
<td>92</td>
</tr>
<tr>
<td>Yellow Gravels</td>
<td>92</td>
<td>97</td>
</tr>
<tr>
<td>Large Gravels - Clay Tan</td>
<td>97</td>
<td>101</td>
</tr>
<tr>
<td>Cementing Gravels</td>
<td>101</td>
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</tr>
<tr>
<td>Gravel with white chalcopyrite</td>
<td>106</td>
<td>116</td>
</tr>
<tr>
<td>Clay Red W/ Gravels</td>
<td>116</td>
<td>121</td>
</tr>
<tr>
<td>Sand Gravels W/ Small Gravels</td>
<td>121</td>
<td>130</td>
</tr>
<tr>
<td>Sandy Clay W/ Small Gravels</td>
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</tr>
<tr>
<td>Sand Tan</td>
<td>155</td>
<td>157</td>
</tr>
<tr>
<td>Sand And Gravels W/ Clay</td>
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<td>165</td>
</tr>
<tr>
<td>Large Gravels Cemented</td>
<td>165</td>
<td>185</td>
</tr>
</tbody>
</table>

WELL CONSTRUCTOR CERTIFICATION
I declare and accept responsibility for construction of this well and compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

NAME: PONDEROSA DRILLING
Address: 704 River Rd, Yakima, WA 98902
(Signed) Dave Ricard
License No 2060

Contractor's Registration No

DATE: 21 Aug 1995

(USE ADDITIONAL SHEETS IF NECESSARY)
**WATER WELL REPORT**

**STATE OF WASHINGTON**

(1) **OWNER:** Name Betty Jones
   Address Rt. 2 Box 58, Ellensburg, WA 98926

(2a) **LOCATION OF WELL:** County Kittitas
   Parcel #17 17 24 10-0014

(3) **PROPOSED USE:**
   - Domestic
   - Irrigation
   - Industrial
   - Municipal
   - Domestic/Industrial
   - Domestic/Irrigation
   - Industrial/Municipal
   - Other

(4) **TYPE OF WORK:**
   - Owner/number of well (if more than one)
   - New well
   - Abandoned
   - DeDepthened
   - Reconditioned
   - Retype Well

(5) **DIMENSIONS:**
   - Diameter of well 6 inches
   - Drilled 80 feet
   - Depth of completed well 80 feet

(6) **CONSTRUCTION DETAILS:**
   - Casting installed: 6 Diam. from +2 ft. to 78 ft.
   - Welded:
   - Threaded:
   - Perforations:
     - Yes
     - No
   - Type of perforator used
   - Size of perforations
   - Screws:
     - Yes
     - No
     - Size of screw
   - Material used in well
   - Screen:
     - Yes
     - No
     - Size of gravel
     - Gravel packed from ft. to ft.
   - Surface seal:
     - Yes
     - No
     - Depth of seal
   - Material used in seal:
     - Bentonite
   - Cements:
     - No
     - Yes
     - Depth of cement
   - Method of cementing seal:

(7) **PUMP:**
   - Manufacturer's Name
   - Type:

(8) **WATER LEVELS:**
   - Land surface elevation above mean sea level
   - Static level
   - Water pressure
   - Artesian water is controlled by

(9) **WELL TESTS:**
   - Drawdown in amount water level is lowered below static level
   - Well test made:
     - Yes
     - No
   - Yield:
     - 60 gal./min.
     - h.a.
   - ESTIMATED AERIAL:

(10) **WELL LOG or ABANDONMENT PROCEDURE DESCRIPTION:**

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>FROM</th>
<th>TO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sand, Gravel, Black, Medium</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>Cemented Gravel, Cobbles, Boulders, Very Hard</td>
<td>6</td>
<td>19</td>
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<tr>
<td>Cemented Gravel, Cobbles, Hard</td>
<td>19</td>
<td>64</td>
</tr>
<tr>
<td>Cemented Gravel, Silt, Medium</td>
<td>64</td>
<td>66</td>
</tr>
<tr>
<td>Cemented Gravel, Clay, Medium</td>
<td>66</td>
<td>72</td>
</tr>
<tr>
<td>Cemented Gravel</td>
<td>72</td>
<td>80</td>
</tr>
</tbody>
</table>

**CONTRACTOR CERTIFICATION:**
I, Betty Jones, the Owner, do hereby certify that the well described above was dug or drilled and/or accepted responsibility for construction of this well, and its compliance with all Washington well construction standards. The materials used and the information reported above are true to my best knowledge and belief.

