

**Yakima County
WATER CONSERVANCY BOARD
Application for Change/Transfer
Record of Decision**

For Ecology Use Only
Received: 
Reviewed by: _____
Date Reviewed: _____

Applicant: DeVries Family Farm, L.L.C.

Application Number: YAKI-14-04

This record of decision was made by a majority of the board at an open public meeting of the Yakima County Water Conservancy Board held on _____.

Approval:

The Yakima County Water Conservancy Board hereby **grants** conditional approval for the water right transfer described and conditioned within the report of examination on May 5, 2016 and submits this record of decision and report of examination to the Department of Ecology for final review.

Denial:

The Yakima County Water Conservancy Board hereby **denies** conditional approval for the water right transfer as described within the report of examination on _____ and submits this record of decision to the Department of Ecology for final review.

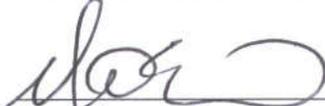
Signed:



Jeff Stevens, Chair
Yakima County Water Conservancy Board

Date: May 5, 2016

Approve
Deny
Abstain
Recuse



Dave Brown, Member
Yakima County Water Conservancy Board

Date: May 5, 2016

Approve
Deny
Abstain
Recuse



Mark Reynolds, Member
Yakima County Water Conservancy Board

Date: May 5, 2016

Approve
Deny
Abstain
Recuse

Dave England, Voting Alternate
Yakima County Water Conservancy Board

Date: _____

Approve
Deny
Abstain
Recuse

Mailed to the Department of Ecology Central Regional Office of Ecology, via certified mail, and other interested parties on _____.

Proposed Use

MAXIMUM CUB FT/ SECOND	MAXIMUM GAL/MINUTE 300 gpm	MAXIMUM ACRE-FT/YR 190 af/yr	TYPE OF USE, PERIOD OF USE 300 gpm; 190 acre-ft/yr for irrigation of 50 acres from April 1 to October 31.				
SOURCE Two (2) wells			TRIBUTARY OF (IF SURFACE WATER)				
AT A POINT LOCATED: PARCEL NO.	¼	¼	SECTION	TOWNSHIP N.	RANGE	WRIA	COUNTY.
21122141404 ³	NE	SE	21	12N	21E	37	Yakima
21122113009	NW	SE	21	12N	21E	37	Yakima
LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS TO BE USED							
That portion of Sec. 21, T. 12 N., R. 21 E.W.M., lying northerly of SR 24, EXCEPTING therefrom, the following:							
1. That portion of the NW¼ of said Sec. 21 described as follows: Beginning at the E right-of-way line of SR 24, which point is approximately 50 feet E of NW corner; thence E along Section line 1,847.5 feet; thence S 1,847.5 feet to the right-of-way of SR 24; thence NW along SR 24 right-of-way line to true point of beginning.							
2. The N 1,100 feet thereof.							
3. The E 1,714.09 feet thereof.							
PARCEL NO.	¼	¼	SECTION	TOWNSHIP N.	RANGE,		
21122113009			See above.	See above.	See above.		

Board's Decision on the Application

MAXIMUM CUB FT/ SECOND	MAXIMUM GAL/MINUTE 300 gpm	MAXIMUM ACRE-FT/YR 140 af/yr	TYPE OF USE, PERIOD OF USE 300 gpm*; 140 acre-ft/yr* for irrigation of 34 acres* from April 1 to October 31. *Quantities are not additive to the quantities, if any, approved under YAKI-14-05 (CG4-26237C@1), applicant Randal A. Fox.				
SOURCE Two (2) wells			TRIBUTARY OF (IF SURFACE WATER)				
AT A POINT LOCATED: PARCEL NO.	¼	¼	SECTION	TOWNSHIP N.	RANGE	WRIA	COUNTY.
21122141404 ³	NE	SE	21	12N	21E	37	Yakima
21122113009	NW	SE	21	12N	21E	37	Yakima
LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS TO BE USED							
That portion of Sec. 21, T. 12 N., R. 21 E.W.M., lying northerly of SR 24, EXCEPTING therefrom, the following:							
1. That portion of the NW¼ of said Sec. 21 described as follows: Beginning at the E right-of-way line of SR 24, which point is approximately 50 feet E of NW corner; thence E along Section line 1,847.5 feet; thence S 1,847.5 feet to the right-of-way of SR 24; thence NW along SR 24 right-of-way line to true point of beginning.							
2. The N 1,100 feet thereof.							
3. The E 1,714.09 feet thereof.							
PARCEL NO.	¼	¼	SECTION	TOWNSHIP N.	RANGE,		
21122113009			See above.	See above.	See above.		

