



STATE OF WASHINGTON  
**DEPARTMENT OF ECOLOGY**  
*Application for Change*  
**REPORT OF EXAMINATION**

PRIORITY DATE	Application NO.	PERMIT NO.	CERTIFICATE NO.
September 5, 1989	G3-28674	G3-28674	

NAME Mike Brown		
ADDRESS/STREET	CITY/STATE	ZIP CODE
12088 Road 11 SW	Royal City, WA	99357

**PUBLIC WATERS TO BE APPROPRIATED**

SOURCE
3 wells
TRIBUTARY OF (IF SURFACE WATERS)

MAXIMUM CUBIC FEET PER SECOND (cfs)	MAXIMUM GALLONS PER MINUTE (gpm)	MAXIMUM ACRE FEET PER YEAR (ac-ft/yr)
	1300	560

QUANTITY, TYPE OF USE, PERIOD OF USE

1300 gallons per minute, 560 acre-feet per year for the agricultural irrigation of 160 acres from April 1 to October 31.

Upon approval of this report of examination, the permit will be split into two separate permits (A) and (B) and reflect the following quantities.

1. The total water use authorized from G3-28674(A) is 520 gallons per minute, 224 acre-feet per year for the agricultural irrigation of 64 acres from April 1 to October 31.
2. The total water use authorized from G3-28674(B) is 780 gallons per minute, 336 acre-feet per year for the agricultural irrigation of 96 acres from April 1 to October 31.

**LOCATION OF DIVERSION/WITHDRAWAL**

APPROXIMATE LOCATION OF DIVERSION--WITHDRAWAL

G3-28674(A) - 100 feet north and 500 feet east from the S<sup>1</sup>/<sub>4</sub> corner of Section 19, T. 16 N., R. 26 E.W.M.

- 1) G3-28674(B) - 230 feet north and 350 feet west from the E<sup>1</sup>/<sub>4</sub> corner of Section 20, T. 16 N., R. 24 E.W.M.
- 2) G3-28674(B) - 580 feet north and 850 feet east from the W<sup>1</sup>/<sub>4</sub> corner of Section 21, T. 16 N., R. 24 E.W.M.

LOCATED WITHIN (SMALLEST LEGAL SUBDIVISION)	SECTION	TOWNSHIP	RANGE	WRIA	COUNTY
G3-28674(A) within the SW <sup>1</sup> / <sub>4</sub> SE <sup>1</sup> / <sub>4</sub>	19	16 N.	26 E.W.M.	41	Grant
G3-28674(B) within the SE <sup>1</sup> / <sub>4</sub> NE <sup>1</sup> / <sub>4</sub>	20	16 N.	24 E.W.M.		
G3-28674(B) within the SW <sup>1</sup> / <sub>4</sub> NW <sup>1</sup> / <sub>4</sub>	21	16 N.	24 E.W.M.		
PARCEL NUMBER	LATITUDE		LONGITUDE	DATUM	

**RECORDED PLATTED PROPERTY**

LOT	BLOCK	OF (GIVE NAME OF PLAT OR ADDITION)

**LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS TO BE USED**  
 [Attachment 1 shows location of the authorized place of use and point(s) of diversion or withdrawal.]

G3-28674(A) A 64 acre orchard within the S<sup>1</sup>/<sub>2</sub>S<sup>1</sup>/<sub>2</sub> of Section 19, T 16 N., R. 26 E.W.M. less the westerly 1700 feet and lying below the bluffs

G3-28674(B) A 96 acre orchard within the S<sup>1</sup>/<sub>2</sub>NW<sup>1</sup>/<sub>4</sub> and W<sup>1</sup>/<sub>2</sub>NE<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> of Section 22, T. 16 N., R. 24 E.W.M.

