File NR CS3-26000C(A)
WR DOC ID 5724994

State of Washington
Office of Columbia River
REPORT OF EXAMINATION
FOR WATER RIGHT CHANGE

Temporary Change, 2014-2016
Add Irrigated Acres

PRIORITY DATE	TEMPORARY CHANGE AUTHORIZATION NUMBER
June 28, 1978	CS3-26000C(A)

MAILING ADDRESS	SITE ADDRESS (IF DIFFERENT)
Conley & Schultz Farms, LLC PO Box 2581 Pasco, WA 99302	

Total Quantity Authorized for Diversion

DIVERSION RATE	UNITS	ANNUAL QUANTITY (AF/YR)	COSUMPTIVE QUANTITY (AF/YR)
8.7	CFS	1,786	1,580

Purpose

	DIVERSION RATE			ANNUAL QUANTITY (AF/YR)		
PURPOSE	ADDITIVE	NON-ADDITIVE	UNITS	ADDITIVE	NON-ADDITIVE	PERIOD OF USE (mm/dd)
Irrigation	8.7		cfs	1,786		01/01-12/31

REMARKS

1) The term for this temporary change is for the 2014-2016 growing seasons.

2) The highest documented use over the last 5 years is 1,786 acre-feet per year. At the time this temporary change expires on December 31, 2016, the authorized acreage will be reduced to 452.5 acres and the maximum annual quantity will thenceforth be limited to 1,786 acre-feet per year and will not revert to the previously authorized 1,810 acre-feet per year.

IRRIGATED ACRES ADDITIVE	NON-ADDITIVE
509.7	

Source Location

COUNTY	WATERBODY	TRIBUTARY TO	WATER RESOURCE INVENTORY AREA
Walla Walla	Snake River	Columbia River	31

SOURCE FACILITY/DEVICE	PARCEL	WELL TAG	TWP	RNG	SEC	QQ Q	LATITUDE	LONGITUDE
Snake River Pumps	Govt. Lot 1		9 N.	31E.W.M.	28	SWNW	46.23656	-118.94949

Datum: NAD83

Place of Use

PARCELS (NOT LISTED FOR SERVICE AREAS)
310933110001

LEGAL DESCRIPTION OF AUTHORIZED PLACE OF USE
Section 33, lying north of Washington State Highway 124, all within T. 9 N., R. 31E.W.M.

Proposed Works

The existing pump station and mainline will remain in use for the project. Field boundaries and irrigation infrastructure will be modified to allow for conversion to orchard with additional acreage.

Development Schedule

BEGIN PROJECT	COMPLETE PROJECT	PUT WATER TO FULL USE
Immediately	January 1, 2015	January 1, 2016

Provisions

Measurements, Monitoring, Metering and Reporting

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 (Ecology) for modifications to some of the requirements.

Ecology is requiring the recording and reporting of meter data as described above to collect seasonal information for water resource planning and compliance.

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

Metering Device Calibration

The water right holder must ensure that the meter is properly calibrated prior to the 2014 irrigation season and that readings are accurate consistent with the standards contained in WAC 173-173-100.

Department of Fish and Wildlife Requirement(s)

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

Irrigation Management Plan

Irrigation practices will be subject to the Conservation O&M Program Implementation Plan implemented by the Columbia-Snake River Irrigators Association (see CSRIA.org, Conservation O&M Implementation Plan). This Program is consistent with RCW 90.03.380/390 and 90.90. Program implementation is subject to verification by the participating conservation districts (or by the Benton-Franklin County Conservation District, assisting other districts throughout the state for Program compliance). Per the Implementation Plan, appropriate records will be provided to OCR-Ecology.

Family Farm
The water right is subject to the provisions of the Family Farm Act and is designated a Family Farm Certificate in accordance with RCW 90.66. This means that the land irrigated under this authorization shall comply with the following definition of a Family Farm--a geographic area including not more than 6,000 acres of irrigated 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 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.

Water Use Efficiency
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. Moreover, the water right is subject to the Conservation O&M Program measures as indicated above.

Schedule and Inspections
Ecology personnel, upon presentation of proper credentials, will 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.

Annual Consumptive Quantity
This change to the water right involves an analysis of the annual consumptive quantity. Management practices for the planned orchard blocks must include careful application of water to ensure no intentional growth of under-canopy vegetation. Should the applicant decide that a cover crop is desired, it would be necessary to reduce the acreage to a suitable level such that the ACQ identified herein is not violated.

John Day/McNary Reservation
The annual quantity herein allocated is a portion of the amount reserved by the adoption of the John Day/McNary Reservation under WAC 173-531A-040. The priority date of this filing, as against other uses, is June 24, 1980.

Findings of Facts
Upon reviewing the Investigator's report, I find all facts relevant and material to the subject application have been thoroughly investigated.