**WELL CONSTRUCTOR CERTIFICATION:**
I, Steve Mills, the well driller, do hereby certify that the well described above was dug or drilled and/or accepted responsibility for construction of this well, and its compliance with all Washington well construction standards. The materials used and the information reported above are true to my best knowledge and belief.

**ADDRESS:**
6010 Broadway, Spokane, WA 99212

**DATE:**
December 31, 1992

**LICENSE NO.:** 1335

**CONTRACTOR'S REGISTRATION NO.:** 248JE

**DATE:** December 31, 1992

**NOTICE:**
This report is required by law and is subject to audit.

(USE ADDITIONAL SHEETS IF NECESSARY)
Parcel #: 718933
DOR Code: 11 - Residential - Single Family
Situs: 4440 S CANYON RD ELLENSBURG
Map Number: 17-18-24010-0014

Description: ACRES 4.07, CD. 8309-A; SEC. 24; TWP. 17; RGE. 18; NE 1/4 TAX 18 & PTN TAX 9
Comment: SENT OFFICIAL NOTICE OF VALUE, 9/5/2014; 14 FOR 15

2015 Market Value
Land: $70,700
Improvements: $241,700
Permanent Crop: $0
Total: $312,400

2015 Taxable Value
Land: $70,700
Improvements: $241,700
Permanent Crop: $0
Total: $312,400

Ownership
Owner's Name: ELLIOTT, RUSSELL R ETUX
Ownership %: 100%

Sales History
<p>|</p>
<table>
<thead>
<tr>
<th>Sale Date</th>
<th>Sales Document</th>
<th># Parcels</th>
<th>Excise #</th>
<th>Grantor</th>
<th>Grantee</th>
</tr>
</thead>
<tbody>
<tr>
<td>03/11/05</td>
<td>2005-545</td>
<td>1</td>
<td>2005-545</td>
<td>STATE OF WASH (DOT)</td>
<td>ELLIOTT, RUSSELL R ETUX</td>
</tr>
<tr>
<td>03/24/03</td>
<td>17146</td>
<td>1</td>
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<td>STATE OF WASH (DOT)</td>
<td>ELLIOTT, RUSSELL R ETUX</td>
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<tr>
<td>09/27/00</td>
<td>11240</td>
<td>1</td>
<td>11240</td>
<td>HEISTAND, RANDAL</td>
<td>ELLIOTT, RUSSELL R ETUX</td>
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<tr>
<td>05/01/00</td>
<td>43213</td>
<td>2</td>
<td>43213</td>
<td>HEISTAND, RANDAL ETUX</td>
<td>HEISTAND, RANDAL</td>
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<tr>
<td>08/01/93</td>
<td>3666400</td>
<td>1</td>
<td>3666400</td>
<td>JONES, BETTY RENE</td>
<td>HEISTAND, RANDAL ETUX</td>
</tr>
<tr>
<td>03/01/91</td>
<td>3159900</td>
<td>1</td>
<td>3159900</td>
<td>HARRIS, MATTHEW S.</td>
<td>JONES, BETTY RENE</td>
</tr>
</tbody>
</table>

Building Permits
<p>|</p>
<table>
<thead>
<tr>
<th>Permit No.</th>
<th>Date</th>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>99-03003</td>
<td>3/1/1999</td>
<td>100%-DECK ADD RADD</td>
<td>$</td>
</tr>
</tbody>
</table>

Historical Valuation Info

Apr 25, 2022
Dept. of Ecology
Central Regional Office
WATER WELL REPORT
STATE OF WASHINGTON

OWNER: DATE LEE
Address: Woodhouse Ad

LOCATION OF WELL: County:

STREET ADDRESS OF WELL (or nearest address):

PROPOSED USE: Domestic □ Industrial □ Municipal □
Irrigation □ Test Well □ Other □

TYPE OF WORK: Owner's number of well (if more than one):
Abandoned □ New well □ Method: Dug □ Bored □
Deepened □ Reconditioned □ Driven □ Rotary □

DIMENSIONS: Diameter of well: 6 inches.
Drilled: 65 feet, Depth of completed well: 65 ft.

CONSTRUCTION DETAILS:
Casing installed: 6" Diam from 0 ft. to 60 ft.
Weled □ Liner installed □ Threaded □

Perforations: Yes □ No □
Type of perforator used:
SIZE OF perforations: m. by ft.

screens: Yes □ No □
Manufacturer's Name:
Type __________ Model No. _________
Diam. __________ Slot size __________ f. to:
Diam. __________ Slot size __________ f. to:
Gravel packed: Yes □ No □ Size of gravel:
Gravel placed from:

Surface seal: Yes □ No □ To what depth? 18 ft.
Material used in seal:
Did any strata contain unsaleable water? Yes □ No □
Type of water:
Method of sealing strata off:

PUMP: Manufacturer's Name:
Type: __________ HP:

WATER LEVELS:
Land-surface elevation above mean sea level:
Static level 2 ft. below top of well: Date: 5-16-91
Artesian pressure: lbs. per square inch: Date:
Artesian water is controlled by:

WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes □ No □ If yes, by whom?
Yield: gal./min. with __________ ft. drawdown after __________ hrs.

