WASHINGTON STATE DEPARTMENT OF ECOLOGY

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

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

Applicant: Public Utility District No. 2 of Grant County

Application Number: GRAN-11-17

This record of decision was made by a majority of the board at an open public meeting of the Grant County Water Conservancy Board held on November 23, 2011. The undersigned board commissioners certify that they each understand the board is responsible "to ensure that all relevant issues identified during its evaluation of the application, or which are raised by any commenting party during the board's evaluation process, are thoroughly evaluated and discussed in the board's deliberations. These discussions must be fully documented in the report of examination." [WAC 173-153-130(5)] The undersigned therefore, certifies that each commissioner, having reviewed the report of examination, knows and understands the content of the report.

☐ **Approval:** The Grant County Water Conservancy Board hereby **grants** conditional approval for the water right transfer described and conditioned within the report of examination on December 22, 2011 and submits this record of decision and report of examination to the Department of Ecology for final review.

☐ **Denial:** The Grant County Water Conservancy Board hereby **denies** conditional approval for the water right transfer as described within the report of examination on December 22, 2011 and submits this record of decision to the Department of Ecology for final review.

Signed:

W Ron Baker
Ron Baker, Chair
Grant County Water Conservancy Board
Date: 12/22/2011

Approve	☒
Deny	☐
Abstain	☐
Recuse	☐
Other _____	☐

M Keith Ellis
Keith Ellis, Commissioner
Grant County Water Conservancy Board
Date: 12-22-11

Approve	☒
Deny	☐
Abstain	☐
Recuse	☐
Other _____	☐

_____
David Stevens, Commissioner
Grant County Water Conservancy Board
Date: _____

Approve	☐
Deny	☐
Abstain	☐
Recuse	☐
Other _____	☐

K Enns
Ken Enns, Alternate
Grant County Water Conservancy Board
Date: 12-22-2011

Approve	☒
Deny	☐
Abstain	☐
Recuse	☐
Other _____	☐

Mailed with all related documents to the Dept of Ecology Eastern Regional Office, and other interested parties on _____.

If you have special accommodation needs or require this form in alternate format, please contact 360-407-6607 (Voice) or 711 (TTY) or 1-800-833-6388 (TTY).

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WASHINGTON STATE DEPARTMENT OF ECOLOGY

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

RECEIVED
DEC 27 2011
DEPARTMENT OF ECOLOGY
EASTERN REGIONAL OFFICE

Report of Examination

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

☒ Surface Water ☐ Ground Water

DATE APPLICATION RECEIVED	WATER RIGHT DOCUMENT NUMBER (i.e., claim, permit, certificate, etc.)	WATER RIGHT PRIORITY DATE	BOARD-ASSIGNED CHANGE APPLICATION NUMBER
August 11, 2011	S3-00465C	April 15, 1970	GRAN-11-17

NAME
Public Utility District No. 2 of Grant County

ADDRESS (STREET)	(CITY)	(STATE)	(ZIP CODE)
P.O. Box 878	Ephrata	WA	98823

Changes Proposed: ☒ Change purpose ☐ Add purpose ☐ Add irrigated acres ☐ Change point of diversion/withdrawal ☒ Add point of diversion/withdrawal ☒ Change place of use ☐ Other (Temporary, Trust, Interties, etc.)_____

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

BACKGROUND AND DECISION SUMMARY

Existing Right (Tentative Determination)

MAXIMUM CUB FT/ SECOND	MAXIMUM GAL/MINUTE	MAXIMUM ACRE-FT/YR	TYPE OF USE, PERIOD OF USE
0.02	9	5	Domestic Supply – Year round

SOURCE	TRIBUTARY OF (IF SURFACE WATER)
Powerhouse Well *(recognizing de facto change) Consistent with Water Resources Program Policy 1120, a de facto change is one where changes to historic uses associated with water rights have been made in the diversion or use of water without first obtaining authorization for the changes pursuant to chapters 90.03 and 90.44 RCW.*	

AT A POINT LOCATED: PARCEL NO.	¼	¼	SECTION	TOWNSHIP N.	RANGE	WRIA	COUNTY.
554833			17	16N	23E	40	Kittitas

LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS USED
Government Lots 3, 6, and 7 of Section 17, T. 16 N., R. 23 E., W.M.

PARCEL NO.	¼	¼	SECTION	TOWNSHIP N.	RANGE,
NA			17	16N	23E

Proposed Use

MAXIMUM CUB FT/ SECOND	MAXIMUM GAL/MINUTE	MAXIMUM ACRE-FT/YR	TYPE OF USE, PERIOD OF USE
0.02	9	5	Municipal Water Supply Purposes – Year round

SOURCE	TRIBUTARY OF (IF SURFACE WATER)
Maintenance Center Well Powerhouse Well Wanapum Village Well No.1 Wanapum Village Well No.2 Wanapum Village Well No.3 Switchyard Well Right Bank Well Maintenance Center Additional Well	

AT A POINT LOCATED: PARCEL NO.	¼	¼	SECTION	TOWNSHIP N.	RANGE	WRIA	COUNTY.
150254000	SW	NW	16	16N	23E	41	Grant
554833			17	16N	23E	40	Kittitas
150261000	NW	SE	21	16N	23E	41	Grant
150260000	NE	SE	21	16N	23E	41	Grant
150260000	NE	SE	21	16N	23E	41	Grant
150253000	SE	NE	16	16N	23E	41	Grant
554833			17	16N	23E	40	Kittitas
150254000			16	16N	23E	41	Grant

LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS TO BE USED

See Attachments A and B.

PARCEL NO.	¼	¼	SECTION	TOWNSHIP N.	RANGE,
multiple			within 15, 16, 17, 20 and 21	16N	23E

Board's Decision on the Application

MAXIMUM CUB FT/ SECOND	MAXIMUM GAL/MINUTE	MAXIMUM ACRE-FT/YR	TYPE OF USE, PERIOD OF USE
0.02	9	5	Municipal Water Supply Purposes – Year round

SOURCE	TRIBUTARY OF (IF SURFACE WATER)
Wells – Including the Maintenance Center Well, Powerhouse Well, Wanapum Village Well No.1, Wanapum Village Well No.2, Wanapum Village Well No.3, Switchyard Well, Right Bank Well, and Maintenance Center Additional Well located within the area described below	

AT A POINT LOCATED: PARCEL NO.	¼	¼	SECTION	TOWNSHIP N.	RANGE	WRIA	COUNTY.
150254000,		S ¾	16	16N	23E	41	Grant
150261000,			17	16N	23E	40 and 41	Grant and Kittitas
150260000,		N ¾	21	16N	23E	41	Grant
150253000, and 554833							

LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS TO BE USED AS APPROVED BY THE BOARD

The place of use (POU) of this water right is shown on the map in Attachment A. The metes and bounds description provided in Attachment B is intended to match the boundary as depicted on the map in Attachment A. All dimensions were taken from surveyed or identified boundaries on the Priest Rapids Project 1955 FERC License No. 2114; Priest Rapids Exhibit K Sheets 14 and 15 and Wanapum Exhibit K sheets 1 and 2.

RCW 90.03.386 may have the effect of revising the place of use of this water right if criteria in section RCW 90.03.386(2) are met.

PARCEL NO.	¼	¼	SECTION	TOWNSHIP N.	RANGE,
multiple			within 15, 16, 17, 20, and 21	16N	23E

DESCRIPTION OF PROPOSED WORKS

The Wanapum Dam Water Systems will consist of one or two (one on each side of the river) distribution systems. Each system will have one or more wells, storage facilities, and water treatment facilities as necessary.