Therefore, I ORDER the requested change to add additional acreage under Change Application CS3-26000C(A), for the period 2014-2016, subject to existing rights and the provisions specified above.

YOUR RIGHT TO APPEAL

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

To appeal you must do the following within 30 days of the date of receipt of this decision:

- File your appeal and a copy of this decision with the PCHB (see addresses below). Filing means actual receipt by the PCHB during regular business hours.
- Serve a copy of your appeal and this decision on Ecology in paper form - by mail or in person. (See addresses below.) E-mail is not accepted.

You must also comply with other applicable requirements in Chapter 43.21B RCW and Chapter 371-08 WAC.

ADDRESS AND LOCATION INFORMATION

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

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

Signed at Yakima, Washington, this 28th day of February 2014.

Mark C. Schuppe, Operations Manager

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

INVESTIGATOR'S REPORT
Trevor Hutton, Department of Ecology
Application for Change – Conley and Schultz Farms, LLC
Water Right Control Number CS3-26000(A)

BACKGROUND

On June 28, 1978, Burlington Northern, Inc. submitted an application to appropriate water from the Snake River for the seasonal irrigation of 955 acres. On February 9, 1979, a permit was issued for 16 cubic feet-per-second (cfs), 3,440 acre-feet per year for the irrigation of 860 acres. A certificate was then issued in 1985 which reduced the quantities to 14 cfs, 2,920 acre-feet per year for the irrigation of 730 acres. In October of 2012 the certificate was bifurcated administratively, by request, with the subject (A) portion being assigned 8.7 cfs, 1,810 acre-feet per year for the irrigation of 452.5 acres.

Description and Purpose of Proposed Change

The water right application proposes changing irrigation use from row crops to fruit orchards, and expanding total irrigated acres without increasing authorized water use (Qa and Qi) under the existing rights through conversion to new irrigation infrastructure under the auspices of the Columbia Snake River Irrigators Association (CSRIA) Conservation Operations & Management Program. The requested change is temporary in nature. RCW 90.03.380 and 390 provide the authority for such a change. The proposed change triggers a review of the annual consumptive quantity (ACQ) outlined in RCW 90.03.380(1). This analysis can be found below in the *History of Water Use* section.

Attributes of the Existing Water Right and Proposed Change

Attributes	Existing	Proposed
Name	David and Barbara Schultz	Conley and Schultz Farms LLC
Priority Date	June 28, 1978	Same
Change Application Date		March 27, 2013
Instantaneous Quantity (total)	8.7 cfs	Same
Annual Quantity (total)	1,810 af/yr	Same
Purpose of Use	Irrigation of up to 452.5 acres	Irrigation of up to 520 acres
Period of Use	January 1 – December 31	Same
Place of Use	That portion of Sec. 33, T. 9 N., R. 31E.W.M. lying north of Highway 124.	Same

Proposed Source of Diversion

Source Name	Parcel	Twn	Rng	Sec	QQ Q	Latitude	Longitude
Snake River - Existing	Govt. Lot 1	9N.	31E.W.M.	28	SWNW	46.23656	-118.94949

Legal Requirements for Proposed Change

RCW 90.03.380

A change in the place of use, point of diversion, and/or purpose of use of a water right to enable irrigation of additional acreage or the addition of new uses may be permitted if such change results in no increase in the annual consumptive quantity of water used under the water right. For purposes of this section, "annual consumptive quantity" means the estimated or actual annual amount of water diverted pursuant to the water right, reduced by the estimated annual amount of return flows, averaged over the two years of greatest use within the most recent five-year period of continuous beneficial use of the water right.

Water Resources Program documents PRO-1210 and GUID-1210 provide background and methodology for analysis of the Annual Consumptive Quantity (ACQ), demonstrated below.

Public Notice

Notice of this application for change was published in the Tri-City Herald on 1/21/2013 and 1/28/2013. No comments were received.

State Environmental Policy Act (SEPA)

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

- It is a surface water right application for more than 1 cubic foot per second (cfs). If the project is for agricultural irrigation, the threshold is increased to 50 cfs, so long as the project will not receive public subsidies;
- It is a groundwater right application for more than 2,250 gallons per minute (gpm);
- It is an application combined with other water right applications for the same project and exceeds the amounts above;
- 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);
- It is part of a series of exempt actions that, considered together, trigger the need to do a threshold determination, as defined under WAC 197-11-305.

As this application is for a surface water diversion of less than 50 cfs, it is categorically exempt from SEPA.