---

**DESCRIPTION OF PROPOSED WORKS**

---

G3-28674(A) A well serving 64 acres of orchard

G3-28674(B) Two wells, pond, delivery lines to the 96 acres of orchard

---

**DEVELOPMENT SCHEDULE**

BEGIN PROJECT BY THIS DATE	COMPLETE PROJECT BY THIS DATE	WATER PUT TO FULL USE BY THIS DATE
Started	Complete	In use

---

**PROVISIONS**

---

1. Superseding Permits will be issued subject to the change authorization. G3-28674 will be split into an (A) and (B) to reflect the two separate projects.
2. The total water use authorized from G3-28674(A) is 520 gallons per minute, 224 acre-feet per year for the agricultural irrigation of 64 acres from April 1 to October 31.
3. The total water use authorized from G3-28674(B) is 780 gallons per minute, 336 acre-feet per year for the agricultural irrigation of 96 acres from April 1 to October 31.
4. The total water use from the wells in Sections 20 and 21 shall not exceed 5180 gallons per minute, 2121 acre-feet per year for the agricultural irrigation of 606 acres under permits G3-28674(B)P, G3-29105P, G3-29106P, and G3-28539P. These quantities may be reduced subject to a Proof Examination and beneficial use analysis.
5. Water from these wells is discharged into a surface water pond that captures Waste Seepage and Return Flows (WSRF) from the Irrigation District. A written authorization should be obtained from the USBR to capture and use WSRF waters.

**Wells, Well logs and Well Construction Standards**

6. All wells constructed in the State shall meet the construction requirements of chapter 173-160 WAC entitled "Minimum Standards for the Construction and Maintenance of Wells" and chapter 18.104 RCW titled "Water Well Construction".
7. Installation and maintenance of an access port as described in chapter 173-160 WAC is required. An air line and gauge may be installed in addition to the access port.
8. "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."
9. "Since the well driller did not submit a well log, should the pump be removed, or the well deepened or reconstructed, a video scan of the well shall be required on each of these wells to determine actual construction and casing. A well log and well information and video scan shall be submitted for record of construction."

**Measurements, Monitoring, Metering and Reporting**

10. An approved measuring device shall be installed and maintained for each of the sources identified herein in accordance with the rule "Requirements for Measuring and Reporting Water Use", Chapter 173-173 WAC. Water use data shall be recorded weekly and maintained by the property owner for a minimum of five years, and shall be promptly submitted to Ecology annually during the development of this permit. The maximum rate of diversion/withdrawal and the annual total volume shall be submitted to Ecology.
11. The rule above describes the requirements for data accuracy, device installation and operation, and information reporting. It also allows a water user to petition Ecology for modifications to some of the requirements. Installation, operation and maintenance requirements are enclosed as a document entitled "Water Measurement Device Installation and Operation Requirements".

**Schedule and Inspections**

12. Department of Ecology personnel, upon presentation of proper credentials, shall have access at reasonable times, to the records of water use that are kept to meet the above provisions, and to inspect at reasonable times any measuring device used to meet the above provisions.
13. 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 wells or diversions and associated distribution systems for compliance with water law.

14. The water right holder shall file the notice of Proof of Appropriation when the permanent distribution system has been constructed and the quantity of water required by the project has been put to beneficial use. A superseding document will reflect the extent of the project perfected within the limitations of the authorization and subsequent superseding permits. Elements of the proof inspection may include, as appropriate, the source(s), system instantaneous capacity, beneficial use(s), annual quantity, place of use, and satisfaction of provisions.

#### **General Conditions**

15. Use of water under this authorization shall be contingent upon the water right holder's maintenance of efficient water delivery systems and use of up-to-date water conservation practices consistent with established regulation requirements and facility capabilities.
16. 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.
17. 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.
18. The water quantities and uses recommended may be reduced at the time of issuance of a final water right commensurate with the capacity of the installed system and the uses and/or the number of acres actually irrigated.
19. Nothing in this authorization shall be construed as satisfying other applicable federal, state, or local statutes, ordinances, or regulations.
20. This authorization for the withdrawal of public ground waters within the boundaries of the Columbia Basin Project is based, on a tentative conclusion that public ground waters are available. If, however, it is subsequently determined by the Department that public ground waters are not available in the amounts authorized for withdrawal, the Department shall, by order of notification, withdraw or modify the authority granted therein as may be appropriate. In accordance with WAC 508-14-030(2)(b), no certificate of water right as provided for in RCW 90.44.080, shall be issued by the Department of Ecology until such time as a more definite determination can be reached as to the availability of public ground waters in an area described in WAC 508-14-030(3).
21. If any water from facilities of any legally formed irrigation district is used on any or all of the lands described herein as the place of use, the quantities of water withdrawn under this authorization shall be proportionately reduced to correspond to the acreage for which district water is not available.
22. That portion of this authorization relating to irrigation is classified as a Family Farm Permit in accordance with Chapter 90.66 RCW (Initiative Measure No. 59). This means the land being irrigated under this authorization shall comply with the following definition: Family Farm - a geographic area including not more than 6,000 acres of irrigated agricultural lands, whether contiguous or noncontiguous, the controlling interest in which is held by a person having a controlling interest in no more than 6,000 acres of irrigated agricultural lands in the State of Washington which are irrigated under water rights acquired after December 8, 1977. Furthermore, the land being irrigated under this authorization must continue to conform to the definition of a family farm.