DEVELOPMENT SCHEDULE

BEGIN PROJECT BY THIS DATE:	COMPLETE PROJECT BY THIS DATE:	COMPLETE CHANGE AND PUT WATER TO FULL USE BY THIS DATE:
N/A	N/A	N/A*

* Since this water right is for municipal water supply purposes according to RCW 90.03.015 and is a water right in good standing according to RCW 90.03.330, a superseding certificate for the entire instantaneous and annual quantity shall be issued after completion of the appeal period for this report of examination.

REPORT

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

On August 11, 2011, Public Utility District No. 2 of Grant County (Grant PUD) of Ephrata, Washington filed an application for change from surface water to groundwater to add additional points of withdrawal, change the place of use, and change the purpose of use under surface water certificate S3-00465C. The application was accepted at an open public meeting on August 25, 2011, and the Board assigned application number GRAN-11-17.

Attributes of the water right as currently documented

Name on certificate, claim, permit: Public Utility District of Grant County

Water right document number: S3-00465C (Certificate of Water Right)

Priority date, first use: April 15, 1970

Water quantities: Qi: 0.02 cubic-feet per second (cfs) Qa: 5 acre- feet per year (afy)

Source: Columbia River (Wanapum Pool)

Point of diversion/withdrawal: Center of Section 17, Township 16 North, Range 23 East, W.M.

Purpose of use: Domestic Supply

Period of use: Year round

Place of use: Government Lots 3, 6, and 7 of Section 17, T. 16 N., R. 23 E., W.M.

Existing provisions:

Certificate – The right to use of the water aforesaid herby confirmed is restricted to the lands or place of use herein described, expect as provided in RCW 90.03.380 and 90.03.390.

Certificate – This certificate of surface water right is specifically subject to relinquishment for nonuse of water as provided in RCW 90.14.180.

Permit and ROE – The entire opening of the diversion intake shall be tightly screened at all times with wire mesh having openings with dimensions not greater than 0.125 (⅛) inch.

Permit and ROE – Nothing in this permit shall be construed as excusing the permittee from compliance with any applicable federal, state, or local statutes, ordinances, or regulations including those administered by local agencies under the Shoreline Management Act of 1971.

Water Right Document History

On April 15, 1970, Grant PUD applied to the Department of Water Resources for a surface water right to appropriate 0.02 cfs and 10 afy from a surface water diversion from the Columbia River for continuous domestic supply for the potable water system in the Wanapum Dam powerhouse and Tour Center and irrigation of a landscaped area of 0.25 acres. The water right application was assigned number 22135.

On February 7, 1973, an ROE was issued to Grant PUD, et al. The ROE approved diversion of 0.02 cfs and 5 afy for year-round domestic supply. The ROE indicates that the water is intended to be used for the visitor's center. The ROE indicates that irrigation as a use has been deleted as domestic supply includes an allowance for up to 0.5 acres of irrigation.

On April 12, 1973, Surface Water Permit 10053 was issued to the Grant PUD, et al. The permit granted diversion of 0.02 cfs and 5 afy for year-round domestic supply.

On May 30, 1973, C.E. Bagnall signed a Proof of Appropriation (PA) form. He attested to an actual measured discharge of permanent system of 10 gpm. Other attributes attested to were consistent with the quantities listed on the permit.

On June 8, 1973, Ecology issued Surface Water Certificate S3-00465C to Grant PUD containing the attributes documented in the preceding section.

Tentative determination of the water right

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

History of water use

The Wanapum Powerhouse Water System is a Group A water system (Water System I.D. No. 29080P) supplied by the Wanapum Powerhouse Well (Unique Well I.D. ABR-740), located inside the Wanapum Powerhouse Fish Ladder Pump Room. The Powerhouse Well is 185 feet deep measured from the top of the rear portion of the dam.

This well supplies potable water to support the operation and maintenance of the Wanapum Dam Powerhouse plant, operations office/control room, administrative offices, plant personnel and the museum / tour center which is situated outside the powerhouse plant.

As a back up supply to the surface water intake, the Powerhouse Well is also used for lubricating the Wanapum Dam turbine shaft seals. This surface water use is ancillary to the surface water right for power generation under Certificate S3-01613C for 188,350 cfs. To cover this use of groundwater from the Powerhouse Well, Grant PUD has filed a separate new water right application with Ecology (G4-33040) for a new non-consumptive water right for this municipal use of ground water.

Originally, water was diverted from the Columbia River on the upstream side of the dam (Wanapum Pool) for the domestic supply. In February 1973, the Powerhouse well was drilled and shortly thereafter it replaced the surface water diversion and the source of the domestic water supply. Recently, both the domestic and turbine shaft seal portions have been metered to be able to determine how much water was going to each use.

Table 1 summarizes yearly water withdrawal for the domestic portion based on metering at the well.

Table 1
Wanapum Powerhouse Well Yearly Domestic Withdrawal Summary

Powerhouse Domestic	Withdrawal (gallons)	Withdrawal (acre-feet)	Certificate (acre-feet)
2007	4,914,202	15.08	5
2008	2,112,265	6.48	5
2009	3,273,871	10.05	5
2010	2,605,462	8.00	5

Previous changes

None.

SEPA

All water right change applications associated with the proposed water system upgrade were considered to be one project. The Board is currently processing four change applications for water rights associated with the Wanapum Dam Facility (See **Table 2**). The total cumulative instantaneous rate of all of the water rights associated with these changes is 529 gpm. This rate is less than the 2,250 gpm threshold identified in WAC 197-11-800(4) as being the limit of the categorical exemption for groundwater rights.

Table 2
Wanapum Comprehensive Water System Water Rights

Water Right Number	Source	Purpose of Use	Qi (gpm)	Qa (afy)	Season of Use
S3-00465C	Powerhouse Well [1]	Domestic	9	5 [2]	Year round
GWC 3784	Wanapum Village Wells	Municipal	300	203	Year round
GWC 4710	Switchyard Well	Municipal	120	192	Year round
GWC 4848	Maintenance Center Well	Municipal	100	160	Year round
		Total Year round	*529*	*560*	

[1] Not a currently approved point of withdrawal on the water right certificate.
[2] Tentative determination of extent and validity of water right based on highest annual use in continuous five year period of lowest use.
Qi = Water right instantaneous rate
Qa = Water right annual volume
Qi and Qa for municipal water rights are the certificated values.
gpm = gallons per minute
afy = acre-feet per year

Therefore, all of the change applications associated with the Wanapum Dam Water System are categorically exempt from requiring a SEPA threshold determination.

The information or conclusions in this section were authored and/or developed by Mr. Andrew B. Dunn, L.G., L.HG. (RH2 Engineering, Inc.) – Consultant for Public Utility District No. 2 of Grant County.

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

Public notice of the application was given in the *Grant County Journal* and *Ellensburg Daily Record* on September 15th and 22nd, 2011. Protest period ended on October 23, 2011.

Email notification, with a scan of the water right change application attached, was provided on September 8, 2011, to the Department of Fish and Wildlife, Eastern Washington Council of Governments, and Washington State Department of Archaeology and Historic Preservation. Mr. Steve Boessow from WDFW submitted an email to the Grant County Water

Conservancy Board on September 13, 2011, that stated, "My initial review indicates that WDFW was party to the relicensing agreements and that these water right changes reflect our agreements." No other comments were received.