DESCRIPTION OF PROPOSED WORKS

Pressure irrigation using pumped groundwater from wells.

DEVELOPMENT SCHEDULE

BEGIN PROJECT BY THIS DATE:	COMPLETE PROJECT BY THIS DATE:	COMPLETE CHANGE AND PUT WATER TO FULL USE BY THIS DATE:
Begun	December 1, 2019	December 1, 2021

REPORT

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

On October 9, 2014 DeVries Family Farm, L.L.C. of Moxee, WA filed an application to change the place of use and add a well source of supply under Certificate No. G4-26237C. The application was accepted at an open public meeting on October 9, 2014, and the Water Board assigned application number YAKI-14-04.

Attributes of the water right as currently documented

Name on certificate, claim, permit: A. D. Goodrich

Water right document number: Certificate No. G4-26237C

As modified by certificate of change number: n/a

Priority date, first use: June 6, 1979

Water quantities: Qi: 300 gallons per minute (gpm) Qa: 190 acre-feet per year (ac-ft/yr or af/yr)

Source: A well

Points of diversion/withdrawal:

1075 feet west and 75 feet south of the E1/4 corner of Sec. 21, w/in NE1/4SE1/4 Sec. 21, T. 12 N., R. 21 E.W.M.

Purpose of use: irrigation of 50 acres

Period of use: April 1 to October 31

Place of use: Within a portion of the E1/2 of Sec. 21, T. 12 N., R. 21 E.W.M.; see cover page for full description.

Existing provisions:

A total of 190 acre-feet shall be allowed for the purpose of irrigation, less any amount applied to these same lands under existing rights under G4-23208C.

Installation and maintenance of an access port as described in Ground Water Bulletin No. 1 is required. An air line and gage may be installed in addition to the access port.

All water wells constructed within the state shall meet the minimum standards for construction and maintenance as provided under RCW 18.104 (Washington Water Well Construction Act of 1971) and Chapter 173-160 WAC (Minimum Standards for Construction and Maintenance of Water Wells).

This authorization to use public waters of the state is classified as a FAMILY FARM PERMIT in accordance with Chapter 90.66 RCW (Initiative Measure No. 59). This means the land being irrigated under this authorization shall comply with the following definition: Family Farm -- a geographic area including not more than 2,000 acres of irrigated agricultural lands, whether contiguous or noncontiguous, the controlling interest in which is held by a person having a controlling interest in no more than 2,000 acres of irrigated agricultural lands in the State of Washington which are irrigated under water rights acquired after December 8, 1977. Furthermore, the land being irrigated under this authorization must continue to conform to the definition of a family farm.

Tentative determination of the water right

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

History of water use

The history of water use under the subject certificate of water right is detailed in technical materials and public records reviewed by the Water Board. The applicant's consultant submitted a technical report to the Water Board which investigated historic use and other matters pertaining to the change application (Reierson, 12/23/2015).

This investigation showed that, historically, there have been 50 acres irrigated from the well under G4-26237C, which represents irrigation out to the property lines. Most recently, cropping has been rotational for alfalfa, with wheat as transition between stands. Sometime in the early 2000's, the irrigation was temporarily reduced to approximately 28 acres. It was then increased to approximately 34 acres in 2006 (fall pre-water and ground work, per owner Don Clark to best of recollection), which continued through 2010. In 2010 the breaker box for the well power blew due to an electrical problem and was destroyed. The pump contractor was unable to get a compatible replacement to finish out the 2010 season because of the age of the panel. When the necessary parts were received, a replacement panel was installed in the spring of 2011. At that point the owners did not want to incur the expenses to continue to farm the land, as the condition of the stand was poor following the 2010 year deficit. They began seriously considering transfer of the rights to other lands and retiring from farming at the site. Purchase/sale agreements were made to move the rights to other neighboring projects in 2014 and change applications were filed in October 2014. Prior to the 2015 irrigation season, the water right was enrolled in the trust program (discussed later in this Report). A separate well authorized under Certificate No. G4-23208C supplies domestic water and irrigation around homes within the current place of use, but because it supplies a separate system the uses it serves are not included in this analysis.

Previous changes

n/a.

→ Fully overlapping right for 6 acres of irrigation. Needs to be accounted for.

SEPA

The Board has reviewed the proposed project in its entirety. The requested change involves less than 2250 gpm of groundwater. The amount is categorically exempt (WAC 197-11-800(4)). The Board considers that SEPA compliance is met.

Other

See Investigation Section describing proposed plans and specifications.