---

#### **FINDINGS OF FACT AND ORDER**

---

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

Therefore, I ORDER approval of the recommended change in a portion of the place of use and points of withdrawal under Change Application No. CG3-28674P, subject to existing rights and the provisions listed above.

You have a right to appeal this Order. To appeal this you must:

- File your appeal with the Pollution Control Hearings Board within 30 days of the "date of receipt" of this document. Filing means actual receipt by the Board during regular office hours.
- Serve your appeal on the Department of Ecology within 30 days of the "date of receipt" of this document. Service may be accomplished by any of the procedures identified in WAC 371-08-305(10). "Date of receipt" is defined at RCW 43.21B.001(2).

Be sure to do the following:

- Include a copy of this document that you are appealing with your Notice of Appeal.

- Serve and file your appeal in paper form; electronic copies are not accepted.

**1. To file your appeal with the Pollution Control Hearings Board**

Mail appeal to:

Deliver your appeal in person to:

The Pollution Control Hearings Board  
PO Box 40903  
Olympia, WA 98504-0903

OR

The Pollution Control Hearings Board  
4224 – 6th Ave SE Rowe Six, Bldg 2  
Lacey, WA 98503

**2. To serve your appeal on the Department of Ecology**

Mail appeal to:

Deliver your appeal in person to:

The Department of Ecology  
Appeals & Application for Relief  
Coordinator  
PO Box 47608  
Olympia, WA 98504-7608

OR

The Department of Ecology  
Appeals & Application for Relief  
Coordinator  
300 Desmond Dr SE  
Lacey, WA 98503

**3. And send a copy of your appeal to:**

Keith L. Stoffel  
Department of Ecology  
Eastern Regional Office  
4601 North Monroe Street  
Spokane, WA 99205

*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://www1.leg.wa.gov/CodeReviser>.*

Signed at Spokane, Washington, this 18th day of June, 2009.



Keith L. Stoffel, Section Manager  
Water Resources Program  
Eastern Regional Office

**Legal Requirements for Proposed Change**

- RCW 90.03.380(1) states that a water right that has been put to beneficial use may be changed. The point of diversion, place of use, and purpose of use may be changed if it would not result in harm or injury to other water rights. However, when processing an application for change to a water right, the Washington Supreme Court has held that Ecology 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*.
- Environmental review under SEPA is required for many projects; however, some minor projects are categorically exempt from SEPA. Appropriations of one cfs or less of surface water, or of 2,250 gpm or less of ground water, for any purpose, and appropriations of 50 cfs or less for surface water used for irrigation are categorically exempt from SEPA. See WAC 197-11-305.
- RCW 90.44.100, states in part: the holder of a valid right to withdraw public ground waters may, without losing his priority of right, construct wells at a new location in substitution for, or in addition to, those at the original location, or he may change the manner or the place of use of the water. Such amendment shall be issued by the Department only on the conditions that: (1) the additional or substitute well or wells shall tap the same body of public ground water as the original well or wells, (2) use of the original well or wells shall be discontinued upon construction of the substitute well or wells, (3) the construction of an additional well or wells shall not enlarge the right conveyed by the original permit or certificate, and (4) other existing rights shall not be impaired. The Department may specify an approved manner of construction and shall require a showing of compliance with the terms of the amendment.
- The Washington State Supreme Court, in *Okanogan Wilderness v. Town of Twisp* and Department of Ecology, 133 Wn.2d 769, 947 P.2d 732 (1997), found that applications for change may be granted only to the extent the water has been historically put to beneficial use, as beneficial use determines the measure of a water right. They also found that the existence and quantification of a water right must be determined, including whether or not the water right has been lost for non-use before the Department can approve a change or transfer of the water right.

**BACKGROUND**

**Description and Purpose of Proposed Change**

The applicant proposes to transfer 96 acres from Section 19, T. 16 N., R. 26 E.W.M. to Section 22, T. 16 N., R. 24 E.W.M. and add two wells to the subject permit.