Email notification, with a scan of the water right change application attached, was provided on September 13, 2011, to the Grant County Commissioners and also to the Kittitas County Commissioners. This notification complied with the requirements set forth in RCW 90.03.380(10). No comments were received.

Since this change application involves points of withdrawal and a proposed place of use that spans two counties (Grant and Kittitas),) two public hearings were held. One took place at 10 a.m. on October 27, 2011, at the Grant County Conservancy Board Office, Grant County, Washington, and the second took place at 12:30 p.m. on October 27, 2011, at the Golden Harvest Restaurant, Vantage, Kittitas County, Washington. No oral and written comments were received at either hearing. The hearing date, time, and location were advertised in the *Grant County Journal* and the *Ellensburg Daily Record* on October 17, 2011.

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

The information or conclusions in this section were authored and/or developed by Mr. Andrew B. Dunn, L.G., L.HG. (RH2 Engineering, Inc.) – Consultant for Public Utility District No. 2 of Grant County.

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

On October 27, 2011, a site inspection conducted by Mr. Ron Baker (chair), Mr. Keith Ellis (commissioner) and Mr. Ken Enns, PE (alternate) with Messrs. Cliff Sears (Grant PUD) and Roger Durkee, Water System Operator for Grant PUD. Based on the site investigation, including a review of technical reports, research of department records, and conversations with the applicant and/or other interested parties, the Grant County Water Conservancy Board (Board) verified the source, withdrawal facilities and place of use of this water right. Additionally, the following information was obtained.

The use of water under this water right qualifies as being a governmental or governmental proprietary purpose and a public utility district is one of the exclusive governmental entities that can quality. A similar right held by Grant PUD at Priest Rapids Dam was recently conformed to be for municipal water supply purposes by Ecology (G3-01591C).

Proposed project plans and specifications

Grant PUD gained Washington Department of Health (DOH) approval for their Wanapum Water Systems Comprehensive Plan (WWSCP) on January 25, 2010. The change applications filed for the Wanapum water rights will allow Grant PUD to correct issues of water right non-compliance, while positioning them to be able to handle expansion of water use through at least 2028 as described in the water system plan.

The WWSCP contemplates increased use in response to anticipated modification and expansion of facilities that are underway or anticipated to meet Grant PUD's FERC license requirements. These modifications will accommodate expanded Wanapum Maintenance Center facilities, additional staff and contractor personnel, additional recreational uses, fish ladder improvements, operation of a fish-bypass, and new turbines and generators among several other projects over the 44 year term of Grant PUD's FERC license. The WWSCP provides for the eventual physical connections of the Powerhouse, Village, Switchyard, and Maintenance Center water systems.

The WWSCP projects will increase water use over the 20 year planning period ending in 2028. However, the growth rate is difficult to determine and is likely to be uneven as it has in the past. All water use is confined to Grant PUD facilities on land owned by Grant PUD. At the end of the current FERC license term, a subsequent FERC license is anticipated with additional requirements that could exhaust any remaining inchoate supply. The WWSCP further demonstrates Grant PUD's good faith and due diligence in exercising its water rights. In addition to conservation measures and more efficient utilization of the water resource, Grant PUD's plans in the WWSCP to upgrade its water system infrastructure will support additional facilities for maintenance and operations, increased hydropower generation, recreation and other obligations under Grant PUD's FERC license. Additionally, Grant PUD has no plans to market any portion of its inchoate rights elsewhere.

Under RCW 90.03.386(2) the place of use of a municipal water right automatically becomes the service area as approved by the (DOH) in an approved planning or engineering document. The change to the place of use requested through this change application is a slight modification of the service area as approved by DOH in their approval of the January 25, 2010, WWSCP. The modification does not change the projected growth of the system, but is related to aligning the service area boundaries with surveyed legal descriptions contained in the Priest Rapids project 1955 Federal Energy Regulatory Commission (FERC) License No. 2114; Exhibit K Sheets. Grant PUD intends to submit this refined service area for DOH approval at the time of their next water system plan update.

Other water rights appurtenant to the property

All water rights appurtenant to the proposed place of use are owned by Grant PUD. These water rights can be divided into rights that are used for hydropower production and the municipal water system. **Table 3** contains information on each water right document.

Table 3
Water Rights Appurtenant to the Proposed Place of Use

Water Right	Priority Date	Qi (cfs)	Qi (gpm)	Qa (afy)	Source	Purpose of Use
Groundwater						
GWC 3784	5/26/1960		300	203	Wanapum Village Wells 2 and 3	Municipal
GWC 4710	5/17/1963		120	192	Switchyard Well	Municipal
GWC 4848	5/17/1963		100	160	Maintenance Center Well	Municipal
Surface Water						
S3-00465C	4/15/1970	0.02		5	Columbia River (Wanapum Pool)	Domestic
S3-01613C	11/28/1955	188,350		NA	Columbia River	Hydropower
Reservoir				Acre-feet Storage		
R3-01615C	11/28/1955			541,000	Columbia River	Hydropower

GWC 920-D place of use is within the proposed service area. This water right was issued prior to construction of Wanapum Dam and was issued for irrigation. No irrigation is currently occurring under this water right and the water right likely relinquished due to non-use or it has been abandoned. For this reason is was not included in the table above.

Public Interest

The proposed change / transfer is subject to RCW 90.44.100 and therefore, cannot be detrimental to the public interest, including impacts on any watershed planning activities.

No watershed planning groups have been formed under RCW 90.82 (Watershed Planning Act) for either WRIA 40 (Alkali-Squilchuck) or WRIA 41 (Lower Crab). Therefore, there are no watershed plans for these regions that can be considered.

These change applications will allow Grant PUD to be able to meet requirements of their FERC License No. 2114 which will include, among other things;

1. Fish ladder improvements, operation of the fish-bypass, and new power transformers, turbines and generators among several other projects.
2. Expanded recreational uses within the Wanapum Dam area.
3. Additional maintenance facilities and office space to accommodate additional staff to support recreation, fish and wildlife, and facility construction and maintenance operations.
4. Upgrading of infrastructure associated with the water and wastewater systems.

Purpose of Use

The application requests to change the purpose of use from domestic use to municipal water supply purposes. Grant PUD is a municipal water supplier as defined under RCW 90.03.015(3). Grant PUD is a qualifying governmental entity that can hold water rights for governmental or governmental proprietary purposes under RCW 90.03.015(4)(b). Ecology Water Resources Program Policy 2030 states that,

> "If a municipal water supplier holds or acquires a water right not for municipal water supply purposes, the purpose of use may be changed to municipal water supply purposes under RCW 90.03.380. The statutory tests for a change must be satisfied. Also, the beneficial use following the change must meet a definition in this section. Changes under RCW 90.03.380 require a tentative determination of the extent and validity of the water right proposed for transfer or change."

The proposed use of water after the requested change is for governmental and governmental proprietary purposes by Grant PUD. Therefore, the purpose of use can be changed to municipal water supply purposes.

Tentative Determination

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

Since 2007, the domestic use from the Powerhouse Well has been metered separately, so it is possible to account for the volume of water used for this purpose. The maximum instantaneous pumping rate of the well, which is being used for domestic plus turbine shaft seal lubrication, is 200 gpm, which is higher than the 9 gpm rate identified on the water right certificate. While it is not possible to separate the instantaneous rate pumped for the two uses, it is reasonable to conclude that the domestic use could be up to 9 gpm.

Table 1 shows that the domestic use has exceeded the certificate limit of 5 afy for at least each of the past four years. Based on the metering data collected, it is clear that this water right has been fully perfected (9 gpm and 5 afy) since the actual use from both an instantaneous and annual basis has exceeded the indicated rates on the water right certificate.