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

Public notice of the application was given in the Yakima Herald Republic on October 17 and 24, 2014. The protest period ended on or around November 23, 2014. A protest dated November 21, 2014 was filed by Roger and Marjorie Hart, and is recognized as a protest by the Water Board. In addition, two letters expressing concerns were filed by Jerald A. and Lorre A. Gefre. The letters were not filed within the statutory protest period and are recognized as comment letters by the Water Board.

The issues within the Harts' protest are summarized as: (1) the certificate requested for amendment is not valid due to a lack of information being provided about the well; (2) the water right is relinquished in whole or in part; (3) the requested well has not been shown to tap the same body of public groundwater as the original well; (4) the annual quantity available for change/transfer must be reduced by the 31 acre feet authorized by a related water right certificate, No. G4-23208C; (5) a change in point of withdrawal can only be approved if existing rights are not impaired; (6) the requested added well should be test pumped to establish it does not impair the Harts' well; and (7) the DeVries application proposes to change the entire right, and the Fox application (another application on the same certificate, No. YAKI-14-05, CG4-26237C@1) proposes to transfer 60 gpm, 10 acre feet per year to a different property (Fox property), therefore the two applications cannot be harmonized.

The issues and comments within the Gefres' letters are summarized as: (1) the water right may be invalid because the well report is not valid, (2) is the current well metered as required by law? (3) has the Water Board received electrical power consumption data? (4) the water right may be relinquished in whole or in part, (5) the water right formerly on the requested place of use has been transferred off the property, (6) area groundwater is severely over-allocated and water level decline rates have increased, particularly since the time since the DeVries dairy was put into continual commercial water usage, (7) senior rights and domestic users are being impacted by over-allocation and declining pumping levels, (8) will DeVries be required to meter their water use and submit those readings to Ecology? (9) the DeVries proposed well site should be moved farther away from senior rights.

Responses to these issues are given later in this report under the subheading *Consideration of Comments and Protests*.

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

The following information was obtained from a site inspection, technical reports, research of department records, and conversations with the applicant and/or other interested parties. The site inspection was conducted by board members Jeff Stevens and Mark Reynolds on December 2, 2014; Tim Reiersen, consultant for the applicant, was also present.

Proposed project plans and specifications

Transfer Summary. The water right is requested to be moved to a nearby property and existing well, with sale of the water right to the applicant. A 60 gpm and 10 af/yr portion of the water right is being purchased by another party (Randal Fox, YAKI-14-05, CG4-26237C@1). The quantities being requested for change/transfer to Fox will be a part of the total tentative determination for the water right, and provision will be made for no enlargement of the water right. The well requested to be added by DeVries is an existing well located approximately 1750 feet west and 1950 feet north from the SE corner of Section 21; within the NW1/4SE1/4 Sec. 21, T. 12 N., R. 21 E.W.M. The well is drilled to a depth of 398 feet, penetrating sedimentary materials and basalt rock. The well was identified as Black Rock Study (BRS) well No. 53 by Ecology during its prior investigation of the area (Kirk and Mackie, 1993).

Development Schedule. The project is begun. Completion of Construction and Proof of Appropriation are proposed due for December 1, 2019 and December 1, 2021. This is considered reasonable by the Water Board to allow time for system improvements and to gain experience using the requested well under a variety of conditions.

Other water rights appurtenant to the property (if applicable)

The applicant holds two water rights which formerly applied to the requested place of use: these are change permit Nos. CG4-23935C (YAKI-04-11) and CG4-23938C@1 (YAKI-04-12). They are currently in use for continuous dairy operation at the DeVries dairy located south of Highway 24. These change permits authorize two wells at the dairy site (south of Highway 24) and also retain the same well requested as a source under the subject change/transfer (BRWell#53). The reason that the well was retained was in case added flow was needed at the dairy, but this would have required a highway crossing for the pipeline. There is no conflict posed by these change permits, and final use characteristics can be established at proof of appropriation for each water right.

Need analysis of G4-23208C

Public Interest (groundwater only)

The proposed change/transfer is subject to RCW 90.44.100 and therefore, cannot be approved if it would be detrimental to the public interest, including impacts on any watershed planning activities. The proposed use of water is consistent with land use allowed by local zoning. The change/transfer consists of water that has already been appropriated by the state and beneficially used within the local area. There are no identifiable negative impacts to watershed planning activities.