**Attributes of the Permit and Proposed Change**

**Table 1** Summary of Proposed Changes to Water Right Permit No. G3-28674

<i>Attributes</i>	<i>Existing</i>	<i>Proposed</i>
Name	Mike Brown	Same
Instantaneous Quantity	1300	1300
Annual Quantity	560	560
Source	A well	Original well and add two wells
Purpose of Use	irrigation	irrigation
Period of Use	Irrigation season	same
Place of Use	S½S½ of Section 19	S½S½ of Section 19 and a portion of the NW¼ of Section 22

An application for change/transfer was submitted by Mike Brown to the Department of Ecology on April 25, 2005. The applicant proposes to add two points of withdrawal and change a portion of the place of use to the subject permit. No other changes are requested.

A notice of application was duly published in accordance with RCW 90.03.280 in the South Columbia Sun on May 18, and 25, 2005 and no protests were received.

Environmental review under SEPA is required for many projects; however, some minor projects are categorically exempt from SEPA. Appropriations of one cfs or less of surface water, or of 2,250 gpm or less of ground water, for any purpose, and appropriations of 50 cfs or less for surface water used for irrigation are categorically exempt from SEPA. See WAC 197-11-305. Since this water right is for 1300 gpm this project is categorically exempt.

## INVESTIGATION

The original permit authorized the development of 160 acres of orchard. Much of the property is a cliff and not irrigable. Approximately 64 acres lying below the cliff have been developed into an orchard. The remaining portion of the permit is inchoate. One well has been constructed. A meter is installed on the well.

The proposed new place of use in Section 22 is currently in orchard and 96 acres were developed without authorization of a permit. The applicant has proposed to transfer 96 acres of this permit to cover the 96 acres of unauthorized use. The applicant has requested seasonal changes in place of use for the years 2005, 2007, and 2008. Seasonal authorizations were granted in 2005 and 2008.

The proposed two wells have been constructed and are currently used.

**Table No. 1**

Well	Status	Size	Depth	Meter	Pump	
1	Online	15	390	installed		
2	Online	16	657	installed	Turbine	300 HP
3	Online	16	unknown	installed	Turbine	500 HP

The transferred portion of this right will be in addition to ground water permits G3-29105P, G3-29106P, and G3-28539P. These three permits are also authorized from the proposed wells for adjacent property. If approved under this change authorization, the following water quantities would be authorized from the wells described below:

Water Right	Wells	Qi	Qa	Acres
G3-28674(A)	1	520	224	64
<b>Total</b>		<b>520</b>	<b>224</b>	<b>64</b>
G3-28674(B)	2 and 3	780	336	96
G3-29105		2000	875	250
G3-29106		1200	455	130
G3-28539		1200	455	130
<b>Totals</b>		<b>5180</b>	<b>2121</b>	<b>606</b>

### 508-14 Subarea

Chapter 508-14 WAC Columbia Basin Project-Ground Water was adopted in 1967 and pertains to the withdrawal and use of ground water consisting of commingled artificially stored ground waters and public waters and established rules for the department to follow in the administration of ground waters in the Subarea. The area was established subject to the US Bureau of Reclamation's (USBR) declaration of artificially stored ground waters. In the early 1970's, the Columbia Basin Project was subdivided into specific subareas which are known as the Quincy Subarea, Odessa Subarea and 508-14 Subarea. Historically, water right certificates were issued for state water within the 508-14 Subarea. Water right permits issued beyond the known pool of state water, between approximately 1977 and June of 1993 (estimated at 142 permits) were issued on the premise of a future determination of the availability of public ground water. On June 1, 1993, the USBR enacted a moratorium on withdrawing water from within the Columbia Basin Project. The moratorium has been lifted but the issue of state water being available within the 508-14 Subarea has not been decided. All of the applications for new water within the 508-14 Subarea have been held until information and a policy is developed for the Subarea.

The applicant's lands are located within the exterior boundaries of the Federal Columbia Basin Irrigation Project. The construction and operation of project facilities and the delivery of imported surface waters have had a major impact on the ground water hydrology in the Columbia Basin. Intentional and incidental water losses from the project facilities and irrigated land have caused a general rise in the ground water levels, which has resulted in making water available in underground storage artificially. Such water may be designated as "artificially stored ground water." With the project there has been a substantial commingling of naturally occurring and artificially stored ground water.