Grant PUD has been using the well as a *de facto* source (a change in point of diversion/withdrawal made without prior authorization) located within the same legal description as the surface water intake. Under these circumstances, we recognize the use of water under S3-00465C based on Water Resources Program Policy 1120 which states, "*When evaluating unauthorized changes to water rights, the department generally considers beneficial use to be the measure of the right, even if some attributes of the right may not be consistent with the current authorization.*" Therefore, this right can be changed at the full face value of the certificate (0.02 cfs and 5 afy).

Geologic, Hydrogeologic, or other scientific investigations

Same Body of Public Groundwater

The information contained here is a summary of the document titled, 'Hydrogeologic Evaluation of the Hydraulic Connection between Grant PUD Wanapum Facility Wells and the Columbia River,' (RH2, 2011).

Wanapum Dam is located at river mile 415.8 on the Columbia River. Construction began in July 1959 and power generation began in July 1963. The normal pool operating range of Wanapum Pool, upstream from the dam, ranges from approximately 560 to 571.5 feet in elevation (all elevations in this document are in NAVD88). The tailwater elevation, immediately downstream of the dam, ranges from approximately 492 to 500 feet. Almost immediately downstream from the dam the Columbia River enters the Priest Rapids Pool, impounded behind Priest Rapids Dam.

Water levels in the Wanapum and Priest Rapids Pools fluctuate annually, seasonally, and daily according to Columbia River flow and power production. Headwater (pool) levels are governed by the FERC license for the project.

Prior to 1956, the Columbia River flowed freely past the current sites of Wanapum Dam, Priest Rapids Dam, and Crescent Bar. Construction of the dams and the resulting rise of reservoirs behind the dams raised the level of the Columbia River from Priest Rapids Dam (river mile 397) upstream to Rock Island Dam (river mile 453), effectively raising the groundwater elevation in adjacent aquifers and affecting local groundwater flow directions near the river.

Groundwater levels in adjacent unconsolidated and basalt aquifers along much of the Columbia River generally respond to changes in river levels. The response of groundwater levels in the aquifers to changes in river levels may be time-lagged or dampened due to the attenuation of hydrostatic pressure within the complex network of interconnected flow zones and fractures. The time lag and attenuation generally increases with distance from the river.

Hydrogeology

The geologic units in the vicinity of the Wanapum Dam are comprised of layers of alluvial and flood-derived sand and gravel along and beneath the Columbia River to depths of at least 218 feet; regionally extensive basalt layers; and minor sedimentary interbeds extending several thousand feet below the Columbia River. Groundwater resides in the pore spaces of the unconsolidated alluvium/flood gravels and in the fractures and pore spaces in the basalt layers. Permeable zones within the basalt that developed between lava flows generally contain substantial volumes of water.

Well Completion and Water Level Data

All wells currently authorized under water rights GWC 3784 (Wanapum Village Wells No. 2 and 3), GWC 4710 (Switchyard), GWC 4848 (Maintenance Center), as well as Wanapum Village Well No. 1, the Powerhouse Well, and the Right Bank Well are completed in basalt bedrock or overlying unconsolidated sediments. The greatest distance between any of the wells is 1.75 miles. The wells are located less than 0.8 miles from the Columbia River. Surface water right S3-00465C for domestic supply of the Powerhouse originally diverted water directly from the Wanapum Pool.

Groundwater elevations at all seven of the wells are between the elevation of the Wanapum Pool (approximately 560 to 571.5 feet elevation) and Priest Rapids Pool (approximately 481.5 to 488 feet elevation).

The Wanapum Maintenance Center Well is located approximately 1,500 feet east of the Priest Rapids Pool shoreline and was drilled in 1963 under water right GWC 4848. The well was drilled to a total depth of 73 feet below ground surface (elevation 538.96 feet). The boring penetrated 73 feet of gravel before reaching basalt bedrock. The well has a 12-inch diameter casing. The well was screened in a sand and gravel aquifer at a depth of from 63 to 68 feet (elevation 471 to 476 feet). The water level at the time of drilling was 36 feet below ground surface. Depth to groundwater in the well, measured from March to May 2008, was approximately 38 feet (elevation 502 feet), which is between the Wanapum and Priest Rapid Pool levels (571.5 feet to 481.5 feet respectively). Groundwater levels measured in 2008 responded to fluctuations in the Wanapum Dam tailwater levels. The Maintenance Center Well has substantial capacity to yield groundwater; at the time of drilling, the well yielded 400 gpm for 5 hours with a drawdown of 1.5 feet.

Grant PUD proposes to add an additional Maintenance Center Well with the new well located south of the maintenance center park in Section 16, Township 16 North, Range 23 East, W.M. It is anticipated that this well will be completed at a similar elevation as the Maintenance Center Well and likely will encounter geologic and hydrogeologic conditions similar to that of the Maintenance Center Well due to its proximity to that well and to the Columbia River.

Wanapum Village Well No. 1 is located approximately 2,800 feet east of Priest Rapids Pool shoreline and was drilled in 1960 under water right GWC 3784. The well was drilled to a depth of 218 feet below ground surface (elevation 535.54 feet). The well was completed with a 12-inch casing from ground surface to 218 feet and was perforated at a depth of 175 to 216 feet (elevation 320 to 361 feet) within a sand and gravel aquifer. At the time of drilling, the depth to water in the well was 57 feet (elevation 479 feet). Groundwater in the well measured from January to May 2008, was at a depth of 41 feet (elevation 495 feet), approximately 16 feet higher than in 1960. Water level fluctuations in this well mimic the water levels observed at the Wanapum Dam tailwater. The well has substantial capacity to yield groundwater; at the time of drilling, the well yielded 375 gpm for 24 hours with 10 feet of drawdown.

Wanapum Village Well No. 2 is located approximately 4,100 feet east of the Priest Rapids Pool shoreline and was drilled in 1965 under water right GWC 3784. The well was drilled to a depth of 173 feet below ground surface (elevation 546.29 feet).

The boring penetrated 91 feet of sand, gravel, and broken basalt before reaching basalt bedrock. The well was completed with a 12-inch casing from ground surface to 93 feet and a 10-inch casing from ground surface to 160 feet. The well was completed as an open hole from a depth of 160 to 173 feet (elevation 373 to 386 feet) within the basalt aquifer. At the time of drilling, the depth to water in the well was reportedly 10 feet (elevation 536 feet). The well is currently under artesian pressure indicating a rise of at least 10 feet since the dam's completion. The well lacks access for pressure gauge monitoring. The well has moderate capacity to yield groundwater; at the time of drilling, the well yielded 200 gpm for 4 hours with a drawdown of 110 feet.

Wanapum Village Well No. 3 is located approximately 4,000 feet east of the Priest Rapids Pool shoreline and was drilled in 1986 under water right GWC 3784. The well was drilled to a depth of 355 feet below ground surface (elevation 540.11 feet). The boring penetrated approximately 100 feet of sand, gravel, and broken basalt before reaching basalt bedrock. The well is completed with 16-inch casing from ground surface to 121 feet and as an open hole from a depth of 121 to 355 feet (elevation 185 to 419 feet) within the basalt aquifer. At the time of drilling, the depth to water was 21 feet (elevation 520 feet). This elevation is apparently a transient condition, as the elevation subsequently rose after well completion. During May 2008, pressure gauge data at the well recorded an average pressure of 9 psi (21 feet of water). The artesian pressure indicates a water level elevation of 562 feet, which is between the Wanapum and Priest Rapids Pool elevations (488 to 571.5 feet). Fluctuations in groundwater levels measured in April and May of 2008 are similar to those observed in the Wanapum Village Well No. 1, which responded to fluctuations in the tailwater levels. The data also clearly show that Wanapum Village Well No. 2 causes interference drawdown in Wanapum Village Well No. 3. This well has substantial capacity to yield groundwater; at the time of drilling, the well yielded 350 to 500 gpm for 8 hours with a drawdown of 10 feet.