Tentative Determination

In order to make a water right change decision, the Water Board must make a tentative determination on the validity and extent of the right. The Water Board has made the tentative determination as displayed upon the first page of this report. There are several circumstances that can cause the Water 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 Water Board's tentative determination was based upon the following findings: 1) perfection of the water rights as shown by the inspection and certification that is documented in records at the Department of Ecology, 2) maintenance of a portion of the original water right through continued use for field crop/small grains cropping through the present time, 3) for any acres not being used up to 34 acres, sufficient cause for non-use to exempt such non-use from relinquishment, and 4) verification of irrigation and system installation by review of aerial photos and Water Board site inspection.

Certificate Face. Certificate G4-26237C issued February 28, 1984 for 300 gpm, 190 acre-feet per year ac-ft/yr for irrigation of 50 acres from April 1 to October 31. Aerial photos available from public sources show full irrigation continuing; for example, a 1996 aerial photo at the Yakima County assessor's website. *Z*

Flow Rate. The well has historically been equipped with a 50 hp pump, including up through the most recent irrigation. The owner reports being able to pump 300 gpm at peak production which is reasonable for this size pump and operating conditions during use.

Estimate of Actual Use. The applicant's consultant reviewed aerial photos and interviewed the owner. Based on aerial photos and owner interview, at least 34 acres have been irrigated with no five-year periods of non-use since the certificate issued in February 1984.

The applicant's consultant obtained power records for the years 2005-2013 and converted the records to water use estimates. The annual use estimates ranged from 89 to 140 af/yr. The power records reflected peak use during 2008-2009, and then a reduction during 2010 when the well was without power for part of the season. On 34 acres, the estimated water duty during 2008 was (140ac-ft/34ac=) 4.1 ft (49 in), based on power records. *when? → not included → 8 years → method?*

The applicant's consultant reviewed Washington Irrigation Guide (WAIG) crop demands for alfalfa and wheat, which were 33.3 inches and 20.8 inches, respectively (Moxee City, not including application efficiency). According to technical materials provided to the Water Board, irrigation under the water right was accomplished with hand and wheel line irrigation, for which an application efficiency of 75% was stated to be typical. The resulting water applications were 44.4 inches (3.7 ft) and 27.7 inches (2.3 ft), respectively. Using the power record water use estimates, the efficiency was calculated to be: (33.3 in / 49 in =) 68% for alfalfa in 2008, which is within the normal range of efficiencies for the equipment (60-85%) according to Ecology Guidance document GUID-1210.

Relinquishment Exemptions. (a). *Trust.* For the 2015 irrigation season and after, the water right has been enrolled in the trust water right program and exempt from relinquishment. During the year 2010, according to information provided by the applicant's consultant, water was unavailable for full use due to a breaker panel failure, though partial use did occur during that year on approximately 34 acres. (b). *Unavailability.* The year 2010 is claimed to be exempt from relinquishment under RCW 90.14.140(1)(a), unavailability of water. (c). *Crop Rotation.* In 2002 the state legislature enacted an exemption from relinquishment when such non-use is due to lower applications of water for crop rotation. RCW 90.14.140(1)(k). According to information provided by the applicant's consultant, the cropping on the subject property has been an alfalfa hay - wheat rotation in which a stand of alfalfa is irrigated for 5-6 years and is then followed by wheat until the alfalfa is replaced with a new stand. This rotation was explained to have a variable water demand which peaks with the alfalfa cropping during its peak production, typically during years 2-4. Therefore since 2002, the applicant is claiming a valid water right quantity associated with the alfalfa cropping for the acres farmed. The applicant's consultant has noted that other relinquishment exemptions may apply, such as determined future development fixed by purchase and sale agreements in 2014 (see RCW 90.14.140(2)(c)), however the ones described are sufficient to excuse any non-use of the estimated remaining quantities of 300 gpm, 140 af/yr for irrigation of up to 34 acres.

Trust Water Rights Program Donation. On March 20, 2015 a trust water right donation was accepted by Ecology in the amounts of 300 gpm, 128.06 ac-ft/yr for the purpose of groundwater preservation. This was in response to an application (No. CG4-26237C@2) filed by the water right holders on February 18, 2015. The application requested to donate the entire water right under G4-26237C, temporarily, into the trust program. The basis for the quantities listed was not given in the trust enrollment decision, however an irrigated area of 33.7 acres was estimated from a 2009 aerial photo in the Ecology file. Using Ecology standard guidance for estimating consumptive use (GUID-1210), the 128.06 af/yr quantity (91% of total) would cover all consumptive use associated with the 140 ac-ft/yr total quantity. While enrolled in trust, the water right is not subject to relinquishment. RCW 90.14.140(2)(h) and RCW 90.42. The Water Board notes that the acreage figure of 34 acres is equivalent to Ecology's acreage estimate, within estimation error and significant digits. The Water Board also notes that the annual quantity of 140 af/yr was made with the benefit of power records in addition to crop based estimation, and includes application efficiency. *→ when, by who?*