Recovery data (time taken as zero when pump turned off) (water level measured from well top to 10 water level):
Time: Water Level: Time: Water Level: Time: Water Level:

WELL CONSTRUCTOR CERTIFICATION:

I, __________________________, declare that the well was constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

NAME: __________________________
Address: __________________________
City: __________________________ State: __________________________
Zip: __________________________

LICENSE NO.: 0830

(USE ADDITIONAL SHEETS IF NECESSARY)
## WATER WELL REPORT

**STATE OF WASHINGTON**

**Water Right Permit No.**

**OWNER:** David Hall  
**Address:** Rt. 6 Box 400 Ellensburg, WA

### LOCATION OF WELL:
- County: Kittitas
- Sec.: 13
- T. 17 N., R. 18 W.M.

### STREET ADDRESS OF WELL (or nearest address):

### PROPOSED USE:
- Domestic
- Irrigation
- Industrial
- Municipal
- Other

### TYPE OF WORK:
- Owner's number of well (if more than one)
- New well
- Deepened
- Reconditioned
- Other
- Gravel packed:
  - Gravel cobbles hard
  - Sand gravel cobbles hard
  - Cemented gravel cobbles hard
  - White clay gravel cobbles hard
  - Brown clay gravel medium hard
  - Cemented gravel hard

### DIMENSIONS:
- Diameter of well: 6"
- Depth of completed well: 100 ft.

### CONSTRUCTION DETAILS:
- Casing installed: 6"
- Diam. from...
- Welded
- Threaded
- Perforations: Yes
- Type of perforator used
- Size of perforations
- Screens: Yes
- Manufacturer's Name
- Model No.
- Type
- Diam.
- Slot size
- Gravel packed:
  - Size of gravel
- Gravel placed from...
- Surface seal: Yes
- To what depth: 18'
- Material used in seal
- Did any strata contain usable water?
- Type of water?

### PUMP:
- Manufacturer's Name
- Type
- H.P.

### WATER LEVELS:
- Land-surface elevation above mean sea level
- Static level: ft. below top of well
- Artesian pressure: lbs. per square inch
- Date

### WELL TESTS:
- Drawdown is amount water level is lowered below static level
- Was a pump test made?
- Yield: gal./min.
- ft. drawdown after
- Estimated airlift 30 GPM
- Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)
- Time

### ABANDONMENT PROCEDURE DESCRIPTION

### MATERIAL

<table>
<thead>
<tr>
<th>Material Description</th>
<th>From</th>
<th>To</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top soil brown soft</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Sand gravel cobbles hard</td>
<td>5</td>
<td>24</td>
</tr>
<tr>
<td>Cemented gravel cobbles hard</td>
<td>24</td>
<td>36</td>
</tr>
<tr>
<td>White clay gravel cobbles hard</td>
<td>36</td>
<td>74</td>
</tr>
<tr>
<td>Brown clay gravel medium hard</td>
<td>74</td>
<td>86</td>
</tr>
<tr>
<td>Cemented gravel hard</td>
<td>86</td>
<td>94</td>
</tr>
<tr>
<td>Gravel cemented</td>
<td>94</td>
<td>100</td>
</tr>
</tbody>
</table>

### 6" Drive shoe utilized

**Work started:** 1-28-92  
**Completed:** 1-29-92

### WELL CONSTRUCTOR CERTIFICATION:

I, [Contractor's Name], hereby certify that I have constructed and/or accepted responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

**Name:** Ponderosa Drilling & Development, Inc.  
**Address:** E. 6010 Broadway Spokane, WA 99212  
**License No.:** 1335

**Well Driller:**  
**Registration No.:** WD-ER*248JE

**Date:** 1-31, 92

(USE ADDITIONAL SHEETS IF NECESSARY)
**WATER WELL REPORT**

**STATE OF WASHINGTON**

**OWNER:** DONALD ANDERSON  
Address: RT. 6, BOX 420, ELLensburg, WA 98926

**LOCATION OF WELL:** County: KITITAS  
PARCEL #: 17-18-1340-0020

**PROPOSED USE:** Domestic ☑  
Method: Dug ☑  
Drilled ☑  
Jetted ☑  

**DIMENSIONS:** Diameter of well: 6" inches.  
Drilled: 80 feet. Depth of completed well: 80 ft.

**CONSTRUCTION DETAILS:**  
- **Perforations:** Yes ☑  
- **Gravel packed:** Yes ☑  
- **Surface seal:** Yes ☑  
- **Water:** Yes ☑  