The Switchyard Well is located approximately 3,700 feet east of the Wanapum Pool shoreline and was drilled in 1963 under water right GWC 4710. The well was drilled to a total depth of 592 feet below ground surface (elevation 895.96 feet). The boring penetrated 14 feet of gravel and boulders before reaching basalt bedrock. The well is reportedly completed with a 15-inch or 12-inch casing from ground surface to 16 feet, a 10-inch casing from ground surface to 292 feet, and an 8-inch casing from ground surface to 592 feet. The well log does not report any screen or perforations. Typically, wells drilled in basalt have casing near the surface and are completed as open hole at depth to allow the maximum communication with the aquifer. This well was either completed differently than typical, or the well log does not accurately describe how the well was completed. The 513-foot static water level reported on the well log in 1963 is actually the static water level elevation (depth to water of approximately 383 feet below ground surface). Aquifer testing and pump installation documentation confirm that the depth to water in the well when drilled was approximately 383 feet. This static water level is between the elevation of the Wanapum Pool and tailwater (571.5 to 492 feet). Although this well has not been monitored to compare groundwater fluctuations with pool or tailwater fluctuations, the depth to the static water level is consistent with the static water levels of the other wells within the Wanapum water system plan that have demonstrated hydraulic connection to the Columbia River. The Switchyard Well has substantial capacity to yield groundwater; at the time of drilling, the well yielded 330 gpm with 0 feet of drawdown after 10 hours of pumping. The Powerhouse Well is located on the Wanapum Dam in the middle of the Columbia River and was drilled in 1973 to provide a source of domestic water for the powerhouse facility and also to provide industrial water for the turbine shaft seals. The well was drilled to a total depth of 185 feet below the top of the rear portion of the dam (elevation 529.5 feet). The boring log notes that the location of the wellhead is 43 feet below the top of the rear portion of the dam. The boring penetrated 41 feet of cement (dam) before continuing into the underlying basalt. Water-bearing basalt layers were noted from approximately 105 to 175 feet (elevation 355 to 425 feet). The static water level elevation was approximately 531 feet at the completion of drilling. This static water level is between the elevation of the Wanapum Pool and tailwater (571.5 to 492 feet). This well has not been monitored to compare groundwater fluctuations with pool or tailwater fluctuations. The well yielded 200 gpm based on an air test and flowed at 25 to 30 gpm at the top of the rear portion of the dam. The current wellhead is located at approximately elevation 488.5 feet.

The Right Bank Well is located less than 200 feet from the Wanapum Pool and tailwater shoreline and was drilled in 1998 to provide a source of water to restrooms on the right bank of the dam. The well was drilled to a total depth of 180 feet below ground surface (approximately elevation 520 feet). The boring penetrated 125 feet of rip rap, cobbles, gravel, and sand, a 25-foot green clay layer and encountered basalt bedrock at a depth of 150 feet. The well is completed with a 6-inch casing installed to a depth of 155 feet and as an open hole from a depth of 155 to 180 feet (elevation 340 to 365 feet) within the basalt aquifer. At the time of drilling the static water level was at ground surface (elevation 520 feet). This static water level is between the elevation of the Wanapum Pool and tailwater (571.5 to 492 feet). This well has not been monitored to compare groundwater fluctuations with pool or tailwater fluctuations. The well yielded 50 gpm with 2 feet of drawdown after 4 hours of pumping.

Impairment considerations

Multiple sources of information were reviewed to identify the location of nearby wells for purposes of determining what impact there might be to those wells from the proposed changes.

Washington State Department of Ecology Water Resources Explorer:
https://fortress.wa.gov/ecy/waterresources/map/WaterResourcesExplorer.aspx (accessed on August 29, 2011)

This web page was reviewed to identify the location of any wells in the vicinity associated with water right documents, such as permits, certificates, and claims. The closest wells associated with water right documents are identified in **Table 4**.

Table 4
Groundwater Rights Near Wanapum Dam

Water Right Number	Name	Priority Date	Well Location	Qi (gpm)	Qa (afy)	Well Log Name
G3-28563	B&G Farms	10/26/1988	NE 1/4 NE 1/4, Sec. 28, T16N, R23E	375	164	Leon Nunnally, B&G Farms, Inc.
G3-26899C(A)	Pamalia L. Ray	3/16/1981	NW 1/4 SE 1/4, Sec. 22, T16N, R23E	80	30	Jerry Ray, Jerry and Pam Ray
G3-26612C	Nine Mile Creek, Inc.	11/30/1978	SW 1/4 SE 1/4, Sec. 22, T16N, R23E	350	106	Bobby Bise
G3-25399C	Indian Wells Orchard	5/26/1977	E 1/8, Sec. 27, T16N, R23E	5,000	1,575	Brown Bros.
G3-28091C	Indian Wells Orchard, a partnership	9/4/1985	E 1/4, Sec. 27, T16N, R23E	555	175	Brown Bros., Indian Wells Orchards
G3-153948CL	Kent B. Bauersfield	NL	NE 1/4 NW 1/4, Sec. 28, T16N, R23E	1.5	2.24	NL
G3-103639CL	Leon E. Nunnally	NL	E 1/4, Sec. 27, T16N, R23E	NL	NL	NL

Qi = Instantaneous water right limit
gpm = gallons per minute
Qa = Annual water right limit
afy = acre-feet per year
NL = Not listed

Washington State Department of Health Sentry Internet Homepage: https://fortress.wa.gov/doh/eh/portal/odw/si/Intro.aspx (accessed on August 29, 2011)

This web page was reviewed to identify the existence of any public water systems supplied by groundwater in the vicinity. This search identified no public water systems in the vicinity that are not owned by Grant PUD. The geographic area searched included Sections 8, 9, 10, 15, 16, 17, 18, 19, 20, 21, 22, 27, 28, 29, and 30 in Township 16 North, Range 23 East, W.M.

Washington State Department of Ecology Washington State Well Log Viewer: http://apps.ecy.wa.gov/welllog/index.asp (accessed on August 29, 2011)

This web page was reviewed to identify the existence and location of any permit exempt wells in the vicinity. The closest wells as identified by their well logs are shown in **Table 5**. Some of the well logs are associated with water right documents in the preceding table. Some of the well logs returned by the search appear to be mislocated since the legal description is land owned by the United States Government or Grant PUD. These wells were not included in the table.