As certain persons and entities claim interests to portions of these commingled waters, the department, in 1967, adopted an interim policy, Chapter 508-14 WAC, to guide the department in granting authority to make withdrawals from these commingled waters until ground water subareas are established under the procedures set forth in RCW 90.44.130. Two provisions of this interim policy apply to all applications for ground water permits within the exterior boundaries of the Columbia Basin Project, but outside established ground water management subareas:

1. Permits may be issued if it appears to the department as a tentative conclusion that public ground waters are available; however, all such permits shall be conditioned that if it is subsequently determined by the department that public waters are not available in the amounts authorized for withdrawal by such permits, the department shall, by order of notification, withdraw or modify the authority granted wherein as maybe appropriate.
2. No certificate of water right as provided for in RCW 90.44.080 shall be issued by the department until such time as more definite determination can be reached as to the availability of public waters.

**Evaluation of the Water Right and Beneficial Use Analysis:**

The Washington State Supreme Court, in Okanogan Wilderness v. Town of Twisp and Department of Ecology, 133 Wn.2d 769, 947 P.2d 732 (1997), found that applications for change may be granted only to the extent the water has been historically put to beneficial use, as beneficial use determines the measure of a water right. They also found that the existence and quantification of a water right must be determined, including whether or not the water right has been lost for non-use before the Department can approve a change or transfer of the water right.

The permit is primarily inchoate and in good standing. Seasonal transfers have authorized the inchoate water to be transferred in 2005 and 2008. The permit is available for transfer and change.

POL 1120, states a simplified tentative determination may be conducted when a tentative determination or other actions confirming beneficial use of the water right has recently occurred. Under these circumstances, an investigation of the complete history of the water right is not required. Instances where simplified tentative determinations can be conducted include:

1. The existing water right has had recent departmental action, such as the issuance of a change approval within the last 5 years;
2. The existing water right was confirmed as part of an adjudication or other court action that determined the extent and validity of the right within the last 5 years;
3. The existing water right is for a municipal water supply in accordance with RCW 90.03.330(3).

The seasonal change authorizations recognized the authorized quantities of the permit in good standing as the extent of this water right permit. Based on the simplified tentative determination (POL 1120), the right is available for change as described above.

Changes in well location(s), or the manner or place of use of the water, i.e., changes permitted under RCW 90.44.100, do not alter the original project or the quantity of water needed. RCW 90.44.100 allows flexibility in the physical location and means of withdrawal so that permit holders can beneficially use the groundwater they are entitled to appropriate under their permits. The statute places a number of conditions on additional or replacement wells including, among other things, that the same body of public groundwater must be tapped, that the original right may not be enlarged, and that the change permitted by amendment must not impair the existing rights of other water users.

The courts historically have also relied upon an appropriator's original intent in deciding whether an appropriation has been completed with diligence. *In Re Waters of Doan Creek*, 125 Wash. 14, 215 P. 343 (1923); *In Re Alpowa Creek*, 129 Wash. 9, 224 P. 29 (1924); *United States v. Ahtanum Irrig. Dist.*, 330 F.2d 897 (9th Cir. 1964). The scope of a water right refers to the extent and limitations of the various attributes of a right but not limited to, the quantity, source, place of use, diversion/well location, purpose of use, season of use, and limiting provisions and/or conditions contained in the water right documents.

The original project is complete. No additional development is contemplated. The proposed transfer of 96 acres 10 miles west to irrigate a new orchard is the same purpose of use as the original purpose of use. Although the new place of use lies ten miles to the north, it is Ecology's policy that since the purpose of use is not proposed to be changed, the original intent has not changed.

## History of Water Use

The applicant has submitted metering records for the years 2005-2007 for both the existing well and the proposed wells. The following table indicates the metered water use based on the irrigated acres at each site.

Year / Well	Qi	Used Qa	Auth Qa	Exceedances	Remarks
2005 -1	Not given	319.1	224	+95.1 ac-ft	Exceeded
2006-1	Not given	320.1	224	+96.1 ac-ft	Exceeded
2007-1	Not given	361.6	224	+137.6 ac-ft	Exceeded
2005-2&3	Not given				Not a full season of data
2006-2&3	Not given	1437	1785 (-2121)	-348 (-684)	No seasonal requested 2006, (Orchard irrigated)
2007-2&3	Not given	1620	2121	-501	Orchard irrigated

\*With the exception of 2005 and 2008, Wells 2 and 3 have been irrigating the 96 acres without authorization. These water use figures represent the water use including the 96 acres of orchard.

Metering provisions require readings of both an instantaneous and annual meter readings. The permittee is required to obtain and submit all metering data during the development of this permit. The use of water on the orchard in Section 19 was in excess of 5.6 acre-feet per acre in 2007. The permittee was notified of the violations and is to evaluate the distribution system and address these excessive uses. (Seasonal Change authorization dated March 13, 2008). Excessive water use is subject to fines and penalties of up to \$5000/day.