**PUMP:** Manufacturer's Name  
Type: H.P.

**WATER LEVELS:**  
- **Static level:** 20 ft. below top of well  
- **Artesian pressure:** lbs. per square inch  

**WELL TESTS:**  
- **Estimated Air Lift:** 15 GPM

**WELL CONSTRUCTION CERTIFICATION:**  
I, (your name), declare and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to the best of my knowledge and belief.

**NAME:** PONDEROSA DRILLING & DEVELOPMENT, INC.  
Address: E. 6010 BROADWAY SPOKANE, WA 99212

**WELL LOG or ABANDONMENT PROCEDURE DESCRIPTION**

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>FROM</th>
<th>TO</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOP SOIL</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>GRAVEL COBBLES</td>
<td>3</td>
<td>80</td>
</tr>
</tbody>
</table>

**USE ADDITIONAL SHEETS IF NECESSARY**
**WATER WELL REPORT**

**Construction/Decommission (“x” in circle)**
- [x] Construction
- [ ] Decommission

**ORIGINAL INSTALLATION Notice of Intent Number** W307959

**PROPOSED USE:**
- [ ] Domestic
- [ ] Industrial
- [ ] Municipal
- [ ] DeWate
- [ ] Irrigation
- [ ] Test Well
- [ ] Other

**TYPE OF WORK:**
- [ ] New well
- [x] Recommissioned
- [ ] Method: Dug
- [ ] Bored
- [ ] Driven
- [x] Deepened
- [ ] Cable
- [ ] Rotary
- [ ] Jetted

**DIMENSIONS:**
- Diameter of well: 6 inches, drilled 97 feet
- Depth of completed well: 97 feet

**CONSTRUCTION DETAILS**

- Casing:
  - [ ] Welded
  - Diameter from ft. to 97 ft.

- Liner installed:
  - [ ] Diam. from ft. to ft.

- Threaded:
  - Diameter from ft. to ft.

- Perforations:
  - [ ] Yes
  - [ ] No

- Screens:
  - [ ] Yes
  - [ ] No

- K-Pac Location

- Gravel/Filter packed:
  - [ ] Yes
  - [ ] No

- Materials placed from ft. to ft.

- Surface Seal:
  - [ ] Yes
  - [ ] No

- Bentonite

- Did any strata contain unusable water?
  - [ ] Yes
  - [ ] No

- Type of water?
  - Depth of strata

- Method of sealing strata off

**PUMP:**

- [ ] Manufacturer's Name

- [ ] Type H.P.

- [ ] Water levels:
  - Land-surface elevation above mean sea level

- Static level
  - 4 ft. below top of well
  - Date: 11/25/15

- Artesian pressure
  - lbs. per square inch
  - Date

- Artisan water is controlled by
  - (cap, valve, etc.)

**WELL TESTS:**

- Drawdown is amount water level is lowered below static level

- Was a pump test made?
  - [ ] Yes
  - [ ] No

- If yes, by whom?

- Yield:
  - gals./min. with ft. drawdown after hrs.

- Artesian flow
  - gpm
  - Date

- Temperature of water

- Was a chemical analysis made?
  - [ ] Yes
  - [ ] No

**WELL CONSTRUCTION CERTIFICATION:**

- I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

- [ ] Driller
- [ ] Engineer
- [ ] Trainee

- Name (Print): Justin Wamley

- Driller/Engineer/Trainee Signature: [Signature]

- Driller or trainee License No.: 2973

**CONSTRUCTION OR DECOMMISSION PROCEDURE**

- Formation: Describe by color, character, size of material and structure, and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of information indicate all water encountered. (USE ADDITIONAL SHEETS IF NECESSARY.)