Table 5
Well Logs for Wells near Wanapum Dam

Name	Well Location	Approximate Ground Surface Elevation (feet)	Top of Completion Depth (feet)	Approximate Top of Completion Elevation (feet)	Depth to Water (feet)	Approximate Water Level Elevation (feet)	Bedrock Completion? (Y/N)	Distance (feet)
Robert M. Steffes	NW 1/4 SW 1/4, Sec. 9, T16N, R23E	610	138	472	34	576	Y	1,975
Ray Ingram	SW 1/4 SW 1/4, Sec. 9, T16N, R23E	650	100	550	75	575	Y	780
Darrel Lopemann	SW 1/4 SW 1/4, Sec. 9, T16N, R23E	600	20	580	NL		Y	300
Bill Fulleton	NW 1/4 SW 1/4, Sec. 9, T16N, R23E	610	222	388	136	474	Y	2,275
Bill and Pat Lamphere	SW 1/4 NW 1/4, Sec. 9, T16N, R23E	620	222	398	85	535	Y	3,750
David R. Smith	SE 1/4 SE 1/4, Sec. 18, T16N, R23E	605	23	582	12	593	Y	4,300
Vic Jansen	NW 1/4 NE 1/4, Sec. 22, T16N, R23E	910	125	785	72	838	Y	3,415
Walt King Jr.	NE 1/4 NE 1/4, Sec. 22, T16N, R23E	945	320	625	277	668	Y	3,615
Bobby Bise (G3-26112C)	SE 1/4, Sec. 22, T16N, R23E	760	20	740	NL		Y	2,650
Brad Thayer	SW 1/4 SE 1/4, Sec. 22, T16N, R23E	830	20	810	177	653	Y	3,330
Jerry Ray (G3-26899C(A))	NW 1/4 SE 1/4, Sec. 22, T16N, R23E	935	296	639	275	660	Y	2,900
Jerry & Pam Ray (G3-26899C(A))	NW 1/4 SE 1/4, Sec. 22, T16N, R23E	935	240	695	224	711	Y	2,900
Soaring Eagle Orchards	SE 1/4 Sec. 27, T16N, R23E	600	40	560	44	556	Y	5,890
Joeann Pearson	SE 1/4 SE 1/4, Sec. 27, T16N, R23E	605	180	425	82	523	Y	5,320
Brown Bros. (G3-25399C & G3-28091C)	SE 1/4 SE 1/4, Sec. 27, T16N, R23E	730	100	630	0	730	NL	5,750
Forney Management Co. (Doug Merkle)	NE 1/4 SE 1/4, Sec. 27, T16N, R23E	605	142	463	13	592	Y	5,700
Leon Nunnally (G3-28563 original)	NE 1/4 NE 1/4, Sec. 28, T16N, R23E	530	182	348	NL		Y	15
B&G Farms Inc. (G3-28563 deepened)	NE 1/4 NE 1/4, Sec. 28, T16N, R23E	530	NL		9	521	Y	15
Antoine JarJour	NE 1/4 NW 1/4, Sec. 28, T16N, R23E	515	102	413	24	491	N	200

Approximate Ground Surface Elevation obtained from Google Earth ™
Distance = Approximate distance from well to nearest edge of point of withdrawal published legal description
NL = Not listed

Geographic extent searched:
Sections 8, 9, 10, 15, 16, 17, 18, 19, 20, 21, 22, 27, 28, 29, and 30, T16N, R23E, W.M.

As can be seen from the tables above, there are a number of groundwater rights and permit exempt wells in the vicinity of Wanapum Dam. **Table 5** shows that to the south the minimum distance to any well is approximately 15 feet as measured from the closest possible location Grant PUD could locate a well based on the public notice legal description. The closest well (B&G Farms G3-28563) is completed in basalt underlying the unconsolidated sediments near the Wanapum Tailwater/Priest Rapids Pool. The pool will provide recharge to the aquifer due to pumping and will reduce the areal extent of drawdown due to pumping of existing and future Grant PUD wells. **Table 5** shows that to the north the minimum distance to any well is approximately 300 feet as measured from the closest possible location Grant PUD could locate a well based on the public notice legal description. The closest well (Darrel Lopeman) is completed in basalt near the Wanapum Pool. The pool will provide recharge to the aquifer due to pumping and will reduce the areal extent of drawdown due to pumping of existing and future Grant PUD wells.

The current elevation of the aquifer tapped by the existing Grant PUD wells is from 510 to 185 feet.

Measured drawdown in the Maintenance Center well due to existing pumping conditions is approximately 1 foot and the water level quickly recovers back to static conditions (RH2, 2011). Measured drawdown in the Wanapum Village Well No.3 due to existing pumping conditions is on the order of 30 to 35 feet when the well is pumping, which occurs approximately once every day (RH2, 2011). Interference drawdown as measured in Wanapum Village Well No.3 due to Wanapum Village

Well No.2 pumping, located approximately 150 feet away, is approximately 10 feet. With greater distance the interference drawdown will be even less.

The information or conclusions in this section were authored and/or developed by Mr. Andrew B. Dunn, L.G., L.HG. (RH2 Engineering, Inc.) – Consultant for Public Utility District No. 2 of Grant County.

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

Tentative determination (validity and extent of the right)

This water right has been tentatively determined to be valid for the full instantaneous rate (0.02 cfs or 9 gpm) and annual volume (5 afy).

Relinquishment or abandonment concerns

There are no relinquishment or abandonment concerns associated with this water right.

Same body of public groundwater analysis

Hydrogeologic data related to the seven Wanapum wells indicate that the wells (and the additional Maintenance Center well location) are or will be completed in aquifers that are in hydraulic continuity with the Columbia River (including the original surface water diversion for the powerhouse under S3-00465C) and with each other, and therefore are within the same body of public groundwater. In summary:

1. All of the wells are completed in either the flood gravels/alluvium or in the basalt aquifer underlying or adjacent to the flood gravels/alluvium and Columbia River.
2. The groundwater level elevations in all wells are between the Wanapum Pool and Priest Rapids Pool elevations.
3. Wells drilled before construction of Wanapum Dam show significant water level increases attributable to the filling of the reservoir.
4. Groundwater levels as recorded in Wanapum Village Wells 1 and 3 and Maintenance Center respond to pool and/or tailwater level fluctuations demonstrating hydraulic connection with the Columbia River. Given the depth and location of the Switchyard Well, Wanapum Village Well No. 2, Right Bank Well, and Powerhouse Well, it is reasonable to infer a similar hydraulic connection exists in these other wells.
5. All wells are located within 0.8 miles of the Columbia River, and the two farthest wells are only 1.75 miles apart.
6. Prior reports of examination for change (to GWC 3784) have found that wells completed in both the unconsolidated and basalt aquifers were within the same body of public groundwater.
7. Surface to groundwater transfer for the Powerhouse water right (S3-00465C) should be allowed since the Columbia River is directly connected to the surrounding aquifers as demonstrated above.

Consideration of comments and protests

The only comment received was from WDFW and it indicated that the proposed changes reflect agreements reached during the relicensing process.

Impairment

Given the close proximity of neighboring wells to the published legal description of where points of withdrawal will be located and to prevent possible impairment we have decided to restrict the area suitable for location of additional or replacement wells under RCW 90.44.100(3) to the following area, which is less than the area described in the public notice.

S 3/4, Section 16, Township 16 North, Range 23 East, W.M.

Section 17, Township 16 North, Range 23 East, W.M.

N 3/4, Section 21, Township 16 North, Range 23 East, W.M.

This will be included as a provision.

Approval of this change application will not impair any existing water rights, including instream flows set in WAC, for the following reasons:

1. There is no increase in the total instantaneous (Qi) or annual (Qa) withdrawal beyond those rates identified in the tentative determination.
2. The large distance separating neighboring wells (both documented by a water right and permit exempt) and the existing and potential future Grant PUD wells under this water right, consistent with the point of withdrawal location identified above.
3. The ability for the Columbia River to act as a recharge boundary in response to pumping in the unconsolidated and shallow basalt aquifers. This relationship reduces the overall drawdown in the aquifer and preserves water levels near the current static conditions.
4. Drawdown as measured in the existing wells due to pumping of those wells is 35 feet or less. This minimal drawdown at the pumping well means that the drawdown at the nearest neighboring wells will be substantially less. There is sufficient available drawdown in the aquifer so that any slight interference drawdown would not be enough to cause impairment.
5. WAC 173-563-040(1) identifies Priest Rapids Dam as a control station for flow in this reach of the Columbia River. All of the proposed points of withdrawal are capturing groundwater that is flowing from the Wanapum Pool to the Priest

Rapids Pool downstream of the dam; both around the dam and beneath it. The discharge of the Columbia River past Priest Rapids Dam will not be reduced due to the requested change.