INVESTIGATION

This Report of Examination and Investigation was prepared by the Department of Ecology (Ecology) staff. Information was obtained from site inspections, technical reports and documents, research of agency records, and discussions with the applicant's technical consultant. A field examination was conducted on August 7, 2013 by the author along with Dr. Darryll Olsen, Columbia Snake River Irrigators Association, and David Schultz, the applicant. The field examination consisted of viewing the existing/proposed water use sites, existing pumping site, and the surrounding area. A visual examination of water use occurring on the property was conducted, along with a review of the applicant's maps.

History of Water Use

RCW 90.03.380(1) states that a water right that has been put to beneficial use may be changed. The point of diversion, place of use, and purpose of use may be changed if it would not result in harm or injury to other water rights. The Washington State Supreme Court has held that Ecology, when processing an application for change to a water right, is required to make a tentative determination of the extent and validity of the claim or right[1]. This is necessary to establish whether the claim or right is eligible for change.

Due to the proposal to add additional acreage, an analysis of ACQ must be made, requiring the identification of a 5 year period of continuous use from which the highest two years can be averaged. Since this report is being produced during the 2013 growing season, the most recent continuous five year period encompasses the years 2008-2012. Water Resources Program document PRO-1210 instructs that the most accurate water use estimates should be used. In this case, metering data represents the best available data for 2010-2012. Due to the unavailability of empirical data prior to 2010, estimates based on consumptive use models, in this case Washington State University's AgWeatherNet and the Washington Irrigation Guide, must be made for the remaining period.

Aerial and LandSat imagery exists for nearly the entire period of record from the issuance of the certificate until the present. Based upon review of these images, there do not appear to be any 5 year periods of non-use. Metering data is available for years 2010-2012 and indicates the use of 1,786 acre-feet, 1,279 acre-feet, and 893 acre-feet, respectively. However, the accuracy of these data has been called into question in follow-up conversations due to calibration issues and periods in which the meter was not operating.

The property is currently irrigated with a system of four full circle pivots and five partial circle pivots using drop down spray heads, along with one big gun sprinkler located between three adjacent pivot irrigated fields. Efficiency is assumed to be the average for the range as identified for center pivots with spray heads in GUID-1210 which is 90%, accounting for an additional 10% evaporative loss, meaning that essentially all water applied under the current irrigation system is used consumptively. Due to the location and small acreage of the lands irrigated by the single big gun sprinkler, the lower efficiency indicated in GUID 1210 is not assumed to have any substantial outcome on the ACQ analysis. Aerial imagery and information supplied by the applicant's technical consultant indicate that the acreage has been used for the production of potatoes and field corn in a rotational cropping pattern which also includes the use of cover crops for soil conditioning and protection. These cover crops are estimated by the applicant's consultant to use approximately three inches of additional water per year, which is within a reasonable range and would not be considered out of the ordinary based on the irrigation requirement that these crops would exhibit over the entire growing season.

Based on GIS measurements, the actual acreage under the pivots is approximately 476 acres, which is in excess of the 452.5 acres allowed on the Superseding Certificate issued in 2012. Accordingly, only 452.5 acres will be eligible for change as a part of this analysis, using the acreage estimates included in the application materials. Consumptive use estimates were made using AgWeatherNet estimates at the Wallula station, which is located several miles south of the subject lands. 2008 data was not available through AgWeatherNet, and Washington Irrigation Guide values from the Kennewick station to the west

[1] See *Okanogan Wilderness League v. Town of Twisp* (1997), *R.D. Merrill v. PCHB* (1999), and *Public Utility District No. 1 of Pend Oreille County v. Ecology* (2002).

were used as a proxy. As shown in the table below, the ACQ analysis shows an average of 1,580 acre-feet for the highest two years within the period of record (2009 and 2010). Where metered values are lower than the estimate based on consumptive use modeling, it can be inferred that the entire quantity was used consumptively, with the crops being deficit irrigated. Where metered values are higher than the consumptive use estimate, it is assumed that water not used for evapotranspiration by the crops or evaporative loss during application is return flow and does not contribute toward the consumptive quantity of the right.

Year	Irrigated Acreage	Crop	Crop Water Duty(in/ac) (AgWeatherNet)	Cover Crop Water Duty (in/ac)	Irrigation Efficiency	Total Water Duty (in/ac)	Total acre-feet (Calculated)	Actual Metered Use	Return Flow	Average Ac-ft/ac (cons)
2012	250	Potatoes	34.6	3	90%	41.8	870.4			
	202.5	F. Corn	36.7	3	90%	44.1	744.4			
							1614.7	893	0	1.97
2011	250	F. Corn	36.7	3	90%	44.1	919.0			
	202.5	Potatoes	34.2	3	90%	41.3	697.5			
							1616.5	1279	0	2.83
2010	250	F. Corn	35.2	3	90%	42.4	884.3			
	202.5	Potatoes	33.1	3	90%	40.1	676.9			
							1561.1	1786	224.9	3.45
2009	250	Potatoes	34.4	3	90%	41.6	865.7			
	202.5	F. Corn	36.1	3	90%	43.4	733.1			
						0.0	**1598.9**		0	3.53
2008*	250	F. Corn	*30.48*	3	90%	37.2	775.0			
	202.5	Potatoes	*29.97*	3	90%	36.6	618.2			
							1393.2		0	3.08