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>FROM</th>
<th>TO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top Soil</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Boulders and Cobbles</td>
<td>2</td>
<td>26</td>
</tr>
<tr>
<td>Brown Clay</td>
<td>26</td>
<td>40</td>
</tr>
<tr>
<td>Sand and Gravel</td>
<td>40</td>
<td>95</td>
</tr>
<tr>
<td>Course Gravel and Water</td>
<td>95</td>
<td>97</td>
</tr>
</tbody>
</table>

**GEOLOGICAL DATA:**

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>FROM</th>
<th>TO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top Soil</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Boulders and Cobbles</td>
<td>2</td>
<td>26</td>
</tr>
<tr>
<td>Brown Clay</td>
<td>26</td>
<td>40</td>
</tr>
<tr>
<td>Sand and Gravel</td>
<td>40</td>
<td>95</td>
</tr>
<tr>
<td>Course Gravel and Water</td>
<td>95</td>
<td>97</td>
</tr>
</tbody>
</table>

**START DATE:** 11/25/15

**COMPLETED DATE:** 11/25/15

---

**The Department of Ecology does NOT Warranty the Data and/or the Information on this Well Report.**

**CURRENT**

- Notice of Intent No. W307958
- Unique Ecology Well ID Tag No. BJB-952
- Water Right Permit No.

**Property Owner Name:** Flying M Ranch

**Well Street Address:** 1030 Stone Rd

**City:** Ellensburg **County:** Yakima

**Location SE 1/4/t/4 NW1/4 Sec 24 Twn. 18 R 17**

** Lat/Long (s, t, r)**

<table>
<thead>
<tr>
<th>Lat</th>
<th>Long</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
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---

**WELL CONSTRUCTION CERTIFICATION:**

- I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

- [ ] Driller
- [ ] Engineer
- [ ] Trainee

- Name (Print): Justin Wamley

- Driller/Engineer/Trainee Signature: [Signature]

- Driller or trainee License No.: 2973

---

**CONTRACTOR'S REGISTRATION NO.:** WATERWD1110B

**Date:** 11/26/15

---

**DISCLOSURE:**

- Ecology is an Equal Opportunity Employer.
### Parcel

- **Parcel #:** 808933
- **DOR Code:** 83 - Resource - Agriculture Current Use
- **Situs:** 1030 STONE RD ELLensburg
- **Map Number:** 17-18-24040-0004
- **Status:** 
- **Description:** ACRES 3.72; CD. 8323; PTN SE1/4 (LOT 31, B35/P247-249); SEC 24, TWP 17, RGE 18
- **Comment:** LARGE SEG; SEE ROUTING SLIP FOR DETAILS (+.35 ACRES PER SURVEY), 11 FOR 12

<table>
<thead>
<tr>
<th>2016 Market Value</th>
<th>2016 Taxable Value</th>
<th>2016 Asses:</th>
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</thead>
<tbody>
<tr>
<td>Land: $56,320</td>
<td>Land: $3,550</td>
<td>District:</td>
</tr>
<tr>
<td>Improvements: $129,500</td>
<td>Improvements: $129,500</td>
<td>Current Use/DFL:</td>
</tr>
<tr>
<td>Permanent Crop: $0</td>
<td>Permanent Crop: $0</td>
<td>Senior/Disability Exemptio</td>
</tr>
<tr>
<td>Total: $185,820</td>
<td>Total: $133,050</td>
<td>Total Acres:</td>
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### Ownership

<table>
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<tr>
<th>Owner's Name</th>
<th>Ownership</th>
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<tr>
<td>FLYING M RANCH</td>
<td>100 %</td>
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### Sales History

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<th>Sales Document</th>
<th># Parcels</th>
<th>Excise #</th>
<th>Grantor</th>
<th></th>
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<td>2011-0626</td>
<td>MOEUR, MICHAEL K JR</td>
<td>FLYING</td>
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<tr>
<td>01/26/10</td>
<td>2010-0104A</td>
<td>2</td>
<td>2010-0104A</td>
<td>MOEUR, MICHAEL K. SR ETUX</td>
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<tr>
<td>04/01/96</td>
<td>1609</td>
<td>2</td>
<td>1609</td>
<td>MOEUR, MICHAEL K. SR ETUX</td>
<td>MUNGU</td>
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</table>

### Building Permits

<table>
<thead>
<tr>
<th>Permit No.</th>
<th>Date</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>2012-00210</td>
<td>5/22/2012</td>
<td>100%-MFH 952 SQFT</td>
</tr>
</tbody>
</table>

http://taxsifter.co.kittitas.wa.us/_Assessor.aspx?keyId=719525&parcelNumber=808933&ty... 5/23/2016
The Department of Ecology does NOT Warranty the Data and/or the Information on this Well Report.
**WATER WELL REPORT**

**STATE OF WASHINGTON**

### (1) OWNER
- **Name:** Kelly Moore
- **Address:** 1036 Stone Rd El 11 Wa 98924

### (2) LOCATION OF WELL
- **County:** Kittitas
- **Street Address:** SW 1/4 Sec. 24 r 17 n R 18 WM

### (3) TAX PARCEL NO.

### (4) PROPOSED USE
- Domestic
- Irrigation
- Other

### (5) TYPE OF WORK
- Owner's number of well (if more than one)
- New Well
- Reconstructed
- Decommission
- Bored
- Driven
- Jetted

