File NR CS4-24500C@1
WR Doc ID 6166148

State of Washington
Department of Ecology
Office of Columbia River
Report of Examination
For Temporary Water Right Change

Changed Place of Use and added Points of Withdrawal and Diversion **for 2014 irrigation season only.**

PRIORITY DATE	TEMPORARY WATER USE AUTHORIZATION:
January 7, 1977	CS4-24500C@1

MAILING ADDRESS	SITE ADDRESS (IF DIFFERENT)
Zirkle Fruit Company PO Box 190 Selah, WA 98942-0190	Site located near where Moses Coulee intersects the Wanapum Pool. See Place of Use description below.

Total Quantity Authorized for Withdrawal and Diversion

WITHDRAWAL AND DIVERSION RATE	UNITS	ANNUAL QUANTITY (AF/YR)
4.8	CFS	1054.43

Total withdrawals and diversions from all sources must not exceed the total quantity authorized for withdrawal and diversion listed above.

Purpose

	WITHDRAWAL AND DIVERSION RATE		ANNUAL QUANTITY (AF/YR)			
PURPOSE	ADDITIVE	NON-ADDITIVE	UNITS	ADDITIVE	NON-ADDITIVE	PERIOD OF USE (mm/dd)
Irrigation	4.8		CFS	1054.43		03/01 - 10/31

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

Source Locations

COUNTY	WATERBODY	TRIBUTARY TO	WATER RESOURCE INVENTORY AREA
Douglas	Groundwater (3 sites)		44-Moses Coulee
Douglas	Wanapum Pool (2 sites)	Pacific Ocean	44-Moses Coulee

SOURCE FACILITY/DEVICE	PARCEL	WELL TAG	TWP	RNG	SEC	QQ Q	LATITUDE	LONGITUDE
New Well Site S4-24500C	21222820008	BIB 544	21 N.	22E.W.M.	33	SWSW	47.26492	-120.08855
Old Well Site S4-24500C	21222820008		21 N.	22E.W.M.	33	SWSW	47.26452	-120.08944
New Well Site SWC 10860	21222820016	BIB 543	21 N.	22E.W.M.	28	SWNW	47.28624	-120.08733
Wanapum Pool SWC 10860	21222820021	N/A	21 N.	22E.W.M.	21	SWSW	47.29119	-120.08715
Wanapum Pool SWC 10860	21222820005	N/A	21 N.	22E.W.M.	28	SWNW	47.28625	-120.08769

Datum: NAD83

Place of Use

PARCELS

21222820020, 21222820019, 21222820018, 21222820017, 21222820016, 21222820006, 21222820015, 21222820014, 21222820013, 21222820012, 21222820011, 21222820010, 21222820005, 21222710001, 21222730001, 21223420001, 21222820007, 20220410001

LEGAL DESCRIPTION OF AUTHORIZED PLACE OF USE

See attached Place of Use description below.

Proposed Works

With the drawdown of the Wanapum Pool, the applicant's water source is compromised. The addition of wells would allow the applicant to continue irrigating. The water delivery system would be tied in with an irrigation system also owned by the applicant and also left compromised by the drawdown. The two subject Places of Use are adjacent to each other.

Measurement of Water Use

How often must water use be measured?	Bi-weekly (every two weeks).
How often must water use data be reported to Ecology?	Upon Request by Ecology.
What volume should be reported?	Total Annual Volume in acre-feet.
What rate should be reported?	Annual Peak Rate of Withdrawal in CFS.

Provisions

THIS TEMPORARY CHANGE AUTHORIZATION EXPIRES ON OCTOBER 31, 2014.

Wells, Well Logs and Well Construction Standards

All wells constructed in the state must meet the construction requirements of Chapter 173-160 WAC titled "Minimum Standards for the Construction and Maintenance of Wells" and Chapter 18.104 RCW titled "Water Well Construction". Any well which is unusable, abandoned, or whose use has been permanently discontinued, or which is in such disrepair that its continued use is impractical or is an environmental, safety or public health hazard must be decommissioned.