## Other Rights Appurtenant to the Place of Use

The proposed place of use and existing place of use do not have any other water right documents associated with them.

The proposed wells in Sections 20 and 21 have three water right permits associated with them as follows:

Ground Water Permit G3-29105P authorizes a use of 2000 gpm, 875 acre-feet for the irrigation of 250 acres. The authorized place of use is the SE $\frac{1}{4}$  of Section 17 and the NE $\frac{1}{4}$  of Section 20, T. 16 N., R. 24 E.W.M. Two pivots of approximately 125 acres each are developed in this legal description.

Ground Water Permit G3-29106P authorizes a use of 1200 gpm, 455 acre-feet for the irrigation of 130 acres. The authorized place of use is the NE $\frac{1}{4}$  of Section 21, T. 16 N., R. 24 E.W.M. A pivot of approximately 118 acres is developed in this legal description.

Ground Water Permit G3-28539P authorizes a use of 1200 gpm, 455 acre-feet for the irrigation of 130 acres. The authorized place of use is the NW $\frac{1}{4}$  of Section 21, T. 16 N., R. 24 E.W.M. A pivot of approximately 130 acres is developed in this legal description.

The total irrigated land authorized under these three permits and the proposed transfer is approximately 594 acres of the authorized 606 acres (including the 96 acres under G3-28674(B)). Based on the metered data from 2007, 2.72 acre-feet is the maximum water use applied to these lands from the well sources. It is recognized the wells pump into a pond. Waste Seepage and Return Flow (WSRF) water from the irrigation district is captured in the pond. The distribution pond is located within the SE $\frac{1}{4}$ NE $\frac{1}{4}$  of Sec. 20, T. 16 N., R. 24 E.W.M. Water from the wells is pumped into this pond. Three turbine pumps are located at the pond site which redistributes the water to the surrounding pivots and a sprinkler irrigated apple orchard. The pond is built in a steep ravine with a dam structure that appears to be roughly 50-60 feet wide and 30-40 feet in height. The dam structure appears to impound less than 10 acre-feet of water. According to WAC 508-12-260, any dam or dike structure that stores water to a depth of 10 feet or more is required to have a reservoir permit. The applicant was notified in 2004 of the need to file an application for a reservoir permit.

## Hydrologic/Hydrogeologic Evaluation

Applications for change of water right permits and certificates are governed by RCW 90.44.100, which states in part that: the holder of a valid right to withdraw public ground waters may, without losing his priority of right, construct wells at a new location in substitution for, or in addition to, those at the original location, or he may change the manner or the place of use of the water. Such amendment shall be issued by the Department only on the conditions that: (1) the additional or substitute well or wells shall tap the same body of public ground water as the original well or wells, (2) use of the original well or wells shall be discontinued upon construction of the

substitute well or wells, (3) the construction of an additional well or wells shall not enlarge the right conveyed by the original permit or certificate, and (4) other existing rights shall not be impaired. The Department may specify an approved manner of construction and shall require a showing of compliance with the terms of the amendment.

Wells in this area are generally developed within the interflow zones of the Columbia River Basalts. The basalts are overlain with a relatively thin sedimentary formation. These sediments consist of sand, silt, caliche, and clay with occasional gravel. Production capacities in the sediments are generally inadequate for irrigation purposes. Wells intended for producing adequate irrigation quantities rely upon aquifers within the basalts which occur principally in tabular zones within the basalt flows. These zones are generally composed of scoriaceous basalt, cinder beds, granular sediments or volcanic ash.

The existing well in Section 19, T. 16 N., R. 26 E.W.M. was constructed in 1996. The well log describes the construction of a 15 inch well completed to a depth of 390 feet. Minimum casing was placed to a depth of 36 feet. A static water level was not identified. The well penetrates gravels from ground surface to 25 feet below ground surface, and basalt from 25 feet to 390 feet. The well log indicates water is produced out of basalts of the Columbia River Group.

The proposed well in Section 21, T. 16 N., R. 24 E.W.M. was constructed in 1991. The well log describes the construction of a 15 inch well completed to a depth of 577 feet, with 12 inches below that to a total depth of 657 feet. Casing was placed to a depth of 234 feet and sealed with bentonite and cement. A static water level was identified at 440 feet below ground surface. The well log indicates water is produced out of basalts of the Columbia River group.