Public Interest

No detriment to the public welfare could be identified during the processing of this application.

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

The requested change from surface water to groundwater, change the place of use, and change to the purpose of use to surface water certificate S3-00465C has passed the statutory tests and is approved as requested for change / transfer at the rate of 0.02 cfs (9 gpm) and 5 afy for year round municipal water supply purposes. Based on these conclusions, this change request should be approved subject to existing rights and the below-indicated provisions and a superseding certificate should be issued following the appeal period.

Four water right change applications are being processed by the Board simultaneously related to the water rights associated with the Wanapum Water Systems (GWC 3784-A, GWC 4710-A, GWC 4848-A, and S3-00465C). The following table summarizes the attributes of the water rights after the change applications have all been processed.

Table 6 – Attributes of the Water Rights Associated with the Wanapum Water Systems (after the current change applications have been processed by the Grant County Conservancy Board)

Water Right Number	Points of Withdrawal Location	Purpose of Use	Qi (gpm)	Qa (afy)	Place of Use	Season of Use
GWC 3784	S 3/4 of Sec. 16; Sec. 17; N 3/4 Sec. 21, all in Township 16 North, Range 23 East, W.M.	Municipal Water Supply Purposes	300	203	See Attachments A and B	Year round
GWC 4710			120	192		
GWC 4848			100	160		
S3-00465C			9	5		
		Total	*529*	*560*		

Qi = Water right instantaneous rate
Qa = Water right annual volume
gpm = gallons per minute
afy = acre-feet per year

The information or conclusions in this section were authored and/or developed by Mr. Andrew B. Dunn, L.G., L.HG. (RH2 Engineering, Inc.) – Consultant for Public Utility District No. 2 of Grant County.

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

The following provisions are comprehensive with respect to this water right and either add to, replace, or modify provisions contained in previously issued documents.

Conditions and limitations

Any replacement or additional wells drilled under this water right must tap an aquifer that is hydraulically connected to the Columbia River.

Replacement or additional wells drilled under RCW 90.44.100(3) may only be located within the South 3/4 Section 16, or Section 17, or North 3/4 Section 21, all in Township 16 North, Range 23 East, W.M.

A water well report and document confirming compliance with RCW 90.44.100(3) shall be filed with Ecology for any additional or replacement well drilled within the point of withdrawal location identified in the preceding provision.

WELLS, WELL LOGS AND WELL CONSTRUCTION STANDARDS

Well Head Protection

In accordance with WAC 173-160, wells shall not be located within certain minimum distances of potential sources of contamination. These minimum distances shall comply with local health regulations, as appropriate. In general, wells shall be located at least 100 feet from sources of contamination. Wells shall not be located within 1,000 feet of the boundary of a solid waste landfill.

Well Construction Standard

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

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

Artesian Flow

Flowing wells shall be constructed and equipped with valves to ensure that the flow of water can be completely stopped when not in use. Likewise, the well shall be continuously maintained to prevent the waste of water through leaky casings, pipes, fittings, valves, or pumps – either above or below land surface.

Well Tag

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

Access Port

Required installation and maintenance of an access port as described in WAC 173-160- 291(3).

Advisory Water Level Measurements

In order to maintain a sustainable supply of water and ensure that your water source is not impaired by future withdrawals, static water levels should be measured and recorded monthly using a consistent methodology. Static water level is defined as the water level in a well when no pumping is occurring and the water level has fully recovered from previous pumping. Static water level data should include the following elements:

Unique Well ID Number

Measurement date and time

Measurement method (air line, electric tape, pressure transducer, etc.)

Measurement accuracy (to nearest foot, tenth of foot, etc.)

Description of the measuring point (top of casing, sounding tube, etc.)

Measuring point elevation above or below land surface to the nearest 0.1 foot

Land surface elevation at the well head to the nearest foot.

Static water level below measuring point to the nearest 0.1 foot.

MEASUREMENTS, MONITORING, METERING AND REPORTING

Meter Installation

An approved measuring device shall be installed and maintained for each of the sources authorized by this water right in accordance with the rule "Requirements for Measuring and Reporting Water Use", WAC 173-173. http://www.ecy.wa.gov/programs/wr/measuring/measuringhome.html

Record Weekly, Report Annual Totals

Water use data shall be recorded weekly and maintained by the water right holder. The maximum rate of diversion/withdrawal and the annual total volume shall be submitted to the Department of Ecology by January 31st of each calendar year. The first submittal shall be required after a full year of metering data has been recorded following final approval of this Report of Examination.

Electronic Reporting

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

Metering Rule Description and Petition Info

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

MUNICIPAL SUPPLY AND PUBLIC WATER SYSTEMS

Municipal Place of Use

If the criteria in RCW 90.03.386(2) are not met and a Water System Plan/Small Water System Management Program was approved after September 9, 2003, the place of use of this water right reverts to the service area described in that document. If the criteria in RCW 90.03.386(2) are not met and no Water System Plan/Small Water System Management Program has been approved after September 9, 2003, the place of use reverts to the last place of use described by the Department of Ecology in a water right authorization.

Health Approval Required

Prior to any new construction or alterations of a public water supply system, the State Board of Health rules require public water supply owners to obtain written approval from the Office of Drinking Water of the Washington State Department of Health. Please contact the Office of Drinking Water prior to beginning (or modifying) your project at DOH/Division of Environmental Health, 16201 E. Indiana Avenue, Suite 1500, Spokane Valley, WA 99216, (509) 329-2100.

SCHEDULE AND INSPECTIONS

Authority to Access Project

Department of Ecology personnel, upon presentation of proper credentials, shall have access at reasonable times, to the project location, and to inspect at reasonable times, records of water use, wells, diversions, measuring devices and associated distribution systems for compliance with water law.

GENERAL CONDITIONS:

Easement Right-of-way

The water source and/or water transmission facilities are not wholly located upon land owned by the water right holder. 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.

Senior Rights

This authorization to make use of public waters of the state is subject to existing rights, including any existing rights held by the United States for the benefit of Indians under treaty or otherwise.

Relinquishment

This water right is specifically subject to relinquishment for non-use of water as provided in Chapter 90.14 RCW, unless otherwise exempt or sufficient cause for non-use is established.

Place of Use

The right to use of the water aforesaid herby confirmed is restricted to the lands or place of use herein described, except as provided in RCW 90.03.380, 90.03.390, 90.44.100, and 90.03.386.

The information or conclusions in this section were authored and/or developed by Mr. Andrew B. Dunn, L.G., L.HG. (RH2 Engineering, Inc.) – Consultant for Public Utility District No. 2 of Grant County.

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

Signed at Moses Lake, Washington
This 22nd day of December, 2011

W Ron Baker

Ron Baker, Board Chair
Grant County Water Conservancy Board

If you have special accommodation needs or require this form in alternate format, please contact 360-407-6607 (Voice) or 711 (TTY) or 1-800-833-6388 (TTY).