All wells must be tagged with a Department of Ecology (Ecology) unique well identification number. If you have an existing well and it does not have a tag, please contact the well-drilling coordinator at the regional Ecology office issuing this decision. This tag must remain attached to the well. If you are required to submit water measuring reports, reference this tag number.

Installation and maintenance of an access port as described in WAC 173-160- 291(3) is required.

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

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/.

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

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.

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.

Findings of Facts
Upon reviewing the investigator's report, I find all facts, relevant and material to the subject application, have been thoroughly investigated. Furthermore, I concur with the investigator that there will be no impairment of existing rights, that there will be no detriment to the public welfare, and that the source of the existing diversions and the proposed points of withdrawal are part of the same water body.

Therefore, I ORDER approval of Change Application No. CS4-24500C@1, subject to existing rights and the provisions specified above.

Your Right To Appeal

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

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

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

- Serve a copy of your appeal and this Order on Ecology in paper form - by mail or in person. (See addresses below.) E-mail is not accepted.

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

Street Addresses	Mailing Addresses
Department of Ecology Attn: Appeals Processing Desk 300 Desmond Drive SE Lacey, WA 98503 **Pollution Control Hearings Board** 1111 Israel RD 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 12th day of June 2014.

Mark C. Schuppe, Operations Manager
Office of Columbia River

ATTACHMENT--LEGAL DESCRIPTION FOR PLACE OF USE

In **T. 21 N., R. 22E.W.M.**, less rights of way and easements:
In Section 28, the SE¼ lying SE of the S right of way of the Mansfield Branch line of the Burlington Northern Railroad Inc., AND
All of Section 33, Except Government Lot 1, the E½ lying E of E right of way line of State Highway 10, the NE¼, and the SE¼NW¼ lying N of N right of way of the Mansfield Branch line, AND
In Section 34, the W½NW¼ lying W of the W right of way line of State Highway 10;

AND

In **T. 20 N., R. 22E.W.M.**, less rights of way and easements:
In Section 4, the 1139.2 feet of the N½, Except Government Lots 4 and 5.

AND (added)

In **T. 21 N., R. 22E.W.M.**, less rights of way:
In Section 22, the SW¼SW¼ lying southerly of the BPA spur track right of way; AND
In Section 27, the N½, N½SW¼, and the SW¼SW¼; AND
All of fractional Sec 28; AND
In Section 33, the west 2145 feet of the east 2805 feet of the NW¼, and the west 1980 feet of the east 3300 feet of the N½S½N½, and that part of said section lying southeasterly of the right of way of new State Highway 28 (10); AND
In Section 34, the W½SW¼, and that part of the W½NW¼ lying southeasterly of new State Highway 28 and northwesterly of Old State Highway 10; and the W½NE¼NW¼, and the NE¼NE¼NE¼SW¼NW¼.

INVESTIGATOR'S REPORT
Application for Water Right Change – Zirkle Fruit Company
Water Right Control Number CS4-24500C@1 (Wanapum Pool drawdown)
Thomas Perkow, Department of Ecology

BACKGROUND

This report serves as the written findings of fact concerning Water Right Application Number CS4-24500C@1. The application proposes temporary changes for 2014 irrigation season only in response to water unavailability due to the Wanapum Pool drawdown.

EXISTING Water Right Attributes

Water Right Originally Issued to:	Columbia River Orchards Foundation
Priority Date:	1/7/1977
Place of Use	Portions of Section 4 of T. 20 N., R. 22E.W.M., AND portions of Sections 28, 33, and 34 of T. 21 N., R. 22E.W.M.