### (6) DIMENSIONS
- **Drilled:** 77 feet
- **Depth of completed well:** 77 ft

### (7) CONSTRUCTION DETAILS
- **Casing:** Installed
- **Welded:** No
- **Threaded:** No
- **Perforations:** Yes
- **Type of perforator used:** in by
- **SIZE of perforations:** in ft

### (8) SCREENS
- **Manufacturer's Name:**
- **Type:**
- **Model No.:**
- **Diam:** from ft to ft
- **Slot Size:** from ft to ft

### (9) WATER LEVELS
- **Static level:** 14 ft below top of well 3/1/10
- **Artesian pressure:** lbs per square inch
- **Artesian water is controlled by:**

### (10) WELL TESTS
- **Drawdown:** at a rate of water level is lowered below static level
- **Yield:** gal/min
- **Recovery data:** (time taken to return to original level)

### WELL CONSTRUCTION CERTIFICATION
- **I, Chris Hayes, license No. 1903, (Licensed Driller/Engineer),** do hereby certify that the work described above was performed in accordance with the regulations of the State of Washington.
The Department of Ecology does NOT Warranty the Data and/or the Information on this Well Report.
The Department of Ecology does NOT Warranty the Data and/or the Information on this Well Report.
WATER WELL REPORT
STATE OF WASHINGTON

(1) OWNER: Name: Merle Schmidt
Address: Rt. 2, Box 6

(2) LOCATION OF WELL:
County: Kittitas
Sec. 13
T. 17 N., R. 18 W.

(3) PROPOSED USE: Domestic □ Industrial □ Municipal □ Irrigation □ Test Well □ Other □

(4) TYPE OF WORK: Owner's number of well (if more than one):
New well □ Method: Dug □ Bored □ Drilled □
Reconditioned □ Rotary □ Jetted □

(5) DIMENSIONS:
Diameter of well: 6 inches
Depth of completed well: 150 ft.

(6) CONSTRUCTION DETAILS:
Type of perforator used:
Perforations: Yes □ No □
SIZE of perforations: in. by in.
Surface seal: Yes □ No □ To what depth: 2.5 ft.
Gravel packed: Yes □ No □ Size of gravel:
Gravel placed from ft. to ft.

(7) PUMP:
Manufacturer's Name:
Type:

(8) WATER LEVELS:
Static level: 2.0 ft. below top of well
Artesian water is controlled by: (Cap, valve, etc.)

(9) WELL TESTS:
Drawdown is amount water level is lowered below static level
Was a pump test made? Yes □ No □ If yes, by whom?
Yield: gal./min. with ft. drawdown after hrs.

(10) WELL LOG:
Formation: Describes by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.
MATERIAL FROM TO
Cobble 0 35
Cement gravel - sand 35 125
Cemented clay gravel 125 140
Sandstone - gravel 140 160
Water

WELL DRILLER'S STATEMENT:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME: Back Drilling Co.
Address: Rt. 7, Box 1010, Ellensburg

(Signed) Milo Back (Well Driller)

[License No. 2] Date: 5-5-77

(Department of Ecology)

(USE ADDITIONAL SHEETS IF NECESSARY)
## WATER WELL REPORT

**STATE OF WASHINGTON**

### (1) OWNER:
Name: Mill Road Mobile Manor
Address: 2700 Canyon Rd Ellensburg

### (2) LOCATION OF WELL:
County: Kittitas
ST: NE 1/4 SE 1/4 Sec. 11, T.7 N. R. 12E

### (2a) STREET ADDRESS OF WELL (or nearest address):
Toscan Rd

### (3) PROPOSED USE:
- [ ] Domestic
- [ ] Irrigation
- [ ] Industrial
- [ ] Municipal
- [ ] Test Well
- [ ] Other

### (4) TYPE OF WORK:
- [ ] Abandoned
- [ ] New well
- [ ] Method: Lug
- [ ] Bored
- [ ] Reconditioned
- [ ] Rotary
- [ ] Jetted
- [ ] Owner's number of well (if more than one)

### (5) DIMENSIONS:
- Diameter of well: 8 inches
- Drilled: 160 ft
- Depth of completed well: 157 ft

### (6) CONSTRUCTION DETAILS:
- Casing Installed: 8 ft
- Diameter: 1 ft to 1 1/2 ft
- Percussion: Yes
- Type of perforator used
- Size of perforations: 8
- Screens: Yes
- Manufacturer's Name
- Type
- Model No
- Diameter: 1 ft to 1 1/2 ft
- Slot size: 1 ft to 1 1/2 ft
- Gravel packed: Yes
- Size of gravel: 1 ft to 1 1/2 ft
- Gravel placed from 1 ft to 1 1/2 ft
- Surface seal: Yes
- To what depth: 16 30 ft
- Material used in seal: Gravel
- Did any strata contain unusable water: No
- Type of water: Surface
- Method of sealing strata off: Casing