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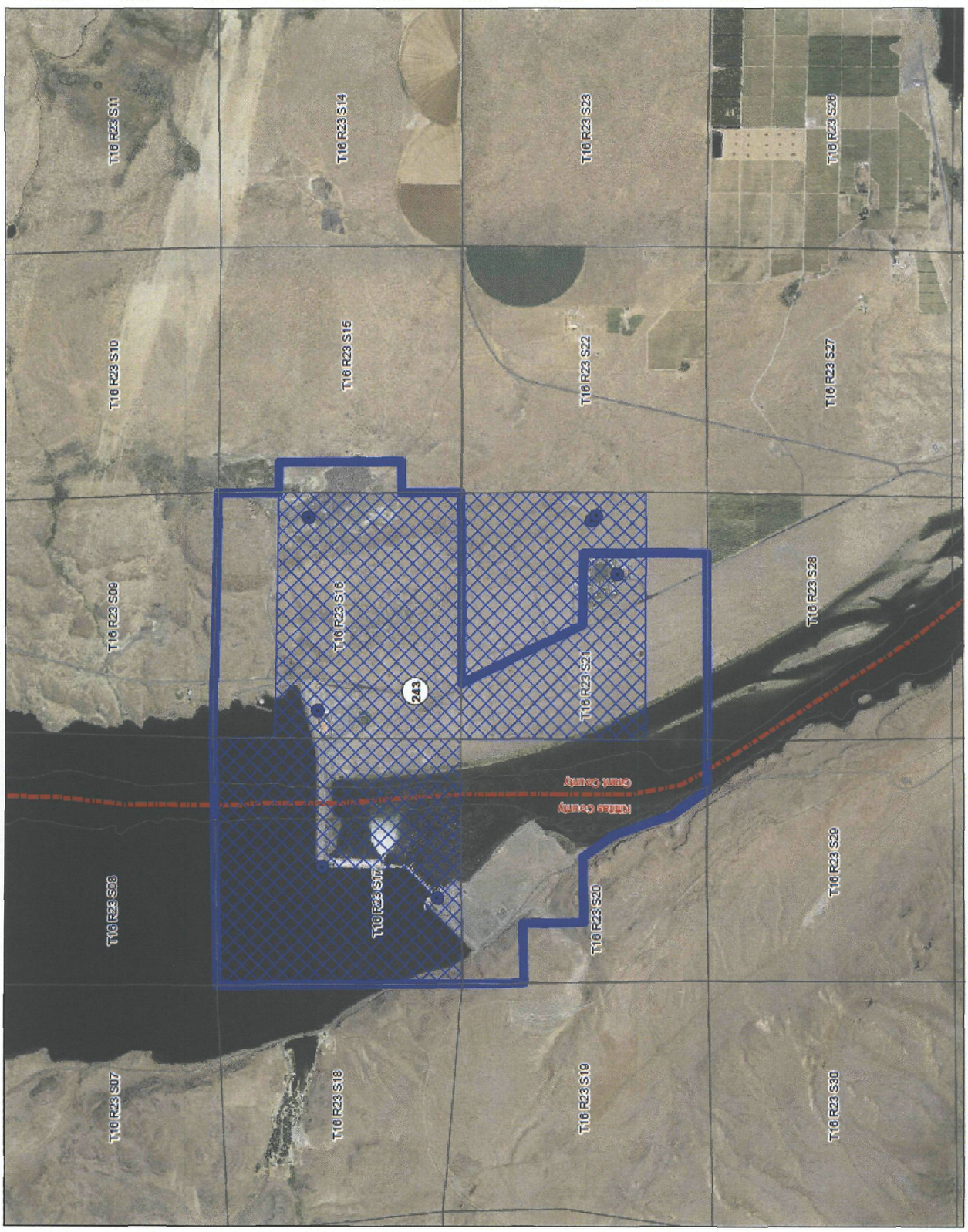
ATTACHMENT A

Water Right S3-00465C Place of Use and Points of Withdrawal



ATTACHMENT B

Wanapum Coordinated Water System Place of Use Written Description

This is a metes and bounds legal description for Grant PUD's Wanapum Comprehensive Water System Service Area that is intended to match the boundary as depicted on the map in Attachment A. All dimensions were taken from surveyed or identified boundaries on the Priest Rapids Project 1955 FERC License No. 2114; Priest Rapids Exhibit K Sheets 14 and 15 and Wanapum Exhibit K sheets 1 and 2.

Beginning at section corner 7/8/17/19, T. 16 N., R. 23 E., W.M.; Thence easterly along the north section line of Section 17, T. 16 N., R. 23 E., W.M. to section corner 8/9/19/17, T. 16 N., R. 23 E., W.M.; Thence easterly along the north section line of Section 16, T. 16 N., R. 23 E., W.M. to section corner 9/10/15/16, T. 16 N., R. 23 E., W.M.; Thence S00°06'00"W 1326.64 feet to the NW corner of the SW¼ of the NW¼ of Section 15, T. 16 N., R. 23 E., W.M.; Thence easterly approximately 667.17 feet along the quarter section line of Section 15, T. 16 N., R. 23 E., W.M.; Thence southerly approximately 2,650.71 feet to the midpoint of the southern boundary of the NW¼ of the SW¼ of Section 15, T. 16 N., R. 23 E., W.M.; Thence N89°58'40"W 660.09 feet to the SW corner of the NW¼ of the SW¼ of Section 15, T. 16 N., R. 23 E., W.M.; Thence S00°05'50"W 1326.64 feet to section corner 16/15/22/21, T. 16 N., R. 23 E., W.M.;

Thence Westerly approximately 4139.56 feet along the south section line of Section 16, T. 16 N., R. 23 E., W.M. to the eastern right of way boundary of State Route 243; Thence S25°38'00"E 2946.75 feet to the east/west quarter section line of Section 21, T. 16 N., R. 23 E., W.M; Thence N89°22'40"W 1552.32 feet to the NE corner of the NW¼ of the SE¼ of Section 21, T. 16 N., R. 23 E., W.M.; Thence S00°08'30"W 2684.20 feet to the SE corner of the SW¼ of the SE¼ of Section 21, T.16 N., R.23 E., W.M.; Thence westerly along the south section line of Section 21, to section corner 20/21/28/29, T.16 N., R. 23 E., W.M.; Thence N89°46'20"W along the south section line of Section 20 approximately 1645.47 feet to the Ordinary High Water Line on the west or right bank of the Columbia River.

Following the right bank line of ordinary high water generally north-westerly as follows; N36°16'20"W 549.92 feet; Thence N18°50'40"W 618.37 feet; Thence N18°50'40"W 712.99 feet; Thence N33°53'20"W 796.05 feet to a point on the east/west centerline of Section 20, T. 16 N., R. 23 E. W.M.

Thence westerly N89°10'10"W 1411.26 feet to the SW corner of the SE¼, NW¼, Section 20, T. 16 N., R. 23 E., W.M.; Thence N00°49'00"W 1332.77 feet to the NW corner of the SE¼, NW¼, Section 20, T. 16 N., R. 23 E., W.M.; Thence S89°11'00"W 1320.07 feet to the NW corner of the SW¼, NW¼, Section 20, T. 16 N., R. 23 E., W.M.; Thence N0°45'50"W 1330.09 feet to section corner 18/17/20/19, T. 16 N., R. 23 E., W.M.; Thence northerly 5347.19 feet along the west section line of Section 17 to section corner 7/8/17/18, T. 16 N., R. 23 E., W.M., which is the true point of beginning.