

STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY  
PROTESTED

**REPORT OF EXAMINATION**

TO APPROPRIATE PUBLIC WATERS OF THE STATE OF WASHINGTON

**Surface Water** (Issued in accordance with the provisions of Chapter 117, Laws of Washington for 1917, and amendments thereto, and the rules and regulations of the Department of Ecology.)

**Ground Water** (Issued in accordance with the provisions of Chapter 283, Laws of Washington for 1945, and amendments thereto, and the rules and regulations of the Department of Ecology.)

PRIORITY DATE April 6, 1994	APPLICATION NUMBER G3-29665	PERMIT NUMBER	CERTIFICATE NUMBER
--------------------------------	--------------------------------	---------------	--------------------

NAME  
**RICK VOTH**

ADDRESS (STREET) (CITY) (STATE) (ZIP CODE)  
**836 Newell Walla Walla Washington 99362**

**PUBLIC WATERS TO BE APPROPRIATED**

SOURCE  
**A well (TO BE CASED AND SEALED INTO COMPETENT BASALT ROCK)**

TRIBUTARY OF (IF SURFACE WATERS)

MAXIMUM CUBIC FEET PER SECOND	MAXIMUM GALLONS PER MINUTE 270	MAXIMUM ACRE-FEET PER YEAR 4.8
-------------------------------	-----------------------------------	-----------------------------------

QUANTITY, TYPE OF USE, PERIOD OF USE  
4.8 acre feet per year, continuously, for group domestic supply (9 homes/in-house use only)

**LOCATION OF DIVERSION/WITHDRAWAL**

APPROXIMATE LOCATION OF DIVERSION-WITHDRAWAL  
500 feet North and 200 feet East from the Southwest corner of Sec. 34

LOCATED WITHIN (SMALLEST LEGAL SUBDIVISION) SW 1/4 SW 1/4	SECTION 34	TOWNSHIP N. 7	RANGE, (E. OR W.) W.M. 36 E.	W.R.I.A. 32	COUNTY Walla Walla
--	---------------	------------------	---------------------------------	----------------	-----------------------

**RECORDED PLATTED PROPERTY**

LOT	BLOCK	OF (GIVE NAME OF PLAT OR ADDITION)
-----	-------	------------------------------------

**LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS TO BE USED**

Beginning at the Southwest corner of Sec. 34, T. 7 N., R. 36 E.W.M., and run thence N 0°05'00" E, along the West line of said Section, 511.00 feet; thence N 89°58'30" E, parallel to the South line of the SW 1/4 SW 1/4 of said Sec. 34, a distance of 30.00 feet to the TRUE POINT OF BEGINNING for this description; thence continue N 89°58'30" E, along said parallel line 200.00 feet; thence S 0°05'00" W, parallel to the said West line, 88.00 feet; thence N 89°58'30" E, parallel to said South line, 1093.79 feet to a point in the East line of the said SW 1/4 SW 1/4; thence N 0°08'54" E, along said East line 567.00 feet; thence S 89°58'30" W, parallel to the aforesaid South line, 725.81 feet; thence S 0°05'00" W, parallel to the aforesaid West line of Sec. 34, a distance of 356.00 feet; thence S 89°58'30" W, parallel to said South line, 365.00 feet; thence S 0°05'00" W, parallel to said West line 73.00 feet; thence S 89°58'30" W, parallel to said South line 200.00 feet to a point in a line parallel to and 30.00 feet East of the said West line of Sec. 34; thence S 0°05'00" W, along said parallel line 50.00 feet to the true point of beginning.

EXCEPTING THEREFROM, however, the following described tract to-wit:

Beginning at the Southwest corner of Sec. 34, T. 7 N., R. 36 E.W.M. and run thence N 0°05'00" E, along the West line of said Section, 511.00 feet; thence N 89°58'30" E, parallel to the South line of the SW 1/4 SW 1/4 of said Sec. 34, a distance of 230.00 feet; thence S 0°05'00" W, parallel to the said West line 43.00 feet to the TRUE POINT OF BEGINNING for this description; thence continue S 0°05'00" W, along said parallel line 45.00 feet; thence N 89°58'00" E, parallel to said South line of 87.45 feet; thence N 62°46'22" W, 98.27 feet to the true point of beginning. Containing 0.05 acre or 1968 square feet. ALL situated in the County of Walla Walla, State of Washington.