### (7) PUMP:
Manufacturer's Name: HP

### (8) WATER LEVELS:
- Above mean sea level: 1 ft
- Below top of well: 1 ft
- Artesian pressure: 1 ft per square inch
- Artesian water controlled by: None

### (9) WELL TESTS:
- Drawdown is amount water level is lowered below static level
- Was a pump test made: Yes
- Yield: 1 gal/min
- Time: 1 hour
- Water level measured: 1 ft
drawdown after

<table>
<thead>
<tr>
<th>Time</th>
<th>Water Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>10</td>
</tr>
<tr>
<td>1</td>
<td>20</td>
</tr>
</tbody>
</table>

**WELL CONSTRUCTOR CERTIFICATION**

I, as the well constructor, accept responsibility for the construction of this well and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

**NAME:** Mathews Drilling Co.
**Address:** 9455 Stone Crest Rd
**Contractor's Registration No:** 1267

**WELL DRILLER**
**License No:** 1267

**WELL CONSTRUCTOR CERTIFICATION**

ECY 050 1 20 (9/93) * * *
WATER WELL REPORT
STATE OF WASHINGTON

(1) OWNER: Name: *NEL KNAKE  Address: 2231 WOODHOUSE LOOP
(2) LOCATION OF WELL: County: KITITAS
(3) STREET ADDRESS OF WELL: Same
(4) PROPOSED USE: Domestic □  Indus □  Ortl □  Test Well □  Other □
(5) DIMENSIONS: Diameter of well 60 inches
(6) CONSTRUCTION DETAILS:
   Casing Installed: 60" Diam. from 0 ft. to 60 ft.
   Welded: 60" Diam. from 60 ft. to 100 ft.
   Liner Installed: 60" Diam. from 100 ft. to 120 ft.
   Perforations: Yes □  No □
   Type of perforator used
   Size of perforations in. by in.
   Perforations from ft. to ft. perforations from ft. to ft.
   Perforations from ft. to ft.
   Screens: Yes □  No □
   Manufacturer's Name
   Type
   Model No.

(7) PUMP: Manufacturer's Name
   Type
   H.P.

(8) WATER LEVELS:
   Land-surface elevation above mean sea level: 5 ft.
   Static level: 411.124 ft. below top of well  Date: 01/19/24
   Artesian pressure: 83 lbs. per square inch  Date
   Artisan water is controlled by (Cap. value, etc.)

(9) WELL TESTS:
   Was a pump test made? Yes □  No □
   If yes, by whom?
   Yield: gal/min. with ft. drawn down after hrs.

   Date of test
   Bailer test gal/min. with ft. drawn down after hrs.
   Alternate test gal/min. with arm set at for  hrs.
   Artesian flow  g.p.m. Date
   Temperature of water
   Was a chemical analysis made? Yes □  No □

(10) WELL LOG or ABANDONMENT PROCEDURE DESCRIPTION
   Formation: Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of information.

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>Prior</th>
<th>To</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOIL COBRALES</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>GRAVEL CEM.</td>
<td>8</td>
<td>25</td>
</tr>
<tr>
<td>DEWELT</td>
<td>10</td>
<td>50</td>
</tr>
<tr>
<td>MGP GRAVEL</td>
<td>50</td>
<td>60</td>
</tr>
</tbody>
</table>

WELL CONSTRUCTOR CERTIFICATION:
I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and information reported above are true to my best knowledge and belief.

NAME: *ACH DRILLING CQ
Address: 3340 WILLOW CREEK
(Signed)
Contractor's Registration No. A080C1324 Data 10/10 1979

Ecology is an Equal Opportunity and Affirmative Action employer. For special accommodation needs, contact the Water Resources Program at (206) 407-6800. The TDD number is (206) 407-6008.
RESOURCE PROTECTION WELL REPORT

PROJECT NAME: PIT SITE S 086
WELL IDENTIFICATION NO.: AEF 742
DRILLING METHOD: Becker Hammer duel wall air percussion
FIRM: GREAT WEST DRILLING INC

COUNTY: Kittitas
LOCATION: NE 1/4 Sec 24, T17 N R 18 E, Ease.
WATER LEVEL ELEVATION: -4.3
GROUND SURFACE ELEVATION: n/a
INSTALLED: Jan 31/98