County	Waterbody	Tributary To	WRIA
Douglas	Columbia River	Pacific Ocean	44-Moses Coulee

Purpose	Rate	Unit	Ac-ft/yr	Begin Season	End Season
Irrigation of 240 acres	4.8	CFS	1229	04/01	10/31

Source Name	Parcel	Twp	Rng	Sec	QQ Q	Latitude	Longitude
Columbia River	21222820005	21 N.	22E.W.M.	33	GL 4	47.26492	-120.08855

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

REQUESTED Water Right Attributes

Applicant Name:	**Zirkle Fruit Co**
Date of Application:	3/24/2014
Place of Use	In **T. 21 N., R. 22E.W.M.**, less rights of way and easements: In Section 28, the SE¼ lying SE of the S right of way of the Mansfield Branch line of the Burlington Northern Railroad Inc., AND All of Section 33, Except Government Lot 1, the E½ lying E of E right of way line of State Highway 10, the NE¼, and the SE¼NW¼ lying N of N right of way of the Mansfield Branch line, AND In Section 34, the W½NW¼ lying W of the W right of way line of State Highway 10; AND In **T. 20 N., R. 22E.W.M.**, less rights of way and easements: In Section 4, the 1139.2 feet of the N½, Except Government Lots 4 and 5. AND (added) In **T. 21 N., R. 22E.W.M.**, less rights of way: In Section 22, the SW¼SW¼ lying southerly of the BPA spur track right of way; AND In Section 27, the N½, N½SW¼, and the SW¼SW¼; AND All of fractional Sec 28; AND In Section 33, the west 2145 feet of the east 2805 feet of the NW¼, and the west 1980 feet of the east 3300 feet of the N½S½N½, and that part of said section lying southeasterly of the right of way of new State Highway 28 (10); AND In Section 34, the W½SW¼, and that part of the W½NW¼ lying southeasterly of new State Highway 28 and northwesterly of Old State Highway 10; and the W½NE¼NW¼, and the NE¼NE¼NE¼SW¼NW¼.

Points of Diversion and Withdrawal

County	Waterbody	Tributary To	WRIA
Douglas	Groundwater (3 sites)		44-Moses Coulee
Douglas	Columbia River (2 sites)	Pacific Ocean	44-Moses Coulee

Purpose	Rate	Unit	Acre-feet/yr	Begin Season	End Season
Irrigation	4.8	CFS	1229	03/01/14	10/31/14

Source Name	Parcel	Well Tag	Twp	Rng	Sec	QQ Q	Latitude	Longitude
New Well S4-24500C	21222820008	BIB 544	21 N.	22E.W.M.	33	SWSW	47.26492	-120.08855
Old Well S4-24500C	21222820008		21 N.	22E.W.M.	28	SWSW	47.26452	-120.08944
New Well SWC 10860	21222820016	BIB 543				SWNW	47.28624	-120.08733
Wanapum Pool SWC 10860	21222820021	N/A	21 N.	22E.W.M.	21	SWSW	47.29119	-120.08715
Wanapum Pool SWC 10860	21222820005	N/A	21 N.	22E.W.M.	28	SWNW	47.28625	-120.08769

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

Legal Requirements for Requested Change

The following is a list of requirements that must be met prior to authorizing the proposed changes.

State Environmental Policy Act (SEPA)

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

(a) It is a surface water right application for more than one (1) CFS, unless that project is for agricultural irrigation, in which case the threshold is increased to 50 CFS, so long as that irrigation project will not receive public subsidies;
(b) It is a groundwater right application for more than 2,250 gallons per minute (GPM);
(c) It is an application that, in combination with other water right applications for the same project, collectively exceed the amounts above;
(d) It is a part of a larger proposal that is subject to SEPA for other reasons (e.g. the need to obtain other permits that are not exempt from SEPA);
(e) It is part of a series of exempt actions that, together, trigger the need to do a threshold determination, as defined under WAC 197-11-305.

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

Water Resources Statutes and Case Law

The Washington Supreme Court has held that the Department of Ecology (Ecology), when processing an application for change to a water right, is required to make a tentative determination of extent and validity of the claim or right. This is necessary to establish whether the claim or right is eligible for change. *R.D. Merrill v. PCHB* and *Okanogan Wilderness League v. Town of Twisp.*

A point of diversion for a surface water right may be changed to a groundwater point of withdrawal. The authority is derived from RCWs 90.03.380, 90.44.020-030, 90.44.100 and 90.54.020(9). RCW 90.03.380(1) states that a water right that has been put to beneficial use may be changed if it would not result in detriment or injury to other water rights. Additionally, moving a point of diversion to a groundwater withdrawal requires compliance with the groundwater code (Chapter 90.44 RCW), including a finding that there be no detriment to the public welfare and that the source of the existing diversion and the proposed point of withdrawal be part of the same water body.