---

**DESCRIPTION OF PROPOSED WORKS**

---

Well, pump, 25,000 gallon reservoir, distribution system to 9 homes.

---

**DEVELOPMENT SCHEDULE**

---

BEGIN PROJECT BY THIS DATE:

Started

COMPLETE PROJECT BY THIS DATE:

June 1, 1997

WATER PUT TO FULL USE BY THIS DATE:

June 1, 1998

---

---

**REPORT**

---

**BACKGROUND**

An application to appropriate public ground water was submitted by Rick Voth to the Department of Ecology on April 6, 1994. The application was accepted and assigned Ground Water Application No. G3-29665. The applicant proposes to withdraw water from a well in the amount of 270 gallons per minute for continuous group domestic supply. The proposed point of withdrawal is to be located within the SW $\frac{1}{4}$ SW $\frac{1}{4}$  of Sec. 34, T. 7 N., R. 36 E.W.M.

A notice of application was duly published in accordance with RCW 90.03.280; two (2) protests were received.

This application is categorically exempt from the provisions of the State Environmental Policy Act (SEPA) of 1971, Chapter 43.21 RCW.

**PROTESTS**

Letters of protest to issuance of a permit under this application were received from Kenney W. Keniston and Patrick Spencer, Ph.D., both of whom live adjacent to the southern boundary of the proposed development. Their primary objections were the excessive amount of water requested under this application, and the possible impact of the proposed withdrawal on surrounding wells.

**INVESTIGATION**

A site investigation was conducted by Bill Neve on January 2, 1996. Additional information regarding this application was obtained through research of Department records, and conversations with the applicant and Department staff. The project site is located approximately 2 miles South of Walla Walla, Washington.

The applicant owns approximately 12 acres on which he intends to construct 9 homes. The first two homes were under construction at the time of this examination.

There is one existing water right appurtenant to the subject property. Certificate of Ground Water Right No. 2722-A authorizes the withdrawal of water from a well in the amount of 160 gallons per minute, 112 acre feet per year, for the seasonal irrigation of 28 acres.

The authorized well for this right (Well No.1) was originally drilled to a total depth of 505 feet below ground surface, withdrawing water from the basalt aquifer. Mr. Voth had this well reconditioned and deepened to a depth of 555 feet below ground surface in 1995.

Mr. Voth currently owns approximately 12 acres of the authorized place of use of Certificate No. 2722-A. Because Certificate No. 2722-A authorizes withdrawal of water for a seasonal use (irrigation), no portion of this right may be changed to a continuous use (community domestic). To do so would constitute an enlargement of the original right and would not be authorized.

To proceed with the development, Mr. Voth drilled a second well (Well No.2) into basalt for the purpose of domestic supply. Washington State Statute provides an exemption from the permitting process for the withdrawal of up to 5,000 gallons per day from a well for certain uses, of which multiple domestic is included (RCW 90.44.050). Mr. Voth could then supply in-house water to the new homes from Well No.2, provided that the total daily withdrawal did not exceed 5,000 gallons. Water for irrigation of the lots would be provided from Well No.1 under the original irrigation right.

Well No.2 was drilled to a completed depth of 605 feet below ground surface. The well is cased into basalt rock, and had a static water level of 142 feet below ground surface on February 21, 1995. This well will withdraw water from the same aquifer as Well No.1.

Mr. Voth has constructed a 25,000 gallon reservoir to hold water for use in the development. The Washington State Department of Health authorized the commingling of waters from the two wells into this reservoir, provided that the withdrawal from Well No.2 did not exceed 5,000 gallons per day.

The purpose of this application is to authorize group domestic supply as a use from Well No.1. Well No.2 would then serve as a back up source to Well No.1. It was explained to Mr. Voth that in order for Well No.2 to be authorized for irrigation, as well as group domestic purposes, application for changes would need to be filed to add Well No.2 to both Certificate No. 2722-A and to any authorization that may issue through this application. The end result of such changes would be that the authorized uses could come from either or both of the two wells.

The Walla Walla River Basin is a structural trough, within the Columbia River Basalt Group, that has been filled by sediments. The lower most sediment is the "blue clay", which rests directly on basalt bedrock. Directly over the blue clay and interfingering with it is the gravel unit. The gravels serve as the aquifer material for the shallow, or uppermost, aquifer.