Summary for G4-26237C. The applicant has submitted evidence to support a tentative determination of validity for irrigation of 34 acres, with a flow rate of 300 gpm and a maximum annual use of 140 ac-ft/yr. Through the early 2000's 50 acres were irrigated. From ~~2002 on, non-use due to crop rotation was excused.~~ From 2006-2010, irrigation of approximately 34 acres was maintained. For 2010, non-use was excused due to unavailability of water. For 2015, non-use was excused due to enrollment as a trust water right. The trust enrollment decision noted 33.7 acres irrigated and estimated that 128.06 ac-ft/yr qualified for trust enrollment. *in conflict, delete*

Impairment Analysis. The added well cannot be approved if impairment to local existing rights will result. An impairment analysis was performed by the applicant's consultant, a licensed professional engineer (Reierson, December 23, 2015). This analysis was reviewed by the Water Board and considered to adequately address impairment, as summarized next.

The impairment analysis focused on pumping effects within the Saddle Mountains Basalt Formation aquifer (SMB or Saddle Mountains aquifer). A 1993 study by Ecology ("Black Rock Study", authors: Kirk and Mackie) used aquifer testing along with other methods to identify separate aquifer zones in the area. Based on this study and review of water levels since that time, it was concluded by the applicant's consultant that wells in aquifer zones other than the Saddle Mountains aquifer will not be noticeably affected.

The impairment analysis estimated the effect of pumping the proposed well at the nearest neighboring Saddle Mountains aquifer wells owned by others. One of the properties evaluated (Stark, parcel No. 21122143400) was later purchased by the applicant and so is not discussed further here. To simulate pumping effects, the Theis non-equilibrium equation was used. The Theis non-equilibrium equation is a standard analytical model used to predict pumping effects. The applicant's consultant used the following aquifer parameters for the Saddle Mountains aquifer: storativity of 0.0015 and transmissivity of 15,000 gal/ft/day. The transfer was considered as an annual withdrawal of 140 af/yr all taken from the requested well. The maximum predicted pumping effect would occur with continual pumping at 300 gpm for 106 days.

Saddle Mountains aquifer wells in the area include domestic and irrigation wells. The nearest relevant wells are summarized in Table 1. Wells that were included within Ecology's 1993 Black Rock Study are referenced with the study ("BRS") well numbers for further identification. Ownership names are from Yakima County assessor online records.

Well	General Location	Location and Construction Details
BRSWell#52 Mendoza G3-20816C	NE1/4SW1/4 S.21,T12N,R21E Well head elev. 1500ft	330 ft S and 330 ft W of center S.21. Completed 7/3/1974 to 391 ft depth. 8in casing to 148 ft. 180 ft surface water level (swl) 7/3/1974. Note Black Rock Study reports depth as 365 ft.
Replacement for BRSWell#55 Corbridge G4-23962C	SE1/4SW1/4 S.21,T12N,R21E Well head elev. 1460ft	700 ft E and 1000 ft N of S1/4 cor. S.21. (location of original well per certificate) Completed 8/11/2000 to 360 ft depth. 8in case to 250 ft. 242 ft swl 8/11/2000. Note original well ID# AHT100 deepened to 365 ft 4/10/1978. 6in case to 140 ft (interpreted from well logs).

Table 1. Existing Saddle Mountains Basalt Formation aquifer wells for impairment analysis.

The Theis model results for added water level lowering in these three wells, due to the change, are: Mendoza well, 2.2 feet added lowering; and Corbridge well, 2.4 feet added lowering.

The analysis provided by the applicant's consultant found that because the proposed change is within a confined basalt formation aquifer, with a relatively short distance between the current and proposed well sites, it will not involve any significant difference in effect with respect to surface waters such as the Yakima River.

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

In this subsection, the basis is given for determining the aquifer (Saddle Mountains aquifer) developed by the current and proposed wells. Scientific investigations are cited.

The aquifers in the local area have been studied and delineated by Ecology (Kirk and Mackie, 1993). In the area of this change application and based on its study, Ecology differentiated the aquifers into four different zones. In order of increasing depth they are: Upper Saddle Mountains Basalt Formation (USM) aquifer, Lower Saddle Mountains Basalt Formation (LSM) aquifer, Wanapum Basalt Formation (WB) aquifer, and Grande Ronde Basalt Formation (GR) aquifer. The USM

aquifer extends to a depth corresponding to the top of the Pomona Member of the Saddle Mountains Basalt Formation. The LSM aquifer extends below the USM aquifer to the top of the Mabton Interbed which lies on top of the uppermost flow of the Wanapum Basalt Formation over much of the area. Ecology manages the USM and LSM as one aquifer but recognizes the fact that the two zones behave somewhat differently in terms of groundwater flow and interference effects between pumping wells.