Indicators that wells tap the *same body of public groundwater* include:

(a) Hydraulic connectivity.
(b) Common recharge (catchment) area.
(c) Common flow regime.
(d) Geologic materials that allow for storage and flow, with recognizable boundaries or effective barriers to flow.

INVESTIGATION

This temporary change application, submitted by Zirkle Fruit Company on March 24, 2014, was assigned the tracking number CS4-24500C@1. The applicant indicates that water supply issues exist at their existing pump stations located on the Columbia River's Wanapum Pool due to the drawdown of the Pool while repairs to the dam are being assessed and made. The applicant proposes to drill and add points of withdrawal, and combine the Place of Use (POU) with another, adjacent, water right for the 2014 irrigation season only. The combining of POUs would allow the applicant to tie in to mainlines supplying water under an adjacent surface water certificate, SWC 10860, which similarly suffers from the same water supply issue as the subject right. Zirkle has submitted a similar application for temporary change for SWC 10860C, which is being processed contemporaneously with the subject change.

If approved, the applicant would have the ability to use the new wells to irrigate a combined POU under these two surface water certificates for the 2014 irrigation season. No expansion in the number of irrigated acres is proposed under either change applications. A permanent change would be pursued by the local County Water Conservancy Board.

The author of this report visited the site on May 14, 2014, to photograph and take GPS readings at the proposed well sites. Two new wells had already been drilled. Testing of these wells revealed lower than expected discharge rates and the wells had not been tied into the water delivery system. Rather, the southernmost pump station (currently authorized under the subject right only) was operating in a reduced capacity, the middle pump station had its intake extended into deeper water and outfitted with a submersible pump, while the northernmost pump station had temporary pumps filling the concrete vault where the historic intakes are housed. With the uncertainty of future pool levels and Zirkle's continual development of contingency irrigation strategies, use of the two new wells may become viable.

History of Water Use

Surface water certificate S4-24500C issued in November of 1982 with a priority date of January 7, 1977. Review of satellite imagery and aerial photography indicates that in 1983, 1985, 1990, 2005, 2006, 2009, and 2011 approximately 240 acres were irrigated within the POU. Though limited, this review did not reveal any five-year periods of non-use.

The original authorization authorizes up to 1229 acre-feet per year for the irrigation of 240 acres, based on a 5.12 acre-feet/ac estimate which includes a 30% irrigation efficiency factor. A solid set irrigation system was proposed, with 34 sprinklers per acre. The subject application does not propose any changes to this annual quantity or number of irrigated acres. Nevertheless, as indicated above, Ecology estimates the annual quantity applied to beneficial use and, hence, available for change. This is known as a *tentative determination of validity and extent*.

Crop acreages and their associated irrigation system type (see Diagram 1, below) were obtained from the applicant's consultant, Tim Reierson, P.E. (hereafter referred to as "the consultant"). These data show the combined acres irrigated under the subject right and the applicant's companion application, CS4-SWC10860@1. Specifically, these data indicate that 674 acres of apples, 133 acres of cherries, 61 acres of pears, and 2 acres of turf are irrigated under the two rights. Cover crops are irrigated on all, except where drip irrigation was used exclusively. In those cases, the cover crop is assumed to be non-existent. The consultant recommended that water use estimates take two of the Washington Irrigation Guide's (WIG) stations, Wenatchee and Quincy, into account as the site lies geographically between the

two. Also, the consultant noted that the application efficiency is compromised due to site-specific windy conditions and sandy soils *(Tim Reierson, personal communication via email on May 21, 2014)*.