The subject well is drilled into, and withdraws water from, the Yakima Basalt Subgroup of the Columbia River Basalt Group. The Yakima Subgroup is comprised of three hydrogeologic units; in ascending order, the Grande Ronde, Wanapum and Saddle Mountains. These formations are commonly separated by sedimentary interbeds. The Saddle Mountain Unit in this area is relatively minor to non-existent, and the Grande Ronde Unit is accessible only at significant depth (over 1100 feet below ground surface). U.S. Geological Survey maps show the top of the Wanapum Unit in this area to be approximately 400 feet below ground surface, and to have a total thickness of about 700 feet. The well appears to be completed into the Wanapum Unit, which is also the basalt formation most utilized for production wells in the Walla Walla Basin.

The basalt aquifer system is a series of zones, some of which conduct water easily. These zones of high conductivity alternate with zones of dense basalt which impede the flow of water and are considered to have low hydraulic conductivity. The highly permeable basalt zones range in thickness from a few feet to 25 feet. It is the composite to the permeable water conducting zones which provides the well with the capability of yielding the desired amount of water. Thus, generally, the deeper the well, the more water will be available since by going deeper more permeable zones will be penetrated.

The Wanapum formation and overlying gravel aquifer are separate, distinct hydrogeologic units. In accordance with the Minimum Well Construction Standards (Chapter 18.104 RCW and Chapter 173-160 WAC) the Department is prohibited from authorizing interaquifer transfer. Upon permit approval, the subject well will be required to be constructed to effectively and permanently separate the Wanapum Unit from the overlying gravel aquifer. The basalt aquifers are under artesian conditions and, therefore, casing and sealing shall meet the requirements as set forth in Section 173-160-285 WAC.

Under authority of, and in response to, the Water Resources Act of 1971, Chapter 90.54 RCW, the Department of Ecology was required to formulate a management and use program for the waters of the State of Washington. The Walla Walla River Basin Management Program was developed during 1977 to determine water availability and to insure that the issuance of permits for water withdrawal would be in the public interest. The management program is administered through Chapter 173-532 WAC, which was adopted on December 14, 1977. The proposed appropriation is subject to this management program.

Included in this regulation are requirements that new appropriators of ground water locate their wells outside of the zone of direct hydraulic continuity between surface waters and ground water aquifers (Section 173-532-050 WAC), and that each new application be evaluated to minimize interference with existing wells and surface water streams with new permits issuing only in those cases where senior water rights would not be adversely affected (Section 173-532-080 WAC).

Department records show 4 wells completed into the same basalt aquifer within ½ mile of the subject well. These other wells have been drilled to similar depths and yield from 50 to 200 gallons per minute. The wells are used for domestic purposes and small-scale irrigation.

Declining water level trends in the basalts have been identified in localized areas, primarily within the pumping centers of Walla Walla and College Place, Washington, and Milton-Freewater, Oregon. The declines seem to be centered here due to the concentration of large municipal wells pumping from the basalts and from possible compartmentalization of the aquifer caused by geologic faulting. These declines appear to represent a re-establishment of water levels coincident with increased pumping from the basalts.

Existing ground water right holders are protected through administrative regulation to a depth of aquifer penetration that will allow the withdrawal of water from a reasonable or feasible pumping lift (Chapter 173-150 WAC). Through consideration of this regulation and the management program, Ecology has determined that there is still water available for appropriation from the basalt aquifers.

The Amended Instream Resources Protection Programs for the main stem Columbia River (Section 173-563-015 WAC) and main stem Snake River (Section 173-564-040 WAC) were adopted on January 3, 1995. The primary purpose of these amended programs is to temporarily withdraw from further appropriation waters from these rivers due to fishery concerns. These amended programs also subject groundwater determined to be in direct hydraulic continuity with these rivers to the withdrawals. After review of pertinent records and consultation with Department hydrogeologists, it is the determination of this writer that the proposed appropriation will not be in direct hydraulic continuity with the Snake or Columbia Rivers.

#### CONSIDERATION OF PROTESTS

The two protestants, Messrs. Keniston and Spencer, raise essentially two questions:

- 1). Is the amount of water requested through this application excessive for the intended use?
- 2). Will withdrawal of said quantities impair the ability of the protestants to withdraw water from their existing wells?