The existing well under G4-26237C was determined by Ecology to withdraw from the Saddle Mountains Basalt Formation (SMB) aquifer, and was included in Ecology's study as study well (BRWell) #48. There is no detailed well report available. Instead there is a notation on a water well report form that it is "supposed to be cased to 410" with an 8 inch diameter casing installed to 410 feet. Ecology used the 410 feet depth for this well within its study. In addition, the public record file for Certificate G4-26237C contains correspondence supporting the conclusion that the well is between 330 and 410 feet deep, but no deeper. The 330 feet depth is based on a statement by the well owner that Ecology video scanned the well after the driller left the site. In a letter dated January 18, 1982 a prior water right holder/owner wrote: "The department found a straight 8" cased hole to a depth of 330 feet." In the same letter, the owner reported having a contract dispute with the well driller, and stated that the driller had been paid in advance to drill and case to 400 feet, however on August 30 and 31, 1979 the driller removed all his equipment and departed. Based on the likely depth of the well (between 330-410 feet), it would withdraw from the USM aquifer, by comparison to the requested well, discussed next.

The requested well was also determined by Ecology to withdraw from the SMB aquifer (BRWell #53). From the well report it is interpreted to withdraw from the USM aquifer, with a depth of 398 feet and penetration into the Rattlesnake Ridge interbed. This interpretation was confirmed during prior review by the Water Board and Ecology under YAKI-04-11 and YAKI-04-12. These two changes converted irrigation rights from the requested well to dairy purpose rights, which were moved to dairy wells and location across the highway to the south. The current change would allow irrigation to resume from the well BRWell #53 within the former place of use.

During its study, Ecology found that the SMB aquifer and WB aquifers are separate hydrologic zones for management purposes.

Other

n/a.

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

Tentative determination (validity and extent of the right)

The Water Board has tentatively determined that a valid transferable right exists for the water right authorization being changed as follows: 300 gpm; 140 acre-ft/yr for irrigation of 34 acres from April 1 to October 31.

Relinquishment or abandonment concerns

The Water Board makes a tentative determination that 50 ac-ft of annual volume, and 16 acres of irrigation area are subject to relinquishment because of non-use during five or more consecutive years without sufficient cause, as defined by state law.

Hydraulic analysis

The current and requested wells both draw from the Saddle Mountains aquifer, as previously determined by Ecology. No evidence has been provided to the Water Board during its current review to suggest otherwise.

Consideration of comments and protests

The issues within the Harts' protest (items 1 through 7) are repeated with responses and conclusions below.

(1) Invalid Certificate. It is the Water Board's understanding that Ecology did have authority to issue Certificate G4-26237C and the certificate is not invalidated for the reason stated (an absence of information about the constructed well).

(2) Relinquishment of Water Right. The Water Board agrees that there appears to have been a partial relinquishment, and finds that only 300 gpm and 140 ac-ft/yr for irrigation of 34 acres remain valid, subject to final determination by general adjudication.

(3) Uncertainty as to Aquifer Developed. Available evidence is that both wells are constructed to withdraw from the SMB aquifer which is managed by Ecology as a single body of public groundwater in this area (reference Kirk and Mackie, 1993; also technical support to Water Board from Ecology for YAKI-04-11 and YAKI-04-12).

(4) Annual Volume Reduction of 31 af/yr Is Required by G4-23208C. In this Report of Examination, the estimated quantities of use attributed to G4-26237C were based on use under that right only and from its source well only. None of that water was applied to "the same lands under existing rights under G4-23208C", as stated in the G4-23208C limiting provision. G4-23208C is supplied by its own well and own separate system for domestic supply and irrigation. The separation between the rights has already been accounted in the quantities recommended. No reduction is required under these circumstances.

Disagree
↳ in what right?

(5) Existing Rights Not to Be Impaired. An impairment analysis was made using standard methods, concluding that no impairment will result if the requested change is approved as recommended.

(6) Test Pump the Requested Well to Establish It Will Not Cause Impairment. Aquifer testing by Ecology as part of the Black Rock Study indicates that the Hart SMB well will not be noticeably affected due to the requested change, due to its deeper construction. The proposed well site is not significantly different than the historic pumping location (2400 feet of separation compared to 2800 feet of separation). Finally, the distance of separation is greater than that for three other water rights that were analyzed for impairment, with a conclusion that impairment would not result. The Water Board concludes that test pumping the requested well is not needed in order to address the question of impairment.