**2008 AWN data not available, WIG substituted*

	(1561.1+1598.9)/2
ACQ	**1580 Ac-ft**
Ac-ft/ac Consu-mptive	3.49

Proposed Use

The applicant proposes to use existing pumps and pipelines to supply water to the property. However, at the end of the 2013 growing season, the applicant will be removing the in-field irrigation infrastructure and reconfiguring the property to plant an apple orchard and install new irrigation infrastructure.

Based upon the existing ACQ of 1,580 acre-feet per year, and using a maximum water duty of 3.1 acre-feet per acre as specified by the applicant, the maximum acreage to which the applicant could spread is 509.7 acres, adding an additional 57.2 acres to the authorized existing acreage. This quantity assumes that the irrigation system is efficient such that virtually no water is lost to return flow and all is used consumptively. Based on GUID-1210, microspray and drip irrigation (most commonly used for this application) has an efficiency range between 70%-95%. As this would be a new orchard installation, the applicant will have the benefit of using state-of-the-art irrigation components and management

practices, which should allow for an efficiency of at least 90%. Once an additional 10% is added to account for evaporative losses, there should be no return flows expected after the conversion to orchard.

Total Acre-feet	Ac-ft/Ac	Total Acres	New acreage
1580	3.1	509.7	57.2

It should be noted that this water duty is based upon growing apples without a cover crop. Management practices for the new orchard blocks should include careful application of water to ensure no intentional growth of under-canopy vegetation. Should the applicant decide that a cover crop is desired, it would be necessary to reduce the acreage to a suitable level such that the ACQ identified herein is not exceeded.

The highest documented use over the last 5 years is 1,786 acre-feet per year. At the time this temporary change expires on December 31, 2016, the authorized acreage will be reduced to 452.5 acres and the maximum annual quantity will thenceforth be limited to 1,786 acre-feet per year and will not revert to the previously authorized 1,810 acre-feet per year.

Measuring and Reporting Water Use

RCW 90.03.360 requires that the owner of any water diversion maintain substantial controlling works and a measuring device. It must be constructed and maintained to permit accurate measurement and practical regulation of the flow of water diverted. Technical requirements for the measuring and reporting of water use are described in WAC 173-173. This decision contains provisions requiring the measuring and reporting of the quantities of water withdrawn or diverted.

Other Rights Appurtenant to the Place of Use

There are no other water rights that share or overlap the place of use with for subject water right.

Hydrologic Evaluation

The application as proposed is consistent with beneficial use and return flow considerations contained in RCW 90.03.380 and other applicable statutes. The project will not result in an increase to consumptive use, and will not in any way constitute an enlargement of the right.

Impairment Considerations

As proposed in the subject application, the applicant will not be increasing consumptive use or diversion rate nor will they any existing infrastructure in the Snake River be altered, which is the existing authorized point of diversion. The project as proposed is not expected to produce any negative impacts on existing downstream water right holders.

Public Interest Considerations

The project as proposed is consistent with Ecology's principle of encouraging and maintaining efficient irrigation systems. The request to alter and expand the use of this water right will allow the applicant greater flexibility in competing with today's agricultural market, which will be an economic benefit within Walla Walla county. The conversion from row/cover crops to orchard will also increase the required labor force for harvest, which will create jobs, thus stimulating the local economy.

Consideration of Protests and Comments

No protests were filed against this application.

Conclusions

In conclusion, the water right in question appears to have been put to beneficial use with no five year periods of complete non-use. Further, the calculated ACQ of 1,580 acre-feet per year allows the applicant to spread into a maximum of 509.7 acres without impairment to existing water users or the public interest.

RECOMMENDATIONS

Based on the above investigation and conclusions, I recommend that the request for change to add additional acreage be approved in the amounts and within the limitations listed below and subject to the provisions contained in the ROE.

Purpose of Use and Authorized Quantities

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

8.7 cfs
1,786 acre-feet per year
For the purpose of irrigation
Point of Diversion

Source Name	Parcel	Twn	Rng	Sec	QQ Q	Latitude	Longitude
Snake River - Existing	Govt. Lot 1	9N.	31E.W.M.	28	SWNW	46.23656	-118.94949

Place of Use

That portion of Sec. 33, T. 9 N., R. 31E.W.M. lying north of Highway 124, Benton County.

2-28-14

Report Writer *Date*

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