Regarding the amount of water requested:

The existing irrigation right for this property, Certificate No. 2722-A, authorizes the withdrawal of 160 gallons per minute, 112 acre feet per year, for the irrigation of 28 acres. The source of water for this appropriation is basalt aquifer (Well No.1). The place of use for Certificate No. 2722-A encompasses an area larger than the applicant's 12 acres, and includes the protestants' property.

Because the source of water for Certificate No. 2722-A is a basalt aquifer, only water from this aquifer can be appropriated for use under this right. Even though the protestants property is within the place of use, because their wells are completed into the upper gravel aquifer, they cannot appropriate water from their wells for use under this water right. The only land within the place of use that will be irrigated from a well withdrawing water from the basalt aquifer will be the applicant's 12 acres.

When Mr. Voth's project is complete, that portion of the right that is no longer being used will be relinquished, and Certificate No. 2722-A will be reduced in gallons per minute, acre feet per year, and the number of acres that can be irrigated to those amounts that are actually developed. The annual quantity and acres irrigated will be reduced significantly, reflecting the irrigation of less than 12 acres, and the gallons per minute will be reduced to the final system capacity of Mr. Voth's water supply system. The final quantities will reflect normal allocations currently given for irrigation purposes, and will not be excessive.

The 270 gallons per minute for group domestic supply requested in this application will be in addition to those quantities allocated for irrigation purposes, because multiple domestic supply is a separate use of water. Any authorization issued through this application will be limited by an annual quantity, which would be calculated on the basis of the annual water needs for the in-house use of water in 9 homes. The instantaneous pumping rate can vary depending upon system design, and will not reflect continuous pumping but rather the maximum instantaneous amount that can be withdrawn to periodically fill the 25,000 gallon reservoir.

The annual quantity limitation will be the same regardless of the instantaneous pumping rate, and is ultimately the controlling factor in the amount of water that would be used under the proposed appropriation.

The annual quantity allocation is calculated using normal multipliers for group domestic use and assumes utilization of up to date conservation practices. The proposed project would actually use less water on an annual basis than that allocated under the original irrigation right. The amount that would be allocated for group domestic supply is not deemed to be excessive.

Regarding impact to the protestants' wells:

Information supplied by Messrs. Keniston and Spencer, and obtained from Department well log records, show that the protestants' wells are completed in the upper, unconsolidated, aquifer which consists of various compositions of sand, clays and gravel. These two wells are located within 500 feet of Mr. Voth's wells. Information from Mr. Voth's two wells show a layer of blue clay, ranging in thickness from 151 to 183 feet, separating the upper gravel aquifer from the underlying basalt bedrock.

This blue clay layer acts as an aquitard between the upper gravel aquifer and lower basalt aquifers throughout most of the lower Walla Walla River Basin. Through issuance of this Report of Examination, the Department is requiring the applicant's wells to be cased and sealed through the upper aquifer, in which the protestant's wells

completed, and through the blue clay into the basalts. This will cause the applicant's wells to withdraw water from the basalt aquifer, a separate source.

### CONCLUSIONS

It is the conclusion of the examiner that: Group domestic supply is a beneficial use of water. Subject to the provisions of Chapter 173-532 WAC and regulation in favor of senior rights, public ground water is available for the proposed beneficial group domestic use.

The proposed withdrawal should not impair the aquifers ability to satisfy existing rights. Existing water right holders may have to insure their wells meet well construction standards and fully penetrate the aquifer in accordance with Section 173-150-080(3) WAC. This may include deepening wells and lowering pump settings to allow them to take full advantage of the aquifer thickness.

The appropriation of such water will not be detrimental to the public welfare provided existing rights are protected.

The Walla Walla/College Place Coordinated Water System Plan Update(October 1994) is used as a guide for determining annual allocations for group domestic supply. The Plan lists a per capita consumption of 120 gallons per day as representative for rural/small systems. Given a maximum population of 36 (9 homes x 4 people/home), an annual allocation of 4.8 acre feet per year for in-house group domestic supply will be sufficient.

This application for a permit to appropriate public ground water should be approved in the amount of 270 gallons per minute, 4.8 acre feet per year, for continuous group domestic supply (in-house only).