The proposed well in Section 20 was constructed in 1998. This well was constructed without a start card notification nor was a well log submitted after construction. The applicant was notified of these violations in March of 1998. The required start card and well log information was not submitted. No specific evidence is available to assess production, however, little water is produced in the vicinity that is not produced from the Columbia River Basalts.

The proposed wells produce water from the same body of public groundwater as the existing well.

### **Impairment Considerations**

“Impair” or “impairment” means to: 1) adversely impact the physical availability of water for a beneficial use that is entitled to protection, and/or 2) to prevent the beneficial use of the water to which one is entitled, and/or 3) to adversely affect the flow of a surface water course at a time when the flows are at or below instream flow levels established by rule (POL-1200), and/or 4) degrade the quality of the source to the point that water is unsuitable for use by existing water right holders (WAC 173-150). Demonstration of impairment would require evidence of a substantial and lasting or frequent impact reflecting such conditions.

The Washington State Department of Natural Resources (DNR) is the owner of Ground Water Permit G3-24780P in the amount of 2600 gpm, 1185 acre-feet per year for the irrigation of 307 acres, within Section 16, T. 16 N., R. 24 E.W.M. The DNR well is located within the NE $\frac{1}{4}$ SE $\frac{1}{4}$  of Section 16, approximately 1 mile northeast of the subject wells. The DNR filed complaints in 2002 claiming these new wells were impacting their wells, and a lowering of the water tables. The DNR has submitted static water level readings for their wells and indicate a 30 foot decline between 1978 and 2002. A letter from the DNR in 2008 indicates water levels recovered significantly in 2003, and now indicate a decline in that well from 506 feet in 1978 to 514 feet in 2007.

The DNR well is located in the SE $\frac{1}{4}$  of Section 16, T, 16 N., R. 26 E.W.M. It is constructed to a depth of 1100 feet, and produces water from the Columbia River Basalt group.

Potential impact to this well was examined. Effects were calculated simulating pumping the additional 780 gallons per minute, assuming the DNR well is at a radius of 5280 feet, and the aquifer is 2000 feet thick. Employment of a Theis analysis of drawdown effects from spreadsheets published in Halford, K.J. and Kuniansky, E.L., 2002, USGS OFR 01-197, and using median values for aquifer properties from USGS 1413-B, the drawdown impacts are predicted at the above rate and distance is approximately 6 feet after 6 months of continuous pumping.

### **FINDINGS**

There is a water right available for change/transfer under of Ground Water Permit No G3-28674P. Ground water has been partially beneficially used under this permit and the remaining portion is inchoate.

When considering an application for change to a water right, Ecology must determine that the proposed change can be made without detriment or injury to existing water rights or applications for water right. Factors considered when determining potential impact include the following:

#### **No Impairment to Existing Rights:**

The proposed change will not increase the volume of water currently authorized under the permit and will not cause impairment to existing rights.

No Detriment to the Public Welfare:

There has been public expression of protest or concern regarding the construction of these wells and operation of the subject proposal.

The investigation of the subject change application indicates that there would not be a detrimental impact to the public welfare through issuance of the proposed change.

No Enhancement of the Original Right:

No withdrawal of water over and above what has been authorized to beneficial use would be authorized through approval of this change. The purpose of use has not changed.

Same Source of Water:

The ground water to be withdrawn is supplied by the same body of public ground water.

**CONCLUSIONS**

A water right is available for transfer.

No water will be withdrawn above what has been authorized. The proposed change/transfer would not cause impairment to existing water rights.

The original intent will not be expanded.

The wells are in the same body of public ground water.

**RECOMMENDATIONS**

Based on the above investigation and conclusions, I recommend that the request for change in place of use in the amounts and within the limitations listed and subject to the provisions.

1300 gallons per minute, 560 acre-feet per year for the agricultural irrigation of 160 acres from April 1 to October 31.

Upon approval of this report of examination, the permit will be split into two separate permits (A) and (B) and reflect the following quantities.

**Purpose of Use and Authorized Quantities for the changed portions**

1. The total water use authorized from G3-28674(A) is 520 gallons per minute, 224 acre-feet per year for the agricultural irrigation of 64 acres from April 1 to October 31.
2. The total water use authorized from G3-28674(B) is 780 gallons per minute, 336 acre-feet per year for the agricultural irrigation of 96 acres from April 1 to October 31.