SIGNATURE:
CONSULTING FIRM: WSN
REPRESENTATIVE: Dave Nelson

WELL DATA
MONUMENT w/ two 1/4 half round stick up
Total of 2" x 56.5 of pipe
Cement from 0 - 3.0
- hole plug from 3.0 to 38.0
- well screen from 38.0 to 48.0
- loose sand from 38.0 to 48.0

FORMATION DESCRIPTION
0.0 to 3.0 Silty sand
2.0 to 48.0
- well graded gravel w.
  Silty sand
  Subgrade packed gravel

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FEB 17 1999
DEPARTMENT OF ECOLOGY
WELL DRILLING UNIT

RECEIVED
APR 25 2022
Dept. of Ecology
Central Regional Office
# RESOURCE PROTECTION WELL REPORT

## Project Name: Pit Site S-2010

### Well Identification No.: AEF 743

### Drilling Method: Becker Hammer (drill/wall percussion)

### Driller: Jim Benson 0294

### Firm: Great West Drilling Inc.

### Signature: [Signature]

### Consulting Firm: WSDOT

### Representative: Dave Nelson

### County: Kittitas

### Location: NW 1/4 SE 1/4 Sec 24 T14N R18 E WM

### Street Address of Well: SR 821 Woodhouse Loop

### Water Level Elevation: -3.9

### Ground Surface Elevation: n/a

### Installed: Jan 01/99

### Developed: n/a

## WELL DATA

<table>
<thead>
<tr>
<th>Formation Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.0 to 2.0 silty sand</td>
</tr>
<tr>
<td>2.0 to 28.0</td>
</tr>
<tr>
<td>well graded gravel</td>
</tr>
<tr>
<td>w silty sand</td>
</tr>
<tr>
<td>subgrounded gravel</td>
</tr>
</tbody>
</table>

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**FEB 17 1999**

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**WELL DRILLING UNIT**

stopped test boring at 28.0

### Scale: 1" = ______

**ECY 050-12 (Rev. 11/89)**
RE-SOURCE PROTECTION WELL REPORT

START CARD NO. KO40602

PROJECT NAME: PIT SITE S 206
WELL IDENTIFICATION NO.: AEF 744
COUNTY: Kittitas
LOCATION: NNW 1/4 SE 1/4 Sec 24 Tm 17N R 18 E WM
STREET ADDRESS OF WELL: SR 221 Woodhouse Loop
WATER LEVEL ELEVATION: -4.8
GROUND SURFACE ELEVATION: n/a
INSTALLED: Jan 03/99
DEVELOPED: n/a

AS-BUILT
Cement

WELL DATA
Monument w. a 1/2-feet stick up.
Total of 20 x 50.5 of pipe cement from 0 to 2.0
-hole plug from 2.0 to 38.0

WELL DATA

Formation Description
0.0 to 0.0 Silty sand
0.0 to 48.0 well graded GRAVEL
with Silty sand
Subgrounded gravel

WELL DATA

well screen fr. 38.0 to 48.0
10.20 sand fr. 38.0 to 48.0

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WELL DRILLING UNIT

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Dept. of Ecology
Central Regional Office

FEB 19 1999

SCALE: 1" = __________
ECY 050-12 (Rev. 1/89).
RESOURCE PROTECTION WELL REPORT

PROJECT NAME: PIT SITE 5-336
WELL IDENTIFICATION NO. AEF 745
DRILLING METHOD: Backer Hammer (cased well percussion)
DRiller: Jim Benson 2944
FIRM: Great West Drilling Inc
SIGNATURE: [Signature]
CONSULTING FIRM: WSDOT
REPRESENTATIVE: Dave Nelson

COUNTY: Kittitas
LOCATION: NW 1/4 SE 1/4 Sec 04 Twin 17N R 18E
STREET ADDRESS OF WELL: SK 891 Woodhouse Loop
WATER LEVEL ELEVATION: -4.7
GROUND SURFACE ELEVATION: n/a
INSTALLED: Jan 29/99
DEVELOPED: n/a

WELL DATA
- cement from 0.0 to 2.0
- hole plug from 2.0 to 18
- 10:00 sand from 18.0 to 28.5
- well screen from 18.0 to 28.0
- monument with 2 foot stick up

FORMATION DESCRIPTION
- 0 to 2.0 silty sand
- 2.0 to 28.0 well graded gravel with silty sand
- subgrounded gravel

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DEPARTMENT OF ECOLOGY
WELL DRILLING UNIT

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Central Regional Office

SCALE: 1" = ___

ECY 050-12 (Rev. 11/89)