To ensure proper well construction and to provide Ecology with additional information on the structure of the basalts in this area, **a video scan of the completed well will be required.** A copy of the scan shall be delivered to and reviewed by Ecology prior to the production pump being installed in the subject well.

**A flow meter which measures both instantaneous and cumulative discharge will be required to be installed at the point of discharge for the well.** While reporting requirements are not in effect for the subject well at this time, Ecology may require that meter readings be submitted at a future date.

In addition to an access port, **an airline will be required to be installed in the completed well.**

The following provisions apply:

"The casing shall be set or placed at least five (5) feet into the first sound, unfractured, basalt occurring within the formation the well is finished into."

"Prior to installation of the production pump, the well shall be video scanned (providing a visually clear and recognizable picture that is continuous from land surface to the terminus of the well) and the video tape reviewed by the Eastern Regional Office of the Washington State Department of Ecology prior to installation of the production pump."

"Owing to the proximity of neighboring wells, the applicant is reminded of their responsibility toward same and advised that they may be required to regulate their withdrawal and pumping rate if existing rights are impaired."

"Use of water under this authorization shall be contingent upon the water right holder's utilization of up to date water conservation practices and maintenance of efficient water delivery systems consistent with established regulation requirements and facility capabilities."

"An approved measuring device shall be installed and maintained in accordance with RCW 90.03.360 and/or WAC 508-64-020 through WAC 508-64-040." (Installation, operation and maintenance requirements attached hereto).

"The amount of water granted is a maximum limit that shall not be exceeded and the water user shall be entitled only to that amount of water within the specified limit that is beneficially used and required."

"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."

"A certificate of water right will not be issued until a final examination is made."

Report Continued

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

"The installation of an access port, described in Ground Water Bulletin #1, shall be required prior to issuance of a final certificate of water right. In addition, an airline and pressure gage shall be installed and maintained in operating condition. The pressure gage shall be equipped with a standard tire valve and placed in an accessible location. The airline shall extend from land surface to the top of the pump bowls and the total airline length shall be reported to the Department of Ecology upon completion of the pump system."

"A well log of the completed well shall be submitted by the driller to the Department of Ecology within thirty (30) days of completion of this well. This well log shall be complete and all information concerning the static water level in the completed well in addition to any pump test data shall be submitted as it is obtained."

Signed at Spokane, Washington  
this 29th day of April, 1996

*Cindy A. Christian*  
for WILLIAM L. NEVE  
Shorelands and Water Resources Program  
Department of Ecology



COPY

STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

4601 N. Monroe, Suite 202 • Spokane, Washington 99205-1295 • (509) 456-2926

April 29, 1996

CERTIFIED MAIL (Z 020 979 582)

Kenney W. Keniston  
1321 Kaniksu Loop  
Walla Walla, WA 99362

Dear Mr. Keniston:

RE: Ground Water Application No. G3-29665 (Rick Voth)

Enclosed find a copy of the Department of Ecology's Report of Examination. This report constitutes our determination and order regarding the above referenced application.

Issuance of this Report of Examination is an appealable decision under Chapter 43.21B RCW. If you would like to appeal this order and determination, you must file your appeal with the Pollution Control Hearings Board, P. O. Box 40903, Olympia, WA 98504-0903 within thirty (30) days of your receipt of this letter and the attached Report of Examination. A copy of your appeal must also be sent to the Department of Ecology, Shorelands and Water Resources Program, c/o Linda Pilkey-Jarvis, P.O. Box 47600, Olympia, WA 98504-7600 within thirty (30) days of receipt of this letter and the attached Report of Examination.

Sincerely,

Bruce F. Howard  
Section Manager  
Shorelands and Water Resources Program

BFH:mjw  
Enclosure

Is your RETURN ADDRESS completed on the reverse side?

**SENDER:**

- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):

- 1.  Addressee's Address
- 2.  Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

Kenney W. Keniston  
1321 Kaniksu Loop  
Walla Walla, WA 99362

G3-29665

*Barb Keniston*

5. Signature (Addressee)

6. Signature (Agent)

*[Signature]*

4a. Article Number

Z 020 979 582

4b. Service Type

- Registered  Insured
- Certified  COD
- Express Mail  Return Receipt for Merchandise

7. Date of Delivery

4/70/96

8. Addressee's Address (Only if requested and fee is paid)

Thank you for using Return Receipt Service.

6054