DIAGRAM 1:

IRRIGATION AREA ESTIMATES BY CURRENT CROP AND IRRIGATION TYPES.				
(For lands within SWC 10860 and S4-24500C, Combined Water Rights for 870 acres.)				
		AREAS BY CROP (acres)		
IRRIGATION TYPE	**APPLES**	**CHERRIES**	**PEARS**	**TURF**
UTM Only			61	
UTM and Drip	22	85		
UTM and OHS	356			
UTM, Drip and OHS	294			
Drip Only	2	48		
Impact Sprinklers				2
Subtotals:	674	133	61	2
TOTAL:	870			

Notes: UTM = under tree microsprays, OHS = overhead micro spray, drip is above ground. Cover crop on all except where drip only, and then only to extent supported by drip.

[Diagram 1 Source: Email communication on May 20-21, 2014, with the applicant's consultant, Tim Reierson, P.E.]

Accounting for the complexities of water use here under which six discrete water delivery systems supply water to four discrete crop types, some with cover crops and some without, and between two WIG stations with water use split between two water rights, resulted in a sizable spreadsheet built to account for all these variables. The spreadsheet averaged values from the Wenatchee and Quincy WIG sites for the apples, cherries, pears, and turf – with cover crop and without as appropriate – and assigned an irrigation efficiency factor based on Ecology's Water Resource's Guidance Document GUID 1210 and the additional info provided by the consultant. From the spreadsheet, a value of 3,822.31 ac-ft can be estimated to have been applied to the beneficial use of agricultural irrigation between the two rights. The subject right, having a 28 percent proportional amount of this combined value (240 acres / 870 acres) is therefore estimated to have **1054.43 ac-ft** applied to beneficial use and available for change. The consultant concurred with this "proportionate splitting" methodology due to overarching issues related to the number of acres irrigated within the places of use of the two rights, and the inability to easily determine which acres fall under which right. These issues will be sorted out in permanent changes pursued with the local County Water Conservancy Board.

Proposed Use

The proposed temporary change is intended for the 2014 irrigation season only and proposes the addition of wells and the combining of POUs only. The number of acres irrigated, instantaneous rate of diversion/withdrawal, and annual quantity remains unchanged.

Well Tags

Chapter 173-160 WAC contains requirements for well drillers, system operators and/or owners to tag new and existing wells with identification tags supplied by Ecology. The well identification program creates a standard system to identify all newly constructed or existing wells, so that property owners and various agencies can readily share well data. In addition, Ecology field staff use the well tag to identify the well. Accordingly, this decision contains provisions requiring each well to be tagged with a unique identification number.

Other Rights Appurtenant to the Place of Use

A partially overlapping irrigation right is also owned by Zirkle Fruit Company, SWC 10860. This surface water right suffers the same water supply issues as the subject right and a similar application for it has been submitted.

Impairment Considerations

The proposed changes to wells and in POU for the 2014 irrigation season would take place within the same general area as that authorized. No changes in season of use, number of acres irrigated, instantaneous rate, or annual quantity are proposed.

Public Interest Considerations

No detriment to the public interest is expected by the proposed changes. Indeed, the proposed changes would help this farming business continue to employ their workers.

Conclusions

This proposed temporary change in POU for the 2014 irrigation season only has met all legal requirements: The application is exempt from SEPA analysis, involves water applied to beneficial use, water would continue to be applied to a beneficial use, and the proposed actions are not expected to be detrimental to the public interest or cause detriment or injury to existing rights.

A permanent change will be pursued through the local County Water Conservancy Board, capturing the essentials of this temporary change and the possible "de facto" acreage discrepancy noted above.

RECOMMENDATIONS

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

For the 2014 irrigation season only

Purpose of Use and Authorized Quantities

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

4.8 cfs
1054.43 acre-feet per year
For irrigation of up to 240 acres from April 1 to October 31

Points of Withdrawal (3 sites)

SW¼SW¼ Sec. 33, T. 21 N., R. 22E.W.M. (2 sites)
SW¼NW¼ Sec. 28, T. 21 N., R. 22E.W.M.

Points of Diversion (2 sites)

SW¼SW¼ Sec. 21, T. 21 N., R. 22E.W.M.
SW¼NW¼ Sec. 28, T. 21 N., R. 22E.W.M.

Place of Use

As described on Page 1 of this Investigator's Report as "Proposed".

Report Writer *Date* 6/11/14

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.