(7) DeVries Application Does Not Harmonize with Fox Application (YAKI-14-05). The application form for the DeVries change contains an explanation that the two applications will be harmonized during the decision process. "DeVries is purchasing water rights under G4-26237C from the landowners subject to contingencies to be satisfied, including approval for transfer of the rights for use by DeVries. The landowners may retain portions of the transferable water right, to be determined during the change process. For this reason the application requests adding the DeVries well site and place of use. At the conclusion of the transfer, the appropriate administrative process will be used to separate the DeVries portion from any portion retained by the landowners. The landowners also own a separate certificate No. G4-23208C which applies to their property and is planned to be retained by them." (Application Item No. 3, YAKI-14-04). The application by Fox (YAKI-14-05) is a request to change/transfer the retained portion and is under consideration at this time .

The issues within the Gefres' letters are:

(1) Water Right May Be Invalid. Ecology reviewed the well construction and concluded the current well was a SMB well during its study of the area. Correspondence in the public record file for Certificate G4-26237C supports the conclusion that the well is between 330 and 410 feet deep, but no deeper. The 330 feet depth is based on a statement by the well owner that Ecology video scanned the well after the driller left the site. "The department found a straight 8" cased hole to a depth of 330 feet." (January 18, 1982 letter, W.H. Flippin to Ecology).

(2) Metering. There is no flow meter on the well and none is currently required under state law.

(3) Power Records. Power records for the well were analyzed and used as a means to estimate water use.

(4) Water Right May Be Relinquished. The Water Board reviewed evidence of historic use and concluded that a portion of the water right annual volume and irrigated area are subject to relinquishment. The recommended quantities and acres for change/transfer reflect this reduction.

(5) Destination Place of Use Had Rights Transferred. The Water Board is aware of these prior change/transfers which make it possible for the subject change/transfer to be made without overlap at the destination site.

(6) Over-Allocation of Groundwater and Declining Water Levels. The data attached in support of this comment (which was sourced from Ecology monitoring wells), does show declining water levels, but does not show increasingly rapid rates of decline. The water right change decision does not change the quantity of water allocated.

(7) Impacts to Senior Right Holders and Domestic Well Owners. The water right change decision does not change the quantity of water allocated.

(8) Future Metering Requirements. The Water Board decision includes standard metering and reporting requirements.

(9) Proposed Well Site Should Be Moved West of Myers Anticline. The Water Board does not have authority to change the location of the requested well site, but can only decide the application as made by the applicant. The Water Board is satisfied that existing rights will not be impaired by adding the well site requested by the applicant, as conditioned within this decision.

Impairment

The requested change/transfer will not impair existing rights, including surface water rights.

Public Interest

The proposed change/transfer will not be detrimental to the public interest.

Other

When making its decision, the Water Board also considered the previous provisions associated with the water right as identified in the background section of this report. The Water Board has updated the provisions to add current metering and reporting conditions (provisions 3-7). ~~The Family Farm Water Act provision has also been updated to the current acreage limit of 6,000 acres (provision 9).~~ Provision 10 has been added to require that the trust enrollment of the water right be terminated before water is used. Provision 11 has been added because the applicant does not own the current well, or currently have permission to use it. The Water Board has been informed that the well owner, Randal Fox, has granted permission for the well to be included on this application. Lastly, at the request of protestant Harts, the applicant has agreed to restrict the aquifer zone tapped by the requested well source; restricting it to be within the Upper Saddle Mountains Basalt Formation (provision 8).

*RCW 90.66.060(1)
-at the time the permit is issued.*

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

The Water Board's decision is to conditionally approve the requested change/transfer, given in full description as follows:

1) The recommended quantification of beneficial use, transferable quantity totals are:

300 gpm*; 140 acre-ft/yr* for irrigation of 34 acres* from April 1 to October 31;
*Quantities are not additive to the quantities, if any, approved under YAKI-14-05 (CG4-26237C@1), applicant Randal A. Fox.

2) The recommended source locations are:

- a) current: 1075 ft west and 75 ft south of the E1/4 corner of Sec. 21; w/in NE1/4SE1/4 S. 21, T. 12 N., R. 21 E.W.M.
- b) added: 1750 ft west and 1950 ft north from the SE corner of Sec. 21; w/in NW1/4SE1/4 S. 21, T. 12 N., R. 21 E.W.M.