**Points of Withdrawal**

- G3-28674(A) - 100 feet north and 500 feet east from the S¼ corner of Section 19, T. 16 N., R. 26 E.W.M.
- G3-28674(B) - 230 feet north and 350 feet west from the E¼ corner of Section 20, T. 16 N., R. 24 E.W.M.
- G3-28674(B) - 580 feet north and 850 feet east from the W¼ corner of Section 21, T. 16 N., R. 24

**Place of Use**

G3-28674(A) A 64 acre orchard within the S½S½ of Section 19, T 16 N., R. 26 E.W.M. less the westerly 1700 feet and lying below the bluffs

G3-28674(B) A 96 acre orchard within the S½NW¼ and W½NE¼NW¼ of Section 22, T. 16 N., R. 24 E.W.M.

Report by: Kevin Brown 5/27/09  
 Kevin Brown Date  
 Water Resources Program

*If you need this publication in an alternate format, please call Water Resources Program at 360 407-6600. Persons with hearing loss can call 711 for Washington Relay Service. Persons with a speech disability can call 877-833-6341.*

## REFERENCES

Halford, Keith J., and Eve L. Kuniatsky , 2002, Spreadsheets for the Analysis of Aquifer-Test and Slug-Test Data, Version 1.2: U. S. Geological Survey Open-File Report 02-197, 51 p.

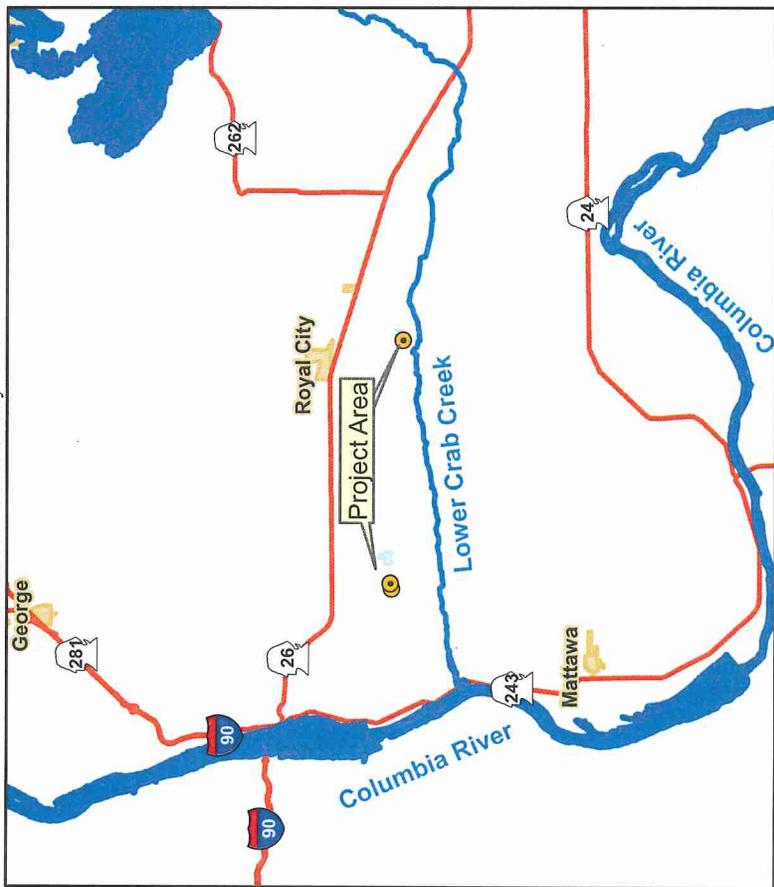
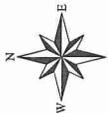
Whiteman, K.J., Vaccaro, J.J., Gonthier, J.B., and Bauer, H.H., 1994, The hydrogeologic framework and geochemistry of the Columbia Plateau Regional Aquifer System in Washington, Oregon, and Idaho: U.S. Geological Survey Professional Paper 1413-B, 73 p.

W/Draft ROEs/Brown 2009/G3-28674 Brown

# Attachment 1



Mike Brown  
 Ground Water Certificate G3-28674  
 Sec. 19, T 16N, R 26E, W.M.  
 Sec. 20 & 21, T 16N, R 24E, W.M.  
 WRIA 41 - Grant County



- Legend**
- County
  - WRIA
  - Townships
  - Sections
  - Cities
  - Local Roads
  - Highways
  - Authorized Point of Withdrawal
  - Authorized Place of Use

Comments:  
 Place of use, points of withdrawal/diversions are as defined on the cover sheet under the heading, 'LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS TO BE USED.'