3) The recommended amended place of use is:

That portion of Sec. 21, T. 12 N., R. 21 E.W.M., lying northerly of SR 24, EXCEPTING therefrom, the following:

- 1. That portion of the NW¼ of said Sec. 21 described as follows: Beginning at the E right-of-way line of SR 24, which point is approximately 50 feet E of NW corner; thence E along Section line 1,847.5 feet; thence S 1,847.5 feet to the right-of-way of SR 24; thence NW along SR 24 right-of-way line to true point of beginning.
- 2. The N 1,100 feet thereof.
- 3. The E 1,714.09 feet thereof.

4) In conditionally approving the subject applications, the Water Board must by statute advise the applicant that they are not permitted to proceed to effect the proposed transfers until a final decision is made by the director of the Department of Ecology.

PROVISIONS [See WAC 173-153-130(6)(f)]

Conditions and limitations

1. Installation and maintenance of an access port as described in Ground Water Bulletin No. 1 is required. An air line and gage may be installed in addition to the access port.
2. All water wells constructed within the state shall meet the minimum standards for construction and maintenance as provided under Chapter 18.104 RCW (Washington Water Well Construction Act of 1971) and Chapter 173-160 WAC (Minimum Standards for Construction and Maintenance of Water Wells).
3. An approved measuring device shall be installed and maintained for the source(s) identified herein in accordance with the rule "Requirements for Measuring and Reporting Water Use", Chapter 173-173 WAC. Water use data shall be recorded weekly and shall be submitted annually to Ecology by January 31st of each calendar year typically.
4. The rule above describes the requirements for data accuracy, device installation and operation, and information reporting. It also allows a water user to petition Ecology for modifications to some of the requirements. Installation, operation and maintenance requirements are enclosed or available from Ecology as a document entitled "Water Measurement Device Installation and Operation Requirements".
5. At a minimum, the following information shall be included with each submittal of water use data: owner, contact name if different, mailing address, daytime phone number, WRIA, Permit or Certificate No., source name, annual quantity used including units, maximum rate of diversion including units, period of use, monthly meter readings including units, and peak flow including units for each month. In the future, Ecology may require additional parameters to be reported or more frequent reporting.
6. Ecology prefers web based data entry, but does accept hard copies. Ecology will provide forms and electronic data entry information.
7. Department of Ecology personnel, upon presentation of proper credentials, shall have access at reasonable times, to the records of water use that are kept to meet the above conditions, and to inspect at reasonable times any measuring device used to meet the above conditions.
8. The source aquifer zone is restricted to the Upper Saddle Mountains Formation zone within the Saddle Mountains Basalt Formation aquifer. *Need depth.*
9. This authorization to use public waters of the state is classified as a FAMILY FARM PERMIT in accordance with Chapter 90.66 RCW (Initiative Measure No. 59). This means the land being irrigated under this authorization shall comply with the following definition: Family Farm -- a geographic area including not more than 6,000 acres of irrigated agricultural lands, whether contiguous or noncontiguous, the controlling interest in which is held by a person having a controlling interest in no more than 6,000 acres of irrigated agricultural lands in the State of Washington which are irrigated under water rights acquired after December 8, 1977. Furthermore, the land being irrigated under this authorization must continue to conform to the definition of a family farm. *Keep original RCW 90.66.060(1) - at the time the permit is issued*
10. Trust Water Donation No. CG4-26237C@2 must be terminated prior to water use under this authorization.

11. The applicant does not currently have legal access to the well within NE1/4SE1/4 Sec. 21, T. 12 N., R. 21 E.W.M. Issuance of a water right change authorization does not convey a right of access to, easement, or other right to use the well. Obtaining such a right is a private matter between applicant and the source owner, and any other owner along the access way.

ADD Back by less any amount applied to these same lands under existing rights under 4423208E

Mitigation (if applicable)
No mitigation requirements apply.

Construction Schedule

Completion of Construction is due December 1, 2019 and Proof of Appropriation is due December 1, 2021.

Other

n/a

The information or conclusions in this report were authored and/or developed by Tim Reierson.

The undersigned Board commissioner certifies that he 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, having reviewed the report of examination, knows and understands the content of this report and concurs with the report's conclusions.

Signed at Yakima, Washington

This 5 day of May, 2016.



Jeff Stevens, Chair
Yakima County Water Conservancy Board

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Selected References

Kirk, T. and Mackie, T., 1993, Black Rock – Moxee Valley Groundwater Study, Washington Department of Ecology, Report No. OFTR 93-1, Yakima, Washington, 80 p.

Reierson, T., December 23, 2015 Technical Report to Water Board, Water Board No. YAKI-14-04, Ecology No. CG4-26237C.